



CENSUS OF INDIA 1951

VOLUME II

UTTAR PRADESH

Part I-A—REPORT

BY

Rajeshwari Prasad, I.A.S.,

Superintendent, Census Operations

ALLAHABAD :

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1953

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1953

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FOREWORD

ACCORDING to the scheme approved by the Census Commissioner for India, the Uttar Pradesh Census Reports will form Volume II of the India series. The Volume will consist of the following parts :

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2. Of the above, Part I-B, Subsidiary Tables, was published in October, 1952; Part II-A, General Population Tables, in August, 1952; Part II-B, Economic Tables, in December, 1952 and Part II-C, Age and Social Tables in April, 1953. With the publication of Part I-A, Report, the State series is complete.

3. Of the district-wise publications the *District Population Statistics* were completed in January, 1953. The *District Census Handbooks* involve colossal work and it will take at least a year to complete their printing.

RAMPUR :
December 28, 1953.

RAJESHWARI PRASAD, I.A.S.,
Superintendent, Census Operations,
Uttar Pradesh.

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INTRODUCTION

1. The eighth synchronous census of Uttar Pradesh (formerly known as the United Provinces of Agra and Oudh) was taken on March 1, 1951. The area now dealt with is, with minor modifications explained in Chapter I, the same as in the previous census.

2. While "Census" is a central subject under the Constitution of India, the actual operations, particularly those relating to enumeration, are carried out in close collaboration with the machinery of the State Governments. Soon after my appointment in January, 1950, the Uttar Pradesh Government declared me to be a head of department of the State with authority to deal directly with the District Officers. As in previous censuses the responsibility for organizing the census enumeration operations in the districts was placed on the District Officers under the direction and control of the Superintendent, Census Operations. In each district a member of the District Officer's gazetted staff was appointed as District Census Officer in addition to his normal duties. The day to day work connected with the census was performed by this officer.

Arrangements
for the enumera-
tion*

3. The principal steps in the organization of census operations may be briefly described. To start with, a numbered lay-out of all the districts, tehsils, towns and villages was prepared. Each district was given a code number. Within the district each tehsil and town of over one lakh population was given a code number and within the tehsil each village and town was given a code number, generally in order of the alphabetical arrangement of names. Within each town wards and mohallas were similarly given code numbers. This was followed by numbering of houses by villages in rural areas and by mohallas/wards in urban areas. In the enumeration slip each house was described by this complete and scientific location code.

The location
code

4. Along with the numbering of houses a house-list was prepared on a printed form giving the number of the house, the name of the head of the household, and the number of persons in the household. This house-list provided very essential information for the organization of census operations and was later used as a guide by the enumerators.

The house-list

5. The next important step was the division of the tehsils and towns into suitable areas for census purposes and the appointment of suitable staff for them. The urban areas were clearly separated from the rural areas. The census subdivisions, both in rural and urban areas consisted of (i) *the block*, under an enumerator; (ii) *the circle*, consisting of a number of blocks, under a supervisor; and (iii) *the charge*, consisting of a number of circles, under a charge superintendent. In urban areas a block usually consisted of 150—250 houses and a circle of about ten blocks. In rural areas a departure was made from previous censuses. Instead of each village or part of a village being a block with the patwari circle as the census circle under the supervision of the patwari, the whole patwari circle was made a block with the patwari as the enumerator. The supervisor kanungo was appointed as the supervisor of his circle and the tehsildar as the charge superintendent of his tehsil. The Panchayat Raj Department recently constituted and functioning in rural areas was also associated in the census of rural areas by the appointment of panchayat secretaries as co-enumerators and the panchayat inspectors as co-supervisors. These arrangements resulted in reducing the census divisions to less than one-fourth and the census staff to about one-third of its 1941 strength as the following figures will show :

The census
divisions and
appointment of
staff

		1951	1941
1 Number of charges .. .. .	..	518	1,338
2 Number of circles .. .. .	..	3,113	32,835
3 Number of blocks .. .. .	..	40,963	159,862
Total 1—3 .. .. .	..	44,594	194,035
4 Number of charge and assistant charge superintendents .. .. .	..	826	1,249
5 Number of supervisors and co-supervisors .. .. .	..	4,171	31,497
6 Number of enumerators and co-enumerators .. .. .	..	60,096	143,577
Total 4—6 .. .. .	..	65,093	181,323

*These have been described in detail in the Administrative Report which will be separately published,

It would be interesting to recall that the number of enumerators in 1931 census was about three lakhs and a large number of non-officials had to be commissioned into service.* In the census of 1951, I completely eliminated the non-official element both from the rural and urban areas. These changes were made possible by the change in the system of enumeration and the larger period allowed for the preliminary preparation of slips.* There is no doubt that these developments resulted in greater efficiency and smoothness of the enumeration operations.

Training of staff ;
Sample census

6. The training of the staff in the enumeration procedure and the filling of the census slip was carried out in an elaborate and systematic manner. Although the census questionnaire appears simple, there are few who would be able to fill it correctly without preliminary training. I trained the District Census Officers and Gazetted Officers myself. They trained the other staff through regular classes, where both theoretical and practical training was imparted. Printed Instruction Books were issued for all staff including the enumerators. A large number of practice slips prepared by the District Census Officers and charge superintendents were examined and corrected at my office. In addition to these measures a sample training census was carried out in December, 1950, throughout Uttar Pradesh, the field being two villages selected at random in each kanungo circle in rural areas and 1.5 per cent. of the households in each supervisor's circle in urban areas. The supervisors in this census were asked to work as enumerators and the charge superintendents as supervisors. This sample census not only provided valuable training to the staff but also disclosed that there were certain points on which a large number of enumerators were likely to commit errors. These points were covered up by an urgent issue of *Supplementary Instructions*, which definitely improved the quality of the census enumeration in this State. Incidentally the sample census also enabled me to perfect my arrangements for the collection of the enumeration records and the preparation of statements connected therewith.

The enumeration

7. The census of 1951 was carried out on a modified *de facto* system.* A period of 20 days from February 9 to 28 was prescribed as the enumeration period. Every one was to be enumerated at his normal place of residence if he stayed there at *any time* during the enumeration period. If, however, he was absent throughout the enumeration period he was to be enumerated not at his house but as a visitor at the place where he happened to be on the census date. This system worked without any hitch.

Each enumerator visited every house of his block during the enumeration period and made a second round from March 1 to March 3 in order to correct his records with reference to the census date, viz., sunrise on March 1. Special arrangements were made for the enumeration of houseless persons on the night between February 28 and March 1.

The enumerator ascertained the following particulars in respect of every person in his block :

- (i) Name, relationship to head of household, birth-place, sex, age and marital status ;
- (ii) Household economic status, employment status (if any), principal means of livelihood, and subsidiary means of livelihood (if any) ; and
- (iii) Nationality, religion, membership of special groups (if any), mother-tongue, bilingualism (if any), literacy and educational standard, and particulars of displacement (for displaced persons only).

In addition to these items which were common to all parts of India one other item was prescribed in each State by the State Government concerned. In Uttar Pradesh the State Government chose the question on unemployment.†

On the whole, the enumeration operations were very peaceful and uneventful. The enumerators had been asked to avoid all controversies and to follow the golden rule that the answers were to be recorded *as given by the citizen*.

* For further details see paragraphs 18 and 19 of Section I of Chapter I (pages 8-9).

† For detailed questionnaire and Instructions to Enumerators see Appendix I.

8. The enumerators of rural areas were required to assemble at the tehsils on March 7 and those of the urban areas at a central place on March 5. Here they were to prepare under the supervision of the supervisors Abstract Statements giving the figures of population. Each supervisor compiled the figures for his circle, each charge superintendent for his charge, and finally the District Census Officer for the district. These figures were wired to me and to the Census Commissioner for India. This enabled us to announce the 'provisional' figures of population soon after the census date. The provisional figures were in complete accord with the final figures arrived at by sorting of the census slips, the differences being very small.

'Provisional'
figures of
population

9. The census operations in each of the three previous censuses were carried out in the face of public hostility. The attitude of the public was quite different at the 1951 census. The people realised that this was the first census of the Indian Republic and it was their duty to give their full and hearty co-operation. There were no untoward incidents of any kind and it was all smooth sailing for the enumerators. This was an important factor contributing to the quality of census operations.

Attitude of the
public

10. One of the outstanding features of the 1951 census is the sample verification of the census count carried out shortly after the census date through the agency of gazetted officers. The scheme of verification was to check a perfectly random sample of households in order to determine the degree of error in enumeration and to ascertain what proportion of households had escaped coverage. The over-all result of this verification shows an under-enumeration of 0.68 per cent. or of 431,941 persons*. This is a positive proof of the high quality of our enumeration.

Sample
verification
of census
count

11. Another outstanding feature of the 1951 census is the preparation of a National Register of Citizens for each village in rural areas and for each mohalla or ward in urban areas. The census slips were copied into printed forms of the Register soon after the enumeration date. For the rural areas the copying was done by the patwaris at the tehsils. For the urban areas the work was done at the tabulation offices. These Registers have already proved very useful for the compilation of certain figures for the State Government for purposes of election to local bodies. They are also being utilized for revision of electoral rolls. They will be found invaluable for sample enquiries and economic and sociological studies. It is intended to revise them periodically†

The National
Register of
Citizens

12. The next phase of census operations commenced soon after the enumeration date with the opening of the tabulation offices at convenient centres in the State, viz., Ramnagar (Banaras), Allahabad, Sitapur, Bareilly, Aligarh, Vrindaban (Mathura), Naini Tal, Rampur, Dehra Dun and Mussoorie, each under a Deputy Superintendent.

Tabulation

The census slips and the National Register of Citizens of rural areas together with Abstract statements and other relevant informations were despatched to these offices. The organisation of these offices and the nature of work to be performed in them had been planned in advance by the Census Commissioner for India.

There were three stages in the working of these offices. The first was "sorting and compilation." The slips were sorted by hand by a large number of sorters in accordance with definite and uniform instructions. The result of sorting was recorded in printed 'sorter's tickets' which were in turn compiled into 'posting statements' for smaller territorial units within each district and then totalled for the district. This was the most important and the most expensive operation. An important departure from previous censuses at this stage was the separation of slips by livelihood classes in place of communities so that all important demographic characteristics could be cross-tabulated by livelihood classes rather than by communities, emphasis on which was considered unnecessary. This work was finished by October, 1951, when the regional tabulation offices were closed.

The second stage of tabulation consisted in checking at a central compilation office, the compilers posting statements and the district tables and then processing them into the main State Census Tables in accordance with the India

*For further details see paragraphs 20—23 of Section I of Chapter I (pages 9—11).

†The first revision of the National Register of Citizens of rural areas has been carried out in U. P. with reference to November 1, 1953.

Tabulation Plan. The State Tables were checked by means of certain prescribed arithmetical checks and counter checks for elimination of errors and then sent to the Census Commissioner for India for final scrutiny and check in his office.

The third stage of tabulation consisted in the preparation of what are called 'Subsidiary Tables' at the Central Compilation Office. These tables contain proportionate figures which are utilized for instituting comparisons with the corresponding data of previous censuses. Some subsidiary tables, however, do not relate to census data at all but to inter-connected data relating to vital statistics and progress of cultivation.

District
Population
Statistics

13. The work connected with the preparation of the State Tables and Subsidiary Tables took us almost to the end of 1952. In the meantime we were required by the State Government to produce population figures for purposes of elections to local bodies and we had to carry out a special count of the population of Scheduled Castes from the National Register of Citizens. The results have been published in a district-wise series of publications entitled *District Population Statistics* containing (i) Mohalla/ward-wise population of urban areas and (ii) Village-wise population of rural areas. These volumes were the basis of the delimitation of constituencies of the 1953 election to municipalities.

District
Census
Handbooks

14. The 1951 Census Tabulation Plan also provides for the publication of a district-wise series of *District Census Handbooks* containing for smaller units of the district the data presented district-wise in the main State tables together with some additional statistics. The preparation of these handbooks and their printing involves colossal work. The preparation of the Handbooks in office is almost complete at the end of 1953 but so far only one handbook has been printed, that of Lucknow District, while three more are in proof. It is clear that it will take a long time to complete the printing of the whole series.

The Report

15. Owing to our pre-occupations with the work of tabulation and other miscellaneous items described above the drafting of the present Report could not be started till about the middle of 1952 and it has taken well over a year to complete it.

It will be seen that much hard and patient work has gone into the preparation of the Report. As far as possible, important statistics of the State have been compared with the corresponding data of all previous censuses since 1901 and comparisons have also been instituted throughout with comparable data of other States of India and other countries of the world. The statistics of cultivation and rainfall since 1901 were studied for the first time in detail at considerable labour and cost and useful information obtained. Numerous tables (properly numbered and with titles carefully chosen) form a special feature of the Report. A table is usually more necessary for the interpretation of data than elaborate comments. Maps and figures have been introduced at all places where they are likely to materially assist in the explanation and interpretation of data. The Subsidiary Tables, which used to be a part of the Report volume in previous censuses, have this time been published in a separate volume but the reader is not likely to be inconvenienced at all as inset tables have been properly inserted in the Report. A subject index has been provided for the first time.

The Chapter and Section headings of the first six chapters were prescribed by the Census Commissioner for India. The remaining chapters are my own. *The views expressed in the Report are of a purely personal nature and should not be understood to commit Government in any manner whatsoever.*

I am afraid the Report is heavy reading. But this is inevitable in a work of this nature. As Sri Blunt remarked in his Report of U. P. Census for 1911, "A Census Report is a work of reference and.....completeness must be preferred to brevity". *

Acknowledgements

16. In conclusion I have to express my gratitude to those who gave me special assistance.

First, I have to thank the U. P. Government and their officers for their unstinted support and ready assistance. The Chief Secretary, Sri Bhagwan Sahay, was the Superintendent, Census Operations in U. P. in 1941. His help and guidance were invaluable to me. The District Officers, in spite of

*Almost every chapter has a concluding section, which summarises the main conclusions of the chapter without any parade of statistics.

their many pre-occupations, gave me their hearty co-operation. They interrupted their winter tour to meet me during my final tour of the districts in order to ascertain if the arrangements for census in their districts were to my satisfaction. The District Census Officers, on whom fell the heavy responsibility of organising the census in the districts, all rose to the occasion. There is no doubt that the strain on them in the last few months preceding census was very great but they bore it all cheerfully.

In the drafting of this Report I have received valuable assistance from my staff. Sri Indrajit Narain Rai, my Deputy Superintendent, in particular, was closely associated in this work. The Report is as much his as mine. I was also lucky in having a band of devoted and able Statistical Assistants, Sarvsri Bankey Lal Upadhyay, Gopi Nath Nagar, Sudarshan Kumar Amar, Shiva Nath Chaturvedi, Prem Lal Mehrotra and Gyan Prakash Sharma, who took a keen and intelligent part in the preparation, verification and interpretation of the data. They have made significant contributions to this Report. On Sri Bankey Lal Upadhyay also fell the difficult responsibility of translating census literature into Hindi, a task which he performed with great efficiency.

I have suitably acknowledged the work of my office staff in the Administrative Report.

I have to thank Dr. A. N. Das, Director of Medical and Health Services, U. P., Dr. Kunwar Kishen, Chief Statistician of the U. P. Agriculture Department, and Sri P. N. Kaul, Central Tabulation Officer of the office of Registrar General, India, for their valuable notes written at my request and appearing as Appendices to this Report. To Dr. B. G. Prasad of the Provincial Hygiene Institute, U. P., and the *Indian Medical Gazette*, I am indebted for permission to reproduce as an appendix to this Report a paper of Dr. Prasad on the "Reporting of Vital Statistics in the rural areas of U. P." published in the *Indian Medical Gazette*.

The printing of the Report has thrown a very heavy burden on the overworked Government Central Press at Allahabad. But the authorities and staff of the Press have accepted the responsibility cheerfully and given us their full co-operation in maintaining quality. Owing to the bilingual presentation of tables in the Tables Volumes the printing work in Uttar Pradesh was more complicated than that of the other States of India. But the Press has handled the work with great care and skill. The Uttar Pradesh Census volumes are among the best, if not the best, in India from the point of view of presentation, printing and get-up. I have to thank in particular Sri M. G. Shome, Superintendent, Printing and Stationery, U.P. and Sri J. W. Halge, Deputy Superintendent of the Press, for their personal interest and guidance in our work and Munshi Iqbal Husain, Foreman in-charge, for his devotion and zeal for census work. I have also to thank Sri Gyan Prakash Sharma, my Inspector in-charge of printing, for the very able and efficient performance of his duties.

Lastly, I express my deep gratitude to the vast army of enumerators, supervisors and charge superintendents, to whose devoted labours the success of this great census is due. They truly realized that census is a national duty.

CHAPTER I—GENERAL POPULATION

SECTION I.—PRELIMINARY REMARKS

1. The territory dealt with in this Report was formerly known as the United Provinces of Agra and Oudh, but has been re-named as the State of Uttar Pradesh in January, 1950, on the inauguration of the new Constitution of the Indian Republic. The former princely states of Rampur, Tehri-Garhwal and Banaras which used to be associated with the United Provinces for purposes of census, have now been merged in the State of Uttar Pradesh. Some minor changes of area have also occurred as a result of transfer of enclaves. Uttar Pradesh lies between north latitude 23° 52' (Mirzapur) and 31° 18' (Tehri-Garhwal) and east longitude 77° 3' (Muzaffarnagar) and 84° 39' (Ballia). Its boundary in the north runs with that of Nepal and Tibet in the Himalayas; on the west and south-west are the States of Himachal Pradesh, Punjab, Delhi and Rajasthan; on the south the States of Vindhya Pradesh, Madhya Bharat and Madhya Pradesh; and on the east the State of Bihar.

Topography

2. The total area of Uttar Pradesh, as adopted for the 1951 census, is 113,409 square miles, which is 886 square miles more than the area of the United Provinces and the three princely states in 1941. An addition of 56 square miles is accounted for by revised calculations of area made by the Surveyor General of India and the remaining 830 square miles are the net result of transfer of enclaves. The details of this are as given in Table 1.

Area

TABLE 1—Changes of area by absorption of enclaves, 1950

District	Transfers from the district		Transfers to the district		Net gain (+) or loss (—) of area	
	Area in square miles	State to which transferred	Area in square miles	Former state from which transferred	According to district figures	According to Survey of India
1 Dehra Dun ..	0.2	Himachal Pradesh ..	..	..	-0.2	-9
2 Mathura ..	1.2	Rajasthan ..	7.4	Bharatpur ..	+6.2	+20
3 Agra ..	4.2	Rajasthan ..	3.5	Bharatpur ..	-0.7	-1
4 Allahabad ..	3.4	Vindhya Pradesh ..	2.4	Rewa ..	-1.0	-3
5 Jhansi ..	25.7	Vindhya Pradesh ..	313.6	Orchha, Samthar, Datia, Dhurwai, Tori Fatehpur, Banka Pahari and Bijna	+287.9	+299
6 Jalaun ..	4.7	Madhya Pradesh ..	167.9	Datia and Baoni ..	+163.2	+171
7 Hamirpur ..	1.4	Vindhya Pradesh ..	338.8	Bihat, Garrauli, Naigawan, Rabai, Jagni, Sarila, Baoni, Beri and Charkhari	+337.4	+301
8 Banda ..	34.2	Vindhya Pradesh ..	66.0	Ajaigarh, Baraundha, Bhainsaunda, Taraon, Pahra and Paldeo	+31.8	+52
Net result ..	75.0		899.6		+824.6	+830

3. In pursuance of the scheme of the Government of India for the re-adjustment of territorial boundaries between the adjoining States, the Provinces and States (Absorption of Enclaves) Order, 1950, was promulgated on January 25, 1950, on the eve of the inauguration of the Indian Republic. On that date 495 villages and two towns of the Vindhya Pradesh and Rajasthan States situated like

Absorption of enclaves

TABLE 2—Number of villages and towns involved in the absorption of enclaves, 1950

District	Number of villages or towns included	Number of villages transferred
Jhansi ..	162	8
Hamirpur ..	148 (including two towns)	1
Jalaun ..	125	1
Banda ..	52	8
Mathura ..	7	1
Agra ..	2	4
Allahabad ..	1	2
Dehra Dun ..	..	2
Total ..	497	27

so many islands within the geographical limits of Uttar Pradesh, were merged in Uttar Pradesh in accordance with the Order and were included in the adjoining districts, and 27 villages belonging to Uttar Pradesh but situated within the geographical limits of Himachal Pradesh, Rajasthan, Madhya Bharat and Vindhya Pradesh were transferred to those States. The details of this are given in Table 2. Such transfers under the Order thus resulted in a net gain of 468 villages and two towns (Charkhari and Samthar).

Merger of
princely states

4. During the year 1949, the Ministry of States, Government of India, in consultation with the State Government, merged the states of Tehri-Garhwal, Banaras and Rampur in Uttar Pradesh as part of their plan for the unification of India. The merger of Tehri-Garhwal took place on August 1, 1949, of Banaras on October 15, 1949, and of Rampur (which was first taken over on July 1, 1949, by the Government of India for administration as a Chief Commissioner's Province) on December 1, 1949. For purposes of administration, the merged states of Tehri-Garhwal and Rampur were constituted into two separate districts of the same name, while the former state of Banaras was merged in the Banaras district. The merger of the three princely states resulted in an addition of 6,288 square miles to the area of Uttar Pradesh.

Administrative
divisions

5. Uttar Pradesh is divided into 51 districts which are grouped into ten revenue divisions. The districts of Deoria, Tehri-Garhwal and Rampur have been added to the former 48 districts of the United Provinces. The district of Deoria was created in 1946 out of the district of Gorakhpur in the Gorakhpur division, a reform which removed the long-felt need for reducing Gorakhpur into a district of manageable size. As has been stated earlier the two former states of Tehri-Garhwal and Rampur were constituted into the new districts of Tehri-Garhwal and Rampur in 1949. The former has been included in the Kumaon division and the latter in the Rohilkhand division. Except for these changes the revenue divisions remain the same as in 1941. But there has been a reduction in the number of Divisional Commissioners. The number was reduced to five in 1947, by amalgamating the revenue divisions as follows :

- (i) Meerut and Agra
- (ii) Allahabad and Jhansi
- (iii) Banaras and Gorakhpur
- (iv) Lucknow and Faizabad

The Rohilkhand division was allowed to remain under the separate charge of a Commissioner and the Kumaon under a Deputy Commissioner incharge. With effect from September 8, 1948, the number of Commissioners was further reduced to four by experimentally combining the Rohilkhand with the Meerut-Agra divisions and placing all these three under one Commissioner. But on April 1, 1949, the charge of the Rohilkhand division was taken over from the Commissioner of Meerut-Agra division in the interest of administrative convenience and was entrusted to the Deputy Commissioner incharge Kumaon division. With effect from May 22, 1950, the Deputy Commissioner incharge Kumaon was relieved of the duties of Deputy Commissioner, Naini Tal and designated Commissioner, Rohilkhand and Kumaon. At the time of the Census of 1951, this arrangement of ten revenue divisions under five Divisional Commissioners remained unchanged, but a further reduction in the number of Commissioners to three has since been made.

6. Some intra-State changes have been made since 1941, as a result of which Budaun lost 0.71 square miles to Etah, Hardoi lost 5.55 square miles to Farrukhabad and Ghazipur lost 0.68 square miles to Ballia district. The former two inter-changes were occasioned by the fluvial action of river Ganga, while the latter was a re-adjustment made under G. O. No. 1949/1-C-211/C, of July 23, 1951.

7. There has been an increase in the number of tehsils by five over the total number of tehsils in 1941. The Ramnagar tehsil of former Banaras

TABLE 3—Tehsils added since 1941

Tehsil	District
1 Salempur	Deoria
2 Kulpahar	Hamirpur
3 Charkhari	Ditto
4 Deo Prayag	Tehri-Garhwal
5 Pratapnagar	Ditto
6 Rawain	Ditto

state has since been merged in the Banaras tehsil of district Banaras, while the six new tehsils shown in the margin have been added. Tehsil Salempur has been formed out of portions of the four tehsils of Gorakhpur district, viz., Bansaon tehsil of the present district of Gorakhpur, and Deoria, Hata and Padrauna tehsils of the present district of Deoria. Tehsil Kulpahar of Hamirpur district has been created out of tehsil Mahoba in the district and some enclaves recently transferred to the district. Charkhari tehsil of Hamirpur district represents the bulk of the former Charkhari state and the tehsils Deo Prayag, Pratapnagar and Rawain of Tehri-Garhwal district have been formed out of tehsil Tehri of the former Tehri-Garhwal state. The total area of the State based on the district records of tehsil areas is 113,495 square miles. This is 86 square miles more than the total area given by the Surveyor General of India,

Extra-State and intra-State transfers, minor changes in tehsil boundaries due to fluvial action and correction of tehsil areas, have increased the area of the State based on the district record of tehsil areas to 113,495 square miles from 112,119 square miles in 1941. The details of the discrepancies and the variations are given in Tables A-I (Area, houses and population) and E (Area and population of districts and tehsils by livelihood classes) in Part II-A of the Report.

8. In the Tables Volumes, Parts II-A, II-B and II-C the district figures have been presented by revenue divisions while in the volume of Subsidiary Tables, Part I-B, the proportionate figures have been exhibited by 'natural divisions'. The revenue divisions and districts owe their present shape to history, accident and administrative convenience. They are not homogeneous in respect of natural conditions affecting the growth of population. For purposes of the analytical study of census data, therefore, the districts have been grouped together into natural divisions on the basis of similarity of physical features, soil and rainfall. Strictly speaking some districts ought to be split up for grouping into two different natural divisions but this has been deliberately avoided by classifying the whole district in the natural division in which its greater portion falls.

Natural
divisions

9. It had been customary in the past to review census data not only for the political and administrative divisions but also for the "natural divisions". This practice continued in the case of Uttar Pradesh while for all India the reference to "natural divisions" fell into disuse after 1911. For the purposes of review of 1951 census data, the Registrar General, India, considered it necessary to formulate a basis of territorial divisions. The country has been divided into six "Union Population Zones" by grouping together the States on the basis primarily of contiguity and convenience for review. Independently of the division of the country into Union Population Zones, it has also been divided into five "Natural Regions" based solely on physical features, and without any reference to material difference in soil and rainfall conditions. These five natural regions are further sub-divided into 15 "Natural Sub-Regions" on the basis of substantial differences within each natural region, in respect primarily of soil or rainfall conditions, and also taking into account differences in the cropping pattern. These 15 natural sub-regions are again sub-divided into 52 "Natural Divisions" on the basis primarily of intersection of sub-regions with existing political divisions. In conformity with the all India scheme this State forms the "North India Population Zone". It forms part of three out of the five "natural regions". These have been further sub-divided into four "natural sub-regions" and five "natural divisions". The details of these are shown in Table 4.

TABLE 4—*Lay-out of natural regions, sub-regions and divisions, Uttar Pradesh, 1951**

Natural region		Natural sub-region		Natural division	
Code no.	Name	Code no.	Name	Code no.	Name
1	Himalayan	1·1	Western Himalayan	1·11	Himalayan
2	Northern Plain	2·1	Lower Gangetic Plains	2·14	East Plain
		2·2	Upper Gangetic Plains	2·21	Central Plain
				2·22	West Plain
3	Peninsular Hills and Plateau	3·2	North Central Hills and Plateau	3·21	Hills and Plateau

10. Physiographically this State comprises of three natural regions. The first is formed of the mighty Himalayan mountain ranges along the north; the second is the alluvial plain region of the Yamuna and the Ganga and their tributaries; and the third is the Peninsular Hills and Plateau region lying to the south of the plains, covering the trans-Yamuna tract. The 1931 Report divided the State into four natural tracts, which from other considerations were further sub-divided as shown below:

- (1) The montane tract (Himalaya West);
- (2) The sub-montane tract (Sub-Himalaya West and East);
- (3) The Gangetic Plain (Indo-Gangetic Plain West, Central and East); and
- (4) The trans-Yamuna tract (Central India Plateau and East Satpuras).

*The first number of the code defines the natural region, the second defines the natural sub-region within the natural region and the third defines the natural division within the natural sub-region.

The sub-montane tract south of the montane tract, stretching eastwards below the mountains of Nepal was divided into two natural divisions (the dividing line being the river Ghaghra)—(1) the Sub-Himalaya West and (2) the Sub-Himalaya East. The southern half of this belt in both the natural divisions is only an extension of the alluvial plains of the Ganga and its tributaries, and so in the present scheme of regions, sub-regions and natural divisions the above-mentioned two natural divisions have been classed with the West Plain division and the East Plain division respectively. Similarly, two other natural divisions of 1931, the Central India Plateau and the East Satpuras of the trans-Yamuna tract have been found to be similar and have been classed together in the Hills and Plateau division of the present scheme. With these modifications the natural divisions of 1931 (which had continued since 1901) still continue in 1951. A comparative table showing the districts constituting the natural divisions in the two schemes is given in Table 5.

TABLE 5—Comparative lay-out of districts in natural divisions
1901—31 and 1951

Natural division 1951	Districts included in natural division	Revenue division 1951	Natural division 1901—31	Remarks
Himalayan	1 Garhwal	.. Kumaon	Himalaya West	Tehri-Garhwal district represents the former state of Tehri-Garhwal.
	2 Tehri-Garhwal	.. Do.		
	3 Naini Tal	.. Do.		
	4 Almora	.. Do.		
	5 Dehra Dun	.. Meerut		
East Plain	1 Gorakhpur	.. Gorakhpur	Sub-Himalaya East	Deoria was separated from Gorakhpur in 1946.
	2 Deoria	.. Do.		
	3 Basti	.. Do.		
	4 Gonda	.. Faizabad		
	5 Bahraich	.. Do.		
	6 Banaras	.. Banaras	Indo-Gangetic Plain East	Banaras includes the former state of Banaras which was classed in the East Satpuras in 1901—31.
	7 Jaunpur	.. Do.		
	8 Ghazipur	.. Do.		
	9 Ballia	.. Do.		
	10 Azamgarh	.. Gorakhpur		
Central Plain	1 Kanpur	.. Allahabad	Indo-Gangetic Plain Central	
	2 Fatehpur	.. Do.		
	3 Allahabad	.. Do.		
	4 Lucknow	.. Lucknow		
	5 Unnao	.. Do.		
	6 Rae Bareilly	.. Do.		
	7 Sitapur	.. Do.		
	8 Hardoi	.. Do.		
	9 Faizabad	.. Faizabad		
	10 Sultanpur	.. Do.		
	11 Pratapgarh	.. Do.		
	12 Bara Banki	.. Do.		
West Plain	1 Saharanpur	.. Meerut	Sub-Himalaya West	Rampur district represents the former state of Rampur.
	2 Bareilly	.. Rohilkhand		
	3 Bijnor	.. Do.		
	4 Pilibhit	.. Do.		
	5 Rampur	.. Do.		
	6 Kheri	.. Lucknow		
	7 Muzaffarnagar	.. Meerut	Indo-Gangetic Plain West	
	8 Meerut	.. Do.		
	9 Bulandshahr	.. Do.		
	10 Aligarh	.. Agra		
	11 Mathura	.. Do.		
	12 Agra	.. Do.		
	13 Mainpuri	.. Do.		
	14 Etah	.. Do.		
	15 Budaun	.. Rohilkhand		
	16 Moradabad	.. Do.		
	17 Shahjahanpur	.. Do.		
	18 Etawah	.. Allahabad		
	19 Farrukhabad	.. Do.		
Hills and Plateau	1 Jhansi	.. Jhansi	Central India Plateau	
	2 Jalaun	.. Do.		
	3 Hamirpur	.. Do.		
	4 Banda	.. Do.		
	5 Mirzapur	.. Banaras		
			East Satpuras	Former Banaras state which formed part of East Satpuras has merged in Banaras district.

11. The following brief description of the present natural divisions is based on notes prepared by the Geological Survey of India and on the meteorological summaries for divisions prepared by the Meteorological Department. Descriptions of the natural divisions in former Reports have also been freely utilized.

12. The natural divisions of 1951 are shown in Table 6, each with its area and population and also with its percentage of State area and population.

TABLE 6—Area and population of natural divisions

Natural division	Area in square miles	Population	Percentage of State	
			Area	Population
Uttar Pradesh	113,409	63,215,742	100	100
1 Himalayan	19,471	2,521,987	17.2	4.0
2 East Plain	21,052	17,886,802	18.6	28.3
3 Central Plain	22,504	16,129,390	19.8	25.5
4 West Plain	34,637	22,771,252	30.5	36.0
5 Hills and Plateau	15,745	3,905,811	13.9	6.2

13. (1) *Himalayan division*—This division embraces the Himalayas and a wide belt of the country, densely wooded, at the foot of the hills comprising the whole of the Kumaon revenue division and Dehra Dun district of the Meerut revenue division. Its order in point of area is fourth while that in population is fifth. There are two ranges of hills in the division : (1) the Outer-Himalayan range consisting of the hills of Dehra Dun composed of loose textured sandstone, conglomerates, clays and silts of estuarine and fluvial origin known as the Siwalik group of rocks ; (2) the Sub-Himalayan and Central Himalayan ranges consisting of the hill ranges of the Kumaon, composed of granite and other crystalline rocks and a large group of unfossiliferous sandstones, slates and lime-stones. Rising from the plains is an outer range of hills on which are situated the hill stations of Naini Tal (6,345 feet) and Lansdowne (6,061 feet). A little further in the interior is a second range on which are the towns of Almora (5,500 feet) and Ranikhet (5,985 feet) and beyond these the general level increases rising to the lofty peaks of Trisul (23,360 feet), Nanda Devi (25,645 feet) and Nanda Kot (22,510 feet). This division contains gypsum deposits in Garhwal, deposits of magnesite in Almora and Kumaon Hills and copper deposits in Garhwal and Almora. The climate is moist and growth of vegetation is luxuriant. The average annual rainfall varies from about 37 inches at Srinagar (Garhwal) to about 120 inches at Rajpur (Dehra Dun). The valleys and the lower elevations experience high temperatures during the hot weather period while the mountainous areas remain pleasantly cool. The snow-line which is about 18,000 feet in summer comes down sometimes to as low as 4,000 feet in winter. This natural division can further be sub-divided into—

- (i) *Montane*, which includes almost the whole of Almora and Garhwal and Tehri-Garhwal, Naini Tal tehsil of district Naini Tal and the Chakrata tehsil of Dehra Dun.
- (ii) *Sub-Montane*, which includes some small tracts of Bhabar in districts Almora and Garhwal, the Tarai and Bhabar of districts Naini Tal and tehsil Dehra Dun of district Dehra Dun.

The montane area is largely under forests producing valuable timber like the pine, but thinly populated and cultivated only in scattered areas. The Dehra portion of the sub-montane area is the famous Dun, known as the "Garden of Uttar Pradesh", lying between the Siwalik Hills and the Himalayas and partly on the lower slopes of both. It is a very healthy tract. The Tarai

and Bhabar portions of the sub-montane tract, on the other hand, are some of the most unhealthy regions of the State. The Bhabar lies immediately below the foot hills, largely covered with forests. The hill torrents which enter it sink and are lost, except in the rainy season, below a mass of boulders and gravel. The Tarai is a damp and marshy tract south of the Bhabar where the streams lost in the Bhabar reappear. Large portions of it are still covered with thick jungle and tall grass, though Government have lately started various colonization schemes in this part of the division.

The soils of Dehra Dun are alluvial and vary in texture from loam to clay. The soils of Garhwal are alluvial, sand and clay. In Almora district sandy and stony soils occur mostly along slope gradients. Brown forest soil types appear to be well suited for fruit trees.

14. (2) *East Plain division*—Two complete former natural divisions of 1901—31, the Sub-Himalaya East and the Indo-Gangetic Plain East, form this present division which is the lower region of the vast level expanse of alluvial plain, extending right across the State from Muzaffarnagar in the west to Ballia in the east. It is made up of 10 districts and its order in point of area is third while that in population is second. Ignoring ordinary sands and clays the only known economic product is saltpetre, which occurs as a natural efflorescence in extensive areas of the plain. The soil is very fertile but the area is sometimes subjected to drought conditions resulting from the failure of the seasonal rains. The monsoon sets in by about the middle of June and continues up to the end of September. Rainfall is not continuous for more than a few days at a time and these rainy spells are separated by intervals of dry weather. The mean annual rainfall varies from 45 inches in Bahraich to 49 inches at Gorakhpur and 40 inches in Azamgarh and Banaras districts. The rains last a little longer in September in the eastern than in the western districts and the variability is less as one proceeds further east. The fluctuations of rainfall from year to year are considerable. Sometimes breaks in monsoon last for several weeks causing drought conditions. This natural division can be further sub-divided into—

- (i) *The Sub-Montane or Tarai*, constituting the northern parts of the districts of Gorakhpur, Basti, Gonda and Bahraich. Low hills are found in the north of Bahraich and Gonda districts and a large portion is covered by a belt of reserved forests producing some valuable timber like the sal.
- (ii) *Hills and Plateau*, which consists of the Chakia tehsil of district Banaras. In the previous censuses this tehsil formed the major part of the former Banaras state which used to be included in the East Satpuras division.
- (iii) *The Plain*, which includes the remaining portions of the districts of Gorakhpur, Basti, Gonda, Bahraich and Banaras and the other whole districts of the division.

The soils of the division consist of clay or *matiyar*, loam or *dumat* or *doras*, *karail* and sandy soil or *bhur* or *balua*. Clay or *matiyar*, which exists in depressions, contains little organic matter. It grows all varieties of crops but is mainly suited for rice. Loam or *dumat* or *doras* exists in the higher regions. It is commonly known as *dumat*. In the southern part of Basti district, it is commonly called *doras*. It is a good and fertile soil of fair consistency. This soil is merely a mixture of clay and sand, the proportion varying with the level, and is excellent when irrigated. *Karail* is a light sandy soil and is a variety of clay. In the depressed rice lands, the clay assumes a blackish colour from the admixture of organic matters and is commonly known as *karail*. It clearly resembles the *mar* or "black cotton soil" of Bundelkhand containing much alumina and splitting into cracks and fissures when dry. So great is its consistency that it cannot be worked unless thoroughly soaked and consequently its cultivation for the *rabi* harvest depends entirely on late and seasonal rains.

15. (3) *Central Plain division*—To the west of the division just described lies the central portion of the great alluvial plain of the Ganga. It is made up of 12 districts and its order in point of area is second though the order in point of population is third. Table 5 will show that this division is identical with the former division (of 1901—31), the Indo-Gangetic Plain Central. The only part of the natural division which differs materially from the rest is a tract lying south of the Yamuna and Ganga comprising tehsils Karchhana and Meja of district Allahabad. This small tract is of exactly the same character as the

Hills and Plateau division: The mean maximum temperature of the division is 105° to 107° F. shooting up to 115°—119° F. on individual days. Most of the annual rainfall which varies between 32 inches in the Kanpur district to 40 inches in the Faizabad district occurs during June to September. There are considerable variations which affect the agricultural conditions.

Dumat or loam, *matiyar* or clay, *bhur* or sandy soils, *rakar*, *kabar* and *parwa* and *mar* are the main varieties of soils found in this division. The soils are alluvial in origin and vary considerably in texture. Clay is generally found in the tarai tracts and in depressions. *Rakar*, *kabar*, *parwa* and *mar* are the well known Bundelkhand varieties of soils which exist in Kanpur, Allahabad and Fatehpur districts. In Kanpur all these varieties are found on or about the edges of the ravines. In Allahabad district only the *mar* or "black cotton soil" exists in the trans-Yamuna territory. In Fatehpur district the soils of Bundelkhand are found along the Yamuna.

16. (4) *West Plain division*—This is the largest division in area as well as population consisting of 19 districts. This division is equivalent to the former two complete natural divisions—the Sub-Himalaya West and the Indo-Gangetic Plain West. With the exception of the part of the Agra and Mathura districts lying on the right bank of the Yamuna the whole of this division forms a sloping plain of recent alluvium with neither rock nor stone approaching the level of the soil, except for beds of nodular lime-stone. The western parts of Agra and Mathura districts have many ravines and some red-stone hillocks which mark the eastern termination of the Aravali range. Even this part of the division, like the rest of it, is well-protected by canals and it is unnecessary to draw any distinction between the two. The northern portions of the districts of Saharanpur, Bareilly, Bijnor, Pilibhit, Rampur and Kheri of this division adjoin the sub-montane tract of the Himalayan division. Saharanpur extends to the Siwalik range while the others reach as far as the Himalayan tarai and include a portion of it within their northern boundaries which are similar to the tarai areas of the Himalayan division in climate and vegetation. There is a belt of reserve forests also. The rainfall in this division varies from district to district. The monsoon generally sets in the third week of June and lasts till middle of September. The mean annual rainfall of Pilibhit district in the north-east is 50 inches whereas that of Aligarh and Mathura is only about 25 inches. The rainfall, in general, increases from west to east and also from south to north. There is also great variability in the rainfall from year to year. Maximum temperature of 115° F. has been recorded on individual days. The areas bordering on Rajasthan desert to the west are particularly hot and dry and have extremes of temperature.

Soils of this natural division can be classified into three main varieties: loam, *bhur* or sandy soil and *matiyar* or clay. Loam comprises of sand and clay in almost equal proportions. *Bhur* contains practically 75 per cent. of sand in it. *Matiyar* comprises of great amount of clay and is dark in colour. All the three varieties of soils are found not only in the same district and tehsil but even in the same pargana.

17. (5) *Hills and Plateau division*—Table 5 will show that this division is comprised of the former two divisions, the Central India Plateau and the East Satpuras. As already stated the former Banaras state which has the characteristics of this division has had merged in the Banaras district and in order to keep the identity of the district intact this tract has also been classed with the East Plain division in which the greater part of Banaras district falls. This division has five districts and its order in point of area is fifth, while that in point of population is fourth. The four districts of Jhansi revenue division form the tract known as Bundelkhand. They are situated on the eastern slope of the plateau and are broken up by low rocky hills, spurs of the Vindhya mountains covered with stunted trees and jungle. Mirzapur district, which was formerly a part of the East Satpuras, forms the eastern portion of this division. A small area of this district in the north of the Ganga has the characteristics of the alluvial plain and this tract may be classed with East Plain division. The central portion of the district between the Ganga and the Son form the central table-land or the Vindhya Plateau. South of this (the southern edge of tehsil Robertsganj and the whole of tehsil Dudhi) are the hilly tracts of the Kaimurs which include "the wilderness of hill and valley, jungle and forest, ravine and crag, with here and there hill encircled alluvial basins". Geologically, excluding a small alluvial belt along the Yamuna river, the Bundelkhand tract is occupied by massive granites

known as Bundelkhand granite. Bundelkhand and the Kaimur range of Mirzapur district are, like the other parts of the North Central Hills and Plateau sub-region, composed of thick series of non-fossiliferous, flat-dipping, practically unmetamorphosed sandstones, shales and lime-stones of Pre-Cambrian Age known as the Vindhyan system of rocks. The division, like other parts of the region, is economically important for its large reserves of Vindhyan lime-stones which are being extensively quarried and utilized for lime and cement manufacture for building purposes. The Vindhyan sandstones are extensively quarried for building and architectural purposes and they withstand weathering well and are eminently suited for dressing and carving. Some of the lime-stones are beautifully coloured and form good ornamental and decorative stones. Some diamonds have also been recovered from the former Charkhari state which has now merged in district Hamirpur and forms one of its tehsils. The climatological features of the division are high variability in rainfall from year to year and excessive heat during the summers. Annual rainfall over the division generally varies between 30 inches and 45 inches and the rainy months are June to September. The bareness of the soil and its rocky nature makes the summer very hot and dry. The maximum temperature rises to 117° F. on individual days and in June even higher to 118° F. Even in July, the rainiest month of the year, a maximum temperature as high as 114° F. has been recorded. In the winter months the mean maximum temperature falls to 76° F. and the mean minimum to 50° F.

The soils of Jhansi revenue division are of the following four well-known varieties : *mar*, *kabar*, *parwa* and *kakar*. *Mar*, often called "black cotton soil", the *regar* of Central India, is usually supposed to be derived from the decomposition or disintegration of trap rocks. It varies greatly in colour, consistency and fertility, but is throughout marked by the constant characteristic of being highly argillaceous, calcareous and adhesive. This variety is interspersed with small lumps of *kankar*, friable and very retentive of moisture. It possesses a high degree of fertility, growing year after year crops of mixed wheat and gram with neither irrigation nor manure. It, however, becomes quickly oversaturated with moisture and when this happens its miry nature renders tillage impossible. *Kabar* is found in many varieties ranging from a rich dark black to a light brown. It contains none of the *kankar* nodules found in *mar* and is much less retentive of moisture. Its superior forms appear to be a fine clay tinged with organic matter and as valuable as *mar*. The lighter qualities are intractable and ungracious soils needing an evenly distributed and consistent rainfall to render agricultural operations successful. If too much rain falls *kabar* becomes a mire, if too little falls it can hardly be up-turned by plough. *Parwa* is a light coloured sandy soil found in many forms. Sometimes it has strong admixture of clay which under the influence of standing water makes it soft and cohesive like a poor variety of *kabar*. Sometimes it is a sandy loam closely approaching that of *doab*. It is usually less rich in organic matter but its finer texture makes it more responsive to manure and irrigation and where these are available it is a highly prized and valuable soil. *Rakar* is a refuse soil which occurs on sloping ground where the action of water has tended to denude the earth of all its better qualities.

The soils of Mirzapur district included in this natural division differ from those of the districts of Jhansi revenue division. The soils of this district are as many as the rocks which underlie them. The soils of the Ganga plain on either side of the river are of the *dumat*, *matiyar* or *balua* varieties. Those of the plateau are generally a stiff and shallow red clay, highly ferruginous and passing at times into laterite and pisoleitic iron ores. In the fertile strip lying at the foot of the Kaimurs there are areas of excellent loam and clay such as obtain in the Ganga valley as well as of a fine black soil resembling the "black cotton soil" of Bundelkhand and Central India.

18. Two systems of taking a census are in vogue. One assures that all persons present in a particular area on the reference date belong to that area. This is called the *de facto* population. The other approach is the *de jure* basis according to which only persons having their normal place of residence at a given place belong to that area and only those having no normal place of residence are enumerated at the place where they happen to be on the reference date. The *de facto* system has its own advantages. "The primary advantages of a *de facto* enumeration are simplicity and objectivity of definition. Enumerators or respondents can simply be instructed to report all persons who were present in

The meaning of population: the *de facto* and *de jure* population

each dwelling or other place of enumeration at the specified time. No elaborate instructions are required with reference to the inclusion or exclusion of persons who are away from home under different circumstances or for different reasons. There are no borderline cases of persons who may be enumerated or not, depending on the judgment of the enumerator or respondent. The *de facto* concept is especially advantageous from the standpoint of international comparability, for it is an unequivocal standard that can be applied universally without regard to differences in local conditions".* The *de jure* system is more national in character. It may be "necessary in some countries to fulfil certain legal requirements; notably to provide statistical bases for the apportionment of electoral representatives, tax assessments, monetary grants, etc., among the areas of the country Local requirements for population statistics in connection with the planning and administration of certain social services, such as housing and education programmes which apply only to the resident population are better fulfilled by *de jure* than by *de facto* figures".† But in the present dynamic society the *de jure* enumeration is becoming impracticable and the "usual place of residence" is becoming meaningless. Many persons do not have a single fixed place of abode, e.g., students away from home; individuals or families that have left home for long or indefinite periods for travel or work elsewhere; families that maintain two residences; itinerant workers and others who have no fixed residence, etc.

19. In India the *de facto* system held the field till 1931. It was aimed at taking a snapshot of population at a particular hour. Even railway trains were stopped at the prescribed hour for enumeration. This system was inconvenient and defective and was given up in 1941 in favour of a modified *de facto* system. The same system has been adopted in 1951 with a prescribed enumeration period of 20 days. Every one was to be enumerated at his normal place of residence if he stayed there at any time during the enumeration period. If, however, he was absent throughout the enumeration period, he was not to be enumerated at his dwelling, but was to be enumerated as a visitor at the place where he happened to be at the time of enumeration. Sunrise of March 1, 1951, was the "census date" and all information collected is with reference to that date. The enumerators made a final round of their block on March 1-3, in order to take account of all births and deaths since their previous visit. This system worked without any hitch and reduced the problem of floating population to negligible dimensions. Some omissions and double enumerations in a system such as this are inevitable as no special cards of absentee householders were prepared and verified. But the statistical magnitude of this error must be altogether insignificant.

20. One of the chief features of the 1951 census is the sample verification of the count carried out shortly after the census date. The scheme of verification was to check a perfectly random sample of households selected from the total households enumerated at the census in order to find under-enumeration or over-enumeration, if any, and its degree. A second object of the enquiry was to see how many households, if any, escaped coverage. The sample aimed at was 1 in 2,000 in rural areas and 1 in 1,000 in urban areas. But actually the size of the sample turned out to be 1 in 2,298 for the rural areas and 1 in 812 for urban areas. Gazetted Officers of the rank of First Class Magistrates and, in a few exceptional cases, Second Class Magistrates were deputed to make the verification by personally visiting the selected households. 6,797 houses were verified in order to find out the degree of error in the enumeration. The result of the verification given in Table 7 shows an under-enumeration for the whole State. The superiority of rural enumeration is clearly brought out by the table, both as regards "clear omissions" and as regards "fictitious entries". The only reason why towns make a better showing than villages in "net under-enumeration" is that they had many more fictitious entries. The erroneous count of "visitors and absentees" is so small both in villages and towns that it need not be further considered.

The accuracy
of the enumera-
tion

*United Nations, *Population Census Methods*, 1949.

†*Ibid*, page 8.

TABLE 7—Percentage of error in enumeration discovered at the Sample Count, 1951

Particulars	Percentage to the total household population		
	Persons	Males	Females
1 Clear omissions—			
Total	0·80	0·57	1·06
Rural	0·75	0·49	1·02
Urban	0·93	0·75	1·14
2 Fictitious entries—			
Total	0·22	0·23	0·20
Rural	0·14	0·15	0·12
Urban	0·40	0·40	0·39
3 Erroneous count of visitors and absentees—			
(a) tending to under-enumeration—			
Total	0·08	0·07	0·09
Rural	0·10	0·09	0·11
Urban	0·04	0·03	0·04
(b) tending to over-enumeration—			
Total	0·03	0·04	0·02
Rural	0·04	0·06	0·03
Urban .. .. .	..	..	..
Net under-enumeration—			
Total	0·64	0·38	0·92
Rural	0·67	0·37	0·98
Urban	0·57	0·38	0·79

21. According to the scheme three occupied houses adjacent to each of the selected household were also checked in order to ascertain if they had been covered. The result for the State is shown in Table 8. Only five households were found uncovered in a check of 20,389 households. This gives an omission of 14,303 persons in the total population.

TABLE 8—Percentage of omission of households in enumeration discovered at the Sample Count, 1951

Particulars	Number of households checked	Percentage to total number of households	Households not covered	
			Number	Percentage
Total	20,389	0·16	2,850	0·02
Rural	13,960	0·13	1,823	0·02
Urban	6,429	0·37	1,027	0·06

22. The over-all result of these two verifications shows an under-enumeration of 0·68 per cent. or of 431,941 persons. The details are given in Table 9. It will be seen that the magnitude of error discovered is very small.

TABLE 9—Omission of population in enumeration discovered at the Sample Count, 1951

Particulars	Total estimated number of persons not enumerated			Percentage of under-enumeration		
	Persons	Males	Females	Persons	Males	Females
Total	431,941	154,172	277,769	0·68	0·47	0·92
Rural	389,586	138,634	250,902	0·71	0·49	0·96
Urban	42,355	15,488	26,867	0·49	0·33	0·69

23. In all previous censuses it was customary to speculate about the accuracy of the census count. It was the belief that under-enumeration cancels over-enumeration and that the balance may be slightly in favour of under-enumeration. But nobody knew the degree of this error. For the first time a scientific enquiry has shown that the error in this State in the present census is only of the order of 0.68 per cent. Among the factors which have contributed to this high quality of enumeration are the appointment largely of government servants and employees of local bodies as enumerators, the intensive training given to the staff (including a large scale sample census), the elaborate arrangements made for supervision, and finally the hearty co-operation given by the public.

24. The main tables with which this chapter is concerned are the following :

Reference to
statistical tables

Part II-A of the Report

Table A-I—Area, houses and population

Table A-II—Variation in population during fifty years

Table E—Area and population of districts and tehsils by livelihood classes

Part II-B of the Report

Table B-I—Livelihood classes and sub-classes

Part II-C of the Report

Table D-IV—Migrants

Table D-V—Displaced persons

Table D-VI—Non-Indian nationals

The subsidiary tables of which the figures are reviewed here are the following :

Subsidiary Table 1.1—Area and population, actual and percentage, by tehsil density

Subsidiary Table 1.1-A—Variation by tehsils classified according to density, (a) actual variation and (b) proportional variation

Subsidiary Table 1.2—Variation and density of general population

Subsidiary Table 1.3—Mean decennial growth-rates during three decades—General Population

Subsidiary Table 1.4—Immigration

Subsidiary Table 1.5—Emigration

Subsidiary Table 1.6—Migration between the State and other parts of India

Subsidiary Table 1.7—Variation in natural population

Subsidiary Table 1.8—Livelihood pattern of general population

Subsidiary Table 1.9—Actual number of births and deaths in Uttar Pradesh for each sex during the decades 1921—30, 1931—40 and 1941—50

Subsidiary Table 1.10—Registered birth-rate by sex and natural divisions

Subsidiary Table 1.11—Registered death-rate by sex and natural divisions

Subsidiary Table 1.12—Registered death-rate per mille by sex living at the same age 1921—51

Subsidiary Table 1.13—Registered deaths from selected causes per mille of population

Subsidiary Table 1.14—Number of deaths of each sex at different ages

SECTION 2—GENERAL DISTRIBUTION AND DENSITY

Reference to
statistics

1. The distribution of population of the State in districts and revenue divisions is shown in Table A-I of Part II-A of the Report. Table E in the same part of the Report gives additional information regarding distribution of population in the tehsils as also the density of the State, districts and tehsils. The proportionate figures of density in its various aspects are studied in the following subsidiary tables in Part I-B of the Report:

Subsidiary Table 1.1—Area and population, actual and percentage, by tehsil density

Subsidiary Table 1.1-A—Variation by tehsils classified according to density, (a) actual variation and (b) proportional variation

Subsidiary Table 1.2—Variation and density of general population

Population and
density of the
State

2. The enumerated population of Uttar Pradesh on March 1, 1951, was 63,215,742. The total area of the State is 113,409 square miles. The absolute or crude density thus calculates to 557 persons per square mile.

Density of U. P.
compared with
other States

3. Table 10 gives the area, population and density of the different States of India. It will be seen that this State, though fourth in order of area, stands first in India in respect of population. In point of density it stands fifth with a figure just double of that of India. Among the major States only West Bengal (806) and Bihar (572) have a higher density than U. P. Its population represents 18 per cent. or about one-fifth of the population of India but it occupies only 9 per cent. of the area of the country.

TABLE 10—Area, population and density of the States of India

(Source : Census of India, Paper No. 1 of 1952—Final Population Totals)

State	Area in square miles	Order in point of area	Population	Order in point of population	Density per square mile	Order in point of density
India	1,269,640	..	356,829,485	..	281	..
Madhya Pradesh	130,272	1	21,247,533	6	163	17
Rajasthan	130,207	2	15,290,797	8	117	22
Madras	127,790	3	57,016,002	2	446	6
Uttar Pradesh	113,409	4	63,215,742	1	557	5
Bombay	111,434	5	35,956,150	4	323	9
Jammu and Kashmir	92,780	6	—	—	—	—
Assam	85,012	7	9,043,707	13	106	23
Hyderabad	82,168	8	18,655,108	7	227	14
Bihar	70,330	9	40,225,947	3	572	4
Orissa	60,136	10	14,645,946	9	244	13
Madhya Bharat	46,478	11	7,954,154	14	171	16
Punjab	37,378	12	12,641,205	10	338	8
West Bengal	30,775	13	24,810,308	5	806	3
Mysore	29,489	14	9,074,972	12	308	10
Vindhya Pradesh	23,603	15	3,574,690	16	151	19
Saurashtra	21,451	16	4,137,359	15	193	15
Kutch	16,724	17	567,606	24	34	27
Himachal Pradesh	10,451	18	983,367	19	94	24
PEPSU	10,078	19	3,493,685	17	347	7
Travancore-Cochin	9,144	20	9,280,425	11	1,015	2
Manipur	8,628	21	577,635	23	67	25
Bhopal	6,878	22	836,474	20	122	21
Tripura	4,032	23	639,029	22	158	18
Andaman and Nicobar Islands	3,215	24	30,971	28	10	28
Sikkim	2,744	25	137,725	26	50	26
Ajmer	2,417	26	693,372	21	287	11
Coorg	1,586	27	229,405	25	145	20
Delhi	578	28	1,744,072	18	3,017	1
Bilaspur	453	29	126,099	27	278	12

Comparison with
other countries

4. Table 11 gives the area, population and density of selected countries of the world. It shows the irregular distribution of population over the surface of the earth.

* Figures for the State of Jammu and Kashmir, Chandernagore and Part 'B' Tribal Areas of Assam are not included in the population figures of India.

TABLE 11—Area, population and density of selected countries of the world

(Source : United Nations, *Demographic Yearbook*, 1951)

Countries	Area in square miles	Order in point of area	Population in thousand	Order in point of population	Density per square mile	Order in point of density
U. S. S. R.	8,596,452	1	193,000	3	22	20
Canada	3,842,040	2	13,845	16	4	22
China	3,758,207	3	463,500	1	123	13
Brazil	3,287,190	4	52,124	9	16	21
U. S. A.	3,021,484	5	151,689	4	50	16
Australia	2,973,693	6	8,186	20	3	23
India	1,269,640	7	356,829	2	281	7
Iran	629,180	8	18,772	14	30	18
Indonesia	575,744	9	73,500	7	128	12
Union of South Africa	472,353	10	12,320	17	26	19
Egypt	386,000	11	20,439	13	53	15
Pakistan	365,798	12	75,040	6	205	9
Burma	261,532	13	18,489	15	71	14
Afghanistan	250,900	14	12,000	18	48	17
France	212,681	15	41,934	12	197	10
Japan	142,275	16	82,900	5	583	2
Italy	116,198	17	46,272	11	398	5
Uttar Pradesh	113,409	18	63,216	8	557	3
United Kingdom	94,184	19	50,616	10	537	4
Nepal	54,040	20	7,000	22	130	11
Ceylon	25,324	21	7,550	21	298	6
Denmark	16,572	22	4,271	23	258	8
Belgium	11,776	23	8,639	19	734	1

In point of population Uttar Pradesh beats United Kingdom, Italy, France and even countries with big areas like Canada, Brazil and Australia. In point of density the only countries in the world with a figure higher than that of U. P. are Netherlands (809), Belgium (734) and Japan (583) and even among these the only country with an area comparable to that of U. P. is Japan, the other two being much smaller.

5. Let us now examine the area, population and density of the State by revenue divisions. Table 12 gives the figures. It will be seen that Kumaon has the highest area but the lowest population and density, obviously on account of its mountainous nature. Gorakhpur has the highest population and density though it is eighth in order of area. Of the 10 divisions 7 have density ranging between 591 and 729 while Gorakhpur (923) has an abnormally high density and Jhansi (254) and Kumaon (118) have abnormally low densities. The whole State with the exception of Jhansi and Kumaon divisions lies in the alluvial plain of the Ganga and the density of the latter is much higher than the rest of the State.

Density by revenue divisions

TABLE 12—Area, population and density of the revenue divisions of the State

Revenue division	Area in square miles	Order in point of area	Population	Order in point of population	Density per square mile	Order in point of density
Uttar Pradesh	113,409	..	63,215,742	..	557	..
Meerut	9,214	9	6,718,510	7	729	2
Agra	8,662	10	6,075,402	8	701	3
Rohilkhand	11,705	4	7,217,666	3	617	7
Allahabad	10,065	7	6,960,438	5	692	5
Jhansi	11,376	5	2,888,522	9	254	9
Banaras	10,378	6	6,849,031	6	660	6
Gorakhpur	9,563	8	8,831,241	1	923	1
Kumaon	18,278	1	2,159,982	10	118	10
Lucknow	12,099	2	7,152,237	4	591	8
Faizabad	12,069	3	8,362,713	2	693	4

Population of districts

6. Figure 1 shows the population of districts in order of magnitude.

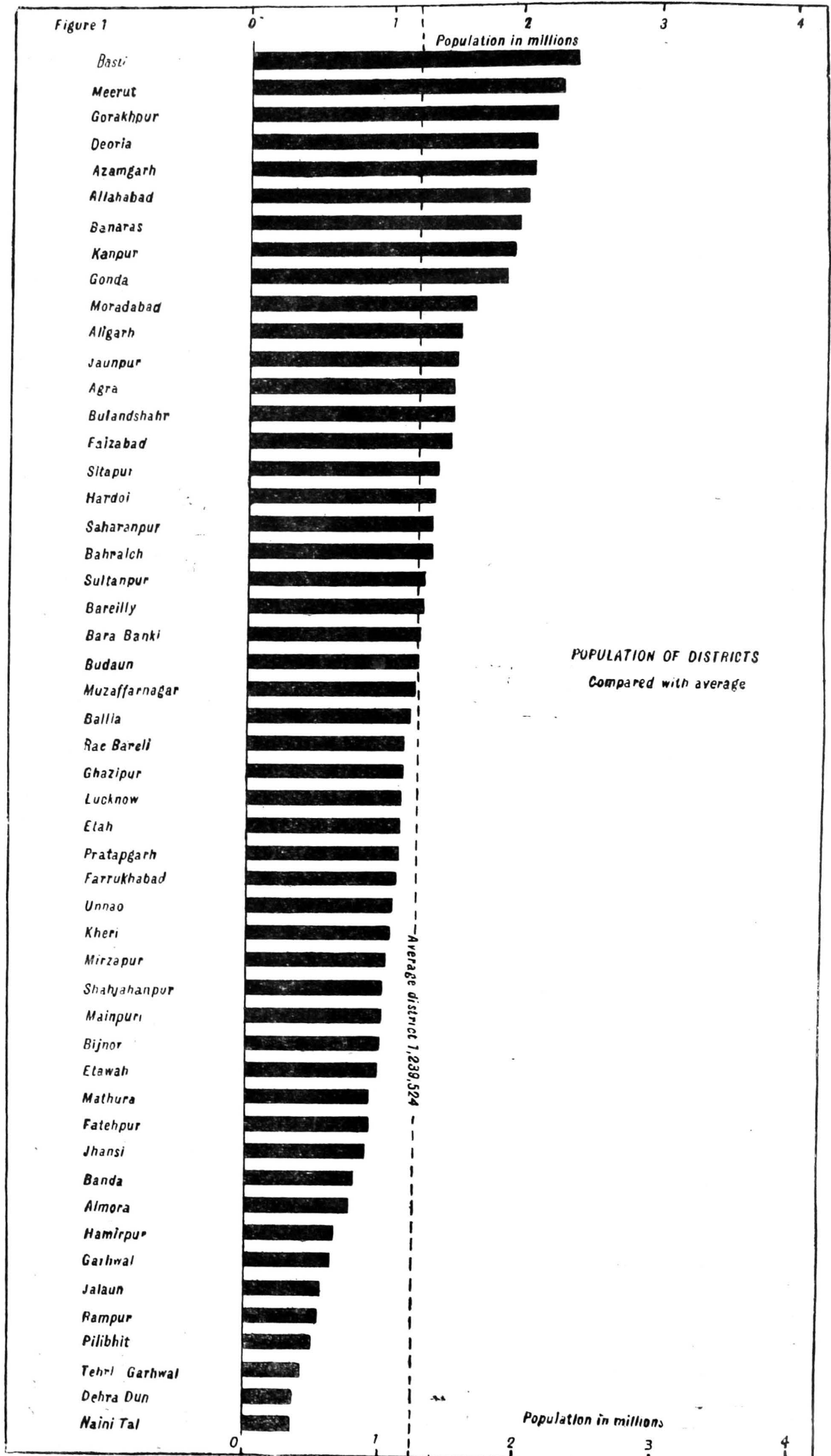


FIG. 1.—Population of districts, 1951

Of the 51 districts, 6 have a population 20 lakhs and over, 7 between 15 and 20 lakhs, 22 between 10 and 15 lakhs, 13 between 5 and 10 lakhs, and only 3 Himalayan districts under 5 lakhs. The average population per district comes to 12.39 lakhs. 23 districts have a population above this average and the rest below it. The distribution of the districts of these grades among the natural divisions is given in Table 13.

TABLE 13—*Distribution of districts of various grades of population among the natural divisions, 1951*

Natural division	Number of districts with population				
	20 lakhs and over	15—20 lakhs	10—15 lakhs	5—10 lakhs	Below 5 lakhs
Uttar Pradesh	6	7	22	13	3
Himalayan .. .. .	..	..	..	2	3
East Plain	4	3	3	..	..
Central Plain	1	1	9	1	..
West Plain	1	3	9	6	..
Hills and Plateau .. .. .	..	..	1	4	..

Area of districts

7. Figure 2 shows the districts arranged in order of area.

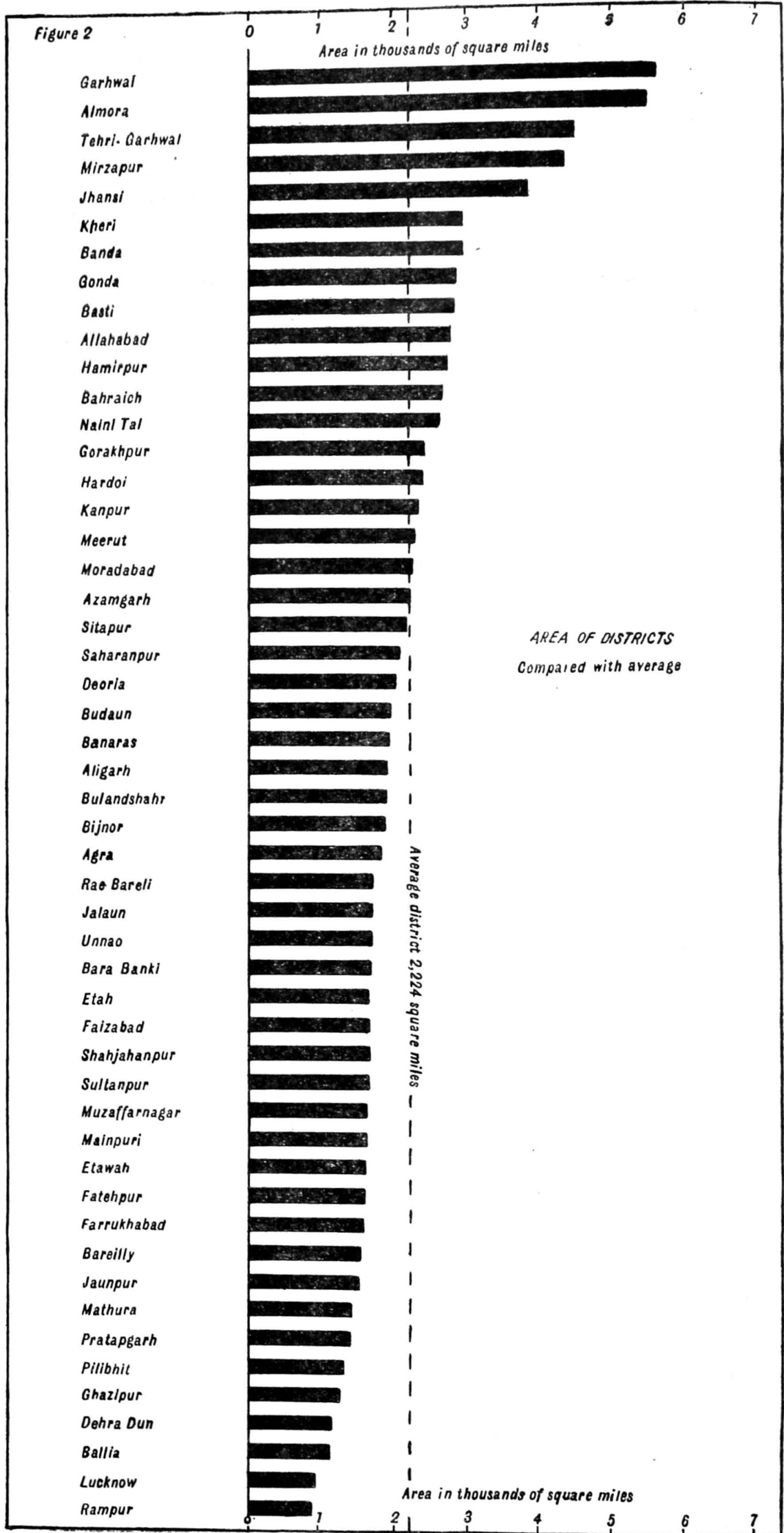


FIG. 2—Area of districts, 1951

The average area of a district calculates to 2,224 square miles. 18 districts are above the average in area, the 5 largest being Garhwal, Almora, Tehri-Garhwal, Mirzapur and Jhansi 2 districts, viz., Azamgarh and Sitapur, are of average area. The rest are below the average, the 5 smallest being Ghazipur, Dehra Dun, Ballia, Lucknow and Rampur.

8. Table 14 gives the average district population and area figures of Part 'A' States, together with the names of the largest district in respect of population and area in each. Uttar Pradesh stands fifth in point of average

Average district of various States compared

TABLE 14—Average and largest district in Part 'A' States of India, 1951

State	Average district		District with largest			
	Population	Area in square miles	Population		Area	
			District	Population	District	Area in square miles
Assam	531,983	5,001	Kamrup ..	1,490,392	Lohit Fr. division	8,998
Bihar	2,234,775	3,907	Darbhanga ..	3,769,534	Ranchi ..	7,159
Bombay	1,284,148	3,980	Greater Bombay	2,839,270	Ahmednagar	6,602
Madhya Pradesh	965,797	5,921	Bilaspur ..	1,679,637	Bastar ..	15,091
Madras	2,182,923	4,915	Malabar ..	4,758,342	Nellore ..	7,942
Orissa	1,126,611	4,626	Cuttack ..	2,529,244	Koraput ..	9,875
Punjab	972,400	2,875	Amritsar ..	1,367,040	Kangra ..	9,945
Uttar Pradesh	1,239,524	2,224	Basti ..	2,387,603	Garhwal ..	5,629
West Bengal	1,654,021	2,052	24 Parganas	4,609,309	24 Parganas	5,293

district population and last but one in point of average district area. The average district area is low in U. P. because of the complexity of land revenue administration, which is not permanently settled except for a small area in the east, and also because of the high density of population.

9. Table 15 gives the average population and area figures for tehsils by revenue divisions. In point of population the highest average is returned by the tehsils of Gorakhpur, Faizabad, Banaras, Meerut and Lucknow divisions in

Average population and area of tehsils

TABLE 15—Average population and area of tehsils by revenue divisions, 1951

Revenue division	Number of tehsils	Average tehsil		
		Population	Order in point of population	Area in square miles
Uttar Pradesh	221	286,044	..	513
Meerut	20	335,926	4	461
Agra	26	233,669	7	333
Rohilkhand	33	218,717	8	355
Allahabad	25	278,418	6	403
Jhansi	21	137,549	10	542
Banaras	19	360,475	3	546
Gorakhpur	19	464,802	1	503
Kumaon	15	143,999	9	1,219
Lucknow	22	325,102	5	550
Faizabad	21	398,224	2	575

the order named. In point of area the average tehsil of Kumaon division stands unique with an abnormally high average of 1,219 square miles. Of the remaining divisions the highest average area is returned by the tehsils of Faizabad division (575 square miles) and lowest by Agra division (333 square miles).

Average population and area of kanungo circles

10. Table 16 gives the average population and area of kanungo circles by revenue divisions. A supervisor kanungo is the link between the tehsil and the lowest official in the revenue hierarchy known as the patwari. His circle

TABLE 16—Average population and area of kanungo circles, 1951*

Revenue division	Number of supervisor kanungo circles	Average supervisor kanungo circle			
		Population	Order in point of population	Area in square miles	Order in point of area
Uttar Pradesh	761	72,083	..	147	..
Meerut	62	85,733	2	143	3
Agra	69	70,994	6	122	7
Rohilkhand	98	59,065	9	118	9
Allahabad	81	69,105	7	125	6
Jhansi	62	39,936	10	180	2
Banaras	79	77,112	4	132	5
Gorakhpur	94	89,806	1	101	10
Kumaon	32	63,667	8	569	1
Lucknow	84	74,516	5	142	4
Faizabad	100	79,487	3	120	8

ordinarily consists of about 40 patwari circles. There are 729 kanungo circles in U. P. excluding 32 in Kumaon. The administration of Kumaon is differently constituted and there a kanungo has only about 9 patwaris under him.

Average population and area of patwari circles

11. Table 17 shows the average population and area of a patwari circle by revenue divisions.

TABLE 17—Average population and area of patwari circles, 1951*

Revenue division	Number of patwari circles	Average patwari circle			
		Population	Order in point of population	Area in square miles	Order in point of area
Uttar Pradesh	27,941	1,963	..	4.0	..
Meerut	2,259	2,353	2	3.9	3
Agra	2,406	2,036	4	3.5	5
Rohilkhand	3,528	1,641	9	3.3	7
Allahabad	3,125	1,791	8	3.2	8
Jhansi	2,197	1,127	10	5.1	2
Banaras	3,019	2,018	5	3.4	6
Gorakhpur	3,901	2,164	3	2.4	10
Kumaon	297	6,860	1	61.3	1
Lucknow	3,162	1,980	6	3.8	4
Faizabad	4,047	1,964	7	3.0	9

The village patwari maintains the revenue records of the village. The average area of a patwari circle is 3.4 square miles except in Kumaon (where the revenue administration is of a different pattern from the rest of the State), Jhansi where the holdings are relatively larger and Gorakhpur where the number of small holdings is very large.

Panchayat Raj

12. In this State a new rural hierarchy of officials and village organization has sprung up recently as a result of the U. P. Panchayat Raj Act, 1947. Each village or a group of villages with a population of about 1,500 has been constituted into a gaon sabha with certain powers for local administration.† For an area covering 3 to 5 gaon sabhas a panchayati adalat has been formed with judicial powers extending to a specified class of civil, criminal and revenue cases. In the whole State there are about 36,000 gaon sabhas and over 8,400 panchayati adalats. For each adalat area there is a paid secretary and over about

* Figures of area and population of local bodies have been excluded from the calculations.

† The gaon sabhas have also been entrusted with the registration of births and deaths within their jurisdiction since January 1, 1951. They have also to maintain a register of population and a register of adults.

15 secretaries there is an inspector. The whole staff works under the District Planning Officer who, in turn, works under the District Officer. There are over 500 panchayat inspectors and 8,400 panchayat secretaries. Table 18 gives the distribution of population per gaon sabha, adalati panchayat circle, and panchayat inspector circle in each revenue division.

TABLE 18—Average population of gaon sabhas, panchayati adalats, and panchayat inspector circles by revenue divisions, 1951*

Revenue division	Number of gaon sabhas	Number of panchayati adalats	Number of panchayat inspector circles	Average population per		
				Gaon sabha	Adalat	Inspector circle
Uttar Pradesh	35,844	8,435	514	1,530	6,503	106,721
Meerut	2,746	682	39	1,936	7,794	136,294
Agra	2,852	687	52	1,718	7,130	94,204
Rohilkhand	3,888	836	54	1,489	6,924	107,192
Allahabad	3,620	948	50	1,546	5,905	111,949
Jhansi	1,468	375	43	1,687	6,603	57,582
Banaras	3,875	999	51	1,572	6,098	119,448
Gorakhpur	5,918	1,338	71	1,426	6,309	118,898
Kumaon	2,011	390	38	1,013	5,224	53,615
Lucknow	4,158	1,006	55	1,505	6,222	113,806
Faizabad	5,308	1,174	61	1,497	6,771	130,306

13. Table 19 gives the average population and area of thanas (police stations) by revenue divisions. The State average population of a thana is about 58,000.

Average population and area of thanas

TABLE 19—Average population and area of thanas, 1951

Revenue division	Total number of thanas	Average thana		
		Population	Order in point of population	Area in square miles
Uttar Pradesh	1,087	58,156	..	104
Meerut	80	83,981	4	115
Agra	86	70,644	6	101
Rohilkhand	107	67,455	8	109
Allahabad	103	67,577	7	98
Jhansi	74	39,034	9	154
Banaras	84	81,536	5	124
Gorakhpur	79	111,788	1	121
Kumaon	306	7,059	10	60
Lucknow	83	86,172	3	146
Faizabad	85	98,385	2	142

14. Let us now revert to density. The density of the State has already been examined in relation to that of other States of India and other countries of the world. We will now examine the density by natural divisions, by districts and by tehsils. Table 20 gives the density by natural divisions and also shows what percentage of area of each natural division falls in the category of (i) high density, i. e., over 600 persons per square mile, (ii) average density, i. e., 450—600 persons per square mile, (iii) low density, i. e., below 450, and likewise what percentage of population lives under each of these grades of density. A glance at the density map on page 20 will show that the three plain divisions extending from Ballia in the east to Muzaffarnagar in the west constitute the region of the highest density. It will be further noticed that density is highest in the east and falls as one moves to the west. In nearly two-thirds of the districts of these divisions the density exceeds 600. In East Plain division 94.2 per cent. of the population lives in tehsils of high density (600 and over) covering 88.6 per cent. of the area of the division. In Central Plain division 71.3 per cent. and in West Plain division 67 per cent. of the population likewise lives in tehsils of high density covering 61.4 and 54.2 per cent. of the area of the divisions respectively. As against these divisions there are no areas of high density in Himalayan or Hills and Plateau divisions. In the Himalayan division there is no area of average or medium density either; all the tehsils are of low density (under

Density by natural divisions

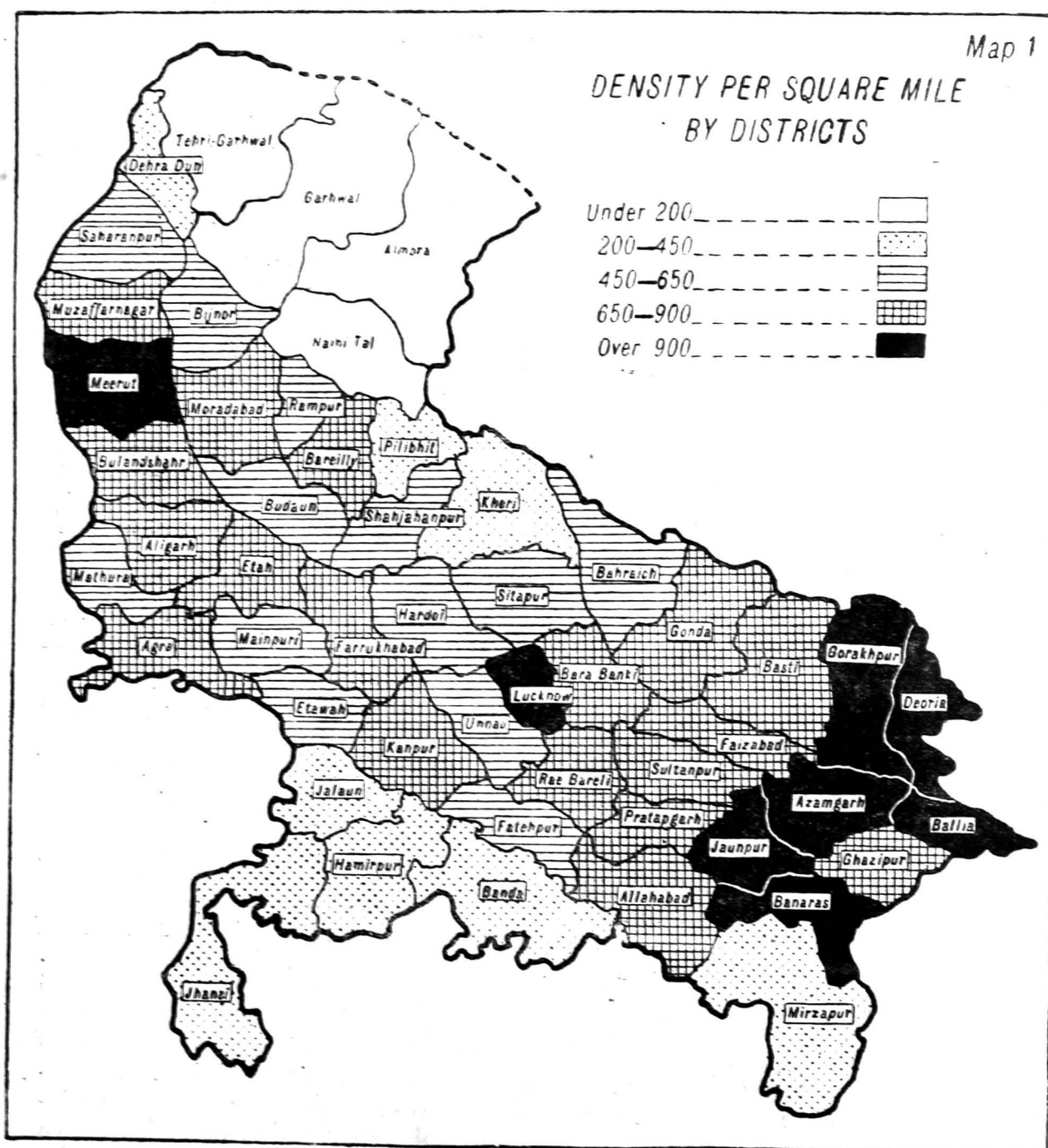
*Figures of area and population of local bodies have been excluded from the calculations.

TABLE 20—Density by natural divisions, with percentage of area and population under various grades of density, 1951

(Source : Subsidiary Table 1-1)

Natural division	Density	Percentage of area with population of			Percentage of population living in area of		
		High density (600 and over)	Average density (450—600)	Low density (below 450)	High density (600 and over)	Average density (450—600)	Low density (below 450)
Uttar Pradesh	557	45.2	17.5	37.3	68.9	17.2	13.9
Himalayan	130	..	..	100.0	..	..	100.0
East Plain	850	88.6	4.4	7.0	94.2	2.9	2.9
Central Plain	717	61.4	35.7	2.9	71.3	27.4	1.3
West Plain	657	54.2	28.6	17.2	67.0	23.8	9.2
Hills and Plateau	248	..	6.7	93.3	..	12.5	87.5

450). In Hills and Plateau division 12.5 per cent. of the population lives in tehsils of medium density (450—600). These latter represent the tehsils of Chunar (Mirzapur district) and Jhansi. The former tehsil is a continuation of the U. P. alluvial plain while the density of Jhansi tehsil has been increased by the pressure of the city of Jhansi.



MAP 1—Density per square mile by districts (including towns), 1951

Taking the State as a whole 68·9 per cent of the population lives in tehsils of high density covering 45·2 per cent. of the area ; 17·2 per cent. in tehsils of medium density covering 17·5 per cent. of the area ; and 13·9 per cent. in tehsils of low density covering 37·3 per cent. of the area.

15. Density of the general population is given by districts in Subsidiary Table 1·2. While studying these figures it must be borne in mind that density of a district is greatly affected by the urban areas within it. Density of rural population and urban population separately is given in Subsidiary Tables 2·2 and 3·3 and will be discussed in subsequent chapters. Another point of note is that often in a district density varies widely from tehsil to tehsil as would appear from Subsidiary Table 1·1.

Table 21 shows the number of districts of various grades of density and their distribution among the natural divisions. The districts of low density

TABLE 21—*Districts of various grades of density and their distribution among natural divisions, 1951*

(Source : Subsidiary Table 1·2)

Natural division	Number of districts with				
	Very low density (Under 200)	Low density (200—450)	Average density (450—650)	High density (650—900)	Very high density (900 and over)
Uttar Pradesh	4	8	13	18	8
Himalayan	4	1	..	..	..
East Plain	..	..	1	3	6
Central Plain	..	..	4	7	1
West Plain	..	2	8	8	1
Hills and Plateau	..	5	..	..	..

mostly lie in Himalayan and Hills and Plateau divisions while the districts of high density are mostly situated in the Plain divisions. The districts of average density (450—650) lie mostly in West Plain and Central Plain divisions. The districts of the highest density are Lucknow (1,156), Ballia (1,010), Banaras (1,007) and Deoria (1,007) and those of lowest density are Tehri-Garhwal (91), Garhwal (114), Naini Tal (127) and Almora (141) followed by districts of the Jhansi revenue division.

16. The densities of various tehsils were discussed in detail in the 1911 Report (pages 10—17). There is not much to add to it. Broadly speaking low densities are accounted for by forest areas, mountainous or swampy nature of the country, little cultivable land and unhealthy climate, while high densities are found in the plains with good alluvial soil, healthy climate and excellent agricultural water-supply.

17. Density is the result of a variety of circumstances—physical, social and historical. In fact the whole environment of the population affects it, particularly the physical. From the earliest times people have been settling round fertile tracts of land. The first factor affecting density is the fertility of the soil.

18. Sri Blunt in 1911 measured soil fertility of the various natural divisions by the "agricultural water-supply" consisting of rainfall plus irrigation. It can be taken that the whole *kharif* area is watered by the rainfall ; add to this the irrigated area. The two together then give a fairly accurate idea of the extent to which a tract benefits by its water-supply.

Table 22 gives the calculations. The correspondence between density and water-supply is exact.

Density by districts

Density by tehsils

Correlation between density and some physical characteristics

(i) Soil fertility

TABLE 22—Density and water-supply in natural divisions, 1951

Natural division	Density	Percentage of watered to cultivated tract	Order according to density	Order according to watered area
Uttar Pradesh	557	93	..	..
Himalayan	130	64	5	5
East Plain	850	110	1	1
Central Plain	717	94	2	2
West Plain	657	93	3	3
Hills and Plateau	248	65	4	4

(ii) Cultivation

19. The figures of cultivable and cultivated area are also a fair index to the density. Table 23 gives the relevant figures for the various natural divisions. The figures are derived from Subsidiary Table 4.7 and Season and Crop Reports.

TABLE 23—Density and cultivation in the natural divisions

Natural division	Density	Percentage of				
		Cultivable to total	Cultivated to total	Cultivated to cultivable	Irrigated to cultivated	Double cropped to cultivable
Uttar Pradesh	557	61.8(70.6)	53.2	86.1(75.3)	29.3	21.2(18.5)
Himalayan	130	17.9(17.9)	12.1	67.4(67.4)	10.4	13.1(13.1)
East Plain	850	77.2(83.6)	68.9	89.4(82.5)	36.0	28.2(26.1)
Central Plain	717	70.0(81.8)	61.6	87.9(75.3)	29.0	22.7(19.5)
West Plain	657	75.5(83.6)	66.9	88.5(80.0)	31.4	20.5(18.5)
Hills and Plateau	248	53.3(74.0)	41.0	76.9(55.4)	14.1	9.9(7.2)

The cultivable area is the sum of the cultivable waste, fallow and the cultivated area. But all cultivable waste cannot be brought under cultivation for it includes a percentage of *usar*, also threshing floor, village paths, well-runs, pastures, etc. Sri Blunt and Sri Turner both estimated that only about 5 per cent. of the recorded cultivable waste was really cultivable and calculations in the table have been made on this basis. Figures on the basis of the recorded cultivable waste also have been calculated and shown in brackets.

By adding double-cropped and net cultivated area we get the gross cultivated area, as shown in Table 24. The correspondence between density and gross cultivated area is exact.

TABLE 24—Gross cultivated area in the natural divisions

Natural division	Density	Percentage of gross cultivated to cultivable area	Order according to density	Order according to percentage of gross cultivated area
Uttar Pradesh	557	107.3	..	..
Himalayan	130	80.5	5	5
East Plain	850	117.6	1	1
Central Plain	717	110.6	2	2
West Plain	657	109.0	3	3
Hills and Plateau	248	86.8	4	4

(iii) Crops

20. Sri Blunt in 1911 quoted a French writer who remarked that in India the most densely inhabited tracts are those where rice is chiefly grown and attributed this to the nutritive power of rice. On examining the conditions in the State Sri Blunt found that out of 43 districts (omitting the districts of Dehra Dun, Naini Tal, Almora, Garhwal and Mirzapur)

17 grow more rice than the normal; 12 of these have densities greater than the normal density of these 43 districts and of the remaining 5 the figures of 4 districts are affected by the presence of forests and of the fifth by the presence of a large Bundelkhand tract.

The conditions existing in 1951 were examined and for comparability only the rural density and that also of the cultivated area was taken into consideration. It was found that of the 51 districts, 26 grow more rice than the normal but only 15 of these have densities greater than the average density. As against this 10 other districts, which have a lower area than the normal under the paddy crop, have densities higher than the average. It appears that higher density cannot be justifiably attributed to the cultivation of paddy or to the so-called nutritive power of rice.

21. The correlation between density and crops can be examined from another aspect. Table 25 gives by natural divisions the density and the percentage of valuable crops to the total sown area. The valuable crops are rice,

TABLE 25—Density and percentage of valuable crops by natural divisions

Natural division	Density	Percentage of valuable crops to total area sown			Total
		Rice	Wheat	Others	
Uttar Pradesh	557	20.6	20.8	20.2	61.6
Himalayan	130	26.3	26.5	7.3	60.1
East Plain	850	38.1	15.7	19.7	73.5
Central Plain	717	23.5	17.7	14.9	56.1
West Plain	657	10.1	25.9	28.0	64.0
Hills and Plateau	248	10.5	18.5	9.2	38.2

wheat and 'other crops' which include the oilseeds, maize, sugarcane, cotton, opium, tobacco, garden crops and fodder. The order according to the percentage of valuable crops and density tallies for the first, viz., East Plain division only, while the other divisions in order of density have changed places in order of percentage of valuable crops.

22. Other factors affecting density are historical, social and economic. Among the historical factors may be cited the movement of the people following partition. So far as Uttar Pradesh is concerned this movement, however, has not been big enough to appreciably affect density, except perhaps in the case of a few urban areas like Dehra Dun and Saharanpur. Among social factors the most important mentioned in previous Reports is the distribution of castes. Generally speaking the so-called higher castes are found mostly in the west and the lower in the east. Likewise among castes spread over the whole State the wealthier branches and those of a higher social standing are found towards the west. The view expressed in previous Reports was that as the lower strata of society multiplies faster than the higher, the densities are higher in the east than in the west. The trends of birth and death-rates, however, throw doubt on this theory.

Among the economic factors the development of the means of communication and industrialization deserve prominent mention. Previously density was greatly affected by local famines. The development of road and rail transport has nearly eliminated this factor. Industrialization draws labour from other areas. Kanpur owes the phenomenal increase in its density entirely to this reason. But the pace of industrialization in the State has been so slow that, with the exception of a few towns, the density has not been appreciably affected.

Other factors
affecting density

Births and deaths
now the deter-
mining factor

23. The cardinal fact about density in Uttar Pradesh is that it has almost everywhere reached saturation point. Whatever may have been the effects of the various factors in determining density in the past it is density which is now affecting most of the factors. The variations in density that are noticed from decade to decade are chiefly the results of the vital processes, birth and death.

Variations of
density

24. Table 26 gives the variations in density by natural divisions during the last 50 years. The first point of note is that density instead of growing inversely is growing directly. The theory that population like water will seek its own level by shifting from areas of higher to lower densities does not hold good for Uttar Pradesh. Density is growing with the growth of population. It is probable that where a sparsely inhabited tract begins to offer increased economic opportunities it will attract people from the thickly populated areas. But no migration is in evidence. It will also be noted that there is no change since 1901 in the order of density among the various natural divisions. The increase of density, however, has been highest in the Himalayan division (52·5 per cent.) followed by the East Plain division (36·3 per cent.) while it ranges between 25·0 to 30·9 per cent. in the remaining three divisions.

TABLE 26—Variations in the density by natural divisions, 1901—51

Natural division	Density						Variation 1901—51	Percentage variation in popu- lation and density 1901—51
	1951	1941	1931	1921	1911	1901		
Uttar Pradesh	557	498	439	412	425	429	+128	30·0
Himalayan	130	115	101	94	94	85	+45	52·5
East Plain	850	761	680	634	621	623	+227	36·3
Central Plain	717	636	557	530	552	574	+143	25·0
West Plain	657	587	513	480	512	518	+139	26·8
Hills and Plateau	248	231	203	187	196	190	+58	30·9

Variation of density by tehsils is given in Subsidiary Table 1·1-A. It will be noted that during 1941 the number of people living in tehsils of lower grades of density show a decrease while the number living in tehsils of higher grades of density has phenomenally increased.

SECTION 3—GROWTH

1. This section will be devoted to the consideration of the changes which have taken place in population since the time of the first general census of 1872. The actual changes in the population of the State and its different units since 1901 are shown in Table A-II while Table E shows the percentage variation in population of the State and its units down to tehsils during the decades 1931—40 and 1941—50. Both these tables will be found in Part II-A of the Census Report. Subsidiary Table 1·2 in Part I-B of the Report gives variation and density of general population of the State, the natural divisions and the districts for the last three decades ; and similarly Subsidiary Table 1·3 in the same part gives the mean decennial growth-rates for the State and its different units.

Reference to statistical tables

2. The Subsidiary Tables 1·2 and 1·3 mentioned above give the rates of percentage variation and the mean decennial growth respectively for the last three decades. The "rate of percentage variation" expresses the variation in population as on census date. The "mean decennial growth-rate" indicates the mean variation at which population has grown between two censuses. The "mean variation" is calculated in a slightly different manner from the "percentage variation" for which figures used to be furnished in former censuses. While the "percentage variation" is based on the population of the earlier of the two censuses concerned, the "mean decennial growth-rate" is based on the mean population of the two censuses.

The mean decennial growth rate

3. The first census on lines similar to the present one was taken in the Province of Agra in 1872 and the result combined with that of the Oudh census of 1869 gave the population of the whole province. In 1881 began the series of enumeration of the whole of the United Provinces (now Uttar Pradesh) of which the present one is the eighth. The area of Uttar Pradesh has undergone some changes since 1872 and where population has been transferred into or out of the State (or between districts) as a result of such transfers of land it has been

History of growth of population

TABLE 27—Growth of population in the State

Census date	Population	Inter-censal variation	Percentage variation	Mean decennial growth-rate*	Density
1872	42,780,292	..	..	..	377
1881	45,034,574	+2,254,282	+5·3	+5·13	397
1891	47,844,299	+2,809,725	+6·2	+6·05	422
1901	48,625,310	+781,011	+1·6	+1·62	429
1911	48,152,273	-473,037	-1·0	-0·98	425
1921	46,669,865	-1,482,408	-3·1	-3·13	412
1931	49,776,754	+3,106,889	+6·7	+6·44	439
1941	56,531,848	+6,755,094	+13·6	+12·71	498
1951	63,215,742	+6,683,894	+11·8	+11·16	557

allowed for in the figures of the last five decades in Table A-II of Part II-A of the Report. The population figures of 1941 in Table E of the same part are also of the present layout of the State and the percentage variation in it for the decades 1931—40 and 1941—50 have been worked out on the adjusted figures. The figures of population of 1872, 1881 and 1891 censuses have also been adjusted on similar lines and these with figures up to 1951 are set out in Table 27, with details for inter-censal variation, percentage variation, mean decennial growth-rate and density. The growth of population between 1872 and 1951 and the percentage increase are also illustrated in Figure 3.

*There is a slight difference between these figures and those of Subsidiary Table 1·3 as the latter refer only to the area of registration while the former relate to the whole State.

Early estimates
of the population

4. Prior to 1872 we have little statistical information. A brief reference to the earlier attempts at counting the people is made in the census Report of 1911. The earliest attempt to ascertain the population of the province of Agra as then constituted was made in 1826 on the basis of the complete count of villages and a partial one of houses. The total number of inhabitants was placed at 32 millions. Fresh computations were made in 1848, 1853 and 1865*. In 1848 a selected area was enumerated, the houses were counted and the average population per house was thus ascertained. The total figure so obtained was 23 millions for the Agra province plus the Delhi division (21·6 millions for Agra Province*). But the population figures of the succeeding censuses of the same area indicated that the 1848 estimate erred on the low side. Scarcity conditions in 1833-34 in the trans-Yamuna districts and famine in 1837-38 in the central and trans-Yamuna districts of the province of Agra intervened between the censuses of 1826 and 1848. But the fall in 1848 was a very steep one and the estimate of 1826 was found to be too high. In 1853 the first simultaneous enumeration took place. It was not based on a single entry for each individual but on a return prepared for each village and hamlet, showing the number of persons, male and female, in each house. The population of Agra was estimated at 28 millions. This census is believed to have been the most accurate of these earlier efforts. The famine in the Upper Doab of the province of Agra in 1860-61 preceded the census of 1865. This census was similar to that in 1853 and the population of Agra (minus Dehra Dun, Jhansi, Jalaun and Kumaon) was estimated at 27·69† millions as against 28 millions of 1853. The population of Dehra Dun, Jhansi, Jalaun and Kumaon was estimated at 1·9 millions. The following census was held in 1869 in Oudh. Its population in that year combined with that of Agra in 1872, including Dehra Dun, Jhansi, Jalaun and Kumaon and the states of Rampur and Tehri-Garhwal, made a total of 42·6 millions. Having been recast in the present layout of Uttar Pradesh the total for the State works out to 42·78 millions (Table 27).

5. The period before 1826 is completely dark and even rough estimates for any part of the State are not to be found. But we can have a general picture. The high density of 1872 (377 persons per square mile), which is higher than the present density in many of the modernized and progressive countries of the world, was not the result of a rapid growth. Outbreak of epidemics, scarcity and famines and wars were not uncommon and mortality was inevitably high. Uttar Pradesh was the cradle of civilisation even long before Christian era started. Ancient and mediaeval history reveal that it had a large number of cities which were the nucleus of trade, seats of learning and religions and capitals of mighty empires. People possessed a technology sufficiently advanced to support a dense population. Agriculture and commerce were flourishing.

“The Buddhistic literature indicates that between the seventh and fourth centuries B. C. the economy of northern India was comparable to that of the later middle ages in Europe. . . . The ordinary town seemed to embrace anywhere from 30 to 1,000 families, and approximately 20 cities existed in northern India alone. . . . This impression of a numerous population was confirmed by Alexander’s army which invaded India in 327—26 B.C. One small kingdom was said to have 37 towns of over 5,000 inhabitants. Later, India’s first real empire under the sway of Chandragupta (C. 321—297 B.C.) left records indicating a standing army of approximately 700,000 men, the maintenance of which must have required a substantial population. Under Asoka (C. 274—236 B.C.) this empire achieved one of the highest point of Indian civilisation based on efficient administration, the use of written commands, abundant commerce, intensive agriculture and the use of metal”‡. These were the conditions in northern India. Dr. Pran Nath believes that the population of ancient India (around 300 B.C.)

*The 1848 and 1853 censuses were of Agra Province minus the districts of Dehra Dun, Jhansi, Jalaun and Kumaon.

†The population figures for the different units were as under:

(i) Agra Province (minus Dehra Dun, Jhansi, Jalaun and Kumaon) . .	28·8 millions
(ii) Dehra Dun, Jhansi, Jalaun and Kumaon	1·98 millions
(iii) Oudh	11·2 millions
(iv) Rampur and Tehri-Garhwal states	0·6 millions

‡Kingsley Davis, *The Population of India and Pakistan* (Princeton University Press, 1951), page 24.

was between 100 and 140 millions*. Uttar Pradesh was the heart of the empires mentioned above and it can be confidently surmised that a large part of this population must come to its share. The population grew slowly. A careful estimate of the total number in 1600 made by the historian Moreland, gave India only 100 millions. The middle Ganges and the Punjab had close to 40 millions. Dr. Pran Nath remarks "that the population of the country as a whole did not greatly vary between the early Hindu period and the first advent of Muhammadans and it may be supposed to have lain roughly between the above limits (100 to 140 millions)". Thus it seems that there were short-run periods of population growth and decline with virtual fixity of number in the long run. Probably even after 1600 the population remained stationary for one and a half centuries more, after which a gradual enhancement of growth began, accelerating as 1870 approached†.

6. We can, however, be sure of the growth of population after 1870 because of the censuses. Table 27 above and Figure 3 show that since 1872 the population of Uttar Pradesh has reached its present figure after decades of growth followed by decades of decline and then of rapid growth. The salient features leading to the growth with cause of rise and decline are reproduced below from the previous census Reports of the State and of India.

Variations.
1872—1900

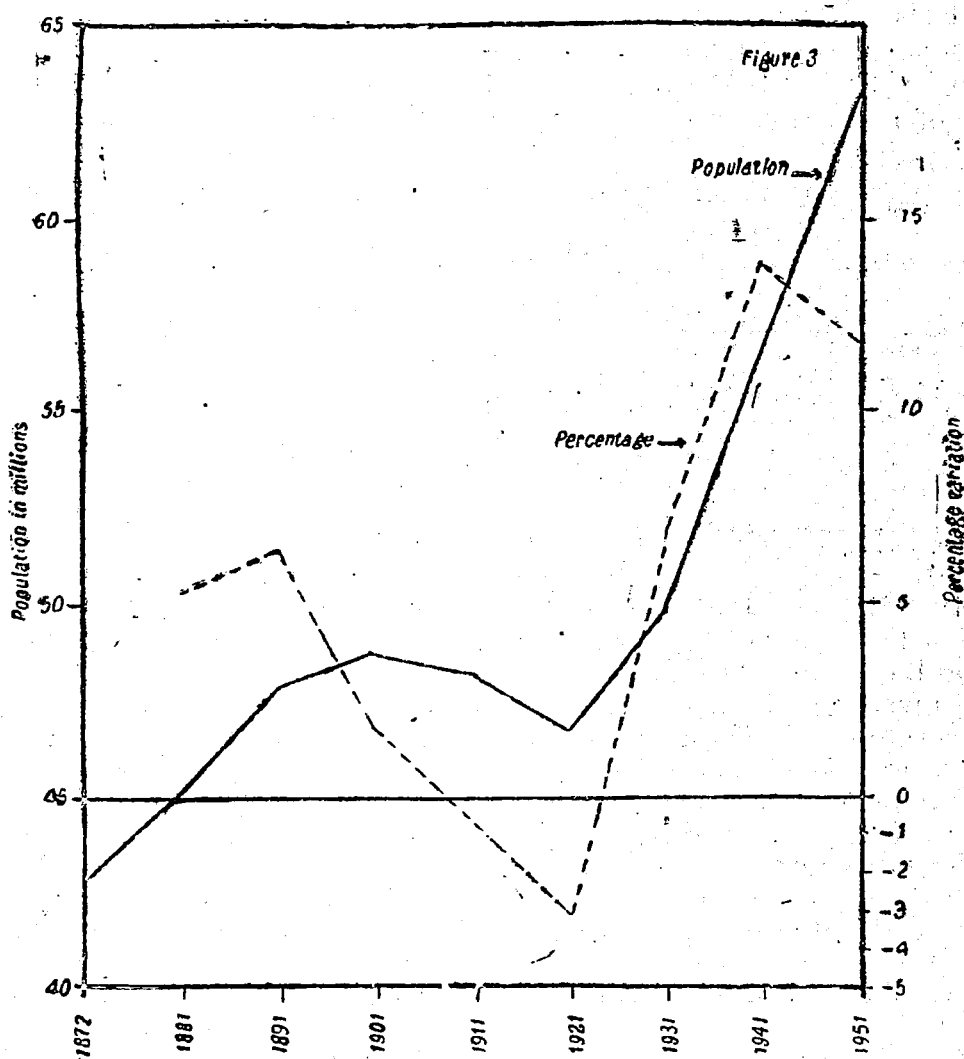


FIG. 3—Growth of population, 1872—1951

7. Between 1872 and 1881 the growth of population was 5.3 per cent. This must have been due largely to better enumeration; for there can be no doubt that the famine of 1877-78 and the fever epidemic of the following year must have prevented any real increase. During the decade 1881—90 the total rose to 47.8 millions (adjusted figure), an increase of 6.2 per cent. Sri Baillie was of opinion that the population of 1881 had been understated to the extent of more than a third of a million; and if so, the true rate of increase between 1881 and 1890 was only 5.5 per cent. The State did not suffer from famine or

* *A Study of the Economic Conditions of Ancient India* (London: Royal Asiatic Society, 1920), Chapter 5.

† Kingsley Davis, *op. cit.*, page 24.

from any unusual amount of sickness. There was, therefore, nothing to check the natural tendency of the population to multiply at a rapid rate. But both the birth-rate (38.18) and the death-rate (31.66) were high and in the absence of any gain from migration there cannot have been a larger growth.

8. From 1891 onwards the enumerations have been reliable and improvements in the methods thereof could have had but negligible effects upon the figures. The rate of increase of 1891 fell off sharply during 1891—1900 but the total population rose to 48.6 millions. Between 1891—1900 the state suffered from a succession of calamities. The decade began with wet years; and in the abnormal season of 1894 the rainfall exceeded the average by more than fifty per cent. This, besides causing serious damage to the crops, led to a severe outbreak of malarial fever, which raised the death-rate to an exceptional height (42.1) and sapped the vitality of the people to such an extent that the birth-rate in 1895 was unusually low (34.7). Then followed a period of deficient rainfall, culminating in the severe famine of 1896-97. The suffering was greatest in the Hills and Plateau division, south-west of the West Plain division, Central Plain division and in Jaunpur. The distress was general and the death-rate of 1897 was high (40.2). But the reported birth-rate in 1897 was the lowest of any year in the decade (30.9). The population recouped soon after and the birth-rate as well as the death-rate were normal in 1898, while in 1899 the birth-rate was the highest on record (48). The net result for the decade was an increase of 1.6 per cent.

9. Sri Blunt in the Report of 1911 concludes that working only up to the figures of 1901 census we shall find that the increase has been (1) in the parts enumerated since 1853, 16 per cent. in 48 years or 3.3 per mille per annum; (2) for Agra Province, 13 per cent. in 36 years or 3.6 per mille per annum; (3) for Oudh, 13 per cent. in 32 years or 4.0 per mille per annum; (4) for the United Provinces, 9 per cent. in 29 years or 3.1 per mille per annum. According to the adjusted figures in Table 27 the increase between 1872 and 1900 comes to 13.7 per cent. in 29 years or 4.4 per mille per annum. If compared with the rate of increase of European countries for the same period, some of which are given in Table 28, the rate of increase in this State will appear to be very low. Only Spain and France had a lower rate of increase.

TABLE 28—Rate of growth of European countries during 1870-1900

Country	Rate of increase per mille per annum
England and Wales	12.0
Holland	12.0
Germany	10.8
Denmark	10.3
Belgium	9.6
Norway	8.5
Sweden	7.0
Italy	6.6
Spain	4.0
France	1.9

10. Between 1901 and 1910 the population showed an actual decrease. The first four years of the decade were a period of returning prosperity. Bad crops in 1905 followed by a poor harvest in the spring of 1906 led to famine in the Jhansi revenue division and the south of the Agra division. In 1907-08 there was a severe famine in the State and 19 districts were classed as famine districts, while 21 were classed as scarcity districts. Then the state of public health was extremely unsatisfactory. The ravages of a new disease, the plague, had been immense. The recorded mortality from this cause was 1,315,252; and the actual mortality was probably much greater. The malaria epidemic of 1908 also took a heavy toll. The recorded death-rate of that year was over 52 per mille, while the annual rate for the whole decade was about 40; and reported deaths from fever (nearly two millions) exceeded the normal by nearly three quarters of a million. An indirect consequence of this epidemic was an abnormally low birth-rate (33.4) in 1909. According to Sri Blunt the mortality from malaria was greater amongst females than amongst males. Plague which was more serious in 1903, 1904, 1905, 1907 and 1910 also took a heavier toll from among the females. Women at the reproductive period of life suffered heavily in particular. Besides these unusual calamities the State lost a larger population on account of balance of migration. There were large emigrations to Calcutta and other parts of Bengal, Bihar, Assam and Nepal and also to foreign countries. In an abnormal decade such as this it is not surprising that there was a fall of 1 per cent. in the population.

11. There was again a decline in population during the decade 1911—20. In summing up; Sri Edye, in the Report of 1921, attributed the variation of this decade "to disease, relatively to which all other influences are insignificant, to some extent to plague, cholera and malaria but overwhelmingly to the influenza epidemic". The unhealthy year 1911 was responsible for a mortality of

Variations,
1901—10

Variations,
1911—20

7 per mille from a severe epidemic of plague. Cholera was prevalent and fever rate abnormally high. In 1917 malaria was more prevalent than usual and plague persisted. Even then the population was steadily increasing by natural causes up to the beginning of the year 1918. The year 1918-19 was probably, in the matter of health, the worst on record. Apart from a severe epidemic of plague and cholera, the State was devastated by influenza which took a toll of about 2 millions of the population. Between 50 and 70 per cent. of the people were attacked and the physical and economic damage was colossal. Boys of under five are more delicate than girls and suffered more severely. Males and females of 20—25 and women up to 35 suffered more acutely than those at other ages. Births following the outbreak declined heavily due to depleted number at the reproductive ages for which the disease was most fatal and also to the secondary effect it had by diminishing the reproductive capacity of those who suffered from the disease but escaped with their lives. But for these epidemic calamities, agricultural conditions were normal during the decade except for a short spell in 1913-14 and there was nothing in the economic conditions which should seriously affect the natural expansion of the population. Sri Edye observed that "the population reacts extravagantly to conditions of health, and this reaction completely conceals any reaction there may be to agricultural, economic, or commercial conditions; which latter reaction, if it occurs at all, is so slight as to be negligible". The population in this decade as well as in the previous one was in "essence" progressive and possessed all the factors necessary to the maintenance of its normal rate of increase. But the epidemics negated all progress. There was a loss of population of 3.1 per cent. relatively to the figures of 1911, and of over 6 per cent.* relatively to the normal rate of increase of the previous decades. The year 1918-19 was responsible for the whole of the abnormal loss. Sri Edye concludes that if 3 per mille per annum be accepted as roughly the normal rate of expansion, which takes into account the balance of emigration over immigration, the population of the province (British territory only) should have increased by about 1,410,000. It has actually decreased by 1,432,000. The abnormal losses of the decade amount, therefore, to 2,842,000. Plague and cholera should not be responsible for more than the odd 42,000 of this. The balance, 2,800,000 may be attributed wholly to the influenza epidemic.

12. After 1921 the trend of population growth has changed. The period of next ten years between 1921 and 1930 was of recovery of population and the mean decennial growth-rate of the decade was 6.4 per cent. against a decline of 3.1 per cent. between 1911—20 and of 1.0 per cent. between 1901—10. The decade was a good one for agriculture and the crops were, on the whole, above average. During the first seven years the prices ruled high and wages of agricultural labour rose. The result was that tenants and landlords could have a considerable reserve. But the last three years of the decade were adverse years and there was a serious collapse of agricultural prices. In 1929—31 revenue was remitted to the amount of Rs.168 lakhs and rent to about three times that amount. Otherwise, the agricultural stock showed signs of improvement, irrigable area increased and communications improved to some extent. There was some extension on the industrial side also. The most notable feature, from the point of view of growth of population, was the absence of famine which had been taking a toll of lives in the past. Another feature was absence of any serious epidemic during the decade. There was a decrease in the number of births compared with the previous decade and a still bigger decrease in the number of deaths. The mean decennial rates (registered) per mille were 34.0 births and 25.6 deaths compared with 42.9 and 40.8 of the decade 1911—20. Both births and deaths in the decade 1921—30 were found under-recorded, to somewhat larger extent than in former decades. Sri Turner, in the Report of 1931, calculated the percentage error of 15 in the recording of births and 22 in that of deaths. The corrected figures of mean decennial rates of births and deaths will be 39.9 and 32.7 against 44 and 46.1 for the decade 1911—20.† It is clear that there was a reduction in the number of births and a far larger reduction in the number of deaths. Sri Turner observes, "the outstanding

Variations,
1921—30

*Sri Edye has accepted Sri Blunt's calculations of the normal rate of increase at a little over 3 per mille per annum (*vide* paragraph 9 above).

†The probable estimated error in vital statistics in 1911—20 was 2.5 per cent. in births and 8 per cent. in deaths, *vide* U. P. Census Report, 1921, Part I. The correct estimate of omissions in registration of deaths will be about 15 per cent.

feature of the decade has been its freedom from epidemics in a serious form and the relatively high general standard of public health. At the opening of the decade the vitality of the population and the proportion of persons, especially females, at the reproductive ages had been materially lowered by the epidemics of previous ten years, especially by influenza. This resulted in a low birth-rate in the decade under review, but the death-rate having been the lowest for at least three decades the net result was a large increase in the population”*. Migration tended to decrease the growth-rate during the decade. Loss to the British territory of the State on the balance of migration was of about 363,000 persons †, while for the whole State the loss was of about 366,000 persons.

The decade
1931—40 :
Agriculture

13. We find a continuation and acceleration of the growth-rate during the decade 1931—40. The growth accelerated considerably to a record mean decennial rate of 12·7 per cent. in 10 years, a rate never attained before in the known demographic history of the State. It is impossible to correlate this rapid growth in population, in any way, with the economic conditions of the decade. The cultivator was in distress, except during the last two years, and his purchasing power was greatly reduced. The whole State was seriously affected by the world-wide depression and especially by the precipitous fall in the prices of agricultural products. Nor was there the compensation of a uniform succession of good harvests. The monsoon of 1931 was feeble and unevenly distributed. The *kharif* crop fell short of expectations. 1932 had no winter rains and so yield of crops was below the normal. Shortage of winter rains and frost and hail caused extensive damage to *rabi* in 1933 and the vagaries of a monsoon which was excessive in some districts and inadequate in others injured *kharif*. Rice crop was 50 per cent. of the normal and the *rabi* was 20 to 25 per cent. below normal. Frost, hail and shortage of winter rains damaged the *rabi* crops in 29 districts in 1934. The *kharif* crop was good except in Jhansi division where it was moderate and in Agra division which had 3/4 of the normal yield. The year 1935 was also not a happy one for agriculture. Frost, hail and untimely rains caused damage to *rabi*. Monsoon was belated, feeble and unevenly distributed and the *kharif* crop also suffered. The *rabi* outturn of 1936 was good, but the heavy monsoon caused floods in many districts and damage to *kharif*. 1937 *rabi* crop was above the average, but monsoon was fitful and unevenly distributed and *kharif* suffered. The 1938 rains were below normal in the west and above it in the east where 4,767 square miles were affected by flood. 1939 had a good *kharif* harvest but *rabi* suffered due to scanty rains or floods in some parts where it could not be sown. In 1940 the winter rains were heavy. Faizabad and Banaras revenue divisions and some districts of Meerut, Agra, Lucknow and Allahabad suffered from drought. Both the crops were below the normal.

Trade and
industries

14. Trade and industries followed much the same course since the depression. Besides, the Indian industries had to face Japanese competition. Japanese products could be put on the Indian market at prices far below the cost of production in India, owing to the depreciation of the yen. Textiles, hosiery, footwear and glass suffered heavily. In foreign trade there was an increasing tendency towards bilateralism and restrictions against imports into Germany and Italy remained in force. But the Ottawa Agreement continued to help the linseed growers and carpet manufacturers and the Indo-Japanese Convention gave some relief to textile industry. Only the sugar industry was free from distress and showed phenomenal growth. The Indian opinion wanted protection and was against Ottawa Agreement and the Indo-Japanese Convention. However, there was a slight recovery in 1935 because of the two agreements. Trade recovery was maintained in 1936. In 1937 the defence preparations all over the world were responsible for increased demand for raw materials and metals. But trade conditions showed signs of deterioration in 1938 due to complete stoppage of textile production in Kanpur for about two months. Labour was unsettled due to fall in price. The War came in 1939 and normal trade conditions were restored. Production expanded under stimulus of higher prices. Foreign markets were closed to Indian products but the increased off-take of the Allied and British Empire countries made up the loss. There was considerable expansion and speeding up of Indian industries in 1940 due to large War orders of Government of India and other governments.

* U. P. Census Report, 1931, Part I, page 61.

† Ibid.

Leather and textiles benefited most. Sugar industry faced a crisis. Large quantity of cane was crushed at high prices and considerable stocks of sugar accumulated. Government saved the situation by giving rebate.

15. The slump had started in 1930 and the years following were of continued and severe depression. Prices touched the 1901 level. There was some recovery in 1932 but that was only seasonal and prices began to fall again in 1933 consequent on a good monsoon. In 1934 the prices were not appreciably above the 1931 level. Prices remained low in 1935 and in the first half of 1936. There was an upward trend in the next half but there was no benefit to the agriculturists as *rabi* crop had already been sold. Prices were steady in 1937 and were at a slightly higher level than in 1936. 1938 was again a lean year for the cultivator except for some relative prosperity of sugarcane growers. After the outbreak of War in 1939 there was a steep rise in foodgrain prices, speculation and profiteering became rampant and prices showed an upward trend.

Prices

16. Condition of agriculture, industry and trade and prices was thus not happy during the decade, except in the last two years. Owing to the slump the burden of indebtedness on the agriculturists increased. Various Debt Acts were enforced in 1935. The immediate effect of these was a great relief to a large body of indebted agriculturists who were faced with insolvency owing to the sudden fall in the monetary value of the securities pledged. But the advantages of the Debt Acts did not fully reach the persons requiring it. Even well-to-do people evaded payment of debts under protection of the Acts. The Congress Government in 1937 stayed proceedings of ejections for arrears of rent and proceedings under the Encumbered Estates Act. Fresh debt legislation was taken and the United Provinces Debt Redemption Act, 1940, U. P. Regulation of Agricultural Credit Act, 1940, and U. P. Encumbered Estates (Amendment) Act, 1940, were enacted. The U. P. Tenancy Act, 1939 was brought in force to help the tenantry. The Consolidation of Holdings Act was also brought into operation. Besides these, ameliorative measures in other directions were also taken. The Rural Development Scheme was enforced in 1935. Its three main links of activities were economic improvement, rural health and sanitation and cultural improvements. Departmental seed stores were distributing improved seeds, implements and fertilizers and stud bulls. The Imperial Council of Agricultural Research assisted researches in sugarcane, cotton, potatoes and other crops. Agricultural Engineering and veterinary services also improved. Above all a number of large schemes of irrigation and hydro-electric power development were completed. 1,475 State tube-wells were working at the end of the year 1940. Bhola, Bahadradab and Sumera power stations were developed, Salwa and Chitaura were brought into commercial operation and the main lines in the Nirgajani power station were installed. Purwa and Hardoi branches and Sarda Canal irrigation project were nearing completion. Sohawal power station and Chandausi steam power station were also completed and many transmission lines were developed during the decade. But in spite of all these development schemes the agriculturist remained in distress for eight long years of the decade and his hopes for a return to more prosperous days seemed to have been postponed indefinitely. And yet the decade ended with an unprecedented growth of population. It is true that the last two years of the decade were prosperous but they alone could not have contributed to the high growth.

Economic condition of the cultivators and ameliorative measures

17. The public health conditions of the decade are reflected in the figures of death shown in Subsidiary Table 1.9. The decade was singularly free from deaths caused by famine or scarcity. Epidemics left 'scars' in some years but their effect was a mild one. The details of health conditions during the decade which are summarised below, will be found in Section 5 of this Chapter:

Public health

- Very healthy years—1933, 1936 and 1937 ;
- Healthy years—1932, 1939 and 1940 ;
- Less healthy years—1934, 1935 and 1938 ;
- Unhealthy year—1931.

The highest recorded death figures are 1,305,508 in 1931 against 1,795,445 in 1921 and 3,856,762 in 1918. The conclusion obviously is that the decade 1931—40 was relatively free from serious epidemic and public health had been exceptionally good. The incidence of the three major epidemic diseases—cholera, plague and small-pox—had fallen and anti-malaria schemes working in rural areas

in collaboration with the Indian Research Fund Association reduced deaths from malaria. Decrease in deaths from these epidemics reduced the mean decennial death-rate (registered) to 21·9 in 1941 from 25·6 in 1931. The birth-rate remained stationary showing a negligible rise of only 0·2. The influence of influenza on the reproductive ages had persisted during the decade. There is also the probability that the slump of the decade had an imperceptible cumulative effect of postponement of marriages. It is not surprising, therefore, if the mean decennial birth-rate (registered) remained stationary or had a slight declining trend.* The marked decline in the death-rate, however, caused the decennial rate of natural increase (recorded) to rise rapidly, reaching the figure of 12·3 against 8·4 of 1921—30.

Variation,
how finally
explained

18. The vital statistics have thus explained practically the whole growth of the decade—12·3 per cent. out of the total 12·7 per cent. (or 12·8 per cent. for the area of registration). The balance must be assigned to migration or failing that to registration error. As explained in detail in Section 4 of this chapter, the State lost during the decade about 42,000 population by migration. In Section 5 it has been explained that there was an error of about 11·6 per cent. in births and 15 per cent. in deaths during the decade and if this correction is applied, the growth by natural increase rises to 12·8 per cent., which with a decrease of 0·1 per cent. by migration, completely explains the variation of the decade.

Variations,
1941—50

19. The rapid growth-rate continued during the decade 1941—50, the percentage variation being 11·8 against 13·6 of the previous decade. Table 27 above shows the mean decennial growth of 11·16 per cent. during this period, while the mean decennial growth according to Subsidiary Table 1·3 for the area of registration in the State has been 11·2 per cent. compared with 12·8 in the decade 1931—40. The growth of population has relatively slackened showing a slightly lower increase but it has been high enough to increase the absolute figure by 6,683,894 in ten years.

Conditions of
the decade
(a) General

20. A brief description of the conditions of the decade is necessary in order to appreciate the background in which the growth of population took place. By the close of the year 1941 people were alarmed by threat of War to India while the arrival of refugees in the eastern districts of the State had begun to cause some uneasiness. With the bombing of Chittagong, Calcutta and other small places on India's eastern borders, the threat of Japanese air-raids increased. Reverses followed in quick succession: the rapid march of the Japanese into Malaya, the major Allied disaster in Singapore in February, 1942, the fall of Rangoon in March, the burning of Mandalay and the eventual withdrawal of the Allies from Burma. Indian Government had prohibited emigration to Malaya in 1938. At the end of the last decade Indian emigrants were returning with their families. The imminent danger of Japanese invasion gave a new impetus to Indian home immigration in 1941. Antagonism to Indian labour existed in Burma. Thousands of Indians traversed the mountain passes on foot in 1942 to regain their home country and a large number of them were evacuated by plane. In July, 1941, an agreement had been arrived at between the Governments of India and Burma regulating and restricting the admission of Indians to Burma. But the Japanese political control of Burma hastened the return of Indians to their homeland. Uttar Pradesh had its own share of the evacuees. After the first half of the decade most of those who had returned to their homes from Bengal and Assam again emigrated to these States, but very few of the evacuees or new emigrants entered Burma or Malaya thereafter.

21. The decade is notable for the "Quit India" movement launched by the Indian National Congress against British administration, and the achievement of Independence on August 15, 1947. A mass movement started after the news of the arrest of Mahatma Gandhi and other Congress leaders following the ratification by the All India Congress Committee of the working committee

*The estimated percentage registration error worked out for the decade 1931—40 is 11 in births and 15 in deaths against 15 in births and 23 in deaths for the decade 1921—30. After correction the mean decennial rates of births and deaths will be as under :

Decade	Births	Deaths
1921—30	39·9	32·7
1931—40	38·8	25·8

The corrected rate of natural increase during 1931—40 is 12·8 against the recorded rate of natural increase of 12·3 (Subsidiary Table 1·3).

resolution on the political situation on August 8, 1942. The trouble started on August 9 with dramatic swiftness and the administration was paralysed for weeks. The most seriously affected area was the eastern part of the State, particularly the districts of Ballia, Ghazipur, Azamgarh, Banaras, Jaunpur, Allahabad and Gorakhpur. In the west of the State Agra had serious disturbances. The British administration retaliated with its full might; arrested thousands of persons, and collected over 25 lakhs as collective fines. The enraged people destroyed a number of rural police stations with their records and one tehsil, besides post offices and railway stations. Events moved in quick succession thereafter. The announcement of the Cabinet Mission's visit to India heightened the demand for British withdrawal and for permanent settlement of the Independence issue. The proposal of the Cabinet Mission and their qualified acceptance by the Congress and the Muslim League relieved the situation partly. The composition of the Interim Government in which the League also subsequently joined nonetheless kept alive the communal controversy which had earlier received a fillip from the League's "Direct Action" resolution and its aftermath—in Calcutta and Noakhali. There was a serious communal riot in Uttar Pradesh in Aligarh just on the eve of transfer of administration to the Congress Ministry. Etah, Saharanpur, Pilibhit, Bareilly, Allahabad, Bulandshahr and Meerut followed suit. These riots claimed a fairly heavy toll of life. Independence came on August 15, 1947. The change-over to Independence did not, however, turn out to be peaceful and the creation on a communal basis of two sovereign States in one country proved a highly disturbing factor. Widespread rioting followed. Vast masses of humanity, especially in the Punjab and the North West Frontier Province, were uprooted from their hearths and homes. The influx of non-Muslims from Pakistan to India took place on a scale never before witnessed in history. Communal rancour led to shedding of much innocent blood. The result was the arrival of 480 thousand displaced persons into Uttar Pradesh. A number of Muslims also migrated from the State but their number could not be correctly ascertained yet. This unprecedented movement has made the study of growth of population, during the last decade, unusually complicated. Absence of statistics of age, sex and occupation of the Muslim migrants from the State has added to the difficulties.

22. The condition of weather and crop during the decade is as summarised below :

1941—The *rabi* crops of 1941 were excellent except for the damage caused by hail and fire in some districts. But *kharif* crops were considerably affected by drought. Rain in the first half of June was considerable but the third week was dry and the fourth had scanty and ill-distributed rain. July was practically dry. Rains in August were generally adequate and rainfall continued till the third week of September. Except for light showers in some districts in the first three weeks of October and the second week of December, the last quarter of the year was rainless. Locusts also visited some villages in all the districts of Meerut revenue division and in some districts of Agra and Rohilkhand.

1942—There was widespread rain over the whole State from the fourth week of June up to the end of September. October and November were practically rainless but the rainfall in December improved the prospects of *rabi* crops. Area under *rabi* was reduced owing to insufficient rains during 1941. But owing partly to the favourable season for sowing and partly to the "Grow-More-Food" campaign the area under *kharif* crops increased by 1,933,984 acres or 8.6 per cent.

1943—Rainfall during June and July, 1943, was considerably below normal but good rains in the first fortnight of August removed all fears of a failure of the monsoon. During August and September it was considerably above normal and caused some flooding though damage to crops was not serious. The total rainfall from June to October was in excess of the normal in all the revenue divisions except Jhansi and Gorakhpur. In October there was a little rain only in the western districts and the months of November and December were practically rainless. The outturn of almost all the principal *rabi* crops in 1943 was good in spite of some injury by strong wind at the time of ripening and by rain and hail after harvesting. The *rabi* area was 20,511,257 acres as against 20,097,371 acres in 1942. Owing to unfavourable weather in a number of districts at the time of *kharif* sowings the area under *bajra*, *juar* and *til* fell to some

(b) Agricultural:
(i) Weather and crops

extent, but with favourable rains in August that under rice rose by 4·2 per cent. and that under sugarcane and cotton rose by 15·7 per cent. and 12·7 per cent. respectively, owing to the rise in prices of *gur* and cotton. The *kharif* crop of 1943 was a good one though the area declined from 24,399,133 in 1942 to 24,240,021 acres.

1944—The unseasonable heavy rain and hail in the second week of March and early April caused considerable damage to standing crops; which was, on the whole, localized in a broad belt in the centre of the State. Rain was scanty and unevenly distributed up to middle of August. Thereafter rainfall was heavier and more widespread. The total rainfall was below normal. November and December were practically rainless. The *rabi* area increased from 20,511,257 acres in 1943 to 20,931,418 acres, but owing to scanty rains in July the *kharif* area decreased from 24,240,021 acres to 24,169,884 acres in 1944.

1945—The monsoon was erratic and less active than usual during June and July and the sowing of the *kharif* crops was delayed. During August and up to third week of September rainfall was liberal and widespread. In October rainfall was copious throughout the State. The total rainfall approximated to normal. The *rabi* area increased slightly from 20,931,418 acres in 1944 to 20,959,508 acres. The *kharif* area also increased from 24,169,884 acres in 1944 to 24,172,582 acres in 1945.

1946—The weather remained dry till the middle of February, when light and well distributed rainfall occurred. The monsoon arrived early in July but betrayed an erratic tendency at first. Thereafter it was more active than usual and withdrew about the middle of September to reappear in October. Rainfall in July was in excess of normal almost in the whole State resulting in floods in certain low-lying tracts. It was deficient in August and September in majority of districts and this adversely affected the *kharif* crop. October rain damaged harvested *kharif*. Red-rot disease of sugarcane appeared in some parts of the north-eastern districts. Winter rains were inadequate and *rabi* was adversely affected.

1947—The monsoon during the year was somewhat of an erratic character. Rainfall during June and August was below the normal and during July and September in excess of the normal in many of the districts. The *kharif* area increased from 23,717,834 acres in 1946 to 24,218,046 acres, representing an increase of 2·1 per cent. Owing partly to the unfavourable sowing season and partly to the fact that tracts of land were left fallow for sowing sugarcane on account of the high price obtainable for it, the total *rabi* area fell from 21,663,070 acres to 21,512,310 acres representing a fall of 0·7 per cent. from the preceding year's average. Strong winds and hail-storm during ripening period caused some damage to the *rabi* crop but it was fairly good on the whole. The area under hot weather crops fell by 10 per cent.

1948—Heavy rains and unprecedented floods in August-September constituted the most outstanding feature of the year. There was excess of winter rains before March in Agra, Jhansi, Allahabad and Lucknow revenue divisions. There was liberal and widespread rainfall in July. In August there were continuous and heavy downpours and in September also in excess of normal. The result was an overflowing of nearly all the rivers in the State and damage to *kharif* in a large number of districts. Inadequate winter rains between October and December adversely affected the standing *rabi* crop, but on the whole the crop was fairly good. The total *rabi* area decreased by 245,993 acres or 1·1 per cent. on account of unfavourable sowing season in some tracts and a further increase in the area under sugarcane. The area under *zaid* crops increased by 3·5 per cent. Due to unfavourable monsoon conditions, the *kharif* area declined from 24,218,046 acres in the previous year to 23,479,819 acres in 1948.

1949—The monsoon broke out with light showers in the fourth week of June and became unusually active during the month of August. During September and October the rainfall was in excess of the normal in the majority of districts but in November and December favourable weather prevailed throughout. The favourable weather of October and November, 1948, helped the *rabi* sowings and brought about an increase in the *rabi* area from 21,266,317 acres to 23,065,692 acres. There was an increase in the *kharif* area from 23,479,819 acres to 24,380,100 acres. Both the area and outturn

of rice and gram increased while those of sugarcane, *juar*, *bajra* and maize decreased. The area under wheat and barley increased but the outturn under both registered a decrease. The area under cotton and its outturn declined.

1950—Rainfall was above normal in a majority of districts during January, but the cold wave in February followed by hail and frost caused damage to the standing crops. The monsoon of 1950 broke out late in the fourth week of June throughout the State. It remained active for the most part of July and August. The rains were heavy and incessant, especially in the eastern districts, resulting in heavy floods. Except for the last week of October when there was heavy rainfall the months from September to December were exceptionally dry in some of the eastern districts and this resulted in drought. The floods in July and August caused widespread damage to *kharif* crops in certain areas of 15 districts. The late paddy crop was spoiled for want of water. The total area under *kharif* rose from 24,380,100 acres in the previous year to 25,339,916 acres mainly as a result of the integration of states and partly because of favourable season at the time of *kharif* sowing. Heavy rains and then dry weather had proved harmful to *rabi* sowing. As a result, the *rabi* area fell from 23,065,692 acres in 1949 to 22,938,475 acres in 1950. But for the integration of states and merger of enclaves, the decrease would have been still larger. The total cultivated area showed an increase of 1,325,569 acres or 3.6 per cent.

23. This was the third consecutive decade free from famine or serious scarcity conditions. Moreover, improvement in communications, control of supplies and foreign markets, now-a-days prevent anything like famine mortality of before. However, there were occasional floods and droughts and the table below shows the remissions in revenue and relief, exclusive of *tagavi*, granted by the government from time to time. Scarcity had to be declared in pargana Singrauli of Mirzapur district in 1942 and test works were opened. A sum of Rs.1.92 lakhs was also allotted for test works in Agra,

(ii) Famine and scarcity, relief and remissions

TABLE 29—Revenue remissions and relief granted by government during 1941—50

Year	Revenue remissions in rupees			Gratuitous relief
	Total	Rabi	Kharif	
Total	8,202,669	4,778,807	3,423,862	1,466,250
1941	523,000	66,777	456,223	11,929
1942	2,439,276	2,165,722	273,554	54,882
1943	96,536	15,305	81,231	40,100
1944	710,772	599,903	110,869	62,977
1945	67,636	..	67,636	6,527
1946	387,412	136,960	250,452	180,580
1947	809,100	202,579	606,521	272,150
1948	771,232	72,350	698,882	564,787
1949	445,027	180,597	264,430	125,905
1950	1,952,678	1,338,614	614,064	146,413

Mainpuri and Aligarh districts. The gratuitous relief in the year 1943 also includes a sum of Rs.30,000 sanctioned for the completion of certain famine relief works in Agra and Aligarh districts. A further sum of Rs.35,885 (included in the sum shown in the table) was allotted for relief works in these two districts in 1944. A large sum had to be spent as gratuitous relief in the year 1948 due to unprecedented rains and floods. The decade closed with scarcity conditions in parts of Gonda, Basti and Bahraich in 1950. Test works were opened in all the three districts but labour was attracted only in Gonda, and those of Bahraich and Basti were closed,

(iii) Irrigation

24. The area under irrigation has been changing with the vagaries of the weather and availability of water. Several improvements to existing channels were made in the Upper and Lower Ganga Canals, the Sardar Canal and in Bundelkhand in 1941. The total number of State tube-wells completed at the end of the year 1941 was 1,622. The efforts for improvements to existing channels and the construction of new minors to help the State to grow more food were continued in later years of the decade. Some schemes were held in abeyance until after the War. Later on a large number of surveys were conducted and new constructions were started. By the end of the year 1950, 27,865 miles of irrigation channels, comprising 9 major and 22 minor canal systems with their river control works, were in operation. 2,214 tube-wells, which irrigated a total area of 898,353 acres, were also in operation at the end of the period under review.

(iv) Agricultural stock

25. The marginal table shows live-stock mortality from contagious diseases in the State during the decade. Bad years from point of view of seizures were 1941, 1945, 1946 and 1949, but the mortality figures were highest in 1945 and 1948. On the whole the condition of agricultural stock was good during the decade. The number of veterinary hospitals in the State rose from 197 in 1941 to 225 in 1950 and that of Veterinary Assistant Surgeons from 196 in 1941 to 263 in 1950. 896,260 cattle were treated at the veterinary hospitals against 633,513 in 1941. Arrangements for prophylactic treatment had been improving in the State. Steps to improve cattle-breeding were also

TABLE 30—Live-stock mortality in the State*

Year	Seizures	Deaths	Mortality
1941 ..	111,150	15,772	14.2
1942 ..	60,581	14,600	24.1
1943 ..	63,244	11,442	18.1
1944 ..	45,534	11,574	25.4
1945 ..	104,615	31,890	30.5
1946 ..	141,982	24,135	17.0
1947 ..	83,907	13,023	15.5
1948 ..	86,900	31,252	36.0
1949 ..	215,213	11,209	5.2
1950 ..	50,883	11,248	22.1

in progress and the total number of bulls and buffalo-bulls at stud at the close of the decade was 4,980 and 1,054 respectively.

(v) Agricultural development

26. The expansion of agriculture and the cropping system and its correlation with the growth of population will be discussed in a later chapter. But it may be noted here that from the very beginning of the decade shortage of essential commodities, including food, became a main pre-occupation. To the man in the street the supply question dominated even the War news. Intensive propaganda was carried on and various concessions given to encourage increased production of food crops and for bringing under cultivation cultivable waste and old fallow and the cultivators took advantage of the subsidies and *taqavis*. The seed stores of the Agriculture Department continued to be the centres of development and demonstration of the results of research. Improved seeds, implements and manures were distributed liberally. 1,034,974 maunds of improved seeds were distributed in the year 1941. This figure increased to 1,457,989 in 1946 and to 1,745,000 maunds in 1950. The department distributed 23,164 maunds of cakes and fertilizers in 1941, while in 1946 a total of about 230,699 maunds of castor, ground-nut and neem-cakes were distributed to the cultivators for manuring the food crops, freight and incidental charges being borne by the government and treated as subsidy. About 291,972 maunds of ammonium sulphate, 8,538 maunds of ammonium phosphate and 4,840 maunds of triple super phosphate were also distributed in 1946. *Sanai* seeds to the extent of 13,598 maunds were issued at cost price for green manuring of food crops. To supplement these manures, the department persuaded individual cultivators to undertake the preparation of compost and the preservation of cattle urine earth on an extensive scale. Under the Emergency Food Scheme, moreover, a total quantity of 102,626 maunds of seed of *zaid* and other crops were distributed in the summer of 1946 and a subsidy of Rs.25 per well was sanctioned for digging of *kachcha* wells where no irrigation facilities existed. The subsidies and distribution of seeds and manures continued and at the close of the decade in 1950, besides seeds, 79,290 maunds of oil-cakes, 340,534 maunds of artificial fertilizers, 19,276 maunds of *sanai* for green manuring and 38,387,000 maunds of compost were distributed to the cultivators for growing more food. The department also continued to distribute improved ploughs, chaff-cutters, olpad thrashers, hand hoes, cultivators, sugarcane mills and water-lifting appliances.

*Department of Economics and Statistics, Uttar Pradesh, *Monthly Bulletin of Statistics*, July, 1952.

A Paddy Extension Scheme was started in 1942 with the object of replacing inferior paddy by superior varieties in Faizabad, Mirzapur and Pratapgarh. The cane societies distributed their own seeds and manures and made successful efforts to increase acreage under improved cane. Reclamation and conservation of considerable tracts of 'problem soils' in the State had been a matter of great concern for the State Government and they, accordingly, sanctioned a scheme in October, 1949, under which the reclamation of 8,000 acres of *usar* land and 2,000 acres of eroded land was taken up. Work under the Ganga Khadir (Meerut), Naini Tal Tarai, Kashipur (Naini Tal), Dunagiri (Almora), Bharsar (Garhwal) and Manunagar (Rampur) Colonization Schemes and *kans* eradication work and reclamation made progress during the decade. In order to induce cultivators to take more interest in increasing the yield, crop competitions were organized and rewards were distributed. Horticultural Development, Jute Development, Cotton Development, Lac Cultivation and Plant Protection Schemes were also in operation. Agricultural research financed jointly by the State Government and the Indian Council of Agricultural Research, the Indian Central Sugarcane Committee and the Indian Central Cotton Committee, continued in the State. Field extension and demonstration and publicity brought these researches to the cultivators. Agricultural engineering helped in the reclamation of land, drainage improvements, and contour *bundhis* in Bundelkhand.

The co-operative movement also made headway in the State. The marginal table gives the number of agricultural primary societies in Uttar Pradesh at the end of 1950-51. The number of all types of societies at the end of the year 1950 was 38,375. The co-operatives functioned not merely as credit institutions but dealt with all important aspects of the economic life of their members. Credit was linked with production and commercial business. Distribution of seeds, manures and implements and distribution of essential commodities were the main activities of the co-operatives, besides credit. Co-operative farming societies functioned in Jhansi,

TABLE 31—Agricultural primary societies in the State, 1950-51*

Natural division	Number of societies	Number of members
Uttar Pradesh ..	31,275	958,630
Himalayan ..	1,802	58,685
East Plain ..	8,134	272,824
Central Plain ..	7,186	186,120
West Plain ..	11,615	369,633
Hills and Plateau ..	2,538	71,368

Basti and Kheri. Work under the Co-ordinated Development Plan for the rural areas initiated in 1947, which envisaged the selection of development blocks, each consisting of 12 to 20 villages within a radius of 2 to 3 miles round about an agricultural seed store, and the organization of a multi-purpose co-operative society in each village of the block, a development block union in each block and a district co-operative development federation for co-ordinating the activities of the block unions in each district, was carried forward. The activities of the Rural Development Department were carried on through the amalgamated staff of the Rural Development and Co-operative Departments. Development Associations interested themselves in the improvement and construction of culverts and drains in villages in the development blocks and in some districts in the improvement of feeder roads also.

A reorganization of the planning and development set up, both at the headquarters of government and in the districts, was undertaken during 1950. The step followed the establishment of a National Planning Commission at the centre, and was in keeping with the experience gained since the constitution of the Provincial Development Board and the District Development Associations in 1947 as well as the organization of gaon sabhas and expansion of co-operatives. A State Planning Board and a State Planning Committee were set up. At the district level, District Planning Committees were formed with the District Officer as *ex officio* Chairman and the District Planning Officer as the Secretary. The district boards, gaon sabhas, co-operatives, local bodies and government departments are represented in district committee. A pilot development project continued to be worked, in 1950, in some selected villages of Etawah district. The scheme included introduction of improved agriculture and animal husbandry practices and a plan of public health and social education. Encouraged by the success achieved in connection with the Etawah

*Department of Economics and Statistics, Uttar Pradesh, *Monthly Bulletin of Statistics*, August, 1952.

Project, the State Government decided to extend the experiment to Gorakhpur and Deoria districts in May, 1950.*

(c) Prices, price control and rationing

27. Supply conditions in the State gave cause for concern. The villager was happy for the high prices that his produce fetched, but for others it was a problem to get the food supplies. The problem of obtaining clothes, fuel and kerosene and other necessities engrossed everyone's attention. Prices shot up and wheat which was selling at about 14 seers a rupee in 1930-31, was sold at under 3 seers in most towns in May, 1943, and at 2½ seers in June in some places. Prices had a rising trend even after 1943. Figure 4 shows the movement of prices of cereals and non-cereals and agricultural wholesale prices and non-agricultural retail prices during 1940 and 1950. The rise in the price of cereals was more spectacular.

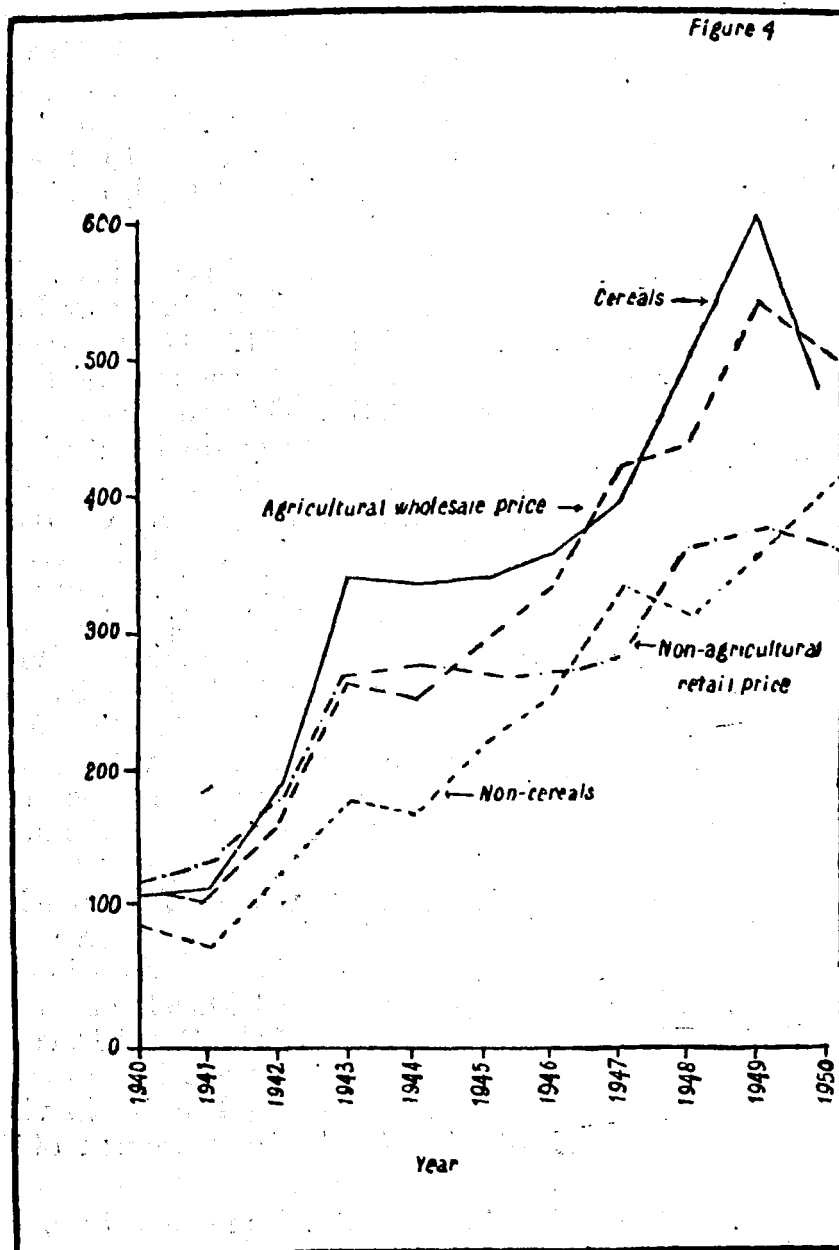


FIG. 4—Movement of prices, 1940—50

At the beginning of the decade various control orders were instrumental in reducing prices but they also had the effect of driving supplies underground and the problem of obtaining supplies at controlled prices became more acute. With the enforcement of the government procurement and provisioning scheme by the autumn months of 1943 and owing to reports of wheat being imported from abroad, the grain situation became slightly easier and even the prices fell. Shortage of wheat in the market was partly due to hoarding, but a good deal of the grain, undoubtedly, was now consumed by the producer himself owing to increased prosperity. The cultivator met his needs by disposing of only a small quantity of grain in the market (which brought him sufficient

* The pilot project scheme has now been extended to other selected parts of the country.

money) and consuming or hoarding the rest.* This, besides other factors, made the deficit of foodgrains real. Government's control policy kept the prices stabilized in 1944. There was a slight rise in 1945 and prices of cereals were steadily rising till 1947. The supply position in 1946 was not a happy one. Compulsory direct procurement of *rabi* grains had to be introduced and collections were made from 35 districts. Voluntary procurement worked for *kharif* crops. The State imported 159,596 tons of grain in 1946, while there were no exports of cereals. Total and partial rationing continued and was introduced in more towns and Austerity Provisioning Scheme was also introduced in towns where the need was felt and in the flood-affected and other scarcity areas in the rural part of the State. To combat the scarcity in hill districts, a provisioning scheme was introduced in April, 1946. Cloth and kerosene were also rationed and prices and sale of iron and steel and other essential commodities were controlled.

Supply conditions continued to be gloomy in 1947 and *rabi* grain was again procured through direct procurement while *kharif* procurement continued to be voluntary. The State had to move about 69,000 tons of foodgrains on loan to other States at the request of the Government of India. The loan was repaid by the Government of India in the shape of overseas imports at the end of the year and 275,797 tons of grains were imported. With a small help from the Government of India, it was not possible to maintain rationing at the prevailing scale. Government of India's gradual decontrol policy was adopted and 38 towns with a population below one lakh each were derationed from January 1, 1948. A good *rabi* crop was in sight and there was no speculation in trade. The cumulative effect was encouraging and prices started going down, but the basic over-all shortage reasserted itself and the prices soon assumed an upward trend. There was a steep rise in prices which continued till 1949. The Conference of the Premiers and Food Ministers of India decided in July, 1948, to revert to the policy of controls as an anti-inflationary measure with a view to relieving the distress of the poorer classes of non-producers. The system of Relief Quota shops came into existence. Control on cloth was also re-imposed. A scheme of direct compulsory procurement of *rabi* foodgrains was launched in 1949 and in the case of the *kharif* grains on the other hand, a system of monopoly procurement was followed. The Foodgrains Rationing Order, 1949, was promulgated and open markets in rationed foodgrains in rationed towns were closed. In some towns the Relief Quota shop system continued. Food position improved in 1950. The policy in controlled economy with maximum procurement and total rationing in towns having a large concentration of population, which had been adopted in the preceding year, had generally stabilized and brought down the price level of foodgrains in the rural areas, and in most parts of the State free market prices had practically come down to the level of government procurement prices. The system of compulsory procurement was replaced by a system of government monopoly purchases. But unfortunately all calculations were upset by a variety of factors. The decontrol of grain by the Government of India in August, 1950, was followed by heavy exports of grain from the State. Untimely heavy rains damaged the standing maize and millet crops and also early paddy. Floods in the eastern districts were closely followed by drought which adversely affected the standing *kharif* crop and late paddy and also marred the prospects of good *rabi*. The total loss on account of floods and drought was estimated at about 155,000 tons, approximately 50 per cent. of the State's estimated production of rice and millets including increase in production due to Grow-More-Food schemes. The food position of the State thus suffered a serious set-back and a considerable increase took place in government commitments. Food had to be rushed to the eastern districts and Austerity Provisioning Scheme worked in 11 districts. The State government was left with no option but to reduce the over-all daily ration limit from 6 to 5 *chhataks*. The Government of India could not give much help and the food situation in the State was still far from satisfactory when the year closed.

*An enquiry conducted by the Department of Economics and Statistics, Uttar Pradesh, in 1948-49 showed that of the cereals produced, about 9.5 per cent. is used by the cultivator towards harvest expenses or towards payment to those having claim on the produce by tradition or otherwise; only 6.5 per cent. is sold; and the remaining 84.0 per cent. is retained by the cultivator for his own consumption or for seed requirements (*vide Monthly Bulletin for January, 1951*).

(d) Industries

28. War had given an impetus to industries and industrial production. Table 32 shows the growth of factories and factory employment during the decade. The number of factories that worked during the year 1930 was only 376 with 92,161 average daily number of workers employed. The number increased to 546 with 159,738 average daily number of workers employed in 1939, the first year of the War. In 1940 the number of factories was 654 and that of workers 180,634. It will be seen from the table that the number of factories has been consistently increasing except in the year 1947 when there was a nominal decrease. The number, in 1950, shows an increase of 121 per cent. over 1940 and of 285 per cent. over 1930. The figure of factory employment was at its peak in 1944. Thereafter the number has been declining except for a slight rise in 1948. The number of workers in 1950 shows an increase of 29 per cent. over that of 1940 and of 152 per cent. over that of 1930.

TABLE 32—Number of working factories in the State and average daily number of workers employed

Year	Number of working factories	Average daily number of workers employed
1941	811	224,316
1942	840	232,524
1943	856	254,839
1944	943	278,238
1945	969	276,468
1946	971	257,140
1947	967	240,396
1948	1,040	242,083
1949	1,349	233,837
1950	1,447	232,695

The table also shows that while the number of factory workers declined after 1944 the number of factories continued to rise. The main reason for the reduction of labourers was the reduction of work in factories connected with the manufacture of war materials and consequent retrenchment on a large scale. The partition of the country in 1947, shortage of raw materials in some cases, lack of adequate transport facilities and a trade depression also adversely affected the major large scale industries of this State, viz., the textile, jute, oil, leather tanning and glass.

Table 33 gives the number of women workers engaged in the large scale industrial establishments of this State. It shows that the employment of women workers has been constantly declining. The possible reasons are : (i) the increased demand for labour during War and post-War period was wholly met by the surplus rural population, but only men came forward from villages, women being rather shy ; (ii) the pressure of population in industrial centres and the lack of housing accommodation also discourage women from coming to industrial areas ; (iii) women can more profitably keep themselves employed on agriculture in villages which has now become more paying; and (iv) the maternity benefit regulations imposed on

TABLE 33—Average daily number of women workers in the factories of the State

Year	Total number of women workers	Percentage to the total number of workers
1941	4,950	2.2
1942	4,700	2.0
1943	4,454	1.7
1944	4,667	1.7
1945	4,149	1.7
1946	3,164	1.2
1947	2,689	1.1
1948	2,689	1.1
1949	2,394	1.0
1950	2,397	1.0

the employers have acted as a deterrent on the employment of women in factories.*

(e) Trade

29. Trade also received an impetus from the War. According to an estimate made by the Department of Economics and Statistics, Uttar Pradesh, goods weighing 378 lakhs maunds and about 3 lakhs animals were exported from the State in 1948-49, while the imports were 12.32 lakhs maunds of goods and 0.7 lakhs animals.

* Report on the Activities of the Government of Uttar Pradesh for the Amelioration of the Working and Living Conditions of Labour, 1949 (Superintendent, Printing and Stationery, Uttar Pradesh, Allahabad).

Table 34 shows the comparative general weighted index of net exports from the State, if the year 1948-49 is used as the base year. Net imports have been indicated by placing a negative sign (—) before the figure. Uttar Pradesh had been exporting foodgrains, animals, oilseeds, oils and oil-cakes, sugar and *gur* and glass in large quantities. During the middle of the decade the situation changed greatly and the State became a deficit area in grains and there was a consequent fall in exports of the grain.

Year	General weighted index of net exports
1944-45	+365
1945-46	+216
1946-47	+23
1947-48	—5
1948-49	+100
1949-50	+21

30. It has been shown above that the average daily number of workers employed in factories had been increasing from 1939 up to 1944 and even after that the number stood very high as compared with that in 1930. During the war years civil and technical recruitments were made in large numbers and the recruits like the labourers came from the villages. By the end of September, 1942, the State had provided over 1½ lakhs of combatants and non-combatants excluding technical recruits. A total of 28,718 technicians was also supplied by the State to the defence services and ordnance factories up to the end of October, 1942. Figures of general recruitment showed a fall in 1943. This was natural in the fourth year of the War; besides, high prices of agricultural produce and consequent prosperity in the country-side resulting in payment of high wages acted as deterrents. However, the number of technical recruits rose to 34,165 in June, 1943. Arrangements for the supply of unsettled labour for defence works outside the State were made at Gorakhpur. By the end of 1943 a fully organized Labour Depot had grown up and some 15,000 men were supplied for work on communications in the Eastern Area, 10,000 for work under the Defence Department, and 4,000 for colliery work. At the close of the year 1943 the number was rapidly increasing. Recruitment to the army during 1944 was satisfactory and that of unsettled labour for defence work was excellent. By the end of 1944 the number of technical recruits enrolled had increased to 46,223. In all 112,498 unskilled labourers were supplied during the year through the Central Labour Depot at Gorakhpur and its 10 sub-depots in different districts for work within and outside the State. The total number of technical recruits had risen to 50,512 by November, 1945. The largest number of civil recruits came from Almora, Meerut, Garhwal, Gorakhpur, Bulandshahr and Sultanpur districts. With the reduction in the demand during the last stages of the War there were decreases in the number supplied. Some 81,285 unsettled labourers were supplied both inside and outside the State by the Central Labour Supply Depot at Gorakhpur and its 14 sub-depots during 1945. All the sub-depots were closed down towards the end of October as a result of the end of the War. The Gorakhpur Labour Supply Depot continued to supply men for the coal-fields and also for the projects of the Public Works Department of the State. It was transferred late in 1947 to the control of the Directorate of Resettlement and Employment, Uttar Pradesh. The Regional Employment Exchange in Kanpur and the sub-regional exchanges continued to function during the later years of the decade.

(f) Labour

Table 35 shows the number of persons registered and placed in employment by the Employment Exchanges. Efforts were also made to absorb the demobilized personnel in the factories and to settle them under the colonization schemes. During the post-War period the technical and aided institutions have

TABLE 35—Registration and placing work done by the Employment Exchanges in the State†

Year	Number of candidates registered	Number of candidates placed
1945	5,492	1,283
1946	78,121	19,383
1947	126,924	45,445
1948	174,829	61,563
1949	302,210	103,441
1950	321,123	143,188

been giving training to them for making them skilled labourers. Various welfare schemes have been taken up during the decade to better the living and working conditions of the labourers in the factories and at shops and commercial establishments. At the end of the decade, the number of trade unions registered under the Indian Trade Union Act was 553, and the number of labour welfare centres was

*Department of Economics and Statistics, Uttar Pradesh, *Monthly Bulletin of Statistics*, July, 1952,

†*Ibid*, August, 1952,

33. Conciliation Boards and Industrial Courts had been working to settle disputes or decide the cases referred to them. But in spite of better conditions and higher wages that the industrial labour was getting, the movement of labour to the industrial areas slackened in the later years of the decade. Agricultural labour too was getting high wages because of the high prices and was not anxious to move. The economic conditions in trade and industry in 1947 and 1948 were marked by declining production. There were stagnation and trade depression resulting from inadequate supply of raw materials at reasonable prices, financial difficulties and restrictions on trade with Pakistan, besides other difficulties. The cumulative effect was less demand for labour.

It may be noted that the movement of labour during the War and post-War period from the villages to the army or industrial centres has its bearing on the growth of population. It has been shown above that employment of female labour in the factories has been declining. Employment of juvenile labour also declined to 281 in 1950 from 863 in 1930 and 886 in 1940, partly as a result of the enforcement of the provisions of law relating to child labour, and partly to incorrect returns submitted in respect of this class of labour.* Male adult industrial workers have been increasing in the industrial centres and the civil recruits, technical recruits and the labour supplied by the Labour Supply Depots and Employment Exchanges have also been male adults. This movement of people of the reproductive age-groups tends to reduce the birth figures in the rural areas.

Summary

31. To sum up, the decade 1941—50 was a prosperous one. Prices were high, both agricultural and non-agricultural. Wages too were high. The prosperity of the tenantry is reflected in the prompt payment of rent and the consequent reduction in the suits for arrears of rent. It is also reflected in the use made of the provisions in the Agriculturists Relief Acts and the Debt Redemption Act. The businessmen and industrialists also shared in the prosperity, which continued throughout the decade. The only fly in the ointment was the condition of the middle classes. The rise in their income has not kept pace with the rise in prices. They are suffering great hardships and have had to lower their already low standards of living.

Economic prosperity and growth of population

32. The population growth is determined by the natural increase on the one hand and the balance of migration on the other. It is difficult to say that the economic prosperity prevailing in the decade had any direct effect on either. The births during the decade show a decline but, as will be examined in a later section, this decline can not be ascribed to any change of fertility or adoption of birth-control methods arising out of improved standards of living. Likewise the decline in the death-rate was due to control over epidemics and improvement in medical facilities rather than to better nutrition. As for migration, there was undoubtedly an appreciable movement of labour from the rural to the urban areas in the first half of the decade as a result of War activities but this slackened in the later half owing to high agricultural prices and wages prevailing in the rural areas. Some labourers from outside the State also immigrated during the War boom. Other movements of the people into or from the State were occasioned by political reasons and had nothing to do with economic prosperity. On the whole, therefore, economic factors played a very insignificant part in the growth of the population of the State during the decade.

Public health

33. The year 1941 was a normal one. Plague caused 1,069 deaths and deaths from cholera were 25,499. Malaria in epidemic form was reported from 10 districts. Public health conditions continued to be satisfactory in 1942. Plague was particularly mild, only 10 districts reporting small outbreaks. Cholera was wide-spread but localized and was quickly controlled. The incidence of small-pox was very low. The year 1943 was also a satisfactory one. Only 11 districts were infected with plague and the incidence was low. Cholera was more wide-spread in the central parts of the State but its spread was effectively checked. The incidence of small-pox was very low. Localized outbreaks of malaria in an epidemic form were reported from 28 districts. The cumulative effect of all this was a slight increase in the figures of deaths as compared with the previous year. Health conditions were slightly better in 1944. There was a slight increase in the number of deaths from cholera and small-pox in 1945, but health of the State was on the whole satis-

* Report on the Activities of the Government of Uttar Pradesh for the Amelioration of the Working and Living Conditions of Labour, 1949, (Superintendent, Printing and Stationery, Uttar Pradesh, Allahabad).

factory. There was less plague and malaria and there was no evidence of any definite malnutrition or deficiency disease nor was there any increase in infantile mortality. The general death-rate as also the infant mortality rate declined during 1946. The general death-rate was 15.7 per mille of the population as against 18.9 in the preceding year and 18.9 per mille for the average of the quinquennium 1941—45. A similar fall was also noticeable in the infant mortality rate which decreased to 110.5 from 123.2 in the preceding year. Cholera caused a good deal of anxiety though the number of deaths during 1946 was far less than that in 1945. The low figure was attributable to the large scale drive against the epidemics. Plague accounted for a larger number of deaths than in the previous year and the epidemic assumed a particularly severe form in Bundelkhand. Small-pox made its appearance in a rather subdued form. The eastern districts continued to be prey to *kala azar*. Deaths from fever and plague increased slightly in 1947 as compared with the previous year. Malaria in an epidemic form was reported from 8 districts and sporadic outbreaks of the disease from a number of others. *Kala azar* was on the increase in the eastern districts. Cholera returned a lower incidence and small-pox had more or less the same incidence as in the previous year. But on the whole public health was relatively better as compared to the first five years of the decade. The last three years of the decade registered a lower incidence from fever and plague than in the year 1947, though the incidence from cholera increased in 1948 and then registered a steep fall in 1949 and 1950. The incidence of small-pox also increased in 1948, had a fall in 1949 and then again a rise in 1950. Subsidiary Table 1.13 of Part I-B of this Report gives the figures of registered deaths from selected causes per mille of population for the decade 1941—50. A very marked fall will be found in the deaths from fever during the later five years of the decade as compared to the first half of it. The decline in the deaths from fever has brought about a fall in the actual number of deaths as shown by Subsidiary Table 1.9 in the same part of the Report, and in the general death-rate. Decline of deaths from fever may be attributed to the District Health Service and the anti-malaria schemes. Some other details on this subject are given in Section 5 of this chapter.

Subsidiary Table 1.9, mentioned above, shows the number of births and deaths recorded in each year of the last three decades. The first point noticeable is the decrease in the number of deaths during 1941—50 compared with the previous decade by 1,664,555 or 14.7 per cent. and the still bigger decrease in the number of births, viz., 3,180,849 or 18 per cent. The rates per mille of the population of 1941 are 26.3 births and 17.6 deaths compared with 36.5 and 23.4 of the decade 1931—40. The mean decennial rates (Subsidiary Table 1.3) are 24.8 births and 16.5 deaths against 34.2 and 21.9 of the decade 1931—40. We shall see later that both births and deaths have been under-recorded to a larger extent in the last than in the decade 1931—40. But the decrease in the figures of registered actual births and deaths are very large in the decade 1941—50 as compared with the figures for the decade 1931—40, so that it is clear that there has been a marked reduction in the actual number of deaths and a far larger reduction in the actual number of births. The reason for low mortality is not only the absence of serious epidemics during the decade, but also a better control of the mild attacks and reduction in fever deaths. Decline in infant mortality has also lowered the death-rate. A fall in the birth-rate has been brought about by a change in the age composition mainly resulting in the reduction of married females at the reproductive ages. Movement of adult males from the villages to join the army and other services connected with War activity and to the industrial centres, accelerated the decline. Had the birth-rate remained stationary the growth in this decade would have far surpassed any in the past decades because of the decline in the death-rate.

34. The vital statistics explain most of the growth during 1941—50. In Section 5 the probable errors in the registration of births and deaths have been worked out as an under-registration of 28.5 per cent. in births and 29.9 per cent. in deaths. The correct natural increase for the decade works out to 6,642 thousand or 11.1 per cent. of the decennial growth of 11.2 per cent. The balance of 0.1 per cent. or 42 thousand may be attributed wholly to the net gain from migration the figures for which are estimated in Section 4 of this chapter.

Variations
during 1941—50
explained

Population
growth, 1872
—1951

35. Having examined the population variations separately for each decade let us now review the salient features of population growth during the whole period 1872—1951 for which census records are available (Table 27 gives the figures of variation and Figure 3 illustrates them by a graph). It would appear that the rate of increase was high with an upward trend during 1872—90 but showed a downward trend during the next three decades, two of which showed an actual decrease. The year 1921 is the Great Divide. Since 1921 the State appears to have entered into a period of rapid expansion of population. At the rate at which we are multiplying at present the population of Uttar Pradesh will double itself in 62 years. A similar trend will be found in the growth of population of India and other States of India. The growth of population was sporadic up to 1921—rising and falling in alternate decades in the case of India and falling continuously since 1891 in case of Uttar Pradesh—but has shown phenomenal growth since 1921. While the Western countries are approaching demographic stability, India and Uttar Pradesh are just starting what appears to be a period of rapid and gigantic expansion.

Growth com-
pared with other
countries

36. It would be interesting to compare the growth of population in Uttar Pradesh with that of other countries and other States in India. During the period 1872—1950 the population of Uttar Pradesh increased by 47.8 per cent. as compared with 72 per cent. increase for India, 278 per cent. for United States 156 per cent. for Japan, and 65 per cent. for Great Britain (including Ireland). Table 36 gives the figures of percentage growth of population of Uttar Pradesh, India, and some other countries during 1900—50. With the exception of Germany and France the growth of population in Uttar Pradesh is the least. Even since 1921 several foreign countries have recorded higher increase of population than Uttar Pradesh, e.g., United States, 42.55 per cent.; Brazil, 71.8 per cent.;

TABLE 36—Percentage growth of population in selected countries, 1900—50*

Countries	Period	Percentage growth
Brazil	1900—50	204.0
Union of South Africa	1904—46	120.6
Canada	1901—41	114.2
Australia	1901—47	106.8
United States of America	1900—50	98.3
Mexico	1900—50	86.4
Denmark	1901—50	74.7
Egypt	1907—47	70.1
India	1901—50	51.6
Italy	1901—36	32.4
United Kingdom	1901—51	31.3
Uttar Pradesh	1901—50	30.0
Belgium	1900—47	27.2
Germany	1910—46	12.7
France	1901—46	5.3

Mexico, 77 per cent; and Australia, 39.4 per cent. as compared with 35.5 per cent. of Uttar Pradesh. But most of these countries have low density and ample food resources, which give quite a different complexion to the population problem.

Growth compared
with other States
of India

37. It has already been shown that between 1872—1900 the population of Uttar Pradesh increased at a very slow rate. The increase was only 13.5 per cent. as against 42.7 of India as a whole and 25.2 per cent., the average for the provinces which form Part 'A' States at present.† Table 37 gives the growth-rate of Uttar Pradesh and other Part 'A' States of India for three periods—1901—50, 1921—50 and 1941—50. It will appear that during the period 1901—50 the population of India (recast in its present layout) increased by 51.6 per cent. while that of Uttar Pradesh increased by 30.0 per cent. only. The increase in population in all other States, except the Punjab, has

TABLE 37—Growth of population in Part 'A' States of India

State	Net variation 1901—50	Net variation 1921—50	Variation 1941—50
India	51.6	43.8	13.4
Assam	137.1	70.1	19.1
Bihar	41.7	37.9	10.1
Bombay	69.5	60.9	23.2
Madhya Pradesh	57.8	34.5	8.2
Madras	55.5	40.5	14.4
Orissa	42.2	31.3	6.4
Punjab	20.7	29.2	-0.5
Uttar Pradesh	30.0	35.5	11.8
West Bengal	56.7	51.3	13.6

been greater than in Uttar Pradesh. The figures of the Punjab have been affected by the abnormal conditions of the last decade. The pre-partition Punjab showed a higher growth than Uttar Pradesh. The slow increase in the Uttar Pradesh population during this period was due mainly to the heavy mortality by epidemics, as has already been examined. During the period 1921—50 also, which was free from severe epidemics, the growth-rate in Uttar Pradesh was among the lowest; the growth in Madhya Pradesh, Orissa and the Punjab only was slightly lower than that of Uttar Pradesh. The figures of the Punjab were affected by the extraordinary conditions of the decade. The Uttar Pradesh population growth

*United Nations, *Demographic Yearbook*, 1951.

†*Census of India*, 1901, Part I, page 96.

during 1921—50 was only 35·5 per cent. as compared with 43·8 per cent. of India, 70·1 per cent. of Assam, 51·3 per cent. of Bengal and 60·9 per cent. of Bombay. In the absence of accurate vital statistics or data about fertility it is difficult to give full explanation for the comparative slow population growth in Uttar Pradesh. Apparently the struggle for existence in Uttar Pradesh is getting harder than in other States; "and though an increase of population may occur, when agricultural and health conditions are favourable, the conditions of life in general do not justify additions to the population of the State".*

38. Table 38 gives the data showing the part played by migration and natural increase respectively in the growth of population of Uttar Pradesh

TABLE 38—*Effect of natural increase and migration on the growth of population, 1901—50†*

Period	Population variation (mean)	Estimated net balance of migration	Estimated natural increase
1901—10	-1·0	-0·5	-0·5
1911—20	-3·1	-1·0	-2·1
1921—30	+6·4	-0·8	+7·2
1931—40	+12·7	-0·1	+12·8
1941—50	+11·2	+0·1	+11·1

Effect of natural increase and migration on growth

during the last 50 years. It will appear that loss by migration appreciably affected the figures of growth of population in the decades 1901—10† and 1911—20 when the natural increase was very low but the net balance of migration has since 1921 been too small to cause much variation in the growth. It is the natural growth which mainly accounts now for the increase in population.

39. Table 39 giving the data of population variation, birth and death-rates, for each decade since 1901, affords interesting study. Between 1901 and 1920 both birth and death-rates were high and the gap between them was very narrow. There was a sudden fall in both the birth and death-rates during 1921—30, the fall in death-rate being more steep. The birth-rate remained steady during the next decade but the death-rate fell further, thereby increasing the gap between the two. During 1941—50 the birth-rate went down again steeply while the death-rate also continued to fall, though not so steeply. The gap between the birth and death-rates, which has determined the growth of population, has thus been nominal during 1901—20,

Births and deaths correlated to growth of population

TABLE 39—*Birth and death-rates in the State, 1901—50*

Period	Population variation (mean)	Births per mille of population	Deaths per mille of population
1901—10	-1·0	41·7	39·5
1911—20	-3·1	42·9	40·8
1921—30	+6·4	34·0	25·6
1931—40	+12·7	34·2	21·9
1941—50	+11·2	24·8	16·5

increased abruptly in 1921—30, increased slightly in 1931—40 and narrowed appreciably during 1941—50. But it can be seen that death has so far been the principal determining factor in the population growth of Uttar Pradesh. This confirms the conclusion already reached that the slow growth of population in Uttar Pradesh till 1921 was due to losses by epidemics, famines and diseases and the comparatively higher growth since 1921 is due to the control over these factors accompanied by developments of transport, communications and irrigation facilities. Fertility has also declined lately, not as a result of any fundamental change of habits or customs but probably occasioned by a backwash of the influenza epidemic in the shape of change in age composition.

*Gyan Chand, *India's Teeming Millions* (George Allen and Unwin Ltd., London), 1939, page 55.

†The calculations for balance of migration will be found in Section 4 and those for natural increase in Section 5.

‡Sri Blunt in the Report of 1911 estimated the loss on balance of migration at a million. According to his estimate the natural increase will be 1·1 and net migration—2·1. This seems to be an over-estimate of migration.

Population
growth in the
natural divi-
sions since 1901

40. Table 40 gives the mean decennial growth-rates and net variation between 1901—50 by natural divisions (Figures for the last three decades are given in Subsidiary Table 1·3).

TABLE 40—Mean decennial growth-rates and net variation by natural divisions, 1901—50*

Natural division	Mean decennial growth-rates					Net variation 1901—50
	1901—10	1911—20	1921—30	1931—40	1941—50	
Uttar Pradesh	-1·0	-3·1	+6·4	+12·7	+11·2	+30·0
Himalayan	+10·4	-0·6	+8·0	+12·8	+11·6	+52·5
East Plain	-0·4	+2·1	+7·0	+11·3	+11·0	+36·3
Central Plain	-3·8	-4·1	+5·0	+13·2	+12·0	+25·0
West Plain	-1·2	-6·4	+6·6	+13·4	+11·4	+26·8
Hills and Plateau	+3·3	-4·6	+8·0	+13·0	+7·1	+30·9

The growth-rates during the two decades 1901—10 and 1911—20 are widely different among the natural divisions. In fact some divisions show increase and some decrease. This irregularity is the result of the different incidence of epidemic mortality in the divisions. Since 1921 epidemics have ceased to be a disturbing factor in the growth of population and growth-rates as among the natural divisions have assumed a striking uniformity. In 1921—30 the growth-rates of the divisions range between 5 and 8 per cent., while the State growth-rate is 6·4 per cent. In 1931—40 the range has been further narrowed down, growth-rates varying between 11·3 and 13·4 as against the State rate of 12·7. In 1941—50, with the exception of Hills and Plateau division, the rates range between 11·0 and 12·0 only. The population in all the natural divisions tends now to grow at a fairly uniform rate unless any exceptional factors intervene to disturb the even tenor of the growth.

The exceptional low growth-rate of the Hills and Plateau division during 1941—50 as against its own high growth in the previous two decades and as against the higher growth of other natural divisions in this decade needs explanation. The explanation will be found in the trends of birth and death-rates and of migration, which will be discussed in detail in the subsequent sections of this chapter. The decade 1941—50 is remarkable for the fall of birth as well as death-rates throughout the State. While in other divisions the fall in the two rates has been such as not to disturb the uniformity of the survival rate, the fall in Hills and Plateau division has been proportionally greater in births than in deaths resulting in a lower survival rate relative to other divisions. Owing to the difficult condition of life the longevity in this division has always been the lowest in the State and it is not surprising that death-rate shows a resistance to fall here. Another factor contributing to a lower rate of growth may be the labour migration from this division to other States, which takes place at harvest time. The census comes at the time of *rabi* harvesting and probably the migration in 1951 was earlier and heavier than in previous censuses.

Taking the net variation between 1901—50 the growth-rate among the natural divisions shows large differences. The highest rate of growth has been shown by Himalayan division (52·5), followed by East Plain (36·3). The lowest rate is returned by Central Plain (25·0) and West Plain (26·8). Hills and Plateau shows a growth (30·9) which is of the same order as that of the State (30·0). These large variations have been caused mainly by the irregular growth among the divisions during the two decades 1901—10 and 1911—20, the growth during the remaining decades having been quite uniform.

41. It will be interesting to examine here the growth-rate in relation to the increase in density (*vide* Table 26). The percentage increase in density is the same as that of population in each natural division, because the density has been calculated on the same area in each census. But it is to be noted that

Population
growth and
density

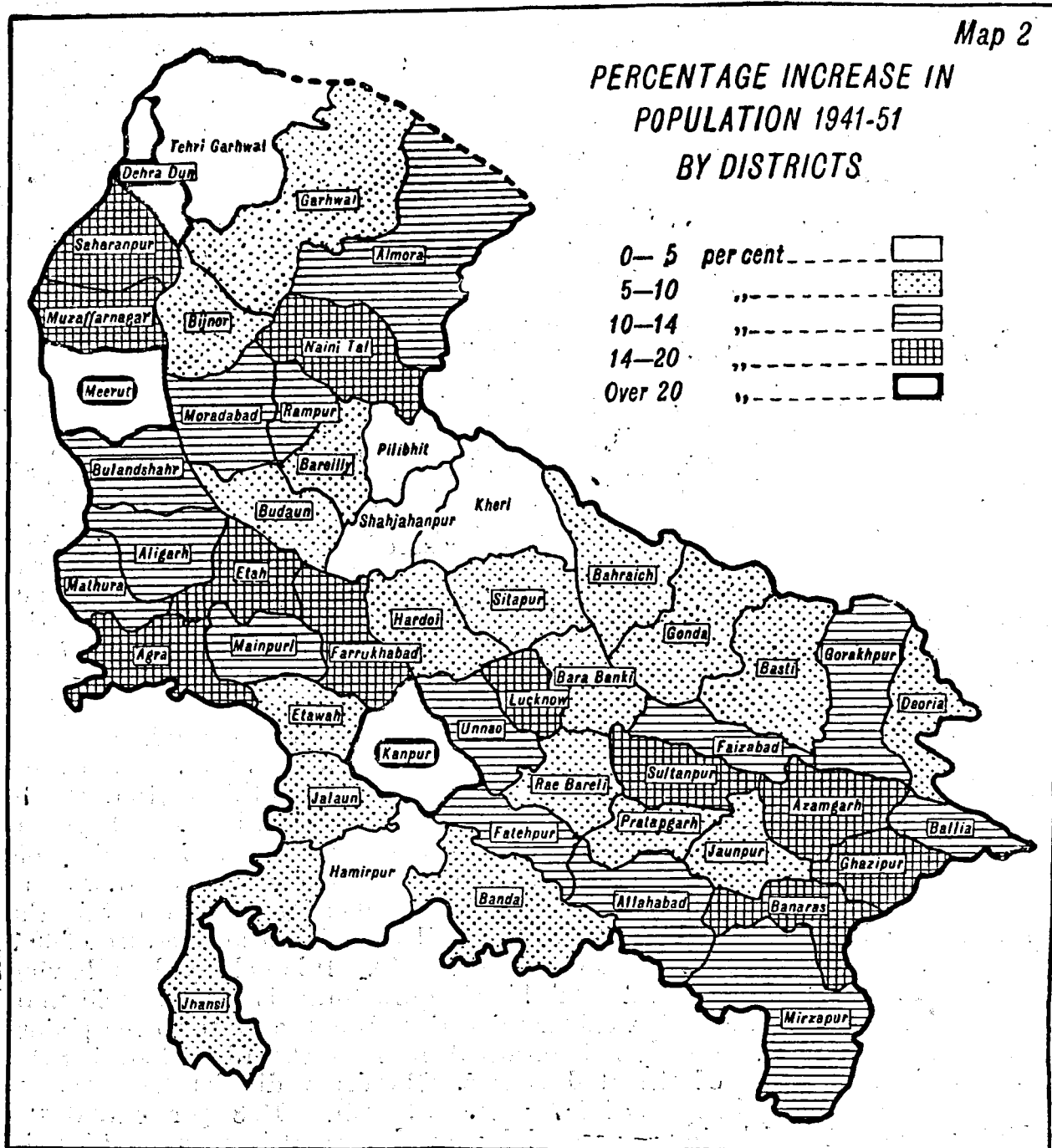
*Some of the figures of the last three censuses in this table differ from the figures given in Subsidiary Table 1·3 as the figure in the latter are only for the area of registration of births and deaths. Besides, for the purpose of calculating the mean population in this table the recast population in Table A-II of Part II-A of the Report has been used, while for the purpose of Subsidiary Table 1·3 the population of the earlier census was recast in the lay-out for the latter census only.

an intrinsically large actual increase in density forms but a small percentage increase in the case of densely populated areas. The greatest addition to density (227 per square mile) has been made to East Plain division which shows a percentage growth of 36·3 only while the least addition (45 per square mile) has been made to the Himalayan division though its percentage of growth is 52·5. The increase in density of Hills and Plateau (58 per square mile) is much smaller than that of Central Plain (143) or West Plain (139) though its rate of growth of population is appreciably higher.

42. Map 2 shows the percentage increase in population by districts. The actual figures of percentage variation and mean decennial growth-rate of each district are shown in Subsidiary Tables 1·2 and 1·3 respectively.

Variation in
population since
1941, by districts

There are very large percentage increases in Dehra Dun (36·1), Kanpur (24·7) and Meerut (20·3). 11 other districts show high increase (14—20 per cent.); 14 show average increase (10—14 per cent.), 11·8 per cent. being the average for the State; 18 show low increase (5—10 per cent.) and 5 districts, Tehri-Garhwal, Pilibhit, Kheri, Shahjahanpur and Hamirpur, show very low increase (0—5 per cent.). None of the districts show any decrease in population. Dehra Dun has been attracting permanent and semi-permanent immigrants from before. During the decade 1941—50 there was an abnormal influx of displaced persons and about 48 thousand have settled in this district. The percentage increase of Kanpur district may be accounted for by the rise of Kanpur city, "the Manchester of India", which is by far the most important industrial centre in the State. Its population has increased to 705,383 from 487,324 in 1941. This district has also attracted about 45 thousand displaced persons. Meerut district has been having continuous agricultural prosperity and industrialization, resulting in immigration. Its decennial rate of natural increase has been above the average of the natural division and the State. The largest number of displaced persons, 68,113, have also settled in this district. Of the districts having very low increase, Pilibhit, Kheri and Shahjahanpur have unhealthy climate, are unattractive to be able to have more immigration and people emigrate owing to unhealthy conditions and in search of employment. Fall in the decennial rate of natural increase and increased emigration account for the low growth in these districts. Tehri-Garhwal has shown an increase of 3·7 per cent. only against 13·7 of the decade 1931—40. It has always been having a high growth and it seems that the fall in the growth-rate is simply accidental. There is a considerable cold weather migration from the State to the plains. This population had probably not returned back to the district during the period of enumeration of the 1951 census. Hamirpur district has also recorded a very low increase of 2·7 per cent. against 13·8 per cent. at the 1941 census. The fall in the decennial rate of natural increase and loss in balance of migration during the decade account for the low increase. This subject will be discussed in greater detail in the two succeeding sections of this chapter.



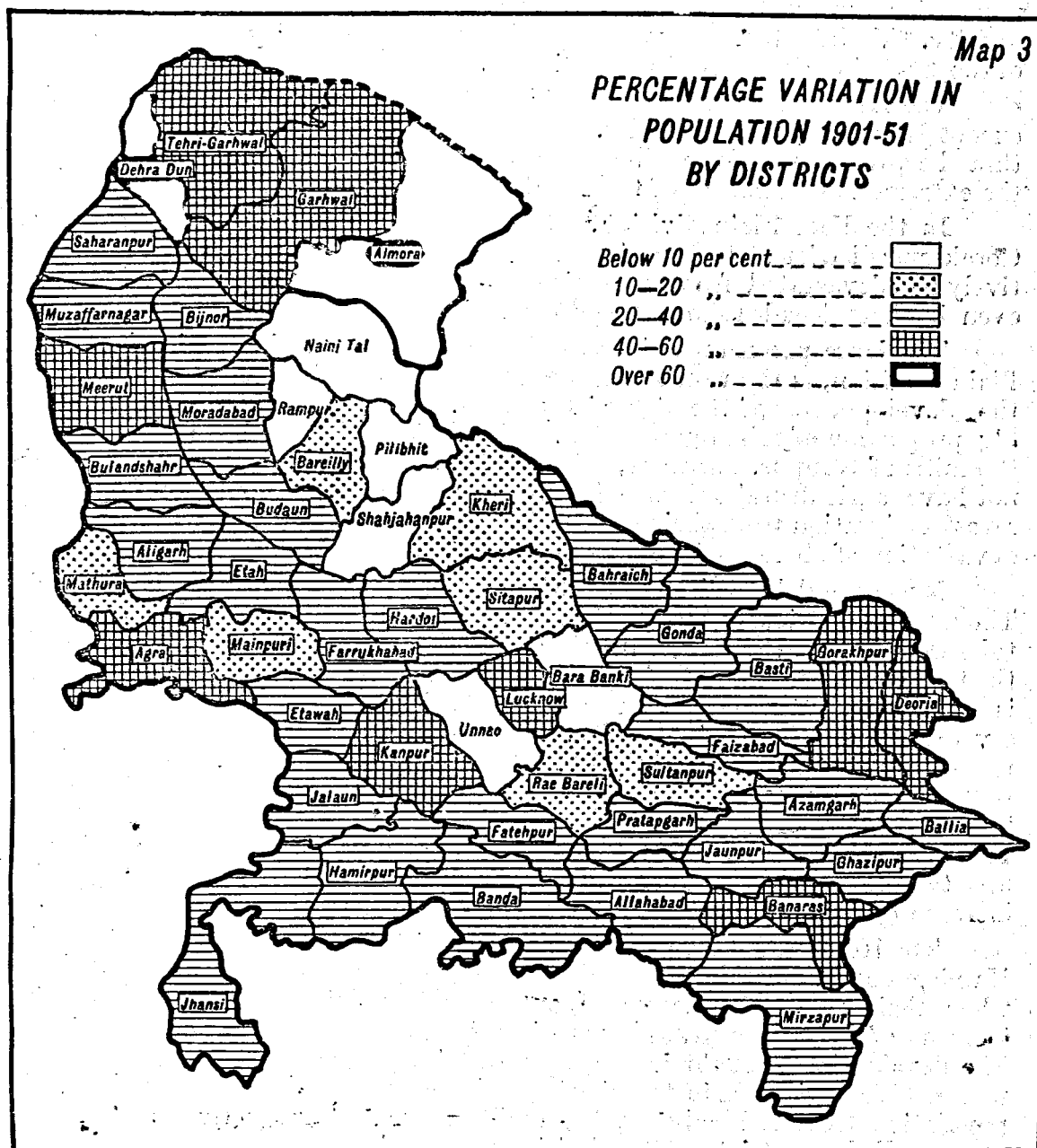
MAP 2—Percentage increase in population, 1941—51, by districts

Besides the above-mentioned 5 districts showing a very low percentage variation during the decade, Sitapur (6·7 per cent.), Pratapgarh (6·7 per cent.), Jalaun (7·4 per cent.) and Banda (6·8 per cent.) show a relatively low percentage variation when compared with the rates of 1931—40, due mainly to a relative fall in the decennial rate of natural increase and also to loss on account of balance of migration to some extent. As against these districts, Naini Tal, Rampur and Sultanpur show a high percentage increase of 14·9, 13·9 and 16·5 against 5·3, 2·5 and 4·7 of the previous decade (1931—40) respectively. During the later part of the decade 1941—50 a government colonization scheme has been introduced in Tarai and Bhabar portions of Naini Tal and Rampur accompanied by vigorous anti-malarial measures under the auspices of the Food and Agricultural Organization. 13,688 displaced persons have settled in Naini Tal. Owing to these reasons Kichha tehsil of Naini Tal district which showed a decrease of 16·2 per cent. in the population during 1931—40, recorded a big increase of 24·7 per cent. in the decade 1941—50. The large growth in Rampur is also due to increased gain from migration. Industrialization of Rampur city, influx of displaced persons and influx of Muslims from other districts of the State during 1947 added greatly to its population. The increase in district Sultanpur is spread over its four tehsils, but not evenly. Tehsils Amethi and Musafirkhana have nearly double the percentage increase of the remaining two. They show a big growth of 20·9 and 25·8 per cent. against 1·6 and —3·6 per cent. of the previous decade (1931—40) respectively. The growth is the result of rise in the decennial rate of natural increase which is well above the average of the natural division.

Also a large number of people returned to this district from Burma and Malaya during the decade and the emigration, which used to be the normal feature in previous decades, has now practically stopped.

43. Map 3 illustrates the variation in population during the last fifty years by districts.

Variations in population during 1901-51 by districts



MAP 3—Percentage variation in population, 1901-51, by districts

Districts falling within the five grades of percentage variation illustrated in the map are spread over in the State and the natural divisions as shown in the table below :

TABLE 41—Distribution of districts in grade of percentage variation by natural divisions, 1901-51

Percentage variation grades	Percentage of total area falling in the range	Percentage of total population falling in the range	Uttar Pradesh	Himalayan	East Plain	Central Plain	West Plain	Hills and Plateau
Below 10	8.9	7.5	6	1	..	2	3	..
10-20	11.8	12.7	7	..	..	3	4	..
20-40	52.1	55.5	27	..	7	5	10	5
40-60	21.3	22.5	9	2	3	2	2	..
60 and over	5.9	1.8	2	2	..	..	..	..

Conditions described in paragraph 42 above are reflected in this map. The influence of epidemics in the first two decades which had proved so uneven, and the development of industry and trade in the later decades may be seen in the map. Districts which were the worst sufferers by epidemics and influenza could not rise high in the ladder of growth unless they had rising towns. An examination of the map also makes it clear that percentage variation in population during the last fifty years has not been determined by previous density. Various forces have acted with varying intensity in different parts of the State in bringing out the variation.

The large percentage increase in all the districts of Himalayan division, except Naini Tal, is noteworthy. This division has a healthy climate except that the advantages of the hill portion of Naini Tal district are neutralised by the extreme unhealthiness of the Tarai and Bhabar tracts.

In the East Plain division, Gorakhpur, Deoria (which was a part of Gorakhpur district at the previous censuses) and Banaras districts were relatively less devastated from epidemics and influenza in the first two decades and even in these decades showed a positive increase.

The large percentage increase in Kanpur and Lucknow in the Central Plain division, is the result of the phenomenal rise of the city of Kanpur and the development of the city of Lucknow. Both the districts have a very big proportion of urban population. Unnao is known to have lost heavily to the mills of Kanpur. Sitapur, Bara Banki, Rae Bareli and Sultanpur did not have agricultural or industrial prosperity to attract people from outside or arrest emigration from their own area and could not recover swiftly from the devastation of disease of the first two decades.

Meerut and Agra districts have large urban areas and prosperous industries. The western districts of the West Plain division are well protected by canals and tube-wells. But Rampur, Pilibhit and Shahjahanpur suffered heavily during the first two decades and their recovery has been very slow because the climate is unhealthy. Rampur till recently was losing to Moradabad which has several thriving industrial towns. Pilibhit and Shahjahanpur have also lost population on balance of migration. Kheri is also unhealthy. Mathura is not well served by canals. It lost heavily from epidemics and influenza and its population decreased by 14·0 and 5·7 per cent. during 1901—10 and 1911—20 respectively. The population of Mainpuri also decreased during the first two decades by 3·8 and 6·2 per cent. and it recorded only a nominal increase of 0·2 per cent. during 1921—30.

The Hills and Plateau division has precarious cultivation in Jhansi, Jalaun, Hamirpur and Banda, but these districts had only one set-back during 1911—20 when their population decreased, except that of Jalaun which had a nominal increase of 0·2 per cent. Jhansi district has the advantage of Jhansi city. The devastation wrought in Mirzapur district during 1901—10 and 1911—20 was not so serious as in the districts of West or Central Plain divisions. Its population decreased only by 1·0 and 0·1 per cent. respectively. For these reasons all the districts of this division are seen in the average grade of percentage variation on the map. Population growth in the districts of this division, specially Jhansi, Jalaun, Hamirpur and Banda, has been slow but steady.

SECTION 4—MOVEMENT

1. Migration is one of the three factors that help account for the growth and distribution of the population, the other two being the birth-rate and the death-rate. In this section it is proposed to deal with migration. The main statistics are contained in Table D-IV in Part II-C of the Report. This table of "Migrants" corresponds to the "Birth-place" table of 1931 and of the previous censuses; in 1941 nothing was published on movement of people in the State. The statistics relating to displaced persons and the non-Indian nationals are set out in Tables D-V and D-VI of the same part of the Report. Both the tables are new and the latter is based on a suggestion made by the U. N. Population Commission. The statistics are presented in a different form, together with statistics relating to those persons who were born in this State but enumerated outside it, in the following subsidiary tables in Part I-B of the Report :

Subsidiary Table 1.4—Immigration

Subsidiary Table 1.5—Emigration

Subsidiary Table 1.6—Migration between the State and other parts of India

Subsidiary Table 1.7—Variation in natural population

2. The statistics of migrants in Table D-IV were obtained in this census by requiring the enumerators to answer Q.5 according to the following instructions :

" Write 1 for every person born in your district. For persons born in other districts of Uttar Pradesh ascertain the name of the district and record it. For persons born in a State other than Uttar Pradesh write the name of the State. For persons born in a foreign country, write the name of the country, e.g., Pakistan, China, etc."

It will be evident that birth-place of persons born in a State other than the State of enumeration, was not entered by districts. The result is that emigration figures for each district are not known and the variations in the natural population of the natural divisions and the districts cannot be calculated. In the 1931 census it was required that in the case of those returning a birth-place outside the district of enumeration, the number of years to the nearest whole year that had elapsed since they came to the district of enumeration should also be added. This was intended to enable the classification of immigrants by the length of their stay in the district of enumeration, and thus to differentiate between temporary, semi-permanent and permanent immigrants. The arrangements, however, were eventually wasted as the data were not tabulated for reasons of economy. No such attempt was made in the 1951 census and so the conclusions regarding duration of stay of the migrants in the district of enumeration are based on the proportion of the sexes and the distance of the district of enumeration from the place of birth. As regards persons born in this State but enumerated elsewhere, the figures are based on the returns furnished by the Census Superintendents of the other States of India.

The statistics of displaced persons set out in Table D-V were obtained by writing the date of their arrival (month/year) in India and the district of their origin in Pakistan in the enumeration slips. Any person who entered India having left or being compelled to leave his home in Western Pakistan on or after the 1st March, 1947, or his home in Eastern Pakistan on or after the 15th October, 1946, on account of civil disturbances or on account of the setting up of the two dominions of India and Pakistan, was to be enumerated as a displaced person. In addition some people from the present territory of Pakistan who were on a temporary visit to this State before these dates and were detained here, have also been registered as displaced persons. Their number is about 14 thousand. Also the children born to displaced persons after their displacement from Pakistan, have been treated as displaced persons for this table.

All persons who were not Indian citizens under Articles 5—8 of the Constitution have been shown in Table D-VI as non-Indian nationals. No person, whether Hindu or Muslim, who migrated from Pakistan to India on or after July 25, 1949, was to be treated as an Indian citizen without special registration. Chinese, British, etc., were to be treated as foreigners unless they had taken an Indian domicile certificate.

Reference to
statistical tables

How the figures
were collected
and their
limitations

Accuracy of
the figures

3. The instructions to enumerators were successfully carried out in this State and omissions in the enumeration slips or unfamiliar names of birth-places recorded in them were negligible. The tables may be accepted as accurate for all practical purposes.

Birth-place :
how far an index
of migration

4. Birth-place is a rough means of measuring either the regional movements or the foreign constituents of the population. The place of birth or even of enumeration may be accidental having no connection with the place of regular residence. The modified *de facto* system of census in 1951 should have reduced the cases of fortuitous place of enumeration to a great extent. The census period was spread over 20 days and if a person was present on any day during this period at his regular place of residence he was enumerated there. But cases of accidental births may be many. Children born at their mother's parental home are made immigrants to their regular residence if the place of birth happens to be across a district boundary.

Sometimes the birth-place may be arbitrarily assigned to the place of residence of the parent. In such cases the birth-place data over-estimates the movement of people. On the other hand birth-place statistics do not reflect migration exactly when migration takes place between two places in the same district, however apart. The birth-place figures also cannot indicate much of the inter-censal migration inasmuch as they relate only to the position on the census date. The birth-place statistics, however, are the only basis for study of migration, its extent and nature.

Migration
distinguished in
terms of duration

5. It has been usual in past censuses to consider five main forms of migration. These are—

- (1) *Casual*—or the minor movements between adjacent villages. They find expression in our statistics only when they take place between villages which happen to be on opposite sides of the district boundary. The most important casual type of migration is the "marriage migration" and in this females preponderate. This type of migration is really permanent and only because of the short distance travelled it is called casual. A second type which falls in this category is "birth migration". A child born at its mother's parental home will become a migrant for its father's residential place. It is not possible to estimate the figures of birth migration but there is no doubt that it has some effect on birth-place statistics where a district border is crossed and recrossed.
- (2) *Temporary*—mainly due to the movement in the demand for labour e.g., on dams and canals, to journeys of business or pleasure or to visits to pilgrimages and fairs. The adoption of a modified *de facto* basis for the census in 1951 should have considerably reduced temporary migration of the type of journeys of business or pleasure or visits to pilgrimages and fairs. There was no fair or festival which continued throughout the 20 days period of enumeration. But labour migration had some effect on the birth-place statistics. Labour from contiguous areas had collected for work on the Rihand and other canal and P. W. D. projects in Mirzapur district. Dams in tehsils Lalitpur and Mau Ranipur in Jhansi district were under construction during the census period and a large labour from adjacent areas was engaged in them. Famines and severe epidemics, when they occur, also work as a potent cause of temporary migration, but there was no such cause during the last decade. In temporary labour movements males are in excess. But temporary migration is really not migration at all, it is little more than travel. It does, however, affect the birth-place figures.
- (3) *Periodic*—due to seasonal demands for labour generally for the harvests or to the movements of people who change their quarters at certain seasons. The hillmen of Almora and Naini Tal who cultivate the Bhabar and plainsmen from Bareilly, Pilibhit, Rampur and Moradabad who cultivate in the Naini Tal Tarai in the cold weather return to their homes in the hot weather. People from Tehri-Garhwal also come down to the plains and dependants of hillmen of Garhwal and other areas move to their relations in civil and military service during the winter. The return movement of hillmen had started in Naini Tal at the time of the last census and bulk of them had left the Bhabar;

but the hillmen from Tehri-Garhwal had not yet crossed the plains into their district. The harvesting season had started early in the south and the *Chetuas* (agricultural labour) of the Jhansi revenue division had started moving into the contiguous States. In such migrations the males predominate.

- (4) *Semi-permanent*—where the inhabitants of one place earn their living in another but maintain connection with their own homes and ultimately return there. This is the usual type of migration in the State. Instances of it are persons in public and private service, a majority of all clerks and domestic servants and the vast majority of operatives in mills and factories, and the Punjabi, Bengali and Marwari traders. In this type of migration males are in excess. Large semi-permanent migration took place during the last decade. Movement of labour from the village during the War and the immediate post-War period to the army, industrial centres and the mines has already been described in paragraph 30 of the previous section of this chapter. Most of the labour was supplied by the Labour Supply Depots in the State. According to a report from the Labour Supply Depot at Gorakhpur all except about 14 thousand labourers supplied outside the State by the depots, had returned to their homes by March 1, 1951. This movement cannot be traced out from the birth-place statistics; besides its other implications, it has tended to reduce the birth-rate in the rural areas.
- (5) *Permanent*—where people settle in some other locality permanently with their families. This type of migration is in the nature of colonization. It usually takes place when owing to irrigation or improved communications new lands become available for occupations, or when superior attractions of some other locality induce people to settle there. It also takes place when over-crowding drives people away or when political conditions compel them to leave their place of residence permanently. In spite of the over-crowding in this State there is little migration of this type. But there has been some colonization in Gorakhpur, Bahraich, Pilibhit and Kheri in the areas where forests have been cleared. New tracts were being cleared for colonization in Naini Tal and Meerut districts at the close of the last decade and large number of people were already settled in the colonization areas. About 480 thousand displaced persons, driven from their homes, had been settled in this State in agricultural and non-agricultural occupations by the time of the census of 1951. Their case may be instanced as a permanent migration due to political reasons. The character of permanent migration is also reflected in the proportion of the sexes where they tend to approach equality. Marriage migration is an exception to this. It has been classed as casual due to its being a short-run migration, but it is of a permanent nature.

There is one further type of migration which may be termed daily migration. In Kanpur a large number of mill workers, though employed in the city, have settled in the adjacent rural areas owing to shortage of house accommodation in the city. The volume of such migration in the mill areas has been increasing during the last two decades.

It is not possible to isolate the statistics of these various classes of migration. As already stated some estimate of their respective importance and extent may be made from (a) the distance between the places of enumeration and birth-place and (b) the proportion of the sexes among the migrants. Some estimate of certain migrations can also be made from our general knowledge of the chief territorial movements and the statistical information given by the Employment Exchanges and the Labour Depots. However, in terms of duration, migration can only be classed approximately by general inference.

6. Migration may also be distinguished in terms of direction with reference to any given area. In this sense it may, for the State, be classed under three forms :

- (1) Immigration
- (2) Emigration
- (3) Internal migration or movement between different parts of the State

Migration distinguished in terms of direction

Each of these forms may—if not merely accidental birth migration and temporary and therefore unreal—be either periodic, semi-permanent or permanent. In the following paragraphs each of these forms will be dealt with in turn.

7. After a perusal of Subsidiary Table 1·4 the first thing which strikes one in connection with migration is its comparatively small volume. Of the total population of the State all but 5,898,407 or 93* per mille were born in the district in which they were enumerated. Out of this 71 were born in other districts of the State and only 22 were immigrants. Tables 42 and 43 will make it more clear that immigration in this State is proportionately very small. Out of every 1,000 persons enumerated 13 were born in other parts of India and only 9 were born outside India. Table 42 gives the general distribution of the enumerated population of the State by birth-place since 1901.

TABLE 42—*Distribution of population by birth-place since 1901*

Born in—	1951	1931	1921	1911	1901
Total population†	63,215,742	49,614,833	46,510,668	48,014,080	48,493,879
Uttar Pradesh	61,827,639	49,055,228	46,030,254	47,353,989	47,797,923
Rest of India‡	802,080	492,920	423,772	589,682	614,606
Rest of Asia‡	584,068	47,397	38,216	46,849	49,607
Europe	1,091	17,954	17,477	22,473	15,772
Africa	353	343	239	277	146
America	439	625	458	635	423
Australasia	71	353	251	154	125
At sea	1	4	1	15	12
Birth-place unspecified	..	9	..	6	15,265

Table 43 gives the above distribution proportionally for each census.

TABLE 43—*Distribution of 1,000 population by birth-place*

Born in—	1951	1931	1921	1911	1901
Total population	1,000	1,000	1,000	1,000	1,000
Uttar Pradesh	978	989	990	987	986
Rest of India	13	10	9	12	13
Rest of Asia	9	1	1	1	1
Outside Asia	..	..	..	..	..

The U. P.-born proportion slowly increased from 1901 till 1921 and showed a slight decrease in 1931. The decrease was accelerated in 1951 and the proportion declined to 978 from 989 per mille. The proportion of immigrants from rest of India similarly declined till 1921 after which there has been an increase in 1931 and 1951, and the proportion of immigrants from rest of Asia which had remained constant throughout up to 1931 has an unprecedented increase in 1951. The proportion of immigration from outside Asia has always been insignificant. There has been a sharp fall in the number of such immigrants from 19,288 in 1931 to 1,955 in 1951. There has been a remarkable rise in the figures of "Rest of Asia" due to increased immigration from Burma and a considerable influx of displaced persons from Pakistan which was formerly a part of India. The fall in the number of non-Asiatics has been brought about by the return of European officers and their families to their home country after the Independence of India.

The figures in the table show that the proportion of persons in the population born outside the State remained virtually fixed up to 1931, varying between 10 and 14 per mille and showing no consistent trend. This proportion has risen to 22 in 1951 mainly because of the creation of Pakistan and the arrival of the displaced persons. If the displaced persons are excluded from the calculations, the proportion in 1951 will decline to 14·4 and will thus come in line with the figures in the previous censuses. In contrast to this the United States had 116 per mille of its population born outside in 1931, and France had 66 per mille.§ The main hindrance to immigration in this State is to be found in the fact that people are mainly dependant for their support on agriculture and there is little scope for fresh agricultural activities in the country. Industry too is not developed on a scale that it would not meet its demand for labour from the home-born. The result is the unchanging migration pattern.

* See foot-note to Table 55.

† The total population figures for censuses prior to 1951 have not been adjusted for subsequent transfers of area from and to the State.

‡ In 1931 and prior to it Burma was treated as within India. In 1951 it has been treated as an Asiatic country outside India. The figures of the censuses prior to 1951 have been adjusted to conform with the present classification.

§ Kingsley Davis, *The Population of India and Pakistan*, page 93.

8. The actual figures of immigrants from other parts of India are 802 thousand (males 323 thousand, females 479 thousand). Of these 691 thousand (males 257 thousand, females 434 thousand) came from the adjacent States and 111 thousand (males 66 thousand, females 45 thousand) from farther afield. Thus 86 per cent. of the immigration from the other States of India (males 80 per cent., females 91 per cent.) is from the adjacent States.

Immigration
from other
States in India

9. About 71 per cent. (males 55 per cent., females 81 per cent.) of the immigration from the adjacent States is into the neighbouring districts of the West Plain, the Hills and Plateau and the East Plain divisions shown in Tables 44—47. The nature of this immigration can in each case be gathered from the proportion of the sexes. Table 44 shows the migration from the Punjab, Delhi and Himachal Pradesh to the neighbouring districts of the West Plain.

Immigration
from adja-
cent States

TABLE 44—Immigration from Punjab, Delhi and Himachal Pradesh into the neighbouring districts of West Plain division

Enumerated in—	Born in—					
	Punjab		Delhi		Himachal Pradesh	
	Males	Females	Males	Females	Males	Females
Saharanpur city	2,449	2,248	531	587	..	1
Saharanpur, rest of district	8,751	9,686	387	327	288	201
Muzaffarnagar district	4,359	7,581	312	744	1	1
Meerut city	7,984	3,061	898	1,144	3	..
Meerut, rest of district	7,206	7,563	2,026	6,308	16	38
Bulandshahr district	2,350	9,639	814	3,132	1	5
Aligarh city	726	496	269	308	..	..
Aligarh, rest of district	834	1,689	259	493	..	..
Mathura city	1,281	692	249	587	..	..
Mathura, rest of district	3,881	8,416	190	237	..	..
Agra city	2,325	3,422	1,336	479	6	..
Agra, rest of district	601	631	222	298	1	4

There is marriage migration to the districts shown in the table where extra females have migrated from the adjoining States. The rest is of the semi-permanent type and represents movement of labour, sometimes by families (especially in the rest of Saharanpur and Meerut districts), and the remaining of men without their families. Dehra Dun district of the Himalayan division also receives a large number of labour migrants, who work in the forests and the tea gardens, from the Punjab and Himachal Pradesh. 9,517 males and 5,746 females born in the Punjab, 1,014 males and 239 females born in PEPSU and 2,375 males and 1,285 females born in Himachal Pradesh were enumerated in Dehra Dun in 1951.

The West Plain division also receives migrants in large numbers from Rajasthan and Madhya Bharat. Table 45 shows the figures. Marriage migration to the rest of Agra and Mathura districts from Rajasthan and to the rest of Agra

TABLE 45—Immigration from Rajasthan and Madhya Bharat into the neighbouring districts of West Plain division

Enumerated in—	Born in—			
	Rajasthan		Madhya Bharat	
	Males	Females	Males	Females
Bulandshahr district	405	721	57	147
Aligarh city	497	479	57	131
Aligarh, rest of district	735	1,704	43	217
Mathura city	2,793	3,438	162	249
Mathura, rest of district	9,187	21,748	203	235
Agra city	4,086	3,912	1,205	961
Agra, rest of district	7,211	32,910	1,169	8,020
Mainpuri district	439	421	546	1,520
Etah district	765	859	128	240
Etawah district	633	474	1,535	7,787

district and to the districts of Etawah and Mainpuri from Madhya Bharat, is very heavy. There is also some marriage migration from these States to some of the other districts. Migration to the cities and to Mainpuri, Etah and Etawah districts from Rajasthan and to Mathura and Etah districts from Madhya Bharat, is of the semi-permanent type, usually by families and sometimes by males alone. Dehra Dun district of the Himalayan division also gets a labour migration of 1,338 males and 582 females from Rajasthan.

Table 46 gives the migration figures for the districts of the Hills and Plateau division from Madhya Bharat, Madhya Pradesh, Vindhya Pradesh and Bihar.

TABLE 46—*Immigration from Madhya Bharat, Madhya Pradesh, Vindhya Pradesh and Bihar into the neighbouring districts of Hills and Plateau division*

Enumerated in—	Born in—							
	Madhya Pradesh		Vindhya Pradesh		Madhya Bharat		Bihar	
	Males	Females	Males	Females	Males	Females	Males	Females
Jhansi city	1,148	1,114	1,958	2,430	2,046	2,356	89	87
Jhansi, rest of district ..	1,365	3,633	6,295	26,221	3,040	10,412	51	24
Jalaun district	199	735	466	1,790	1,819	7,736	53	51
Hamirpur district	304	375	4,110	14,935	86	257	36	47
Banda district	416	914	4,252	12,398	100	154	54	76
Mirzapur city	179	79	14	179	..	..	279	236
Mirzapur, rest of district ..	943	1,655	3,269	5,269	..	..	2,063	4,725

Most of the movement from Vindhya Pradesh to the rest of Jhansi district and to the districts of Jalaun, Hamirpur and Banda, to the rest of Jhansi and the Hamirpur district from Madhya Bharat and to Mirzapur from Bihar and from Madhya Pradesh to rest of the Jhansi district and to Jalaun and Banda, is permanent marriage migration. Migration to the Jhansi city is mostly of the semi-permanent family type. Migration to the Hamirpur district from Madhya Pradesh and some of the migration to Mirzapur from these States is also semi-permanent labour movement of the family type. Allahabad district of the Central Plain also gets some permanent migration of the marriage type and some family type of semi-permanent labour migration from Madhya Pradesh and Vindhya Pradesh. 1,232 males and 1,444 females born in Madhya Pradesh and 4,081 males and 6,446 females born in Vindhya Pradesh were enumerated in Allahabad in 1951.

The figures of immigrants from Bihar to the neighbouring districts of the East Plain division, given in Table 47, show clearly that the movement to the cities of Gorakhpur and Banaras is of the semi-permanent type and nearly in half the number of cases men are unaccompanied by their families. The

TABLE 47—*Immigration from Bihar into the neighbouring districts of East Plain division*

Enumerated in—	Born in Bihar	
	Males	Females
Gorakhpur city	3,359	1,617
Gorakhpur, rest of district ..	916	1,315
Deoria district	5,355	38,110
Basti district	446	599
Banaras city	4,095	2,547
Banaras, rest of district ..	4,000	12,594
Jaunpur city	78	90
Jaunpur, rest of district ..	150	1,116
Ghazipur district	1,519	13,113
Ballia district	3,117	23,358
Azamgarh district	499	1,170

remainder is chiefly permanent marriage migration which is very striking in the case of the border districts of Deoria, Banaras, Ghazipur and Ballia and also in case of the districts of Jaunpur and Azamgarh. A large family type semi-permanent migration from Bihar is also found in Allahabad, Lucknow and Faizabad districts and also in Kanpur which attracted 4,190 males and 2,307 females.

The most important type of migration from the adjacent States is marriage migration. Only sample studies can show the exact

proportion of it. A rough idea, however, can be made by assuming that all the females in excess of the number of males came by marriage. The extra number from the adjacent States comes to 176,795. This is 41 per cent. of the female immigration from the adjacent States. This percentage will rise if the figures of extra females of only the districts shown in Tables 44—47, in which females are in excess, are made the basis of calculation. This gives the figure of female marriage migration as 51 per cent. of the total female migration and about 32 per cent. of the total movement from the adjacent States. Probably

these percentages err on the low side. Of the remaining migration most of the migration to the urban areas is semi-permanent family type migration and in quite a large number of cases men have moved unaccompanied by their families. The migration to the rural areas is birth migration of the casual type, some of it is movement of agricultural labour and a small fraction is of temporary type consisting of persons engaged in the construction of dams and canals and of visitors, pilgrims and the like. The movement to the interior of this State from the adjacent States is of the semi-permanent type and in a large number of cases males are unaccompanied by their families.

10. Immigration from more distant parts of India is for the most part semi-permanent. Bengal is the only non-contiguous State from which immigrants come in considerable numbers. There were 24,916 males and 24,117 females from West Bengal in 1951. The Bengalis are found throughout the State but they are mainly concentrated in the cities of Banaras, Lucknow, Kanpur, Allahabad, Mathura, Dehra Dun and Agra. In Banaras there are 4,610 males and 7,304 females. The number of Bengali females in Banaras is in excess for two reasons, firstly, due to pilgrims amongst whom females predominate and secondly due to Bengali widows who have settled there for religious purposes. This immigration is temporary in case of the pilgrims but quite a large number of the Bengalis have also permanently settled in Banaras and a still larger number consists of semi-permanent migrants who are in service or business. In Mathura the Bengali migration is directed chiefly to Vrindaban, a religious place. In rest of the State the migration from Bengal is of the semi-permanent family type. Immigration from other non-contiguous States is not extensive. There are migrants from Bombay amounting to 10,556 males and 6,249 females, and 10,117 males and 3,394 females are from Madras. Migration from these States is of semi-permanent family type and in a large number of cases males have come in search of or in connection with employment unaccompanied by families. They are concentrated in the large cities of this State. Patiala and East Punjab States Union has sent 5,351 males and 2,123 females to this State and the migrants from Jammu and Kashmir are 3,842 males and 2,399 females. The movement from these States is semi-permanent. The migration figures from Jammu and Kashmir also include some displaced persons from the Pakistan occupied parts of the State. Movement from other States is in negligible volume and requires no comment.

11. Table 48 gives the classification of the migrant population from the adjacent and other States of India by means of livelihood. It is interesting to find from the table that 47 per cent. of the immigrants from the adjacent States have an agricultural means of livelihood while 53 per cent. depend on

Immigration
from elsewhere
in India

Livelihood
pattern of the
immigrant
population

TABLE 48—*Livelihood pattern of immigrants*

Means of livelihood	Adjacent States			Other States of India		
	Persons	Males	Females	Persons	Males	Females
Agricultural	325,383	67,054	258,329	15,129	7,253	7,876
Non-agricultural	365,878	190,179	175,699	95,490	58,501	36,989

non-agricultural sources. Females predominate in the agricultural group. It appears that this migration is the permanent marriage migration to the rural areas bordering the contiguous States. Immigrants with non-agricultural means of livelihood have been attracted by the industrial areas of this State and have gone to the big cities to serve in different capacities. The sex-ratio reveals that a major part of this migration is of the semi-permanent family type, but some of it must be marriage migration. 41,267 females have returned Commerce as their means of livelihood against 32,663 males. The excess of females points to marriage migration. Of the immigrants from the distant parts of India, 86 per cent. have non-agricultural sources as the means of livelihood. This migration is of the semi-permanent type and is mostly confined to the urban areas. The number of immigrants with agricultural means of livelihood is negligible and needs no comment.

Immigrants :
(1) from Asiatic
countries outside
India

12. Table 49 shows the figures of foreign-born and foreign nationals from the Asiatic countries in this State. Foreign-born (from countries outside India) total 586,023 of whom 324,467 or 55 per cent. are males. Of the total foreign-born 584,068 or 99.66 per cent. are from the Asiatic countries.

TABLE 49—Foreign-born and foreign nationals from Asiatic countries

Country	Foreign-born		Foreign nationals	
	Males	Females	Males	Females
All Asiatic countries	323,309	260,759	20,096	5,835
Pakistan ..	268,943	222,556	331	10
Nepal ..	49,234	34,666	19,364	5,615
Burma..	4,078	2,935	47	24
China ..	199	72	86	56
Afghanistan ..	176	11	68	13
Straits Settlements and Malaya	103	65	15	6
Others ..	576	454	185	111

Out of the Asiatics 84 per cent. are from Pakistan and 14 per cent. from Nepal. These figures differ from the figures of foreign nationals shown in the table and in case of some countries the differences are very glaring. Differences may be due to the fact that persons born in one foreign country acquire the nationality of a different country or they may be due to the number of children born to the Indian migrants in the foreign countries and so on. The number of persons born in Burma and enumerated in this State in 1931 was 1,388 while in 1951 the number has increased to 7,013 and in contrast to this figure the number of Burmese nationals in this State is only 71. It is possible that some Burma born persons have acquired Indian nationality but this factor alone will not fill up the gap between the figures. About 86 thousand emigrants from this State were found in Burma in 1931 and a large number of them seem to have returned with their families during the last War. A major part of the figures of the foreign-born is made up of children born to these former migrants from this State to Burma. Similar is the case of the Straits Settlements and Malaya. If such cases are excluded the remaining migrants from these countries and from China are visitors or Buddhist pilgrims or semi-permanent migrants engaged in business. A negligible number of Afghan families have settled temporarily in this State and the majority consists of male visitors travelling as peddlers. Their number has fallen from 1,386 in 1931 to 187 in 1951.

(ii) The Nepal-born

13. The influx of Nepalese into this State has been increasing. Their number in 1931 was 43,494. It has increased to 83,900 (49,234 males, 34,666 females) in 1951. Just before the census of 1951 Nepal was convulsed by an armed revolt against the government controlled by the Ranas. The conditions were returning to normal about the date of enumeration. A large number of families of Indian settlers in the border districts of Nepal returned to their home districts and with them had come the Nepal-born children. Many Nepalese had crossed into this State during the disturbances. The figures of Nepal-born are undoubtedly inflated by these factors. But the number of Nepalese in this State has also been otherwise increasing. The majority of the Nepalese in this State consist of soldiers and policemen with their families and of a substantial number of permanent settlers. They are concentrated chiefly in the districts of Naini Tal (males 11,383, females 3,264), Dehra Dun (males 8,498, females 3,403), Basti (males 2,022, females 7,170), Gorakhpur (males 3,053, females 4,920), Bahraich (males 2,008, females 4,240) and to a less extent in the other districts of the Himalayan division and Jhansi. The nationals of Nepal are also chiefly found in some of these districts. The statistics of Basti, Gorakhpur and Bahraich strongly suggest that people of the border villages in these districts take Nepalese brides. This fact and the closer contact between Nepal and India lessens the importance of the figures of Nepal nationals in this State.

(iii) The Pakistan-born (displaced persons)

14. Of the migrants from the Asiatic countries 491,499 (males 268,943, females 222,556) or 84 per cent. were born in Pakistan. This includes the displaced persons, a small number of Pakistan nationals and persons who had migrated before the partition of the country. The partition of the country and creation of Pakistan was attended with tribulation and the Punjab, Sind and the North-West Frontier Province, in particular, witnessed carnage on a colossal scale. Millions were driven from their homes and being helpless and homeless had to change their nationality. About half a million came to Uttar Pradesh mainly during 1947-48. By the end of December, 1947, 372,602 or about 78 per cent. of the displaced persons had already entered this State. 15,619 persons (males 7,477, females 8,142) had arrived here before March 1, 1947. Out of this the

number from East Pakistan was only about 500. Between March and July, 1947, the arrival figures were 62,579 persons (males 29,215, females 33,364) and 1,482 of them were from East Pakistan. The number in August increased to 108,212 (males 61,257, females 46,955) including 1,440 from East Pakistan and the arrivals in the last four successive months of the year were 186,192 of whom 83,316 were females and 3,048 from East Pakistan. 72,650 displaced persons (males 37,461, females 35,189) or about 15 per cent. of the total came in 1948, 6,881 (males 3,483, females 3,398) came in 1949, 4,256 (males 2,047, females 2,209) came in 1950, 669 (males 422, females 247) came in 1951 (by the census date) and 23,212 (males 12,909, females 10,303) have either not given their date of arrival or are born in India. The total number of displaced persons returned in the last census was 480,270 (males 257,147, females 223,123) and of them 9,598 (males 4,707, females 4,891) are from East Pakistan. About 303 thousand or 63 per cent. of them have come from Punjab, 69 thousand or 14.5 per cent. from Sind, 63 thousand or 13 per cent. from North-West Frontier Province and the rest have come from Baluchistan or other parts or had not stated their district of origin to the enumerator.* The sex-ratio is 87 females per 100 males (86 females per 100 males among the displaced persons from West Pakistan and 104 in case of those from East Pakistan). About 36 per cent. of them are below 15 years of age, 48 per cent. are of ages 15—44, 8 per cent. are of ages 45—54 and the rest are of age 55 or over. About 60 per cent. of them are concentrated in 8 western districts and over 78 per cent. in only 11 districts of the State. Table 50 gives this distribution of their population. The western districts of the State being nearer to the abandoned areas and having large urban centres attracted immigrants most.

TABLE 50—Distribution of displaced persons in selected districts of the State

District	Persons	District	Persons
Western districts		Other districts	
Dehra Dun	48,080	Kanpur	45,251
Saharanpur	65,684	Allahabad	13,817
Muzaffarnagar	15,126	Lucknow	29,478
Meerut	68,113		
Agra	44,695		
Bareilly	16,259	Total	88,546
Moradabad	15,766		
Naini Tal	13,688		
Total	287,411	GRAND TOTAL	375,957

Only 4.5 per cent. of displaced persons are settled in agriculture, while the rest have selected non-agricultural occupations. About 16 per cent. are engaged in Production other than cultivation, 43 per cent. in Commerce, 9 per cent. in Transport and the rest in Other services and miscellaneous sources. Non-agricultural occupations being the predominant source of their livelihood 90 per cent. of the displaced persons have settled in the urban areas.

15. Table 51 shows the number of persons of non-Asiatic origin and the number of foreign nationals from outside Asia. The number of persons of non-Asiatic origin is 1,955, and that of nationals of the countries shown in the table is 1,664. The two figures differ for reasons already given in paragraph 12 above. Besides, children born in India to foreign nationals seem to have increased the number of such nationals in some cases. Among the persons of

Immigrants from outside Asia

TABLE 51—Foreign-born and foreign nationals from outside Asia

Country	Foreign-born		Foreign nationals	
	Males	Females	Males	Females
All non-Asiatic countries..	1,158	797	855	809
United Kingdom	531	254	540	469
Elsewhere in Europe	162	144	160	195
Union of South Africa	129	94	14	5
Elsewhere in Africa	86	44	..	..
Canada	8	9	12	4
U.S.A.	137	152	105	112
Elsewhere in America	63	70	2	1
Australia	27	25	11	12
Elsewhere in Australasia	14	5	11	11
Born at sea	1	..	..	..

non-Asiatic origin, those from the United Kingdom predominate. They constitute 40 per cent. of the total. In 1931, 17,573 returned themselves as born in United Kingdom. A great proportion of them were in the army and the civil services. Due to their withdrawal after the attainment of Independence, their number has dwindled down to 785 in

1951. Some of them are semi-permanent migrants in business or service

*District of origin of 21,969 displaced persons (males 11,286, females 10,683) remained untraced.

and a certain proportion are temporary migrants on business visits, sight-seeing and so on. Africans and Americans (mostly missionaries) are negligible and so are the Australasians. A fair number of the Africans seem to be the descendants of Indians abroad. Most of the foreign nationals belonging to the non-Asiatic countries are concentrated in the cities of Lucknow, Kanpur, Allahabad, Meerut and Dehra Dun.

The Anglo-Indians

16. The Anglo-Indians, who constitute a special group, numbered 6,343 (males 3,388, females 2,955) in the 1951 census. Their number was 13,390 in the 1941 census. A considerable number of Anglo-Indians in this State was in service in the Railway and Post and Telegraph departments. At the time of the partition of the country most of them opted for Pakistan and migrated to that country. Many of them migrated to Australia, Canada, New Zealand, United Kingdom and other overseas countries after the partition. In the previous censuses, many Christians who did not belong to the Anglo-Indian community, got themselves registered as such for social and economic reasons. All these persons registered themselves as Indian Christians in the 1951 census. Besides, some Anglo-Indians have returned themselves as Indian Christians. Some families have also shifted to big cities in India. The decline in their number is supported by the decline in the number of persons who have returned English as their mother-tongue, 11,451 persons gave it as their mother-tongue in the 1951 census, while the figure in the 1931 census was 34,443. The present number is somewhat greater than the total reported number of Britishers and the Anglo-Indians in this State. Undoubtedly the balance has been returned as mother-tongue by some of the Indian Christians and the other non-Asiatics. These are the various reasons which show that the decline in the number of Anglo-Indians in this State is genuine. The fall in their number and that of the British has been a loss of population to this State in the census of 1951.

Variations in the immigrant population since 1931

17. Subsidiary Tables 1·6 and 1·7 in Part I-B of the Report give the figures of immigration to this State from other parts of India and from the rest of the world respectively. Immigrants to the State as a whole showed an increase between 1931 and 1951 from 559,605 to 1,388,103, an increase of about 148 per cent. against 27 per cent. increase in population during the same period. Even if the displaced persons (whose immigration has been an abnormal feature of the last decade) are excluded from the immigrants, the figures showed an increase during the same period from 559,605 to 907,833 or of 62 per cent. The proportion of immigrant population has increased from 11 per 1,000 in 1931 to 22 in 1951 (or to 14 in 1951 if the displaced persons are not included among the immigrants). These figures show that immigration to the State has been rising during the recent years. The proportion of immigrant population was 14 per mille in 1901 and was as high as 16 and 17 in 1891 and 1881 respectively. A decline set in and the proportion came down to 10 in 1921. The decline was due to the famines and scarcity conditions and epidemics of these decades. Since 1921 the State has been steadily moving towards progress in industrialization and the epidemics have also been brought under control. Under these favourable conditions immigration has been increasing.

Immigrants from other parts of India have risen from 492,920 to 1,293,579 (or to 802,080 excluding the Pakistan-born), the more important variations being increase of 20 thousand or 135 per cent. in the immigrants from Delhi; of 92 thousand or 131 per cent. from Bihar and Orissa; of 17 thousand or 114 per cent. from Madhya Pradesh; of 76 thousand or 82 per cent. from the Punjab in spite of its partition; and of 47 thousand or 57 per cent. from Rajasthan. The variations in the immigrants from Madhya Bharat, Vindhya Pradesh and Bhopal has been slightly more than 4 thousand or 3 per cent. only, if their combined figures are compared with the figures of the former Central India Agency and Gwalior. In the case of more remote States, the increase in the figures of immigrants has been of about 5 thousand or 339 per cent. from Jammu and Kashmir; of 10 thousand or 336 per cent. from Madras; of 9 thousand or 174 per cent. from PEPSU, Bilaspur and Himachal Pradesh; of 10 thousand or 116 per cent. from Bombay, Saurashtra and Kutch; and of 18 thousand or 58 per cent. from West Bengal. We have already seen (paras 12—16) that immigrants from other Asiatic countries have increased from 47 thousand to 584 thousand. The influx from Pakistan, the squeezing out of Indians from Burma and the 'push' from Nepal have contributed to this rise. Only the non-Asiatic countries have recorded a fall due to the withdrawal of the British after the Independence.

18. It will be interesting to examine the distribution of immigrants within the various natural divisions. Table 52 gives the figures.

TABLE 52—*Distribution of 10,000 population by birth-place in the natural divisions*

Born in—	Uttar Pradesh	Himalayan	East Plain	Central Plain	West Plain	Hills and Plateau
Total population	10,000	10,000	10,000	10,000	10,000	10,000
Uttar Pradesh	9,780	9,439	9,880	9,849	9,725	9,586
Adjacent States in India	109	136	76	54	129	362
Other parts of India	18	35	14	23	14	18
Pakistan	78	252	12	67	126	28
Other territories beyond India	15	138	18	7	6	6

Immigration by natural divisions and districts

Subsidiary Table 14 gives the actual figures of migrants from the adjacent States, other parts of India, Pakistan and other territories beyond India for the natural divisions and the districts. Migration from adjacent States and other parts has already been dealt with in detail and it will be enough to note the salient points with reference to the natural divisions and the important immigrating districts.

In the Himalayan division there is a relatively larger proportion of persons born outside this State. The population of this division is small and even though the number of immigrants is only 141,571, the proportion of immigrants to the total population of the division is 561 per 10,000. Dehra Dun and Naini Tal attract most of the immigrants. 2,444 persons per 10,000 of population (males 1,431, females 1,013) enumerated in Dehra Dun and 1,143 (males 788, females 355) enumerated in Naini Tal have immigrated from outside the State. Both the districts receive a large number of Nepalese and Punjabis as forest labourers or as soldiers and workers in the cantonments. Dehra Dun has attracted a considerable colony of pensioners and retired persons and Naini Tal has some healthy hill stations. A large number of displaced persons has also settled in these districts.

The proportion of immigrants in the East Plain is the lowest, being 120 per 10,000 of the population. In this natural division Banaras is the only place that gains from immigration to an appreciable extent (295 per 10,000). Besides marriage migration from Bihar, it gains from other parts of India and outside due to its position as a large city and also as the most famous religious centre in India. Nepalese have settled in Gorakhpur and the adjoining districts. Deoria, Ghazipur and Ballia receive large numbers by marriage migration from Bihar.

The Central Plain also has a low immigrating proportion in the population. It is only 151 per 10,000. Kanpur, Lucknow and Allahabad have a comparatively large immigration due chiefly to the attractions which their cities offer to labour, and partly also to their large cantonments. In the case of Lucknow, its position as the headquarters of the State Government is another contributing factor. The proportion of immigrants per 10,000 is 480 (males 281, females 199) in Kanpur, 241 (males 124, females 117) in Allahabad and 525 (males 298, females 227) in Lucknow.

The West Plain has a slightly higher proportion of immigrant population. The proportion is 275 per 10,000 of the population. The greater proportion of migration is from the adjacent States and is permanent marriage migration which needs no comment. Displaced persons have also preferred to settle in the western districts. Meerut, Agra, Mathura and Saharanpur have got the attractions of their cities. They also have cantonment population. The proportion of immigrants does not exceed 300 per 10,000 of the population in any other district of the division except the four mentioned above.

The Hills and Plateau like the Himalayan division has a small population and a higher proportion of immigrants. There are only 161,578 immigrants from outside the State but their proportion to the population is 414 per 10,000. A major portion of the migration is permanent marriage migration from the adjacent States. The distant migrants are concentrated in the city of Jhansi which has extensive trade connections with the southern and western States of India.

The proportion of immigrants to the total enumerated population of the State as a whole and of all the natural divisions except the Hills and Plateau division shows an increase between 1931 and 1951. Table 53 gives the comparative proportions for 1931 and 1951 for the Hills and Plateau division.

TABLE 53—*Distribution of immigrants per 10,000 of the total enumerated population in Hills and Plateau division for 1951 and 1931*

Born in—	1951			1931		
	Persons	Males	Females	Persons	Males	Females
Total population	10,000	10,000	10,000	10,000	10,000	10,000
Uttar Pradesh	9,586	9,841	9,421	9,521	9,648	9,388
Adjacent States in India	362	200	535	462	331	599
Other parts of India and Pakistan	46	51	40	11	11	11
Other territories beyond India	6	8	4	6	10	2

The table shows a decline in the immigrant proportion of the population coming from the adjacent States in India. The fall in the proportion of immigrants from adjacent States which is more marked in case of males may be due to two reasons. There was a change in the enumeration procedure in 1951 and persons coming temporarily from the adjacent States have not been enumerated in this division. Secondly, it is obvious from the previous census Reports that there used to be a heavy migration to this division from the former border states of Charkhari, Datia, Samthar and some other minor states of the Central India Agency. These states have now merged in Uttar Pradesh and the population which used to be enumerated as an out-born population has been enumerated as home-born population in 1951.

Emigration:
(i) *To overseas*

19. It is not possible to give any figures for overseas emigration. There was some indentured labour migration to the British colonies and other places before the First Great War. The total number born in this State that sailed from Calcutta to various British colonies between 1901 and 1910 was 128,513.

Of this number 66,860 were from the East Plain and the Central Plain contributed 27,188. Indentured labour emigration almost ceased in 1914 and during the decade 1911 and 1920 only 41,248 persons born in the State embarked from Calcutta. Figures of labour movement since 1921 are not available. The movement of U. P. labour to places outside India must have been negligible since 1921.

(ii) *To Pakistan*

20. Of emigration to Pakistan there is no record. There was some exodus, mainly from the western districts of the State, to Pakistan after the partition of the country.

(iii) *To Nepal*

21. For Nepal too it is not possible to give any precise figures. It is certain that there is some reciprocal marriage migration between Tharus and others living in Tarai area of the two countries; and with closer trade relations during the recent years semi-permanent migration to this country has also increased. A considerable number of businessmen and labourers earn their livelihood in Nepal. Besides, the Indians have practically a monopoly of spiritual leadership of the Nepalese. They go as priests, palmists and *gurus*, especially from Gorakhpur. Their movement to Nepal is periodic. They leave for Nepal soon after the *Dasehra* (October) and return about *Jeth* (May).

(iv) *To Burma*

22. Formerly there was an appreciable movement of the semi-permanent type to Burma in connection with trade and service. 33,453 persons born in this State were enumerated in Burma in 1901. This number steadily increased to 51,253 in 1911, to 68,592 in 1921 and to 81,777 in 1931. Including the Burma states the number of emigrants to Burma in 1931 was about 86 thousand (males 75,000, females 11,000). They were chiefly from Faizabad and Sultanpur districts and other districts of the Central and East Plain. The volume of emigration to Burma in 1951 is not known, but it must be far less than what it was in 1931. We have seen in paragraph 20 of the previous section that antagonism

to Indian labour existed in Burma and the Japanese control during the Second World War hastened the return of Indians to their homeland. The high figures of Burma-born persons enumerated in this State in the 1951 census (7,013 against 1,388 in 1931) establishes the return of former Indians with their descendants.

23. Accurate figures of emigration from this State are available only for emigrants to other parts of India. Subsidiary Table 1.5 shows the emigrants from this State to other States in India separately. Subsidiary Tables 1.6 and 1.7 compare the figures of emigrants in 1951 with 1931. In all, 1,535,901 persons (males 940,926, females 594,975) born in this State were enumerated in other States of India. Compared with this the number of emigrants in 1901 was 1,525,362; in 1911 it declined to 1,408,552; in 1921 it further declined to 1,400,284; but in 1931 it increased slightly to 1,559,646. The number of emigrants has thus been fluctuating round one and a half million figures and the proportional volume to the total population is rather negligible when compared with emigration from the European countries. The immobility in general is associated with the predominance of agriculture which requires constant attention from the cultivator and thus discourages movement. The caste system, early marriage and joint family encourage the home keeping habit and lack of education, diversity of languages and culture create impediments in the flow of population from one part to the other. At the same time the 'pull' factor is not much in operation to encourage the people of this State to move, though the 'push' factor is present in the State in spite of the obstacles created by the social fabric. The economic motive to earn more is not lacking, but the treatment of Indians abroad, the non-availability of free land in the States of India and the limited existence of favourable employment opportunities in the urban areas of this country, discourage movement of our people.

(v) To other parts of India

24. Of the total emigrants from this State 814,947 persons or 53 per cent. (males 388,948 or 41 per cent., females 425,999 or 72 per cent.) were enumerated in the adjacent States. 257,778 persons or 32 per cent. (males 92,116 or 24 per cent., females 165,662 or 39 per cent.) of the total emigrants to the adjacent States have agriculture as their means of livelihood and the rest are dependent on non-agricultural sources of livelihood. The distribution of the emigrants in the adjacent States is as under:

(vi) To the adjacent States

Emigrants to the Punjab number 98,553 persons (males 40,210 or 41 per cent., females 58,343 or 59 per cent.). Of them 45,812 persons (males 11,035, females 34,777) have agricultural means of livelihood. The females represent chiefly permanent matrimonial emigration to the rural areas of the neighbouring districts of the Punjab. The males represent the semi-permanent labour emigration. Of the persons having non-agricultural sources of livelihood some are semi-permanent emigrants of the family type and some are unaccompanied by their families. This emigration is to the urban areas of the Punjab in search of employment. The total number of emigrants has decreased by 52 per cent. since 1931 mainly due to the partition of the State.

(a) Punjab

Emigrants to Delhi number 262,098 persons (males 125,747 or 48 per cent., females 136,351 or 52 per cent.) drawn chiefly from the west of this State. Of them only 4,462 (males 2,175, females 2,287) are agriculturists and the rest are engaged in non-agricultural occupations. A small number of females represent permanent marriage migration and the majority are semi-permanent emigrants accompanying their husbands. The total emigrants show an increase of 126 per cent. over the 1931 figure.

(b) Delhi

Madhya Bharat and Vindhya Pradesh are adjacent States and Bhopal is a distant one, though not far off. 129,631 persons (males 54,027 or 42 per cent., females 75,604 or 58 per cent.) born in this State were enumerated in Madhya Bharat. 49,385 persons (males 9,350, females 40,035) were engaged in agriculture. Next comes Vindhya Pradesh with 41,320 persons (males 12,631 or 31 per cent., females 28,689 or 69 per cent.). Of them 4,602 males and 13,368 females were in agriculture. This State has sent 5,277 emigrants (males 2,845 or 54 per cent., females 2,432 or 46 per cent.) to Bhopal and only 529 of them (males 253, females 276) had agriculture as their occupation. Emigration to Madhya Bharat and Vindhya Pradesh includes a considerable volume of permanent marriage migration. The rest of it in case of these States and the whole of the emigration to Bhopal is semi-permanent and some of it is periodic and other type of labour emigration. The total emigration to these States when compared with the 1931 figures of Central India Agency and Gwalior has decreased by 10 per cent.

(c) Madhya Bharat, Vindhya Pradesh and Bhopal

(d) Rajasthan

Emigrants number 57,974 persons (males 31,607 or 55 per cent., females 26,367 or 45 per cent.) of whom 37,761 (males 20,401, females 17,360) were found in agricultural occupations. Formerly there used to be a large matrimonial migration to Rajputana Agency which seems to have declined according to the figures of 1951 census. The emigration is largely of the semi-permanent type. The figures show a decrease of about 14 per cent.

(e) Madhya Pradesh

Emigrants to Madhya Pradesh number 85,900 (males 47,805 or 56 per cent., females 38,095 or 44 per cent.). Of them 8,486 males and 12,256 females were found engaged in agricultural occupations. The excess of females in the agricultural occupations suggests some permanent marriage migration. The rest is semi-permanent and in some cases periodic labour emigration connected with harvesting operations. The total number of emigrants has decreased by 28 per cent.

It is significant that emigration to Madhya Bharat, Vindhya Pradesh, Rajasthan and Madhya Pradesh has declined since 1931 in spite of a rapid increase in the population of Uttar Pradesh. The female emigration to these States has also declined. The decline may be due to several factors. In comparing the figures of 1951 census with the previous ones it is to be borne in mind that the enumeration procedure of 1951 was a different one. In 1951 visitors to a place were enumerated only if they were away from their normal residence for the whole enumeration period of 20 days' duration; whereas in 1951 and prior to it everybody present on the census night at a particular place was recorded where he was found. This change may account for the larger number of emigrants in 1931 than those recorded in 1951. The merger of some enclaves in Uttar Pradesh also has changed the complexion of migration to these former states. The migration which was formerly external has now become internal. A change also seems to have taken place in the direction of marriage migration which has become more inwards.

(f) Bihar and Orissa

Emigrants to Bihar number 137,356 persons (males 75,480 or 55 per cent., females 61,876 or 45 per cent.) and of them 35,362 males and 45,171 females had returned agriculture as their source of livelihood. The predominance of females in the agricultural classes represents matrimonial migration. 24,550 males have returned Cultivation of owned land as their main occupation. The figure suggests that this number has permanently or semi-permanently migrated to Bihar and has got land for cultivation. The rest of the migration is semi-permanent labour migration. The total number of emigrants who returned 'Production other than cultivation' as their occupation is 26,586. This number represents the migration of labour to the mining areas in Bihar. 2,329 persons (males 1,513, females 816) born in this State were enumerated in Orissa. They have predominantly returned non-agricultural occupations as the source of their livelihood and they represent semi-permanent labour emigration. The combined figure of the two States shows an increase of 10 per cent.

(vi) To other States of India

25. Of the total emigrants from this State 720,954 persons (males 551,978, females 168,976) were enumerated in the distant States of India. 696,634 (males 539,796, females 156,838) or 97 per cent. of them returned non-agricultural sources of occupation as their means of livelihood.

(a) Bombay

The greatest number of emigrants from this State to any other are found in Bombay where they number 338,913 persons (males 281,764 or 83 per cent., females 57,149 or 17 per cent.). Of them 126,304 males and 22,817 females are engaged in Production other than cultivation, the majority of the rest in Commerce, Transport and Other services and miscellaneous sources and only a negligible number (males 2,480, females 1,939) in agricultural occupations. This represents emigration of the semi-permanent type, in some cases of whole families but usually only of males. The Bombay mills are the main attraction. 1,885 persons born in this State were enumerated in Saurashtra and 204 in Kutch. The combined figure of Bombay, Saurashtra and Kutch shows an increase of 131 per cent. over the number of emigrants of Bombay and Western India Agency in 1931.

(b) Bengal

Next comes West Bengal with 295,237 persons (males 215,357 or 73 per cent., females 79,880 or 27 per cent.). Of them only 4,518 males and 2,885 females have returned agricultural occupations as the source of livelihood and of the rest the majority are engaged in Production other than cultivation, as in Bombay. Bengal attracts emigrants to its mills, factories and coal-fields and a large number are employed in domestic service in Calcutta city. The figure shows a decrease of 15 per cent. in emigration. Due to partition of the State the emi-

grants lost the jute areas of East Bengal where they used to go in large numbers at the time of harvesting. This migration used to last some six months from September or October to April.

Emigration to Assam has decreased to 33,463 persons (males 23,085 or 69 per cent., females 10,378 or 31 per cent.) from 68 thousand in 1931, a decrease of 51 per cent. This represents semi-permanent emigrants employed chiefly in the tea gardens. Only 2,606 males and 1,285 females were found engaged in agriculture and the rest had returned non-agricultural occupations as the main source of livelihood. The demand for labour in Assam has apparently gone down.

Emigration to the remaining States is small. Patiala and East Punjab States Union, Bilaspur and Himachal Pradesh receive between them some 18,100 emigrants, Hyderabad receives a respectable number of 13,453, Ajmer 5,169, Mysore 4,113, Madras 3,388 and Travancore-Cochin, Coorg, Manipur and Tripura, Chandranagore and Sikkim together receive 1,538. The emigrants to these States are predominantly males except in case of PEPSU where the male percentage is about 43 only. It is not an adjacent State but is a neighbouring one and the female excess represents some marriage migration. The rest of the migration is semi-permanent.

26. Enumeration of persons born outside a State was not done by districts in the 1951 census and so emigration figures could not be had by natural divisions and districts. But from the figures in the previous census Reports we know that losses by emigration to distant States were borne mainly by the East Plain, certain districts of the Central Plain—Allahabad, Lucknow, Rae Bareli, Faizabad, Sultanpur, Pratapgarh, Kanpur and Fatehpur—and Mirzapur district of the Hills and Plateau division. Banda and Jhansi districts had extensive migration to Bombay. The same may be true even now. Emigration from the East and Central Plain has undoubtedly been a natural relief to the congested districts.

27. Table 54 shows the streams of migration from and to this State.

TABLE 54—Streams of migration from and to the State

State	Immigrants to U. P.	Emigration from U. P.	Balance
Punjab	168,723	98,553	+70,170
Bihar	159,660	137,356	+22,304
Rajasthan	128,767	57,974	+70,793
Vindhya Pradesh	99,711	41,320	+58,391
Madhya Bharat	60,075	129,631	-69,556
West Bengal	49,033	295,237	-246,204
Delhi	35,486	262,098	-226,612
Madhya Pradesh	32,528	85,900	-53,372
Bombay	16,805	338,913	-322,108
Madras	13,511	3,388	+10,123
PEPSU	7,474	15,411	-7,937
Himachal Pradesh	6,311	2,115	+4,196
Jammu and Kashmir	6,241	Unknown	Unknown
Hyderabad	3,881	13,453	-9,572
Assam	3,733	33,463	-29,730
Ajmer	2,135	5,169	-3,034
Saurashtra	2,099	1,885	+214
Orissa	1,689	2,329	-640
Bhopal	1,258	5,277	-4,019
Mysore	1,040	4,113	-3,073
Travancore-Cochin	953	629	+324
Andaman and Nicobar Islands	541	Unknown	Unknown
Bilaspur	106	574	-468
Kutch	56	204	-148
Manipur	26	9	+17
Coorg	18	6	+12
Tripura	11	432	-421
Sikkim	9	210	-201
Chandranagore	..	252	-252
Elsewhere in India	200	Unknown	Unknown
Pakistan	491,499	Unknown	Unknown
Other territories beyond India	94,524	Unknown	Unknown

Large losses on the balance occur to Bombay, West Bengal, Delhi, Madhya Bharat, Madhya Pradesh and Assam, and the major gains are from Rajasthan, Punjab, Vindhya Pradesh, Bihar and Madras. On the whole, this State was the poorer by 147,798 persons (males—293,342, females+145,544) at the census of 1951 as against 1,000,041 in 1931. The loss in 1951 census has been

(c) Assam

(d) Other States

Emigration by natural divisions and districts

The streams of migration

relatively smaller, but to this loss must be added the overseas emigrants and the emigrants to Nepal, Burma and Pakistan, whose exact numbers are unknown. The number of female immigrants from adjacent States is 434,028, while the emigrants to these States number 425,999. There is roughly a small gain on the balance of matrimonial exchanges as against a loss in 1931.

Internal
migration:
its volume

28. Migration within the boundaries of a State is often far more important in numerical terms. Migration between urban and rural areas will be considered in Chapters II and III of this Report and here we will only examine the migration from one district to another and the resulting loss or gain of population. The figures in Table 55 show for the State the number per mille who were born in the district of enumeration and in the rest of the State at this and the 1931 census.

TABLE 55—Number per mille who were born in the district of enumeration in 1951* and 1931

Born in—	1951			1931		
	Persons	Males	Females	Persons	Males	Females
Uttar Pradesh	978	980	975	989	990	987
District of enumeration	907	938	872	929	952	903
Other districts of the States	71	42	103	60	38	84

The figures for home-born population in 1901 were 901 per mille (males 928, females 882). The internal migration considerably decreased in 1911 and 912 persons per mille (males 937, females 885) were enumerated in the districts of birth. Sri Blunt attributed this decrease to temporary plague migration at the time of the census. The tendency to stay at home had grown in 1921 when the home-born population was 931 per mille (males 955, females 905). It declined slightly later on as the figures of 1931 in the above table show. Since then the decline has been a marked one, both in case of males and females, but the 1901 level has not yet been reached either for the total population or for the males. The proportion of home-born has been varying between 928 and 955 per mille for males and between 868 and 905 in case of females since 1901. The variation has undoubtedly been the result of difference in availability of opportunities for employment and in case of females, to a greater extent, on the proportion of females married during a decade. For the State as a whole the actual volume of internal migration has risen from 2,993,000† in 1931 (males 1,004,000, females 1,988,000) to 4,510,304‡ in 1951 (males 1,388,265, females 3,122,039) or by 50·7 per cent. In the case of males the increase is by 38 per cent. as against an increase of 27 per cent. in the enumerated population of males in the State. This larger proportional increase may be ascribed to the movement of labour following the industrial expansion in the State during the last decade. In the case of females the increase is 57 per cent. as against an increase of 28 per cent. in the enumerated population of females during

* The entry of 'birth-place' in the enumeration slips of Tehri-Garhwal, in a large number of cases, was not made correctly. Instead of writing '1' for persons born in the district, 'Garhwal' was entered and, therefore, the population was converted into an immigrant one. Consequently the figures of born in 'district of enumeration' and 'other district of the same natural division' are affected. The recorded figures for Tehri-Garhwal are: born in district of enumeration—persons 206,498 (males 95,804, females 110,694); born in other districts of the same natural division—persons 202,659 (males 98,670, females 103,989). If the number of immigrants to Tehri-Garhwal, from the same natural division, is estimated at persons 3,000 (males 1,000, females 2,000), which is a reasonable estimate made on the basis of figures of the 1931 census, the figures for persons born in district of enumeration will be 406,157 (males 193,474, females 212,683). In view of this change the figures for 'district of enumeration' and 'other districts of the State' for 1951 in Table 55 have been corrected.

†The absolute figures are 2,992,605 persons (males 1,004,332, females 1,988,273). The difference is due to rounding.

‡For reasons given in the above foot-note, the figures have been estimated. According to recorded figures, the volume of internal migration in 1951 is 4,709,963 (males 1,485,935, females 3,224,028) and the increase over 1931 calculates to 57 per cent.

the same period. This increase is the result of movement of females accompanying their husbands and to a larger extent due to increased number of marriages outside the district of enumeration.

29. The change in the procedure of enumeration, already described before, should have reduced the number of temporary migrants in the birth-place statistics. This fact should be borne in mind while making a comparison of the 1951 census returns of birth-place with the figures of 1931 and of censuses prior to it.

30. Table 56 shows for the natural divisions the distribution of population per mille of the total enumerated population.

TABLE 56—*Distribution of 1,000 population by birth-place in the natural divisions*

Born in—	Himalayan	East Plain	Central Plain	West Plain	Hills and Plateau
Total population	1,000	1,000	1,000	1,000	1,000
Born in district of enumeration	872*	944	896	887	913
Other districts of the same natural division	42	35	51	72	17
Other districts of the State	30	9	38	13	29
Beyond the State	56	12	15	28	41

The East Plain is densely populated with a few industrially important towns and no free land for cultivation to attract immigrants. The Hills and Plateau division has also no attraction. Most of the migration in these divisions is marriage migration from the adjacent districts in the State or from the adjacent States. Lucknow and Kanpur districts of the Central Plain attract immigrants from outside the natural division. Out of its 245 per mille of immigrants Lucknow draws no less than 193 from other districts in the State and out of this 95 are males who find their way to Lucknow city and are semi-permanent migrants. But most of the female migration is matrimonial. Kanpur district has gained by immigration 475,070 persons. Of these 199,083 (males 113,040, females 86,043) are from the other districts of the same natural division, 182,754 (males 100,463, females 82,291) from other parts of the State and 93,233 persons (males 54,566, females 38,667) from beyond the State. The proportion of immigrants per mille to enumerated population is 245 of which 197 are from the other districts of this State. The figures are striking. The major part of it goes to Kanpur city and is semi-permanent migration though a fair proportion of the females in Kanpur city and the major part of it in the rest of the district is marriage migration. Migration in the other districts of the division is negligible and is mostly marriage migration. There is no striking migration in the districts of the West Plain division except in case of Pilibhit, Aligarh, Mathura, Mainpuri, Etah and Farrukhabad in which the proportion of internal immigrants is over 100 per mille of the population, but the male proportion of it is nowhere above 36. The large predominance of female immigrants shows this to be mainly permanent marriage migration. The lowest proportion of home-born is found in the Himalayan division. 793 persons per mille (males 768, females 819) were enumerated in this division in the district of their birth. When the figures of Tehri-Garhwal are corrected, the number of home-born, in this division, rises to persons 872 per mille (males 844, females 901)†. The districts which gain practically no population from outside (either from within the State or from outside it) fall in this division only—Tehri-Garhwal where 986† (males 984, females 987) out of every 1,000 are home-born, Almora with 981 per mille (males 980, females 982) home-born and Garhwal where the figure is 974 (males 963, females 983). But Dehra Dun and Naini Tal districts of this natural division receive large immigration and their figures lower the proportion of the home-born in this natural division. Only 579 per mille (males 551, females 619) in Dehra Dun are home-born and in Naini Tal the figure is 604 (males 572, females 648). In Dehra Dun a substantial number comes from Tehri-Garhwal (males 3,174

*For reasons given in the foot-note to Table 55, the figures have been estimated. The recorded figures are 793 per mille for persons born in the district of enumeration and 121 for those born in the other districts of the same natural division.

† These figures have been corrected as pointed out in the foot-note to Table 55.

Normality of the figures

Gains by internal migration

females 982; and a major part of males 14,329, females 5,795 wrongly recorded as born in Garhwal) and other adjacent and non-adjacent districts of the State. The migration from Tehri-Garhwal and Garhwal is seasonal, but that from the other districts is semi-permanent labour movement. Naini Tal gets a large population from Almora (males 32,134, females 23,485) which comes to the Bhabar during the winter. Some of it is permanently settled in the district. The remaining immigrants are semi-permanent settlers and periodic migrants to the Tarai from Moradabad (males 5,496, females 3,826), Rampur (males 3,156, females 2,647) and Bareilly (males 2,768, females 1,451).

31. What little internal migration there is very largely localized. Out of every 1,000 men 71 are internal migrants; of these 51 have moved only from the districts of the same natural division*. Subsidiary Table 1·4 in Part I-B of this Report gives the actual volume of movement from other districts of the same natural division and from other parts of the State. Of the total internal migrants 3,252,755* (males 862,740, females 2,390,015) are from other districts of the same natural division, and 1,257,549 (males 525,525, females 732,024) come from other parts of the State and among the migrants the females predominate. The Himalayan division is an exception to this and marriage migration is restricted to the district of birth, due mainly to poor communications and difficulties of movement and the differences of climate. Omitting the Himalayan division, there is not a single district, except Kanpur, in the other natural divisions where the number of female immigrants does not largely exceed the number of male immigrants. Kanpur has its mills to attract male immigrants in larger numbers. The social cause, namely marriage custom determines the sex distribution of immigrants and results in an excess of women. The rigid rule of the caste endogamy and the village exogamy compel women of a village to move to another village in marriage. When these villages happen to be in different districts or States the census, through its birth-place data, records them as migrants. The desire of having a close contact with the relations account for the close distance marriages. The institution of joint family and early marriages do not allow even the male migrants to move far off.

32. Table 57 gives the figures of migration within the State from the natural divisions.

TABLE 57—*Internal emigrants by natural divisions*

Natural division	Emigration to the districts of the same natural division			Emigration to other districts of the State		
	Persons	Males	Females	Persons	Males	Females
Himalayan	104,494†	61,467†	43,027†	55,685	32,213	23,472
East Plain	619,463	140,583	478,880	356,653	157,399	199,254
Central Plain	826,370	279,134	547,236	387,597	116,936	270,661
West Plain	1,635,786	365,997	1,269,789	324,705	169,552	155,153
Hills and Plateau	66,642	15,559	51,083	132,909	49,425	83,484

Only 15 per cent. of the migration (males 17, females 14) from the Himalayan division is to the districts outside the division. 36 per cent. of the migrants (males 53, females 29) from the East Plain move out to the districts of other natural divisions. The loss suffered by the Central Plain to the other divisions is 32 per cent. (males 30, females 33) of the total internal migration. The West Plain suffers the least among the natural divisions of the plain. It sends out only the 17 per cent. (males 32, females 11) of the internal migrants to the other parts of the State. But the loss to the Hills and Plateau division is the heaviest. 67 per cent. (males 76, females 62) of the internal migrants from this division move out of it to other divisions in search of employment or in marriage.

33. Table 58 shows the balance of internal migration in the natural divisions.

*See foot-note to Table 55. The figures have been estimated.

†See foot-note to Table 55. The figures have been estimated. The recorded figures are: persons 304,153 (males 159,137, females 145,016).

Losses on
Internal migration

The balance
of internal
migration

TABLE 58—Balance of internal migration in the natural divisions

Natural division	Immigrants from other natural divisions			Emigrants to other natural divisions			Balance		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
Himalayan ..	76,476	50,178	26,298	55,685	32,213	23,472	+20,791	+17,965	+2,826
East Plain ..	156,164	41,707	114,457	356,653	157,399	199,254	-200,489	-115,692	-84,797
Central Plain ..	611,698	283,721	327,977	387,597	116,936	270,661	+224,101	+166,785	+57,316
West Plain ..	299,555	114,849	184,706	324,705	169,552	155,153	-25,150	-54,703	+29,553
Hills and Plateau	113,656	35,070	78,586	132,909	49,425	83,484	-19,253	-14,355	-4,898

The Himalayan and the Central Plain divisions gain on balance of internal migration, the East Plain and the Hills and Plateau lose in males as well as in females, and the West Plain loses on the whole on account of balance of migration, but gains in females. The attractiveness or otherwise of a district to migration is to be measured rather by the excess of immigration over emigration than by the proportion of immigrants to the enumerated population, which has been described before. Naini Tal and Dehra Dun gain 75,706 and 51,996 persons. All the districts of the East Plain lose population on the balance of internal migration except Bahraich (10,053) and Banaras (14,405). Bahraich has mostly gained from marriage migration, while Banaras has lost in marriage migration but has received a large number of semi-permanent migrants. Kanpur (247,571), Fatehpur (7,852), Allahabad (6,798), Lucknow (128,938) and Sultanpur (4,519) districts of the Central Plain have a favourable balance. Kanpur and Lucknow receive extra numbers in both males and females, while the other three gain in males only. Internal immigrants exceed emigrants in Saharanpur (27,039), Pilibhit (11,375), Rampur (3,605), Kheri (7,898), Muzaffarnagar (13,227), Meerut (31,566), Bulandshahr (8,648), Mathura (6,615), Agra (17,205) and Mainpuri (23,322) districts of the West Plain. Of these Muzaffarnagar, Bulandshahr, Mathura and Mainpuri gain only on account of marriage migration. Jhansi (1,782), Jalaun (4,947) and Mirzapur (11,630) of the Hills and Plateau division have more internal immigrants than emigrants. Jalaun and Mirzapur attract more females but lose their males, while in Jhansi, a trade centre, there is excess of male as well as of female immigrants over emigrants.

34. Net migration is the difference between the immigration into the State and emigration from it during the decade. The total number of immigrants during a decade is taken to be the number enumerated as immigrants in the particular census diminished by the corresponding number of the previous census and increased by a number representing deaths among the latter. The total number of emigrants during the decade is also estimated in the same way. The figures of the censuses 1901 to 1931 are available in the subsidiary tables included in the Report of the particular census. Similar figures for the decade 1931—40 are not available because figures for migrants at the 1941 census were not tabulated. It is, however, evident from the conditions of the decade 1931—40 and 1941—50 described in the previous section, that immigration in 1941 should be larger as compared to 1931 but smaller as against 1951 and the reverse of it will be true about emigration. The migration trend was in the process of a change. Therefore, after excluding immigration of 480 thousand (males 257,000, females 223,000) displaced persons from the immigrants of 1951, which has undoubtedly been an abnormal influx, a mean of the figures of immigrants in 1931 and the balance of immigrants in 1951 has been taken and 734,000 (males 321,000, females 413,000) thus arrived at, has been assumed as the estimated figure of immigrants in 1941. In the same way the mean of the number of emigrants in 1931 and 1951 gives the number of emigrants in 1941 which is 1,548,000 (males 951,000, females 597,000). This may be taken as a reasonable estimate of the number of immigrants and emigrants in 1941.

After considering the variations in the death-rate from decade to decade and the quality of the registration during the particular period, it has been assumed that the mortality among the numbers shown as immigrants or emigrants was 40 per cent. during 1901—10, 44 per cent. during 1911—20, 30 per cent. during 1921—30, 25 per cent. during 1931—40 and 20 per cent. during 1941—50.

Net migration
of the State

The rates taken are slightly below the death-rates estimated for the decades in Section 5 of this chapter and are only close approximations and a rough and ready basis for calculation of net migration of a decade. The net migration calculated with the help of these rates is shown in Table 59 for the last five decades.

TABLE 59—*Net migration in the State during the last five decades**

(Figures in thousand)

Decade	Net migration		
	Persons	Males	Females
1901—10	—237	—218	—19
1911—20	—505	—323	—182
1921—30	—366	—268	—98
1931—40	—42	—88	+46
1941—50	+42	—38	+80

Sri Blunt estimated the balance in 1911 at over a million and Sri Edye estimated it at half a million in 1921. The estimate of Sri Turner in 1931 was at 363 thousand. These estimates were for the British districts of the State only and the figures of the former states of Tehri-Garhwal, Rampur and Banaras were not included in the calculations. Table 59 gives the figures for the whole State and this accounts for slight differences in the figures of balance of the migration of the decades 1921—30 and 1911—20. The difference in the figures of 1901—10 is striking. The estimate of Sri Blunt seems to have been an over estimate. His calculations included conjectures about emigration to Nepal and to other overseas countries, while the calculations made in the above tables are on the basis of the figures of immigration and emigration recorded in the census. The difference in the estimate of migration in 1901—10 will change the estimate of error in the registration of death which was calculated at 1.2 per cent. in 1911. This error will now increase. But this is subject to an assumption made in the calculations that there is no emigration outside India. This assumption may not be true for the decade 1901—10 and if we accept the conjectures made by Sri Blunt the balance of migration in 1901—10 will be over a million. The assumption may not hold true for the decade 1941—50 also. Emigration figures for this decade do not include the emigrants who are in Burma or Nepal, etc.

Actual volume
of migration in
1941—50

35. As regards the actual volume of migration in 1941—50 the following estimate may be of interest. In 1941 the estimated number of immigrants was 734 thousand (males 321,000, females 413,000). In 1951 there were 908 thousand (males 391,000, females 517,000) excluding 480 thousand (males 257,000, females 223,000) displaced persons. Therefore, during the decade sufficient immigrants came to supply this increase and to make good the deaths which occurred among them.

This involves the advent of the following immigrants in the decade :

	(Figures in thousand)		
	Persons	Males	Females
New immigrants	174	70	104
Immigrants to substitute the deaths	164	71	93
	338	141	197

* The figures for 1941—50 do not include the number of displaced persons which is 480 thousand (males 257,000, females 223,000)—See Appendix III. For the calculations of the registration error, the figures of displaced persons have been offset against the unknown figures of Muslim exodus. Otherwise, the figures will be: persons +522 (males +219, females +303).

By a similar calculation the number of emigrants who left the State must have been—

				(Figures in thousand)		
				Persons	Males	Females
New emigrants	..	..	..	—12	—10	—2
Emigrants to substitute the deaths	..		..	+308	+189	+119
				296	179	117

These figures, however, do not give the entire volume of migration because some of those who were migrants in 1941 would have returned to their homes for good and others must have migrated in the decade to fill their places. Sri Turner in 1931 assumed the proportion of migrants who returned to their homes for good within any ten years as one-half the males and none of females. This assumption will give us the following figures for the decade 1941—50:

Immigrants

				(Figures in thousand)		
				Persons	Males	Females
Immigrants, 1941	..	..	..	734	321	413
Died during decade, 1941—50	..	..	..	164	71	93
Balance	..	..	..	570	250	320
Returned home, 1941—50	..	..	..	125	125	..

Emigrants

				Persons	Males	Females
Emigrants, 1941	..	..	..	1,548	951	597
Died during decade, 1941—50	..	..	..	308	189	119
Balance	..	..	..	1,240	762	478
Returned home, 1941—50	..	..	..	381	381	..

Adding these to the former figures the volume of migration during the decade from and to the State may be stated approximately as follows:

				(Figures in thousand)		
				Persons	Males	Females
Immigrants	..	..	..	463	266	197
Immigrants of 1941 who returned to their homes out of the State				125	125	..
Emigrants	..	..	..	677	560	117
Emigrants of 1941 who returned to their homes in this State				381	381	..
Gain to the State on the balance of migration *	..		..	42	—38	+80

*The figures of emigrants to Burma, Nepal and Pakistan, which are unknown, have not been taken into consideration in making the calculation. Also see foot-note to Table 59.

SECTION 5—NATURAL INCREASE, BIRTHS AND DEATHS

Reference to
statistical tables

1. The birth and death-rates are the two remaining factors that determine the growth and distribution of the population. Natural increase is the product of these vital processes, a detailed analysis of which is made in this section. The main statistics are to be found in the following subsidiary tables in Part I-B of the Report :

Subsidiary Table 1.3—Mean decennial growth-rates during three decades—(1) General Population

Subsidiary Table 1.9—Actual number of births and deaths in Uttar Pradesh for each sex during the decades 1921—30, 1931—40 and 1941—50

Subsidiary Table 1.10—Registered birth-rate by sex and natural divisions

Subsidiary Table 1.11—Registered death-rate by sex and natural divisions

Subsidiary Table 1.12—Registered death-rate per mille by sex living at the same age, 1921—51

Subsidiary Table 1.13—Registered deaths from selected causes per mille of population

Subsidiary Table 1.14—Number of deaths of each sex at different ages

Registration of
births and deaths

2. Before the integration of the states the registration area in Uttar Pradesh covered the whole of the State excluding the former states of Tehri-Garhwal, Rampur and Banaras comprising 5.6 per cent. of the total area of this State and 2.4 per cent. of the total population in 1941. Now since these form part of this State the registration area has been extended to them also and at present it comprises the whole of the State. But the data analysed here is only for the former registration area. The figures of the pre-merger period of the enclaves comprising only a negligible proportion of area and population of the State are also not known. Since, however, the parts which were not under registration formerly or for which the vital statistics are not available cover a very small area, and that too is similar to the neighbouring districts of this State in all respects, it can safely be assumed that the birth and death-rates of the registration area will be representative of the entire State.

In rural areas before January 1, 1951, the reporting agency was the village chaukidar (watchman), a low paid public servant invariably illiterate and overburdened with many other duties. Reporting of births and deaths was not obligatory on householders and the village chaukidar made the entries of births and deaths in the pocket books with him as and when he came to know of them. Being illiterate he had to remember the names of various diseases and even of the occurrences and only when he could get help of some literate man in the village these were entered in his pocket book or he had to wait for his fortnightly visit to the police station where the entry was made. It is no wonder that in these circumstances the returns were incomplete. Since January 1, 1951, the duty of registration has been entrusted to the village panchayats constituted under the Uttar Pradesh Panchayat Raj Act, 1947. The reporting of births and deaths within three days of occurrence is obligatory on the head of the household. The panchayat inspector gets the monthly returns consolidated for his circle which replaces the thana registration circle under the old system. With the help of these consolidated returns the District Medical Officer of Health gets the district monthly and annual returns prepared and the district returns are eventually compiled for the State at the head office of the Director of Medical and Health Services. The statistics with which we are to deal in this section are those which have been reported by the village chaukidars before January 1, 1951, and the information includes particulars of the births and deaths by sex and the classification of the deaths under certain categories of age and of disease.

In the urban areas comprising of the local bodies and the cantonment boards, the registration of vital statistics by the householders and keepers of hotels, *dharmshalas*, etc., is obligatory by law. The standard of accuracy in the reporting of these areas is fairly good though by no means perfect.

A full account of the registration system in force in the State was sent by the Director of Medical and Health Services, Uttar Pradesh, and is published as Appendix II to this Report.

3. The crude birth and death-rates have been calculated from the reported births or deaths during the decade on the mean population of two censuses of the registration area and the rate expressed as the percentage of the mean decennial population. But the annual rates are merely the ratio of the number of births or deaths occurring to a population during one year to the number of persons in the population expressed as per mille of it.

Measurement of births and deaths

4. The unreliability of the figures of births and deaths has been stressed by the former Census Superintendents. Table 60 shows the percentage of omissions estimated by them for the decades 1901—10, 1911—20 and 1921—30 and by the present Superintendent for the decades 1931—40 and 1941—50. Calculations have been made (*vide* Appendix III) to ascertain the degree of omission in registration during the last two decades. The estimates given in Table 60 are very rough and were not made by a uniform method.

Reliability of the rates

TABLE 60—Estimated percentage of under-registration of births and deaths in the State*

Period	Births	Deaths
1901—10	..	1—2
1911—20	..	3·0
1921—30	..	22·0
1931—40	..	15·3
1941—50	..	29·9

Since 1921 the omissions have been fairly large mainly due to the reduction in the number of village chaukidars in 1922. There seems to have been some improvement during 1931—40 due perhaps to better supervision, but again a great deterioration took place during the war years. This may be attributed to the pre-occupations of the district administrative staff with new activities and responsibilities arising out of war conditions.

The estimates of omission in registration during 1941—50 are supported by the results of two sample surveys. Dr. B. G. Prasad of the Provincial Hygiene Institute, Uttar Pradesh, Lucknow, undertook an enquiry in 1949 at the suggestion of the Director of Medical and Health Services, Uttar Pradesh. The survey was conducted in the rural areas of 44 districts of the State and births and deaths in about 200 villages in each district were verified. The result of the enquiry was published in the April, 1952 issue of the Indian Medical Gazette and is reproduced in Appendix IV. Omissions discovered in case of births were 29·5 per cent. and in the case of deaths 24·3 per cent. for the whole State. One district showed nearly 70 per cent. omissions in births and 60 per cent. in deaths.

A pilot census of births and deaths during 1952 was conducted under my supervision in 18 selected villages of Bareilly district comprising of about 14 thousand population. It showed nearly 38 per cent. omissions in births and 36 per cent. in deaths. This survey may not be representative of the whole of the State but it undoubtedly throws useful light on the magnitude of the omissions in the registration of vital statistics in the State.

5. The mean decennial birth-rates for the State, the natural divisions and districts during the last three decades will be found in Subsidiary Table 1·3. Table 61 shows the rates for the State and the natural divisions for the last five decades. A downward trend after 1921 is visible in the figures. The birth-rate for the State as well as for the natural divisions up to 1941, was over

The birth-rate : its trend

TABLE 61—Mean decennial birth-rates (registered) in the State and the natural divisions, 1901—50

Period	Uttar Pradesh	Himalayan	East Plain	Central Plain	West Plain	Hills and Plateau
1901—10	41·7	37·1	38·6	41·4	44·3	42·7
1911—20	42·9	35·9	40·1	43·2	45·1	45·5
1921—30	34·0	34·7	30·0	30·8	38·9	36·2
1931—40	34·2	36·5	30·4	30·0	39·3	38·3
1941—50	24·8	29·3	21·8	20·2	29·5	27·6

*See Appendix III. For the calculation of the error for 1941—50, the figures of displaced persons have been offset against the unknown figures of Muslim exodus.

30 per cent., but it has gone down below 30 per cent. during 1941—50, the rate being lowest in the Central Plain (20·2) and the East Plain (21·8). The rate was stationary between 1921 and 1941 but thereafter there has been a significant decline from 34·2 per cent. to 24·8 per cent.

Table 62 giving the estimated birth-rates will give a more correct picture of the trend in this State. These estimates

TABLE 62—*Estimated birth-rates**

Period	Birth-rate
1901—10	41·7
1911—20	44·0
1921—30	39·9
1931—40	38·8
1941—50	34·9

have their limitations which are described in Appendix III. But they may be taken to be the most reliable guide available for the trend of birth-rate during the last 50 years. There is a drop in the birth-rate from 44 per cent. during 1911—20 to 39·9 per cent. during 1921—30. The rates are stationary during 1921—40 and then there is again a drop from 38·8 per

cent. in 1931—40 to 34·9 per cent. in 1941—50. The decline becomes more striking when we realize that the rate which was 44 during 1911—20 has come down to 34·9 during the last decade.

The trend of
the birth-rate
during 1941—50

6. Subsidiary Table 1·9 gives the actual figures of births for each sex during the decades 1921—30, 1931—40 and 1941—50. The total births during 1931—40 were 17,667,306 (males 9,372,753, females 8,294,553), while only 14,486,457 births (males 7,796,685, females 6,689,772) were recorded during 1941—50. The number has greatly declined during the last decade. In the first year of the decade there were 1,771,957 births as against 1,308,645 during 1950. The omissions in the last decade are estimated to be very heavy and probably year after year the registration has been deteriorating. But the actual births of the last decade are less by 3,180,849 than the recorded births of 1931—40 and the whole of the difference can not be accounted for by omissions in the recording of births. It can reasonably be assumed that the decline is real. The same trend is confirmed by the difference in the recorded births during 1941 and 1950.

The actual rates for each year of the last decade for both the sexes, based on the calculated population of each year, will be found in Subsidiary Table 1·10. The method employed for calculating the population of each intercensal year is as follows. The migration-*cum*-registration error which is 1,719,788 during 1941—50 was equally divided between the ten years of the decade. The population at each intercensal year was then calculated as the population of the previous year plus the recorded births of the year, minus the recorded deaths, plus a correction equal to one-tenth of the migration-*cum*-registration error. The birth-rates calculated in this manner, taken from Subsidiary Table 1·10, are illustrated below in Figure 5 for each year of the last decade by natural divisions.

*Using the percentage of omissions shown in Table 60, an estimate of the birth-rates has been made. If the figures of displaced persons are not offset against the unknown figures of Muslim exodus, the birth-rate for 1941—50 will calculate to 34·6.

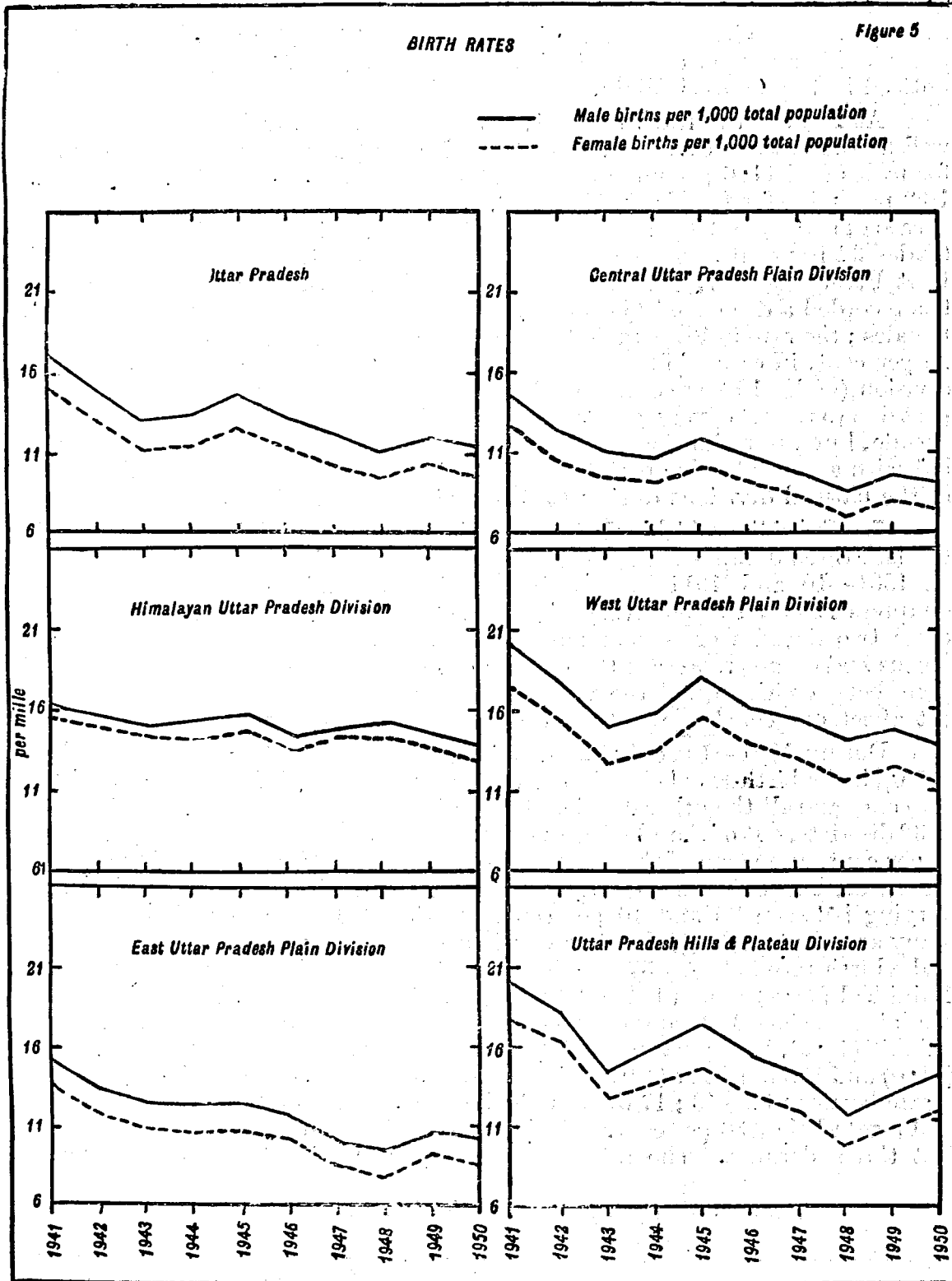


FIG. 5—Birth-rates by natural divisions, 1941—50

The first point of note is that the male birth-rate is everywhere higher than the female, being 16·4 per cent. higher for the State as a whole. In the Himalayan division the male and female rates are closer than anywhere else and the difference is only 5·6 per cent. Another feature of these rates is the close correspondence between the male and female figures. The curves are parallel almost everywhere. Again, the birth-rates have been declining everywhere. The average male birth-rate is the highest in the West Plain (16·1) and the average female birth-rate in the Himalayan division (14·4), while the lowest average birth-rate in case of both the sexes (males 11, females 9·3) will be noticed in the Central Plain.

As regards the rates themselves they are unusually low for the State as well as the natural divisions. The rates for the State averaged 13·5 per mille for males and 11·6 per mille for females against 18·3 per mille for males and 16·2 per mille for females in 1931—40. The decline calculates to 26 per cent. in case of males and 28 per cent. in case of females. It is highest for both the sexes (males 32 per cent., females 34 per cent.) in the Central Plain, followed by the East Plain (males 27 per cent., females 29 per cent.). The Hills and Plateau has recorded a decline of 25 per cent. in case of males and 27 per cent. in case of females; the rate in West Plain has declined by 24 per cent. in case of males and 26 per cent. in case of females. The decrease is the lowest in the Himalayan division (males 19 per cent., females 20 per cent.). The present decrease is in part due to the relatively greater omissions in the vital statistics in the last decade, but after allowing for the probable omissions in both decades we are left with a considerable real decline in births in the State as a whole as also in the natural divisions during 1941—50 since the previous decade.

Trend of birth-rates in the districts

7. Subsidiary Table 1·3 shows the mean decennial birth-rates during the last three decades for each district. Figures of district-wise birth-rates for 1901—10 and 1911—20 can be had from the Subsidiary Tables 3 and 5 of Chapters II and I respectively of the 1911 and 1921 Reports. The rates for these two decades are calculated on the enumerated population of the last census and do not represent the true rates of the decade. However, the variations between these and the mean decennial rates will not be large and will not affect our conclusions about the trend of birth-rates.

During 1901—10 only 2 districts, Dehra Dun (27·1) and Naini Tal (16·0), had a birth-rate below 30 per cent.; Ballia recorded a birth-rate of 32·7 per cent., and all the other districts had a birth-rate over 35 per cent. The rates in 32 districts, out of the 48 where vital statistics were recorded, were well above 40 per cent. and some of these were even nearer the 50 level; and of the remaining 16 all but Dehra Dun, Naini Tal and Ballia had registered birth-rates varying between 35 and 40 per cent. During 1911—20 the birth-rate in as many as 37 out of the 48 districts was 40 per cent. or over; of the rest, 9 districts had a birth-rate between 37 and 40 per cent. and only in Dehra Dun (24·9) and Naini Tal (28·0) it was below 30 per cent. The birth-rates in general started diminishing since 1921 and only 8 districts, viz., Moradabad (45), Bijnor (43·3), Pilibhit (43·3), Shahjahanpur (42·3), Bareilly (42·2), Jhansi (41·7), Saharanpur (41·0) and Bulandshahr (40·9), had a rate 40 per cent. or over; 14 districts had a rate between 35—40; 17 districts had a rate between 30—35; and 9 districts had a rate below 30 per cent. Table 63 gives the comparative position for the last three decades. The table shows that the birth-rate remained nearly

TABLE 63—*Distribution of districts in birth-rate ranges*

Period	Number of districts with birth-rate							45 and over		
	Below 20	20—25	25—30	30—35	35—40	40—45				
1921—30	1	8	17	14	7	1
1931—40	2	11	10	16	8	1
1941—50	9	14	12	12	1	..	..

stationary during 1931—40 and all the districts except 2 had a rate near or over 30. Thereafter we find a rapid decline and during the last decade only

Moradabad district (35·2) had a birth-rate slightly over 35 per cent. ; in 12 districts the rates varied between 30 and 35; in another 12 districts between 25 and 30; and in 23 districts the rates were below the 25 level. The true rate in all the districts must be considerably higher and perhaps the fluctuations not so marked. It should not be overlooked, however, that the decline in the recorded birth-rate in the districts may not be wholly due to under-registration. Registration has no doubt deteriorated during recent years, as may be seen from the figures in Table 60, but when the estimated error is accounted for in the rates, it will be found that a real fall has occurred, the net result of which in the State as a whole is a drop representing a fall of about 3·9 per cent. (or 9·4 per cent. in the registered birth-rate).

8. Our registered birth-rate for the last decade is 24·8. The mean decennial birth-rate in Madhya Pradesh during the same period is 37·0, in Bombay 32·9, in Madras 30·8 and in Orissa 28·2. The percentage error of under-registration in these States is not known. Omissions in registration in this State amount to 28·5 per cent. and the estimated birth-rate works out to 34·9. This is only a close approximation, but it leaves no doubt that the birth-rate of this State is a relatively low one in India. Some other countries also have a higher birth-rate. The recorded average birth-rate in Egypt in the period 1941—48 was 40·8, while Ceylon in 1941—50 had a birth-rate of 38·6, Mexico of 44·9 and Palestine of 51·5.* But the birth-rate of this State must be classed as high. The region with the lowest rates, 17 per 1,000 in 1937, was North West Central Europe. The United States and Canada also had a registered birth-rate of 17, Oceania had a birth-rate of 20, Southern Europe of 23 and Japan of 28.†

9. We have seen that there is a continuing drop in the birth-rate of this State since 1921. But this drop is of a different nature from that which we find in the West or in U. S. A. and Canada or even in Japan. The general conclusion of recent investigations is that by far the largest part and probably the whole of the decline in these countries is to be attributed to the spread of family limitation. This factor is completely absent in this country for, with the exception of an infinitesimally small section of the upper city classes, nobody has even heard of voluntary family limitation. The explanation for the slackening of birth-rate is, therefore, to be sought mainly in the direct and indirect effects of alteration of the age composition of population and its civil condition.

10. Chapter VI discusses in detail the changes that have recently taken place in the age composition of the population and the part played by the influenza epidemic in affecting this age composition. The birth-rate depends upon the proportion of males and females, particularly the latter, in the different age-groups. An increase or decrease in the proportion of females of child-bearing age will naturally bring a rise or fall in the birth-rate if the marriage rate, the average age of marriage and other social conditions remain the same and if no family limitation is practised. Table 64 shows the proportion of females at certain age periods. This table is reproduced from Subsidiary Table 6·16 giving the age distribution of 10,000 of each sex in the State and the natural divisions.

TABLE 64—Age distribution of 10,000 females in the State at the last six censuses

Age	1951	1941	1931	1921	1911	1901
0—4	1,403	1,440	1,602	1,283	1,266	1,310
5—9	1,294	1,345	1,219	1,405	1,325	1,263
10—14	1,186	1,017	1,068	1,018	1,028	1,073
15—19	863	838	877	748	758	764
20—24	860	896	935	832	927	885
25—29	785	892	890	874	913	896
30—34	732	770	791	863	885	881
35—39	581	687	640	594	588	563
40—44	577	542	545	691	711	719
45—54	860	817	769	878	864	867
55— and over‡	859	756	664	764	735	779

*United Nations, *Demographic Yearbook*, 1951, Table 7, Crude Birth-Rates.

†United Nations Economic and Social Council—Population Commission—Fifth Session, 22nd May—2nd June, 1950, *Report*, submitted by the Secretariat, Chapter II—Fertility.

‡The figures for 1951 include 2 females and that of 1901 include 8 females of age not stated.

Comparative birth-rates

Causes of slackening birth-rate

The age composition during the last five decades

In considering the above table it is to be remembered that in 1931 a smoothing formula was applied to the age returns. The figures for the 1941 census were obtained from the 'Y' sample tables supplied by the Registrar General while those for 1951 are based on the 10 per cent. sample age tables given in Part II-C of the Report. Instructions for recording age have also undergone changes. Prior to 1931 the instructions directed enumerators to write for infants under 1 year of age the word '*bachcha*' and for others the number of years completed. In 1931 the instructions were—"Enter the number of years to the nearest birth-day or the nearest age (in years) known. For infants less than 6 months old enter 'O'; for infants 6 months old but less than 18 months enter 1". In 1941 the instructions were to enter the age in years and months on the first day of March, 1941, and in case of infants of less than 1 year old 'O' was to be written for years and the number of months were to be given. Corresponding instructions at the 1951 census were to write age on last birthday, that is, the actual number of completed years. For infants below 1, entry of 'O' was to be made.

The legacy of the famine scarcity conditions of 1896-97 was the dominant factor in the age constitution at the census of 1901. Economic privations affect persons at the extremes of life more than persons in the middle age. We find a decrease of proportion of the very young aged 0—9 by 3·2 per cent., of those between 40—59 by 4·45 per cent. and of those 60 and over by 3·78 per cent. It may be observed from the figures in Table 64 that 4,708 females per 10,000 of the female population entered reproduction during the decade 1901—10, and 1,073 females per 10,000 in the age-groups 10—14 also attained the reproductive age during the later part of the decade. Due to thinning out of the young and old the bulk of the population was found at the reproductive ages. The result was that the birth-rate during this decade was as high as 41·7.

At the census of 1911 the proportion in the age-groups 0—9 and 10—14 diminished by 1·3 and 4·1 per cent. respectively as compared to the figures of the previous decade. The first quinquennium was on the whole favourable to the growth of population, and second unfavourable. In the first quinquennium there were no calamities save a very severe epidemic of plague in 1905. The result was an increase in the proportion of children aged 5—9. The children under 5 represent the survivors of the second quinquennium which suffered from a severe plague in 1907 and 1910, a partial famine in 1906 and very severe famine and very severe malaria in 1908 and malaria in 1909. Fewer were born and more died. This explains the decline in the proportion of children below 5. In spite of the fact that the birth-rate of the decade was 41·7, the calamities of the second quinquennium brought down the proportion of children of the age-group 0—9 (but not in case of females). The decrease in age-group 10—15 is explained by the fact that persons of this age were suffering from high death-rates through most of the decade, and were the survivors of age period 0—4 in 1901, which had not particularly high figures. The decrease at 15—19 is much smaller. The persons at the higher age periods date their birth back to the very prolific decade 1881—90 and the not unfavourable decade 1872—80. All this tendency is clearly discernible in Table 64 above, and we find a heavy accumulation of females at the reproductive age 15—44 at the census of 1911. The number of females at this age per 10,000 of female population increased to 4,782 from 4,708 in 1901. The prospects for the next decade were, therefore, better than what they were in 1901. Consequently we find that during 1911—20 the birth-rate was 42·9 (estimated 44) against 41·7 (estimated 41·7) in 1901—10.

The great influenza epidemic of 1918-19 brought a change in the proportion of females at the reproductive age 15—44. It will be noticed from the figures in Table 64 above that the high proportion of females at this age in 1901 or 1911 was not reached at the 1921 census or thereafter. The proportion in 1921 per 10,000 of females was 4,652 against 4,782 in 1911 and 4,708 in 1901; that in 1931 was 4,678 and in 1941 4,625; and in 1951 it fell down to only 4,398. It is not surprising, therefore, that the high birth-rate of 1921 could not be reached during the decade 1921—30 or 1931—40 or 1941—50.

A smaller proportion of females entered reproduction during 1921—30. Influenza took a heavy toll and the over-all position was a decrease by 3·1 per cent. of persons of all ages, by 0·3 at age 0—9, by 3·7 at age 10—14, by 5·5 at age 15—39, by 2·1 at age 40—59 and by 0·3 at age 60 and over. The

influence was most marked for both sexes in the age period 20—34 where 1921 had lost heavily to 1911. Secondly, 1921 had a considerable advantage over 1911 in respect of males aged 4—5 and 5—9, of females of ages 3—5 and 5—9 and to a much smaller extent of very old people of both sexes. The explanation for this behaviour must be found in the way in which the influenza epidemic differentiated against different ages. The net result in case of females was an increase in the proportion at age 0—4 to 1,283 per 10,000 of females as against 1,266 in 1911 (Table 64); an increase at age 5—9 to 1,405 from 1,325; a slight increase at age 35—39 to 594 from 588; and an increase at age 45 and over to 1,642 from 1,599 in 1911. All the other ages lost in proportion. This differentiation brought the bulk of the female population in the age-groups which had passed the reproductive period or which had not yet reached it. The influenza, thus, not only reduced the proportion of females at the reproductive ages, but it also greatly lowered the vitality of the survivors. There was, therefore, a considerable decline in the total number of births during 1921—30, and the birth-rate came down to 34·0 (estimated 39·9) from 42·9 (estimated 44) in 1911—20.

The influence of influenza persisted during the decade 1931—40. The most noticeable effect will be seen in the low proportion of females at ages 5—9 at the 1931 census due to the heavy decline in births for the years following the out-break. The effects on those aged 20—34 in 1921 will be seen in the age-groups 30—44 of 1931 though the "scar" has largely been hidden by the smoothing process. Due, however, to increased proportion of females of ages 10—29 which had a good history, the birth-rate continued to increase from 1931 for 5 or 8 years, but it again diminished when the effect of the smaller age-group 5—9 was felt. The net result of this age structure was that the birth-rate remained almost stationary during 1931—40.

The proportion of females per 10,000 at the reproductive ages came down to 4,625 at the 1941 census from 4,678 at the census of 1931. The influenza still had its effect. The main fertility group 15—24 was a depleted one. Age-group 15—19 corresponding to the age group 5—9 of 1931 represents the survivors of those born during the first five years of the decade 1921—30. The group 20—24 had relatively a better history as compared with that of the same group at the 1931 census. In spite of this the proportion in this age-group had also fallen down. It may be due to matrimonial migration outside the State. The proportion in the fertility period 25—29 remained nearly constant while in the group 30—34, which had a bad history, it came down to 770 from 791. Group 35—39 had received some increments and the proportion in the group 40—44 remained nearly constant. The net result has been that except in the case of group 35—39 the proportion in other reproductive groups, compared to that at the census of 1931, mostly decreased or remained constant. It is also significant that the age-group 10—14, which entered reproduction during 1941—50, suffered in proportion though it had a good history. Its corresponding group 0—4 of 1931 census had some inflated proportion due to smoothing of ages. It may also be that in spite of a good history the proportion which this group bears to the total female population at the 1941 census is low. Another factor may be the incorrect figure of the 1941 census taken from the 'Y' sample. The figures show that the age constitution of the female population at the census of 1941 contributed substantially to the decline of the birth-rate during 1941—50 which came down to 24·8 (estimated 34·9) from 34·2 (estimated 38·8) during the decade 1931—40.

It will be observed from Table 64 that the proportion of females at the reproductive ages at the 1951 census is the lowest. It appears that the proportion continued to decrease during 1941—50. This explains the behaviour of the birth-rate from year to year during 1941—50, which has already been described in paragraph 6 above.

11. The behaviour of the birth-rate in the natural divisions can also be explained with the help of the proportion of females at the reproductive ages. Variations in the proportions between the natural divisions are the results of varying biological and social factors, but the variations within the natural divisions occur with an exceptional change in the birth and death-rates arising out of some epidemic or other calamity which proves particularly fatal for persons of particular age periods. The incidence of disease has not been the same in all the natural divisions. The resulting variations in the proportion of females at

Proportion of females at the reproductive ages in the natural divisions

the reproductive ages are shown in Table 65. The table is prepared from Subsidiary Table 6·16 in Part I-B of the Report, giving age distribution of 10,000 of each sex in the State and natural divisions.

TABLE 65—*Females at reproductive ages per 10,000 of all ages in the natural divisions, 1901—51*

Natural division	Age	1951	1941	1931	1921	1911	1901
Uttar Pradesh	10—14	1,186	1,017	1,068	1,018	1,028	1,073
	15—39	3,821	4,083	4,133	3,961	4,071	3,989
Himalayan	10—14	1,114	1,036	1,028	1,142	1,073	1,119
	15—39	4,106	4,160	4,268	4,087	4,045	4,171
East Plain	10—14	1,235	1,002	1,091	1,019	993	1,144
	15—39	3,746	4,002	4,023	3,875	4,085	3,980
Central Plain	10—14	1,166	992	1,047	965	995	1,068
	15—39	3,779	4,104	4,159	4,022	4,146	3,999
West Plain	10—14	1,158	1,050	1,059	1,029	1,089	1,004
	15—39	3,862	4,117	4,180	3,982	3,982	3,942
Hills and Plateau	10—14	1,240	988	1,115	1,095	943	1,142
	15—39	3,938	4,125	4,214	3,917	4,171	4,166

It will be observed from Table 61 that in all the natural divisions except in Himalayan division, the birth-rate, as in the case of the State as a whole, was the highest during the decade 1911—20. The birth-rate declined during the decade 1921—30 in all the divisions ; it remained steady during 1931—40 though there was some increase in the Himalayan and the Hills and Plateau divisions ; and it again had a steep decline everywhere during the last decade. A study of Table 65 with that of Table 64 giving the female proportions at different age periods for the State, will show that the correlation, for the State as a whole, between the trend of the birth-rate and the proportion of females at the reproductive ages, generally holds good in case of the natural divisions also.

The Himalayan division behaved differently during 1911—20 and the birth-rate, instead of rising, came down from 37·1 in 1901—10 to 35·9 in 1911—20. This division has been generally free from epidemics. In spite of this the proportion of females at reproductive ages at the 1911 census was a decreased one due to depleted corresponding group 0—9 of 1901. This brought down the birth-rate during 1911—20. Contrary to the steady trend in the State the birth-rate in this division during 1931—40 had a larger upward move. There was accumulation at the reproductive ages in 1931 and the proportion of females between 15—39 was 4,268 as against 4,087 at the 1921 census. The age group 10—14 also recorded an increase. This accumulation may be accounted to the fact that the incidence of influenza was not so serious in this division as in the Central and the West Plain and the Hills and Plateau divisions, and that unlike the East Plain it was free from the calamities of the decades 1891—1900 and 1901—10.

In the Hills and Plateau division the birth-rates during the last three decades have been 36·2, 38·3 and 27·6. It had comparatively a higher rise in the birth-rate during 1931—40 because the calamities of the decade 1901—10 had spared this natural division and there was a larger accumulation at the reproductive ages at the 1931 census.

Marriage and the birth-rate

Since nearly all births occur to married women, the birth-rate is affected by the age at marriage, the proportions ultimately marrying, and the practices of widowhood, divorce and remarriage of widows. The details about these in respect of this State will be found in Chapter VI. Here it will suffice to say that marriage is universal and there has been no perceptible change in this universality during the last fifty years. But there has been a definite and significant rise in the age of marriage during recent decades and this constitutes one of the principal factors in the fall of the birth-rate. In the age-group 15—24,

which is also the most fertile period for females, the number of unmarried females has been successively rising ; it was 55 per mille in 1931, 96 in 1941 and 105 in 1951.

Table 66 gives the number of married females in the reproductive period per 1,000 females of all ages. In order to arrive at the number of females actually taking part in reproduction during the decade a mean of the figures returned in the age periods at two censuses has been struck. The figures for ages 40—44 for 1941 and censuses prior to it were available only for the State and not for its natural divisions. Figures have been worked out on the basis of ratio of such females in the State to the total number of married females in the age-group 40—50 for which natural division-wise data was available.

TABLE 66—Number of married females aged 15—44 per 1,000 of females of all ages

Natural division	1941—50	1931—40	1921—30
Uttar Pradesh	393	400	392
Himalayan	403	412	414
East Plain	385	394	386
Central Plain	397	405	398
West Plain	397	400	392
Hills and Plateau	391	394	379

It will be noticed that the percentage of married females of the reproductive ages has decreased in all the natural divisions during the decade 1941—50. This is both an additional evidence and explanation of the decline in the birth-rate during the last decade.

13. We have seen in Section 3 of this chapter that the vital statistics can not possibly be correlated with either the agricultural, the economic or the commercial conditions of the decade. This State has recently been importing foodgrains and, undoubtedly, the struggle for existence is getting harder with the increasing pressure of population on our food resources, but there is little reason to suppose that shortage of food has been an important factor in the reduction of birth-rate.

Effect of some other factors on the birth-rate

The rural-urban differentials have been described in Section 5 of Chapter III of this Report. Some differentials exist in the bigger cities but they are only slight and the city population being only about 7·6 per cent. of the population of the State as a whole, the share of this differential in bringing down the general birth-rate will be negligible. But movement of population from the rural areas to the urban areas of the State, coming in the wake of the last War, has been important. Recruitment to the army and the movement of adult male workers from rural to industrial areas, usually unaccompanied by their families, has been described in paragraph 30 of Section 3 of this chapter. The impact of this on the birth-rate in the Himalayan division, especially in the districts of Almora and Garhwal, in the East Plain and in some of the districts of recruitment for the army and industrial labour in other natural divisions, must have been strong, though it is not possible to assess it precisely.

Differences in fertility can also be studied by social class, occupation, literacy and religion. The census of 1951 does not provide any data for such study in respect of social class, literacy and religion. But from the data available in the previous censuses and from other investigations we know that whatever small differentials exist are primarily due to the prohibition of widow remarriage among the Hindus in general and the high caste people in particular. Occupational differential is also not important. Table 67 shows the ratio of children 0—4 years old per 1,000 females 15—44 years for the eight livelihood classes. It has been derived from Table C-II in Part II-C of this Report.

Leaving aside the Livelihood Class IV the ratio ranges from 640 to 724.

TABLE 67—Number of children aged 0—4 per 1,000 females aged 15—44, by livelihood classes.

Livelihood class	Children aged 0—4 per 1,000 females aged 15—44
I—Cultivators of owned land..	642
II—Cultivators of unowned land	697
III—Cultivating labourer ..	640
IV—Non-cultivating owners of land and agricultural rent receivers	494
V—Production other than cultivation	676
VI—Commerce	666
VII—Transport	724
VIII—Other services and miscellaneous sources	640
All Classes	648

It is significant that there are no important differentials between cultivators of owned land and cultivating labourers who together form about 68 per cent. of the total population of the State. According to the general belief, cultivating labour which forms the lower strata of the social structure should have a higher fertility, but the figures in the table do not support it. The agricultural classes should apparently have a higher fertility than the non-agricultural classes, but the figures belie this expectation. Livelihood Class IV obviously has a low ratio and the only reason that can be assigned for this is that this class, consisting of zamindars, etc., is generally more affluent than others. On the whole it may be concluded that except for Livelihood Class IV, which will now mostly disappear after the Zamindari Abolition in the State, the fertility tends to be higher in the non-agricultural than in the agricultural

classes, and among the agricultural classes the cultivators have a higher fertility than the field labourers.

The birth-rate may have some correlation with the declining infant mortality tending to increase the number of surviving children and thereby the lactation period, but its effect, if any, will only be minimal.

To sum up, the major factors which brought down the birth-rate during the last decade have been the decline in the proportion of females at the reproductive ages, the rise in the age of marriage of females, the decline in the number of married females, recruitment to the army and movement of adult male labour from rural to industrial areas without families. The deliberate control of reproduction with any idea of family planning or family limitation and by such means as contraception, has not been practised.

14. The recent tendency towards a higher age at marriage may tend to lower the birth-rate, but improvement in maternal health and reduction in the number of widows which formed only 12 per cent. of the total female population as against 15 per cent. in 1931 and 17 per cent. in 1911, are likely to have the opposite effect. The main factors that will determine the future trend will again be the female proportion at the reproductive ages and the number of married females among them. It will be noticed from Table 64 that except in the age-groups 15—19 and 40—44 the proportion of females at reproductive ages at the census of 1951 has come down. The fall in the age-group 25—29 is significant. The proportion in this age-group has declined to 785 from 892, the decline being nearly 12 per cent. The over-all position is that the proportion at the reproductive ages has come down to 4,398 in 1951 from 4,625 in 1941 or by 4.9 per cent. This should naturally bring a fall in the birth-rate during the decade 1951—60. But the fall will be counteracted by the increase of females in the age-group 10—14. The proportion has risen from 1,017 in 1941 to 1,186 in 1951 or by 17 per cent. In view of this increased proportion births should increase after the middle of the decade and then it should again diminish somewhat at the end of the decade as the effects of the present smaller age-group 5—9 are felt. On the whole the birth-rate may reach the same level as during the decade 1941—50 or it might show a slight decline during 1951—60. This, of course, presupposes the absence of epidemics, famine or any other disturbing feature.

This conclusion is further confirmed from a perusal of the number of married females aged 15—44 per 100 females of all ages shown in columns 11 and 12 of Subsidiary Table 6.18 in Part I-B of the Report, for the last two censuses. It has declined from 40 in 1941 to 39 in 1951. Assuming that the fecundity of the State as a whole remains the same at the census of 1961 as at this census, and there is no reason that it will be otherwise, the birth-rate of the State should come down. It will be a different matter if the number of children under 10 years of age per 100 females at reproductive ages increases in spite of a fall in the birth-rate, due to further decline in infant mortality and, therefore, a higher survival.

Probable trend of birth-rate during 1951—60

It will be noticed from Table 65 that the proportion of decline at the reproductive ages at the census of 1951 is not the same in each of the natural divisions. The Himalayan division shows a decline of 54 while the depletion in the Central Plain division is 325. The loss at the reproductive ages in the Himalayan division is made up by an increment of 78 in the age-group 10—14 which will enter the reproduction period during the decade 1951—60. The number of married females at reproductive age also remains constant at 40 per 100 at the census of 1941 and 1951. These figures indicate that there will be an upward trend in the birth-rate in the Himalayan division. The loss of 187 at the reproductive ages in the Hills and Plateau division is compensated by a gain of 252 in the age-group 10—14, and like the Himalayan division this division would also have an increase in the birth-rate. The Plain divisions also suffer a loss at the reproductive ages, but their loss is not wholly made up by the increases in the age-group 10—14. The figures in Table 65 tend to show that there will be a further decline in the birth-rate in the Central and West Plain divisions and also in the East Plain division, though the fall in it will not be a marked one.

15. The rapid growth of population during the last three decades in spite of a fall in the birth-rate, described above, or a loss or nominal gain from migration detailed in the previous section, is largely the result of a substantial fall in the death-rate. The decline in the proportion of widows from 17 per 100 in 1911 to 15 in 1931 and 12 in 1951, and the fall in infant deaths from 232 per 1,000 of births during the decade 1911—20 to 179 in 1921—30 and 119 in 1941—50 are additional evidence of a declining mortality. The declining trend is also borne out by the mean decennial rates shown for the State and the natural divisions in Table 68.

The death-rate :
its trend

TABLE 68—Mean decennial death-rates (registered) in the State and the natural divisions, 1901—50

Period	Uttar Pradesh	Himalayan	East Plain	Central Plain	West Plain	Hills and Plateau
1901—10	39·5	29·3	35·0	41·3	42·8	37·5
1911—20	40·8	34·5	35·5	42·2	44·5	41·4
1921—30	25·6	27·5	22·3	23·7	28·9	28·1
1931—40	21·9	24·6	19·3	19·6	25·1	23·9
1941—50	16·5	19·3	15·3	13·8	18·7	19·2

It will be observed that the death-rate for the State as a whole remained steady up to 1920. Since then there has been a definite fall by 15·2 per cent. during 1921—30, by 3·7 per cent. during 1931—40 and by 5·4 per cent. during 1941—50. We have already seen that both births and deaths have been under-recorded and that the under-registration has not been always uniform. The estimated omission in recording of deaths during 1921—30 was a larger one than in the former decade, being 22 per cent. against 8 per cent. in 1911—20. There was some improvement during 1931—40 and the omission was only of 15·3 per cent., but again a further deterioration in the registration system raised the percentage omission to 29·9 during 1941—50. If the recorded rates are corrected on the basis of these estimated percentage omissions in registration, the estimated death-rate for the decade 1911—20 will be 46·1 per cent. while the rates for the three successive decades will be 32·7, 26·0 and 23·8.* These estimates successfully bring out the decline in the death-rate. It will also be noticed that the decline during 1921—30 was larger. The period of major epidemics was over and since then, as will be seen later, their incidence has been gradually declining.

16. Table 68, given above, shows that since 1920 there has been a fall in the death-rate in each natural division. Prior to it the Himalayan division, relatively to other divisions, was somewhat well-off though it had a set back during 1911—20. The East Plain came out second best. The Central and West Plain divisions suffered more severely from the calamities of epidemics during the decades 1901—10 and 1911—20. The Hills and Plateau division also lost

Trend of death-rates in the natural divisions

*See foot-note to Table 62. If the figures of displaced persons are not offset against the unknown figures of Muslim exodus, the death-rate will be 24·3.

heavily during the latter decade but relatively to these two divisions it had a lower death-rate during 1901—10. All the natural divisions showed a marked decline in the death-rate during 1921—30. During the last two decades the death-rates have been declining steadily but not so strikingly.

Trend of death-rate in the districts

17. Subsidiary Table 1·3 gives the death-rates in individual districts for the last three decades. It will be noticed that the death-rate declined in all the districts during 1931—40 except in Dehra Dun where it increased to 22·3 from 21·5, in Gorakhpur-cum-Deoria where it slightly increased to 18·8 from 18·4 and in Gonda where the increase was to 20·7 from 17·1. The death-rate has come down in all the districts during the last decade. Table 69 shows the comparative distribution of districts in death-rate ranges for the last five decades. Figures of district-wise death-rates calculated on the enumerated population of the previous census for the decade 1901—10 and 1911—20 are available in Subsidiary Tables III and V of Chapters II and I respectively of the 1911 and 1921 Reports. They will not be exactly comparable with the mean decennial death-rates shown in Subsidiary Table 1·3, but, as said in paragraph 7 above, they will not affect our conclusions about the trend. A declining

TABLE 69—Distribution of districts in death-rate ranges

Period	Number of districts with death-rate						
	Below 10	10—15	15—20	20—25	25—30	30—35	35 and over
1901—10	1	3	39
1911—20	1	5	42
1921—30	3	16	17	1
1931—40	1	16	11	4	..
1941—50	1	15	20	12	..	..

trend will be observed in the table. During 1901—10 and 1911—20 nearly all the districts had a death-rate of 25 or over and majority of the districts had rates over 35. The position altered during 1921—30. Only 1 district, namely Pilibhit, had a high death-rate of 36·1, while of the 48 districts of registration 36 had a death-rate below 30. The number of districts, having a death-rate below 30, increased to 44 in 1931—40 and during the last decade all the districts recorded a death-rate below 25. Of course, part of this decline may be attributed to the omissions in registration.

The actual number of deaths during the last three decades

18. The actual number of deaths for each sex during the inter-censal years of the last three decades are shown in Subsidiary Table 1·9. The total deaths during 1921—30 were 11,993,248 (males 6,393,985, females 5,599,263). The earlier years of the decade were unhealthy. There was a decline in the actual deaths during 1931—40 and 11,333,226 deaths (males 6,079,862, females 5,253,364) were recorded. In the last decade the decline was of 14·7 per cent. Deaths came down to 9,668,671 (males 5,291,349, females 4,377,322).

The death-rate during 1941—50

19. It will also be observed that there has been a drop in the actual number of deaths from year to year. Of course, most of the drop is to be accounted for by deterioration in registration, but the trend towards a decline is unmistakable. The course of epidemics during the last three decades confirms this. The death-rates based on the population of each inter-censal year calculated as explained before but in this case worked out for males on the total male population and for females on the total female population as exhibited in Subsidiary Table 1·11, are illustrated in Figure 6.

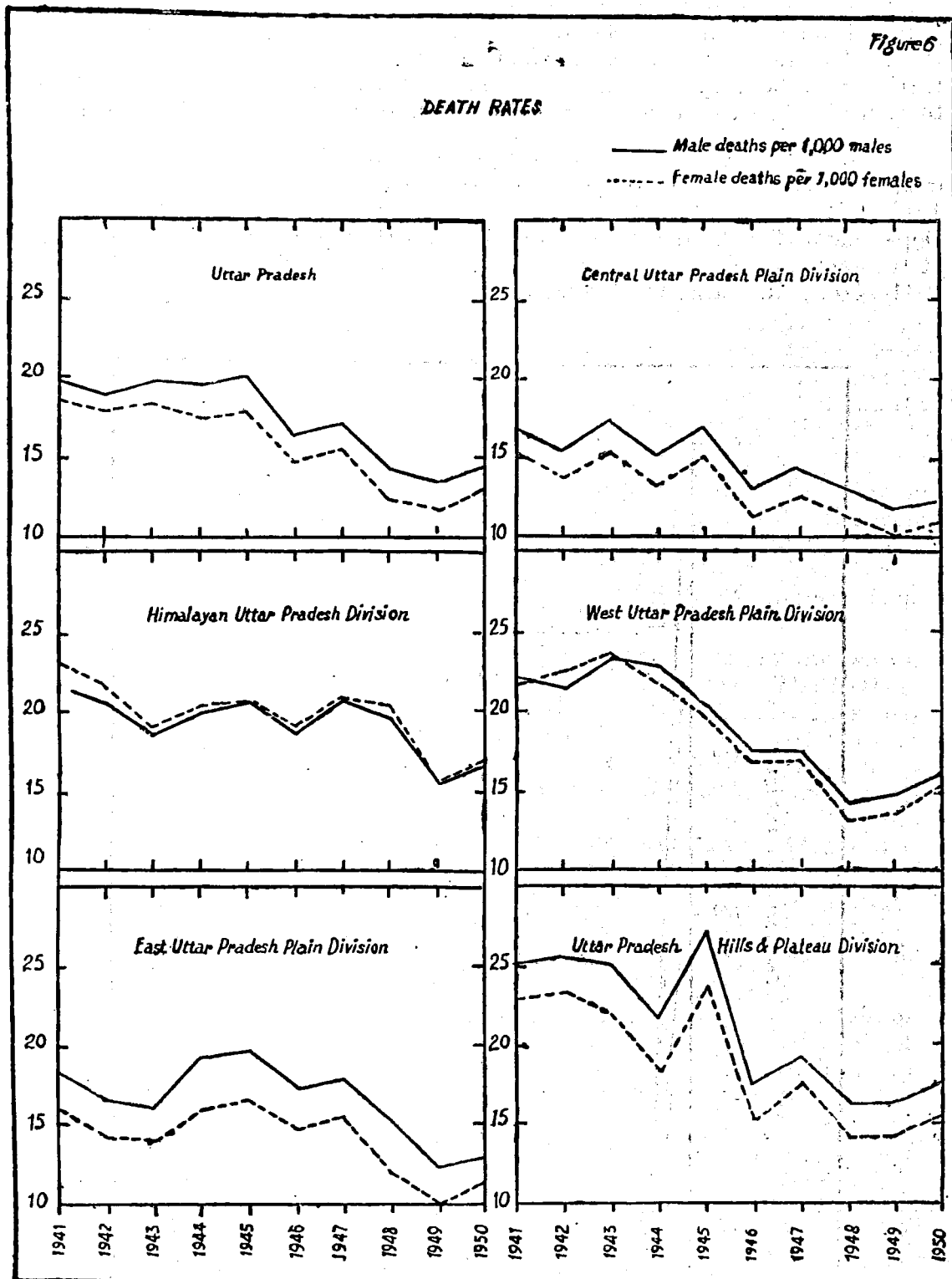


FIG. 6—Death-rates by natural divisions, 1941—50

The first point of note is that except for some years which were relatively unhealthy and have already been described in Section 3 of this chapter, the death-rate has been evenly declining in all the natural divisions. The average male and female death-rates are very low. These were only 17.4 and 15.9 respectively, compared with 22.6 for males and 21.6 for females in 1931—40 and 26.3 for males and 25.4 for females during 1921—30. Further, for the State as a whole, the female figure was in every year of the last decade below the male figure. Similar trend is shown by the natural divisions also except the Himalayan division and, in some years, the West Plain. It shows that the sex composition may be an important factor determining the general death-rate of a State or country.

As between the natural divisions the death-rate is the highest in the Hills and Plateau division. The rate in this division has not declined to the same extent as in the other natural divisions. It is closely followed by the Himalayan division which has a higher death-rate for females. West Plain is a close third. The rate is the lowest in the Central Plain. The degree of under-registration may be varying between the natural divisions and it will not be safe to surmise as to which have been relatively unhealthy during the decade.

Trends in
mortality by
age-groups

20. We may consider each age-group by itself and find the death-rate for it alone. These are called specific death-rates by age-groups. In Subsidiary Table 1-12 will be found statistics, based on the returns of the Public Health Department, for the death-rates in 1931 and 1951 per mille of each sex living at the same age, for certain age-groups. The average figures for 1921—30 and 1941—50 are illustrated in Figure 7.

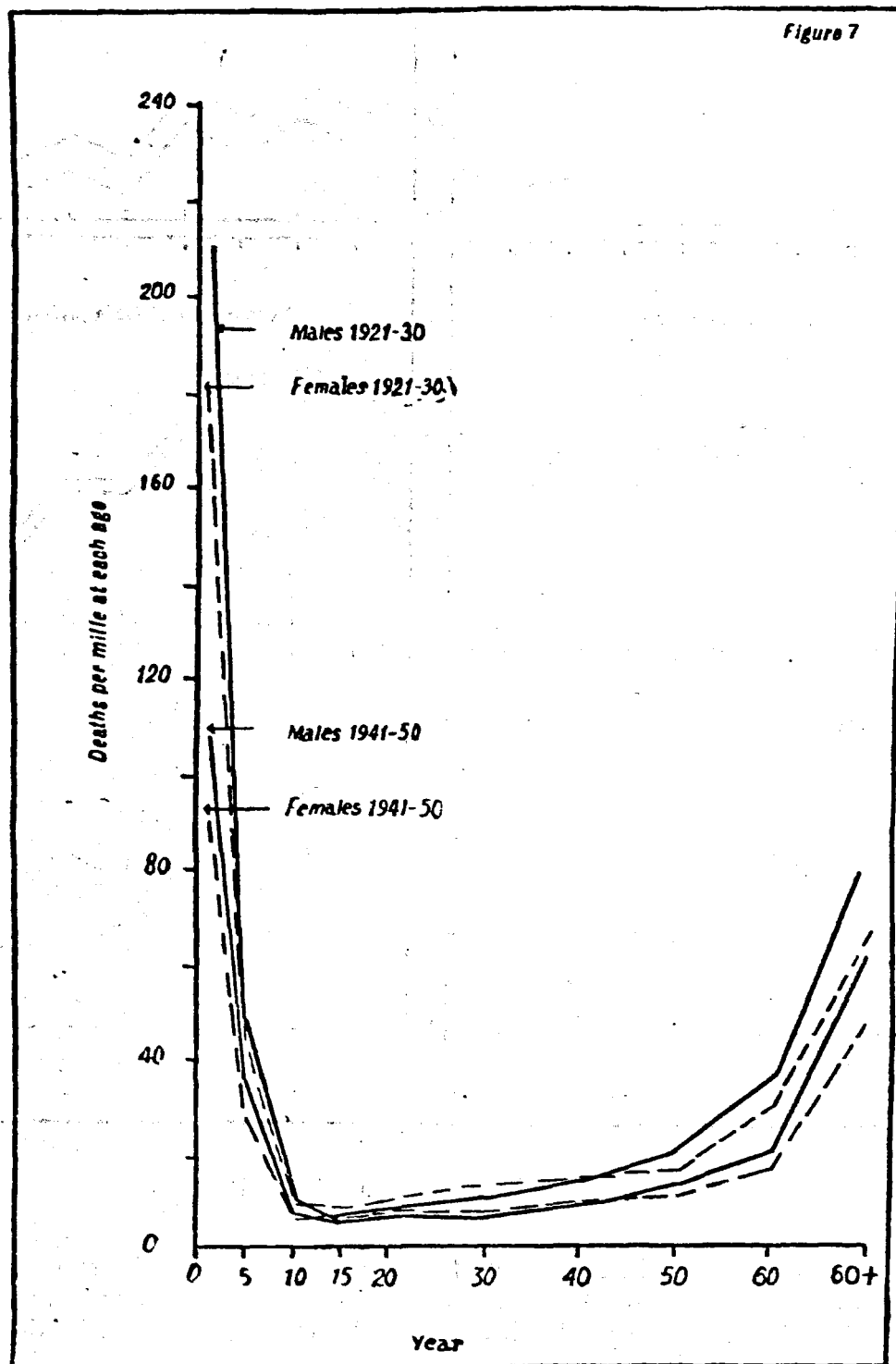


FIG. 7—Specific death-rates by age-groups, 1921—30 and 1941—50

It will be seen that reductions in mortality have not been uniform in different age-groups. The figures in Subsidiary Table 1-12 show the following percentages of decline between 1931 and 1951 for selected age-groups given in Table 70.

Improvement appears to have been the slowest in the age-group 10—19 followed by age-groups 5—9 and 1—4.

Further, the death-rate for both males and females is very high in infancy,

TABLE 70—Percentage variation in mortality for selected age-groups between 1931 and 1951, by sex

Age in years	Per cent. variation	
	Males	Females
Under 1	-68.5	-68.0
1—4	-36.1	-41.9
5—9	-29.9	-38.1
10—14	-20.6	-26.4
15—19	-14.3	-26.5
20—29	-44.0	-50.8
30—39	-48.1	-49.6
40—49	-53.4	-51.2
50—59	-58.5	-56.1
60 and over	-60.5	-64.6

especially for males. Dangers to life during infancy and early childhood (1—4) are even greater than in the ages 50—59 or 60 and over. The infant death-rates are higher than the rates for males and females over 60 years old. It is evident that infant mortality and child mortality are the greatest wastes that we have in human life, being 38.5 per cent. of the total deaths in this State during 1941—50. The chances of death reach their minimum for both the sexes in the age period 10—14. The age specific mortality rates then begin to rise slowly, have some fluctuations and then rise steadily after the age 30 is reached. After 50 the rapidity of ascent is accelerated and the rates soar high after age 60 or thereabouts has been attained.

Another noticeable feature is that in each age-group except 15—39 the rate of mortality for males is higher. The mortality rate for females rises during

the reproductive period. This shows the extent to which our women have to face the mortality risks of pregnancy and child-bearing.

21. This State shows one of the highest mortality rates in the world. Its recorded rate for the last decade was 16.5 (estimated 23.8). The Netherlands has the lowest rate, namely 8.1. Denmark, Norway, Canada, New Zealand show rates of less than 10.* In the United States, the crude death-rate for 1940 was 10.8.† The mortality rates in these countries were also at a time as high as in India but improvements in the social, economic and health conditions have brought about a fall to the present low level. Famine and chronic food shortage have been completely eliminated and epidemic diseases have been controlled by improvements in environmental sanitation and personal hygiene and by development of medical science. The conditions in this and other undeveloped countries are still very different. The position with regard to India has been well summarised in the report of the Health Survey and Development Committee, 1946, as follows :

Causes of high mortality rates

“The maintenance of the public health requires the fulfilment of certain fundamental conditions, which include the provision of an environment conducive to healthful living, adequate nutrition, the availability of health protection to all members of the community, irrespective of their ability to pay for it, and the active co-operation of the people in the maintenance of their own health. The large amount of preventible suffering and mortality in the country is mainly the result of an inadequacy of provision in respect of these fundamental factors. Environmental sanitation is at a low level in most parts of the country, malnutrition and under-nutrition reduce the vitality and power of resistance of an appreciable section of the population and the existing health services are altogether inadequate to meet the needs of the people, while lack of general education and health education add materially to the difficulty of overcoming the indifference and apathy with which the people tolerate the insanitary conditions around them and the large amount of sickness that prevails”.‡

*United Nations, *Demographic Yearbook*, 1948, Table 20.

†F. L. Smith, *Population Analysis* (Mc Graw-Hill Book Company, Inc. New York), page 234.

‡Report of the Health Survey and Development Committee, Government of India Press, 1946.

The result is that the epidemics of plague, small-pox, cholera and malaria occur frequently and devastate the population. Table 71 gives the percentage

TABLE 71—Distribution of deaths by major causes, 1901—50

Period	Per cent. deaths due to—			
	Fever	Plague	Cholera	Small-pox
1901—10	71.7	7.0	3.4	0.7
1911—20	73.9	5.9	3.1	0.3
1921—30	75.4	3.6	3.5	0.5
1931—40	77.1	1.9	2.0	0.9
1941—50	77.5	1.6	3.8	1.2

deaths from the major causes for the last five decades. Registration for plague, cholera and small-pox may have reached a fair standard of accuracy, but in respect of fever the registration is most faulty. The heaviest mortality is from malaria which accounts for nearly 90 per cent. of the deaths from fever. In the West the constituents of disease are different. Diseases of the heart, cancer, nervous ailments and nephritis which may be called degenerative diseases, ailments that are especially prevalent among aged persons, account for more than 56 per

cent. of all death in the United States. Scarlet fever, malaria, pneumonia and influenza, etc., are largely under control.*

Causes of the declining death-rate: infant mortality

22. Infant mortality forms a large fraction of the total mortality and any decline in it is bound to substantially affect the general death-rate. The recorded infant mortality rates as exhibited in Table 72, show that they were at

TABLE 72—Infant mortality rates, 1911—50

Year	Annual rate	5-year average	10-year average	Year	Annual rate	5-year average	10-year average
1911	246.1			1931	179.1		
1912	206.5			1932	162.7		
1913	229.7	224.2		1933	137.9	164.3	
1914	233.5			1934	184.6		
1915	205.1			1935	157.2		
1916	209.7			1936	148.5		
1917	215.7			1937	142.3		
1918	303.5	240.5		1938	148.6	142.8	
1919	253.3			1939	139.5		
1920	220.2		232.3	1940	135.3		153.6
1921	236.5			1941	131.2		
1922	183.8			1942	143.1		
1923	169.4	191.4		1943	134.6	131.3	
1924	192.0			1944	124.5		
1925	175.5			1945	123.2		
1926	177.4			1946	110.5		
1927	151.7			1947	116.5		
1928	159.9	165.7		1948	108.7	107.0	
1929	168.6			1949	95.2		
1930	170.8		178.6	1950	104.3		119.2

the peak in 1918 and thereafter they gradually declined. The decline in the general death-rate between 1911—20 and 1941—50 has been 59.7 per cent. while that in infant mortality in the same period is of 48.7 per cent. During the 1921—30 decade maternity and child welfare work was introduced in the State on an organized basis. About 200 maternity and child welfare centres were functioning in this State in 1950. A slight postponement in marriage age since 1931 is also visible, as has already been described. These factors must have helped in the decline of infant and

*T. L. Smith, *Population Analysis*, page 263.

maternal mortality. The fall in the birth-rate itself must lead to a fall in infant mortality. But this decline is in some measure also due to greater omissions in the vital statistics. It is noteworthy that even after this decline the recorded rates are very high in comparison with the rates in the Western countries. The reductions that have been achieved in the Western countries can be seen from the following infant mortality rates in 1945: Sweden 29.9, Norway 36.4, England and Wales 47.0, Denmark 48.3, the United States 38.3.†

23. Famine was a potent cause of death till the end of the last century and even in the early parts of the present one. Lack of transport isolated one locality from another and a crop failure meant famine even if abundant supplies were available at a short distance from the affected locality. The development of transport facilities have now changed the picture and chances of death occurring as a direct or indirect result of famine have been greatly minimised. Fortunately this State has been free from famines for the last three decades or so.

24. Table 73 exhibits the actual number of deaths from the three major epidemics of plague, cholera and small-pox, from fever and from other causes for the last 50 years and Figure 8 illustrates the deaths per 100,000 of population for each inter-censal year.

TABLE 73—Number of deaths from major epidemics, fever and other causes

Period	Total deaths	Number of deaths from—				
		Plague	Cholera	Small-pox	Fever	Other causes
1901—10	18,747,113	1,305,474	634,537	140,801	13,436,582	3,229,719
1911—20	18,819,255	1,112,380	582,819	56,775	13,901,959	3,165,322
1921—30	11,993,248	429,136	420,891	60,247	9,048,160	2,034,814
1931—40	11,333,226	211,413	222,669	105,353	8,732,993	2,060,798
1941—50	9,668,671	156,521	363,194	112,820	7,490,040	1,546,096

After 1920 plague seems to have lost its former virulence. Anti-rat campaign by trapping, baiting and cyano-gassing, anti-flea measures by D.D.T., dusting of rat holes and D.D.T. spraying of houses, and anti-plague inoculations have reduced the incidence of plague.

Progress in the control of cholera has been relatively slow. Compulsory inoculation against cholera as a condition for entry into places of pilgrimage has usually been enforced in connection with important fairs in the State and this has been proving successful in its control. This State is also producing anti-cholera vaccine and 3,038,544 doses of it were manufactured during the year 1950. Small-pox has been persisting and deaths from it which had come down during 1911—20 and 1921—30 again had an upward trend since 1931. Vaccinations and re-vaccinations consistently performed have been effective in controlling the incidence of small-pox. It will be noticed from Figure 8 that the three major epidemics are always present in the State, usually in a mild form but frequently taking an explosive turn.

The heaviest mortality in the State is from fever. Of this malaria takes the largest toll. It is not only a killer, but it also saps the vitality of the people.

†United Nations, *Demographic Yearbook*, 1948, page 404.

Famine and food shortage

Decline in deaths from epidemics, fever, etc.

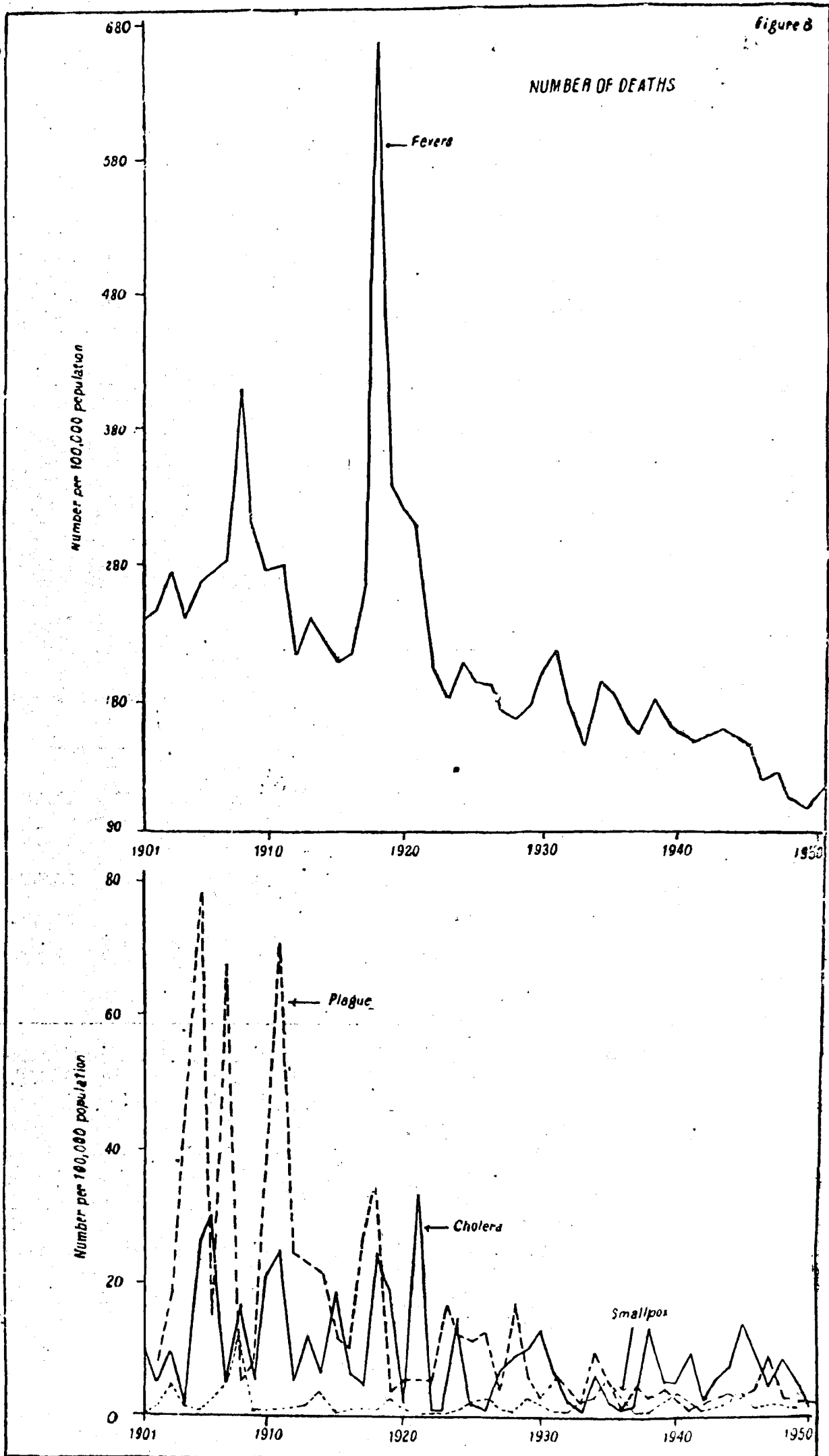


FIG. 8—Number of deaths from various causes, 1901—1950

The recent decline in its incidence may be ascribed in a large measure to the intense use of mepacrine, atabrine, paludrine and quinine. As a result of special precautions taken by the malaria control units large tracts of the State in the Tarai and in other areas have been made habitable. The following units were working in the State at the end of the last decade besides the district health services and drives—

- (1) Two provincial anti-malaria units (one in Jhansi district and the other in Bijnor district).
- (2) Two anti-malaria units established in connection with the colonization schemes in Tarai and Ganga Khadar areas.
- (3) Two units of malaria control demonstration teams under the auspices of W.H.O./UNICEF, which had started functioning in 1949 and which continued operations in the Tarai area of Naini Tal district and also extended their activities to the Bhabar area of the same district.
- (4) One unit established in connection with Sarda Hydel construction at Lohia Head, Naini Tal district.
- (5) One special anti-malaria unit, the cost of which was borne by the ICMR and the State on a 50 : 50 basis and which continued to work in the colonization area of Kashipur, Naini Tal district.

Kala azar is more or less confined to the eastern districts where *kala azar* units with travelling dispensaries were engaged in survey work and treatment.

Of the other causes of death, the most menacing is tuberculosis. Many of the deaths from this are hidden in the figures of deaths from respiratory diseases. Educational work on the cause and prevention of tuberculosis is carried on at local clinics aided by the Uttar Pradesh Tuberculosis Association. The State Government is running one T.B. sanatorium at Bhowali and three T.B. clinics. The T.B. Committee has recommended establishment of a T.B. ward at each district hospital but this could not be given effect to for want of funds. The B.C.G. vaccination scheme for the labour population and school children is continuing in the State but again on account of paucity of funds it was not possible to extend it to rural areas.

Diarrhoea and dysentery, dietary diseases, beri beri and epidemic dropsy and many others are responsible for large deaths. The State is fighting against these. For control of beri beri and epidemic dropsy which have been more prevalent in the rice eating eastern districts of the State the *Argemone Mexican* seed and oil, with which mustard oil was adulterated, have been declared as poison and vigorous application of the rules under the Uttar Pradesh Prevention of Adulteration Act is being carried out. Medical relief has been extended to rural areas also. 1,260 doctors, 980 nurses, 1,310 compounders and 521 *vaid*s and *hakeem*s were working under the Medical and Public Health Department at the end of the last decade. 941 hospitals and dispensaries and 519 *Ayurvedic* and *Unani* dispensaries were catering to the treatment of people. In spite of these the number is very meagre for 112,208 villages and towns and 63,215,742 people in the State.

25. In future the death-rate will be determined by two factors—occurrence of epidemics or any other disaster involving heavy loss of life, and improvement in social, economic, and sanitary conditions. It should be possible to eradicate the diseases by the help and increasing use of the latest scientific inventions. But people are still exposed to the risks of chronic food shortage and scarcity conditions are reported from time to time in various parts of the State. The State Government have formulated extensive schemes of development, some of which have been included in the Five-Year Plan. If these schemes go through, the food problem of the State will be solved. This will have the effect of reducing the death-rate.

The risks ahead
and the future
death-rate

26. The natural increase of a population is the difference between its births and deaths during a particular period. The rate of natural increase is obtained by the use of crude birth and death-rates. It is obvious that if the population were disturbed by no cause save birth and death, and the record of births and deaths were accurate, the population of the last census plus the births and minus the deaths of the decade would equal the population enumerated at this census. The figures for the last three decades are shown

Natural increase:
The calculated
population

in Table 74. For calculations in the table the population of the earlier census has been adjusted in the lay-out of the later census.

TABLE 74—*Calculated population of the State for three decades*

Calculated population	1941—50	1931—40	1921—30
(i) Census population at the beginning of the decade	56,531,848	49,614,552	46,509,820
(ii) Births during the decade (estimated at the recorded rate)* ..	14,921,732	18,184,209	16,388,400
(iii) Deaths during the decade (estimated at the recorded rate)* ..	9,970,986	11,679,934	12,358,459
(iv) Calculated population at the end of the decade	61,482,594	56,118,827	50,539,761
(v) Enumerated population at the end of the decade	63,215,742	56,346,456	49,614,833
(vi) Difference	+1,733,148	+227,629	—924,928

It will be noticed that in all the three decades a difference between the calculated population and the enumerated population exists. It shows that some other disturbing factors are present in the figures. We have seen earlier that actual births exceed registered births and actual deaths exceed registered deaths. This gives the registration error. Besides, the population of a decade is also disturbed by the balance of migration. These two factors account for the difference which may be called the sum of net migration and registration error or the algebraic sum of the balance of migration and the errors in the vital statistics.

It will be observed from Subsidiary Table 1·3, in Part I-B of the Report that the net migration and registration error for the area of registration of the State, which has about 97·6 per cent. of the total population, for the decade 1941—50 is 1,719,788. For 1931—40 the error is 278,055 and for 1921—30 it is —893,344.

The net registration error

27. In Table 75 an attempt has been made to split the combined factor of net migration and registration error into two separate factors, namely, net migration and net registration error.

TABLE 75—*Net migration and registration error†*

(Figures in thousand)

Particulars	1941—50	1931—40	1921—30
Net migration and registration error	+1,733	+228	—925
Net migration	+42	—42	—366
Net registration error	+1,691	+270	—559

We have made an estimate of net migration for the State in Section 4 of this chapter. The difference between the net migration and registration error and the net migration furnishes the net registration error during the last three decades.

It must be borne in mind that in calculating the net migration it has been assumed that there has been no emigration outside India. Further, the division between the two heads is dependent on the death-rates selected for emigrants and immigrants. Reasonable rates have been estimated and applied.

The negative error of net registration calls for some remark. We have seen above that there are differences in the magnitude of error in registration from decade to decade. The negative figures and very low positive ones indicate a higher percentage error in the registration of deaths. The probable error in death registration was 29·9 per cent. as against 28·5 per cent. in that of birth during 1941—50 ; 15·3 in death as against 11·6 in birth during 1931—40 ; and 21·7 in birth as compared to 15·0 in death registration in 1921—30.

*See Appendix III.

†For calculations for 1941—50, the figures of displaced persons have been offset against the unknown figures of Muslim exodus. Otherwise, the net migration for 1941—50 will be +522 and the net registration error will be +1,212.

28. Now we are in a position to analyse the growth of population during the last three decades. Table 76 gives the mean decennial rates calculated from Tables 74 and 75 above.

The growth of population finally explained

TABLE 76—Mean decennial growth-rates during the last three decades*

Particulars	1941—50	1931—40	1921—30
(i) Mean decennial growth-rate during the decade	+11.2	+12.7	+6.4
(ii) Estimated rate of natural increase (recorded)	+8.3	+12.3	+8.4
(iii) Migration-cum-registration error	+2.9	+0.4	-2.0
(iv) Net migration	+0.1	-0.1	-0.8
(v) Net registration error	+2.8	+0.5	-1.2

The sum of recorded rate of natural increase and net registration error gives the real natural increase of the State which is 11.1 for 1941—50, 12.8 for 1931—40 and 7.2 for 1921—30. Growth of population is obviously composed of the sum of the corrected natural increase and the net migration.

29. It is necessary to point out that the net registration error should not

TABLE 77—Estimated rates of natural increase, 1901—50

Decade	Corrected birth-rates	Corrected death-rates	Rate of natural increase
1901—10	41.7	42.2	-0.5
1911—20	44.0	46.1	-2.1
1921—30	39.9	32.7	+7.2
1931—40	38.8	26.0	+12.8
1941—50†	34.9	23.8	+11.1

be regarded as directly providing an index of the magnitude of the birth registration error or death registration error separately. The birth and death registration errors have been estimated in Appendix III, a reference to which has already been made earlier in this section. After the omissions are accounted for in the estimated birth and death-rates of the State the difference between the corrected rates gives the estimated natural increase. The rates for the last five decades are shown in Table 77. It will be noticed that the rates of natural increase in this table confirm our conclusions about natural increase arrived at in paragraph 28 above.

30. The estimated natural increase is illustrated in Figure 9. The percentage omission in births and deaths calculated for the decade has been applied to the annual registered births and deaths and the corrected rates have been worked out on the inter-censal population of each year. It has been assumed that in each year during the decade the recorded statistics were deficient to the same degree as they were for the decade taken as a whole. Figure 9 gives the relationship between births and deaths. With the widening of the gap between the two the natural increase has been rising. Marked decline in mortality and a high birth-rate that has caused an upswing in the natural increase, has been an unprecedented feature since 1920. The epidemics prior to it made the trend irregular. After the influenza epidemic the number of women in the reproductive ages was greatly reduced and their vitality was lowered. As a result the birth-rate came down, thus narrowing the gap between the birth-rate and the death-rate. The influence of influenza persisted in the last decade also. This combined with some other factors brought down the birth-rate and the gap between the birth and death-rates was again slightly narrowed. The trend of the birth and death-rates, therefore, explain the unsteadiness of the rate of natural increase. With migration playing a minor part in the growth, the fluctuations in the rate of natural increase explains the unsteadiness of the growth-rate.

The trend of natural increase

*See foot-note to Table 75. If the figures of displaced persons are not offset against the unknown figures of Muslim exodus, the net migration for 1941—50 will calculate to 0.9 and the net registration error to 2.0.

†See foot-note to Table 60. If the figures of displaced persons are not offset against the unknown figures of Muslim exodus, the rates will be : births 34.6, deaths 24.3 and natural increase 10.3.

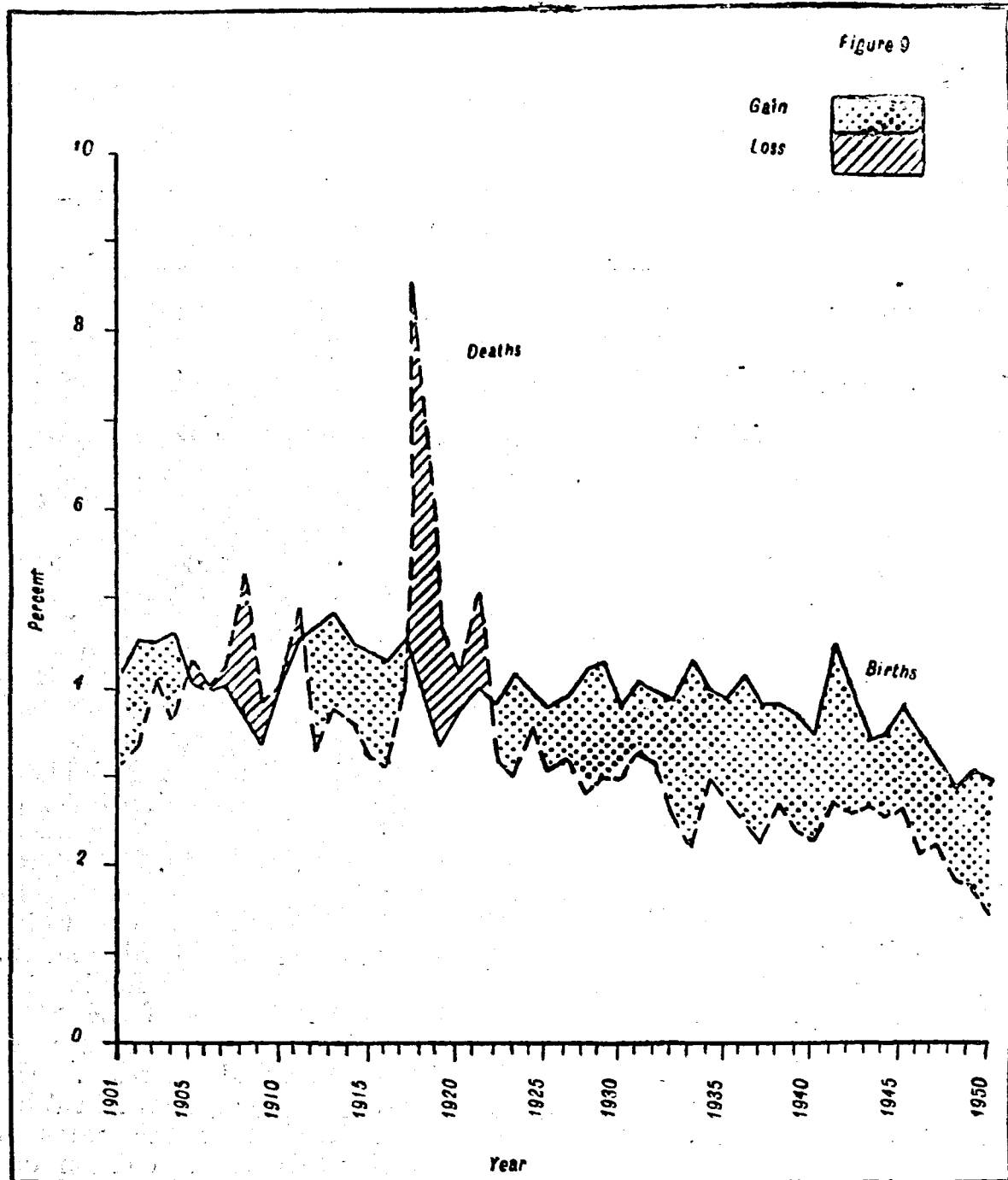


FIG. 9—Estimated natural increase, 1901—1950

The natural increase and migration-*cum*-registration error for each of the natural divisions and the districts can not be estimated separately for want of the figures of net migration for individual districts. Emigration figures are not known for units smaller than the State. It would not be safe to suppose that registration error is uniform in all the districts. In fact the results of the survey conducted by Dr. Prasad, given in Appendix IV, show that under-registration in vital statistics differs widely from district to district.

SECTION 6—LIVELIHOOD PATTERN

1. In this census special importance has been attached to the livelihood classification of the enumerated population. All the important census tables have been prepared by livelihood classes so that the demographic characteristics of the various economic sections of the population could be studied and compared. The practice of cross-tabulating data by religions observed in the previous censuses has now been abandoned.

2. The Indian Census Economic Classification Scheme has been explained at length in Part II-B of the Report. It has been designed to establish a comprehensive economic classification of *the people as a whole and not merely of persons who are gainfully occupied*. Under Q. 10 of this census relating to "principal means of livelihood" entries were also made for dependants, whether earning or non-earning, by recording the principal means of livelihood of the self-supporting person on whom they were dependent. On this basis the people have been divided into eight livelihood classes, four of which are of the agricultural category and four of the non-agricultural category, as follows :

Agricultural Classes

- I—Cultivators of land wholly or mainly owned ; and their dependants
- II—Cultivators of land wholly or mainly unowned ; and their dependants
- III—Cultivating labourers ; and their dependants
- IV—Non-cultivating owners of land ; agricultural rent receivers ; and their dependants

Non-agricultural Classes

- V—Production other than cultivation
- VI—Commerce
- VII—Transport
- VIII—Other services and miscellaneous sources

3. In order to secure accurate answers to Q. 10 and to the two other economic questions, Q. 9 and Q. 11, elaborate instructions were issued to the enumerators (*vide* Appendix I) followed by intensive training and practice on the spot. It can be safely asserted that the enumerators on the whole did justice to these questions and the data collected is quite reliable. The classification of the agricultural classes was made by the enumerators themselves in the slips directly but the classification of the non-agricultural classes was done in the tabulation offices, the enumerators having been instructed to record as full a description of the occupations as possible. The classification in the tabulation offices was carried out with great regard for accuracy and detail. The main economic tables are given in Part II-B of the Report, while the subsidiary tables are contained in Part I-B of the Report. In this section it is intended to review only the livelihood pattern of the general population as given in Subsidiary Table 1-8.

Accuracy of the data

4. The distribution of actual population according to the principal livelihood classes is shown by districts in a coloured map attached to this volume. Table 78 gives the distribution of population according to livelihood classes. It will be seen that almost exactly three-fourth of the population derive their livelihood from agricultural and one-fourth from

Distribution of population according to livelihood classes

TABLE 78—Distribution of 10,000 population in livelihood classes by natural divisions

Natural division	Livelihood classes									
	Total	Agricultural classes				Total	Non-agricultural classes			
		I	II	III	IV		V	VI	VII	VIII
Uttar Pradesh ..	7,418	6,226	515	571	106	2,582	839	503	136	1,104
Himalayan ..	7,880	7,273	476	110	21	2,120	517	360	91	1,152
East Plain ..	8,279	6,915	660	648	56	1,721	597	360	96	668
Central Plain ..	7,519	6,328	564	493	134	2,481	778	479	129	1,095
West Plain ..	6,602	5,613	335	524	130	3,398	1,106	652	174	1,466
Hills and Plateau ..	7,527	5,550	724	1,122	131	2,473	846	477	153	997

non-agricultural occupations. Among agricultural occupations, Class I, consisting of owner-cultivators, represents the highest percentage of population (62.26). According to the definition adopted for 1951 census, land is deemed to be "owned" if it is held on any tenure carrying with it a right of occupancy in land which should be a heritable and not necessarily a transferable right. In this class, therefore, fall all fixed rate, expropriatory, occupancy (including tenants holding on special terms) and hereditary tenants in this state together with such zamindars as have more income from their *sir* and *khud-kasht* than from the rent of the land let out to others. Agricultural Class II, consists of tenants of *sir*, sub-tenants and other cultivators not having a right of occupancy in the land; they represent only a little over 5 per cent. of the population. Class III, consists of cultivating labourers; they represent about 5.7 per cent. of the population. Class IV, represents such zamindars as have more income from rental than from *sir* and *khud-kasht* and other non-cultivating owners of land; they form only a little over 1 per cent. of the population.

Among the non-agricultural classes the highest percentage of population (11.04) falls under Class VIII, Other services and miscellaneous sources. This includes Division 5 (Construction and utilities); Division 7 (Transport, storage and communications) with the exception of Sub-divisions 7.0 to 7.4; Division 8 (Health, education and public administration) and Division 9 (Services not elsewhere specified). The next highest percentage (8.39) falls under Class V, Production other than cultivation, which embraces Divisions 0—4, viz., 0, Primary industries not elsewhere specified; 1, Mining and quarrying; 2, Processing and manufacture of food-stuffs, textiles, leather and product thereof; 3, Processing and manufacture of metals, chemicals and products thereof; 4, Processing and manufacture not elsewhere specified. It may be noted that Division 0 includes people deriving their livelihood from such industries as stock-raising, rearing of small animals and insects, plantation industries, forestry and wood-cutting, hunting and fishing, which are akin to or associated with agriculture. Only 5.03 per cent. of the population falls under Class VI, Commerce and 1.36 per cent. under Class VII, Transport. It may be mentioned here that under the classification scheme of this census people have been classified according to their individual occupations and not according to the establishment in which they work. Thus all railway employees are not classified under Class VII, Transport; those working on manufacture, assembly and repair of railway equipment have been classified under Class V, Production other than cultivation and those employed on construction work are shown in Class VIII, Division 5 (Construction and utilities).

5. Tables 79 and 80 compare the livelihood pattern of general population in the various censuses since 1901. Table 79 compares the figures of all persons (workers as well as non-earning dependants) of the different means of livelihood.

TABLE 79*—*Livelihood pattern of general population, 1901—21 and 1951*
(Actual and percentage)

Means of livelihood	1951		1921	1911	1901
	General population in which the earning dependants are classified—				
	according to their principal means of livelihood	according to their secondary means of livelihood			
Total agricultural and non-agricultural ..	63,215,742 (100)	63,215,742 (100)	46,510,668 (100)	48,014,080 (100)	48,493,879 (100)
Total agricultural	46,896,671 (74.18)	46,552,044 (73.64)	34,704,145 (74.62)	34,130,477 (71.08)	31,358,946 (64.67)
Cultivation of owned and unowned land	42,616,850 (67.41)	42,093,766 (66.59)	29,849,821 (64.18)	28,712,015 (59.80)	23,534,772 (48.53)
Employment as cultivating labourer	3,612,209 (5.71)	3,788,831 (5.99)	4,035,887 (8.68)	4,552,043 (9.48)	4,376,293 (9.03)

*The figures of all censuses prior to 1951 relate to the unrecast population as no recasting of the figures was possible. Recasting, however, would not have resulted in any significant alterations in the figures.

TABLE 79—*Livelihood pattern of general population, 1901—21 and 1951—(contd.)*

Means of livelihood	1951		1921	1911	1901
	General population in which the earning dependants are classified—				
	according to their principal means of livelihood	according to their secondary means of livelihood			
Rent on agricultural land ..	667,612 (1·06)	669,447 (1·06)	818,437 (1·76)	866,419 (1·80)	3,447,881 (7·11)
<i>Total non-agricultural</i> ..	<i>16,319,071</i> <i>(25·82)</i>	<i>16,663,698</i> <i>(26·36)</i>	<i>11,806,523</i> <i>(25·38)</i>	<i>13,883,603</i> <i>(28·92)</i>	<i>17,134,933</i> <i>(35·33)</i>
Production	5,301,313 (8·39)	5,422,516 (8·58)	4,801,152 (10·32)	5,426,728 (11·30)	5,886,780 (12·14)
Commerce	3,179,595 (5·03)	3,196,383 (5·06)	2,131,638 (4·58)	2,168,380 (4·52)	2,279,883 (4·70)
Transport	860,011 (1·36)	847,930 (1·34)	372,651 (0·80)	388,215 (0·81)	495,634 (1·02)
Other services and miscellaneous sources	6,978,152 (11·04)	7,196,869 (11·38)	4,501,082 (9·68)	5,900,280 (12·29)	8,472,636 (17·47)

Table 80 compares the figures of workers only (self-supporting persons classed according to their principal means of livelihood plus earning dependants classed according to their secondary means of livelihood). In 1931 and 1941, the occupation of only self-supporting persons and earning dependants was recorded and so the livelihood pattern of only these two Sub-classes is available for these years. The data for 1941 are based on tabulation of only 2 per cent. of the slips and, as will appear from the table, are not dependable.

TABLE 80*—*Livelihood pattern of workers, 1901—51*

(Actual and percentage)

Means of livelihood	1951	1941	1931	1921	1911	1901
Total agricultural and non-agricultural	26,839,316 (100)	19,142,700 (100)	24,159,472 (100)	24,830,283 (100)	24,641,446 (100)	23,610,903 (100)
<i>Total agricultural</i>	<i>20,226,991</i> <i>(75·36)</i>	<i>12,218,300</i> <i>(63·83)</i>	<i>17,630,829</i> <i>(73·18)</i>	<i>18,646,719</i> <i>(75·10)</i>	<i>17,205,388</i> <i>(69·82)</i>	<i>15,158,425</i> <i>(64·20)</i>
Cultivation of owned and unowned land	17,933,811 (66·82)	10,423,400 (54·45)	13,807,157 (57·15)	15,804,983 (63·65)	13,894,178 (56·38)	11,180,469 (47·35)
Employment as cultivating labourer	2,014,498 (7·50)	1,761,700 (9·21)	3,419,185 (14·15)	2,508,671 (10·11)	2,964,552 (12·03)	2,597,107 (11·00)
Rent on agricultural land	273,682 (1·04)	33,200 (0·17)	454,487 (1·88)	333,065 (1·34)	346,658 (1·41)	1,380,849 (5·85)
<i>Total non-agricultural</i>	<i>6,612,325</i> <i>(24·64)</i>	<i>6,924,400</i> <i>(36·17)</i>	<i>6,478,643</i> <i>(26·82)</i>	<i>6,183,564</i> <i>(24·90)</i>	<i>7,436,058</i> <i>(30·18)</i>	<i>8,452,478</i> <i>(35·80)</i>
Production	2,192,832 (8·17)	1,702,000 (8·89)	2,604,998 (10·78)	2,658,501 (10·71)	3,055,853 (12·40)	2,921,017 (12·37)
Commerce	1,061,513 (3·96)	1,082,900 (5·66)	1,147,108 (4·75)	1,014,841 (4·09)	1,028,550 (4·18)	986,698 (4·18)
Transport	284,472 (1·06)	182,100 (0·95)	182,833 (0·76)	152,814 (0·61)	172,889 (0·70)	207,204 (0·88)
Other services and miscellaneous sources	3,073,508 (11·45)	3,957,400 (20·67)	2,543,704 (10·53)	2,357,408 (9·49)	3,178,766 (12·90)	4,337,559 (18·37)

*See foot-note on page 96.

The percentages in Tables 79 and 80 run parallel with significant differences. Thus under Employment as cultivating labourer, the percentages in Table 80 are higher than in Table 79, while under Commerce and Transport, they are lower. This is obviously due to the existence of a higher proportion of workers among Employment as cultivating labourer and a lower proportion among the population of the other two means of livelihood.

Variation in
the livelihood
pattern of workers

6. We will now examine the variations in the various censuses as shown by Table 80. Figure 10 illustrates the data.

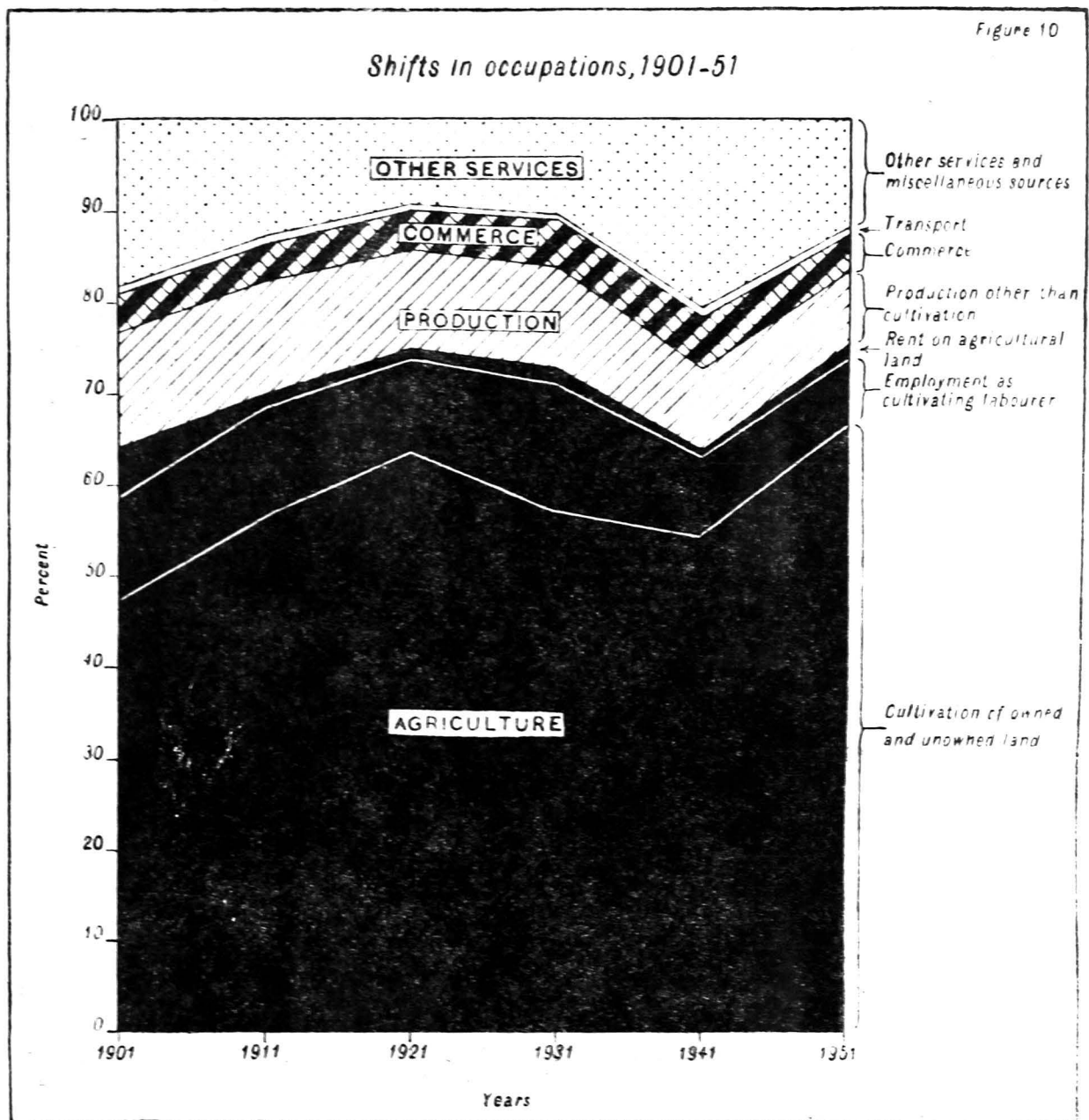


FIG. 10—Percentage variation in the livelihood pattern of workers, 1901—51

(i) In agricultural
means of livelihood

The proportion of the population depending on agriculture rose steadily from 1901 (64.20) to 1921 (75.10), registered a slight fall in 1931 and has reverted to the 1921 figure in 1951. In terms of absolute figures the population of workers in agriculture rose from 152 lakhs in 1901 to 186 lakhs in 1921, went down to 177 lakhs in 1931, and has risen to 202 lakhs in 1951. These trends are in direct contrast to the trends in industrially advanced countries like U. S. A. and U. K., where the proportion of agricultural workers has been steadily declining during the last fifty years or so.

The increase in 1911 from 1901 is both among the cultivation of owned and unowned land and the Employment as cultivating labourer. According to the 1911 Report this was due to two factors. In the first place, the wages, especially agricultural wages, had ruled high all through the decade and had

enabled the labourers to take up fields, thus swelling the number of tenants. Secondly, the crops for two years preceding the census had been excellent.*

The increase in 1921 from 1911 is due only to the increase among the cultivation of owned and unowned land; the Employment as cultivating labourer showed a decline. Owing to the great rise in agricultural prices as a result of the Great War the cultivator found himself comparatively well off. This caused a movement of labour back to the land, and also resulted in such an appreciation in agricultural income that in many cases where the agricultural income had formerly been subsidiary it now rose to be the principal income.

The decrease in 1931 from 1921 is due to decrease in the cultivation of owned and unowned land, while the Employment as cultivating labourer has increased. Although prices ruled high until 1930, the adverse seasons and the collapse of price level at the end of the decade drove people from the land back to the towns, and so reduced agricultural incomes that often they no longer were the principal source of livelihood.†

From 1931 to 1951 the workers with agricultural means of livelihood have increased from 73·18 per cent. of the total population to 75·36 per cent. But in absolute figures this represents an increase from 177 lakhs to 202 lakhs. The increase is due to the rise in the number of cultivation of owned and unowned land from 138 lakhs to 179 lakhs; the number of Employment as cultivating labourer has gone down. There are several reasons for this increase. In the first place, prices of agricultural produce have remained high for well over a decade now and have touched an all-time high. Secondly, many persons who were formerly treated only as labourers, even though they were cultivating the *sir* or *khud-kash* of zamindars, have now succeeded, as a result of legislation and administrative measures, in getting themselves recorded as cultivators of the land in their cultivating possession. Thirdly, a large number of persons, having both labour and cultivation as their occupation, have now returned cultivation instead of labour as their principal means of livelihood. Fourthly, owing to impending Zamindari Abolition Legislation the zamindars have been increasingly taking to cultivation. These reasons also explain the decrease in Employment as cultivating labourer and Rent on agricultural land.

As will appear from Table 80 the proportion of non-agricultural means of livelihood declined from 1901 to 1921, registered an increase during 1921—31, and has fallen again during the period 1931—51. The significant feature of the figures is that while the proportion has gone down during the last two decades, in absolute numbers the figure of workers has risen from 64·8 lakhs to 66·1 lakhs. In other words, while more and more people are taking to non-agricultural occupations, the increase in their number is not keeping pace with the increase in population.

(ii) In non-agricultural means of livelihood

Examining the figures of each non-agricultural means of livelihood separately, it would appear that under Production, the number of workers has been steadily declining since 1911. During 1921—51 it declined from 26·6 lakhs to 21·9 lakhs, although the total population depending on this means of livelihood increased from 48 lakhs to 54 lakhs during the same period (Table 79). Under Commerce, the number of workers has been alternately rising and falling up to 1931 after which it shows a heavy decline. Under Transport, the absolute figures as well as proportion, show marked increase since 1921. The effects of the government policy in developing roads and road transport as well as rail transport are reflected in these figures. Under Other services and miscellaneous sources, the absolute figures as well as proportions have been likewise rising since 1921. The increase is due mainly to the increasing administrative activities of government, local bodies and public institutions.

* U. P. Census Report, 1911, Part I, page 386.

† U. P. Census Report, 1931, Part I, page 395.

Comparison with
other States of
India

7. Table 81 gives the livelihood pattern of the States of India. Considering the fact that the all-India percentage of population dependent on

TABLE 81—*Livelihood pattern of the States of India, 1951*

States	Percentage of population dependent on—				
	Agriculture	Production other than cultivation	Commerce	Transport	Other services and miscellaneous sources
India	69·84	10·56	5·97	1·58	12·05
Assam	73·34	14·68	3·90	1·28	6·80
Bihar	86·04	3·94	3·40	0·72	5·90
Bombay	61·46	13·76	7·61	2·23	14·94
Madhya Pradesh	76·00	10·60	4·39	1·47	7·54
Madras	64·93	12·35	6·69	1·68	14·35
Orissa	79·28	6·33	2·91	0·53	10·95
Punjab	64·73	7·36	9·15	1·04	17·72
Uttar Pradesh	74·18	8·39	5·03	1·36	11·04
West Bengal	57·21	15·36	9·32	3·05	15·06
Hyderabad	68·16	13·54	5·12	1·30	11·88
Mysore	69·90	10·24	5·57	1·16	13·13
Rajasthan	70·87	8·88	6·58	0·94	12·73
Travancore-Cochin	54·85	21·19	6·80	3·41	13·75

agriculture is 69·84 as against Uttar Pradesh's 74·18. Our State is one of the more predominantly agricultural States of India. Among the major States there are only three which have a larger proportion of agricultural population than Uttar Pradesh, viz., Madhya Pradesh (76·00), Orissa (79·28) and Bihar (86·04) while the rest have a lower proportion. The States with the lowest proportion of agricultural population are Travancore-Cochin (54·85), West Bengal (57·21), Bombay (61·46), Punjab (64·52) and Madras (64·93). This shows the different degrees of urbanization and industrialization in the various States of India.

Examining the non-agricultural classes separately it appears that under Class V, Production other than cultivation, Uttar Pradesh is behind the all-India average and is one of the States at the bottom. Only Bihar, Orissa and Punjab have returned lower figures and of these the case of Punjab is exceptional. Under Class VI, Commerce, also Uttar Pradesh is one of the most backward and behind the all-India average. Under Class VII, Transport, however, Uttar Pradesh does not figure so badly. It has a higher percentage than 7 States and lower than only 5. Under Class VIII, Other services and miscellaneous sources, also Uttar Pradesh is one of the 5 States at the bottom.

Livelihood
pattern of general
population by
natural divisions

8. Table 78 gives the livelihood pattern by natural divisions also. It will be seen that the proportion of agricultural and non-agricultural classes in 3 of the divisions closely follows the State proportion. In East Plain, however, the proportion is appreciably higher (82·79) and in West Plain considerably lower (66·02) than the State figure. The reason is to be sought in the state of urbanization and industrialization of the two divisions.

Examining the distribution of the agricultural classes separately it appears that under Class I the largest percentage (72·73) is in Himalayan division followed by East Plain (69·15). In these two divisions owing to the existence of a large number of smaller holdings, the tenants mostly cultivate the land themselves. Petty zamindars living on the cultivation of their own *sir* and *khud-kasht* also abound. The smallest percentage of this class lies in West Plain (56·13) and Hills and Plateau (55·50). In the former owing to urbanization the proportion of population carrying on agriculture is itself small and in the latter, owing to large holdings and the difficult nature of the terrain, the cultivators have to engage hired labour for their own cultivation and have also to do considerable sub-letting.

Under Class II, consisting of sub-tenants and other cultivators of unowned land, the highest percentage is in Hills and Plateau division (7·24) owing to the existence of large holdings and the difficult nature of cultivation in that area. The next in order is East Plain (6·60) owing to the custom of sub-letting in the permanently settled districts of Banaras division. The least proportion of this class is to be found in West Plain (3·35).

Under Class III, consisting of cultivating labourers the highest proportion is again to be found in Hills and Plateau division (11·22), while the lowest is in Himalayan division (1·10). Table 82 gives the proportion of cultivating labourers in the various natural divisions since 1901. It will be seen that the proportion of cultivating labourers has always been the highest in Hills and Plateau division owing to the existence of large holdings and the difficult nature of the terrain which compel the cultivators to hire labour. Likewise, the proportion has been the lowest in Himalayan division where, owing to the small holdings, the cultivators do not need to employ labour. Another noteworthy feature of the table is the remarkable fall in the figure of cultivating labourers in the Central Plain division. This is due to the fact that owing to land reform legislation many of the former 'labourers' have been converted into cultivators in the taluqadari districts of Avadh.* It will be seen that there is now a tendency for the percentage of cultivating labourers to decrease. The reason is that holdings are progressively decreasing in size and the need for employment of labour is also, therefore, correspondingly decreasing. Cultivators also avoid engaging labour owing to the mounting wages.

TABLE 82—Percentage of cultivating labourers and their dependants to total population, 1901—21 and 1951

Natural division	1951	1921	1911	1901
Uttar Pradesh	6·0	8·7	9·5	9·0
Himalayan	1·1	2·0	2·1	4·1
East Plain	7·1	9·2	10·8	8·6
Central Plain	5·2	9·1	11·0	11·3
West Plain	5·2	7·1	7·0	6·8
Hills and Plateau	11·7	15·1	16·4	16·6

Under Class IV, the percentage is the lowest in Himalayan and East Plain division where most of the zamindars, being cultivating owners with more income from their *sir* and *khud-kasht* than from the rental, have been included in Class I.

Among the non-agricultural classes the highest percentage falls in West Plain division (33·98) and the lowest in East Plain division (17·21) owing to the different degrees of urbanization and industrialization.

Examining the distribution of the non-agricultural classes separately it appears that under Class V, Production other than cultivation, the highest percentage (11·06) falls in West Plain division and the lowest in Himalayan division (5·17). The West Plain division is the most highly industrialized portion of the state, due mainly to the supply of hydro-electric power. The Himalayan division, on the other hand, has very few organised industries.

Under Class VI, Commerce, the highest percentage of population falls in West Plain (6·52) and the lowest in Himalayan and East Plain (3·60). The West Plain division being the most urbanized and industrialized area of the State is also commercially the most developed while the Himalayan and East Plain divisions, being the least urbanized and industrialized, are the least developed commercially.

Under Class VII, Transport, the highest percentage falls in West Plain (1·74) followed by Hills and Plateau (1·53) and Central Plain (1·29). The transport system—both road and rail—is the most highly developed in West Plain division. The figures of Hills and Plateau and Central Plain have been

*The figures of 1931 have been excluded from the table because they relate only to earners and working dependants and not to the whole enumerated population like the figures of 1901, 1911, 1921 and 1951. In 1931 the percentage of agricultural labourers (earners and working dependants) was 14·15. The increase was at the expense of tenants as explained in detail in *U. P. Census Report, 1931, Part I, page 397.*

affected by large railway centres like Jhansi, Lucknow and Kanpur. The Himalayan division has the least developed transport owing to the hilly nature of the country.

Under Class VIII, Other services and miscellaneous sources, the highest percentage (14·66) has been returned by the West Plain division, the most industrialized division of the State, while the lowest (6·68) has been returned by East Plain division. The Himalayan division, though the least urbanized and industrialized, shows a high percentage in this class because a large number of people of this division are employed in the defence and other services and their families depend for their principal source of livelihood on their remittances.

9. Table 83 shows the distribution of 1,000 persons of each livelihood class among self-supporting persons, earning dependants and non-earning dependants by sex. It will appear that in the general population 30·5 per cent.

TABLE 83—*Distribution of 1,000 persons of each livelihood class among self-supporting persons, earning dependants and non-earning dependants*

Livelihood class	Self-supporting persons			Earning dependants			Non-earning dependants		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
All Classes	305	276	29	120	34	86	575	214	361
All agricultural classes	297	270	27	142	38	104	561	210	351
I—Cultivators of land wholly or mainly owned	289	267	22	141	38	103	570	212	358
II—Cultivators of land wholly or mainly unowned	305	277	28	169	42	127	526	207	319
III—Cultivating labourers	366	302	64	143	32	111	491	194	297
IV—Non-cultivating owners of land; and agricultural rent receivers	381	239	142	34	15	19	585	202	383
All non-agricultural classes	327	291	36	57	22	35	616	227	389
V—Production	324	295	29	67	25	42	609	220	389
VI—Commerce	287	269	18	42	23	19	671	241	430
VII—Transport	307	301	6	38	17	21	655	236	419
VIII—Other services and miscellaneous sources	351	298	53	58	19	39	591	224	367

(males 27·6, females 2·9) are self-supporting persons, 12·0 per cent. (males 3·4, females 8·6) earning dependants and 57·5 per cent. (males 21·4, females 36·1) non-earning dependants. The proportion of self-supporting persons is slightly higher in the non-agricultural classes than in the agricultural classes mainly because the proportion of males of working ages 15—54, who constitute the bulk of self-supporting persons, is higher in the non-agricultural than in the agricultural classes (*vide* Subsidiary Tables 6·12 and 6·13). Besides, the proportion of self-supporting females is also higher in the non-agricultural than in the agricultural classes due to better opportunities of employment for them in Livelihood Classes V (mainly cottage industries) and VIII (mainly services and general labour) as compared to Classes I and II which constitute the bulk of the agricultural population. The proportion of earning dependants is very much higher, i.e., 14·2 per cent. (males 3·8, females 10·4), in the agricultural than in the non-agricultural classes where they constitute only 5·7 per cent. (males 2·2, females 3·5) of the non-agricultural population. This is mainly due to the

Self-supporting persons, earning dependants and non-earning dependants

fact that agriculture by its very nature provides a larger scope for the participation of women and children in the family holdings and earning dependants are constituted principally of women and children (*vide* Subsidiary Tables 6·5 and 6·6). The subject will be examined in greater detail for agricultural and non-agricultural classes in Chapters IV and V respectively.

10. Table 84 shows the distribution of 10,000 self-supporting persons, earning dependants and non-earning dependants among the eight livelihood classes by sex. The distribution of earning dependants is according to their principal means of livelihood.

TABLE 84—*Distribution of 10,000 self-supporting persons, earning dependants and non-earning dependants among various livelihood classes*

Livelihood pattern of self-supporting persons, earning dependants and non-earning dependants

Livelihood class	Self-supporting persons			Earning dependants			Non-earning dependants		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
All Classes	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
All agricultural classes	7,228	7,271	6,830	8,773	8,344	8,940	7,237	7,272	7,216
I—Cultivators of land wholly or mainly owned	5,895	6,035	4,575	7,336	7,118	7,421	6,171	6,157	6,179
II—Cultivators of land wholly or mainly unowned	514	517	494	727	642	760	471	498	455
III—Cultivating labourers	687	627	1,249	680	538	735	488	518	470
IV—Non-cultivating owners of land; and agricultural rent receivers	132	92	512	30	46	24	107	99	112
All non-agricultural classes	2,772	2,729	3,170	1,227	1,656	1,060	2,763	2,728	2,784
V—Production	891	896	838	471	625	411	888	861	903
VI—Commerce	474	491	316	174	339	110	587	565	600
VII—Transport	137	148	28	43	69	33	155	150	158
VIII—Other services and miscellaneous sources	1,270	1,194	1,988	539	623	506	1,133	1,152	1,123

Of the 19,259,510 self-supporting persons, 90·4 per cent. are males and 9·6 per cent. females. Among the male self-supporting persons 72·7 per cent. are engaged in agricultural occupations and 27·3 in non-agricultural occupations. Of these 60·4 per cent. are cultivators of owned land, 5·2 per cent. cultivators of unowned land, 6·3 per cent. Cultivating labourers, 0·9 per cent. Non-cultivating owners of land and agricultural rent receivers, 9 per cent. are engaged in Production other than cultivation, 4·9 per cent. in Commerce, 1·5 per cent. in Transport while the remaining 11·9 per cent. are engaged in Other services and miscellaneous sources. 68·3 per cent. of self-supporting females pursue agricultural occupations and 31·7 per cent. non-agricultural occupations. About 45·8 per cent. are cultivators of owned land, 4·9 per cent. Cultivators of unowned land, 12·5 per cent. Cultivating labourers, 5·1 per cent. Non-cultivating owners of land and agricultural rent receivers, 8·4 per cent. are engaged in Production other than cultivation, 3·2 per cent. in Commerce, 0·3 per cent. in Transport (mainly owners of transport vehicles) and 19·9 per cent. in Other services and miscellaneous sources.

Of the 7,579,806 earning dependants, 28·0 per cent. are males and 72·0 per cent. females. Among the male earning dependants 83·4 per cent. depend for their principal means of livelihood on agricultural occupations and 16·6 per cent. on non-agricultural occupations. Cultivation of owned land is the principal means of livelihood of 71·2 per cent. and the rest share the other

occupations. Of the female earning dependants 89·4 per cent. depend on the agricultural pursuits and only 10·6 per cent. on non-agricultural occupations. As is the case with the males, Cultivation of owned land is the principal means of livelihood of the bulk of female earning dependants, Transport and Non-cultivating ownership of land being the least attractive.

Of the non-earning dependants the bulk is of females. Among 36,376,426 persons their population is 62·7 per cent., only 37·3 per cent. being males. 72·7 per cent. of the males and 72·2 per cent. of the females depend on agricultural occupations and the rest of the male and female non-earning dependants depend on the non-agricultural occupations. Cultivation of owned land supports 61·6 per cent. of the males and 61·8 per cent. of the females. Livelihood Class VIII comes next followed by Livelihood Classes V, VI, III, II, VII and IV in the order named.

It will further be observed that the distribution of self-supporting persons is generally similar to the livelihood pattern of the general population (Table 78). The agricultural classes have slightly a lower percentage of self-supporting persons as compared to their proportion in the general population (72·28 per cent. against 74·18 per cent.) while the non-agricultural classes have a relatively higher proportion (27·72 per cent. against 25·82 per cent.). The distribution of earning dependants among the eight livelihood classes is, on the other hand, very different. Agricultural classes support a relatively higher proportion of earning dependants (87·73 per cent. against 74·18 per cent.) and the non-agricultural classes support a lower proportion (12·27 per cent. against 25·82 per cent.) than their proportion in the general population. There is a preponderance of female earning dependants over the males both in the agricultural and the non-agricultural classes. Some reasons for the trend of distribution of self-supporting persons and earning dependants have already been suggested in the previous paragraph.

11. Table 85 shows the distribution of earning dependants according to their secondary means of livelihood. It will be observed that of the total male earning dependants about 77·2 per cent. pursue the agricultural occupations and the remaining 22·8 per cent. follow the non-agricultural occupations. 64·6 per

TABLE 85—Distribution of 10,000 earning dependants according to their secondary means of livelihood, 1951

Means of livelihood	Persons	Males	Females
Total agricultural and non-agricultural	10,000	10,000	10,000
Total agricultural	8,319	7,719	8,551
Cultivation of owned land	6,792	6,461	6,921
Cultivation of unowned land	581	484	618
Employment as cultivating labourer	913	720	988
Rent on agricultural land	33	54	24
Total non-agricultural	1,681	2,281	1,449
Production	631	909	523
Commerce	196	355	135
Transport	27	74	9
Other services and miscellaneous sources	827	943	782

cent. are Cultivators of owned land, 4·8 per cent. Cultivators of unowned land, 7·2 per cent. Cultivating labourers, 0·5 per cent. Non-cultivating owners of land and agricultural rent receivers, while 9·1 per cent. are engaged in Production other than cultivation, 3·6 per cent. in Commerce, 0·7 per cent. in Transport and 9·4 per cent. in Other services and miscellaneous sources. Among the females 85·5 per cent. follow the agricultural occupations and 14·5 per cent. the non-agricultural occupations. 69·2 per cent. are Cultivators of owned land, 6·2 per cent. Cultivators of unowned land, 9·9 per cent. Cultivating labourers and 0·2 per cent. Non-cultivating owners of land and agricultural rent receivers while 5·2 per cent. are engaged in Production other than cultivation, 1·4 per cent. in Commerce, 0·1 per cent. in Transport and 7·8 per cent. in Other services and miscellaneous sources.

A comparison with Table 84 will show that a higher proportion of earning dependants depend on agriculture for their principal means of livelihood than their proportion in agriculture according to their own occupations (87·7 per cent. against 83·2 per cent.). While 12·3 per cent. of them depend on non-agricultural occupations, the proportion of earning dependants pursuing non-agricultural occupations is 16·8 per cent.

12. Table 86 shows the relative percentage distribution of earning dependants according to their secondary means of livelihood in 1931 and 1951. It will be seen that in 1951, 83·2 per cent. of earning dependants have agricultural secondaries and only 16·8 per cent. non-agricultural secondaries as against

Distribution of earning dependants according to their secondary means of livelihood

88.2 per cent. and 11.8 per cent. respectively in 1931. The shift from agricultural to non-agricultural secondaries is thus quite perceptible. Agriculture is already over-crowded and affords no further scope for employment, while the increasing industrialization and urbanization provide an alternative scope in non-agricultural occupations. But it may be noted that the increase in non-agricultural secondaries is largely confined to Transport, where the proportions are very small, and Other services and miscellaneous sources, where the proportions are considerable. A large part of the figures of Other services and miscellaneous sources presumably relate to general labour. There is no signi-

TABLE 86—Percentage distribution of earning dependants according to secondary means of livelihood by natural divisions, 1931 and 1951

Secondary means of livelihood	Uttar Pradesh	Himalayan	East Plain	Central Plain	West Plain	Hills and Plateau
<i>Total agricultural—</i>						
1931 ..	88.2	97.8	88.5	86.1	79.7	89.1
1951 ..	83.2	94.0	85.8	83.4	62.8	82.7
<i>Cultivation of owned land—</i>						
1931 ..	67.9	87.8	68.5	68.9	53.6	59.9
1951 ..	67.9	87.8	68.5	68.9	53.6	59.9
<i>Cultivation of unowned land—</i>						
1931 ..	5.8	5.4	6.2	5.8	3.2	7.2
1951 ..	5.8	5.4	6.2	5.8	3.2	7.2
<i>Total of Land II, cultivation of owned and unowned land—</i>						
1931 ..	78.9	96.6	77.8	74.6	71.8	74.5
1951 ..	73.7	93.2	74.7	74.7	56.8	67.1
<i>Employment as cultivating labourer—</i>						
1931 ..	8.1	0.1	9.2	10.6	6.7	13.6
1951 ..	9.2	0.8	10.8	8.4	5.3	15.2
<i>Rent on agricultural land—</i>						
1931 ..	1.2	1.1	1.5	0.9	1.2	1.0
1951 ..	0.3	..	0.3	0.3	0.7	0.4
<i>Total non-agricultural—</i>						
1931 ..	11.8	2.2	11.5	13.9	20.3	10.9
1951 ..	16.8	6.0	14.2	16.6	37.2	17.3
<i>Production—</i>						
1931 ..	5.9	1.6	5.1	7.1	11.3	5.5
1951 ..	6.3	2.3	5.1	5.7	16.0	7.1
<i>Commerce—</i>						
1931 ..	2.0	0.1	2.8	2.0	2.3	1.9
1951 ..	2.0	0.5	1.6	1.9	4.5	2.3
<i>Transport—</i>						
1931 ..	0.1	..	..	0.1	0.1	0.1
1951 ..	0.3	0.1	0.2	0.2	0.9	0.2
<i>Other services and miscellaneous sources—</i>						
1931 ..	3.8	0.5	3.6	4.7	6.6	3.4
1951 ..	8.2	3.1	7.3	8.8	15.8	7.7

ficant increase in Production other than cultivation. These trends are observable in all the natural divisions but they are most marked in West Plain where the increase in the proportion of earning dependants of all non-agricultural occupations is very considerable. Even the increase in Production other than cultivation, is significant in this division,

SECTION 7—CONCLUDING REMARKS

1. We may now summarise the discussions of the previous sections and make an attempt to forecast the future trends of population growth in the light of this study.

Density

2. An examination of the general distribution of population and density shows that the crude density of the State (557 persons per square mile) is one of the highest in India as well as in the whole world. The density is low in the Himalayan (130) and Hills and Plateau division (248) as compared to the 3 Plain divisions (West Plain—657, Central Plain—717, East Plain—850). This low density is, however, due entirely to the nature of the terrain, which is hilly and covered with forests. A study of the variations in density during the last fifty years shows that the natural divisions have retained their respective positions in order of density during this period and the density among the divisions is growing directly and not inversely. The reason is that no "open" spaces are available in any division and so no migration from one to the other is possible. The divisions as well as the State have reached the saturation point.

In spite of the heavy pressure of population there has been no considerable migration of population to other States of India or to other parts of the world. The other States of India lack the necessary "pull"; there are no opportunities for fresh employment and they have their own growing populations. The outer world is closed to our country.

Growth of population

3. Up to 1921 the growth of population in the State was sporadic. In fact the population decreased continuously from 1901 to 1921. But since 1921 the growth has been continuous and phenomenal. The growth-rate was 6·4 per cent. during 1921—30, 12·7 per cent. during 1931—40 and 11·2 per cent. during 1941—50. In absolute figures the increase of the last decade alone amounts to 67 lakhs which is almost equal to the population of Nepal (70 lakhs) or Ceylon (75 lakhs). The growth has been fairly uniform in all the natural divisions.

Factors affecting growth:
(i) migration

4. Among the factors affecting growth, migration has played a negligible part. The net balance of migration during the last decade was 42 thousand and if the unknown movements to Nepal etc., are taken into account it would be a very small loss. During 1931—40 the loss was 0·1 per cent. and during 1921—30, 0·8 per cent.

(ii) natural increase

5. The principal factor accounting for the growth of population in the State is natural increase, the resultant of births and deaths. Prior to 1921 both the recorded birth and death-rates were above 40. Since 1921 the recorded death-rate has been declining significantly registering on all time low (16·5) during 1941—50. The recorded birth-rate also has come down due to the changes in the age structure brought about by the influenza epidemic of 1918-19. Allowing for the under registration of births and deaths it is estimated that the natural increase was 7·2 per cent. in 1921—30, 12·8 per cent. in 1931—40 and 11·1 per cent. in 1941—50 as compared to a decrease of 0·5 per cent. in 1901—10 and 2·1 per cent. in 1911—20. This trend of acceleration in the natural increase is the result of a definite fall in mortality consequent on better control of epidemics and diseases, improvement in health services and medical facilities and the discovery of new preventive and curative drugs and medicines.

Future trend

6. The future trend is bound to be one of accelerated population growth. As has been already observed the decline in birth-rate during recent years is due mainly to the effects of the influenza epidemic on the age structure of the population. The rise in the age of marriage of girls, however, is bound to affect the "completed fertility" of our women and ultimately the birth-rate. But the progressive age composition of our population has potentialities of a high birth-rate. On the whole, there are no prospects of a substantial fall in birth-rate. On the other hand, the falling trend of the death-rate is likely to be maintained. It is, therefore, fairly certain that the trends of population increase started in 1921 will be sustained during the immediate future.

Population projections

7. It will be interesting to calculate mathematically the population of the State at the next two censuses and at the end of the century from certain explicitly stated quantitative assumptions. Our first projection rests on the assumption that the relatively high rate of natural increase observed between 1921 and 1951 will continue. This gives a population of 70·7 million in 1961, 78·2 million in 1971 and 105 million in 2,000. Our second projection

rests on the assumption that the State's population will grow at the average speed it exhibited during the last seven decades. This assumption yields a total of 66·7 million in 1961, 70·0 million in 1971 and 80·5 million in 2,000. The first projection is likely to be true of near dates like 1961 or 1971 rather than of 2,000, while the second one, which allows for both ups and downs, is likely to be more true of the distant 2,000 than the near dates. Both the projections ignore the factor of migration.

Estimates of population, however, are bound to be hazardous. As Kingsley Davis observes, "It is quite possible that the use of atomic energy, either in peace or war, or some other great technological transformation, will make possible an increase or decrease of population so great that it now seems inconceivable."*

*Kingsley Davis, *The Population of India and Pakistan*, page 89.

CHAPTER II—RURAL POPULATION

SECTION I—PRELIMINARY REMARKS

1. The previous chapter dealt with the general population and its distribution and growth in the different parts of the State. In the present chapter and in the succeeding one the distribution and growth of the rural and urban population, within those parts, will be examined separately. The classification into the rural and urban categories is based upon the nature of the areas in which people live. Residence brings out the environmental differences which create the demographic differences between rural and urban population. "Rural society presents a sharp contrast to urban society. Outstanding in the former is the preponderance of the agricultural occupations, a low density of population, small population aggregates, a high degree of ethnic and cultural homogeneity, and great territorial, occupational and social stability."* Urban society shows the opposite extremes of all of these. In consequence, the classification of the population on a residential basis is absolutely necessary for demographic analysis.

Introductory

2. Census statistics of the rural and urban population have a variety of important uses. The process of urbanization has long been recognized as a concomitant of social and economic development. It is desirable to relate it with (1) economic indices that reflect the progress of industrial development, (2) indices of social and political change, and (3) demographic trends as indicated by rates of population growth, family characteristics, mobility of the population, age structure, size and composition of the economically active population and the like. The results of such studies should be a valuable guide to planning economic and social development. A comparative study of the conditions and characteristics of rural and urban people with respect to births, deaths, age and sex composition, housing, sanitation, etc., is helpful in determining the particular problems of rural and urban areas and, beyond these, in understanding the role or function of cities in society and in exploring the possibilities of controlling their growth and planning their development. The utility of the data in connexion with the implementation of specific projects or programmes can hardly be overstressed.† Because of this utility most of the main tables in the different volumes of Part II of this Report present the statistics with rural-urban break-up.

Uses of rural-urban statistics

3. The difficulties in the way of developing standard methods of rural and urban classification have been realized throughout the world and there is no agreement as to where to draw the line between rural and urban population. The terms "rural" and "urban" have their connotations which refer to ways of life, cultural patterns, attitudes and other intangible aspects and it is difficult to pin down these in a census frame of reference.‡ Historical, political, cultural and administrative considerations give the criteria for rural-urban classification. The different countries of the world express so much individuality in this respect that there is no uniform definition and classification. At its fourth session, in April 1949, the United Nations Population Commission made the recommendation to obtain the aggregate population of all identifiable agglomerations or clusters of population classified by size and other characteristics.§ They refrained from attempting to establish a definitive or final dichotomy between rural and urban but provide a type of classification which ensures comparability of the results in terms of the unit being classified, namely, the agglomeration. It has been accepted that if the size of agglomeration shows a closer correspondence in some countries than in others to characteristics that are commonly regarded as "urban", this is the result of cultural differences.|| Therefore, one can appreciate why our rural and urban areas are not similar to those in the United Kingdom or in the U. S. A. or in other countries.

Definitions and classifications

* T. L. Smith, *Population Analysis*, page 27.

† United Nations, *Data on Urban and Rural Population in Recent Censuses*, page 1.

‡ *Ibid*, page 1.

§ *Ibid*, page 4.

|| *Ibid*, page 5.

4. We have adopted a definition according to which an agglomeration having a continuous group of houses permanently inhabited by usually not less than 5,000 persons, is to be treated as a "town", or in other words an urban area, but, as will be seen later, we have also made certain exceptions to this established minimum and have included some places of smaller size in the urban category if they have certain urban characteristics. On the other hand, agglomerations of population over 5,000 have also been treated as rural if the urban characteristics are not present. In this classification our approach has been that all the agglomerations having local government or administration under a municipal, cantonment, notified area or town area committee are invariably treated as urban. Of the remaining centres of population some have also been treated as a town or urban area for census purposes, having regard to the character of the population, the relative density of the dwellings, the importance of the place as a centre of trade and its historic associations. All other areas are classified as rural.

The villages and hamlets

5. The rural area is mainly composed of the villages. For purposes of the census a "village" is not necessarily a village in the ordinary sense. It denotes the area demarcated for revenue purposes as a *mauza*, provided that where a *mauza* or part of a *mauza* forms a part of the area of a town, it is included in such town and the remainder, if any, is regarded, for census purposes, as the village. A revenue *mauza* is the survey and settlement village which is a parcel of ground with definite boundaries which may contain one or more groups of houses or even no houses at all. The census village is, therefore, not actually a residential unit or aggregation. A distinctive cluster or agglomeration of houses makes up the "hamlet"; and the revenue *mauza* may consist of several such hamlets or it may even consist of no 'abadi' or residential site. The "village", by which name the revenue *mauza* is traditionally called, consists usually of a central inhabited site, with a tract of cultivated land around it. Unlike other countries, in India and in this State the farmstead is practically unknown. The people are gregarious by habit and are huddled together in congested sites. Owing to the necessity in unsettled times of combinations against hostile attacks the people had to live together for mutual protection. This residential aspect was taken into consideration while determining the unit of revenue administration except in tracts which were uninhabited when the *mauzas* were first formed. Later on when such tracts were inhabited and there was a greater sense of security of life and property and when people obtained a right in land, outlying hamlets were also formed. These hamlets usually consist of the home-stead of a landlord or a large tenant built for greater convenience in or near his holding round which cluster the houses of his farm servants; or else of the houses of some special social groups or castes living separately from the central site. Most of these hamlets are usually given a separate name and are identifiable from the main site. From the strictly demographic angle it is these hamlets and not the revenue *mauzas* which should be the units of population. This was, however, not practicable at the census on account of administrative difficulties. Besides, in a large number of cases where the houses are scattered it would have been impossible to decide which groups of houses form independent villages and which groups are mainly parts of other villages. Groups of houses also appear or disappear between one census and another and so any reliable comparison from one census to the next would have been impossible. The revenue *mauza*, on the other hand, has a definite area which changes little. For these reasons the revenue *mauza* had to be adopted as the census village.

As has been said above, the village includes inhabited as well as uninhabited *mauzas*. The latter are not included in the census statistics though they are entered in the preliminary census records.

Besides the revenue *mauzas* which have been treated as villages, the forest tracts not included within the boundaries of a revenue *mauza* have also been entered as villages, the boundaries being those recognized by the Forest Department. The population of these forest villages consists mainly of grass-cutters, sawyers, the *taungiya* settlers and the like. This population is not very large and major part of it consists of temporary residents.

The rural and urban population

6. The urban population is the sum of the people living in towns and cities which will be described in Chapter III. The rural population is what remains. It consists of the people living in the villages described above. The two classes of population differ much in their composition, the rural class being predominantly agricultural besides having other characteristics shown at the

beginning of this section, and the urban class commercial, professional and industrial. The rural population is "rural" in character in the real sense of the term, while in the urban returns, as will be seen from the description in Chapter III, there is a larger population properly rural included in the urban area than there is of urban omitted from it.

7. We may also estimate as to how far the distribution of the population between towns and villages was normal during the census period in 1951. In the censuses prior to 1941 when the one night census prevailed the distribution was to some extent disturbed by temporary movements. Epidemics may disturb this distribution as in 1911, when plague was responsible for a considerable temporary exodus from the urban areas. Persons on a casual visit to the urban areas on the census night were enumerated there. Special arrangements had to be made for the enumeration of travellers; they were enumerated where they were found. No such disturbing influence was present at the census of 1951 which was of 20 days' duration and practically all persons were enumerated at the place of their permanent residence. The distribution at this census may be taken as completely normal.

Normality of the rural and urban population

8. The statistics which bear on the subject dealt with in this chapter are set out in the Tables A-I, A-III and E given in Part II-A of this Report. In Table A-I (Area, houses and population) are given separate figures for rural and urban population by districts. Its corresponding table of the previous censuses is the Imperial Table I. The present table gives an additional information about hamlets. Due to the difficulties already described the hamlet could not be taken as a population aggregation for census purposes, but from this table one can have some idea about the distribution of identifiable hamlets in the districts of this State. Some of the details of this table are given for each tehsil in Table E (Area and population of districts and tehsils by livelihood classes), which corresponds to Provincial Tables I and II of the last census with the chief difference that the figures of population are now presented by livelihood classes instead of by communities.

The statistics and their comparability

Table A-III contains the classification of the towns and villages by population. It follows Imperial Table III of the previous censuses and provides some more information. Sex details are given for each group of villages and towns. The classification adopted in the table recognizes the following groups of population :

- (i) Less than 500 ;
- (ii) 500—1,000 ;
- (iii) 1,000—2,000 ;
- (iv) 2,000—5,000 ;
- (v) 5,000—10,000 ;
- (vi) 10,000—20,000 ;
- (vii) 20,000—50,000 ;
- (viii) 50,000—100,000 ; and
- (ix) 100,000 and above.

These groups are arranged under three major groups, of population under 2,000, 2,000 to 10,000 and 10,000 and above, and for each of these the number of towns and villages and population by sex are also given. The classification is practically in conformity with the recommendations of the United Nations Population Commission. But the definition of "village" and "town" given above and in Chapter III respectively should be borne in mind while making comparisons. Our unit is more administrative than geographical and to some extent it may impair the significance of the figures of the population as distributed in villages and towns of various sizes. Population for instance shown as residing in a village of 2,000 to 5,000 persons may really be the population of a 'mauza' containing several residential hamlets of less than 500 persons each. However, the isolated country house or farm so familiar in the West is not common in this State. Even the outlying hamlets have a close affinity with the main site and they are traditionally treated as a part of it for all purposes. The revenue mauza or village shown in this table, therefore, represents fairly well the rural agglomeration of population.

"Table B-I in Part II-B of this Report corresponding to a part of the "Occupation and Means of Livelihood Tables" prepared at the previous censuses, gives

the livelihood pattern of the rural population. Its comparability with the statistics of the previous censuses is referred to in Chapter IV.

The following six subsidiary tables prepared from the main tables which are reviewed in this chapter appear in Part I-B of this Report :

Subsidiary Table 2·1—Distribution of population between villages

Subsidiary Table 2·1-A—Area and population per hamlet

Subsidiary Table 2·2—Variation and density of rural population

Subsidiary Table 2·3—Mean decennial growth-rate during three decades—
Rural population

Subsidiary Table 2·4—Livelihood pattern of rural population

Subsidiary Table 2·5—Immigration into rural areas

Subsidiary Table 2·1 corresponds to some of the columns of Subsidiary Table I (Distribution of the population between towns and villages) given at the end of Chapter II of the Census Report of 1931. The distribution of rural population in Subsidiary Table 2·1 is shown in the villages of the same size groups of population as in 1931, except that the two groups of a population of 500 to 1,000 and 1,000 to 2,000 in the latter are now combined in one group of 500 to 2,000 population. The other subsidiary tables have been prepared for the first time.

SECTION 2—GENERAL DISTRIBUTION ; AND DISTRIBUTION AMONG VILLAGES
CLASSIFIED BY SIZE OF RURAL POPULATION

1. The distribution of rural and urban population of the State in districts and revenue divisions is shown in Table A-I of Part II-A of the Report. Table E in the same part of the Report sets out the additional statistics regarding distribution of population in the tehsils. The proportionate figures of distribution of population in its various aspects and the rural density are shown in the following subsidiary tables in Part I-B of the Report :

Subsidiary Table 2-1—Distribution of population between villages

Subsidiary Table 2-1-A—Area and population per hamlet

Subsidiary Table 2-2—Variation and density of rural population

2. Of the 63,215,742 inhabitants of the State enumerated at the census of 1951 a total of 54,590,043 were classed as rural and 8,625,699 as urban. The proportion thus calculates to 864 persons as "rural" and 136 as "urban" out of every thousand persons in the State. In 1931 the figures for the United Kingdom were 208 "rural" and 792 "urban" and the corresponding figures in 1941 for U.S.A. were 435 "rural" and 565 "urban". We have seen that the criteria of rural-urban classification in different countries of the world are not similar. If for purposes of comparability only places of 5,000 or more inhabitants were counted as urban in each case, thus excluding the urban agglomerations with a population under 5,000, the figures would be as follows : Uttar Pradesh "rural" 860, "urban" 140; United Kingdom "rural" 226, "urban" 774; and U.S.A. "rural" 473, "urban" 527.* No census figures could bring out more remarkably the contrast between the conditions under which people live in this State and in Western countries. The contrast will be, in effect, far more marked than would appear even from these figures when it is remembered that some of our towns are really country towns and in these most of the population live in conditions that would be classed as rural in the West. This difference is due partly to the greater volume of trade and commerce, partly to the greater scope afforded to the professional services, but largely to the greater industrial progress in these countries.

3. Table 87 gives the percentage of rural and urban population in the larger States of India. It will be seen that this State is more rural than average

TABLE 87—Percentage of rural and urban population in the larger States of India

(Source : Census of India, Paper no. 1—Final Population Totals)

State	Rural	Urban	State	Rural	Urban
India	82.7	17.3	Hyderabad	81.4	18.6
Assam	95.4	4.6	Madhya Bharat	81.9	18.1
Bihar	93.3	6.7	Mysore	76.0	24.0
Bombay	68.9	31.1	PEPSU	81.0	19.0
Madhya Pradesh	86.5	13.5	Rajasthan	82.7	17.3
Madras	80.4	19.6	Saurashtra	66.3	33.7
Orissa	95.9	4.1	Travancore-Cochin	84.0	16.0
Punjab	81.0	19.0	Himachal Pradesh	95.8	4.2
Uttar Pradesh	86.4	13.6	Vindhya Pradesh	91.4	8.6
West Bengal	75.2	24.8			

India. The States with a lower degree of urbanization are Orissa, Himachal Pradesh, Assam, Bihar, Vindhya Pradesh and Madhya Pradesh. This State is relatively more rural than Saurashtra, Bombay, West Bengal, Mysore, Madras, Punjab, PEPSU, Hyderabad, Madhya Bharat, Rajasthan and Travancore-Cochin.

Reference to statistics

The rural-urban population

The rural-urban population of the State compared with other States of India

4. Table 88 shows the percentage of rural and urban population since 1881. In cases where changes of boundary involving populated areas have occurred since last census, the population of all previous censuses have been adjusted, but no adjustments have been made for inclusion or exclusion of a place either in the rural or the urban areas. It is evident from the table that the pace of urbanization has been very slow. In fact the urban proportion decreased steadily from 1881 to 1911.† It is only since 1921 that a definite increasing trend in the proportion is noticeable.

TABLE 88—Percentage of rural and urban population in Uttar Pradesh since 1881

Year	Percentage of population	
	Rural	Urban
1881	88.3	11.7
1891	88.6	11.4
1901	88.9	11.1
1911	89.8	10.2
1921	89.4	10.6
1931	88.8	11.2
1941	87.6	12.4
1951	86.4	13.6

The rural and urban population since 1881

* United Nations, *Demographic Yearbook*, 1948, Table 9.

† The figures of 1881 are not very reliable. In 1911 there was a temporary migration from the urban to the rural areas at the time of census owing to plague, which must have affected the rural-urban figures.

The contrast of the figures of Uttar Pradesh with the figures of U. S. A. during this period brings out extreme differences of progress in urbanization. The rural population of U. S. A. which comprised 70·5 per cent. of the total population in 1880 dropped to 43·5 per cent. by 1940 and the urban population increased from 29·5 per cent. to 56·5 per cent.* This State is still predominantly agricultural while U. S. A. and other countries in the West have become overwhelmingly industrial.

5. Let us now examine the distribution of rural and urban population by revenue divisions. Table 89 gives the figures. It will be seen

TABLE 89—Rural and urban population by revenue divisions, 1951

Revenue division	Population			
	Rural	Percentage	Urban	Percentage
Uttar Pradesh ..	54,590,043	86·4	8,625,699	13·6
Meerut	5,271,032	78·5	1,447,478	21·5
Agra	4,889,731	80·5	1,185,671	19·5
Rohilkhand ..	5,759,173	79·8	1,458,493	20·2
Allahabad ..	5,586,323	80·3	1,374,115	19·7
Jhansi	2,453,328	84·9	435,194	15·1
Banaras	5,998,984	87·6	850,047	12·4
Gorakhpur ..	8,437,981	95·5	393,260	4·5
Kumaon	2,037,352	94·3	122,630	5·7
Lucknow	6,220,503	87·0	931,734	13·0
Faizabad	7,935,636	94·9	427,077	5·1

that Gorakhpur has the highest percentage of rural population. It is closely followed by the Faizabad and Kumaon divisions. These divisions have no big trading towns. Banaras and Lucknow divisions are also more rural than average Uttar Pradesh. But for the cities of Banaras and Lucknow the rural proportion would

have been still higher. The western divisions have more town population. Meerut is the least rural. Rohilkhand, Allahabad, Agra and Jhansi follow it in the order of urbanization. Allahabad has the big cities of Kanpur and Allahabad; Jhansi has the populous city of Jhansi and some other small trading towns of the Plateau while the density of its countryside is very low; and Meerut, Rohilkhand and Agra which are well served with canal water and hydro-electric power are studded with many small trading and industrial towns and numerous large cities.

6. The proportion of rural population per 1,000 of general population is given by districts in Subsidiary Table 2·1. The proportion of urban

TABLE 90—Rural and urban population by natural divisions, 1951

Natural division	Population			
	Rural	Percentage	Urban	Percentage
Uttar Pradesh ..	54,590,043	86·4	8,625,699	13·6
Himalayan	2,227,758	88·3	294,229	11·7
East Plain	16,594,471	92·8	1,292,331	7·2
Central Plain ..	13,878,471	86·0	2,251,419	14·0
West Plain	18,532,981	81·4	4,238,271	18·6
Hills and Plateau ..	3,356,362	85·9	549,449	14·1

population is given separately in Subsidiary Table 3·1. Table 90 shows the distribution and proportion of rural and urban population in the natural divisions. The percentage of rural population is the highest in East Plain. Himalayan, Central Plain, Hills

and Plateau and the West Plain divisions come next in order. Of these four the latter three are more urbanized than average Uttar Pradesh and West Plain has the highest urban percentage. It will be noticed that urbanization decreases from west to east in the plain. The people of the west are generally more gregarious than those of the east, which is undoubtedly a survival from the troublous times when men had to unite for mutual protection. West has not enjoyed so long a period of security as has the east. The big villages in the west ultimately developed into towns and became centres of trade and commerce. The West Plain is also the most progressive division of the State. Cheap hydro-electric power has helped in the development of small industries. The result is, as already stated, that the West Plain is studded with many towns and cities. The East Plain possesses no industrial towns of importance, except Banaras and Gorakhpur. Its countryside is densely populated. It is not surprising, therefore, to find that the rural percentage is the highest in this division. The urban population of the Himalayan division is concentrated almost entirely in the hill sanatoria and in the Dehra Dun city. Its rural areas are not densely populated. Similarly

Rural and urban population by revenue divisions

Rural and urban population by natural divisions and districts

*S. Chandrasekhar, *India's Population, Fact and Policy*, page 48 (Chidambaram; Annamalai University).

the comparatively low figure of rural percentage and the greater urbanization in the Hills and Plateau division is due rather to the low density of the countryside than to the number or congestion of the towns.

In the districts the rural percentage is the lowest and thereby the urban percentage is the highest in Dehra Dun, where the famous "Dun" city inflates the urban population of the district which has a low density rural area and the urban population as high as 47·4 per cent. of the whole. Lucknow and Kanpur come next in order. In the former a large capital city is surrounded by a small district, the second smallest district in the State after Rampur, and the latter has the heavily industrialized city of Kanpur. The percentage of rural population in these districts is only 53·9 and 62·9 respectively.

In the Himalayan districts of Tehri-Garhwal, Garhwal and Almora more than 97 per cent. of the population lives in the rural areas. Naini Tal comes second in urbanization in the division after Dehra Dun, with 22·1 per cent. urban population. The districts of the East Plain have in general about 7 per cent. of town population. The rural population in the Banaras district is only 79 per cent. due to the presence of Banaras city. Ghazipur and Ballia have got many large country towns, and, therefore, the rural percentage in these is only 89 and 90·7 respectively. The districts of the Central Plain except Lucknow, Kanpur and Allahabad are mostly rural. Lucknow and Kanpur have already been described ; Allahabad has 17·9 per cent. urban population due to the presence of the city of Allahabad ; and the rest of the districts of the division have more than 90 per cent. of their population living in the rural areas. The districts of the West Plain have about 19 per cent. of town population. Some reasons for this high urbanization in the division have already been suggested. Kheri and Mainpuri districts are more rural with only 7·3 and 7·6 per cent. of their population living in towns. In the Hills and Plateau division only Jhansi district has a respectable urban population of 24·3 per cent. of the whole.

7. The rural population of 54,590,043 persons is distributed in 111,722 inhabited villages of the State spread over about 112,044 square miles of area. The average population of a village calculates to 489 persons and the average area to about 1 square mile. The number of inhabited villages returned at the censuses of 1941 and 1931 were 105,773 and 111,001 and the average village population was 467 and 397 respectively. It will be noticed that there was a reduction of 5,228 villages in 1941 which again increased by 5,949 in 1951. Revenue *mauzas* usually do not change, but some small increase or decrease in their number may take place when the settlement operations are carried out. The variation may likely be due to counting of some hamlets separately from the revenue *mauzas* in which they were situated or it may also be due to the exclusion or inclusion of forest areas in villages. The increase in 1951 has some other valid reasons also. Transfer of areas on account of "The Provinces and States (Absorption of Enclaves) Order, 1950" has resulted in a net gain of 468 villages. A number of uninhabited villages have now become inhabited. It has been observed in the preceding section that recently there has been a tendency on the part of the cultivators to remove their houses nearer their cultivation. This saves time, permits more careful and intensive cultivation and facilitates protection of crops. Residential sites are, therefore, growing up in the revenue *mauzas* which were formerly uninhabited. On the other hand, the main cause underlying the growth of average village population, in spite of some increase in the number of villages, would be found in the general growth of population during the decade.

8. Table 91 compares the average village population and area in this

TABLE 91—Average village population and area in Part 'A' States of India

State	Average village population	Average village area in square miles
Assam	341	3·4
Bihar	526	1·0
Bombay	724	3·0
Madhya Pradesh	379	2·6
Madras	1,236	3·4
Orissa	290	1·2
Punjab	676	2·4
Uttar Pradesh	489	1·0
West Bengal	532	0·9

State and in the other Part-A States of India. Amongst the States with a larger average village population are Madras, Bombay, Punjab, West Bengal and Bihar. The villages are apparently more populous in this State than in Madhya Pradesh, Assam and Orissa. It will also be seen that the average village area in this State is among the smallest. It is larger than only the average village area of West Bengal and is equal to that in Bihar.

The number of villages and average village population and area

Comparison with average village population and area in other States

Average village population and area by natural divisions

9. Table 92 shows the average village population and area in the natural divisions of the State. It will be observed that in respect both of the area of the average village and of its population, a steady decrease is met with in passing from the west to the east of the State. The West Plain has a village of the average of 1.2 square miles with an average population per village of 632. This decreases fairly steadily moving eastwards through the plain till in the East Plain the average area of the village is 0.6 and average population 470. Among the plain districts the figures are lowest in the district of Basti with an average area per village of 0.40 and a population of 337. The Hills and Plateau and the Himalayan divisions, scantily populated and with comparatively very large areas of unculturable waste, are exceptional with villages of far more than average size in area and far less than average population. The districts with highest average village area are Hamirpur (2.96), Jhansi (2.62), Banda (2.42), Jalaun (1.86), all of the Hills and Plateau division, and Tehri-Garhwal (1.78) of the Himalayan division. At the other extreme are the East Plain districts of Basti (0.40), Azamgarh (0.45), Jaunpur (0.48), Ghazipur (0.51) and Deoria (0.58). The districts of the largest average village population are of the West Plain, namely, Meerut (1,214), Muzaffarnagar (1,111), Mathura (861), Agra (845) and Bulandshahr (831), and those of lowest average village population are the districts of the Himalayan division—Garhwal (136), Almora (142), Naini Tal (160), Tehri-Garhwal (160) and Dehra Dun (237).

TABLE 92—Average village population and area in the natural divisions

Natural division	Average village population	Average village area in square miles
Uttar Pradesh ..	489	1.0
Himalayan ..	150	1.3
East Plain ..	470	0.6
Central Plain ..	558	0.9
West Plain ..	632	1.2
Hills and Plateau ..	456	2.1

and Plateau and the Himalayan divisions, scantily populated and with comparatively very large areas of unculturable waste, are exceptional with villages of far more than average size in area and far less than average population. The districts with highest average village area are Hamirpur (2.96), Jhansi (2.62), Banda (2.42), Jalaun (1.86), all of the Hills and Plateau division, and Tehri-Garhwal (1.78) of the Himalayan division. At the other extreme are the East Plain districts of Basti (0.40), Azamgarh (0.45), Jaunpur (0.48), Ghazipur (0.51) and Deoria (0.58). The districts of the largest average village population are of the West Plain, namely, Meerut (1,214), Muzaffarnagar (1,111), Mathura (861), Agra (845) and Bulandshahr (831), and those of lowest average village population are the districts of the Himalayan division—Garhwal (136), Almora (142), Naini Tal (160), Tehri-Garhwal (160) and Dehra Dun (237).

Distribution of villages by size

10. Table 93 shows the number of villages of various sizes in each natural division, and the percentage of the villages of each natural division which fall into each class. From these figures it will be seen that as regards the mere size of the actual sites the West Plain possesses more large sites and less small ones. The next division in order from this point of view is the Central Plain. The East Plain and the Hills and Plateau divisions follow the Central Plain closely. At the other end of the scale comes the Himalayan division with more than 97 per cent. of its villages with a population under 500.

TABLE 93—Distribution of villages in various sizes in the State and the natural divisions

(Actual and percentage)

Natural division	Number and percentage of villages with population of						Total
	10,000 and Over	5,000 to 10,000	2,000 to 5,000	1,000 to 2,000	500 to 1,000	Under 500	
Uttar Pradesh ..	1	120	2,675	10,261	23,208	75,457	111,722
	..	(0.1)	(2.4)	(9.2)	(20.8)	(67.5)	(100.0)
Himalayan	1	15	39	363	14,425	14,843
	(0.1)	(0.3)	(2.4)	(97.2)	(100.0)
East Plain	1	33	661	2,966	7,478	35,322
	(0.1)	(1.9)	(8.4)	(21.2)	(68.4)
Central Plain	16	644	2,800	6,289	15,121
	(0.1)	(2.6)	(11.2)	(25.3)	(60.8)
West Plain	65	1,208	3,812	7,688	16,551
	(0.2)	(4.1)	(13.0)	(26.2)	(56.5)
Hills and Plateau	5	147	644	1,390	5,177
	(0.1)	(2.0)	(8.7)	(18.9)	(70.3)

It is of interest to note that the villages in the western districts of the West Plain (comprising of the districts of Meerut and Agra revenue divisions) generally consist of a single compact site. Some reasons for this have already been suggested earlier. In the Agra revenue division villages are big but there

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are many hamlets. In the Rohilkhand part of this natural division hamlets are numerous, but as a rule the *mauzas* are small and the bulk of the houses are congregated in a single site. In the Avadh region of the Central Plain (Lucknow and Faizabad revenue divisions) people generally collected in large villages for greater security during the unsettled times preceding its annexation by the British. Later on the number of inhabited sites largely increased owing to the general security. At the present time a feature of the larger villages is the number of hamlets which have now sprung up, and there is an increasing tendency on the part of the cultivator to leave the main site and settle in a new hamlet near his field. In the remaining districts of the Central Plain the villages are for the most part small, large inhabited sites are rare and most villages possess several detached hamlets. In the East Plain 98 per cent. of the villages have a population below 2,000, but there are some villages with large population. The largest villages are in the alluvial tract, where the position of the site is determined solely by configuration of the ground, the houses being built on the most elevated spot so as to be beyond the reach of floods. The cultivators of a number of separate *mauzas* reside in a single site, and the dependant villages exist only in name. In the northern districts of the division the area of the villages is often extremely large, such villages containing within their limits great numbers of petty hamlets, each of which represents a separate clearing and settlement in the forest. In the other districts also there is as a rule a main site with a varying number of detached hamlets, mostly occupied by distinctive castes. The larger villages in the Hills and Plateau division are concentrated in certain areas. In the black soil tracts of the Jhansi revenue division the villages frequently lie perched on a fort-like hillock which stands out above the surrounding country. This arises from the unhealthiness of the sites situated on these tracts. But there is a greater dispersion of the population in small settlements in the red soil tracts. In tracts where the country is intersected by streams, the advantages arising from a closer proximity to the areas under cultivation, the necessity for better methods of husbandry in light soils, and the avoidance of a number of difficult streams which become swollen by rain at the busiest and most important season for agriculture have encouraged the growth of small villages. The rural population of the Himalayan division resides chiefly in the villages of small size, possessing only one of a population over 5,000 and 15 between 2,000 to 5,000. The village is usually built out on an airy spur, with the cultivation above and below. The site is chosen with regard to water supply. In the long settled villages of the Bhabar each tenant has his homestead on his field by himself. Hamlets are usually unknown.

11. It is evident from the above that one village may include several small sites or hamlets. In considering the figures of distribution of villages

Distribution of hamlets

TABLE 94—Number of hamlets per 100 villages and the average hamlet population and area in the State and the natural divisions

Natural division	Number of hamlets per 100 villages	Average hamlet population	Average hamlet area in square miles
Uttar Pradesh ..	230	212	0.44
Himalayan ..	109	138	1.20
East Plain ..	266	176	0.22
Central Plain ..	336	166	0.27
West Plain ..	179	353	0.65
Hills and Plateau	151	301	1.39

through the State this fact must be borne in mind. Table 94 shows the number of hamlets per 100 villages and the average hamlet population and area in the State and the natural divisions. For purposes of this table the main site has also been treated as a hamlet. It will be observed that the hamlets are more numerous in the Central Plain than in the other divisions. The East Plain, West Plain, and Hills and Plateau divisions come next in the order in which they are named. Himalayan division is at the other end.

It has already been stated in the preceding paragraph that the inhabitants of a village generally live in one central *abadi* in the West Plain and in the Hills and Plateau divisions, and that elsewhere the homestead had been broken up by the migration of a proportion of the cultivators to outlying hamlets where they live close to their own fields. This dispersion of population has already started in the West Plain and the Hills and Plateau divisions. The process is one which would naturally follow an increasing density of population and consequent need for intensive cultivation. Two causes may be said to have been mainly in operation in forwarding or retarding the process of migration to outlying hamlets, (i) the caste of the general mass of cultivators, and (ii) the amount of

security. The high caste cultivator, not so careful about the methods of cultivation as his low caste fellow, long adheres to the main site. We have already seen earlier that people in the western districts of the State had to live together in congested sites for mutual protection during the troublous times in the eighteenth century. So was the case with the inhabitants of the districts of the Hills and Plateau division. In the Himalayan division the number of inhabited sites must be larger, but the houses there are not huddled together in congested hamlets. The scanty areas available for cultivation are separated by intervals so extensive and by paths so inaccessible that each cultivator must live on his own lands, and in general their cottages are scattered all over the hill side.

The population of the average hamlet varies from 1,109 in Meerut, to 108 in Gonda district. It is the highest in the West Plain division, for reasons already stated, followed by the Hills and Plateau division where the misrule during the eighteenth century was the greatest, the pressure of population low and the proportion of cultivators of high caste the greatest. It is the lowest in the Central Plain and the East Plain divisions after the Himalayan division is excluded from consideration. In these divisions the pressure of population is greatest. In the western districts a traveller passes through wide open tracts with the groves surrounding villages widely separated. In the east the view is narrowed in every direction by little scattered patches of groves surrounding petty hamlets.

The average hamlet area in this State is 0.44 square miles as compared to the average village area of about 1 square mile. The proximity calculated on the supposition that all villages and hamlets are distributed at equal intervals will work out to about 1 mile and 1 furlong in respect of villages and about 6 furlongs in case of hamlets. In the Hills and Plateau and the Himalayan divisions the hamlets are sparsely situated due to the hilly nature of the tracts. A hamlet is separated from another by a distance of 1 mile and 3 furlongs in case of the former and by 1 mile and 2 furlongs in case of the latter division. A hamlet is met after every 4, 5 and 7 furlongs in the East Plain, Central Plain and West Plain divisions respectively.

Distribution of rural population among villages of various sizes

12. The distribution of the rural population in villages of different sizes is shown in Subsidiary Table 2.1 in Part I-B of the Report, to which the reader is referred. The percentage of the rural population which live in villages of various sizes is given in Table 95 for the State and the natural divisions and Figure 11 illustrates the same.

TABLE 95—Percentage of rural population in villages of various sizes in the State and the natural divisions

Natural division	Percentage of rural population which live in villages with a population of—			
	5,000 and over	2,000—5,000	500—2,000	Under 500
Uttar Pradesh	1.4	13.5	55.3	29.8
Himalayan	0.3	1.8	12.9	85.0
East Plain	1.3	10.8	55.4	32.5
Central Plain	0.7	12.7	58.9	27.7
West Plain	2.1	18.3	57.6	22.0
Hills and Plateau	0.8	12.1	55.0	32.1

SECTION 2—GENERAL DISTRIBUTION ; AND DISTRIBUTION AMONG VILLAGES 119
CLASSIFIED BY SIZE OF RURAL POPULATION

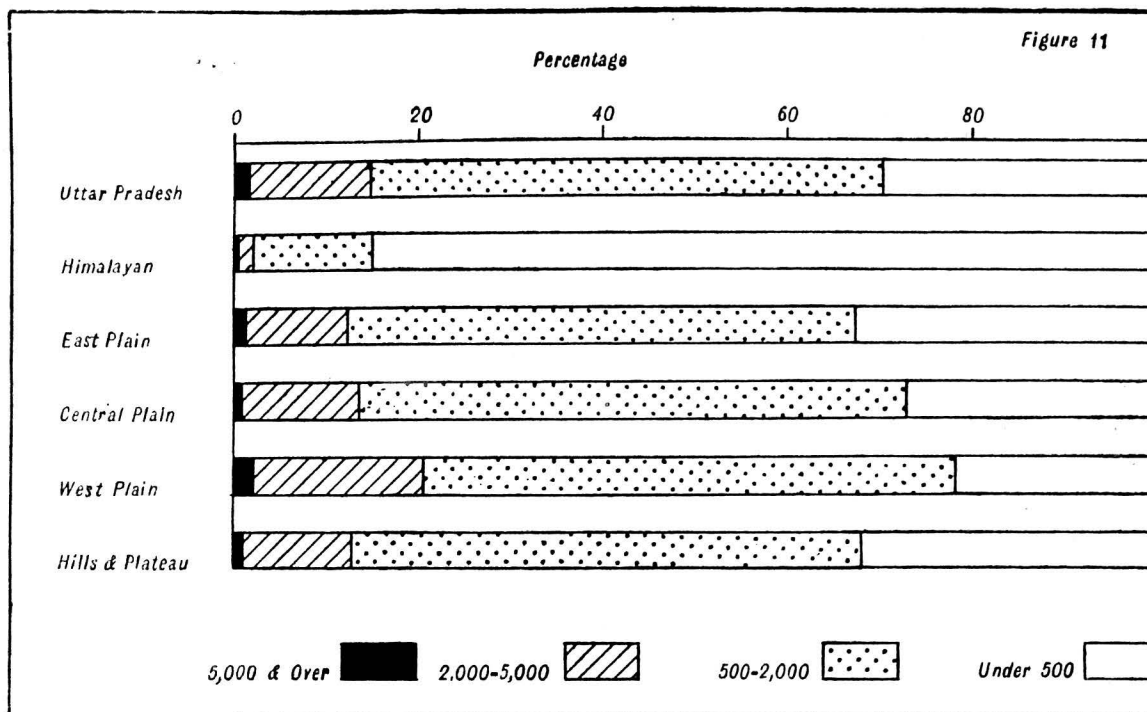


FIG. 11—Distribution of rural population in villages of different sizes

It has already been seen that the average population of a village for the whole of the State is 489 persons. The bulk of the population, however, live in villages of a size above this average. Of the rural population 29.8 per cent. is contained in villages of the smallest size with population under 500, and 55.3 per cent. in villages with a population between 500 and 2,000, while the population of villages between 2,000 and 5,000 only form 13.5 per cent. of the total rural population, and of larger villages 1.4 per cent.

A perusal of Table 92 together with Table 95 will show that there is, in respect both of the size of the villages and of the population of the average village, a steady decrease from the west to the east of the State. 55 per cent. of the rural population lives in medium size villages of a population between 500 and 2,000 in the Hills and Plateau division, while 85 per cent. of it lives in very small villages of a population below 500 in the Himalayan division.

Owing to the general increase in population during the last three decades, some villages have passed into higher classes and this has resulted in slight decreases in the percentage of the population residing in villages with less than 2,000 inhabitants. This fact coupled with the increase in population of the larger villages themselves has led to a higher figure than at the previous censuses for those living in villages with a population exceeding 2,000. At the census of 1901 about 37 per cent. of the rural population was contained in villages of the smallest size with population under 500, 52 per cent. in villages with a population between 500 and 2,000 and only 11 per cent. of the population was found in larger villages as against 14.9 per cent. in 1951.

13. As regards the districts, Meerut and Muzaffarnagar stand out as prominent with only 6.1 and 7.0 per cent. of their rural population living in villages with a population under 500. About 44 per cent. of the population of Meerut and 45 per cent. of Muzaffarnagar lives in villages of a population over 2,000. The other districts with a substantial proportion of their population living in villages of a population over 2,000 are Mathura (33.2), Ballia (29.9), Agra (29.5), Fatehpur (23.1), Mainpuri (21.6), Bulandshahr (21.4), Hamirpur (21.0) and Unnao (20.1). Garhwal comes on the other extreme with 92.7 per cent. of its population living in smallest villages with a population below 500 and with no population living in villages of a population over 2,000. Tehri-Garhwal (91.0), Almora (87.2), Naini Tal (72.6), Dehra Dun (56.1), all of the Himalayan division, have more than 50 per cent. of their population living in the smallest villages of a population under 500, while among the districts of the plain this figure is highest in Basti (54.0).

14. A very significant point to be noticed in Subsidiary Table 2·1 is that about 1·4 per cent. of the population of the State lives in 121 villages having a population over 5,000. Their actual population is 736,520. Most of these villages have numerous detached hamlets, but 37 of them have single agglomeration containing population of over 5,000 each. Of these 30 are found in the West Plain, 3 in the East Plain, 3 in the Hills and Plateau and 1 in the Central Plain division. 18 of them are situated in Meerut district alone. Normally these places with population over 5,000 could as well be treated as urban areas, but most of them are really grown up villages and have not lost their agricultural character. Only Niwari of tehsil Ghaziabad, Bahsuma and Shahjahanpur of tehsil Mowana, Nirpura, Tikri and Doghat of tehsil Sardhana in Meerut district, Thirya Nijabat Khan of tehsil and district Bareilly and Bhogpur Dharpur of tehsil and district Moradabad, have population engaged predominantly in non-agricultural occupations. If these villages possess the other urban characteristics they could be classed as urban areas. The effect of this on the rural-urban proportion will be insignificant, their population being only 46,534 or 0·07 per cent. of the total population.

The density of rural population

15. The enumerated rural population of Uttar Pradesh on March 1, 1951, was 54,590,043. The total rural area of the State on the basis of the district records is 112,044 square miles. The absolute rural density thus calculates to 487 persons per square mile compared to the over-all density of 557.

The density of the State has already been examined in relation to that of other countries in the world in the corresponding section of Chapter I. In point of density the only countries in the world with a figure higher than that of this State are Netherlands, Belgium and Japan. The average density of the State is also approached by the United Kingdom. These countries are distinctly urban in character, the urban proportion being 54·1 per cent. (1946) in Netherlands, 60·5 per cent. (1930) in Belgium, 49·1 per cent. (1948) in Japan and 79·2 per cent. (1931) in the United Kingdom* as compared to 13·6 per cent. (1951) in this State.

Rural density by revenue divisions

16. The presence of large towns in a district naturally increases the district density which then represents neither the density of the urban nor the rural area. In column 6 of Subsidiary Table 2·2 in Part I-B of the Report the density of the rural areas of the districts and the natural divisions of the State has been shown. The figures are given by revenue divisions in Table 96. For comparability the general density figures are also reproduced from Table 12.

TABLE 96—Rural and general density by revenue divisions

Revenue division	Rural density per square mile	Order in point of rural density	General density per square mile	Order in point of general density
Uttar Pradesh	487	..	557	..
Meerut	598	3	729	2
Agra	579	5	701	3
Rohilkhand	497	8	617	7
Allahabad	553	6	692	5
Jhansi	220	9	254	9
Banaras	581	4	660	6
Gorakhpur	888	1	923	1
Kumaon	112	10	118	10
Lucknow	522	7	591	8
Faizabad	662	2	693	4

It is interesting to note that Gorakhpur retains its first place in order of rural density also. Jhansi and Kumaon have also retained their positions as the last two. The rest of the divisions have interchanged places. Meerut, Agra, Rohilkhand and Allahabad have lost order in point of rural density, while Faizabad, Banaras and Lucknow have gained in it. It is throughout clear that the divisions which have lost positions in point of rural density are distinctly more urban as compared to the other divisions. A perusal of the rural and urban proportions of population given in Table 89 will establish this. The gap discernible between the general and rural density shows the extent of urbanization in the divisions. The more is the gap the greater is the impact of urbanization on density of the division.

* United Nations, *Demographic Yearbook*, 1948, Table 8.

SECTION 2—GENERAL DISTRIBUTION ; AND DISTRIBUTION AMONG VILLAGES 121
 CLASSIFIED BY SIZE OF RURAL POPULATION

17. The figures are given by natural divisions in Table 97 and Figure 12 illustrates the same.

Rural density by natural divisions

TABLE 97—Rural and general density by natural divisions

Natural division	Rural density per square mile	Order in point of rural density	General density per square mile	Order in point of general density
Uttar Pradesh	487	..	557	..
Himalayan	115	5	130	5
East Plain	793	1	850	1
Central Plain	623	2	717	2
West Plain	546	3	657	3
Hills and Plateau	216	4	248	4

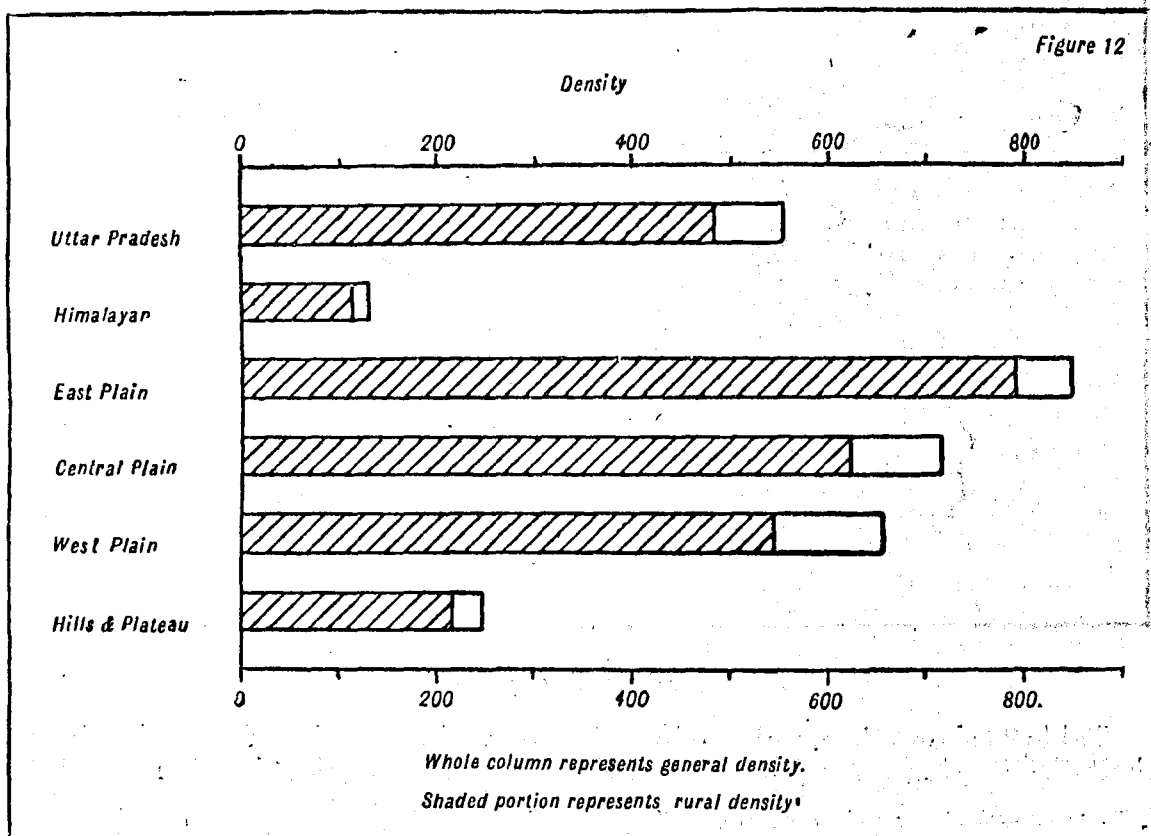
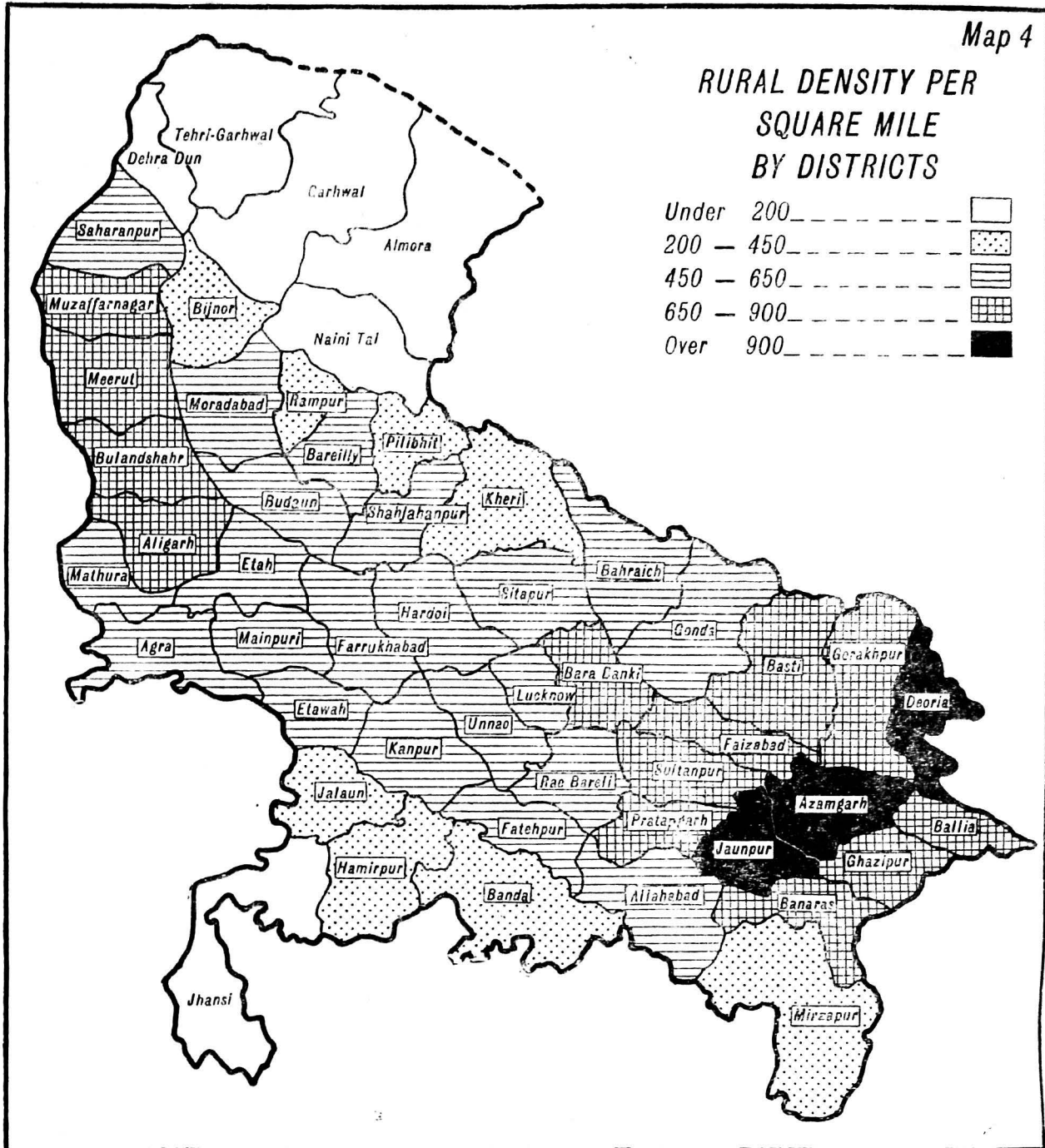


FIG. 12—Rural and general density by natural divisions

The rural density is in the same order as the general density. To realize the full effect of the figures for density one must look to the columns of general density and the share of the rural density in it in Figure 12. The influence of urbanization requires no further comments.

18. The rural density for districts is given in Subsidiary Table 2.2. Density of the general population given in Subsidiary Table 1.2 has already been described in the corresponding section of Chapter I. The effect of towns on the mean density of districts has been eliminated in the figures of Subsidiary Table 2.2, and these figures give a much more accurate idea of the density of the major portion of each district. The figures of rural density are illustrated in Map 4. The map and the figures in Subsidiary Table 2.2 should be studied together with Map 1 and Subsidiary Table 1.2. For comparability the same density grades have been adopted in both the maps. The densely populated rural areas of the east of the State would be brought out sharply and the influence of urban population on density in the western districts and in some other districts like Kanpur, Lucknow and Allahabad will also be clearly discernible.

Rural density by districts



MAP 4—Rural density by districts, 1951

Table 98 shows the number of districts of various grades of rural density and their distribution among the natural divisions. Here again, the districts of low density lie in Himalayan and Hills and Plateau divisions. The districts of average density lie mostly in West Plain and the Central Plain divisions and of the 10 districts of the East Plain, 8 are in the high density grades. The rural areas of the east are undoubtedly the most densely populated. The districts of the highest density are Deoria (980), Jaunpur (927), Azamgarh (906), Ballia (887) and Gorakhpur (858), all of the East Plain and those of lowest density are Tehri-Garhwal (90), Naini Tal (96), Garhwal (111), Almora (139) and Dehra Dun (166), all of the Himalayan division.

TABLE 98—Districts of various grades of rural density and their distribution among natural divisions, 1951
(Source : Subsidiary Table 2-2)

Natural division	Number of districts with—				
	Very low density (under 200)	Low density (200—450)	Average density (450—650)	High density (650—900)	Very high density (900 and over)
Uttar Pradesh	6	8	21	13	3
Himalayan	5	..	..	..	..
East Plain	..	..	2	5	3
Central Plain	..	..	8	4	..
West Plain	..	4	11	4	..
Hills and Plateau	1	4	..	..	..

How great the divergence may be between the density figures of general population (including urban areas) and rural population is illustrated by the figures of Lucknow (1,156 and 640), Kanpur (818 and 521), Agra (807 and 554), Dehra Dun (303 and 166) and Banaras (1,007 and 791).

SECTION 3—GROWTH OF RURAL POPULATION

1. The study of growth of rural population brings out one of the most important changes influencing the demographic development—the drift from the rural to the urban areas. This State is mainly rural and, therefore, the growth of the rural population has mainly determined the growth of the general population which has already been described in Chapter I. But the drift from the rural to the urban areas is also reflected in the growth of districts dominated by the largest cities and in the lower rates of growth in areas from which rural-urban migration generally takes place. This section will mainly be devoted to the consideration of the influence of this drift which has resulted in the rural-urban differentials in population growth.

The percentage variation in the population of the State and its different units down to tehsils with rural-urban break-up is shown for the decades 1931—40 and 1941—50 in Table E in Part II-A of the Report. Subsidiary Table 2·2 in Part I-B of the Report gives variation and density of the rural population of the State, the natural divisions and the districts for the last three decades; and Subsidiary Table 2·3 in the same part gives for the registration area the mean decennial growth-rate of the rural population of the State and its different units. For a comparative study of the growth of rural population with that of general and urban population the reader may look to the corresponding Subsidiary Tables 1·2 and 1·3 for general population and Subsidiary Tables 3·2 and 3·3 for urban population in the same part of the Report. The influence of economic conditions during the last few decades and of famines and pestilence on the growth of general population described in Chapter I apply in the case of the rural population also.

2. Changes in the rural population occurring since 1881 are itemized in Table 99, showing the population together with the absolute and percentage variation and the mean decennial growth-rate. The figures of general population of the previous censuses were first adjusted for the present layout of the State on the lines pointed out in paragraph 3 of Section 3 of Chapter I. Of it the population of areas that were treated as towns at a particular census, except 1881, was accepted as the urban population for that census, irrespective of the fact whether a town of the previous census was treated as a town or not at the later census. The definition of a town given in the census of 1881 was different from that now adopted, the number of towns then shown was much smaller and the areas of the large proportion of the towns different. The 1881 urban population on the present definition has been obtained from Table IV of 1891.* The urban population for Charkhari and Samthar towns, which merged in this State in accordance with the Provinces and States (Absorption of Enclaves) Order, 1950, have been estimated for the previous censuses, where not available. The "rural population" at each census, shown in this table, is what remains of the general population.

TABLE 99—Growth of rural population in the State, 1881—1951

Year	Population	Inter-censal variation	Percentage variation	Mean decennial growth-rate
1881	39,780,544	..	..	..
1891	42,405,739	+2,625,195	+6·6	+6·4
1901	43,228,993	+823,254	+1·9	+1·9
1911	43,234,234	+5,241	+0·01	+0·01
1921	41,732,867	—1,501,367	—3·5	—3·5
1931	44,207,881	+2,475,014	+5·9	+5·8
1941	49,511,578	+5,303,697	+12·0	+11·3
1951	54,590,043	+5,078,465	+10·3	+9·8

Like the growth of the general population, the growth of the rural population during recent years has been extraordinarily continuous and rapid. Here

*North-Western Provinces and Oudh Census Report, 1891, page 160.

Introductory

Rural population growth since 1881

also the Great Divide is 1921. It would appear that the high rate of increase during 1881—90 showed a downward trend during the next three decades, the last of which showed an actual decrease of over 1.5 millions. After many reverses of famines and epidemics the population living in the rural areas in 1921 was 41.7 millions. The 1951 census returned 54.6 millions. The net increase during the last thirty years has been about 12.9 millions or 30.8 per cent. It will be seen in the following paragraph that during these years the urban population increased rapidly at the cost of the rural population. In spite of this, it is obvious from the above table that the migration to the urban areas was more than matched by the increases of the rural population.

Variation in rural and urban population

3. The relative mean decennial growth-rates for general, rural and urban population of the State for each of the last seven decades are shown in Table 100.

TABLE 100—*Mean decennial growth-rates for general, rural and urban population of the State, 1881—1950*

Decade	Mean decennial growth-rate of—		
	General population	Rural population	Urban population
1881—1890 ..	+6.05	+6.39	+3.45
1891—1900 ..	+1.62	+1.92	—0.78
1901—1910 ..	—0.98	+0.01	—9.27
1911—1920 ..	—3.13	—3.53	+0.38
1921—1930 ..	+6.44	+5.76	+12.03
1931—1940 ..	+12.71	+11.32	+23.06
1941—1950 ..	+11.16	+9.76	+20.52

The figures show the differential rates of growth. The rates of general and rural population are close to each other but that for the urban population differs from them greatly. The differential rates arise both from demographic factors and from administrative changes through which areas formerly classified as rural are established as towns or are merged in adjacent urban areas. The most important change is brought about by the demographic factor of migration. The towns attract the people from the villages and the urban way of life is thus extended by such movement. Obviously both the administrative changes and the drift from the rural to the urban areas favour the urban population at the cost of the rural population. This fact should be borne in mind while considering the figures in the above table.

The pre-1921 pattern of rural and urban population growth in the State is different from the post-1921 pattern. Between 1881 and 1890 the urban population did not increase as rapidly as the rural population. Though there was some growth in the rural population during 1891—1900 and 1901—10 the urban population declined. The unusual behaviour of the urban growth-rate during 1881—90 was due to the decay of the small towns. The large towns and also some of the smaller towns which were favourably situated with regard to the railway showed a considerable increase, whilst the great majority of the others either decreased or remained absolutely at a standstill. Sri Baillie gave the following reasons for this in the Report of 1891 :

- (1) the decay of certain native industries and in particular those connected with cotton weaving, the persons carrying on which formed a considerable proportion of the inhabitants of small towns.
- (2) the decay of old trade marts now losing their importance owing to their being isolated from the railway.
- (3) a general movement of the labouring classes away from the small towns in which cash payments for labour are slow to rise, in proportion to the rise in the price of foodgrains. The rise in prices consequent on the fall of the rupee caused great distress in the houses of artisans and labourers, and they moved to the villages.

During 1891—1900 the growth-rate of the rural population came down due to a succession of calamities already described in paragraph 8 of Section 3 of Chapter I in respect of general population. There were some additional reasons for the relatively greater decline in the urban population than in the rural population. The latter did not lose on account of the drift as the towns then had

little attraction for the rural people. On the other hand, the towns lost population due to reclassification. The total number of towns decreased from 484 in 1891 to 453 in 1901 due to the administrative action of Government in applying more strictly the provisions of Act XX of 1856. Some places classed as towns in 1891 were found to be large villages and were excluded from the list of urban areas in 1901*. Their reclassification caused a loss of more than 125,000 to the urban population and the rural population, therefore, gained over the urban population.

The figure for 1911 is of little value. Many towns had at the time of that census been evacuated on account of plague. The return of these temporary emigrants restored the balance in 1921 and since then the urban population has been multiplying twice as rapidly as the rural population. Altogether during 1881—1921 the rural population increased by 4·9 per cent. while the urban population recorded a decrease of 6·0 per cent. Sri Edge, in 1921, attributed this to the following reasons :

- (1) there had been no appreciable development of commerce or industry to attract people from the country to the town, and
- (2) the towns in spite of their municipal regulations were less healthy than villages.

It is, thus, obvious that during this period the State was not losing its rural population to the towns.

The rural population has been growing rapidly since 1921 but at a rate slightly lower than the general rate and nearly half of the urban rate. Of the total 16·5 millions population increment in the State during the last thirty years about 3·7 millions or 22·3 per cent. was in the urban population and the rest in the rural population. During these years the net increase in the rural population has been only 30·8 per cent. against 74·7 per cent. increase in the urban population. It is evident that the rural population was giving up people to the towns. The urban population has thus been expanding very rapidly since 1921, the growth during the last 30 years, being 74·7 per cent. But owing to its initial small size the growth in terms of percentage of the total population is only from 10·6 per cent. in 1921 to 13·6 per cent. in 1951.

4. It would be desirable to segregate the influences of demographic factors and administrative changes on the growth of rural population and thereby on the growth of urban population also between 1921 and 1951. The rural population did not suffer any loss between 1921 and 1931 due to changes made in the list of towns at the census of 1931. A reference to paragraph 11 of the note to Imperial Table IV of the 1931 census Report of this State will show that the effect of changes in the list was to reduce what would otherwise have been the urban population. While 28 towns of 1921 having a population of 92,489 were excluded from the urban list at the census of 1931 only 12 agglomerations of a total population of 48,895 were added to the list of towns. The rural population suffered a small loss at the census of 1941 due to administrative changes in the list. 13 decaying towns of a total population of 46,559 at the census of 1931 were reclassified as rural at the census of 1941 and 17 new areas of a total population of 79,213 were included in the urban list at the later census. At the 1951 census the rural population suffered a relatively higher loss. A reference to paragraph 4 of the note to Table A-IV in Part II-A of the Report will prove this. The effect of changes in the list of towns at this census has been to reduce the rural population by about 178 thousand. While only 5 towns of 1941 of a total population of about 8,217 at the 1951 census were excluded from the list in 1951, 41 new towns (excluding Moradabad Railway Settlement which was formerly a part of Moradabad city, and Samthar and Charkhari which were included in this State with the merger of enclaves) of a total population of about 186 thousand were added to the list. Thus the change in the urban list at this census has caused a loss of only 0·4 per cent. to the rural population. This accounts for a growth of 2·5 per cent. in the urban population against the total growth of 20·3 per cent. It denotes that administrative changes in the list of towns had no significant influence on rural and urban population growth in this State. But, at the same time, it has to be borne in mind that the growing towns are constantly overflowing into the neighbouring countryside absorbing formerly rural areas into the vortex of urban living. The influence of this factor on population growth is not known correctly.

Rural growth influenced by administrative changes in the list of towns or their area

*North-Western Provinces and Oudh Census Report, 1901, pages 16-17.

The drift from
the rural areas

5. Despite the negligible contribution of the new entrants to the list of towns, the urban population has, since 1921, increased twice as fast as the rural. This denotes that either there has been considerable emigration into the urban areas from the rural or the health of towns has improved or both. Table 101 gives the birth, death and survival-rates for the last three decades separately for the rural and the urban areas of the State. The figures for urban areas for 1921—30 are for towns having a population of 10,000 or over in 1921 and for the rural areas they are for the remainder of the registered area of the State. The mean decennial rates are calculated on the mean of the population of towns of 10,000 population or over in 1921, and the population of the same towns in 1931. The mean of the rest of the population for the two census years has been utilized for the calculation of the rural rates. In the decade 1931—40 also the figures of urban areas were available for towns of a population of 10,000 and over in 1931 for the years 1931—34 and for the rest of the decade they are for all the towns of 1931. For the decade 1941—50 the figures are for all the towns of 1941. For these two decades the rates are calculated on the mean of the rural or urban population of the two consecutive censuses. These, however, will not affect the argument.

TABLE 101—*Rates of birth, death and natural increase of the rural and urban population of the State, 1921—50*

Decade	Rural population			Urban population		
	Birth	Death	Natural increase	Birth	Death	Natural increase
1921—30	33·4	24·8	8·6	41·9	35·9	6·0
1931—40	34·0	21·5	12·5	35·6	24·8	10·8
1941—50	23·5	15·6	7·9	32·9	22·5	10·4

These figures show that although the birth-rate in the urban areas is higher than in the rural, the death-rate is higher still and this has resulted in a lower survival-rate in the urban areas except during the decade 1941—50 in which the recording of vital statistics in rural areas has greatly deteriorated. On the basis of the above figures for urban areas the mean decennial birth and death-rates for the rural areas of the State as a whole (based on omissions for the State shown in Table 77 of Chapter I) will be 39·5 and 32·2 for 1921—30, 39·1 and 26·1 for 1931—40 and 35·2 and 24·0 for 1941—50, giving a survival-rate of 7·3, 13·0 and 11·2 respectively. In actual fact, however, there are many omissions in the town vital statistics also.

Table 102 gives the estimated data, based on the above assumptions, showing approximately the influence of natural increase and migration on the growth of rural as well as urban population in the State during the last thirty years.

TABLE 102—*Effect of migration and natural increase (estimated) on the growth of rural and urban population, 1921—50*

Decade	Rural population			Urban population		
	Population variation (mean)	Natural increase	Net balance of migration	Population variation (mean)	Natural increase	Net balance of migration
1921—30	5·8	7·3	—1·5	12·0	6·0	+6·0
1931—40	11·3	13·0	—1·7	23·1	10·8	+12·3
1941—50	9·8	11·2	—1·4	20·5	10·4	+10·1

It will appear that the rural population has suffered on account of migration. The loss in thousands in the three consecutive decades has been of 681, 790 and 750 respectively. All this is not a drift to the urban areas. It includes the migrants who were enumerated outside the State. It should be remembered that the bulk of the emigrants from this State are from the rural areas. The

urban population gained about 317 thousand during 1921—30, 772 thousand during 1931—40 and 792 thousand during 1941—50 on account of balance of migration.

Substantial numbers came from the villages, some were included in the urban population due to a change in the list of towns (already described in paragraph 4 above) and some of them came from outside the State. It will also be observed from the figures in the table that it is only the natural increase which accounts for the growth of the rural population, though in case of the urban population migration is an equally important force.

6. Table 103 gives the mean decennial growth-rates of general, rural and urban population for the last five decades and the net percentage variation between 1901—20, 1921—50 and between 1901—50 by natural divisions. The mean decennial growth-rates for the area of registration of the rural population for the last three decades by natural divisions and districts will be found in Subsidiary Table 2·3 in Part I-B of the Report. It will be observed that the trend of the rates of the rural population are roughly of the same pattern as those for the general population. The control of epidemics and famines is reflected in the rapid growth of rural population during the last thirty years in all the natural divisions of the State.

Rural population
growth in the
natural divisions

TABLE 103—Mean decennial growth-rates and net percentage variation of general, rural and urban population by natural divisions, 1901—50

Natural division	Mean decennial growth-rates					Net percentage variation		
	1901—10	1911—20	1921—30	1931—40	1941—50	1901—20	1921—50	1901—50
Uttar Pradesh—								
Total	-1·0	-3·1	+6·4	+12·7	+11·2	-4·0	+35·5	+30·0
Rural	+0·01	-3·5	+5·8	+11·3	+9·8	-3·5	+30·8	+26·3
Urban	-9·3	+0·4	+12·0	+23·1	+20·5	-8·5	+74·7	+59·8
Himalayan—								
Total	+10·4	-0·6	+8·0	+12·8	+11·6	+10·2	+38·4	+52·5
Rural	+9·5	-1·3	+8·6	+11·0	+8·0	+8·6	+31·8	+43·2
Urban	+22·9	+7·8	-0·3	+35·4	+43·6	+36·1	+121·9	+202·0
East Plain—								
Total	-0·4	+2·1	+7·0	+11·3	+11·0	+1·7	+34·1	+36·3
Rural	+0·7	+1·9	+6·6	+10·9	+10·3	+2·6	+32·0	+35·4
Urban	-17·0	+5·2	+13·5	+17·7	+19·9	-11·2	+66·9	+48·2
Central Plain—								
Total	-3·8	-4·1	+5·0	+13·2	+12·0	-7·7	+35·3	+25·0
Rural	-3·1	-4·5	+4·4	+10·6	+10·2	-7·3	+28·7	+19·3
Urban	-11·1	-0·7	+10·5	+34·1	+23·7	-11·1	+98·9	+76·7
West Plain—								
Total	-1·2	-6·4	+6·6	+13·4	+11·4	-7·3	+36·9	+26·8
Rural	-0·2	-7·3	+5·3	+12·1	+10·0	-7·2	+31·5	+22·1
Urban	-7·2	-1·4	+13·4	+19·7	+17·8	-8·3	+66·5	+52·7
Hills and Plateau—								
Total	+3·3	-4·6	+8·0	+13·0	+7·1	-1·3	+32·5	+30·9
Rural	+5·2	-5·7	+8·0	+12·5	+5·3	-0·5	+29·4	+28·7
Urban	-11·0	+4·3	+8·2	+16·7	+19·5	-6·5	+55·9	+45·9

The data bring out clearly the influence of the different incidence of epidemic mortality in the divisions during 1901—20, some details for which have already been suggested in paragraph 40 of Section 3 of Chapter I. The disturbance on account of migration from the rural areas into the urban areas has also slightly brought about differentials in the growth of the rural population. The rural areas of the Himalayan, Central Plain and West Plain divisions, have been losing heavily to their cities and the towns. The Hills and Plateau division has not only lost its rural population to the urban areas during 1941—50, but at the same time there has also been a heavy drift of seasonal labour to the adjacent States.

7. In the case of the Himalayan division the mean decennial growth-rate of the rural population during 1941—50 has fallen by 3 per cent. Ten new towns, namely, Clement Town, Choharpur, Kotdwara, Dogadda, Tehri, Narendranagar, Uttar Kashi, Deo Prayag, Muni-ki-Reti and Kirtinagar with a total population of 23,094 have been added to the list of urban areas in this natural division. This has brought a fall of 1·1 per cent. in the growth-rate of the rural

population and thereby the urban population has increased by 12·2 per cent. Of a fall of 0·6 per cent. in the growth-rate of the rural population of the East Plain 0·2 per cent. is accounted for by the creation of new towns of Mughal Sarai Railway Colony, Nauli, Suhwal, Ratsand Kalan and Khurd and Ikauna and the urban population of this division has increased by 29,196 or 2·8 per cent. due to this change in the list of towns. Only 4 towns, viz., Pukhrayan, Jahanabad, Bharwari-cum-Chamandha and Tambaur-cum-Ahmadabad, have been added to the urban areas in the Central Plain division during 1941—50. Kara and Daranagar towns were excluded from the list in 1951. Thus of the fall of 0·4 per cent. in the rural growth-rate 17, 208 or 0·14 per cent. is accounted for by the change in the list of towns. The urban population of the division has thereby gained by 1·0 per cent. The decennial growth-rate of the rural population of the West Plain division came down to 10·0 in 1941—50 from 12·1 in 1931—40. The rural population suffered a loss of 87,733 persons during this decade by the addition to the urban list of 15 new towns of Tatiri, Kharkhauda, Kithore, Daurala and Modinagar in district Meerut, Khalaur and Saidpur in district Bulandshahr, Jattari in district Aligarh, Tundla Railway Colony in district Agra, Tajpur and Budhpura in district Bijnor, Khudaganj Lachmanpur in district Shahjahanpur, Kemri in district Rampur and Dhaurahra and Singahi in district Kheri. Only 3 towns of Loni and Farrukhnagar of district Meerut and Ganj Daranagar of district Bijnor were excluded from the urban list at the 1951 census. This change resulted in a loss of 0·5 per cent. to the rural population while the urban population gained by 2·5 per cent. on this account. Of all the natural divisions the fall in the mean decennial growth-rate of the rural population of the Hills and Plateau division is of considerable magnitude. It has come down from 12·5 per cent. in 1931—40 to 5·3 per cent. in 1941—50. The change in the list of towns accounts for the loss of only 0·9 per cent. The towns of Babina and Erich in district Jhansi, Jagmanpur, Umri, Rampura and Kadaura in district Jalaun and Kulpahar in district Hamirpur of a total population of 28,935 were the new entrants in the list of urban areas of this division at the census of 1951. They have increased its urban population by 6·4 per cent.

It will be, thus, obvious from the above description that the administrative changes, through which areas formerly classified as rural are established as towns, do influence the growth-rates of the rural population of the natural divisions but the main factors that bring about the variation are births, deaths and migration as is the case with the general population.

8. It will be interesting to note that the growth-rate of the rural population of a natural division is not necessarily the characteristic of the whole. Components of population change do not operate in a similar manner in all its units.

TABLE 104—Percentage of area and population in grades of percentage variation of rural population by natural divisions, 1941—50

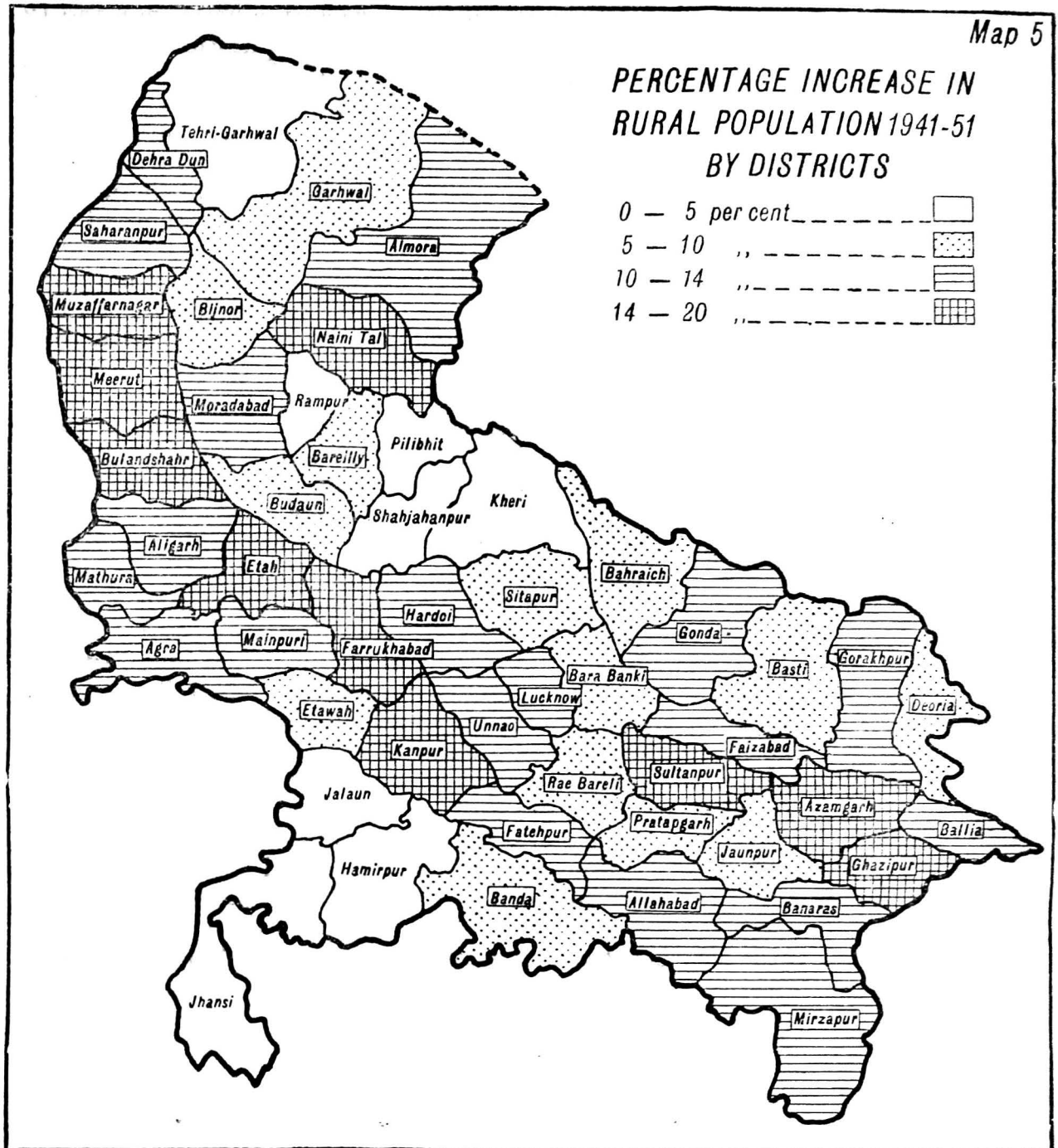
Natural division	Percentage variation in rural population							
	Under 1	1—5	5—8	8—12	12—15	15—20	20 and over	
Uttar Pradesh—								
Area	8·1	9·9	14·5	33·4	17·1	9·1	7·9	
Population	4·5	6·3	14·4	37·1	21·4	12·4	3·9	
Himalayan—								
Area	12·7	10·1	6·4	24·2	4·7	..	41·9	
Population	7·0	17·1	20·0	11·9	7·2	..	36·8	
East Plain—								
Area	2·3	..	17·6	49·3	15·0	13·5	2·3	
Population	3·1	..	15·5	47·9	17·0	15·8	0·7	
Central Plain—								
Area	2·5	3·8	14·8	44·4	22·4	6·9	5·2	
Population	2·2	4·5	14·9	44·4	22·0	6·4	5·6	
West Plain—								
Area	9·3	10·5	11·2	28·0	24·7	14·3	2·0	
Population	5·1	8·4	10·6	28·5	28·3	15·9	3·2	
Hills and Plateau—								
Area	17·4	30·2	24·6	16·7	7·5	3·6	..	
Population	16·6	28·0	24·4	13·8	10·2	7·0	..	

Areas of high and low percentage variation in rural population 1941—50

Table 104 shows that all the natural divisions of this State have their high and low areas of growth of the rural population. The percentage variation for the State as a whole during the decade 1941—50 has been 10·3. It will be observed from the figures in the table that only 33·4 per cent. of the total rural area of the State and 37·1 per cent. of the rural population has a variation between 8 and 12 per cent. Nearly an equal percentage of area (34·1) and population (37·7) has a variation of 12 per cent. or above and 32·5 per cent. of the area with 25·2 per cent. of the population residing in it, has a variation below 8 per cent. 15 of its tehsils with a total rural area of 8,344 square miles and a rural population of 2,217,637 actually record a decrease. By far the greatest part in the Himalayan division in any one grade (area 41·9, population 36·8 per cent.) has a variation of 20 per cent. and over. 29·2 per cent. of the rural area of this division with 44·1 per cent. of the rural population has a variation below 8 per cent. Haldwani tehsil in district Naini Tal and Champawat in Almora show a decrease in population of 9·0 per cent. and 36·4 per cent. respectively. In the East Plain only 19·9 per cent. of the rural area with 18·6 per cent. of the population living in it has a variation below 8 per cent. and the only tehsil of Salempur in district Deoria records a decrease in population. The Central Plain has 21·1 per cent. of its rural area and 21·6 per cent. of the population with a variation below 8 per cent. It has only one tehsil, namely, Biswan in district Sitapur which shows a decrease of 3·3 per cent. in population. The West Plain with an average variation of 10·5 per cent. has a variation below 8 per cent. in 31·0 per cent. of its area with 24·1 per cent. of the population living in it. Tehsils Agra in district Agra, Nagina in district Bijnor, Puranpur in district Pilibhit, Bilaspur and Suar in district Rampur and Nighasan in district Kheri show an actual decrease in rural population. The Hills and Plateau division becomes conspicuous with 72·2 per cent. of its rural area and 69·0 per cent. of the population residing therein, having a variation below 8 per cent. No rural unit in this division has a growth-rate of 20 per cent. or over. Tehsils Garautha and Mahroni in district Jhansi, Jalaun in district Jalaun, and Kulpahar and Charkhari in district Hamirpur show an actual decrease in rural population. The areas that show low percentage increase in population or an actual decrease in it either feed the urban areas of the district in population or the people migrate from these to other parts of this State and to other States in search of better opportunities of employment. Some of these have also an unhealthy climate and so a low survival-rate. For a detailed description of the physical condition of the tehsils the reader is referred to the 1911 Report (pages 10—17).

Variation in rural population since 1941, by districts

9. Map 5 shows the percentage increase in population by districts. The actual figures of percentage variation and mean decennial growth-rate of each district are shown in Subsidiary Tables 2.2 and 2.3 respectively.

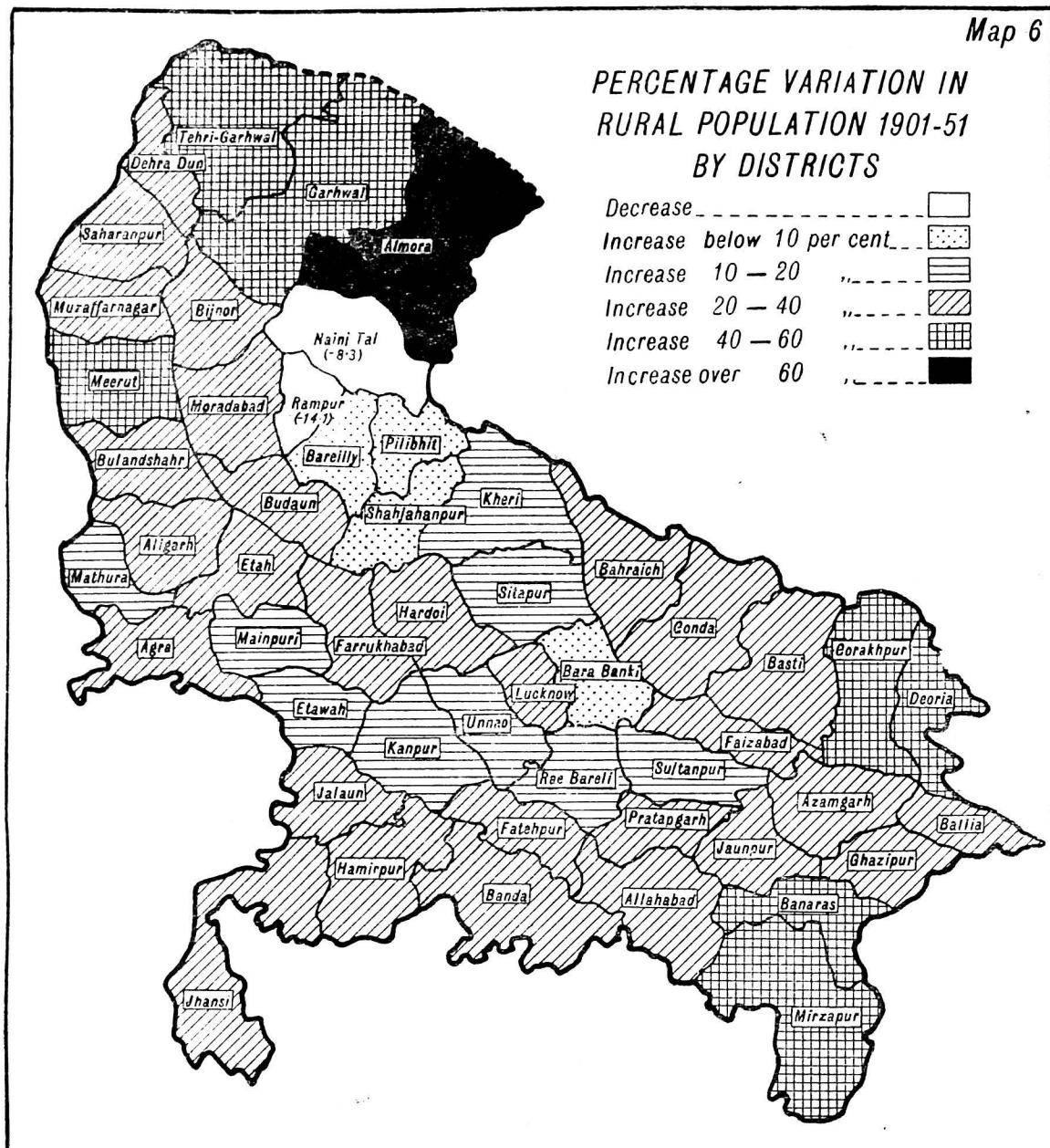


MAP 5—Percentage increase in rural population, 1941—51, by districts

This map should be studied together with Map 2 in Chapter I showing the percentage increase in general population by districts. There are large differences in the percentage variation in general and rural population in districts Dehra Dun (36.1, 10.5), Banaras (18.5, 13.9), Kanpur (24.7, 15.3), Lucknow (18.8, 13.8), Rampur (13.9, 3.6), Meerut (20.3, 16.0) and Jhansi (5.6, 0.8). This clearly brings out the influence of urbanization on the growth of population. The districts of Naini Tal (16.2 rural against 14.9 general variation), Gonda (10.1, 9.2), Azamgarh (15.7, 15.3), Fatehpur (12.9, 12.6), Unnao (11.4, 11.2), Hardoi (10.4, 9.9), Bara Banki (8.9, 8.7), Bulandshahr (14.4, 13.9), Etah (14.6, 14.2), Shahjahanpur (2.5, 2.1) and Farrukhabad (14.8, 14.3) have a higher percentage variation in rural population than in the general population. The towns in these districts are not prosperous and they do not seem to have attracted the rural population to any great extent. The low growth-rates of rural population in the districts of Garhwal, Tehri-Garhwal, Jhansi, Jalaun, Hamirpur and some others is due mainly to migration from these districts and to some extent to lower natural increase. The low growth-rate in the districts of Sitapur, Pilibhit, Rampur, Kheri and Shahjahanpur is the result of unhealthy climate in some of their tehsils leading to low natural increase and migration. Some of the reasons for low growth have already been suggested in paragraph 42 of Section 3 of Chapter I relating to general population.

10. Map 6 illustrates the variations in rural population during the last fifty years by districts.

Variations in rural population during 1901-51, by districts



MAP 6—Percentage variation in rural population, 1901—51, by districts

The incidence of epidemics in the first two decades, which has proved so uneven, is reflected in the map. Districts which suffered from influenza and which are unhealthy return a low growth-rate. All the districts of the Himalayan division except Naini Tal have a large percentage increase. The Tarai and Bhabar tracts of Naini Tal district have a hostile climate and only during the decade 1941—50 the rural areas of the district could have an increase of 16·2 per cent. due to the colonization schemes in the district and the settlement of displaced persons made possible by the measures adopted for the control of malaria epidemic. The East Plain did not suffer heavily from epidemics and influenza as compared to the Central and West Plain divisions. Unnao, Rae Bareli, Sitapur, Sultanpur and Bara Banki districts of the Central Plain lose their population to the city of Kanpur or Lucknow and to other parts of this State and to other States and, therefore, their recovery from the devastation caused by disease during the first two decades, has been slow. Rampur, Pilibhit, Shahjahanpur, Bareilly and Kheri of the West Plain have unhealthy tehsils. Mathura and Mainpuri have no prosperous rural areas. Therefore, these districts also have low natural increase, and they lose their population by migration. They were severely hit by the epidemics of the first two decades and have not yet recovered to an appreciable extent. The districts of Jhansi, Jalaun, Hamirpur and Banda in the Hills and Plateau division had only one set-back during 1911—20 when their population decreased. They could have shown a higher net variation but for the low increase in the decade 1941—50 due to low natural increase and seasonal labour migration outside the State.

SECTION 4—MOVEMENT

Introductory

1. It has been observed in Chapter I that the demographic history of Uttar Pradesh has been chiefly determined by the normal processes of births and deaths and migration has not been of any significant magnitude. Whatever little migration there is in the general population, its types and trends and its extent and direction, have already been discussed. As the bulk of the general population consists of rural population, much of what has been said before will also hold good of the movement of population in the rural areas of the State. In this section attention will be directed to certain important trends and characteristics of the movements of rural population and to the relative importance of the balance as an element in population change.

The limitations of our statistics have already been described and should be borne in mind in this study. The birth-place figures of the immigrant population are available in Subsidiary Table 2.5—Immigration to rural area—in Part I-B of this Report. There are several other handicaps in this study. There is no data of outward migration from the State from its rural parts. It has also not been possible to measure statistically the volume of migration from the rural part of a district to the urban part of the same district. A comparison with the figures of the previous censuses can also not be attempted as rural-urban separation did not exist before and it was only in case of cities that the figures of in-born and out-born were worked out. A study of the movement of rural population and its balance is subject to these limitations.

2. Subsidiary Table 2.5 gives for the rural population of the State for the natural divisions and for the districts, the number of persons, males and females who were born in the district of enumeration, in the rest of the State, in the other States of India and in territories beyond India. The actual figures for the State and the natural divisions by birth-place with percentages to the total rural population of each are shown in Table 105. These figures show eloquently

TABLE 105—*Distribution of the rural population of the State and the natural divisions by birth-place, 1951*

(Actual and percentage)

Born in—	Uttar Pradesh	Himalayan	East Plain	Central Plain	West Plain	Hills and Plateau
District of enumeration	50,770,184*	2,065,480*	15,795,022	12,972,152	16,822,553	3,114,977
.. .. .	(93.00)	(92.72)	(95.18)	(93.47)	(90.77)	(92.81)
Other districts of the same natural division	2,475,881*	66,690*	540,649	523,455	1,293,180	51,907
.. .. .	(4.54)	(2.99)	(3.26)	(3.77)	(6.98)	(1.55)
Other parts of the State	770,844	41,445	119,838	339,123	193,049	77,389
.. .. .	(1.41)	(1.86)	(0.72)	(2.44)	(1.04)	(2.31)
Adjacent States	427,413	15,485	101,667	25,539	175,064	109,658
.. .. .	(0.78)	(0.70)	(0.61)	(0.19)	(0.94)	(3.27)
Other parts of India	28,498	2,551	8,439	7,214	8,671	1,623
.. .. .	(0.05)	(0.11)	(0.05)	(0.05)	(0.05)	(0.05)
Beyond India—						
(i) Pakistan	54,211	12,814	3,154	7,767	29,808	668
.. .. .	(0.10)	(0.58)	(0.03)	(0.06)	(0.16)	(0.01)
(ii) Other territories	63,012	23,293	25,702	3,221	10,656	140
.. .. .	(0.12)	(1.04)	(0.15)	(0.02)	(0.06)	..

*These figures have been corrected. Subsidiary Table 2.5 shows the figures as follows :

	Uttar Pradesh	Himalayan
District of enumeration	50,570,525	1,865,821
Other districts of the same natural division	2,675,540	266,349

For the corrections see the foot-note to Table 55 in Section 4 of Chapter I. The figures of persons born in the district of the same natural division in Tehri-Garhwal shown in Table 2.5 are not correct and due to their wrong recording the figures of persons born in other districts of the same natural division have been inflated both in case of the Himalayan division and Uttar Pradesh. It has been estimated that Tehri-Garhwal has 3,000 persons (males 1,000, females 2,000) born in other districts of the same natural division. Subsidiary Table 3.8 in Part I-B of the Report will show that the share of urban areas in this population is of 194 persons (males 143, females 51). The figures for the rural population of Tehri-Garhwal will thus work out to 2,806 persons (males 857, females 1,949). On the basis of the figures, the data for the State and the Himalayan division have been revised.

The small number of out-born in the rural population

how little addicted to movement are the people of the State. Of the rural population of 54,590,043 in the State 50,770,184 or 93 per cent. were found living in the district where they were born at the census of 1951. Against this, 90·7 per cent. of the population of Uttar Pradesh as a whole was recorded as having been born in the district of enumeration. It is also remarkable that of the 7 per cent. of the out-born* in the rural population nearly 6 per cent. are internal migrants and only 573,134 (or 1 per cent.) have immigrated to the State from the other States of India and the territories beyond this country. The bulk of the internal migration is also concentrated in the districts of the same natural division and as the distance widens the migration is on the decrease.

3. The same tendency to stay at home is to be found in the natural divisions of the State. The percentage of home-born is as high as 95·18 in the densely populated East Plain. The largest number of out-born in the State were found in the West Plain where the percentage of home-born comes to 90·77. Thus it would appear that not more than one-tenth of the rural inhabitants of any of the natural divisions are born outside the district in which they live.

4. Subsidiary Table 2·5 in Part I-B of the Report shows that the districts also present the same picture in general. The districts which practically gain no population from outside are those of the hills—Tehri-Garhwal, where 98·82 per cent. of the rural population is home-born,† Almora with 98·64 per cent. home-born, and Garhwal where the figure is 98·04. These districts have no attractions for the plains-man. Their climate and conditions of agricultural land and industry have got no "pull". The difficulties of transport and communication also restrict the movement of the hill people from one district of the Himalayan division to the other. Naini Tal district of this division has only 62·36 per cent. of home-born rural population. The percentage in Dehra Dun is 80·70. Naini Tal has periodic or permanent settlers in the Tarai and the Bhabar and in Kashipur. Displaced persons have also settled in large numbers under the colonization schemes of the district. Dehra Dun gets periodic migrants from Garhwal and Tehri-Garhwal districts and some semi-permanent labour migrants from the other districts of the State. To the hill districts having a high proportion of home-born rural population may be added all the districts of the East Plain where the lowest percentage of home-born is 93·57 in Jaunpur district. This division comprises of the densely populated rural districts which have no "open spaces" for the out-born settlers. Among the districts of the Central Plain the proportion of home-born varies between 89·10 per cent. in Lucknow and 95·44 per cent. in Allahabad. Except Mathura (84·94), Mainpuri (86·89), Agra (88·26), Etah (88·72), Farrukhabad (88·82), Aligarh (88·84), Rampur (89·25), Pilibhit (89·33) and Bulandshahr (89·75), the remaining 10 districts of the West Plain have more than 90 per cent. of their rural population born in the district where they were enumerated at the census of 1951. The proportion of out-born in the rural population of the districts of the Hills and Plateau division is also very small. No less than 91 per cent. of the rural population of any of the districts of this division is home-born. It becomes plain, then, that the number of out-born in the rural population of nearly all the districts of the State is very small. The extremely high density of agriculturists on arable land throughout the State leaves little "open space" for outsiders to settle in the rural areas.

5. The figures of out-born in the population of the State as a whole and in the rural population given in Table 106 show clearly that the rural areas have a smaller share of the persons born outside the district than do the urban areas. In the natural divisions they account for between 50·3 and 80·7 per cent. of all the persons born outside the district which is below their 81·4 to 92·8 per cent. proportion of the total population. Another remarkable feature is that as the distance increases the percentage of out-born coming to the rural parts decreases. This applies to the Hills and Plateau division also where the percentage of migrants coming from the

Percentage of out-born in the rural population by distance of birth-place

* In this discussion by "out-born" is meant the persons born outside the district of enumeration and by "home-born" persons born in the district of enumeration.

† See foot-note to Table 105. Figures of home-born of Tehri-Garhwal have been corrected.

adjacent States is more than the percentage of migrants from the other districts of the State, as all the districts of this division are contiguous to adjacent States.

TABLE 106—Percentage of out-born in the rural areas of the State and the natural divisions, by distance of birth-place, 1951

Natural division	Population	Total	Born outside district		
			Outside district but in the State	Adjacent States	Elsewhere
Uttar Pradesh	63,215,742	5,898,407*	4,510,304*	691,261	696,842
Rural	54,590,043	3,819,859	3,246,725	427,413	145,721
Per cent. rural	86.4	64.8	72.0	61.8	20.9
Himalayan	2,521,987	322,541*	180,970*	34,406	107,165
Rural	2,227,758	162,278	108,135	15,485	38,658
Per cent. rural	88.3	50.3	59.8	45.0	36.1
East Plain	17,886,802	990,034	775,627	136,587	77,820
Rural	16,594,471	799,449	660,487	101,667	37,295
Per cent. rural	92.8	80.7	85.2	74.4	47.9
Central Plain	16,129,890	1,682,040	1,438,068	86,338	157,634
Rural	13,878,471	906,319	862,578	25,539	18,202
Per cent. rural	86.0	53.9	60.0	29.6	11.5
West Plain	22,771,252	2,561,916	1,935,341	292,368	334,207
Rural	18,532,981	1,710,428	1,486,229	175,064	49,135
Per cent. rural	81.4	66.8	76.8	59.9	14.7
Hills and Plateau	3,905,811	341,876	180,298	141,562	20,016
Rural	3,356,362	241,385	129,296	109,658	2,431
Per cent. rural	85.9	70.6	71.7	77.5	12.1

The sex-ratio of the out-born in the rural population by distance of birth-place

6. Of the 2,035,849 male out-born and 3,862,558 female out-born in the State as a whole 887,893 or 43.6 per cent. males and 2,931,966 or 75.9 per cent. females were enumerated in the rural parts of the State at the census of 1951†. The sex-ratio of the out-born in the rural population of the State works out to 3,302 females per 1,000 males. Table 107 below shows the sex-ratio of females per 1,000 of males in each category of the out-born in the rural population of the State and the natural divisions. It will be observed that there is a preponderance of females over males among the out-born coming from the other districts of the same natural division, from the other parts of the State and from the adjacent States indicating that most of the migration is marriage migration. It will also be seen that this migration is largely localized. The Himalayan division shows a different trend. Even marriage migration in this division is restricted within the limits of the district on account of poor

TABLE 107—Females per 1,000 males in the rural population of the State and the natural divisions by distance of birth-place

Where born	Uttar Pradesh	Himalayan	East Plain	Central Plain	West Plain	Hills and Plateau
District of enumeration	848†	1,055†	928	866	743	366
Outside the district of enumeration	3,302	619	4,432	2,911	3,837	3,374
(i) Other district of the same natural division	4,376†	888†	4,524	4,322	4,905	4,204
(ii) Other parts of the State	2,307	528	4,566	2,004	2,565	3,449
(iii) Adjacent States	2,776	413	5,868	1,362	2,488	3,148
(iv) Other parts of India	861	426	1,283	870	685	965
(v) Beyond India	781	442	2,107	899	609	456

communications. The sex-ratio of persons born in other parts of India and in territories beyond India and enumerated in the East Plain also shows a different behaviour. The females exceed the males. Females born in Bengal‡

* See foot-note to Table 105. Figures have been corrected.

† See foot-note to Table 105. The figures of Uttar Pradesh and the Himalayan division have been corrected.

‡ Of 8,439 persons (males 3,697, females 4,742) born in other parts of India and enumerated in the East Plain, 6,133 (males 2,516, females 3,617) are from West Bengal.

inflate the sex-ratio in this division in the former case and marriage migration between Nepal and the north-eastern districts of this division accounts for the latter.

7. Table 105 in paragraph 2 above shows how relatively unimportant is immigration from outside the State to the rural Uttar Pradesh. Only 573,134 persons (males 194,344, females 378,790), i.e., nearly 1 per cent. of the total rural population were recorded during this census as having been born in the other States of India and in the territories beyond this country. Of these 427,413 (males 113,206, females 314,207) come from the adjacent States, 28,498 (males 15,314, females 13,184) from other parts of India and 117,223 (males 65,824, females 51,399) from territories beyond India.

The numbers from the adjacent States are made up principally of 95,413 immigrants (males 12,068, females 83,345) from Bihar to the neighbouring districts of the East Plain; of 71,725 persons (males 16,556, females 55,169) born in Vindhya Pradesh, 20,864 (males 4,357, females 16,507) born in Madhya Bharat, 8,559 (males 2,436, females 6,123) born in Madhya Pradesh and 6,667 (males 2,048, females 4,619) born in Bihar, who were enumerated in the neighbouring districts of the Hills and Plateau division; and of 67,864 (males 15,205, females 52,659) born in Rajasthan, 51,801 (males 15,670, females 36,131) born in Punjab, 19,691 (males 2,815, females 16,876) born in Madhya Bharat and 299 (males 109, females 190) born in Himachal Pradesh, who were recorded in the contiguous districts of the West Plain. Some idea of the district-wise details may be gathered from the figures in the Tables 44—47 in the previous chapter. Together these immigrants from adjacent States to the neighbouring districts of Uttar Pradesh comprise of 353,465 persons (males 73,506, females 279,959) or about 83 per cent. (males 65 per cent., females 89 per cent.) of the immigration from the adjacent States. The nature of this immigration can in each case be gathered from the proportion of the sexes. Most of it is marriage migration or birth migration and the rest represents the movement of labour.

The number of those born in the other parts of India is only 28,498 (males 15,314, females, 13,184) or 0.05 per cent. of the total rural population of the State. The number is negligible and mostly consists of the children of the emigrants of this State to the distant States of India.

Of the 584,068 immigrants from the Asiatic countries outside India in the State as a whole, only 116,693 (males 65,518, females 51,175) or about 20 per cent. were recorded in the rural parts of the State. Table 108 shows their distribution according to the country of their origin in the rural areas of the State and the natural divisions.

TABLE 108.—*Distribution of immigrants from Asiatic countries outside India according to the country of their origin, in the rural areas of the State and the natural divisions, 1951*

Country of origin	Uttar Pradesh	Himalayan	East Plain	Central Plain	West Plain	Hills and Plateau
All Asiatic countries	116,693	35,988	28,656	10,917	40,338	794
<i>Percentage to Asiatics in the total population</i> ..	20.0	36.8	54.7	9.1	13.4	6.1
Nepal	57,503	22,444	23,746	809	10,395	109
Pakistan	54,211	12,814	3,154	7,767	29,808	668
Burma	4,107	330	1,420	2,236	108	13
Others	872	400	336	105	27	4

It will be observed that the largest number of such immigrants is from Nepal. 31,747 males and 25,756 females born in Nepal were enumerated in the rural parts of this State. They are concentrated chiefly in the districts of Naini Tal (and to a lesser extent the rest of the Himalayan division), Gorakhpur, Basti, Bahraich, Gonda, Kheri, Saharanpur and Bijnor. They are generally Gorkha soldiers, semi-permanent and permanent migrants and descendants of emigrants from these districts born in Nepal.

Out of the immigrants from the Asiatic countries 54,211 (males 30,930, females 23,281) are from Pakistan. As many as 49,188 (males 27,740, females 21,448) are displaced persons who form only 10.2 per cent. of the

Immigration

From adjacent States

From other parts of India

From Asiatic countries outside India

total displaced persons in the State. It is obvious that the displaced persons have not preferred the rural occupations. Most of them have been chiefly recorded in the districts of Naini Tal and Meerut where they have settled in the colonization schemes, and in Dehra Dun, Kanpur, Allahabad, Saharanpur, Bareilly, Muzaffarnagar and Agra.

Of the immigrants from Burma, 2,329 are males and 1,778 are females. Most of them are descendants of Indian emigrants to Burma. They are chiefly found in the emigrating districts of Faizabad, Sultanpur, Azamgarh, Gonda, Gorakhpur and Deoria.

The rest are from Afghanistan, China, Straits Settlements and Malaya and other countries. 512 of them are males and 360 are females.

From countries
outside Asia

Of the 1,955 immigrants from the non-Asiatic countries in the State as a whole only 530 (males 306, females 224) or about 27 per cent. were found in the rural parts of the State. Of them 200 were recorded in the East Plain, 126 in the West Plain, 119 in the Himalayan, 71 in the Central Plain and 14 in the Hills and Plateau division. Most of them are missionaries or descendants of Indian emigrants born abroad.

Internal migration
in the rural po-
pulation

8. The influence of internal migration is far greater. As many as 3,246,725* persons (males 693,549, females 2,553,176) born in the districts of Uttar Pradesh were living outside their native districts in the rural parts of the State. Of them 2,475,881* (males 460,455, females 2,015,426) were born in the districts of the same natural division and 770,844 (males 233,094, females 537,750) were born in the other parts of the State. Together they comprise about 6 per cent. of the total rural population of the State. Of the total internal migration in the State of 4,510,304* persons (males 1,388,265, females 3,122,039) 72 per cent. (males 50, females 82) is concentrated in the rural population. The figures for males and females clearly show that the migration is largely marriage migration or birth migration. For some of the details of internal migration the reader is referred to Section 4 of Chapter I.

Table 109 shows the balance of internal migration (migration to and from one natural division to the rural parts of other division) in the natural divisions.

TABLE 109—Balance of internal migration (rural) in the natural divisions

Natural division	Immigrants from other natural divisions			Emigrants to other natural divisions			Balance		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
Himalayan ..	41,445	27,119	14,326	17,860	7,556	10,304	23,585	19,563	4,022
East Plain ..	119,838	21,529	98,309	201,441	55,525	145,916	-81,603	-33,996	-47,607
Central Plain ..	339,123	112,909	226,214	284,388	63,121	221,267	+54,735	+49,788	+4,947
West Plain ..	193,049	54,144	138,905	176,611	81,232	95,379	+16,438	-27,088	+43,526
Hills and Plateau	77,389	17,393	59,996	90,608	25,693	64,915	-13,219	-8,300	-4,919

The Himalayan and the Central Plain divisions gain both in males and females on balance of internal migration, the West Plain loses in males but gains in females and also on the whole on account of balance of migration and the East Plain and the Hills and Plateau divisions lose both in males and females.

The districts which gain most in rural population in actual number by internal migration are Naini Tal (persons 59,894, males 38,958 and females 20,936), Mainpuri (persons 28,876, males 2,324 and females 26,552), Sultanpur (persons 28,044, males 22,417 and females 5,627), and Meerut (persons 22,216, males 12,277 and females 9,939); Fatehpur, Bulandshahr, Muzaffarnagar, Bahraich, Dehra Dun, Lucknow and Mirzapur gain between 10,000 and 20,000 persons each; and Saharanpur, Mathura, Unnao, Rae Bareilly, Bara Banki, Pilibhit and Jalaun gain between 5,000 and 10,000 persons each by internal migration. The districts which lose most in actual numbers by internal migration are Gorakhpur (persons 42,997, males 15,335 and females 27,662), Almora (persons 42,886, males 24,298 and females 18,588), Bareilly (persons

* For reasons given in the foot-note of Table 105, the figures of persons born in the districts of enumeration and in the districts of the same natural division have been corrected.

31,924, males 24,673 and females 7,251), Shahjahanpur (persons 29,436, males 4,054 and females 25,382), Budaun (persons 27,748, males 8,132 and females 19,616), Jaunpur (persons 25,606, males 5,108 and females 20,498), and Banda (persons 23,465, males 13,491 and females 9,974). The districts that lose between 5,000 and 20,000 persons are Hardoi (persons 19,301, males 3,018 and females 16,283), Moradabad (persons 15,737, males 8,851 and females 6,886), Azamgarh (persons 13,244, males 5,107 and females 8,137), Hamirpur (persons 6,912, males 134 and females 6,778), Banaras (persons 6,665, males +1,414 and females -8,079) and Pratapgarh (persons 5,303, males -5,784 and females +481).

9. Figures of emigration from the rural areas of this State to other parts of India are not available as the data regarding persons born in this State and enumerated in other parts of India were not available with rural-urban break-up. Some idea about the trend and direction of emigration of the rural population outside the State can be gleaned from the description of the general emigration in the previous chapter. Most of this emigration is from the rural areas of the State. A large part of it is marriage or birth migration to the adjacent States of India. The migration to Bombay, Bengal, Assam and other distant States of India and to the mines of Bihar and to countries abroad is of the semi-permanent or permanent type. In very few cases it is motivated by a desire for economic or social betterment and is largely impelled by immediate necessity. Crop failures, sub-division of holdings and agrarian poverty have forced people to migrate. The East and Central Plain divisions where the pressure on land is the heaviest and to some extent the Hills and Plateau division constitute the largest source of emigration outside the State. The immediate necessity of the emigrant pushes him out of the village but the village also pulls him in and he always maintains his contact with his home village.

Emigration of the rural population

Besides this emigration outside the State, there is a large movement of population from the rural to the urban areas within the State. This movement is also motivated by immediate necessity of the almost uprooted peasant. It will be described in detail in Chapter III.

10. Due to paucity of data it is not possible to give an accurate idea of the net migration of the rural population of the State. We have no figures of emigration outside the State. The volume of rural-urban migration is not known correctly as there are no statistics to show the volume of migration from the rural areas of the district into the urban areas of the same district, though Subsidiary Table 3·8 in Part I-B of the Report shows the figures of migrants into the urban areas from districts other than the district of birth. We can then have only a rough idea of the rural balance of migration. An attempt to estimate it has been made in paragraph 5 of the previous section of this chapter. The birth and death-rates of the rural part of the State (based on omissions for the State shown in Table 77 of Chapter I) have been estimated on the basis of the birth and death-rates of urban areas. The difference of the natural increase thus estimated, and the population variation, gives the estimated net balance of migration of the rural population. According to this assumption the loss suffered by the rural population of the State on account of migration calculates to 681 thousand or 1·5 per cent. of the rural population during the decade 1921—30, to 790 thousand or 1·7 per cent. during the decade 1931—40 and to 750 thousand or 1·4 per cent. during the decade 1941—50.*

Net migration of the rural population of the State

* The figures of migration include the figures of loss of population to the rural areas due to changes in the list of towns. See paragraphs 4 and 5 in Section 3 of this chapter.

SECTION 5—NATURAL INCREASE, BIRTHS AND DEATHS

Introductory

1. The actual trends in the birth and death-rates of the general population and the factors responsible for the trends have been dealt with in Chapter I. It will be seen in this section that the trends in the rates of the general and rural population are similar, and consequently it is unnecessary to repeat the factors responsible for the trends. It will suffice here to describe only the rates of the rural population of the State, the natural divisions and the districts.

The statistics that bear on this subject are set out in Subsidiary Table 2·3, in Part I-B of the Report, which show the mean decennial rates of growth, birth, death and natural increase and the migration-*cum*-registration error for the rural population of the State, the natural divisions and the districts for the last three decades. It may be mentioned here that the rural-urban break-up at the censuses does not correspond with the rural-urban break-up in the Annual Reports of the Director of Medical and Health Services, Uttar Pradesh. In the Annual Reports for the years 1921—31 only the towns which had generally population of 10,000 and over at the census of 1921 were treated as urban and the rest of the area of registration was regarded as rural for purposes of recording of births and deaths. In Subsidiary Table 2·3 the mean decennial rates of birth and death for the decade 1921—30 are calculated on the mean of the rural population as returned at the censuses of 1921 and 1931 irrespective of the fact that it excludes the population of the census towns of a population below 10,000 although their figures of births and deaths are included with the figures of rural population. In the corresponding Subsidiary Table 3·3 for urban areas as well, the mean rates of birth and death are calculated on the mean of the urban population of the consecutive censuses, but the actual figures of births and deaths that have been taken into consideration are for only the towns of a population of generally 10,000 and over. The calculations for the decade 1921—30 have been revised for this Report and the figures discussed in this section as well as in Section 5 of Chapter III will differ from the figures shown in Subsidiary Tables 2·3 and 3·3. The mean decennial rates of birth and death for urban areas have now been calculated on the mean of the population of towns having 10,000 inhabitants or more in 1921 and the population of the same towns in 1931. The mean of the rest of the population for the two census years has been used for the calculation of the rural rates. For most part of the decades 1931—40 and 1941—50 the birth and death figures adopted from the Annual Reports of the Director of Medical and Health Services, are generally for all the census towns of 1931 and 1941 respectively. For these two decades the rates are calculated on the mean of the rural or urban population recorded at the two consecutive censuses. The changes in the urban list from census to census are so small that they do not materially affect our figures. However, these facts must be borne in mind while considering the figures in Subsidiary Table 2·3 for the rural areas and in Subsidiary Table 3·3 for the urban areas.

The birth-rate

2. A comparative analysis of the birth-rates of rural and general population helps us to judge their common trend.

Table 110 exhibits the mean decennial birth-rates for the rural population of the State and the natural divisions for the last three decades and compares them with the mean decennial rates of the general population.

TABLE 110—*Mean decennial birth-rates (registered) of the rural and general population in the State and the natural divisions, 1921—50*

Natural division	Mean decennial birth-rate					
	1941—50		1931—40		1921—30	
	Rural	General	Rural	General	Rural	General
Uttar Pradesh	23·5	24·8	34·0	34·2	33·4	34·0
Himalayan	29·7	29·3	37·4	36·5	34·8	34·7
East Plain	21·3	21·8	30·3	30·4	29·7	30·0
Central Plain	18·8	20·2	29·4	30·0	30·3	30·8
West Plain	27·9	29·5	39·6	39·3	38·3	38·9
Hills and Plateau	26·8	27·6	38·2	38·3	35·7	36·2

As is apparent from a comparison of the figures in the table, the rates of rural as well as of general population are moving in a common direction. The general rate for the State as a whole has come down from 34.0 in 1921—30 to 24.8 in 1941—50. Similarly the rural rate has moved from 33.4 to 23.5 during the same period. Decline in the birth-rate has progressed quite rapidly in the natural divisions also.

3. In general there appears to be a marked steadiness in the figures in the above table during the decades 1921—30 and 1931—40, though both for rural and the general population, a somewhat upward trend is visible. As has been observed in paragraph 5 of Section 5 of Chapter I, the correct trend is disguised in these recorded figures which contain large omissions; actually there seems to be a drop in the birth-rate of the general population as the estimated rate calculates to 39.9 in 1921—30 and 38.8 in 1931—40. The decline has become more striking during 1941—50 when the estimated rate has come down to 34.9. The same trend appears in the rates of the rural population in the estimates made in paragraph 5 of Section 3 of this chapter. We find a continued decline from 39.5 in 1921—30 to 39.1 in 1931—40 and to 35.2 in 1941—50.

4. Subsidiary Table 2.3 shows the mean decennial birth-rates for the last three decades for each district (excluding Tehri-Garhwal, Deoria and Rampur).^{*} During 1921—30 only 2 districts, Dehra Dun (23.4) and Rae Bareli (24.2) had a birth-rate below 25 per cent.; 10 districts had a rate between 25—30; and the rest had a rate above 30 per cent. Of the districts of a rate above 30 per cent. 8 districts, Moradabad (44), Bijnor (43.8), Bareilly (43.2), Pilibhit (42.7), Shahjahanpur (42.1), Jhansi (41.1), Bulandshahr (40.6) and Saharanpur (40.5) had a rate as high as 40 per cent and above. The birth-rate remained steady during 1931—40 and all the districts except 12, as has been the case during the decade 1921—30, had a rate over 30 per cent. Pratapgarh (23.9) and Rae Bareli (24.6) had a recorded rate below 25 per cent. and as many as 13 districts, Moradabad (46.4), Bulandshahr (44.0), Jhansi (44.0), Budaun (43.3), Bijnor (42.6), Bareilly (42.5), Jalaun (41.9), Pilibhit (41.8), Muzaffarnagar (40.8), Garhwal (40.4), Shahjahanpur (40.3), Meerut (40.3) and Almora (40.2), had a rate above 40 per cent. Since 1941 there has been a marked decline. Garhwal had the highest rate of 33.8 and only 9 other districts, Almora (33.5), Moradabad (33.3), Budaun (32.4), Bulandshahr (32.2), Jhansi (31.7), Bijnor (31.6), Bareilly (30.7), Jalaun (30.5) and Shahjahanpur (30.1) had a rate above 30 per cent. As many as 28 districts had a rate below 25 per cent. and of them 11 had the birth-rate below 20 per cent. Allahabad recorded the lowest rate of 12.6. Table III summarises the above discussion and confirms the declining trend of the birth-rate in the rural population of the State.

The birth-rates
in the rural popu-
lation in dis-
tricts

TABLE III—*Distribution of districts in birth-rate ranges (rural), 1921—50*

Decade	Number of districts with birth-rate—							45 and over
	Below 20	20—25	25—30	30—35	35—40	40—45		
1921—30	..	2	10	17	11	8	..	
1931—40	..	2	10	13	10	12	1	
1941—50	11	17	10	10	..	..	..

As has been observed in Chapter I the registration of vital statistics has, no doubt, deteriorated during recent years, but the decline in the birth-rate is also real.

5. The conclusion arrived at about the declining trend in the birth-rate of the State as a whole holds true about the decline in the birth-rate of the rural population also. Common factors, like the decline in the proportion of females at the reproductive ages, rise in the marriage age, decline in the number of married females, recruitment to the army and semi-permanent rural-urban migration of adult males without families, are believed to have brought about this trend. A full discussion of these factors will be found in the corresponding section of Chapter I to which the reader is referred.

^{*} Figures for birth and death registration were not available for Tehri-Garhwal and Rampur and those for Deoria are included with Gorakhpur.

The death-rate

6. The declining trend in the death rate is borne out by the mean decennial rates shown for the State and the natural divisions in Table 112.

TABLE 112—Mean decennial death-rates (registered) of the rural and general population in the State and the natural divisions, 1921—50

Natural division	Mean decennial death-rate					
	1941—50		1931—40		1921—30	
	Rural	General	Rural	General	Rural	General
Uttar Pradesh	15·6	16·5	21·5	21·9	24·8	25·6
Himalayan	19·8	19·3	25·0	24·6	27·5	27·5
East Plain	14·7	15·3	18·9	19·3	21·8	22·3
Central Plain	12·8	13·8	19·0	19·6	22·6	23·7
West Plain	17·7	18·7	25·0	25·1	28·2	28·9
Hills and Plateau	18·7	19·2	23·7	23·9	27·8	28·1

It will be observed that there is a definite fall in the death-rate of rural as well as of general population of the State and the natural divisions. The rural rate for the State has come down by 3·3 per cent. during 1931—40 and by 5·9 per cent. during 1941—50. It also appears that the Central Plain and the East Plain divisions have a lower death-rate than the other three divisions of the State. But the data are not conclusive about this. Death registration in the divisions may have wide margins of error.

7. These rates are not really so low as they appear. We have seen that the amount of under-registration for the State as a whole was 22 per cent. during the decade 1921—30, 15·3 per cent. during 1931—40 and 29·9 per cent. during 1941—50, and after this correction the estimated death-rates move up to 32·7 for 1921—30, 26·0 for 1931—40 and 23·8 for the decade 1941—50. An estimate of the death-rate for the rural population has also been worked out in paragraph 5 of Section 3 of this chapter. It has been found that during 1921—30 the death-rate of the rural population was as high as 32·2; it came down to 26·1 in the decade 1931—40; and further dropped to 24·0 in 1941—50. In spite of the limitations of the estimates, the rates reveal an unmistakable downward trend in the death-rate.

8. Subsidiary Table 2·3 gives the death-rates of the districts for the last three decades. Of all the districts of the State (excluding Tehri-Garhwal, Deoria and Rampur*) 5 districts had a death-rate below 20 per cent. during the decade 1921—30, 19 had a death-rate between 20 and 25 per cent. and 24 districts had a death-rate above 25 per cent. The high mortality rate in the rural population of Pilibhit (35·2) is noteworthy, and to a less extent of Moradabad (33·9), Bareilly (33·7), Naini Tal (33·7), Bijnor (33·1), Farrukhabad (32·7), Shahjahanpur (32·5), Hamirpur (31·8), Jhansi (31·2) and Bulandshahr (30·3). Some of the tehsils of all these districts, except Farrukhabad and Bulandshahr, are very unhealthy. At the other end of the scale we find the low mortality rate districts of Gonda (16·9), Gorakhpur (18·1), Rae Bareilly (18·8), Dehra Dun (19·9) and Fatehpur (19·9). These districts are not necessarily very healthy. There may be large omissions in registration. During 1931—40 the death-rate declined in all the districts except Dehra Dun where it increased to 22·4 from 19·9, in Gorakhpur-cum-Deoria where it slightly increased to 18·7 from 18·1, in Gonda where the increase was to 20·8 from 16·9 and in Hardoi where it increased to 24·0 from 23·7. 20 of the districts had a death-rate below 20 per cent. as against 5 during 1921—30. Only 4 districts, Bareilly (32·4), Bijnor (31·7), Pilibhit (31·4) and Moradabad (30·5) recorded a death-rate above 30 per cent. as compared to 10 high mortality districts of the previous decade. There has been a major fall in the registered rate in case of all the districts during 1941—50. As many as 23 districts recorded a rate below 15 per cent, 18 districts had a rate varying between 15 and 20 per cent. and only 7 districts had a rate above 20 per cent. The highest rate was of Garhwal (25·2). Table 113 summarises the above discussion.

Trend of death-rate of the rural population in the districts

*Figures for birth and death registration were not available for Rampur and Tehri-Garhwal and those for Deoria are included with Gorakhpur.

TABLE 113—*Distribution of districts in death-rate ranges (Rural), 1921—50*

Decade	Number of districts with death-rate—						
	Below 10	10—15	15—20	20—25	25—30	30—35	35 and over
1921—30	..	..	5	19	14	9	1
1931—40	..	2	18	14	10	4	..
1941—50	1	22	18	6	1	..	..

It is obvious that the mortality was reduced substantially during the last two decades.

9. The vital statistics, so far as they go, do not give any conclusive evidence to the effect that villages are more healthy than the towns. The recorded death-rate of the rural population for the decade 1921—30 was only 24·8 as against the general death-rate of 25·6. The latter was pushed up by the relatively higher death-rate in the urban areas. It will be seen in Chapter III that the towns had no strong "pull" for the rural people till 1921. Between 1881 and 1921 the town population decreased. "The decrease indicates not merely that there has been no appreciable development of commerce or industry to attract people from the country to the town. There has certainly been no rural development to attract people from the town to the country; yet the urban population has failed to keep pace by natural increase with the population as a whole. The conclusion can only be that the towns, in spite of their municipal regulations, are less healthy than the villages."*

The relative healthiness of villages

It is doubtful that during the last twenty years the conditions have changed. It will be observed from the figures in Table 112 that while the death-rate of the general population has declined to 16·5 per cent. in 1941—50 from 25·6 per cent. in 1921—30 or by 9·1 per cent., the fall in the death-rate of the rural population during the same period is from 24·8 to 15·6, i.e., of 9·2 per cent. Of course, the registration error in the rural statistics has increased during recent years. The estimated figures of death-rate show a different tendency, though not a pronounced one. While the death-rate of the general population has come down by 8·9 per cent. (from 32·7 in 1921—30 to 23·8 in 1941—50), the fall in the death-rate of the rural population is only 8·2 per cent. (from 32·2 in 1921—30 to 24·0 in 1941—50). As has been said earlier, the estimates for the rural population are based on the assumption that the urban vital statistics are accurate. Registration in urban areas may be relatively more complete but there will still be a certain amount of under-registration. The margin between the death-rates of the urban and rural areas is thus so small that it is difficult to say which of them is healthier.

10. During the decade 1941—50 the recorded infant mortality rate for the State as a whole was as high as 120 per mille of recorded births. Analysis of the figures in Table 114 shows that the rural population had a smaller proportion of the infant deaths as compared to its 86·4 per cent. proportion of the total population. This holds true in respect of all the natural divisions except

Infant mortality in rural population

TABLE 114—*Infant deaths in rural population of the State and the natural divisions, 1941—50*

Natural division	Rural population as percentage to total	Infant deaths (rural)	Percentage to total infant deaths	Rate per 1,000 live births (rural)
Uttar Pradesh	86·4	1,283,648	73·8	107·3
Himalayan	88·3	62,923	88·3	121·6
East Plain	92·8	285,152	83·6	87·5
Central Plain	86·0	247,737	68·2	99·9
West Plain	81·4	578,737	70·3	119·8
Hills and Plateau	85·9	109,099	76·9	124·5

*U. P. Census Report, 1921, Part I, page 34.

the Himalayan division where both the proportions are equal. The rural rate varies between 87·5 and 124·5 in the natural divisions. The low rates of the East Plain and the Central Plain may not be real. Any conclusions drawn from these recorded figures must be subject to wide margins of registration error.

Deaths (registered)
in rural areas from
selected causes

11. Although the rural population comprises of 86·4 per cent. of the total population of the State its share in deaths is only 82·2 per cent. From the figures in Table 115 the rural areas appear to have a greater share in the deaths from cholera, plague and fever than do the urban areas but they seem to have

TABLE 115—Percentage of deaths from selected causes in rural population, 1941—50

Deaths in	Total deaths	Deaths from—						
		Cholera	Small-pox	Plague	Fever	Dysentery or Diarrhoea	Respiratory diseases	Other causes
Uttar Pradesh ..	9,668,671	363,194	112,820	156,521	7,490,040	164,355	357,046	1,024,695
Rural ..	7,948,640	338,794	91,823	140,799	6,768,581	36,223	56,026	516,394
Per cent. rural ..	82·2	93·3	81·4	90·0	90·4	22·0	15·7	50·4

a relatively lower proportion of the incidence of small-pox, dysentery, diarrhoea, respiratory diseases and other causes of death. The figures should be read with a caution. Besides the wide margin of registration error, the diagnosis of the causes of death is also inaccurate and the chances of inaccuracy are greater in the villages than in the towns.

12. To sum up, the health conditions in rural areas do not seem to be worse than the conditions in the towns, in spite of the better medical facilities available in the latter. Of 50,950 self-supporting persons returning medical and other health services as their principal means of livelihood only 21,307 or 41·8 per cent. were enumerated in the rural areas of the State. It is, then, obvious that for every 2,562 persons living in the villages there was one person belonging to the medical and health services. As against this the ratio in urban areas works out to 291 : 1. The urban areas having only 13·6 per cent. of the population of the State had an advantage over the rural areas in respect of every kind of medical and health services. Moreover, it is common knowledge that while the urban areas have qualified medical men, the rural areas have a large number of quacks returning medical profession as their principal means of livelihood. Yet, many of the health services, e.g., the District Medical Officer of Health, the anti-malaria and *kala azar* units, are for the benefit of the village people though they are centered in the towns. Recently the epidemics have been brought under control and the village people also have been increasingly spared from their ravages. A full description of the contributing factors will be found in the previous chapter.

The natural in-
crease of popula-
tion in rural
areas of the
State

13. Knowing the large deficiency in the registration of vital statistics, we had to take recourse to estimates. Birth and death-rates for the rural population have been estimated in Section 3 of this chapter and the corrected figures have been used earlier in this section to show trends. For the estimates, the town figures were assumed to be accurate and then the correct birth and death-rates for the rural parts of the State were deduced. Registration is, of course, more complete in the urban areas than in the rural parts. But in actual fact there are many omissions in the town vital statistics also and the recorded rates are lower than the true ones. But many births as well as deaths of the people residing in rural areas, take place in urban areas where they come for maternity or treatment. This will tend to inflate the urban rates. On the balance, therefore, the estimates of the rural rates seem to be reasonable approximations and although they are very rough they are correct enough to show the contribution of natural increase to the growth of the rural population.

The balance of estimated births and deaths of the rural population can be expressed in the rate of natural increase. Table 116 indicates the extent to which the rural population of the State was growing from this source during the last thirty years. Natural increase has been the only determinant of population

growth. Migration has been draining off the population but its rate has been low and constant, the variation being between 1.4 and 1.7 per cent. It is obvious that the rural areas had been having a very big margin of natural

TABLE 116—*Mean decennial growth-rates during three decades (rural)*

Decade	Mean decennial growth rate*	Mean decennial birth-rate (estimated)	Mean decennial death-rate (estimated)	Decennial rate of natural increase	Per cent. migration†
1921—30	5.8	39.5	32.2	7.3	—1.5
1931—40	11.3	39.1	26.1	13.0	—1.7
1941—50	9.8	35.2	24.0	11.2	—1.4

increase during the three decades. The influence of death-rate is reflected in the rate of natural increase during 1931—40. Here the lower death-rate has pushed up the natural increase. There is a small decline in the natural increase during 1941—50 brought about by a greater drop in the birth-rate than in the death-rate. Despite this the rural population of the State had a very substantial natural increase of 11.2 per cent. during this decade.

14. A comparison of the estimated figures of natural increase and net migration with the figures in Subsidiary Table 2.3 will show the regrettable magnitude of the error in the registration of vital statistics.

While the subsidiary table shows a positive migration-*cum*-registration error of about 991 thousand the rural parts actually appear to have lost about 750 thousand persons in the balance of migration during 1941—50.

*The figures of growth are for the whole rural area of the State and, therefore, they slightly differ from the figures for the area of registration shown in Subsidiary Table 2.3.

†Figures of migration include the figures of loss of population to the rural areas due to changes in the list of towns. See paragraphs 4 and 5 in Section 3 of this chapter.

SECTION 6—LIVELIHOOD PATTERN OF RURAL POPULATION

Distribution of rural population according to livelihood classes

1. Table 117 gives the distribution of rural population according to livelihood classes. It will appear that nearly 84 per cent. of the rural population belongs to agricultural classes and only 16 per cent. to non-agricultural classes.

TABLE 117—Distribution of 10,000 rural population in livelihood classes by natural divisions

Natural division	Livelihood classes									
	Agricultural classes					Non-agricultural classes				
	Total	I	II	III	IV	Total	V	VI	VII	VIII
Uttar Pradesh	8,395	7,078	570	646	101	1,605	577	236	60	732
Himalayan	8,857	8,188	529	123	17	1,143	382	127	34	600
East Plain	8,793	7,365	693	685	50	1,207	443	217	56	491
Central Plain	8,613	7,273	636	568	136	1,387	450	219	46	672
West Plain	7,802	6,687	374	617	124	2,198	809	285	77	1,027
Hills and Plateau	8,495	6,267	802	1,291	135	1,505	614	208	60	623

Among the agricultural classes, the highest proportion (70·78 per cent.) belongs to Class I, Cultivators of owned land. Class II, Cultivators of unowned land, accounts for only 5·70 per cent. ; Class III, Cultivating labourers, for only 6·46 per cent. ; and Class IV, Non-cultivating owners of land, for only 1·01 per cent. of the total rural population.

Among the non-agricultural classes, the highest proportion of rural population (7·32 per cent.) has been returned under Class VIII, Other services and miscellaneous sources, which includes general labour and employees of health, education and public administration services, and other services. Next comes Class V, Production other than cultivation (5·77 per cent.), followed by Class VI, Commerce, (2·36 per cent.) and Class VII, Transport (0·6 per cent.).

2. This livelihood pattern of the rural population is in striking contrast to the pattern of the urban population (*vide* Table 157 in Section 6 of Chapter III).

In the urban population only 12·4 per cent. belong to agricultural classes while the remaining 87·6 per cent. belong to non-agricultural classes.

3. Let us now examine the livelihood pattern of rural population by natural divisions.

The proportion of agricultural and non-agricultural classes in the rural population appears to be almost uniform in all the divisions except West Plain, where the agricultural classes are only 78·02 per cent. and the non-agricultural classes are 21·98 per cent. This is due to the comparatively better development of cottage industries and other non-agricultural occupations in the rural areas of this division. Owing to its certain historic reasons indicated in Chapter III, this division has the largest proportion of urban area and the best developed means of transport. The urban areas provide a ready market for the products of rural industries, and owing to the large proportion of urban area in the division the non-agricultural occupations in the neighbouring rural areas also are comparatively more well developed. Hydro-electric power too has been chiefly developed in this area. For all these reasons the non-agricultural occupations flourish here.

Under Class I, Cultivators of owned land, the highest percentage (81·88) has been returned by Himalayan and the lowest by Hills and Plateau (62·67). Under Class II, Cultivators of unowned land, the highest percentage has been returned by Hills and Plateau (8·02) and the lowest by West Plain (3·74). Under Class III, Cultivating labourers, the highest percentage (12·91) is shown by Hills and Plateau and the lowest by Himalayan (1·23). Under Class IV, Non-cultivating owners of land and agricultural rent receivers, Himalayan and East Plain show particularly low proportions. These trends are identical with the livelihood classification of the general population (*vide* Section 6 of Chapter I) and the reasons given there for the variations are applicable here also.

Livelihood pattern of rural population by natural divisions

Examining the non-agricultural occupations, it would appear that Class V, Production other than cultivation, has the highest percentage in West Plain (8·09) followed by Hills and Plateau (6·14) and the lowest in Himalayan (3·82). Under this class fall the large scale, small scale and cottage industries as also stock-raising, rearing of small animals, plantation industries, and forestry. The Himalayan division has practically no large scale industries and no important small scale industries except plantation industries, forestry and wood-cutting.

Among the districts having more than 10 per cent. of their rural population belonging to Class V, are Meerut (15·37), Bijnor (14·96), Muzaffarnagar (12·89), Saharanpur (12·20), Dehra Dun (12·08), Banaras (10·32) and Aligarh (10·06). The important industries flourishing in their rural areas are the following:

Meerut—Sugar (both factory and *khandsari*), *gur*, cotton textiles, handloom, scissors, iron utensils, leather tanning, leather products, *niwar* and hosiery.

Bijnor—Sugar (both factory and *khandsari*), *gur*, handloom, pottery, carpentry, and leather.

Muzaffarnagar—Sugar (both factory and *khandsari*), *gur*, handloom, blanket weaving, brass and copper wares.

Saharanpur—Sugar (both factory and *khandsari*), *gur*, handloom, cotton textiles, and carpentry.

Dehra Dun—Plantation, forestry and wood-cutting, basket-making, and stick-making.

Banaras—Silk, silk art and silk brocades, woollen blankets and carpets, glass beads, brass and copper wares.

Aligarh—Cotton textiles, dairy products, leather tanning, locks and trunks and carpentry.

Class VI, Commerce, is the most developed in the rural areas of West Plain and the least developed in rural area of Himalayan (particularly in Tehri-Garhwal and Garhwal districts). The proportion of people dependent on Class VII, Transport, it is the highest in West Plain and the lowest in Himalayan. In West Plain there are many important railway junctions as well as road transport centres and many employees live in adjacent rural areas. Under Class VIII, Other services and miscellaneous sources, the largest proportion of rural population is in West Plain. The high proportion of West Plain is chiefly due to the high proportion of this class in the districts of Saharanpur, Meerut, Bulandshahr, Mathura, Bijnor and Aligarh (*vide* Subsidiary Table 2·4), in all of which there is a larger proportion of people doing general labour as also in services. The Himalayan division, though neither urbanized nor industrialized has a large proportion of its rural population dependent on remittances of employees in Defence and other services.

4. Table 118 gives the distribution of 1,000 persons of rural population of each livelihood class among self-supporting persons, earning dependants and non-earning dependants. It will appear that in the rural population 30·4 per cent. are self-supporting persons, 13·4 per cent. earning dependants and 56·2 per cent. non-earning dependants.

Self-supporting persons, earning dependants and non-earning dependants

TABLE 118—Distribution of 1,000 persons of rural population of each livelihood class among self-supporting persons, earning dependants and non-earning dependants

Livelihood class	Self-supporting persons			Earning dependants			Non-earning dependants		
	P	M	F	P	M	F	P	M	F
All classes	304	274	30	134	36	98	562	210	352
All agricultural classes	297	270	27	144	38	106	559	209	350
I—Cultivators of land wholly or mainly owned	289	267	22	143	39	104	568	211	357
II—Cultivators of land wholly or mainly unowned	306	277	29	173	42	131	521	206	315
III—Cultivating labourers	367	302	65	144	31	113	489	194	295
IV—Non-cultivating owners of land; and agricultural rent receivers	409	248	161	37	15	22	554	180	374
All non-agricultural classes	341	293	48	80	22	58	579	215	364
V—Production	333	295	38	87	26	61	580	214	366
VI—Commerce	313	284	29	62	23	39	625	221	404
VII—Transport	298	289	9	65	18	47	637	232	405
VIII—Other services and miscellaneous sources	360	295	65	82	20	62	558	212	346

The proportion of self-supporting persons is higher (34·1 per cent.) in the non-agricultural classes than in the agricultural classes (29·7 per cent.) mainly because the proportion of males of working ages 15—54, who constitute the bulk of self-supporting persons, is higher in the non-agricultural than the agricultural classes (*vide* Subsidiary Tables 6·12 and 6·13). It will further be seen that the proportion of self-supporting females is higher in the non-agricultural than in the agricultural classes, presumably because of slightly better opportunities for *independent* employment in non-agricultural occupations of Class V, (mainly cottage industries) and Class VIII, (services and general labour) as compared with agricultural occupations of Classes I and II, which constitute the bulk of the rural population. In agricultural Class III, Cultivating labourers, female self-supporting persons have a high proportion while in Class IV, Non-cultivating owners of land and agricultural rent receivers, their proportion is still higher because this is an economically inactive class and the recorded female proprietors become self-supporting merely on the ground of their rights in land.

As regards earning dependants, their proportion is significantly higher among the agricultural classes (14·4 per cent.) than the non-agricultural classes (8·0 per cent.) of the rural population. This is due to the fact that agriculture by its very nature provides a larger scope for the participation of women and also children in the cultivation of family holdings, and earning dependants are constituted principally of women and children (*vide* Subsidiary Tables 6·5 and 6·6.)

The non-earning dependants of the rural population are distributed in almost the same proportion among the agricultural and the non-agricultural classes, with the exception of Class III, Cultivating labourers, where, for obvious reasons, their proportion is the lowest.

5. Table 119 shows the distribution of 10,000 self-supporting persons, earning dependants and non-earning dependants among the eight livelihood classes, the distribution of earning dependants being based on their principal means of livelihood.

TABLE 119—*Distribution of 10,000 self-supporting persons, earning dependants and non-earning dependants of rural population among various livelihood classes*

Livelihood class	Self-supporting persons			Earning dependants			Non-earning dependants		
	P	M	F	P	M	F	P	M	F
All classes	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
All agricultural classes ..	8,201	8,283	7,467	9,033	8,971	9,056	8,348	8,361	8,339
I—Cultivators of land wholly or mainly owned	6,714	6,902	5,024	7,567	7,678	7,527	7,158	7,119	7,181
II—Cultivators of land wholly or mainly unowned	573	577	537	740	676	764	528	559	510
III—Cultivating labourers ..	779	713	1,373	698	576	742	562	597	541
IV—Non-cultivating owners of land; and agricultural rent receivers	135	91	533	28	41	23	100	86	107
All non-agricultural classes ..	1,799	1,717	2,533	967	1,029	944	1,652	1,639	1,661
V—Production	632	621	732	376	417	361	595	587	600
VI—Commerce	243	245	224	110	157	93	263	249	272
VII—Transport	59	63	18	29	31	29	68	66	69
VIII—Other services and miscellaneous sources	865	788	1,559	452	424	461	726	737	720

Of the 16,619,599 self-supporting persons in the rural population, 90·02 per cent. are males and 9·98 per cent. females. Among the males 82·83 per cent. are engaged in agricultural occupations and 17·17 per cent. in non-agricultural occupations. Among the females 74·67 per cent. are engaged in agricultural occupations and 25·33 per cent. in non-agricultural occupations.

Of the 7,289,979 earning dependants in the rural population, 26·52 per cent. only are males while the remaining 73·48 per cent. are females. Among the male as well as the female earning dependants about nine-tenths belong to agricultural classes and only about one-tenth to non-agricultural classes.

Livelihood pattern of self-supporting persons, earning dependants and non-earning dependants

Of the 30,680,465 non-earning dependants in the rural population, 37·37 per cent. are males and 62·63 per cent. are females. Among the male as well as the female non-earning dependants about 83 per cent. belong to agricultural classes and the remainder to non-agricultural classes.

6. It will be interesting to compare the dependency of the rural population with that of urban population (*vide* Section 6 of Chapter III). The proportion of self-supporting persons is about the same in rural and urban populations, but the proportion of female self-supporting persons is lesser in the urban than in the rural population in all the livelihood classes. The most significant difference, however, is in the proportion and character of earning dependants. This proportion is very much higher (13·4 per cent.) in the rural population than in the urban population (3·4 per cent.). Women play an important part as earning dependants in rural classes, both in agricultural and non-agricultural occupations. Earning dependants are mainly a feature of agricultural occupations, which flourish in rural areas. This naturally leads to a higher proportion of non-earning dependants in urban than in rural areas.

Comparison
between rural and
urban dependency

SECTION 7—CONCLUDING REMARKS

Distribution and density of rural population

1. The rural population of 54,590,043 persons, forming 86·4 per cent. of the population of State, is distributed in 111,722 inhabited villages spread over about 112,044 square miles of area. The population per village works out to 489 and the average area to about 1 square mile. 97·5 per cent. of the villages have a population of less than 2,000 each and 85·1 per cent. of the rural population live in them. The rural density is very high, 487 persons to a square mile. While the total density per square mile is only 3 in Australasia, 4 in Canada, 16 in Brazil and 50 in the United States, as many as 45 persons to a square mile were added to the rural parts of this State within the last 10 years.

Growth of rural population

2. The rapid growth of population in the already overcrowded rural parts of this State during the last 30 years is a cause for alarm. Between 1921—30 the mean decennial growth was 5·8 per cent.; during 1931—40 it increased to 11·3 per cent.; and during 1941—50 it slightly came down to 9·8 per cent. Population growth during these years have been shared by all the natural divisions of the State. While the net variation during the thirty years—(1921—50) has been 30·8 per cent., the per cent. variation in the rural population of the natural divisions has ranged between 28·7 and 32·0.

Migration

3. Migration has made no contribution to this rapid growth of the rural population. On the other hand, it appears that the rural areas have lost population to the extent of 681 thousand or 1·5 per cent. of the rural population during 1921—30, 790 thousand or 1·7 per cent. during 1931—40 and only 750 thousand or 1·4 per cent. during 1941—50. Migration from the rural areas has been providing some temporary relief to the hard pressed people.

Natural increase and its future trend

4. Growth was achieved through the restriction of deaths, not through a higher birth-rate. Lives have been saved in many ways. Famines have been controlled and the incidence of the epidemics has declined during the last thirty years. The decennial rate of natural increase (estimated) was 7·3 during 1921—30. The birth-rate practically remained steady during 1931—40, but the death-rate declined by 6·1 per cent. and consequently, the rate of natural increase shot up to 13·0 per cent. The death-rate again declined by 2·1 per cent. during 1941—50 but the birth-rate also came down by 3·9 and, therefore, the rate of natural increase had a small drop to 11·2 per cent. from 13 per cent. in the previous decade*.

5. As has already been observed in the previous chapter, the decline in the birth-rate is a temporary phase. The drop may continue during 1951—60. The death-rate is also likely to go down though not to a very appreciable extent. The result is expected to be a somewhat steady natural increase which will continue to add large numbers to the already densely populated rural areas of the State.

The livelihood pattern

6. Nearly 84 per cent. of the rural population depend on agriculture for their livelihood. The actual number depending on agriculture is increasing from decade to decade and the land area per capita is falling. The overwhelming dependence of the rural population on agriculture has resulted in the progressive fragmentation of holdings and is largely responsible for the ills of Indian agriculture. It is only the diversion of the rural population to cottage and other industries that the present severe disequilibrium in the rural economy can be redressed.

*The estimated birth and death-rates for the last three decades are : 1921—30 births 39·5, deaths 32·2 ; 1931—40 births 39·1, deaths 26·1 ; and 1941—50 births 35·2, deaths 24·0.

CHAPTER III—URBAN POPULATION

SECTION I—PRELIMINARY REMARKS

1. The significance of the rural-urban classification has already been described in the corresponding section of Chapter II. In this State movement towards urbanization has as yet not gone far but now the modern cities and towns are steadily growing up. Formerly their growth did not depend upon industrial and commercial development. They had a different origin. Most of them were built by different rulers for political or strategical reasons. Lucknow, Agra, Faizabad, Jaunpur, Bareilly, Moradabad, Rampur and many others were foundations of some rulers and they gained their importance as capitals of kingdoms or principalities. Other towns arose at religious sites: Banaras, Allahabad, Ayodhya, Mathura, Vindhya-chal and Hardwar are all centres of pilgrimage, as, to some extent, is also Gorakhpur. Commerce and industry were attracted by these towns located for non-economic reasons and now trade is the only cause which has maintained and enlarged them. Most of the big towns like Lucknow, Banaras, Agra, Allahabad, Bareilly, Meerut, Moradabad, Rampur, Aligarh, Saharanpur, Jhansi, Mathura, Hatharas, Etawah, Amroha and others are all at present commercially important either as industrial and manufacturing centres, or centres for the collection and distribution of produce, besides whatever other advantages they may also possess. Kanpur, the first city of the State, owes its origin to trade. A mere village till 1778, it became a frontier cantonment. The advent of the railway in 1863 enabled it to become an important distributing centre. It is now the largest railway centre of the State and its collecting and distributing trade is enormous and in addition it has become a great manufacturing centre. In brief, urbanization is fast emerging in its modern connotation, based on industry, trade and natural resources, and in its wake are bound to come the social changes and the problems of industrial areas that will influence the demographic developments.

Introductory

2. The definition of a town for census purposes has resulted in a distinction which is sometimes arbitrary.

Towns

A "town" was defined as—

- (1) Any area in which United Provinces Act II of 1916 is in force, i.e., any municipality ;
- (2) Any area under sections 337 and 339 of the United Provinces Act II of 1916, i.e., any notified area ;
- (3) Any area under United Provinces Act II of 1914, i.e., any town area ;
- (4) Any area under the Cantonment Act of 1921, i.e., any cantonment ;
- (5) Any other continuous group of houses permanently inhabited by not less than 5,000 persons which having regard to the character of the population, the relative density of the dwellings, the importance of the place as a centre of trade and its historic associations, the State Census Superintendent decided to treat as a town.

Explanation 1—Where several villages lie so close together that their houses form a continuous group with a population exceeding 5,000 such group may be treated as a single town under (5) above.

Explanation 2—Where one village is broken up into distinct groups of houses none of which contains more than 5,000 inhabitants, then although the total population exceeds 5,000, the village is not a town.

Explanation 3—By the area of a town is meant—

- (i) The area demarcated for the purposes of the above Acts.
- (ii) The area occupied by the group of houses and the land immediately appurtenant thereto.

Towns of the first four categories possessed some form of urban self-government and these were to be invariably treated as census towns. The Census Superintendent has the discretionary power of classification under (5) above.

The effect of this in the State has been that of a total of 486 places treated as towns in 1951 only 45 or 9·3 per cent. were places so classified by him as "towns" although not treated like that from the administrative angle and therefore not possessing any urban self-government. On the other hand their inhabitants amount to only 264,796 or 3·1 per cent. of the urban population and only 0·4 per cent. of the 'total population', which indicates the comparatively small size of these towns.

The above has been an administrative approach. We may also consider the appropriateness of classification of a place as a town according to the population criterion or its predominant occupation. Obviously our division between "village" and "town" does not depend solely on the size of the population. If that is to be the only criterion and places with a population below 5,000 are to be ignored our urban population will be decreased by 523,135, or 6·1 per cent. At the same time villages having single hamlet population over 5,000 will be raised to the status of urban units. Some revenue *mauzas* are very extensive and the population necessary to their cultivation is consequently also large. In such cases if the original site is adhered to, the site may grow so populous that, if the size of the agglomeration is the only criterion of classification of a place as a town, it would be considered as a small town. But in such villages the inhabitants have no urban occupations themselves, though on account of their size they become convenient centres for itinerant merchants and rural artisans. The site remains in all its essentials a village. Some of them have already been treated as towns and the population of the remaining such villages in this State at the census of 1951 was 211,014. If population alone were to be considered in declaring an area as urban, many oversized villages with no urban characteristics will qualify for classification as town. Hence it becomes necessary that a place be identified as a town if it has certain specified characteristics which are essentially urban and the most tangible of these is the preponderance of the non-agricultural pursuits or the typically urban occupations which are commercial, professional and industrial. In addition to the characteristics shown under (5) above, we may use for this purpose information now available about livelihood class break-up. Of the 486 towns in this State there are 40 such towns in which the agricultural livelihood classes outnumber the non-agricultural livelihood classes. Of these 40 towns 29 have some form of urban self-government and only 11 have been classified as such by the State Census Superintendent. It is not advisable to ignore the known demarcation already made executively while demarcating towns for census purposes if the census returns are to be of any use for administrative purposes. It may, however, be suggested that the State Government while delimiting an area under the United Provinces Act II of 1916 or the United Provinces Act II of 1914 may specially consider the livelihood class break-up of that area besides the other urban characteristics, and if the place has a preponderance of rural pursuits it should not be demarcated as a town. The State Census Superintendent may also adhere to this basis of classification while considering the suitability of treating any other agglomeration of a population over 5,000 as a town. A combination of the occupational approach with the "patterns and degrees of population agglomeration and dispersion" will give a suitable basis for classification.

The population found in the 40 towns where the rural pursuits predominate is 232,451, or 2·7 per cent. of the total urban population and only about 0·4 per cent. of the total population. It is not large enough to make the total urban figure meaningless.

Cities

3. At present "towns" are so defined as to include also "cities". A city is—
 - (1) Any town whose population is not less than 100,000, and
 - (2) Any other town with an expected population of 50,000 or above which the State Census Superintendent with the sanction of the State Government may decide to treat as a city for census purposes.

Included in such cities are not only the municipalities but also any cantonments, notified areas, town areas or railway colonies that may be adjacent to them and in some cases also other adjacent areas or sub-urban areas not included in any local body. In many cases a city is actually a collection of census towns, e.g., Banaras city consists of Banaras municipality and cantonment, the adjacent Sheopur town area and the Banaras Hindu University area.

The inclusion of the adjacent cantonments, notified areas, town areas and other sub-urban areas in a city is deliberate. We come across cities and towns which so adjoin one another that they really constitute a single inhabited locality. If such places are omitted, one does not get a true impression of the number of inhabitants concentrated together; if they are included and their unity is recognized in our tables, the census results will be of no value for executive purposes as they are not treated as a single entity for various administrative purposes, and at the same time the population is not for the same area from census to census. As a safeguard we have recognized this unity by showing the data for the whole city in Tables A-IV and A-V in Part II-A of this Report and their separate entity has also been maintained by giving the figures for each constituent unit as a sub-head in Table A-IV and like that for independent towns in Table A-V. Usually it has been indicated in the tables whether the data is for the city as a whole or for only a part of it. The tables in which the city figures are shown also divide them according to the size of their population. The statistics may, therefore, be used with confidence so long as the definitions are borne in mind.

4. The statistics of the urban population reviewed in this chapter are to be found in the following tables in part II-A of the Report :

The statistics

Table A-I—Area, houses and population

Table A-III—Towns and villages classified by population

Table A-IV—Towns classified by population with variations since 1901

Table A-V—Towns arranged territorially with population by livelihood classes

Table E—Area and population of districts and tehsils by livelihood classes

Tables A-I, A-III and E and their corresponding data for prior censuses has been described in Section 1 of Chapter II. In Table A-IV towns are classified according to the size of their population and the figures for the 1951 census are compared with those for previous censuses. It should be noted that in this table, as has been said before, in order to secure comparisons with previous census figures, the figures for the cities have been given together with the break-up for their constituent local bodies.

Its corresponding table is Imperial Table IV of the previous censuses. The table in 1941 was limited to cities only. Table A-IV does not adhere to the population of identical sites shown in the corresponding tables of former decades but gives the total population enumerated in urban areas at the time of the census. Therefore, the variation shown is the result of natural increase of the previous urban population, migration from other areas and incorporation of rural areas into the urban ones. The change in the method of census enumeration must also be borne in mind. In estimating the growth of urban population allowance must be made for inclusion of new rural agglomerations in the urban area, and likewise for the omission of dwindling areas which fall out and are reclassified as rural.

The basis of Table A-V differs from that of Imperial Table V of the other censuses. In the prior censuses the population of individual towns was shown classified by religion. In the 1951 census the same information is given under livelihood classes, instead of religion.

In addition to the above tables, statistics about the urban areas regarding economic classification, household and age and social and cultural aspects of life are shown in Parts II-B and II-C of the Report. The population of towns with mohalla/ward-wise break-up would be found in the "District Population Statistics".

The statistics which bear on this subject are set out in more compendious form in the following subsidiary tables in Part I-B of the Report. Their corresponding tables, if any, will be found at the end of Chapter II of the 1931 Report.

Subsidiary Table 3·1—Distribution of population between towns

Subsidiary Table 3·2—Variation and density of urban population

Subsidiary Table 3·3—Mean decennial growth-rates during three decades—urban population

Subsidiary Table 3·3-A—Mean decennial growth-rates during three decades—cities

Subsidiary Table 3·4—Towns classified by population

Subsidiary Table 3·5—Cities—Chief figures

Subsidiary Table 3·6—Number per 1,000 of the general population and of each livelihood class who live in towns

Subsidiary Table 3·7—Livelihood pattern of urban population

Subsidiary Table 3·7-A—Livelihood pattern of city population

Subsidiary Table 3·8—Immigration to urban area

Subsidiary Table 3·9—Immigration into cities

SECTION 2—GENERAL DISTRIBUTION ; AND DISTRIBUTION AMONG TOWNS
CLASSIFIED BY SIZE OF URBAN POPULATION

1. A discussion of the rural-urban proportion in the State and its smaller units will be found in the corresponding section of Chapter II of the Report. This section should be read along with it to appreciate the whole problem of distribution of population in the urban areas. The statistics which bear on this subject are set out in Tables A-III, A-IV, A-V and E in Part II-A of the Report, and in more compendious form in the following subsidiary tables in Part I-B :

Reference to
statistics

Subsidiary Table 3·1—Distribution of population between towns

Subsidiary Table 3·2—Variation and density of urban population

Subsidiary Table 3·4—Towns classified by population

Subsidiary Table 3·5—Cities—Chief figures

2. In 1951, 8,625,699 persons or 13·6 per cent. of the State's total population lived in its 486 towns. We have seen that this is an extremely low degree of urbanization as compared to most other nations. In the same year no less than 17·3 per cent. of India's population lived in the urban areas. In 1948 approximately 49·1 per cent. of Japan's population lived in the towns and in 1940 no less than 56·5 per cent. of the population of U. S. A. was enumerated in the urban areas. The United Nations Demographic Yearbook, 1948, gives data on the urban and rural population of 58 other areas also for which figures were obtainable. It is interesting to note that only one country in the table, Korea, besides a group of unimportant islands of Campbell, Cook, etc., has a lower percentage of urban population than Uttar Pradesh. Only 7·5 per cent. of its population lived in the urban areas in 1944, compared to 13·6 per cent. of this State*. There may be some other countries for which figures are not obtainable, which are still lower in the scale of urbanization, but there is no doubt that this State is one of the least urbanized areas in the world.

Distribution of
urban population

The relative distribution of rural and urban population among the natural divisions and the various districts of the State is given in paragraph 6 of the corresponding sector of the previous chapter. The distribution of the actual urban population of the State in the natural divisions is shown in Table 120.

TABLE 120—*Distribution of urban population of the State in natural divisions*

Natural division	Urban area in square miles	Urban population			Number in towns per 1,000 of general population
		Persons	Males	Females	
Uttar Pradesh	1,451	8,625,699	4,738,717	3,886,982	136
Himalayan	95	294,229	178,881	115,348	117
East Plain	202	1,292,331	695,980	596,351	72
Central Plain	235	2,251,419	1,267,044	984,375	140
West Plain	749	4,238,271	2,306,454	1,931,817	186
Hills and Plateau	170	549,449	290,358	259,091	141

It will be seen from the figures in the table that approximately 51·6 per cent. of the total urban area of the State falls in the West Plain and it contains nearly half or 49·1 per cent. of the total urban population of the State. A little more than one-fourth or 26·1 per cent. of the urban population lives in nearly one-sixth or 16·2 per cent. of the urban area in the Central Plain and 15·0 per cent. of it lives in 13·9 per cent. of the urban area of the State in the East Plain division. The population is sparsely distributed in the other two divisions. 11·7 per cent. of the urban area lies in the Hills and Plateau division and 6·5 per cent. of it is in the Himalayan division, but only 6·4 per cent. and 3·4 per cent. of the urban population was enumerated in these divisions respectively.

* United Nations, *Demographic Yearbook*, 1948, Table 8.

The figures in the last column of the above table show the degree of urbanization in the natural divisions. Figure 13 illustrates their relative urbanization. Some reasons for differences have already been suggested. In general it appears that the urban population is scattered over the whole State but in the plains urbanization increases from east to west. This is in direct contrast with the density pattern which increases from west to east. It is obvious that unlike the Western countries in this State density is not correlated with urbanization, (though it is correlated with urbanization in case of districts and its smaller units) and the high density of the State or the natural divisions is not the result of concentration of population in industrial agglomerations. The towns are commercial rather than industrial and have their own utility even in the sparsely settled regions.

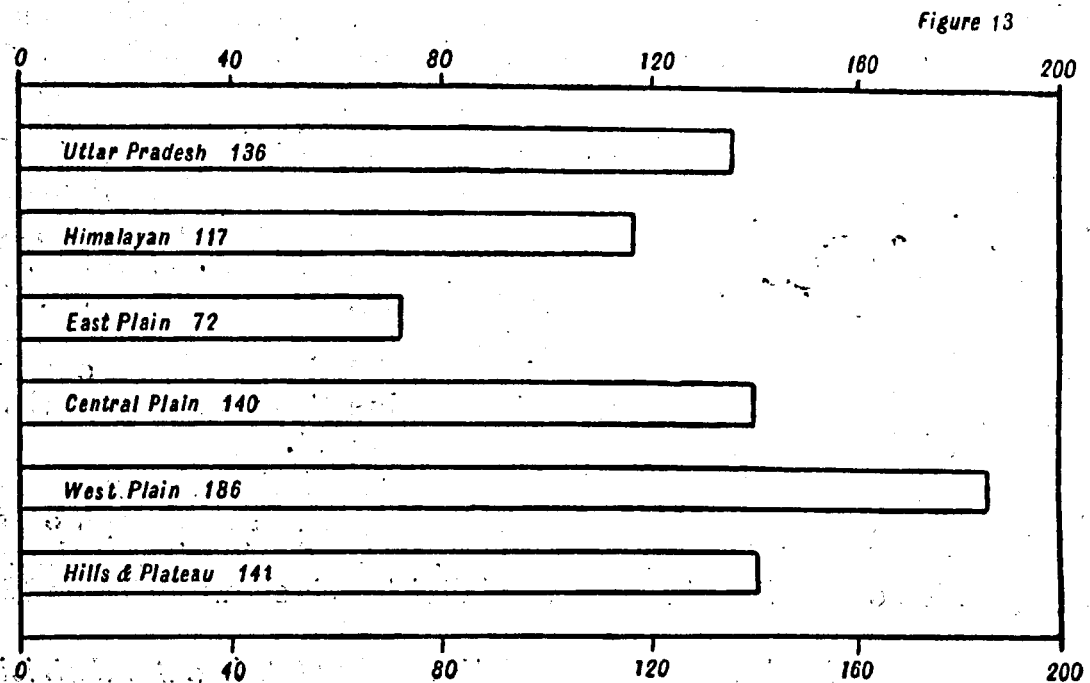


Fig. 13—Number of persons living in towns per 1,000 of the general population by natural divisions, 1951

The average town population

3. The figures of population per town are shown for the natural divisions and the districts in Subsidiary Table 3.1. It should be noted that for the purpose of these figures municipalities, cantonments, notified areas and town areas forming part of a city have been treated as separate units. The figures for the State and the natural divisions are reproduced in Table 121. It will be observed that the average population of a town in the State is 17,748 and that in the natural divisions varies between 9,808 and 28,143. The Himalayan towns come at the lower end of the scale and among the districts the figure is lowest in the district of Tehri-

TABLE 121—The average town population in the State and the natural divisions

Natural division	Population per town
Uttar Pradesh	17,748
Himalayan	9,808
East Plain	15,955
Central Plain	28,143
West Plain	16,819
Hills and Plateau	12,778

Garhwal with an average town population of 1,192. The population per town in Kanpur district is as high as 119,898 due to the presence of the big city of Kanpur. It is obvious that the figures for individual districts are apt to be misleading as a single large city in a district raises the average for towns.

The average population of a town in the State is growing rapidly. In 1901 it was only 11,641. In spite of the set backs during the years 1901—20 it has increased to 17,748 in 1951 or by 52.5 per cent.

Distribution of towns by size

4. Table 122 gives the number of towns of various sizes in the State and in each natural division and the percentage of the towns which fall into each class. In this table cantonments, notified areas, etc., have been treated as distinct units from adjacent municipalities. Of the 486 towns 14 have a population of over 100,000. This State has the largest accretion in numbers of this

SECTION 2—GENERAL DISTRIBUTION ; AND DISTRIBUTION AMONG TOWNS 155
CLASSIFIED BY SIZE OF URBAN POPULATION

TABLE 122—*Distribution of towns in various sizes in the State and the natural divisions*
(Actual and percentage)

Natural division	Number and percentage of towns with a population of—								Total
	100,000 and over	50,000 to 100,000	20,000 to 50,000	10,000 to 20,000	5,000 to 10,000	2,000 to 5,000	1,000 to 2,000	Under 1,000	
Uttar Pradesh	14 (2.9)	15 (3.1)	47 (9.7)	73 (15.0)	179 (36.8)	143 (29.4)	11 (2.3)	4 (0.8)	486 (100.0)
Himalayan	1 (3.3)	..	2 (6.7)	3 (10.0)	7 (23.3)	5 (16.7)	8 (26.7)	4 (13.3)	30 (100.0)
East Plain	2 (2.5)	1 (1.2)	9 (11.1)	12 (14.8)	34 (42.0)	23 (28.4)	..	..	81 (100.0)
Central Plain	3 (3.7)	1 (1.3)	11 (13.7)	11 (13.7)	23 (28.8)	31 (38.8)	..	..	80 (100.0)
West Plain	7 (2.8)	12 (4.7)	21 (8.3)	39 (15.5)	103 (40.9)	68 (27.0)	2 (0.8)	..	252 (100.0)
Hills and Plateau	1 (2.3)	1 (2.3)	4 (9.3)	8 (18.6)	12 (27.9)	16 (37.2)	1 (2.4)	..	43 (100.0)

category. The total number of towns is also large. Madras is a good second with 13 towns of a population over 100,000 ; and Bombay has 8 such towns, West Bengal 7 and the remaining States have a smaller number.* Among other countries U. S. A. had 92 such localities in 1940, Brazil 23 in the same year, France 22 in 1946 and England and Wales had 50 in 1931.†

The towns of this State are scattered all over although tending to be concentrated towards the west. For an inland State local centres of trade and commerce are of more importance. Of the larger towns the causes which in the great majority of instances produce a large town in England or in other European countries, namely, natural position and facilities for manufactures or trade are in India little operative. As pointed out earlier, the cities of this State had a totally different origin. In India "the town attracts the trade and not the trade the town." Industry, which has produced so many towns in England, is still almost a negligible quantity in this State. The cities and large towns of this State were mostly built by different rulers for political or strategical reasons ; others owe their importance to religion. Yet if these causes made the cities the trade which was attracted to them has maintained and enlarged them. Kanpur is the only industrial city in the State worth the name ; most of the other towns have simply managed to attract to a special extent a share of the general trade or some of their manufactured products have given them more than a local celebrity ; and the others are headquarters of the districts or the tehsils and as such have become the local educational and cultural centres. For these reasons the towns tend to be more distributed in this State. The absence of coal economy in the State has also helped in the dispersion of towns. If the grid scheme and a proper use of water power extend we should see a corresponding reflection in the dispersion of industrial centres. This development, at present taking shape in the western districts of the State, also accounts for greater concentration of towns towards the west than towards the east.

5. The relative degree of urbanization of the State discussed in paragraphs 2 and 4 *supra* may be considered from a different angle. We have seen that because of the great differences in the residential classifications made by the censuses of various countries, the categories "urban" and "rural" lack comparability. It is, therefore, preferable to refer to the breakdown of the population by community size. Table 123 gives, for various countries, the percentage of the population living in communities of specific sizes. It may be borne in mind that for calculations for the State the figures have been taken from Table A-III in Part II-A of the Report, irrespective of the fact whether the locality has been treated as urban or rural. The extremely low degree of urbanization in this State is obvious. Even Mexico which has the lowest percentage, among the countries shown in the table, living in communities of a population of 5,000

General population living in communities of specific size

* Census of India, 1951, Paper No. 1, *Final Population Totals* (Government of India Press, New Delhi).

† United Nations, *Demographic Yearbook*, 1948, Table 9.

TABLE 123—Per cent. of population in communities by specific sizes for selected countries*

Country	Year	In communities 5,000+	In communities 10,000+	In communities 20,000+	In communities 50,000+	In communities 100,000+
Uttar Pradesh	1951	14.0	10.8	9.3	7.4	6.2
Egypt	1937	57.9	33.3	22.5	16.6	13.3
Canada	1941	43.0	38.5	34.2	27.4	23.0
Mexico	1940	27.5	21.9	18.1	13.6	10.2
United States	1940	52.7	47.6	40.1	34.4	28.9
Argentina	1947	55.2	51.9	47.5	42.8	39.3
Brazil	1940	99.7	95.0	74.3	31.4	15.9
France	1946	46.9	38.9	31.4	21.7	16.3
Italy	1936	70.7	51.9	37.8	25.5	18.3
England and Wales	1931	77.4	73.2	65.0	50.9	39.6

and over has a figure nearly double of that of this State. Another noticeable feature is the low share of bigger localities in the population of our State. It confirms the view, already expressed, that the towns of this State are commercial rather than industrial. It is also obvious from the figures of the table that this State is predominantly rural with 86 per cent. of its population living in communities of a population under 5,000.

Distribution of urban population among towns of various sizes

6. The percentages of the urban population which live in towns of various sizes are given in Table 124. It should be noted that for the purpose of these figures cantonments, notified areas, etc., which form part of a city, have been treated as separate units.

TABLE 124—Distribution of urban population among towns of various sizes in the State and the natural divisions

Natural division	Percentage of urban population living in towns with a population of—					
	100,000 and over	50,000 to 100,000	20,000 to 50,000	10,000 to 20,000	5,000 to 10,000	Under 5,000
Uttar Pradesh	39.1	12.0	16.2	11.8	14.7	6.2
Himalayan	39.5	..	18.0	14.0	18.3	10.2
East Plain	36.0	4.1	21.5	12.0	19.9	6.5
Central Plain	62.9	3.4	14.6	6.8	7.3	5.0
West Plain	29.9	19.4	15.2	13.0	16.6	5.9
Hills and Plateau	19.4	15.7	16.9	20.6	16.1	11.3

The distribution is illustrated in Figure 14 below.

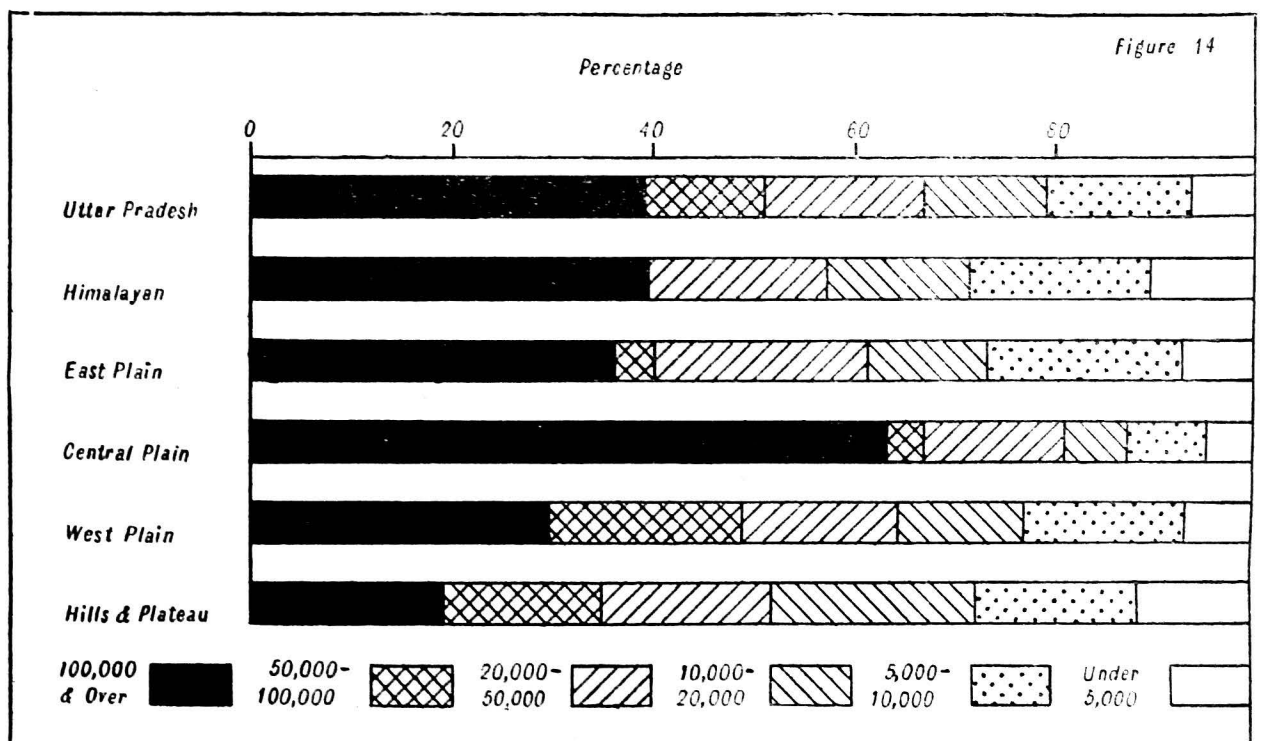


Fig. 14—Distribution of urban population in towns of different sizes

In the State as a whole, somewhat over one half of the urban population lives in towns with a population of 50,000 or over, only one-sixteenth in towns under 5,000 and the remaining population is divided between towns of 5,000—50,000.

Slightly under two-fifth of the urban population of Himalayan division lives in towns with a population of 50,000 and over. The whole of it resides in the municipal part of the city of Dehra Dun. The whole city of Dehra Dun has about half the urban population of the division.

In the East Plain well over two-fifth of the urban population is concentrated in towns of 50,000 and over. The cities of Banaras and Gorakhpur have a population over 100,000 and that of Jaunpur between 50,000—100,000.

Nearly two-third of the urban population in the Central Plain resides in the towns with a population of 50,000 and over—Kanpur, Lucknow, Allahabad and Faizabad.

Slightly under one-half of the urban population in the West Plain resides in towns of a population of 50,000 and over and as many as 19 large towns share in it.

The Hills and Plateau division has the lowest percentage of urban population living in towns with a population of 50,000 and over. In it well over one-third of the population lives in the cities of Jhansi and Mirzapur.

7. Subsidiary Table 3·1 in Part I-B of the Report gives the distribution of the urban population for each district in the State by the size of towns. The proportion of population living in towns of a population over 20,000 is, of course, higher in particular districts than the average of 67·3 per cent. for the whole State; 98·1 per cent. in Kanpur district; 92·6 per cent. in Lucknow; 90·7 per cent. in Allahabad; 88·6 per cent. in Agra; 84·1 per cent. in Dehra Dun; 82·2 in Banaras; between 70 and 80 per cent. in Shahjahanpur, Moradabad, Faizabad, Rampur, Mirzapur, Saharanpur, Gorakhpur and Basti; and above the State average but below 70 per cent. in Farrukhabad, Bareilly and Aligarh. Garhwal, Tehri-Garhwal, Almora, Sultanpur, Pratapgarh and Hamirpur have no population living in towns of a population of 20,000 and over. A large population in Tehri-Garhwal (100·0), Garhwal (70·7), Pratapgarh (43·1), Rae Bareilly (23·1), Fatehpur (23·0), Bara Banki (19·5), Azamgarh (17·5), Jalaun (17·5), Banda (16·6) and Etah (16·5) resides in the small towns of a population under 5,000.

In considering the figures of this subsidiary table it must be remembered that, as pointed out in paragraph 2 of the previous section of this chapter, a large number of towns of a population under 20,000 include substantial aggregations of agricultural families and in at least 40 towns the agricultural population exceeds the non-agricultural. Such towns are simply country towns performing their own functions for the region around them. They are convenient centres for itinerant merchants and rural artisans. Table 122 shows that there are 158 towns in this State of population under 5,000. Only 6·1 per cent. of the total urban population lives in these towns. Of them there are 18 towns in which the number of persons belonging to the agricultural classes exceeds the number belonging to non-agricultural classes. 13 of these, Titron in district Saharanpur, Rampur and Amanpur in Etah, Usehat in Budaun, Bithur in Kanpur, Sarai Aqil in Allahabad, Erich in Jhansi, Captainganj in Deoria, Uttar Kashi in Tehri-Garhwal, Beniganj in Hardoi, Bhadarsa in Faizabad, Katra Bazar in Gonda and Ramnagar in Bara Banki, have been treated as urban areas from the administrative angle as each of them is administered by a town area committee. The remaining 5 towns, Khalaur in district Bulandshahr, Jagmanpur and Umri in Jalaun, Suhwal in Ghazipur and Bansaon in Gorakhpur with a total population of 21,903, have been treated as a town by the State Superintendent of Census Operations. Bansaon is a tehsil headquarter and the other towns are also of local importance being centres of trade and educational facilities.

8. The 30 cities whose statistics are given in detail in Subsidiary Table 3·5 in Part I-B of the Report require some individual notice. It must be remembered that for this analysis the population of a city includes the population of any cantonment, notified area, etc., lying contiguous to the city municipality. This has been done in order to afford comparison with the figures of the previous censuses. The census of 1951 enumerated only 16 cities with more than 100,000 inhabitants. Kanpur with 705,383 inhabitants heads the list, followed by Lucknow with 496,861 and Agra with 375,665 inhabitants. Banaras is fourth with 355,777, Allahabad fifth with 332,295 inhabitants followed by Meerut, Bareilly, Moradabad, Saharanpur, Dehra Dun, Aligarh, Rampur,

The thirty cities

Gorakhpur, Jhansi, Mathura and Shahjahanpur in that order. Between them, these 16 cities have 3,908,056 inhabitants or 6·2 per cent. of the State's total population and 45·3 per cent. of the entire urban population. The 12 Class II cities, Mirzapur, Faizabad, Farrukhabad, Firozabad, Muzaffarnagar, Sambhal, Etawah, Amroha, Hardwar, Hathras, Budaun and Jaunpur have a total population of 779,358 which is 1·2 per cent. of the population of the State and 9 per cent. of the total urban population. Pilibhit and Ghaziabad have a population under 50,000. The total population of the 30 cities is 4,777,384 or 55·4 per cent. of the total urban population and 7·6 per cent. of the population of the whole State.

9. Table 125 exhibits some characteristics of the first city of each natural division of the State.

TABLE 125—*The first city of each natural division of the State*

Natural division	City	Population	Population as per cent. of—			
			General population of the State	Urban population of the State	General population of the natural division	Urban population of the natural division
Himalayan ..	Dehra Dun ..	144,216	0·2	1·7	5·7	49·0
East Plain ..	Banaras ..	355,777	0·6	4·1	2·0	27·5
Central Plain ..	Kanpur ..	705,383	1·1	8·2	4·4	31·3
West Plain ..	Agra ..	375,665	0·6	4·4	1·7	8·9
Hills and Plateau ..	Jhansi ..	127,365	0·2	1·5	3·3	23·2

The figures are self expressive and need no comment.

10. In Table 126 the 15 leading cities of India in 1951 are shown

TABLE 126—*The fifteen largest cities of India in 1951*

City	Population	Rank
Bombay ..	2,839,270	1
Calcutta ..	2,548,677	2
Madras ..	1,416,056	3
Hyderabad ..	1,085,722	4
Delhi ..	914,790	5
Ahmedabad ..	788,333	6
Bangalore ..	778,977	7
Kanpur ..	705,383	8
Lucknow ..	496,861	9
Poona ..	480,982	10
Nagpur ..	449,099	11
Howrah ..	433,630	12
Agra ..	375,665	13
Madura ..	361,781	14
Banaras ..	355,777	15

together with their population and rank. It will be observed that 4 cities of this State stand eighth, ninth, thirteenth and fifteenth in rank. The population of the leading city of this State is slightly less than one-fourth of the population of Bombay, the largest metropolis of India. The comparatively small size of the major city of this State is due to the relative lack of mass aggregations of factories and workers tenements. The total population of factory workers in Kanpur in 1948 was only 89,513.

11. Towns have been divided into six classes according to their population as shown in Subsidiary Table 3·4. This subsidiary table is based on Table A-IV in Part II-A of the Report in which all the constituent units of a city have been grouped together. Some of its figures with certain additional data are shown in Table 127. The figures in this table differ from the figures in Table 124 for the reason given above.

TABLE 127—*Distribution of urban population (actual and percentage) by class of towns*

Class of town	Number of places	Population			Per cent. of urban population	Number of females per mille of males
		Persons	Males	Females		
I—100,000 and over ..	16 cities ..	3,908,056	2,187,832	1,720,224	45·3	786
II—50,000—100,000 ..	12 ..	779,358	423,694	355,664	9·0	839
III—20,000—50,000 ..	2 cities and 40 towns ..	1,226,409	668,405	558,004	14·2	835
IV—10,000—20,000 ..	70 towns ..	968,832	521,010	447,822	11·2	860
V—5,000—10,000 ..	172 ..	1,219,909	654,942	564,967	14·2	863
VI—Under 5,000 ..	155 ..	523,135	282,834	240,301	6·1	850

Distribution of urban population by classes of towns

It will be observed that there is a concentration of urban population in Class I. 70 places in Classes I—III contain 68·5 per cent. of the urban population of the whole State. An equal number of towns in Class IV contain 11·2 per cent. of the urban population and 327 towns of the remaining two classes have between them only 20·3 per cent. of it. The number of females per 1,000 males is also not equally distributed among the six classes. Class I has the lowest number of 786 as compared to 910 for the whole State, 925 for the entire rural population of the State and 820 for the whole urban population.

12. Table 128 shows the distribution of the urban population of the State among the various local bodies. For the purpose of these figures cantonments, notified areas and town areas, etc., have been treated as separate units from any municipalities to which they are contiguous. The urban population of the State includes a population of 30,715 in urban areas which do not form part of any local body and at the same time which have not been treated as census towns. The table shows the distribution of the remaining urban population.

Distribution of urban population in the local bodies

TABLE 128—*Distribution of urban population of the State among the local bodies*

Local bodies	Places	Population			Per cent. of total urban population
		Persons	Males	Females	
Municipal Boards	119	6,201,140	3,410,860	2,790,280	71·9
Notified Areas	38	318,493	174,989	143,504	3·7
Town Areas	263	1,469,076	778,940	690,136	17·0
Cantonments	21	341,479	212,497	128,982	3·9
Other census towns	45	264,796	142,149	122,647	3·1

Except 45 places treated as towns by the State Superintendent of Census Operations, the other places have got some form of Local Self-Government. When a place gains some local importance and the non-agricultural population in it grows, the area is put under the Town Area Act (II of 1914). Provision for the essential expenditure of the local body, thus created, is made by the imposition of a house tax. As a house tax is never levied from a purely agricultural population its existence is evidence that the place is more or less urban in character. An area brought under the Town Area Act is treated as a census town and it may include parts or the whole of one or more revenue *mauzas* which then become absorbed into the town. There are 263 such town areas at this census (with 17 per cent. of the urban population).

As such a town increases in its non-agricultural population, it may become a notified area or a municipality ; the two differ in degree rather than in kind—for it is only certain provisions of the Municipal Act that apply to a notified area. By this time the town has lost all trace of its former connexion with its constituent revenue *mauzas*. If favourably situated for trade it may grow considerably, but generally its trade is local and it never loses its agricultural character completely. At this census there are 38 notified areas containing only 3·7 per cent. of the entire urban population of the State. The number of municipalities is 119 and 71·9 per cent. of the urban population resides in them.

A cantonment is of an entirely different origin and is a self-contained unit having a separate organization and a corporate life of its own. In this State there are 21 cantonments and 3·9 per cent. of the urban population lives in them.

13. The question of the density of population in urban areas is a difficult one because correct figures of area of the residential site of each town is not available. Density has been calculated as the actual area figures supplied by the District Officer and the various local bodies. The area figures of some of the unsurveyed towns, specially in the hills, are uncertain and are only approximations. In case of some other towns large outlying open spaces and even

The density of urban population

cultivated and cultivable land have been included in their area. Thus the density figures of urban areas are only a mean between the densely populated parts of towns and their areas of open spaces and fields. Therefore, they do not give a correct picture of urban congestion in a district. It must also be borne in mind while comparing the rural and urban densities that people living in towns as well as in villages of this State are equally gregarious in habit. If village densities were calculated on the area of the inhabited site, and not on that of the site and the village lands, they would generally be greater than that of any town. Only in the heart of the larger cities, where the substantial brick masonry of the houses will support a second or third storey, are human beings herded together on a scale which is not general all over the country.

14. Subsidiary Table 3·2 gives the urban density of the State and its different parts. The average density for the State works out to 5,943 persons per square mile. The Central Plain with 9,568 persons per square mile heads the list followed by the East Plain with 6,372 and the West Plain with 5,662 persons per square mile. The Hills and Plateau division is fourth in order with 3,232 persons per square mile in its towns, and the Himalayan division has the lowest urban density of 3,104. But this is merely a broad generality. Within each natural division the density varies enormously and some districts are overcrowded to an extent that would never be suspected from the mean figures, while in some the densities are very low. Table 129 shows the number of districts of various grades of urban density and their distribution among the natural divisions.

TABLE 129—*Districts of various grades of urban density and their distribution among natural divisions, 1951*

(Source : Subsidiary Table 3·2)

Natural division	Very low density (under 2,500)	Low density (2,500—4,500)	Average density (4,500—7,500)	High density (7,500—10,000)	Very High density (10,000 and over)
Uttar Pradesh	6	7	21	5	12
Himalayan	2	2	1	..	..
East Plain	1	1	4	1	3
Central Plain .. .. .	..	2	6	..	4
West Plain	1	2	8	3	5
Hills and Plateau	2	..	2	1	..

The districts of the highest density are Kanpur (20,554), Banaras (19,788), Farrukhabad (19,160), Sultanpur (17,496) and Basti (15,223). There is no doubt that some of the urban areas of Lucknow, Allahabad, Meerut, Agra, Moradabad and many other districts are more congested than those of Farrukhabad, Sultanpur and Basti. It is obvious that large open spaces and cultivated and cultivable area in the towns of the former set of districts have lowered their density. The districts of lowest density are Garhwal (748), Hamirpur (934), Tehri-Garhwal (953), Ghazipur (2,049) and Jalaun (2,268).

Density in cities

15. Figures showing the density of population per square mile in our cities are apt to be misleading owing to the varying character of the area included. The difficulty is increased in the case of the city figures when cantonments with their huge empty spaces, parade grounds, ranges, etc., notified areas and town areas with their cultivated and cultivable land, and railway colonies are included with the adjacent municipality. It is for this reason that in column 4 of Subsidiary Table 3·5 the density has been calculated for the municipal part of the city only. Even here the difficulty does not end. In cities at the headquarters of a district, the municipal area usually includes the civil line which contains a large proportion of open space so large as to affect the density. Outlying open spaces also affect the density appreciably where two towns go to form one municipality, as in the case of Faizabad-cum-Ayodhya, Mirzapur-cum-Vindhyachal and Farrukhabad cum-Fatehgarh. Much also depends on the width of the streets and lanes which are not even approximately uniform. In spite of these disturbing elements the density figures may have some administrative value.

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Moradabad heads the list with 42,783 persons per square mile and Banaras tightly packed on the banks of the Ganga has 40,272. The third place is the large trading and industrial city of Kanpur with 36,577 persons per square mile followed by Pilibhit (35,558) and Meerut (33,704). The density of Lucknow (24,706) is relatively low due to an existence of large parks and gardens, the palaces of the old Avadh nobility, the open space around the Residency and from thence up to Husainabad, as well as a large tract across the Gomati river which has a certain number of large buildings and cultivated fields. The low density in Allahabad (19,763) is accounted for by the open spaces between Katra, Kydganj and Daraganj mohallas. The large vacant areas round the Taj account for the low density of Agra (17,371). The cities with lowest density are Dehra Dun (5,340), Faizabad-*cum*-Ayodhya (6,030), Jaunpur (6,544), Mirzapur-*cum*-Vindhyachal (6,813) and Gorakhpur (8,948). The reasons for the low density in Faizabad and Mirzapur have already been suggested. Jaunpur is traversed by the Gomati and has got some historical ruins, Dehra Dun is an open city with vacant lands all around and large vacant areas exist in Gorakhpur also.

A comparison of the density figures with previous censuses is of little value on account of the uncertainty which then existed as to the correct areas of the municipalities. It must also be borne in mind that within each municipality the density varies enormously between the different mohallas and the average figures give no correct idea about overcrowding. For some idea about the pressure of population upon housing the reader is referred to Chapter VI of the Report.

SECTION 3—GROWTH OF URBAN POPULATION

The figures :
where found

1. For purposes of this section the most important table is A-IV given in Part II-A of the Report. In this table the towns are classified according to the size of their population and the figures for the 1951 census are compared with those for the previous censuses. As has been said earlier it should be noted that in this table, in order to secure comparison with previous census figures, the figures for cantonments, notified areas, etc., which are adjacent to municipalities have been included with those of the municipalities and the variations have been shown for such combined units. Table E in the same part of the Report gives, in addition to other data, the urban population of each tehsil in a district for the censuses of 1941 and 1951 and the percentage variation for 1931—41 and 1941—51. In addition the following subsidiary tables will be found in Part I-B of the Report :

Subsidiary Table 3·2—Variation and density of urban population

Subsidiary Table 3·3—Mean decennial growth-rates during three decades—(iii) Urban population

Subsidiary Table 3·3-A—Mean decennial growth-rates during three decades—(iv) Cities

Subsidiary Table 3·4—Towns classified by population

Subsidiary Table 3·5—Cities—Chief figures

Growth of urban
population in the
State since 1881

2. Subsidiary Table 3·2 gives the variation of urban population for the last three decades and Subsidiary Table 3·3 shows the mean decennial growth-rates of the urban population for the area of registration for the same period. Table 130 below contains figures of urban population as recorded at the successive censuses except those of 1881, and also the percentage variation, the mean decennial growth-rates and the proportion of urban population to total population since 1881. The urban population of 1881 has been derived from Table IV of the Report of 1891. The only adjustment that has been made for transfer of area is in respect of urban enclaves to Jhansi and Hamirpur districts. It is to be remembered that the number of towns have varied from census to census and due to administrative changes the villages of one census were regarded as towns and even certain towns of a particular census which had lost their urban characteristics were regarded as villages at the other subsequent censuses.

TABLE 130—Growth of urban population in the State since 1881

Year	Urban population	Percentage variation	Mean decennial growth-rate	Proportion of urban population to total population
1881	5,254,030	..	..	11·7
1891	5,438,560	+3·5	+3·45	11·4
1901	5,396,317	—0·8	—0·78	11·1
1911	4,918,039	—8·9	—9·27	10·2
1921	4,936,998	+0·4	+0·38	10·6
1931	5,568,873	+12·8	+12·03	11·2
1941	7,020,270	+26·1	+23·06	12·4
1951	8,625,699	+22·9	+20·52	13·6

In the previous chapter we have traced the growth of urban population in the State and the natural divisions side by side with the rural population since 1881. Altogether in the last 70 years the urban population has increased by 64·2 per cent. against 37·2 per cent. increase in the rural population. It will be observed from the figures in the above table that between 1881 and 1921 the urban population had decreased by about 6 per cent. The decrease has mainly been brought about by the accidental decline of 1911 when a plague epidemic caused many towns to be temporarily evacuated. The return of these temporary emigrants restored the balance to some extent in 1921, but the urban population did not have an appreciable gain due to lack of development of commerce and industry to attract people from the country to the town.

Since 1921, however, the urban population has been increasing at a fast rate. The urban proportion to the total population, which was only 10·6 per cent. in 1921, moved to 11·2 in 1931. The accelerated growth continued during the two succeeding decades. The decade 1931—40 registered the biggest ever urban growth-rate. There has been a small fall in the mean decennial growth-rate during 1941—50. The gain was of 20·5 per cent. as against a gain of about 23·1 per cent. during 1931—40. In 1951 approximately 13·6 per cent. of the State population lived in the urban areas. Despite the rapid growth of the last thirty years the proportion of the urban population to the total population has advanced only from 10·6 in 1921 to 13·6 in 1951 owing to the small size of the urban population.

3. The figures in Table 131 contrast the variations in the urban population of this State since 1891 with those in U. S. A.

TABLE 131—Growth of urban population in U. P. and U. S. A. since 1891

Year	Percentage variation of urban population in—	
	Uttar Pradesh	United States of America
1891	..	..
1901	.. } —0·8	+36·2
1911	.. } —8·9	+38·8
1921	.. } +0·4	+28·8
1931	.. } +12·8	+27·0
1941	.. } +26·1	+7·9
1951	.. } +22·9	N.A.

Only in the last two decades the pace of urbanization in this State is somewhat comparable to that in U. S. A. during the recent past. The percentage variation during 1931—41 has exceeded that in U. S. A. during the same period. However, it will be observed that the rate of increase has been slower in Uttar Pradesh than in the United States. During the entire period from 1891 to 1941 the percentage increase in urban population in this State has only been 29·1 per cent. whereas in the United States the urban population increased by approximately 234 per cent. It is obvious that Uttar Pradesh is just beginning a period of rapid urbanization.

Growth of urban population in U. P. and U. S. A. compared

4. Our discussion of rural-urban growth in Section 3 of Chapter II showed that the urban population during the last three decades is increasing twice as fast as the rural. It has also been seen that the influence of the changes made in the list of towns is not very important. The effect of changes made in the list at the 1931 census has been to reduce what would otherwise have been the urban population. In 1941, the urban population gained by 79,213 only due to change in the list; and the gain was of about 178 thousand at the 1951 census which accounts for the growth of 2·5 per cent. in the urban population as against the mean decennial growth of 20·5 per cent. Expansion of the existing towns into the neighbouring rural areas has also not influenced the urban growth to any appreciable extent. Most of our towns are growing within their own limits. This denotes that either our towns have a low mortality as compared to the rural areas or else there has been considerable immigration.

Causes of urban growth :
(i) Natural increase

The influence of natural increase as a factor contributing to the growth of the urban population will be discussed in Section 5 of this chapter. It will be sufficient to point out here that the figures of urban mortality do not suggest a low death-rate in the urban areas. The registered death-rate is higher in the towns. Here it may be remembered that registration of vital statistics is more nearly complete in the urban areas and this may account for the higher mortality. Even if it is so, it will be seen, that the natural increase of the urban areas is not high enough to explain their higher growth. It may be true, of course, that health conditions in towns, during the last three decades, have improved and so the contribution of natural increase to the growth has increased as compared to that in the years prior to 1921. Yet, as we have seen in paragraph 5 of Section 3 of Chapter II, actually only half of the urban growth during each of the last three decades appears to be due to natural increase. The only other demographic explanation lies in migration.

5. Migration has been an important factor of growth in the West. The tremendous growth of urban population in U. S. A. since the middle of the last century has been brought about by migration. Our urban areas do not correspond to those in the United States or in most of the other countries of the West. They had a different origin and at present they are mainly commercial rather than industrial and the centralising tendency has just started in some of the towns like Kanpur. Migration has become an important factor in the growth of urban population only recently. It was due to the deterioration in the agricultural conditions during the last three years of the decade 1921—30 that there was a large volume of immigration of rural people to the large cities of the State in order to earn their livelihood. The slump in prices of agricultural produce was largely responsible for this deterioration. Industry and commerce

(ii) Migration

developed in the wake of the Second World War which provided opportunities of employment to the rural people and the drift from the rural to the urban areas continued during the decade 1931—40 at an increased pace. The disturbing factors of efflux of Muslims and influx of displaced persons following the partition have already been described in Chapter II. Agricultural prices remained at a high level during 1941—50 and the rural population had prosperous times. Therefore, the pace of migration slackened somewhat, but industrialization of the State was going ahead and migration to the urban areas to exploit the new avenues of employment offered by increased activities of the Government and by industry, trade and commerce, continued to be an important force in the growth of urban population. As a result of these forces during the last thirty years the rural-urban drift has increased. A reference to Table 102 in Section 3 of Chapter II will give some idea of the extent of migration to the urban areas. Unfortunately there are no precise statistics on urban or rural-urban migration. The evidence contained in the figures of place of birth discussed in the following section is also not very satisfactory. Therefore, for the present purposes the estimates of migration shown in Table 102, based on the birth and death registration in the urban areas give the best possible available data for computing the amount of net migration to the urban areas and also of the rural-urban migration. It has already been mentioned that nearly half of the mean decennial growth-rate of the urban population during the last three decades may be accounted for by migration. Of the growth of 12 per cent. during 1921—30, 6 per cent. is due to gain from migration; of the growth of 23·1 per cent. during 1931—40 approximately 12·3 per cent. is from migration; and of the growth of 20·5 per cent. during 1941—50 nearly 10 per cent. is on account of net balance of migration in favour of the urban areas. It is, thus, obvious that migration has been an important factor in urban population growth during the last thirty years. The rate of gain from migration during these years seems to be large in the context of the earlier history of the growth of urban population when industry and commerce in the towns were not so much developed as they are at the present time. This rate, however, is quite small when compared to the migration to the urban areas in the United States and the other countries of the West where the rural population have continuously been drained off. Our rural areas are still heavily peopled.

Growth of towns
by size class

6. There are two ways of measuring urban growth. One—the instantaneous method—ascertains the population in all urban categories at each and every census, tracing the changes in each class regardless of the towns that make it up. The other—the continuous method—begins with particular cities and traces the subsequent expansion of these groups. The first shows the distribution of urban population by size of the towns. The second shows what is happening to specific cities as a result of their initial size differences*. Both the methods are employed here and the figures for the last three decades are given in Subsidiary Table 3·4 for the six classes of towns of population 100,000 and over, 50,000—100,000, 20,000—50,000, 10,000—20,000, 5,000—10,000 and under 5,000. It should be remembered that this subsidiary table is based on the classification of Table A-IV in Part II-A of the Report wherein the figures of cantonments, notified areas, etc., are included with those of the adjacent municipalities.

Table 132 exhibits the growth of towns of different sizes since 1891 according to the instantaneous method and Figure 15 illustrates the same.

TABLE 132—Variation per cent. into urban population classified according to the size at each census since 1891

Class of town	1891—1901	1901—11	1911—21	1921—31	1931—41	1941—51	1891—51
I—100,000 and over ..	+1·1	—2·7	+0·4	+22·3	+71·3	+49·2	+208·8
II—50,000—100,000 ..	—0·4	—14·9	+6·7	+13·3	—3·9	+2·5	+0·9
III—20,000—50,000 ..	+5·1	—11·9	+7·2	+45·6	+32·5	+10·6	+111·7
IV—10,000—20,000 ..	+4·1	—7·9	—14·4	+13·8	+9·1	—0·03	+1·8
V—5,000—10,000 ..	—4·8	+14·7	+0·4	—3·6	+16·5	+11·8	+2·4
VI—Under 5,000 ..	—9·5	—1·8	+9·8	—11·2	—19·6	+10·6	—22·8

The last column of the table gives the variation per cent. in the total of each class in 1951 as compared with the corresponding total in 1891. It will be

* Kingsley Davis, *The Population of India and Pakistan*, page 128.

observed that the largest increases have occurred in the class with a population of 100,000 and over. The next highest increase is in towns between 20,000 and 50,000. There is actually a decrease of 22.8 per cent. in the population of the towns of the VI category. The influence of the plague epidemic at the time of the 1911 census, the recovery during 1911—21 due to return of temporary emigrants of 1911, and the expansion of towns of Classes I and III since 1921 under the influence of commercial and industrial development are reflected by the table and the figure. The negligible growth of the Class II towns and of the towns of a population below 20,000 and the decrease in the population of the towns of the VI category should not be taken as evidence of the decay of these towns.

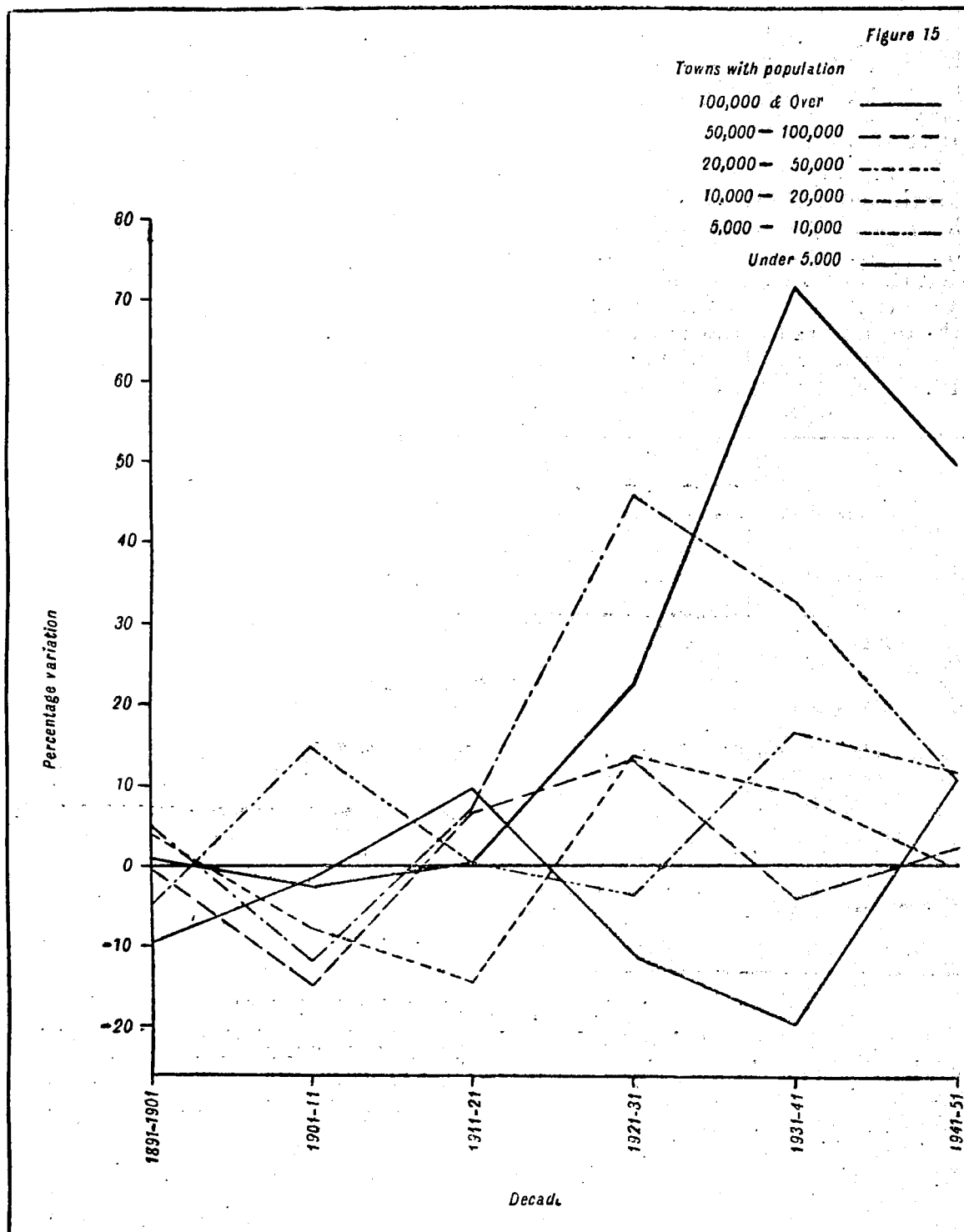


FIG. 15—Growth of towns of different sizes since 1891

It means, on the other hand, that some of the towns of these sizes have been growing so fast that they had graduated to a higher category.

7. The other method—the continuous method—does not have the disadvantage of including at each census, new towns in a given class that were not in that class before. The figures shown in columns 5 to 7 of Subsidiary Table 3.4

eliminate the changes in the figures of various classes of towns caused by the movements since the previous census of certain towns into a higher or a lower class. From the figures it appears that the largest increase of 19.6 and 31.0 per cent. occurred in the Class II towns during 1921—31 and 1941—51 respectively, while the highest variation of 38.8 per cent. is to be found in case of the towns in which the population in 1941 was of 100,000 and over. Due to the expansion of towns of Class II under the influence of commercial and industrial development there are now 16 cities in this State with a population of 100,000 and over, the new entrants in this class being Dehra Dun, Rampur, Gorakhpur and Mathura. The growth-rate of Class III towns was 14.1 in 1921—31, 18.8 in 1931—41 and 16.0 in 1941—51. Firozabad, Muzaffarnagar, Hardwar, Jaunpur and Hathras which were Class III towns prior to 1951, have crossed into Class II. From the growth of the towns of other classes, also, it is evident that all, except Class V towns in 1951, have been increasing in population at a higher percentage than the rural area, though they have not increased to the same extent as the larger towns. Towns of Class V have shown an increase of only 5.1 per cent. against the increase of 10.3 per cent. in the rural areas during 1941—51.

8. Figure 16 summarizes the growth of the towns of each class of 1891 for the entire 1891—1951 period in a bar chart. Towns of various sizes in 1891 have been traced up to the 1951 census and those that are not to be found in one of the censuses have been excluded from the other also. It demonstrates that the larger the class of city in 1891, the faster is the subsequent rate of growth. The centralizing tendency is at work. The villages are giving up people to the towns and the towns are growing into cities. In 1891 there were only 7 cities with over 100,000 inhabitants; by 1951 this number has increased to 16.

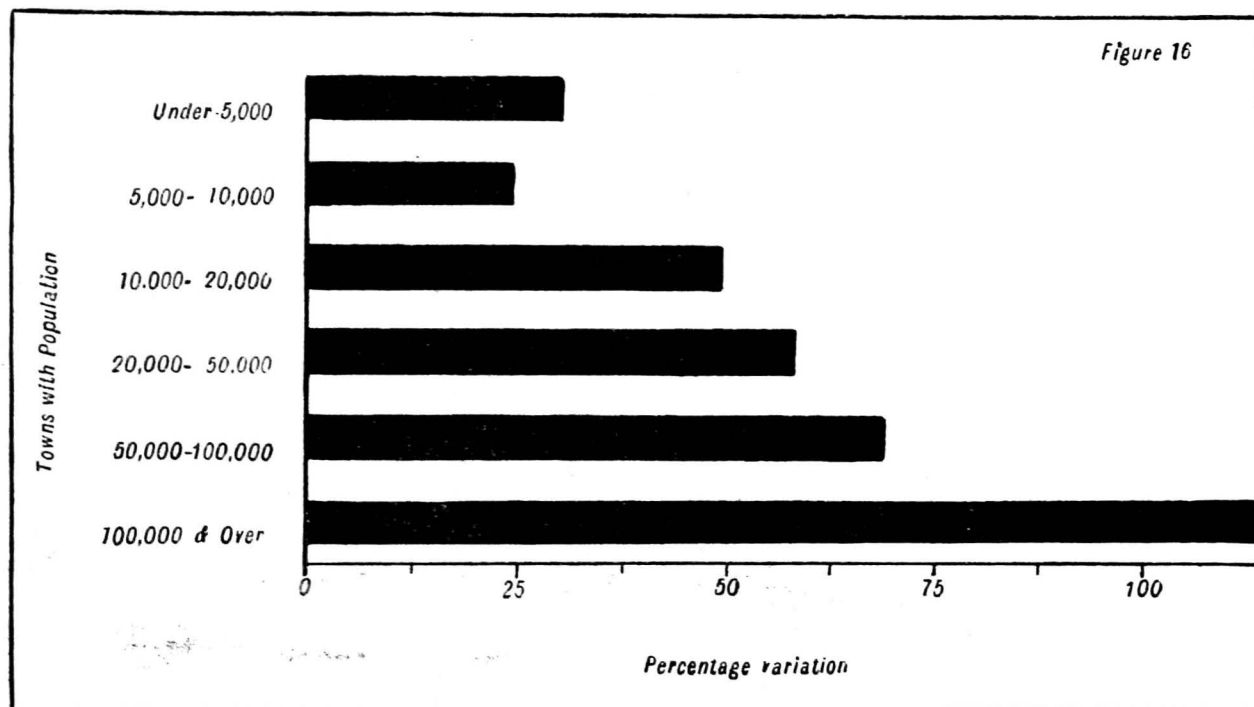


FIG. 16—Growth of towns, 1891—1951, by size in 1891

Growth of cities
of over 100,000
inhabitants

9. Subsidiary Table 3.5 shows the variation in population of the 30 cities of this State for the last three decades. The figures in this subsidiary table are for the cities taken as a whole, i.e., including all the constituent local bodies. 16 of the cities had, in 1951, over 100,000 inhabitants. At this census they had a combined population of 3,908,056 or 6.2 per cent. of the total population. In 1891 the same towns (whether they were classed as cities or not) had only 1,822,677 inhabitants or 3.8 per cent. of the population and in the same year the 16 largest towns had 1,923,102 inhabitants or 4.0 per cent. of the population. The lists of 16 leading towns at the two censuses include the same towns except for Mirzapur, Faizabad and Farrukhabad in the 1891 list that were replaced by Dehra Dun, Jhansi and Mathura in 1951. It can be seen from Table 133 that the towns have been changing their rank from one census to another. In Table 134 the 16 leading cities of 1951 are shown together with their population and rank in the previous censuses. Lucknow maintained its lead till 1931. In 1941 it changed place with Kanpur which had the highest increase of

TABLE 133—Rank of the sixteen largest towns, 1891—1951

Rank	1891	1901	1911	1921	1931	1941	1951
1	Lucknow	Lucknow	Lucknow	Lucknow	Lucknow	Kanpur	Kanpur
2	Banaras	Banaras	Banaras	Kanpur	Kanpur	Lucknow	Lucknow
3	Kanpur	Kanpur	Agra	Banaras	Agra	Agra	Agra
4	Allahabad	Agra	Kanpur	Agra	Banaras	Banaras	Banaras
5	Agra	Allahabad	Allahabad	Allahabad	Allahabad	Allahabad	Allahabad
6	Bareilly	Bareilly	Bareilly	Bareilly	Bareilly	Bareilly	Meerut
7	Meerut	Meerut	Meerut	Meerut	Meerut	Meerut	Bareilly
8	Mirzapur	Mirzapur-cum Vindhyachal	Moradabad	Moradabad	Moradabad	Moradabad	Moradabad
9	Faizabad	Rampur	Rampur	Rampur	Jhansi	Aligarh	Saharanpur
10	Shahjahanpur	Shahjahanpur	Shahjahanpur	Shahjahanpur	Aligarh	Shahjahanpur	Dehra Dun
11	Farrukhabad	Moradabad	Jhansi	Jhansi	Shahjahanpur	Saharanpur	Aligarh
12	Rampur	Faizabad	Aligarh	Saharanpur	Saharanpur	Jhansi	Rampur
13	Moradabad	Aligarh	Saharanpur	Aligarh	Gorakhpur	Gorakhpur	Gorakhpur
14	Gorakhpur	Farrukhabad	Farrukhabad-cum- Fatehgarh	Gorakhpur	Rampur	Rampur	Jhansi
15	Saharanpur	Saharanpur	Mathura	Faizabad-cum- Ayodhya	Faizabad-cum- Ayodhya	Mathura	Mathura
16	Aligarh	Gorakhpur	Gorakhpur	Mirzapur-cum- Vindhyachal	Mathura	Dehra Dun	Shahjahanpur

TABLE 134—*The sixteen largest cities in 1951 and their rank in earlier censuses*

City	1951		1941		1931		1921		1911		1901		1891	
	Population	Rank	Population	Rank	Population	Rank	Population	Rank	Population	Rank	Population	Rank	Population	Rank
Kanpur	705,383	1	487,324	1	243,755	2	216,436	2	178,557	4	202,797	3	194,048	3
Lucknow	496,861	2	387,177	2	274,659	1	240,566	1	252,114	1	256,239	1	264,953	1
Agra	375,665	3	284,149	3	229,764	3	185,532	4	185,449	3	188,022	4	168,662	5
Banaras	355,777	4	263,100	4	205,315	4	198,447	3	203,804	2	213,079	2	223,375	2
Allahabad	332,295	5	260,630	5	183,914	5	157,220	5	171,697	5	172,032	5	175,246	4
Meerut	233,183	6	169,290	7	136,709	7	122,609	7	116,631	7	118,539	7	119,805	7
Bareilly	208,083	7	192,688	6	144,031	6	129,459	6	129,462	6	133,167	6	122,837	6
Moradabad	161,854	8	142,414	8	110,562	3	82,671	8	81,118	8	75,082	11	72,876	13
Saharanpur	148,435	9	108,263	11	78,655	12	62,261	12	62,850	13	66,254	15	63,194	15
Dehra Dun	144,216	10	78,228	16	50,130	18	47,273	18	38,610	21	28,095	28	25,684	31
Aligarh	141,618	11	112,655	9	83,878	10	66,963	13	66,344	12	72,084	13	62,925	16
Rampur	134,277	12	89,322	14	74,216	14	73,156	9	74,316	9	78,758	9	76,733	12
Gorakhpur	132,436	13	98,977	13	75,644	13	57,985	14	56,892	16	64,148	16	63,620	14
Jhansi	127,365	14	103,254	12	93,112	9	74,861	11	76,126	11	55,724	18	53,779	18
Mathura	105,773	15	80,532	15	64,029	16	52,840	17	58,183	15	60,042	17	61,195	17
Shahjahanpur	104,835	16	110,163	10	83,764	11	72,616	10	71,778	10	76,458	10	78,522	10

99.9 per cent. during 1931—41 as against the increase of 41.0 per cent. in the population of Lucknow during the same period. During 1941—51 Kanpur had an increase of 44.7 per cent. as against the increase of 28.3 per cent. in the population of Lucknow. Kanpur had a lead of 208,522 over the second city of Lucknow at the census of 1951. Banaras and Allahabad which were second and fourth in 1891 have lost their positions and Agra has gone up to the third place in 1951. The commercial and industrial development of Kanpur and Agra is responsible for the bulk of this increase. Banaras has lagged behind in commercial and industrial competition. Allahabad has always been fifth since 1901. Bareilly and Meerut continued to be sixth and seventh till 1951, when they interchanged places. The highest number of displaced persons (32,607) has settled in Meerut city while Bareilly has lost some population in migration. Moradabad, now in eighth place, was in thirteenth place in 1891; Saharanpur is ninth though it began in fifteenth position in 1891. Dehra Dun has attracted the retired servicemen and the displaced persons. It began at the thirty-first place in 1891, entered the list of 16 leading towns of the State in 1941 and with a phenomenal growth of 84.4 per cent. during 1941—51 it has attained the tenth place. Aligarh and Rampur which are eleventh and twelfth now have fluctuated in their rank. Aligarh was the sixteenth town in 1891, thirteenth in 1901, twelfth in 1911, again thirteenth in 1921, tenth in 1931, ninth in 1941 and eleventh in 1951. Rampur went up to the ninth place in 1901 from twelfth in 1891, it maintained its position till 1921, it came down to the fourteenth place in 1931 and has now gone up to the twelfth place. Gorakhpur and Jhansi have also fluctuated. Mathura is now fifteenth. Shahjahanpur which lost its population on account of migration after the partition has come down to the sixteenth place in 1951 from the tenth position in 1941 and 1891 also. For the rank of the cities of Uttar Pradesh in India the reader is referred to Table 126 of the previous section of this chapter. Lucknow, Banaras, Kanpur and Agra which were the fifth, sixth, seventh and tenth cities of India in 1891 have lost their place in the list now and are the ninth, fifteenth, eighth and thirteenth cities of India respectively. Allahabad which was the ninth city of India in 1891 has subsequently gone down in the list and is the sixteenth city in 1951.

Growth of urban population by natural divisions and districts

10. For a comparative study of the growth of urban and rural population by natural divisions the reader is referred to paragraph 6 and 7 of Section 3 of Chapter II. From the figures in Table 103 in that chapter it will be observed that the Himalayan division recorded the highest increase of 202 per cent. in its urban population during the last fifty years as compared to the other natural divisions. The other divisions in order are Central Plain (76.7), West Plain (52.7), East Plain (48.2) and the Hills and Plateau (45.9). It will also be seen that the bulk of the growth in the natural divisions has occurred between 1921 and 1951.

Pace of urbanization in the natural divisions

11. The variations in the percentage of the urban to the total population during the last fifty years is shown in Table 135.

TABLE 135—Percentage of urban population to total by natural divisions, 1901—51

Natural division	Percentage of urban to total population in—					
	1951	1941	1931	1921	1911	1901
Uttar Pradesh	13.6	12.4	11.2	10.6	10.2	11.1
Himalayan	11.7	8.4	6.7	7.3	6.7	5.9
East Plain	7.2	6.6	6.2	5.8	5.6	6.6
Central Plain	14.0	12.4	10.0	9.5	9.2	9.9
West Plain	18.6	17.5	16.4	15.3	14.6	15.5
Hills and Plateau	14.1	12.4	12.0	12.0	10.9	12.6

The Himalayan division was the least urbanized in 1901. It overtook the East Plain in 1911 and during 1931—41 and 1941—51 it registered the phenomenal increase of 42.9 and 55.8 per cent. respectively. This growth has been mainly due to the rise of Dehra Dun city. Changes in the list of towns at the census

of 1951 has to some extent magnified the variation. The East Plain has got no town of industrial importance except Banaras and Gorakhpur and so the pace of urbanization has been the lowest in this division. Its urban population increased by 19·4 per cent. in 1931—41 as against the average of 26·1 for the State as a whole and during 1941—51 this division recorded an increase of only 22·2 per cent. against 22·9 of the State. The only district that has shown a decrease of 5·9 per cent. in the urban population is Gonda. This is mainly due to the wrongly inflated population of the Balrampur municipality of this district at the census of 1941. The percentage of urban to total population has moved up from 9·9 in 1901 to 14·0 in 1951 in the Central Plain. The rate of percentage variation in this natural division was 41·0 in 1931—41 and 26·9 in 1941—51. The growth of the cities of Kanpur, Lucknow and Allahabad accounts for most of the increase in this division. Faizabad and Sultanpur districts have also moved up by 36·1 and 33·3 per cent. during 1941—51. The West Plain had a high initial start in 1901. Its pace of urbanization has been relatively slow and the percentage of urban to the total population has only increased from 15·5 in 1901 to 18·6 in 1951. The Muslims were, relatively to Hindus, concentrated in this division and the exodus of Muslims following the partition gave some set-back to its urban population. The urban population of the districts of Bareilly, Aligarh, Budaun, Shahajahanpur, etc., have suffered on this account. The comparatively high figure of urbanization of the Hills and Plateau division in 1941—51 is not due to the development of its towns. Mahoba town of this division has been losing its importance in trade, Charkhari and Samthar have lost their importance after the merger of enclaves, Karwi has suffered from plague epidemic and the other towns except Jhansi and Mirzapur are not of much industrial and commercial importance. This natural division had only an increase of 18·2 per cent. in 1931—41 against an increase of 26·1 per cent. in the State and during 1941—51 its increase has been only 21·5 per cent. as compared to 22·9 per cent. increase in the urban population of the State. The percentage of urban population to the total population of this division has moved up mainly due to a very low increase of 5·4 per cent. in the rural population of this division as compared to an increase of 10·3 in the rural population of the State as a whole.

SECTION 4—MOVEMENT

Introductory

1. It has been seen that the urban population has been recently having a rising share in the population of the State. There is ample evidence in its growth and in the rise of the cities that there has been a migration of large proportions. The main movement of population has been from the rural to the urban areas of the State and this exodus from the rural areas has provided the necessary manpower for development of industry and commerce. Unfortunately there are no accurate statistics on rural-urban migration. The only available material is to be found in Subsidiary Tables 3·8 and 3·9 in Part I-B of the Report regarding immigration to urban areas and to the cities respectively. Besides its other limitations, already described in the previous chapters, the one that may be emphasised is that the statistics do not show the number of people living in a city or town who were born there. All the information that it contains is about the number of persons born in the district of enumeration and those born outside it.

General character of the urban population

2. Table 136 summarises the available information about distribution of urban population in the State and the natural divisions according to place of birth. The percentages are against the total population of the urban areas in the State and the natural divisions for each category of birth-place.

TABLE 136—*Distribution of the population of urban areas in the State and the natural divisions, by birth-place, 1951**
(Actual and percentage)

Born in—	Uttar Pradesh	Himalayan	East Plain	Central Plain	West Plain	Hills and Plateau
District of enumeration ..	6,547,151 (75·90)	133,966 (45·53)	1,101,746 (85·25)	1,475,658 (63·55)	3,386,783 (79·91)	448,958 (81·71)
Other districts of the same natural division	776,874 (9·01)	37,804 (12·85)	78,814 (6·10)	302,915 (13·45)	342,606 (8·08)	14,735 (2·68)
Other parts of the State ..	486,705 (5·64)	35,031 (11·91)	36,326 (2·81)	272,575 (12·11)	106,506 (2·51)	36,267 (6·60)
Adjacent States ..	263,848 (3·06)	18,921 (6·43)	34,920 (2·70)	60,799 (2·70)	117,304 (2·77)	31,904 (5·81)
Other parts of India ..	82,321 (0·95)	6,381 (2·17)	16,776 (1·30)	30,113 (1·34)	23,807 (0·56)	5,244 (0·95)
Beyond India—						
(i) Pakistan ..	437,288 (5·07)	50,603 (17·20)	17,897 (1·39)	101,100 (4·49)	257,473 (6·08)	10,215 (1·86)
(ii) Other territories ..	31,512 (0·37)	11,523 (3·91)	5,852 (0·45)	8,219 (0·36)	3,792 (0·09)	2,126 (0·39)

The figures in the table show it clearly that a considerable amount of movement takes place in the urban areas of the State and the natural divisions. Of the total urban population of 8,625,699 (males 4,738,717, females 3,886,982) as many as 6,547,151 (males 3,590,761, females 2,956,390) were enumerated in the districts where they were born. The percentage of the home-born, i.e., the population born within the district of enumeration thus calculates to about 76 when the corresponding percentage of the home-born in the rural population is as high as 93. The 24 per cent. or nearly one-fourth of the population of the urban areas born outside the districts of enumeration comprises of 14·6 per cent. migrants born in the other districts of the State, of 4 per cent. born in rest of India and of 5·4 per cent. born in countries beyond India.

It will be observed that the largest number of immigrants is to be found in the Himalayan division. Of the total urban population of 294,229 in the division 133,966 persons or 45·5 per cent. are home-born. The hill stations of this natural division and the city of Dehra Dun have attracted migrants from different places. The figure of home-born is the lowest in the State in Dehra Dun district being only 32·7 per cent. of the urban population of the district. Naini Tal has also a low figure of 53·3 of the home-born.

The East Plain has no attractions for migrants. But for the cities of Banaras and Gorakhpur, the division is not much developed industrially and commercially. Out of the urban population of 1,292,331 persons of this division

* A slight error has been discovered in Subsidiary Table 3·8. Against Saharanpur district the figures of persons and females in respect of the district of enumeration are to be each increased by 10, while similar figures in respect of adjacent States are to be each decreased by 10. This accounts for the slight discrepancy in the figures of Subsidiary Table 3·8 and this table.

1,101,746 are home-born. Its figure of home-born is thus as high as 85·3 per cent. Of a total urban population of 166,628 in the district of Gorakhpur 130,100 or 78·1 per cent. are home-born. 327,670 persons out of the urban population of 415,547 in Banaras district, were recorded as born in the district of enumeration. Their percentage works out to 78·8. The percentage of home-born in the urban population in the rest of the districts of this division varies between 86 and 93.

The Central Plain has the important industrial and commercial city of Kanpur and the capital city of Lucknow. Of the total urban population of 2,251,419 persons in the division as many as 1,475,698 or 65·5 per cent. are home-born. About 48 per cent. of the urban population of Kanpur and 59·6 per cent. of the urban population of Lucknow is born in the district of enumeration. The percentage of home-born is 68·5 in Fatehpur, 74·6 in Sultanpur, 76·1 in Allahabad and between 81 and 90 in the other districts of this division.

Of a total urban population of 4,238,271 in the West Plain division as many as 3,386,783 persons or 79·9 per cent. are home-born. The districts having the percentage of home-born below 80 are Saharanpur (66), Mathura (68·4), Meerut (72·4), Mainpuri (73·7) and Agra (75·7). Bijnor recorded the high percentage of 93·2 and the percentage of the home-born in the other districts varies between 80 and 90.

The Hills and Plateau division has got no city of importance except Jhansi. Of the total urban population of 549,449 persons 448,958 or 81·7 per cent. were found as born in the district of enumeration. About three-fourth (75·3 per cent.) of the urban population of Jhansi district is home-born, while the percentage is 85·2 in Banda, 85·6 in Jalaun, 86 in Hamirpur and 86 in Mirzapur.

3. It is obvious from the above description that the composition of population in the cities has mainly determined the proportion of the home-born and out-born in the urban population of the natural divisions. The birth-place figures of residents in cities may be of particular interest. Subsidiary Table 3·9 in Part I-B of the Report gives the actual numbers and Table 137 below shows the proportional distribution of population in each of the cities of the State according to the birth-place categories.

The birth-place
of residents in
cities

TABLE 137—Per cent. of population in cities, by birth-place, 1951

City	Persons born in—							
	District of enumeration	Other districts of the same natural division	Other parts of the State	Adjacent States	Beyond India			Other territories
					Other parts of India	Pakistan		
All cities :	68.7	10.4	7.8	3.8	1.4	7.5	0.4	
1 Kanpur	47.3	22.8	17.7	3.5	1.7	6.5	0.5	
2 Lucknow	58.0	15.6	15.0	3.0	1.7	6.1	0.6	
3 Agra	75.0	6.4	1.9	5.2	0.9	10.5	0.1	
4 Banaras	78.7	6.7	4.3	3.5	3.4	2.9	0.5	
5 Allahabad	74.2	6.0	9.4	3.6	2.1	4.3	0.4	
6 Meerut	65.3	7.5	3.9	7.2	2.0	13.9	0.2	
7 Bareilly	82.6	5.2	2.9	1.0	0.6	7.5	0.2	
8 Moradabad	79.1	8.7	4.9	1.1	0.4	5.6	0.2	
9 Saharanpur	60.3	6.5	4.1	4.5	0.8	23.6	0.2	
10 Dehra Dun	33.0	9.1	14.8	8.5	2.4	27.0	5.2	
11 Aligarh	78.2	12.7	1.9	2.6	0.6	3.9	0.1	
12 Rampur	88.8	4.8	1.4	0.9	0.2	3.8	0.1	
13 Gorakhpur	76.7	10.7	2.9	5.2	1.3	1.9	1.3	
14 Jhansi	70.5	1.9	7.1	12.1	2.6	5.3	0.5	
15 Mathura	63.6	12.0	2.8	9.6	3.5	8.4	0.1	
16 Shahjahanpur	83.1	6.4	5.6	1.2	0.3	3.3	0.1	
17 Mirzapur	85.2	0.3	11.8	1.5	0.9	0.2	0.1	
18 Faizabad	73.7	5.4	10.4	3.4	0.8	5.9	0.4	
19 Farrukhabad	78.5	9.3	6.6	2.8	0.4	2.4	0.0	
20 Firozabad	77.1	15.9	2.2	1.4	0.3	3.1	0.0	
21 Muzaaffarnagar	70.0	10.4	1.5	4.9	0.6	12.5	0.1	
22 Sambhal	95.9	3.0	0.3	0.1	0.1	0.6	..	
23 Etawah	81.0	8.4	6.2	2.1	0.2	2.1	0.0	
24 Amroha	95.6	1.6	0.4	0.3	0.1	2.0	0.0	
25 Hardwar	57.3	6.5	6.0	4.2	0.5	25.0	0.5	
26 Hathras	76.5	15.0	1.0	2.4	0.3	4.7	0.1	
27 Budaun	85.9	7.4	1.3	0.5	0.1	4.8	0.0	
28 Jaunpur	89.9	5.7	2.9	0.4	0.4	0.6	0.1	
29 Pilibhit	77.7	13.1	4.1	1.1	0.6	3.3	0.1	
30 Ghaziabad	54.4	7.0	3.4	6.3	0.5	28.3	0.1	

The percentage of home-born in city population is 68·7. Thus it appears that slightly less than a third of the inhabitants of the cities of this State are out-born. It must be remembered that the home-born do not include merely those born in the city, but also those born in the district in which the city is situated so that these figures include in reality a considerable proportion of immigrants coming to the city from the rural parts of the same district. The city with the largest number of immigrants is Dehra Dun. Only 33 per cent. of its population is home-born. A large number of retired persons and pensioners have preferred to settle in this city. It has a high proportion of immigrants from beyond India, which mainly consists of the displaced persons. Kanpur, as a large industrial centre, naturally possesses a large number of immigrants. It is noticeable that most of its immigrants are from the other districts of the State. Lucknow, being the capital city of the State, has attracted a very large proportion of its immigrants from the other districts of the State. Displaced persons have settled in large numbers in Ghaziabad, Hardwar, Meerut, Saharanpur and Muzaffarnagar. Mathura is of considerable religious importance and has a large proportion of immigrants from outside the State on this account. Jhansi has a high proportion of immigrants from the adjacent States. Most of the other cities like Bareilly, Moradabad, Rampur, etc., are important chiefly as distributing centres for their own districts and are removed from the district borders, which decreases the number of immigrants. Faizabad, Banaras, Allahabad and Gorakhpur are sacred cities and have thus additional attraction to the immigrants. In cities, for obvious reasons, there are more immigrant men than women, in contrast to the general rule of immigration to the rural parts of this State.

4. In Table 138 an attempt has been made to trace the trend in birth-place returns of the cities of this State for the period between 1901 and 1951. The variations in these figures illustrate the fluctuating nature of the urban

The proportion of out-born in the cities at the last five censuses, 1901—51

TABLE 138—Percentage of population out-born in cities, 1901—51

City	Per cent. out-born in—				
	1951	1931	1921	1911	1901
All cities	31·3	21·0	18·4	23·2	18·6
1 Kanpur	52·7	40·1	42·5	42·8	38·1
2 Lucknow	42·0	31·2	22·8	44·5	19·3
3 Agra	25·0	22·2	11·8	18·6	13·7
4 Banaras	21·3	17·0	14·0	22·5	23·4
5 Allahabad	25·8	19·6	20·3	17·0	13·9
6 Meerut	34·7	21·9	21·0	24·5	17·5
7 Bareilly	17·4	12·7	12·8	10·9	9·8
8 Moradabad	20·9	11·5	10·6	11·2	10·5
9 Saharanpur	39·7	17·5	16·4	18·2	14·2
10 Dehra Dun	67·0	..	..	..	..
11 Aligarh	21·8	14·3	23·0	11·8	16·8
12 Rampur	11·2	3·3	5·4	5·7	..
13 Gorakhpur	23·3	13·4	13·8	14·1	10·0
14 Jhansi	29·5	35·4	23·1	43·6	34·1
15 Mathura	36·4	30·3	8·3	29·3	22·4
16 Shahjahanpur	16·9	10·8	10·8	7·9	10·7
17 Mirzapur	14·8	10·4	6·4	11·2	11·7
18 Faizabad	26·3	30·0	21·8	32·9	23·3
19 Farrukhabad	21·5	16·3	14·9	18·7	13·5
20 Firozabad	22·9	..	..	..	..
21 Muzaffarnagar	30·0	..	..	..	..
22 Sambhal	4·1	2·6	2·5	2·9	..
23 Etawah	19·0	21·4	22·9	25·5	..
24 Amroha	4·4	3·2	3·1	3·3	..
25 Hardwar	42·7	..	..	..	..
26 Hathras	23·5	12·3	41·4	25·0	25·1
27 Budaun	14·1	9·0	7·7	9·6	..
28 Jaunpur	10·1	..	8·5	8·4	9·3
29 Pilibhit	22·3	..	..	..	..
30 Ghaziabad	45·6	..	..	..	..

population and demonstrate the truth of the statement that the male migration of this State is seldom permanent. However, there is a definite trend in the figures. The proportion of the out-born has moved to 31·3 per cent. in 1951, from 18·6 per cent. in 1901. The industrial and commercial development of the cities is responsible for attracting migrants in larger numbers. While the large amount of immigration to Dehra Dun, Kanpur, Lucknow, etc., is noteworthy, there are cities like Sambhal and Amroha at the other end of the scale. In the case of some other cities the proportion of out-born has been largely fluctuating. The fluctuations in the figures of the sacred cities of Allahabad, Banaras, Faizabad and Mathura are to a great extent due to the accidents of pilgrimage. Etawah is a declining city. Rampur was also declining but recently it has become an important industrial centre. The curiously high figure for Hathras in 1921 has disappeared and since then the figures are what would normally be expected.

5. Table 139 exhibits the figures of out-born in the urban population of the State and the natural divisions by distance of birth-place and compares them with the figures of general population.

TABLE 139—Percentage of out-born in the urban areas of the State and the natural divisions, by distance of birth-place, 1951*

Natural division	Population	Total	Born outside district		
			Outside district but in the State	Adjacent States	Elsewhere
Uttar Pradesh	63,215,742	5,898,407†	4,510,304†	691,261	696,842
Urban	8,625,699	2,078,548	1,263,579	263,848	551,121
Per cent.	13·6	35·2	28·0	38·2	79·1
Himalayan	2,521,987	322,541	180,970	34,406	107,165
Urban	294,229	160,263	72,835	18,921	68,507
Per cent.	11·7	49·7	40·2	55·0	63·9
East Plain	17,886,802	990,034	775,627	136,587	77,820
Urban	1,292,331	190,585	115,140	34,920	40,525
Per cent.	7·2	19·3	14·8	25·6	52·1
Central Plain	16,129,890	1,682,040	1,438,068	86,338	157,634
Urban	2,251,419	775,721	575,490	60,799	139,432
Per cent.	14·0	46·1	40·0	70·4	88·5
West Plain	22,771,252	2,561,916	1,935,341	292,368	334,207
Urban	4,238,271	851,488	449,112	117,304	285,072
Per cent.	18·6	33·2	23·2	40·1	85·3
Hills and Plateau	3,905,811	341,876	180,298	141,562	20,016
Urban	549,449	100,491	51,002	31,904	17,585
Per cent.	14·1	29·4	28·3	22·5	87·9

Analysis of the table shows that the urban areas have a far greater share of the persons born outside than the rural parts in spite of their relatively small share in the total population. It is further evident that contrary to what happens in case of the rural areas the percentage of the out-born in the urban areas increases as the distance of birth-place increases. It has already been pointed out in Chapter II that the different trend of the figure from the adjacent States in the Hills and Plateau division is due to large marriage movements from the States of Madhya Bharat, Vindhya Pradesh and Madhya Pradesh to the rural parts of the division. The trend is more clear in case of the cities which have only 7·6 per cent. of the total population of the State but 25·4 per cent. of the out-born population, 19·2 per cent. of the persons born outside the district but in the State, 26·2 of the migrants from the adjacent States and 64·3 per cent. of the migrants born in the distant parts of India and in territories beyond this country.

6. Various influences combine to determine the proportion of the sexes in urban areas. Of these the foreign factor and the occupational factor tend to make the ratio overwhelmingly masculine while the regional factor naturally tends to equalise it with that prevailing in the region in which the urban area lies.

Percentage of out-born in the urban population by distance of birth-place

The sex-ratio of the out-born in the urban population by distance of birth-place

* See foot-note to Table 136.

† See foot-note to Table 55.

Subsidiary Tables 6.4 and 6.6-C in Part I-B of the Report show the number of females per 1,000 males for the general, rural and urban population and for the population of the cities, and compare the figures with previous censuses. These tables will be described in greater detail in Chapter VI of the Report. Here it will be sufficient to note that there are 910 females per 1,000 males in the general population of the State, 925 in the rural population and 820 in the urban population. The migratory nature of the urban population is evident from these figures. From the sex-ratio of cities it will be clear that the larger a city the smaller is the proportion of females. Kanpur has the lowest figure of 699. This is due to the greater influence of the occupational and foreign factors. The urban deficiency is due to the habit of men migrating for comparatively short periods to towns for work, leaving their families at home to look after their cultivation and other work.

The ratio of females per 1,000 males for the out-born population of the urban areas of the State is 811 as against 823 for the home-born population. The contrast of the city figures are more marked. The average sex-ratio of the out-born is 707 as against 839 for the home-born population. Table 140 below gives the sex-ratio of the home-born and the out-born in the urban areas of the State and the natural divisions, and in the cities according to place of origin.

TABLE 140—*Females per 1,000 males in the urban population of the State and the natural divisions and in the population of cities by birth-place*

Where born	Uttar Pradesh						
	Total urban	All cities	Himalayan	East Plain	Central Plain	West Plain	Hills and Plateau
District of enumeration ..	823	839	705	857	844	806	849
Outside the district of enumeration ..	811	707	597	857	662	977	1,114
(i) Other districts of the same natural division	931	715	444	845	676	1,330	1,638
(ii) Other parts of the State ..	664	604	519	800	596	754	1,052
(iii) Adjacent States ..	832	718	632	907	682	831	1,295
(iv) Other parts of India ..	628	625	497	1,186	566	460	693
(v) Beyond India ..	813	821	763	730	826	833	695

The figure for district of enumeration is only 823 as compared to the corresponding figure of 848 for the rural areas of the State. This indicates the tendency in the State for male labour to migrate to towns leaving their families behind them in the villages.

The other figures indicate it clearly that the urban immigration is predominantly masculine. It would have been more masculine the greater the distance covered but for the marital customs of the State and the location of the urban areas within a district. A town situated at the border of a district is expected to have a larger short distance marriage movement from the border districts. It will be seen that in the State the proportion of females per 1,000 males is higher in case of the migrants coming from the other districts of the same natural division as compared to the ratio of persons born in the district of enumeration. This is due to heavy marriage movements from the other districts specially in the West Plain and Hills and Plateau divisions. The city figure for other districts of the division is low as it is expected. The sex-ratio in all the natural divisions shows an upward trend in case of the migrants coming from the adjacent States as a result of marriage migration. The influence of marital customs will also be observed in the ratio of migrants from other parts of the State in the Hills and Plateau division. There the movement from the districts of the State on the border of the division has been predominantly feminine. Females from Bengal* (other parts of India) outnumber the males in the East Plain. The figures for beyond India appear very high 93.3 per cent. of the migrants from beyond India are persons born in Pakistan, most of whom are displaced persons. The sex-ratio of the displaced persons in urban areas is as high as 879. The sex-ratio of other foreign-born is 290.

* There is a large population of Bengalis in Banaras city. Widows have also settled in this city as a matter of faith.

7. We may return to the figures of immigrants, i.e. persons coming from outside the State. Out of every 1,000 persons enumerated 40 were born in other parts of India and 54 were born outside India.

Immigration

The actual figures of immigrants from other parts of India are 346,179 (males 194,597, females 151,582). Of these 263,858 (males 144,027, females 119,831) come from the adjacent States and 82,321 (males 50,570, females 31,751) from further afield. Out of the immigrants coming from the other States of India to the urban areas of the State as many as 249,663 (males 147,590, females 102,073) or 72.1 per cent. were enumerated in the 30 cities of the State. The cities had 68.7 per cent. (males 73.3, females 63.2) of the urban immigrants born in the adjacent States and 83.0 per cent. (males 83.2, females 82.8) of the migrants born in the other States of India.

The numbers from the adjacent States are made up principally by movements from the neighbouring districts of Bihar into the eastern districts of the East Plain, from Vindhya Pradesh, Madhya Bharat, Madhya Pradesh and Bihar into the districts of the Hills and Plateau division, and from Rajasthan, Punjab, Madhya Bharat and Himachal Pradesh into the neighbouring districts of the West Plain division. Of 490,288 migrants (males 140,580, females 349,708) from the adjacent States enumerated in the neighbouring districts of Uttar Pradesh (shown in Tables 44—47 in Chapter I), 136,823 or 28 per cent. (males 67,074 or 47.7 per cent., females 69,749 or 20 per cent.) were enumerated in the urban areas of these districts. The low female percentage is noteworthy. Most of the marriage movement has been to the rural parts of the State. The sex proportion also shows that a large part of this migration is semi-permanent labour migration with or without family. It may further be noted that of the total urban immigration from the adjacent States about 52 per cent. (males 47 per cent., females 58 per cent.) were enumerated in the adjacent districts and the rest had gone to the towns of the other districts in search of employment.

From adjacent States

Immigration from more distant parts of India is mostly concentrated in the cities and it is for the most part semi-permanent. It has already been described in detail in paragraph 10 of Section 4 of Chapter I to which the reader is referred for information.

From other parts of India

Urban immigrants from countries outside India total 468,800 (males 258,643, females 210,157). Of them 379,409 or 80.9 per cent. (males 208,324 or 80.5 per cent., females 171,085 or 81.4 per cent.) were enumerated in the cities. Table 141 shows the distribution of immigrants from the Asiatic countries into the urban areas of the State and the natural divisions.

From Asiatic countries outside India

TABLE 141—*Distribution of immigrants from Asiatic countries outside India, according to country of origin in the urban areas of the State and natural divisions*

Country of origin	Uttar Pradesh	Himalayan	East Plain	Central Plain	West Plain	Hills and Plateau
All Asiatic countries	467,375	61,808	23,697	108,571	261,045	12,254
Percentage to Asiatics in the total population	80.02	63.20	45.26	90.86	86.62	93.91
Pakistan	437,288	50,603	17,897	101,100	257,473	10,215
Nepal	26,397	10,699	5,429	5,373	2,971	1,925
Burma	2,906	402	342	1,663	441	58
Others	784	104	29	435	160	56

It is evident from the figures that 80 per cent. of the immigrants born in the Asiatic countries were enumerated in the urban areas of the State. The figures of the East Plain are low. About 55 per cent. of the Asiatic migrants, mostly made up of the Nepal-born, have settled in its rural parts. The figures of Pakistan-born have been pushed up by the displaced persons. 431,082 persons (males 229,407, females 201,675) or 89.8 per cent. of the total displaced persons in the State have settled in the urban areas and have taken up the urban occupations. They are mostly concentrated in the cities of Saharanpur, Meerut, Kanpur, Agra and Dehra Dun. The Nepal-born are mainly Gorkha

soldiers, semi-permanent migrants who generally bring their families with them ; but in part they are permanent settlers also. They are concentrated in Dehra Dun, Gorakhpur, Kanpur, Naini Tal and Lucknow.

Table 142 shows the distribution of the non-Asiatic migrants in the urban areas of the State and the natural divisions and their percentage to the total migrants from the non-Asiatic countries.

TABLE 142—*Distribution of immigrants from non-Asiatic countries, according to country of origin, in the urban areas of the State and the natural divisions*

Country of origin	Uttar Pradesh	Himalayan	East Plain	Central Plain	West Plain	Hills and Plateau
All non-Asiatic countries ..	1,425	318	52	748	220	87
<i>Percentage to non-Asiatics in the total population</i>	<i>72.89</i>	<i>72.77</i>	<i>20.63</i>	<i>91.33</i>	<i>63.58</i>	<i>86.14</i>
United Kingdom	660	178	20	394	62	6
Elsewhere in Europe	236	56	8	106	30	36
Africa	220	40	9	69	85	17
United States of America	208	25	5	139	28	11
Elsewhere in America	58	7	7	18	10	16
Australasia	43	12	3	22	5	1

The percentage in the East Plain division needs some comment. It seems that most of the missionaries in this division were enumerated in its rural parts. 80 Africa-born were also enumerated in the rural parts of this division as against 9 in the urban areas. Most of them appear to be Africa-born descendants of the emigrants from the rural areas. The migrants born in the non-Asiatic countries are mainly concentrated in the larger cities, especially Lucknow, Kanpur, Allahabad, Meerut and Dehra Dun.

Migration to the urban areas between the districts of the State

8. Of the total internal migration in the State 1,263,579 persons or 28 per cent. (males 694,716 or 50 per cent., females 568,863 or 18 per cent.) were living outside their native districts in the urban areas of the State. Out of them 776,874 (males 402,285, females 374,589) were born in the districts of the same natural division and 486,705 (males 292,431, females 194,274) had their birth-place in the other parts of the State. It is obvious that there is short-range element in the migration but quite a large number of the migrants have also moved to the districts outside the natural division in search of employment. Their percentage in the migration to the urban areas between the districts of the State calculates to 38.5 as against the corresponding figure of 23.7 for the rural parts of the State. It is also noticeable that the migration is predominantly masculine. About 82 per cent. of the female migrants of the State who have moved across the district boundaries were enumerated in the rural parts. This shows that the major current of marriage migration goes to the rural areas of the State. But a part of the internal urban migration may also have an element of marriage migration. The sex-ratio of the urban migrants from the districts of the same natural division is more feminine than that of the migrants from the other parts of the State. This suggests certain amount of marriage movement.

If the marriage migration is separated from the other types of internal migration it will be found that, in its net results, internal migration is almost centripetal, the rural areas lose population to the towns and the larger towns grow at the cost of the smaller ones. Of the total internal migration of the urban areas 68.7 per cent. (males 75.0, females 61) is concentrated in the 30 cities of the State. The percentage of city population to the total urban population is 55.4 but the percentage of migrants to the urban areas that has come to the cities from the districts of the same natural division is 64.0 and that for the migrants from the other parts of the State is 76.1.

Table 143 presents an interesting data about the direction of internal migration. It shows the balance of internal migration (in and out migration from one natural division to the urban areas of other divisions) in the natural divisions.

TABLE 143.—Balance of internal migration (urban) in the natural divisions

Natural division	Immigrants from other natural divisions			Emigrants from other natural divisions			Balance		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
Himalayan ..	35,031	23,059	11,972	37,825	24,657	13,168	-2,794	-1,598	-1,196
East Plain ..	36,326	20,178	16,148	155,212	101,874	53,338	-118,886	-81,696	-37,190
Central Plain ..	272,575	170,812	101,763	103,209	53,815	49,394	+169,366	+116,997	+52,369
West Plain ..	106,506	60,705	45,801	148,094	88,320	59,774	-41,588	-27,615	-13,973
Hills and Plateau	36,267	17,677	18,590	42,301	23,732	18,569	-6,034	-6,055	+21

It will appear that the movement is towards the Central Plain in which the important cities of Kanpur, Lucknow and Allahabad are situated.

Of the districts that gain in urban population from internal migration are Kanpur (persons 250,206, males 169,507 and females 80,699), Lucknow (persons 116,594, males 70,831 and females 45,763), Dehra Dun (persons 35,620, males 26,296 and females 9,324), Banaras (persons 21,070, males 17,659 and females 3,411), Saharanpur (persons 17,126, males 13,094 and females 4,032), Naini Tal (persons 15,812, males 11,600 and females 4,212), Agra (persons +14,028, males +15,261 and females -1,233), Allahabad (persons 11,836, males 8,296 and females 3,540), Meerut (persons 9,350, males 5,977 and females 3,373), Kheri (persons 3,543, males 2,213 and females 1,330), Jhansi (persons 1,967, males 1,073 and females 894), and Moradabad (persons +1,092, males -806 and females +1,898). All the other districts lose. Districts which lose most to the urban areas of the State are Unnao (persons 37,674, males 22,249 and females 15,425), Rae Bareilly (persons 30,289, males 19,953 and females 10,336), Gonda (persons 29,442, males 21,439 and females 8,003), Pratapgarh (persons 29,096, males 20,538 and females 8,558), Bara Banki (persons 27,266, males 15,845 and females 11,421), Basti (persons 26,721, males 17,903 and females 8,818), Almora (persons 25,619, males 18,093 and females 7,526), Sultanpur (persons 23,525, males 16,038 and females 7,487), Azamgarh (persons 21,858, males 15,324 and females 6,534) and Hardoi (persons 21,022, males 12,234 and females 8,788). Of the remaining districts Jaunpur, Ghazipur, Ballia, Fatehpur, Sitapur, Faizabad, Bareilly, Bijnor, Budaun and Farrukhabad lose between 10,000 and 20,000 persons and the rest below 10,000 persons.

9. Our discussion above showed that the urban areas had about 35 per cent. of the out-born though their share in the total population of the State was only 13.6 per cent. An analysis of the figures of Table 102 in Section 3 of Chapter II will also show that while the estimated balance of migration for the rural areas is of negative character, it is of positive nature for the urban areas. The former have lost 1.4 per cent. of the rural population of the State while the latter have gained 10.1 per cent. of the total urban population. These figures definitely indicate the trend of movement from the rural to the urban parts of the State. The negative and positive character of the migration-cum-registration error given in Subsidiary Tables 2.3 and 3.3 in Part I-B of the Report, for rural and urban population respectively, should have confirmed this trend but no conclusive evidence is available due to large registration error in rural vital statistics. Unfortunately due to the limitations of our data, we cannot have any definite idea of the volume of the rural-urban movement.

Rural-urban
migration

10. Daily movement of labour from the neighbouring rural areas to the towns has become a common feature in case of the larger cities. This is apparent in Kanpur. It could not provide living space to its growing population during the War boom and large numbers settled in the neighbouring rural areas. This accounts for 29.4 per cent. variation in the rural population of tehsil Kanpur during 1941-51 when the variation in case of other tehsils of the district has not been above 15 per cent. Now a number of people live outside the city, go there for work in the morning and return home in the evening. It is also a common knowledge that hundreds of persons are visiting the towns every day to sell their produce and make purchases and to transact other business, and then they get back home the same day.

Daily migration

Emigration
of the urban
population

11. Figures for emigration were not collected by rural-urban break-up and, therefore, there is no data to show the movement of population from the urban areas of this State to the other States of India or to foreign lands. Emigration from the towns is expected to be negligible, but, of course, there has been a large movement of Muslims from the towns of the western districts of the State to Pakistan following the partition of the country. Of it there is no record.

Balance of
migration in
urban population

12. The reader can have a rough idea of the balance of migration* for the registration area of the State from Subsidiary Table 3·3 in Part I-B of the Report. The table shows a positive migration-*cum*-registration figure for the State and the natural divisions and most of the districts also record an excess of the enumerated over the calculated population. The figure for the State is 729,029. The large figure of 305,515 for the Central Plain division is noteworthy. The other divisions in order are East Plain (155,613), West Plain (151,313), Himalayan (72,988), and Hills and Plateau (43,600). The districts that appear to have gained most are Kanpur (197,749), Banaras (104,323), Meerut (78,973) and Dehra Dun (64,273) and others that have gained to a lesser extent (i.e., between 20,000—50,000) are Lucknow, Saharanpur, Agra, Allahabad and Faizabad. At the other end of the scale we find losses on the balance to Budaun (14,460), Shahjahanpur (13,712), Moradabad (12,781), Bareilly (12,709), and Gonda (12,696). The figures, however, are not conclusive as they are affected by errors in registration of vital statistics.

We have also made an estimate of the balance of migration in respect of the urban areas of the whole State in paragraph 5 of Section 3 of Chapter II. It accounts for the 20·5 per cent. growth of the urban population of the State as a whole, during 1941—50, by natural increase of 10·4 per cent. and balance of migration of 10·1 per cent. The figures indicate it clearly that migration is an equally important force in the growth of urban population.

Balance of
migration
in cities

13. The city figures may be of interest as they reveal that a larger volume of the balance of migration has gone to the share of the cities than to that of other towns. A comparative study of Subsidiary Tables 3·3 and 3·3-A will show that the cities have gained 653,041; 577,052 and 252,593 on account of the balance out of the total gain of 729,029; 764,818 and 422,355 to the urban areas of the State during 1941—50, 1931—40 and 1921—30 respectively. These figures indicate a larger extension of industrial and commercial activities in the cities than in the other towns. It will further be observed that the net gain to all cities is 15·8, 18·5 and 10·2 per cent. of the mean population of 1941—50, 1931—40 and 1921—30 which is far above their decennial rate of natural increase of 10·0, 11·3 and 5·0 per cent. respectively. The cities that appear to have gained large amount on the balance of migration during 1941—50 are Kanpur (195,403), Banaras (101,617) and Dehra Dun (54,383). Gains to Ghaziabad, Firozabad, Hardwar, Faizabad, Gorakhpur, Saharanpur and Muzaffarnagar are also noteworthy. On the other hand we find losses on the balance to Shahjahanpur (15,559), Bareilly (8,580), Amroha (5,999), Moradabad (5,954), Budaun (3,997), Pilibhit (3,392), and Sambhal (2,071).

* (i) For purposes of this discussion, the figures of migration-*cum*-registration error shown in Subsidiary Tables 3·3 and 3·3-A have been taken as the figures of balance of migration. The registration of vital statistics is nearly complete in the urban areas and, therefore, these figures appear to give some idea of the balance.

(ii) Figures of migration include the figures of gain of population to urban areas due to change in the list of towns. See paragraphs 4 and 5 of Section 3 of Chapter II.

SECTION 5—NATURAL INCREASE, BIRTHS AND DEATHS

1. This section gives the main conclusions about the trends of birth and death-rates and natural increase in the urban population of the State, the natural divisions and the districts. It also gives some findings about the rural-urban differentials in births.

Introductory

2. The main statistics are to be found in the following two subsidiary tables in Part I-B of the Report :

Subsidiary Table 3·3—Mean decennial growth-rates during three decades—(iii) Urban population

Subsidiary Table 3·3-A—Mean decennial growth-rates during three decades—(iv) Cities

For reasons given in paragraph 1 of the corresponding section of the previous chapter, some of the figures for the decade 1921—30 in Subsidiary Table 3·3 have been revised and the revised rates of births, deaths and natural increase have been used in the discussions that follow.

3. The mean decennial birth-rates (registered) for the urban population of the State and the natural divisions indicate a declining trend, as Table 144 shows. The rate for the State dropped by 6·3 per cent. during 1931—40 and again by 2·7 per cent. during 1941—50. The fall in the natural divisions is between 4·7 and 7·5 per cent. during 1931—40. The decline in the rate was not so large during 1941—50 and the natural divisions experienced a drop

The birth-rate

TABLE 144—Mean decennial birth-rates (registered) in the urban and rural areas of the State and the natural divisions

Natural division	Mean decennial birth-rate					
	1941—50		1931—40		1921—30	
	Urban	Rural	Urban	Rural	Urban	Rural
Uttar Pradesh	32·9	23·5	35·6	34·0	41·9	33·4
Himalayan	25·8	29·7	28·2	37·4	34·4	34·8
East Plain	29·3	21·3	31·6	30·3	39·1	29·7
Central Plain	29·4	18·8	34·0	29·4	38·7	30·3
West Plain	36·4	27·9	37·6	39·6	44·5	38·3
Hills and Plateau	32·8	26·8	38·4	38·2	43·6	35·7

between 1·2 and 5·6 per cent. The data for cities in Subsidiary Table 3·3-A also confirms this declining trend. The rate for the cities has come down to 34·2 per cent. in 1941—50 from 39·9 per cent. during 1921—30. It is noteworthy that the declining trend in the rate for the urban areas is in conformity with the trend in the birth-rate for the State as a whole.

4. The figures in the table suggest another conclusion. Despite the fall, the birth-rate was as high as 32·9 during 1941—50. It is nearly double the rate obtained recently in the countries of North, West and Central Europe and in the United States and Canada*. It will further be noticed that the natural divisions also manifest high rate of birth though some large variations exist between them. While the West Plain had the highest rate of 36·4 per cent. during 1941—50, the rate in the Himalayan division was only 25·8 per cent. This variability in the rates existed also in the previous decades.

5. A comparison of the figures of birth-rate for the rural and urban areas of the State, shown in Table 144, brings out a striking fact—namely, that the birth-rates in the rural areas are lower than those in the urban areas. This trend is also indicated by the figures of all the natural divisions, except the Himalayan division. In this division the birth-rates of the rural population have always been higher than those of the urban population. There is an exception in case of the West Plain also. During the decade 1931—40 the rural rate was 39·6 as against the urban rate of 37·6 per cent.

The unusual behaviour of rural-urban differential in the State

A comparison of the birth-rates of urban areas and of cities exclusively may be of interest. The rate for cities was 39·9 during 1921—30 as against 41·9 for the urban areas ; during 1931—40 the figure for cities was 40·7 against 35·6 for the urban areas ; and for the decade 1941—50 the birth

*The birth-rate of total population in 1937 was 17. See paragraph 8 of Section 5 of Chapter 1.

rate for the cities was 34.2 against the rate of 32.9 for the urban population of the State. It is plain, then, that during the last two decades the recorded birth-rate of the urban population as a whole which includes the small country towns as well as the large cities, is lower than the rate of the cities exclusively.

This rural-urban trend as well as the intra-urban trend does not appear to conform to the rural-urban and the inter-town differentials obtaining in certain countries. As a general rule birth-rates are lower in the urban areas than in the countryside. This statement gains strength from the data for some of the States in India (figures for which are available) shown in Table 145. There may be some margin of registration error in the figures, but there is the

TABLE 145—*Mean decennial birth-rates (registered) for the urban and rural population in some of the States of India*

State	Mean decennial birth-rate					
	1941—50		1931—40		1921—30	
	Urban	Rural	Urban	Rural	Urban	Rural
Bihar	10.8	22.5	19.0	31.1	27.7	34.6
Madhya Pradesh	34.9	37.3	41.2	41.2	40.6	41.5
Madras	30.3	30.9	33.5	34.9	31.1	32.1
Orissa	25.3	28.3	—	36.9	—	38.5
Punjab	32.8	40.5	37.4	43.7	38.7	40.8
Delhi	28.1	36.9	35.0	48.0	36.5	43.1

unmistakable trend that the rates are lower in the urban than in the rural areas. In the European and the American countries also the towns show a lower birth-rate than the country. Furthermore, in almost all the countries of Europe (France being the outstanding exception) the larger the city the lower is its birth-rate.* It, therefore, appears that the trend of the rural-urban differential in this State is not what it should be.

6. When the officially reported birth-rates for the urban areas † are compared with the estimated rates for the rural areas, as is shown in Table 146,

TABLE 146—*Registered birth-rates of the urban areas compared with the estimated birth-rates of the rural areas of the State*

Decade	Mean decennial birth-rate	
	Urban (registered)	Rural (estimated)
1921—30	41.9	39.5
1931—40	35.6	39.1
1941—50	32.9	35.2

the rates indicate a correct trend during 1931—40 and 1941—50 but the data for 1921—30 seems to be of no help. It may be that the estimates of birth-rate for the rural areas for 1921—30 are too low. Moreover, the estimates of the rural birth-rate made in the previous chapter are only rough and, therefore, the data is not conclusive.

7. It becomes necessary to take recourse to the census data of child-woman ratio, i.e., the ratio of children to women in the reproductive ages. It provides only an indirect or corroborative evidence about the rural-urban differential in fertility. Factors other than the rate of reproduction, namely, local differences in infant mortality, differences in the quality of enumeration of children, migration, etc., may affect the index. Although migration of children under 5 is negligible in this State, the other two factors of infant mortality and quality of enumeration are important. But, "perhaps infant mortality is worse in the city, so that the child-woman ratio exaggerates the rural-urban difference. On the other hand, the enumeration of children under 5 may be better in the city—a circumstance that would minimize the differential. Since the biases appear to run in opposite directions, one may assume, until further evidence comes to light, that the child-woman ratio is a fair index of relative fertility." ‡

8. In 1931 the age and sex tables were not prepared with a rural-urban break-up. Data regarding child-woman ratio are available for the districts as a whole and for the cities separately and they indicate a substantial difference in fertility. When the ratio of children 0—4 to married women 15—44 is consi-

* Dudley Kirk, *Europe's Population in the Inter-War Years*, page 48.

† It is believed that the registration of vital statistics in urban areas is nearly complete. See Appendix II for an account of the registration system in force in the rural and urban areas of the State.

‡ Kingsley Davis, *The Population of India and Pakistan*, page 70.

Estimated rural rates compared with the urban rates

The child-woman ratio

dered, it appears that Uttar Pradesh averaged 802 children per 1,000 married women and the cities of this State as a whole had only an average ratio of 750. This difference is not exactly a rural-urban difference because the general population includes the urban population also. But as the proportion of urban population to the total is as small as 13·6 per cent., the fertility and also the birth-rate for the rural areas would be very near the figures for the general population in the State. But while the child-woman ratio indicates a lower fertility in the cities than in the State as a whole the data for births show that the cities had a higher birth-rate (39·9) than the average birth-rate for the State (34·0). This contrary trend of the birth-rate is the result of large registration error in the rural vital statistics which brings down the rate for the general population. On the other hand, several factors like changes in the registration areas of cities from time to time during a decade, the rural labour cases in the city hospitals and maternity centres, etc., tend to raise the birth-rate for the cities. In such circumstances the child-woman ratio and not the registered birth-rate, appears to be the correct measure of fertility.

The data of child-woman ratio in respect to some of the cities as given in Table 147, also indicate that the cities, in general, had a lower fertility than the

TABLE 147—Fertility in some of the cities contrasted with that in the districts in which the cities are situated, 1931

Particulars	Birth-rate 1921—30	Children 0—4 per 1,000 marri- ed women 15—44*
Banaras city	48·7	689
Banaras district	35·2	839
Agra city	48·9	834
Agra district	39·9	872
Hathras city	52·9	734
Aligarh district	39·5	886
Etawah city	52·1	795
Etawah district	35·2	855
Moradabad city	47·9	1,157
Sambhal city	50·2	936
Amroha city	52·7	928
Moradabad district	45·0	953
Mathura city	43·8	824
Mathura district	32·4	876

districts. Moradabad city is the only exception. The figures of birth-rate in column 2 of the table contradict this normal behaviour of fertility. While the birth-rates for the cities are inflated due to certain factors not connected with fertility the birth registration in the rural areas (and so in the districts as a whole), as previously mentioned, is very incomplete.

9. Unfortunately no data regarding child-woman ratio are available for the decade 1931—40. Table 148 exhibits the birth-rate for 1941—50 and the child-woman ratio as returned at the 1951 census for some of the cities having a high birth-rate together with the rural parts of the districts in which they are situated and for the rural and urban Uttar Pradesh and the cities as a whole.

It is interesting to observe that the cities have a higher birth-rate as compared to the rural areas of the districts in which they are situated and

TABLE 148—Fertility in the rural and urban areas of the State, in some of the cities of high birth-rate and in the rural parts of the districts in which the cities are situated, 1951

Particulars	Birth-rate 1941—50	Children 0—4 per 1,000 marri- ed women 15—44
Rural Uttar Pradesh ..	23·5	734
Urban Uttar Pradesh ..	32·9	773
All cities	34·2	796
Banaras city	39·5	871
Banaras rural	21·9	772
Agra city	48·7	920
Agra rural	26·4	830
Hathras city	50·5	822
Aligarh rural	24·2	789
Etawah city	45·3	804
Etawah rural	26·6	746
Moradabad city	40·6	855
Sambhal city	46·1	1,095
Amroha city	45·1	897
Moradabad rural	33·3	866
Mathura city	39·0	1,031
Mathura rural	22·5	781
Pilibhit city	44·4	746
Pilibhit rural	28·8	730

except for the city of Moradabad the child-woman ratio confirms this trend. The cities had a higher birth-rate than the districts in 1931 also, but the child-woman ratio did not support this behaviour of the birth-rate. In addition, the marginal table shows that the birth-rate for all cities is higher as compared to the birth-rate for the urban areas as a whole and the birth-rate of the latter is higher than that of the rural areas of the State as a whole. The child-woman ratio again confirms this trend. The question that arises is whether we are to accept this evidence of child-woman ratio in support of higher birth-rate in the urban areas as a whole as compared with that in the rural part of the State. Existing demographic evidence in the other countries of the world shows an inverse correlation between reproductivity and

urbanism. Will the trend in Uttar Pradesh be reverse of it ?

* The figures of 15—44 females have been estimated. See paragraph 12 of Section 5 of Chapter I.

The chief factors that determine births

10. Since the births, with negligible exceptions, occur to married women, the number of births depends almost entirely on two factors—(1) the number of married females and (2) the rate at which married females have children. The second factor is not at all important in this State as contraception is not yet popular in our cities and biological differences are hardly likely to exist between the urban and rural areas of the same district. Therefore, whatever differentials exist in the birth-rates are due to the variations in the number of married females. Table 149 gives the number of females per 1,000 males and the proportion of married females, 15—44 per 1,000 persons of all ages. The figures of females per 1,000 males, as well as of married females per 1,000 persons are

TABLE 149—Females per 1,000 males and married females 15—44 per 1,000 persons of all ages, 1951

Particulars	Females per 1,000 males	Married females
		15—44 per 1,000 persons of all ages
Rural Uttar Pradesh	925	184
Urban Uttar Pradesh	820	171
All cities	796	164

higher in the rural than in the urban areas of the State and those for the latter are higher than the figures for the cities as a whole. If there is no difference in fecundity, the birth-rate in the rural areas should be higher than what it is in the urban areas and that in the latter is expected to be higher than the birth-rate in the cities.

The high child-woman ratio in the cities in 1951 explained

11. We may, then, examine the possible causes of the high child-woman ratio in the urban areas and the cities and the comparatively lower ratio in the rural areas of the State as returned at the census of 1951. Tables 147 and 148 above show the number of *surviving* children of both sexes under 5 years of age per 1,000 of married females between 15 and 44, i.e. in the reproductive period of their lives. It has been mentioned that these figures do not provide an altogether satisfactory index of fertility as they depend on several factors other than the rate of reproduction by females. It may be expected that infant mortality will be higher in the rural areas than what it is in the urban areas or the cities which are provided with the much better medical and gynaecological facilities. If so, the number of surviving children between 0 and 4 per 1,000 of married women at the reproductive ages should be higher in the urban areas and specially in the cities than what it is in the rural areas in spite of the relatively low birth-rate in the cities or the urban areas. But there is no conclusive data to support this. On the other hand, it has to be considered that cities are more congested and, therefore, more unhealthy than the villages, the number of slums in the former is quite large and the percentage of females taking advantage of the hospitals and maternity centres is very small. Perhaps due to these reasons the cities or the urban areas are not better placed than the villages so far as the infant mortality is concerned. During the decade 1941—50 the infant mortality per 1,000 of live births in the rural areas of the State was only 107 as compared to 181 in the urban areas. But perhaps the recording of deaths is more complete in the cities or urban areas than elsewhere and, therefore, the recorded infant deaths appear to be higher in the urban than in the rural areas. Unfortunately the available statistics do not permit a definite verdict.

12. It may be examined what light the child-woman ratio in the State and in its rural and urban areas throws on the trend of infant mortality. It has been said above that in 1931 the ratio for the State averaged 802 children per 1,000 married women in the ages between 15 and 44 and in the cities as a whole it averaged 750. It can be derived from this that the ratio for the rural areas should be a little higher than what it is for the general population of the State. In 1951 the number of children in rural areas averaged only 734, while that for the cities increased to 796 from 750 in 1931. The figures suggest that infant mortality has come down in the cities while it seems to have increased in the rural areas, provided the natural fecundity of women has remained constant (and there is no evidence to believe it to be otherwise) throughout the last 30 years. With the general improvement of medical facilities and control of epidemics during these years it does not look normal that the child-woman ratio for the rural population should come down to 734 in 1951 from a somewhat higher figure than 802 in 1931.

13. While comparing the figures of the 1951 census with those of 1931 it may be remembered that the age returns of 1931 are smoothed while the figures of 1951 are unsmoothed. An attempt has been made in Subsidiary Table 6·17 in Part I-B of the Report to smoothen the age specific returns for 1951 on the lines that were adopted in 1931. The comparative figures of the number of children per 1,000 women of reproductive ages for 1931 and 1951

are shown in Table 150. Age specific returns for 1951 have not been smoothed for civil condition and so for comparability the figures for the censuses of 1951

TABLE 150—Number of children 0—4 per 1,000 of women, 15—44 in the State, 1931 and 1951 (smoothed)

Particulars	Children 0—4 per 1,000 women 15—44	
	1951	1931
General population ..	720	682
Rural population ..	721	—
Urban population ..	713	—
Cities ..	706	628

and 1931 have been shown against all women at the reproductive ages and not against married women. The rural and urban break-up is not available for 1931. The trend of the figures in the table is in the right direction. The child-woman ratio for the rural population in 1951 is 721 as against 713 for the urban population and 706 for the cities.

14. To sum up, it seems evident from the above discussion that in this State also the main differentials are two: first, the child-woman ratio for urban population is lower than that for the rural population; second, the cities have a smaller number of children per 1,000 women at reproductive ages than do the urban areas. Furthermore, it would be observed that the number of children 0—4 per 1,000 women at the reproductive ages has increased from 682 in 1931 to 720 in 1951 for the population of the State as a whole and from 628 to 706 for the cities during the same period. This indicates the extent of the decline in infant and child mortality that appears to have taken place during these years. The cities which enjoy better medical facilities are in an advantageous position.

15. We have hitherto tried to explain the rural-urban city trends of birth-rate with the help of whatever existing evidence we have and with reasonable assumptions that could be made. But in some of the cities the registered birth-rates are extremely high. The rates of Hathras (50·5), Agra (48·7), Sambhal (46·1), Etawah (45·3), Amroha (45·1), Pilibhit (44·4), Jhansi (42·3), Moradabad (40·6), Banaras (39·5) and Mathura (39·0) look abnormal as compared to the rates in the urban areas as a whole. The somewhat inflated rates in these cities appear to have pushed up the rates of the urban areas also to some extent.

The cities of very high birth-rate

16. It may first be examined whether the high birth-rate of these cities is real. The data in Table 151, showing the birth-rate of the cities for 1931 and 1951 and the ratio of married females of child bearing age to the total population, reveal some trend. The same cities had an extremely high birth-rate in 1931 also. Moreover, the changes in the registered birth-rates between 1921—30 and 1941—50 generally correspond to the changes in the ratio of married females of ages

TABLE 151—Mean decennial birth-rate (registered) of cities during 1921—30 and 1941—50 and the proportion of married females aged 15—44 to the total population for the two censuses

Cities	Mean decennial birth-rate during		Proportion of married females 15—44 to the total population at the census of	
	1941—50	1921—30	1951	1931
All cities	34·2	39·9	164	176
1 Kanpur	27·0	32·7	175	195
2 Lucknow	34·3	38·7	159	174
3 Agra	48·7	48·9	166	177
4 Banaras	39·5	48·7	110	173
5 Allahabad	29·0	38·0	165	176
6 Meerut	32·0	22·3	154	164
7 Bareilly	34·2	31·5	158	172
8 Moradabad	40·6	47·9	166	136
9 Saharanpur	35·8	47·5	182	172
10 Dehra Duo	24·0	23·2	158	—
11 Aligarh	24·4	43·7	177	175
12 Rampur	—	—	167	172
13 Gorakhpur	25·6	35·8	195	176

TABLE 151—Mean decennial birth-rate (registered) of cities during 1921—30 and 1941—50 and the proportion of married females aged 15—44 to the total population for the two censuses—(contd.)

Cities	Mean decennial birth-rate during		Proportion of married females 15—44 to the total population at the census of	
	1911—50	1921—30	1951	1931*
14 Jhansi	42.3	36.3	188	183
15 Mathura	39.0	43.8	150	175
16 Shahjahanpur	30.7	40.1	184	182
17 Mirzapur	34.2	44.5	133	194
18 Faizabad	24.2	22.4	177	168
19 Farrukhabad	33.7	43.2	193	184
20 Firozabad	20.5	42.4	176	—
21 Muzaffarnagar	30.4	33.8	177	—
22 Sambhal	46.1	50.2	135	180
23 Etawah	45.3	52.1	171	180
24 Amroha	45.1	52.7	159	181
25 Hardwar	30.5	35.6	142	—
26 Hathras	50.5	52.9	186	192
27 Budaun	37.0	48.6	171	176
28 Jaunpur	24.0	31.9	182	—
29 Pilibhit	44.4	50.3	176	—
30 Ghaziabad	26.0	37.4	159	—

between 15—44, i.e., the reproductive ages, to the total population. The correspondence is not perfect but it is consistent enough to be convincing. There are in the table a few exceptions to the general trend: the larger the ratio of married females of reproductive ages to the total population, the higher the birth-rate and *vice versa*. The proportion of married females aged 15—44 to total population shows an upward trend in 8 cities only—Moradabad, Saharanpur, Aligarh, Gorakhpur, Jhansi, Shahjahanpur, Faizabad and Farrukhabad. With the changes in this ratio the birth-rate has also gone up in Jhansi and Faizabad but in the other 6 cities it shows an opposite trend. On the other hand in Meerut and Bareilly while the female-ratio at the reproductive ages has come down the birth-rate has moved up.

With existing evidence it seems impossible to explain satisfactorily the inconsistent trend mentioned above. While looking for the causes of such inconsistent trends it should, however, be remembered that in 1951 figures of age returns are unsmoothed and so they are not exactly comparable with those of 1931. It appears that besides the number of married women of reproductive ages some other variables are also at work. The birth-rate of Meerut in 1921—30 was only 22.3 as compared to the average of 39.9 for the cities of the State. It is quite possible that the registration of vital statistics in this city was not complete in 1921—30 and since then it has improved. Bareilly seems to have lost in balance of migration.† Bareilly also lost in Muslim migration but it did not gain much in displaced persons as did Meerut or Saharanpur. The result is that the population under registration was larger than that enumerated at the census date. The rate has, therefore, gone up in spite of a fall in the number of married women at the reproductive ages. Saharanpur, Aligarh and Gorakhpur have been growing and have gained a substantial population from migration though they also suffered some loss due to Muslim exodus. Heavy immigration to these cities has brought down their birth-rates. It is also not impossible that registration in these towns has suffered to some extent. Moradabad, Shahjahanpur and Farrukhabad have lost in migration. The rate in these cities should have shown an upward move, but it is probable that deterioration in registration pushed it downwards.

* For obtaining the number of married women between 15 and 44 for 1931, it has been assumed that the number of women between 40 and 44 will be half of those between 40 and 50 for which group only the census figures are available.

† If the birth and death-rates are presumed as correct, the difference of the growth-rate and the rate of natural increase will give the migration rate.

17. The high birth-rates in some of the cities may be attributed to one or other or all of the following causes :

The possible causes of extremely high birth rates

- (i) There is a good chance of the registration data being more nearly complete in the cities than elsewhere. There are on the other hand some cities where both the recorded birth and death-rates are very low. Firozabad is an example of it; Jaunpur, Ghaziabad, Gorakhpur, Aligarh, Dehra Dun are the others. The low birth and death-rates in these cities do not necessarily reflect a better sanitation or health condition than what exists elsewhere. Perhaps the low rates reflect larger omissions in these cities in the registration of births and deaths.
- (ii) Many women from outside come to the cities for deliveries.

TABLE 152—Labour cases in the city hospitals in 1952

City	Labour cases		
	Total	Residents of cities	Outsiders
Kanpur ..	2,268	1,574	694
Banaras ..	802	761	41
Allahabad ..	1,122	1,028	94
Bareilly ..	690	460	230
Moradabad ..	482	341	141
Dehra Dun ..	754	700	54
Aligarh ..	446	188	258
Jhansi ..	250	213	37
Mathura ..	1,037	961	76
Shahjahanpur ..	142	108	34
Faizabad ..	355	200	155
Farrukhabad ..	74	54	20
Muzaffarnagar ..	187	113	74
Amroha ..	37	17	20
Hathras ..	354	222	132
Budaun ..	145	96	49
Jaunpur ..	148	43	105
Pilibhit ..	81	48	33
Total ..	9,374	7,127	2,247
Percentage ..	100	76.0	24.0

Table 152 gives the number of labour cases of some of the city hospitals for the year 1952. It appears that about one-fourth of the deliveries taking place in the city hospitals are of women who are inhabitants of the rural areas. In addition, a large number of deliveries also take place in the city maternity centres and private clinics and the figures in the table give indication of the fact that a fair percentage of such deliveries are of women residing in the rural areas. The births occurring to the non-residents of the cities in the city hospitals, maternity centres, and clinics are recorded in the city registers of births. Such births tend to inflate the birth-rate of the cities.

- (iii) The registration data may relate to areas which are larger than the areas of the census cities. Year after year the neighbouring villages merge in the growing adjacent municipalities. They are subsequently included in the registration area but the census population of the previous census year is not adjusted to the layout of the later census. The mean population of the two decades is, therefore, affected and the calculated birth and death-rates go up.
- (iv) The registration data may relate to population which are larger than the enumerated city population. It is a known fact that a large migration, temporary and semi-permanent, takes place in a city between two census years. Most of the cities (of high birth and death-rate) attract a large number of outsiders. All the births and deaths occurring to these people are recorded in the cities, but these migrants may not be present in the cities at the time of enumeration and so they are not included in the census population. The calculated rate, which is worked out on the basis of the census population, is thus, inflated. But it is not possible to gauge correctly the influence of this factor in the cities of high birth and death-rates.
- (v) Cities like Etawah, Amroha, Sambhal and Pilibhit (which have a very low growth-rate) are gradually losing population on balance of migration. It appears that people are emigrating from these cities in larger numbers. The likelihood is that while births and deaths occurring to the emigrating families before they migrate from the cities are recorded there, the members of such families are not enumerated in the population of the relevant cities. The inclusion of such births in the records of the cities tend to inflate the birth-rate when it is calculated on the depleted population.

Trend of birth-rates
in the urban
areas of the dis-
tricts

18. Let us return to the trend of the birth-rate during the last three decades indicated by the figures for the State and the natural divisions in Table 144. The birth-rate in the urban areas has been declining recently in all the natural divisions due mainly to the factors which have already been discussed in Chapter I.

It will be observed from the data in Table 153 that the birth-rate has also been declining in the districts in general. During 1921—30 as many as 37 districts had a birth-rate of 30 per cent. or over. Only 7 districts, Basti (12·7),

TABLE 153—*Distribution of districts in the birth-rate ranges (urban), 1921—50 **

Decade	Number of districts with birth-rate						
	Below 20	20—25	25—30	30—35	35—40	40—45	45 and over
1921—30	2	3	2	6	9	11	11
1931—40	4	5	10	10	11	4	4
1941—50	3	7	12	14	5	7	..

Kheri (16·1), Mainpuri (21·4), Ghazipur (23·7), Ballia (24·5), Banda (27·7), and Faizabad (29·3) had a birth-rate below 30 per cent. during 1921—30. It is striking that these districts had also a low death-rate during this decade. Under-registration appears to be the main factor responsible for low birth as well as death-rates in these districts. Of the 37 districts having a birth-rate of 30 per cent. or over as many as 11 had a high birth-rate of 45 per cent. or over and an equal number had a birth-rate between 40—45. The 5 districts having the highest birth-rate in order, are Agra (53·6), Etawah (52·1), Pilibhit (50·3), Jalaun (50·3) and Banaras (49·6). The position altered during the next two decades. The number of districts having a birth-rate of 30 per cent. and over came down to 29 in 1931—40. Of these only 4 districts, Banaras (48·2), Pilibhit (46·1), Agra (45·7) and Jhansi (45·5) had a birth-rate 45 per cent. and over; 4 districts, Moradabad (44·1), Jalaun (43·4), Etawah (42·8) and Budaun (41·3) had a birth-rate between 40 and 45 per cent. ; 11 districts had a birth-rate between 35 and 40 per cent. ; and 10 districts had a birth-rate between 30 and 35 per cent. At the other end of the scale were the districts of Garhwal (16·4), Mainpuri (17·8), Ballia (18·6), Banda (19·9) and Almora (21·1). The decade 1941—50 saw another drop in the birth-rate and the number of districts having a birth-rate of 30 per cent. or over came down to 26 from 29 in 1931—40 and the number of districts in the lower birth-rate ranges increased. No district had a birth-rate of 45 per cent. or over. 7 districts, Pilibhit (44·2), Agra (43·2), Moradabad (41·2), Budaun (40·7), Mathura (40·4), Etawah (40·4) and Banaras (40·3) had a birth-rate between 40 and 45 per cent. The districts having the lowest birth-rate were Garhwal (16·0), Basti (18·5), Banda (19·6), Ballia (20·6) and Mainpuri (21·4). From the above description it is evident that generally those districts record a high birth-rate in which the cities of high birth-rate are situated. The factors contributing to the high birth-rate in these cities have been mentioned before. Further, it appears that generally the same districts have recorded the lowest birth-rates throughout the last three decades. As has been mentioned before, their registration system seems to be defective and all the births occurring in these districts have not been recorded. Urban areas of the districts which attract large immigrant population, mainly males, are also likely to have a relatively lower birth-rate as compared to the non-immigrating areas. Dehra Dun and Kanpur with their low birth-rates of 24·2 and 27·1 per cent. during 1941—50 as against a high growth-rate of 58·7 and 36·5 per cent. during the same period stand out as striking examples of this.

The death-rate

19. There has been a universal downward trend of the death-rates in the urban areas of the State since 1921. The data in Table 154 indicates that all the natural divisions have shared in this decline. The period of major epidemics came to an end with the end of the decade 1911—20, but to some extent their influence persisted during the early years of the decade 1921—30 and, therefore, the death-rates of this decade are high. Since then there has been a fall

* Formerly the districts of Tehri-Garhwal and Rampur did not form part of the registration area of the State. Deoria was a part of Gorakhpur. Therefore, the number of districts shown in the table is only 48. The figures for 1921—30 are only for the towns which had a population of 10,000 and over in 1921. Garhwal, Almora, Sultanpur and Pratapgarh had no such towns and they do not figure in the table during the period 1921—30.

by 11.1 per cent. in case of the State during 1931—40 and by 2.3 per cent. during 1941—50. Against the total decline of 13.4 per cent. in the death-rate of the State during the last twenty years the decline in the natural divisions

TABLE 154—*Mean decennial death-rates (registered) of the urban and rural population in the State and the natural divisions, 1921—50.*

Natural division	Mean decennial death-rate					
	1941—50		1931—40		1921—30	
	Urban	Rural	Urban	Rural	Urban	Rural
Uttar Pradesh	22.5	15.6	24.8	21.5	35.9	24.8
Himalayan	15.2	19.8	20.0	25.0	29.7	27.5
East Plain	24.0	14.7	24.7	18.9	36.6	21.8
Central Plain	20.8	12.8	24.4	19.0	37.2	22.6
West Plain	23.4	17.7	25.2	25.0	35.7	28.2
Hills and Plateau	22.1	18.7	24.8	23.7	32.4	27.8

has been as follows: Central Plain 16.4, Himalayan 14.5, East Plain 12.6, West Plain 12.3 and Hills and Plateau 10.3. While the decline in the natural divisions has ranged between 7.6 and 12.8 per cent. during 1931—40, its range during 1941—50 has been only between 0.7 and 4.8 per cent. It appears from the data that the advance in elimination of death has slackened during the decade 1941—50. This trend does not seem to be in conformity with the declining trend in the death-rate of the rural population. It appears that the largest fall in the death-rate of the rural areas, has occurred during 1941—50. But when allowance for under registration is made in the figures of the rural areas the estimated data indicates a fall from 32.7 per cent. in 1921—30 to 26.0 per cent. in 1931—40, i.e., by 6.7 per cent., and a smaller fall of 2.2 per cent. during 1941—50, the estimated death-rate for the decade being 23.8 per cent. The rural and urban trends of decline during the last twenty years, thus, become consistent.

Another striking conclusion indicated by the figures in the table is that the reduction of deaths has been going on at a faster pace in the urban areas than in the rural areas. Unmistakably the death-rates were relatively higher in the towns during 1921—30 and the villages were comparatively healthier. Since then great advances have been made in medical science and practice and improvements in sanitary facilities also have taken place. The urban areas got a lion's share. It has been shown in the corresponding section of the previous chapter that of the self-supporting persons with medical and other health services as their principal means of livelihood, 58.2 per cent. were enumerated in the urban areas at the census of 1951. Of the registered medical practitioners 70 per cent. were found living in the urban areas. It is not surprising, then, that the fight against death has been more successful in the urban than in the rural areas. In spite of this, as has been seen in the previous chapter, there is no conclusive evidence to show that in 1951 the towns were healthier than the villages.

20. Subsidiary Table 3.3 gives the death-rates for the urban population in the districts for the last three decades. Of the 44 districts for which vital statistics are available for the decade 1921—30 as many as 24 had a death-rate over 30 per cent. Banaras recorded the highest death-rate of 54.1 per cent. The districts of Etawah (47.2), Pilibhit (46.1), Mathura (45.7), Kanpur (44.4) and Lucknow (42.1) had a death-rate over 40 per cent. At the other end of the scale are the low mortality rate districts of Basti (13.1), Mainpuri (15.2), Kheri (17.4), Ghazipur (17.7) and Ballia (19.3). It has been mentioned before that their low rate is mostly accounted for by incomplete recording of deaths. During 1931—40 the death-rate declined in all the districts except Basti where it increased to 19.5 per cent. from 13.1 per cent. in 1921—30. Only 5 districts, Banaras (46.0), Etawah (33.2), Saharanpur (32.7), Jhansi (32.4) and Pilibhit (32.0) had a death-rate of 30 per cent. or over. The number of districts having a death-rate below 20 per cent. increased to 18 from 5 in 1921—30. Garhwal (9.0), Mainpuri (11.2), Ballia (11.6), Almora (12.1) and Banda (12.1) had the lowest rates. The decline continued during the decade 1941—50 and except for slight increases in 13 districts the others recorded a lower death-rate. It appears that the

Trend of death-rate of the urban population in the districts

districts which have shown increase in the death-rate are those which have the lowest registered death-rates and perhaps the increases only denote some improvement in the system of registration. Only 3 districts, Banaras (41·8), Pilibhit (31·5) and Etawah (31·2), against 5 in 1941—50 had a death-rate of 30 per cent. or over. The above discussion is summarized in Table 155.

TABLE 155—*Distribution of districts in death-rate ranges, 1921—50*

Decade	Number of districts with death-rate—								
	Below 10	10—15	15—20	20—25	25—30	30—35	35 and over		
1921—30	1	4	1	14	8	16
1931—40	1	8	9	16	9	4	1
1941—50	1	6	17	15	6	2	1

The cities of high death-rate

21. A comparative study of Subsidiary Tables 3·3 and 3·3A will show that the high death-rates in some of the districts are mainly due to the high death-rates in their cities. Subsidiary Table 3·3A gives the death-rates of the cities. As against the average rate of 24·2 for all cities during 1941—50, the rates for Banaras (42·4), Hathras (38·0), Etawah (37·5), Hardwar (33·7), Pilibhit (33·7), Sambhal (29·4), Jhansi (29·4), Amroha (29·2) and Agra (28·5) appear to be extremely high. If the analysis is carried back to 1921—30, it would be found that the same cities had an extremely high rate during 1921—30 and 1931—40 also. It will further be observed that the same cities, with the exception of Hardwar, which record a very high birth-rate show an extremely high death-rate also. There seems to be a clear indication that both the high birth and death-rates in these cities are governed by the same factors. These have already been described in paragraph 17 above. In addition, a large number of rural inhabitants die in the cities. The number of outsiders taking advantage of the medical facilities in the cities cannot be estimated correctly. Probably quite a large number of them die in the city hospitals. Banaras has a special reason for its high death-rate. Hindus from different parts of the country come to breathe their last in this city as a matter of faith. The death-rate of Hardwar also is probably affected by this factor.

The natural increase

22. Growth of population in the urban areas has been achieved through migration and the restriction of deaths and not through a higher birth-rate. Subsidiary Table 3·3 shows the contribution of natural increase and migration to the growth of population for the area under registration. An analysis of this table will show that in the urban areas, unlike the rural, natural increase and migration have made almost an equal contribution to growth of population. Table 156 indicates the amount of contribution of natural increase and migration to the growth of the urban population of the State as a whole (and not only for its area of registration). As has been mentioned in Section 3 of Chapter II the rates of birth and death for the area of registration have been adopted for the State as a whole and on the basis of these rates the amount of natural increase and migration have been estimated.

TABLE 156—*Mean decennial growth-rates during three decades—urban population*

Decade	Mean decennial growth-rate	Mean decennial rates of			
		Birth	Death	Natural increase	Per cent. migration*
1921—30	12·0	41·9	35·9	6·0	6·0
1931—40	23·1	35·6	24·8	10·8	12·3
1941—50	20·5	32·9	22·5	10·4	10·1

* Figures of migration include the figures of gain of population to the urban areas due to changes in the list of towns. See paragraphs 4 and 5 of Section 3 of Chapter II.

The figures in the table show that the high growth of population during 1931—40 was the result of a rise in natural increase from 6·0 per cent. in 1921—30 to 10·8 per cent. in 1931—40 and to a greater per cent. increase in migration from 6·0 per cent. in 1921—30 to 12·3 per cent. in 1931—40. Reduction in deaths contributed to the rise in the natural increase and the war boom acted as a 'pull' for the immigrants to the towns. The growth-rate came down by 2·3 per cent. during 1941—50. This appears to be due to a slight fall of 0·4 per cent. in natural increase and to a fall of 2·2 per cent. in migration. There was a further reduction in the death-rate during this decade but the fall in the death-rate was so small that it slightly lagged behind the decline in the birth-rate. The decline in migration was brought about by a slackening of the forces of "push" and "pull" during this decade. The agricultural prices were high and consequently the villager was less inclined to leave his home for employment elsewhere. On the other hand, with the end of the War the opportunities for employment in the towns were also reduced.

SECTION 6 —LIVELIHOOD PATTERN OF URBAN POPULATION

Distribution of urban population according to livelihood classes

1. Table 157 gives the distribution of 10,000 urban population in livelihood classes by natural divisions. It will appear that 87·59 per cent. of the urban population belongs to non-agricultural classes and only 12·41 per cent. to the agricultural classes.

TABLE 157—*Distribution of 10,000 urban population in livelihood classes by natural divisions*

Natural division	Livelihood classes									
	Total	Agricultural				Non-agricultural				
		I	II	III	IV	Total	V	VI	VII	VIII
Uttar Pradesh	1,241	840	167	97	137	8,759	2,494	2,190	617	3,458
Himalayan	491	353	76	12	50	9,509	1,536	2,125	519	5,329
East Plain	1,680	1,138	237	170	135	8,320	2,566	2,205	613	2,936
Central Plain	776	505	118	30	123	9,224	2,803	2,085	640	3,696
West Plain	1,358	918	168	117	155	8,642	2,404	2,254	600	3,384
Hills and Plateau ..	1,613	1,166	250	90	107	8,387	2,267	2,123	717	3,280

Among the non-agricultural classes the highest proportion belongs to Class VIII, Other services and miscellaneous sources (34·58 per cent.), which include general labour and employees of health, education and public administration services and other services. Next in importance is Class V, Production other than cultivation, (24·94 per cent.) followed by Class VI, Commerce, (21·90 per cent.) and Class VII, Transport, (6·17 per cent.).

Among the agricultural classes the highest proportion belongs to Class I Cultivators of owned land, (8·40 per cent.), and the other agricultural classes represent very small proportions. As will be shown later the bulk of the agricultural classes relate to non-city urban areas; their proportion in city areas is very small.

Livelihood pattern by natural divisions

2. Examining the pattern by natural divisions it would appear that the highest proportion of non-agricultural classes (95·09 per cent.) is in the urban areas of Himalayan, due to the preponderance of Class VIII, consisting mainly of general labour and employees of the Union Government and other services. The next highest proportion is in Central Plain (92·24 per cent.) owing to the higher proportion of Class V, Production other than cultivation, and Class VIII, Other services and miscellaneous sources. This division contains the three *KABAL* towns of Kanpur, Allahabad and Lucknow.

The proportion of agricultural classes is high in the East Plain, Hills and Plateau and West Plain. This is due to the existence of a high proportion of agricultural classes in the urban areas of a few districts of these divisions as follows:

East Plain—Bahraich (19·12 per cent.), Basti (22·26 per cent.), Deoria (31·02 per cent.), Ballia (32·44 per cent.), Ghazipur (45·18 per cent.).

West Plain—Muzaffarnagar (18·15 per cent.), Etah (19·23 per cent.), Bulandshahr (20·70 per cent.), Bijnor (21·02 per cent.), Kheri (28·28 per cent.), Budaun (31·37 per cent.).

Hills and Plateau—Banda (19·53 per cent.), Jalaun (25·74 per cent.), Hamirpur (26·73 per cent.).

It will appear that a fair proportion of the urban population in the above districts have their roots in rural areas; they are mainly cultivators of owned land.

Among the livelihood classes, the figures of Class I, Cultivators of owned land, are higher in East Plain, Hills and Plateau and West Plain, the three divisions in which the agricultural classes have a fairly high proportion. Under Class V, Production other than cultivation, the highest proportion is in Central Plain (28·03 per cent.), owing to the existence of the highly industrialized town

of Kanpur and other big cities like Allahabad, Lucknow and Faizabad, each having a high proportion of this class. Other districts having high proportions in urban areas under this class are Azamgarh (41·71 per cent.), owing to the weaving industry at Mau; Banaras (32·99 per cent.), owing to weaving and textile industry; Mirzapur (29·56 per cent.), owing to hosiery and metal products; and Agra (29·06 per cent.), owing to leather, bangle and metal industries. Under Class VI, Commerce, there are no significant differences among the natural divisions. Under Class VII, Transport, although there are no significant differences among the natural divisions, there are urban areas of some districts with particularly high proportions, such as Gorakhpur (12·42 per cent.), Jhansi (9·87 per cent.), Allahabad (9·46 per cent.), Bareilly (9·44 per cent.), Lucknow (8·41 per cent.). All these districts have important railway and road centres. Under Class VIII, Other services and miscellaneous sources, the highest proportion is in the Himalayan (53·29 per cent.), followed by Central Plain (36·96 per cent.). It will be noted that over one-third of the total urban population of the State belongs to this livelihood class.

3. It will be interesting to study the livelihood pattern of the population of cities separately. Subsidiary Table 3·7-A gives the figures for each of the 30 cities of the State. Table 158 compares the livelihood classification of the urban and city population.

Livelihood pattern of cities compared with urban areas

TABLE 158—*Distribution of 10,000 persons of urban and city population in various livelihood classes, 1951*

Livelihood class	Urban population	Total city population
All Classes	10,000	10,000
All agricultural classes	1,241	418
I—Cultivators of land wholly or mainly owned and their dependants ..	840	212
II—Cultivators of land wholly or mainly unowned and their dependants ..	167	69
III—Cultivating labourers and their dependants	97	27
IV—Non-cultivating owners of land; agricultural rent-receivers; and their dependants	137	110
All non-agricultural classes (including their dependants)	8,759	9,582
V—Production	2,494	2,798
VI—Commerce	2,190	2,245
VII—Transport	617	773
VIII—Other services and miscellaneous sources	3,458	3,766

As expected the population of cities has a higher proportion of Non-agricultural classes than urban population (95·82 per cent. against 87·59 per cent.). The urban population in the State consists of 4,777,384 as population of the 30 cities and 3,848,315 as population of 437 non-city urban areas. Many of the non-city urban areas are just passing the transition stage from rural to urban and some have been classed as urban only because of the establishment of town areas, although they are still, strictly speaking, rural in character. This explains the difference in the livelihood classification of the cities from that of the urban areas in general.

Examining the pattern of individual cities as given in Subsidiary Table 3·7-A, it appears that the non-agricultural classes constitute over 90 per cent. of the population in all cities except Shahjahanpur, Amroha, Jaunpur, Budaun and Sambhal. Non-agricultural Class V, Production other than cultivation, is the highest in Firozabad (49·93 per cent.) followed by Kanpur (42·59 per cent.), Banaras (34·44 per cent.), Mirzapur (32·53 per cent.), Moradabad (31·99 per cent.), Aligarh (31·15 per cent.), Farrukhabad (30·02 per cent.), and Amroha (30 per cent.). All these cities are well-known for their industries. Class VI, Commerce, is highest in Hathras (35·76 per cent.), Muzaffarnagar (31·24 per cent.), Ghaziabad (28·23 per cent.), and Saharanpur (26·10 per cent.). These are well-known *mandis*. As regards Class VII, Transport, the highest proportion is returned by Ghaziabad (19·77 per cent.), Gorakhpur (14·83 per cent.), Jhansi (14·19 per

cent.), Bareilly (11·54 per cent.), Saharanpur (11·43 per cent.), Moradabad (10·20 per cent.), and Allahabad (9·87 per cent.). All these are important railway centres and road transport also is now being rapidly developed in and around these cities. Under Class VIII, Other services and miscellaneous sources, the cities with the highest proportions are Dehra Dun (56·25 per cent.), Hardwar (49·45 per cent.), Meerut (48·05 per cent.), Lucknow (46·84 per cent.), Allahabad (46·20) and Faizabad (46·08 per cent.). In Dehra Dun the bulk of the people of this class are domestic servants and employees of the Union Government and of "services otherwise unclassified." In Hardwar and Faizabad, which are both pilgrimage centres, the figures under "religious, charitable and welfare services" account for the high percentage. In Meerut the employees of health, education and public administrative services, domestic servants and "services otherwise unclassified" constitute the bulk of this class. In Lucknow, the capital of the State and in Allahabad, the proportion of employees of health, education and public administration is naturally high and so also of domestic servants and "services otherwise unclassified." It is significant that about two-fifth of the population of the cities belongs to this class.

Self-supporting persons, earning dependants and non-earning dependants

4. Table 159 gives the distribution of 1,000 persons of urban population of each livelihood class among self-supporting persons, earning dependants and non-earning dependants. It would appear that 30·6 per cent. of the urban population are self-supporting persons, only 3·4 per cent. are earning dependants and 66·0 per cent. are non-earning dependants. This is in striking contrast with the dependency of rural areas (*vide* Section 6 of Chapter II). In rural areas the self-supporting persons constitute 30·4 per cent. which is about the same proportion as in urban areas, but the proportion of female self-supporting persons is higher in the rural (3·0 per cent.) than in the urban areas (2·2 per cent.), the difference being most marked in the non-agricultural classes.

TABLE 159—*Distribution of 1,000 persons of urban population of each livelihood class among self-supporting persons, earning dependants and non-earning dependants by sex*

Livelihood class	Self-supporting persons			Earning dependants			Non-earning dependants		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
All Classes	306	284	22	34	22	12	660	244	416
All agricultural classes ..	272	250	22	61	32	29	667	262	405
I—Cultivators of land wholly or mainly owned	269	252	17	61	33	28	670	265	405
II—Cultivators of land wholly or mainly unowned	271	255	16	79	38	41	650	239	411
III—Cultivating labourers ..	334	298	36	77	31	46	589	212	377
IV—Non-cultivating owners of land ; and agricultural rent receivers	249	197	52	22	16	6	729	304	425
All non-agricultural classes	311	289	22	30	20	10	659	241	418
V—Production	309	293	16	39	24	15	652	230	422
VI—Commerce	270	259	11	27	22	5	703	255	448
VII—Transport	312	308	4	22	16	6	666	239	427
VIII—Other services and miscellaneous sources	338	302	36	26	17	9	636	241	395

The proportion of earning dependants is markedly lower in the urban areas (3·4 per cent.) than in the rural areas (13·4 per cent.). This is due to the fact that earning dependants consist principally of women, who have a much larger scope for participation in family occupations, both agricultural and non-agricultural, in rural than in urban areas. This disparity is also reflected in the proportion of non-earning dependants, the proportion being much higher in the urban than in the rural areas and markedly in the case of females.

Examining the distribution for the agricultural and non-agricultural classes in urban areas, it would appear that the proportion of self-supporting persons is slightly higher in the non-agricultural classes, while the proportion of earning and non-earning dependants is slightly higher in the agricultural classes. The non-agricultural classes predominate in the urban areas and the

distribution might be profitably examined in greater detail for these classes. The highest proportion of self-supporting persons is returned under Class VIII, Other services and miscellaneous sources. The highest proportion of earning dependants among the non-agricultural classes is returned under Class V, Production other than cultivation, because this is the class which provides the greatest scope for the participation of women and children in family occupations. The highest proportion of non-earning dependants among non-agricultural classes are under Class VI, Commerce.

Table 160 gives the same distribution for the population of the cities. As is to be expected, the proportion of self-supporting persons is slightly higher, that of earning dependants slightly lower and that of non-earning dependants slightly higher in the cities than in the urban population. It will be further noticed that the proportion of females among the workers is lesser in the cities.

TABLE 160—*Distribution of 1,000 persons of city population of each livelihood class among self-supporting persons, earning dependants and non-earning dependants by sex*

Livelihood class	Self-supporting persons			Earning dependants			Non-earning dependants		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
All Classes	311	290	21	24	19	5	665	248	417
All agricultural classes	271	236	35	37	26	11	692	310	382
I—Cultivators of land wholly or mainly owned	285	249	36	43	29	14	672	321	351
II—Cultivators of land wholly or mainly unowned	269	249	20	49	33	16	682	250	432
III—Cultivating labourers	340	310	30	35	26	9	625	237	388
IV—Non-cultivating owners of land; and agricultural rent receivers	228	186	42	19	15	4	753	344	409
All non-agricultural classes	312	292	20	24	19	5	664	245	419
V—Production	313	301	12	28	23	5	659	233	426
VI—Commerce	267	256	11	23	20	3	710	261	449
VII—Transport	317	313	4	19	16	3	664	240	424
VIII—Other services and miscellaneous sources	338	303	35	22	16	6	640	246	394

5. Table 161 gives the distribution of 10,000 self-supporting persons, earning dependants and non-earning dependants of each sex of urban population among various livelihood classes.

TABLE 161—*Distribution of 10,000 self-supporting persons, earning dependants and non-earning dependants of each sex of urban population among various livelihood classes*

Livelihood class	Self-supporting persons			Earning dependants			Non-earning dependants		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
All Classes	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
All agricultural classes	1,102	1,021	1,255	2,241	1,841	2,959	1,254	1,333	1,208
I—Cultivators of land wholly or mainly owned	737	744	649	1,537	1,302	1,958	852	913	816
II—Cultivators of land wholly or mainly unowned	148	150	118	395	299	567	164	164	164
III—Cultivating labourers	106	102	161	222	139	372	87	85	88
IV—Non-cultivating owners of land; and agricultural rent receivers	111	95	327	87	101	62	151	171	140
All non-agricultural classes	8,898	8,909	8,745	7,759	8,159	7,041	8,746	8,667	8,792
V—Production	2,520	2,577	1,771	2,854	2,784	2,981	2,464	2,359	2,525
VI—Commerce	1,928	1,991	1,116	1,792	2,233	1,000	2,331	2,289	2,356
VII—Transport	630	670	119	393	462	269	623	605	633
VIII—Other services and miscellaneous sources	3,820	3,671	5,739	2,720	2,680	2,791	3,328	3,414	3,278

Self-supporting persons of urban population consist of 2,639,911 persons of which 92·8 per cent. are males and 7·2 per cent. are females. Among the male self-supporting persons 10·91 per cent. are engaged in agricultural and 89·09 per cent. in non-agricultural occupations. Of the females, 12·55 per cent. are engaged in agricultural and 87·45 in non-agricultural occupations. The largest proportion of both male and female self-supporting persons falls under Class VIII, Other services and miscellaneous sources. But a relatively higher percentage of female self-supporting persons (57·39 per cent.) than male (36·71 per cent.) has been returned under this class.

Earning dependants of urban population consist of 289,827 persons of which 64·2 per cent. are males and 35·8 per cent. are females. Among the male earning dependants 18·41 per cent. belong to agricultural and 81·59 per cent. to non-agricultural classes. Of the female earning dependants 29·59 per cent. belong to agricultural and 70·41 per cent. to non-agricultural classes. It will be noted that the largest proportion of male as well as female earning dependants belongs to Class V, Production other than cultivation, which provides the largest field for the participation of women and children in the family occupation.

Non-earning dependants of urban population consist of 5,695,961 persons of which 36·9 per cent. are males and 63·1 per cent. are females. Among the male non-earning dependants 13·33 per cent. belong to agricultural and 86·67 per cent. to non-agricultural classes. Among the females 12·08 per cent. belong to agricultural and 87·92 per cent. to non-agricultural classes. Both among male and female non-earning dependants the highest proportion lies in Class VIII, Other services and miscellaneous sources.

6. It is not possible to compare the livelihood pattern of urban population in 1951 with that of previous censuses as separate figures for urban areas have been compiled for the first time in 1951 only. But a comparison of the livelihood pattern of workers (self-supporting persons and earning dependants classed according to their secondary means of livelihood) of 23 cities* which are common to all censuses since 1911, is possible and Table 162 gives the comparative data for 1911, 1921, 1931 and 1951. It will be seen that the agricultural means of livelihood accounted for 8·2 per cent. of the urban population in 1911. This proportion increased to 15·7 per cent. in 1921 but has been

TABLE 162—*Livelihood pattern of workers of 23 cities 1911—31 and 1951*

(Actual and percentage)

Means of livelihood	1951	1931	1921	1911
Total agricultural and non-agricultural	1,436,587 (100)	961,607 (100)	937,042 (100)	927,773 (100)
Total agricultural	58,801 (4·1)	110,139 (11·5)	147,244 (15·7)	76,042 (8·2)
Cultivation of owned and unowned land ..	40,902 (2·8)	57,433 (6·0)	97,953 (10·5)	41,894 (4·5)
Employment as cultivating labourers ..	5,709 (0·4)	26,682 (2·8)	27,202 (2·9)	16,485 (1·8)
Rent on agricultural land	12,190 (0·9)	26,024 (2·7)	22,089 (2·3)	17,663 (1·9)
Total non-agricultural	1,377,786 (95·9)	851,468 (88·5)	789,798 (84·3)	851,731 (91·8)
Production	417,283 (29·1)	217,812 (22·7)	197,350 (21·1)	231,719 (25·0)
Commerce	274,743 (19·1)	171,604 (17·8)	154,055 (16·4)	136,355 (14·7)
Transport	111,152 (7·7)	58,846 (6·1)	49,321 (5·3)	48,081 (5·2)
Other services and miscellaneous sources	574,608 (40·0)	403,206 (41·9)	389,072 (41·5)	435,576 (46·9)

* These cities are Kanpur, Lucknow, Agra, Banaras, Allahabad, Meerut, Bareilly, Moradabad, Saharanpur, Aligarh, Rampur, Gorakhpur, Jhansi, Mathura, Shahjahanpur, Mirzapur, Faizabad, Farrukhabad, Etawah, Sambhal, Amroha, Hathras and Budaun.

decreasing ever since and now stands at only 4.1 per cent. The non-agricultural means of livelihood have been correspondingly increasing since 1921 and now constitute 95.9 per cent. of the cities population. This increasing trend is shown by all non-agricultural means of livelihood except Other services and miscellaneous sources and is most marked in Production other than cultivation. In absolute numbers even Other services and miscellaneous sources has increased but the increase between 1931—51 has fallen behind the increase in population. The increase in Production other than cultivation has been shown by all the cities except Farrukhabad and Agra and is the highest in Kanpur followed by Rampur. Commerce and Transport have been uniformly rising since 1911. It would thus appear that our cities as a whole are developing industrially and commercially.

7. Table 163, prepared from Subsidiary Table 3.6, gives by natural divisions the rural and urban population per 1,000 of general population and the distribution of 1,000 of each non-agricultural class in rural and urban areas.

TABLE 163—*Rural and urban population per 1,000 of general population and the distribution of 1,000 non-agricultural classes in rural and urban areas*

Natural division	Population per 1,000 of general population	Number per 1,000 general population of total non-agricultural classes	Number per 1,000 general population of each livelihood class				
			V—Production other than cultivation	VI—Commerce	VII—Transport	VIII—Other services and miscellaneous sources	
Uttar Pradesh—							
Rural	864	537	594	406	381	573	
Urban	136	463	406	594	619	427	
Himalayan—							
Rural	883	477	653	311	334	460	
Urban	117	523	347	689	666	540	
East Plain—							
Rural	928	651	689	558	541	682	
Urban	72	349	311	442	459	318	
Central Plain—							
Rural	860	481	497	393	307	529	
Urban	140	519	503	607	693	471	
West Plain—							
Rural	814	527	595	356	360	570	
Urban	186	473	405	644	640	430	
Hills and Plateau—							
Rural	859	523	623	374	338	537	
Urban	141	477	377	626	662	463	

Analysis of the table shows that the urban areas have a greater share of the population belonging to the non-agricultural classes than do the rural areas. They account for 46.3 per cent. of all persons belonging to these classes in the State against their 13.6 per cent. proportion in the total population. In the natural divisions their share ranges between 34.9 and 52.3 per cent. which is far above their 7.2 to 18.6 per cent. proportion of the total population. It will further be observed that the number per 1,000 of general population in the urban areas is larger in Livelihood Classes VII, Transport (619) and VI, Commerce (594) than in the Livelihood Classes VIII, Other services and miscellaneous sources (427) and V, Production other than cultivation (406). This is true of the natural divisions also except that Classes VII, Transport, and VI, Commerce, in the Himalayan and West Plain divisions and Classes VIII, Other services and miscellaneous sources and V, Production other than cultivation, in the Central Plain division have changed their positions between them. These proportions, however, only show the comparative population of the non-agricultural classes in the rural and urban areas. They should not be taken as indicative of the development of non-agricultural occupations in the various natural divisions.

SECTION 7—CONCLUDING REMARKS

Distribution of urban population

1. In 1951, 8,625,699 persons or 13·6 per cent. of the total population of Uttar Pradesh lived in its 486 towns. Of the total urban population of the State, 45·3 per cent. lived in the 16 large cities with a population of 100,000 and over; 10·1 per cent. of it lived in the other cities; and the remaining 44·6 per cent. of the population was concentrated in the smaller towns. The urban population is scattered all over the State and the towns are commercial rather than industrial.

Growth of population

2. Since 1921 the urban population has been increasing at a fast rate. Between 1881 and 1921 the population actually decreased by about 6 per cent. The mean decennial growth-rate was 12 per cent. during 1921—30, 23·1 per cent. during 1931—40 and 20·5 per cent. during 1941—50. Altogether in the last thirty years it has gained by about 74·7 per cent. Despite the rapid growth during these years, the proportion of urban population to the total has only increased to 13·6 per cent. in 1951 from 10·6 per cent. in 1921. It is plain from this that Uttar Pradesh is just beginning a period of rapid urbanization.

A striking feature of the urban growth is that the largest increases have occurred in the towns of a population of 100,000 and over. While during 1881 and 1951 the Class I towns recorded an increase of 208·8 per cent., the variation in case of other classes of towns was : an increase of 0·9 per cent. in Class II, of 111·7 per cent. in Class III, of 1·8 per cent. in Class IV, of 2·4 per cent. in Class V and a decrease of 22·8 in Class VI.*

Migration

3. Migration has been an important factor contributing to the growth of urban population. As against the natural increase of 6 per cent. during 1921—30, the positive balance of migration was also 6 per cent.; the per cent. migration during 1931—40 was 12·3 against natural increase of 10·8 per cent.; and during 1941—50 the per cent. migration was 10·1 against natural increase of 10·4 per cent. The bulk of this migration has been from the rural areas. Men migrate for comparatively short periods to towns for work, leaving their families at home to look after their cultivation. Furthermore, the lack of work for females in the cities and difficulties of accommodation discourage the villagers to bring their families with them. Hence, the urban areas have the distorted sex-ratio. This is to be deplored, as it means that they are living an unnatural existence, missing the comforts of home life and exposed to great temptation towards intemperance.

Natural increase

4. The share of natural increase in the growth of urban population has been mentioned in the above paragraph. It is noteworthy that despite a fall in the birth-rate from 41·9 per cent. in 1921—30 to 35·6 per cent. in 1931—40, the natural increase moved up to 10·8 from 6·0 per cent. due to the larger fall in the death-rate from 35·9 per cent. to 24·8 per cent. The birth and death-rates came down to 32·9 and 22·5 per cent. during 1941—50 and the natural increase slightly diminished to 10·4 per cent.

The future growth

5. Family planning and deliberate control of birth are not very important in this State at present and there seems to be no likelihood that the natural growth will be retarded in the near future due to birth control measures. Moreover, there will be increased migration from the rural areas in the wake of growing industrialization. The urban population is expected to grow faster and faster and urbanization is bound to create new problems of life in the urban areas—social as well as economic.

Livelihood pattern

6. The livelihood pattern in the urban areas affords a sharp contrast to that in the rural areas. While the percentage of persons depending on agriculture is 84 in the rural areas, the percentage in the urban population depending on agriculture is 12·4. This percentage for the cities is only 4·2. With urbanization the agricultural means of livelihood lose their importance. The percentage of persons having their livelihood from Production other than cultivation is 24·9 in the urban areas as against 28 in the cities only; the percentage figures for Commerce are 21·9 for the urban population and 22·4 for the cities; for Transport the figures are 6·2 for urban areas and 7·7 for the cities; and for Other services and miscellaneous sources they are 34·6 for urban areas and 37·7 for the cities. The figures suggest that our towns are not yet mainly industrial. In greater industrialization and thereby in a balancing of the rural-urban economy, lies the future economic progress of the State.

* The classification of towns in classes is : Class I, 100,000 and over ; Class II, 50,000—100,000 ; Class III, 20,000—50,000 ; Class IV, 10,000—20,000 ; Class V, 5,000—10,000 ; and Class VI, under 5,000.

CHAPTER IV—AGRICULTURAL CLASSES

SECTION I—PRELIMINARY REMARKS

1. The importance of the data on economic activities has been emphasized in the United Nations publication "*Population Census Methods*" in the following terms :

Importance of the data on economic activities

"Statistics on the economic activities of the people, derived from censuses of population, are among the most important sources of information about the economic and demographic characteristics of nations. These statistics provide an inventory of the human resources of each country, showing the number and characteristics of persons engaged in economic production, their occupations, and their distribution among the branches of economic activity. This information is needed by international agencies that are concerned with economic reconstruction and development, with economic aspects of population trends and international migrations, and with other problems that involve a consideration of the volume and character of labour resources in different countries. Every nation has a stake in the solution of these problems and hence an interest in improving the quality and international comparability of the data."*

As will appear from the note on the Indian Census Economic Classification Scheme in Part II-B, Economic Tables, of the Report, special pains have been taken at this census to collect exhaustive data about the economic activities of the people and the scheme of classification and tabulation has been planned with due regard to international comparability.

2. The economic characteristics of the population were ascertained in this census by means of three questions in the census slip.

Figures how obtained

Q. 9 related to Economic Status and had two parts. Under the first part every person had to be classified as self-supporting person, non-earning dependant or earning dependant. Under the second part only the self-supporting persons had to be further classified as employers, employees or independent workers, a characteristic ascertained for the first time in Indian census.

Q. 10 related to Principal Means of Livelihood. In the case of a self-supporting person, his principal means of livelihood was recorded. In the case of an earning or non-earning dependant, the principal means of livelihood of the self-supporting person on whom he is dependent was recorded. Where a self-supporting person had more than one means of livelihood that which provides the largest income was recorded under the question and the one providing the next largest income was recorded under Q. 11.

Q. 11 related to Secondary Means of Livelihood. For self-supporting persons having more than one means of livelihood, the livelihood next in importance to the principal one was recorded. For earning dependants the means of livelihood which provides the earning was recorded. For non-earning dependants "0" indicating no entry was recorded.

The full import of these questions was explained by exhaustive instructions to enumerators (*vide* Appendix I). The main difficulties that arose at the enumeration stage were as follows :

Difficulties in enumeration

(1) The first difficulty was in respect of the meaning of the term "self-supporting person". Enumerators at first confused it with "the head of the household". They would put down only the head of the household as self-supporting and others as earning or non-earning dependants. In the Supplementary Instructions to Enumerators (embodied in Appendix I) the distinction between the two terms was emphasized and it was pointed out that (a) the head of the household need not necessarily be a self-supporting person ; he may be an

Meaning of "self-supporting person"

*United Nations, *Population Census Methods*, page, 92.

earning or non-earning dependant, (b) there can be only one head of the household but there can be several self-supporting persons in the same household.

Another pitfall was in respect of unearned incomes. Enumerators were apt to treat only persons with earned income as self-supporting. It was made clear that the income of a self-supporting person need not be earned by personal labour. It may be unearned, but it must be in his own right. Thus minors or old persons who do not work themselves but live on income received from zamindari or tenancy recorded in their names are self-supporting persons. Likewise a person having income from pension or from investments is self-supporting provided the income is sufficient for his own personal maintenance.

Distinction between "self-supporting person" and "earning dependant"

(2) In the case of joint families the distinction between self-supporting persons and earning dependants was sometimes not properly understood. In a joint family all adults often work at the family occupation without getting separate wages. They are all self-supporting persons and not earning dependants. For women and children who work at the family occupation the enumerators had to use their own commonsense by applying the test whether the amount of labour spent in each case would bring an income sufficient for the maintenance of the woman or child. In practice, the distinction between a self-supporting person and an earning dependant was clear in a large majority of cases and only in a few marginal cases the enumerators had to exercise their discretion. In 1931 the difficulty was overcome by fixing definite criteria for classifying women and children. If they worked regularly and received separate wages in cash or kind, they were to be regarded as earners, but if they did not receive separate wages or worked only occasionally they were to be shown as working dependants. A child was defined as anyone under 10 years of age. Children working regularly and receiving separate wages were classed as earners while those who worked regularly but did not receive separate wages went down as working dependants. In 1951, no such definite criteria were laid down and the matter was left to the commonsense of the enumerators. In practice the enumerators classed as earning dependants many women and children who would have been classed as earners in 1931 owing to the rigidity of the definition. Thus the 1951 definition tended to increase the number of earning dependants at the expense of self-supporting persons as compared with the enumeration of 1931.

Classification of self-supporting persons

(3) The classification of self-supporting persons into employers, employees, and independent workers was altogether new. Illustrations given in the Supplementary Instructions removed the difficulties on which some enumerators stumbled. Self-supporting persons living on unproductive sources were classed separately; they are neither employers nor employees nor independent workers. No calculation of economic status of the self-supporting persons of the agricultural classes has, however, been made.

Principal means of livelihood

(4) The agricultural occupations were divided into four categories and the enumerators were asked to use the contractions 1, 2, 3 and 4 for them. Category I consisted of Cultivators of owned land. In this category were also included such zamindars as derive more income from their *sir* and *khudkasht* than from the rental of land let out to others. This point was likely to be missed but intensive training and instructions clarified it.

Secondary means of livelihood

(5) Its meaning as the second most lucrative occupation of self-supporting persons was clearly understood. The importance of recording the secondary means of livelihood in all cases where a self-supporting person had more than one means of livelihood was duly stressed on the enumerators and the omissions must be very few. In the case of earning dependants an entry in this question was obligatory. The occupation which provided the earning to them was to be recorded. This point was at first not properly grasped by enumerators but Supplementary Instructions and training made it clear.

The Census Commissioner for India from the very start emphasized the great importance of the economic questions and directed that special pains should be taken to ensure correct replies during enumeration. In this State a sample census was carried out throughout the State in December, 1950, besides the usual filling of practice slips and training classes. This sample census, which covered about 2 per cent. of the population, brought out all the points on which mistakes were usually committed and Supplementary Instructions were issued to clarify them. There is every reason to believe that the economic questions were satisfactorily answered in this State at the main census.

3. The economic data collected under Questions 9, 10 and 11 is of the greatest importance but it can be really useful only if we can compare it with the previous censuses and draw inferences therefrom. A comparison unfortunately presents serious difficulties. Table 164 shows the different manners in which economic data had been collected in the previous censuses.

Comparability
with previous
censuses

TABLE 164—*Comparison of the economic classification of the population since 1881*

Year	Classification of the enumerated population	Principal occupation or means of livelihood	Secondary or subsidiary means of livelihood	Remarks
1881	Earners (including working dependants) and non-earners	Principal occupation of earners only	Secondary of agriculturist earners only	
1891	Non-dependants (including working dependants) and dependants	Principal occupation or means of livelihood of every person	Ditto	Dependants classified according to principal means of livelihood of person on whom they are dependent
1901	Workers (including working dependants) and non-workers	Ditto	Secondary occupation of workers	Non-workers classified according to principal means of livelihood of workers on whom they are dependent
1911	Ditto	Ditto	Ditto	Non-workers classified according to principal means of livelihood of head of the family on whom they are dependent
1921	Ditto	Ditto	Ditto	Ditto
1931	Earners, working dependants and non-working dependants	Principal means of livelihood of earners only	Secondary occupation of earners and occupation of working dependants	Working dependants classified according to their own occupations, non-working dependants not classified at all
1941	Non-dependants, partly dependants and wholly dependants	Principal occupation or means of livelihood of every person	Secondary occupation of non-dependants and occupation of partly dependants	Wholly and partly dependants classified according to principal means of livelihood of non-dependants on whom they are dependent
1951	Self-supporting persons, earning dependants and non-earning dependants	Ditto	Secondary means of livelihood of self-supporting persons and occupation of earning dependants	Non-earning and earning dependants classified according to principal means of livelihood of self-supporting persons on whom they are dependent

It will appear that up to 1921 the population was divided only into earners (which included the working dependants) and non-earners and even these terms were not consistently used. The "working dependant" was separated in 1931, its designation changed into "partly dependant" in 1941 and to "earning dependant" in 1951. Except at the 1881 and 1931 censuses the principal occupation or means of livelihood of each person has been recorded, dependants (whether earning or non-earning) being classed according to the occupation of the self-supporting person on whom they were dependent. In 1931 the working dependants were classified according to their own occupations while the non-working dependants were not classified at all. As regards secondary occupation, the census of 1881 and 1891 recorded the secondary occupation of agriculturist earners only, while the next three censuses recorded the secondary occupation of workers of agricultural as well as non-agricultural means of livelihood. It is only since 1931 that the secondary occupation of the earners as well as the occupation of the working dependants has been recorded.

Apart from the above basic differences of enumeration there have also been differences arising out of the definition of terms given in the Instructions to Enumerators. As was explained in paragraph 2 above, the enumeration of 1931 tended to increase the number of earners at the expense of the working dependants in comparison with the enumeration of 1951.

The method of presentation of data also sometimes creates difficulty in comparison. For instance, the Provincial Table III of 1931, shows the subsidiary occupations of agriculturists of six categories under various occupational heads. The comparable Table B-II of 1951 presents the secondary means of livelihood of the eight livelihood classes possessing a secondary means of livelihood cross-classified according to their nature under the same eight classes. Likewise Table X of 1931 presents the subsidiary occupations of earners and working dependants by individual occupations while the comparable Table B-II of 1951, gives the secondary means of livelihood by livelihood classes only and not by individual occupations. In such cases comparison is of very limited value.

The scheme of classification

4. On the basis of the answer to Question 10, the whole population—and not merely persons who are gainfully occupied—has been divided into eight livelihood classes, four of which are of the agricultural category and four of non-agricultural category. The agricultural classes are as follows :

- I—Cultivators of land wholly or mainly owned ; and their dependants
- II—Cultivators of land wholly or mainly unowned ; and their dependants
- III—Cultivating labourers ; and their dependants
- IV—Non-cultivating owners of land ; agricultural rent receivers ; and their dependants

As has been already pointed out the enumerators had been asked to record numerical abbreviations 1, 2, 3 and 4 in reply to Q. 10 in the case of agricultural occupations. This provided a ready made classification for purposes of sorting and compilation. In the case of non-agricultural classes the process of classification was very complicated and a full description of it will be given in the next chapter.

Classification in previous censuses

5. In this census the agricultural occupations owing to their special importance have been separated from the main schedule of occupational classification. Instead of classifying them by divisions, sub-divisions and groups they have been classified into four livelihood classes. In previous censuses agricultural occupations formed part of one general occupational classification and fell under several groups. Table 165 shows the agricultural means of livelihood of 1951 with the corresponding occupational groups of previous censuses.

TABLE 165—Agricultural classification, 1911—31 and 1951

Agricultural means of livelihood, 1951	Occupational group, 1931	Occupational group, 1921	Occupational group, 1911
I—Cultivation of owned land	5. Cultivating owners ..	2. Ordinary cultivators	2. Ordinary cultivators
	8. Cultivation of <i>jhum</i> , <i>taungya</i> , and shifting areas		
III—Employment as cultivating labourer	7. Agricultural labourers	4. Farm servants ..	4. Farm servants and labourers
		5. Field labourers	
IV—Rent on agricultural land	1-A. Non-cultivating proprietors taking rent in money or kind	1. Income from agricultural rent	1. Income from agricultural rent
	1-B. Non-cultivating tenants taking rent in money or kind		

It will appear from the above that means of livelihood I and II of 1951 are not individually comparable to any group of the previous censuses but the total of these two classes is comparable to the total of Groups 5, 6 and 8 of 1931 and Group 2 of 1921 and 1911. Means of livelihood III of 1951 is identical with Group 7 of 1931, total of Groups 4 and 5 of 1921 and Group 4 of 1911. Means of livelihood IV of 1951 is comparable to total of Groups 1-A and 1-B of 1931, and Group 1 of 1921 and 1911.

A number of occupational groups of the previous censuses which fell under the sub-orders "Cultivation" and "Cultivation of special crops, fruits, etc.," have now been excluded from the agricultural classes. Table 166 shows the present classification of such groups.

TABLE 166—*Present classification of agricultural occupational groups of previous censuses which have been excluded from the agricultural classes of 1951*

1951	1931	1921	1911
Div. 0—PRIMARY INDUSTRIES NOT ELSEWHERE SPECIFIED (Livelihood Class V)	Order 1—PASTURE AND AGRICULTURE	Order 1—PASTURE AND AGRICULTURE	Order 1—PASTURE AND AGRICULTURE
0·3— <i>Plantation Industries</i> ..	(b) <i>Cultivation of special crops, fruits, etc.</i>	(b) <i>Growers of special products and market gardening</i>	(b) <i>Growers of special products and market gardening</i>
<i>Owners, managers and workers in—</i>			
0·31—Tea plantation ..	15. Cultivation of tea ..	6. Tea, coffee, cinchona, rubber and indigo plantation	5. Tea, coffee, cinchona and indigo plantation
0·32—Coffee plantation ..	11. Cultivation of coffee	7. Fruit, flower, vegetable, betel, vine, arecanut, etc.	6. Fruit, flower, vegetable, betel, vine, arecanut, etc.
0·33—Rubber plantation ..	14. Cultivation of rubber		
0·30—All other plantations but not including the cultivation of special crops in conjunction with ordinary cultivation of field crops; cultivation of vegetables, gardeners of jasmine and rose cultivation, employees of fruit gardens, nurseries, orchards, mango and <i>lichhi</i> , groves and betel leaves plantation.	9. Cultivation of cinchona 10. Cultivation of coconuts 12. Cultivation of <i>ganja</i> 13. Cultivation of <i>pan-vine</i> 16. Market gardeners, flowers and fruit growers		
Div. 8—HEALTH, EDUCATION AND PUBLIC ADMINISTRATION (Livelihood Class VIII)			
8·7— <i>Employees of State Governments</i>	(a) <i>Ordinary cultivation</i> 3. Estate agents and managers of Government		
Div. 9—SERVICES NOT ELSEWHERE SPECIFIED (Livelihood Class VIII)			
9·1— <i>Domestic services</i>			
9·10—Other domestic servants, waterman, domestic grasscutter; <i>karinda</i> zamindar	2. Estate agents and managers of owners 4. Rent collectors, clerks, etc.	3. Agents, managers of landed estates, clerks, rent collectors, etc.	3. Agents, managers of landed estates, clerks, rent collectors, etc.

6. It has been seen that the raw material for the occupational statistics provided by the census slips was sound and the scheme of classification clear. So far as the agricultural occupations are concerned the accuracy of the data presented is of a very high order.

7. The statistics regarding agricultural classes will be found in Economic Tables B-I and B-II in Part II-B of the Report.

Table B-I is an entirely new table, giving the classification of the whole enumerated population into livelihood classes and sub-classes by sex and rural-urban break-up.

Table B-II follows the Provincial Table III of 1931, and provides some additional data. The table gives the number by sex of each of the eight livelihood classes possessing a secondary means of livelihood which have been cross-classified according to their nature under the same eight classes. The 1931 table gave the subsidiary occupations of agricultural earners only while present table gives the subsidiary means of livelihood of self-supporting persons as also of earning dependants of all livelihood classes.

Accuracy and normality of the figures

The statistics where found

The proportionate figures are given in the following subsidiary tables in Part I-B of the Report :

Subsidiary Table 4·1—Agricultural classes per 1,000 persons of general population—number in each class and sub-class of 10,000 persons of all agricultural classes and comparison with agricultural holdings by size

Subsidiary Tables 4·2 to 4·5—(One for each of the four agricultural classes) giving the number per 10,000 persons of the class in each sub-class ; and secondary means of livelihood of 10,000 persons of the class

Subsidiary Table 4·6—Active and semi-active workers in cultivation

Subsidiary Table 4·7—Progress of cultivation during three decades

Subsidiary Table 4·8—Components of cultivated area *per capita* during three decades

Subsidiary Table 4·9—Land area *per capita* (1951) and trend of cultivation *per capita* during three decades

Subsidiary Table 6·5 giving females per 1,000 males in agricultural classes and sub-classes, has also been utilized.

SECTION 2—AGRICULTURAL POPULATION RATIOS, SELF-SUPPORTING PERSONS AND DEPENDANTS, SECONDARY MEANS OF LIVELIHOOD OF AGRICULTURAL CLASSES

1. "Agriculture is the oldest business in the world and, even to-day, the largest. The majority of the population of the world, probably nearly two-third of the total, are dependent upon it for living."* India is traditionally an agricultural country and in spite of the recent efforts at industrialization it continues to be predominantly agricultural. The State of Uttar Pradesh is one of the important agricultural States of India. As many as 469 lakhs out of 632 lakhs or 74.2 per cent. of the total population of the State belong to agricultural classes.

Importance of agriculture

2. Table 167 compares the agricultural population ratios of the larger States of India. In 2 States the agricultural population is over 80 per cent. of the population, in 6 States it is between 70 and 80 per cent., in 5 States it is between 60 and 70 per cent. and only in 2 it is under 60 per cent. Uttar Pradesh with a proportion of 74.2 per cent. ranks high among the agricultural States of India and has a higher proportion than the average of India (69.8 per cent.). Only 4 States—Vindhya Pradesh, Bihar, Orissa and Madhya Pradesh—have a proportion higher than that of Uttar Pradesh.

Agricultural population ratios of the (i) States of India.

TABLE 167—Distribution of 1,000 persons in agricultural and non-agricultural classes in the larger States of India

State	Agricultural classes	Non-agricultural classes
India	698	302
Assam	733	267
Bihar	860	140
Bombay	615	385
Madhya Pradesh	760	240
Madras	649	351
Orissa	793	207
Punjab	645	355
Uttar Pradesh	742	258
West Bengal	572	428
Hyderabad	682	318
Madhya Bharat	722	278
Mysore	699	301
Rajasthan	709	291
Travancore-Cochin	548	452
Vindhya Pradesh	871	129

3. Table 168 gives the agricultural population ratios of the economically active† population of the selected countries of the world compared with that of

(ii) selected countries

TABLE 168—Distribution of 1,000 persons of active population in agricultural and non-agricultural classes in selected countries

(Source: United Nations, *Statistical Yearbook*, 1949-50)

Name of country	Year	Agricultural classes	Non-agricultural classes
U. S. A.	1940	176	824
Canada	1941	263	737
Mexico	1940	654	346
Brazil	1940	674	326
United Kingdom	1931	60	940
France	1946	365	635
Rumania	1930	787	213
Egypt	1937	707	293
Japan	1947	526	474
Uttar Pradesh	1951	754	246

Uttar Pradesh. With the exception of Rumania no other country has a higher agricultural population than Uttar Pradesh and even in the case of Rumania the data is twenty years old. It will be noted that some of the industrial countries have very small agricultural ratios, e. g., United Kingdom (6 per cent.) and U. S. A. (17.6 per cent.).

*Cohen, *The Economics of Agriculture* (Cambridge University Press)

† The term "economically active population" used in United Nations publications refers to that part of the population often designated as the "labour force" including unemployed as well as the "gainfully occupied population". In general it also includes persons working on their own account and unpaid family workers. The figures of Uttar Pradesh, however, relate only to those of 'workers' (self-supporting persons plus earning dependants according to their secondaries).

(iii) natural divisions

4. Table 169 gives the agricultural population ratios of the State by natural divisions. The East Plain has the highest ratio (82·8) and the West Plain the lowest (66·0), while the proportions of three other divisions approximate to the average ratio of the State. The high proportion in the East Plain is due to the comparatively lesser degree of industrialization and urbanization in that division while the low proportion in the West Plain is due to the high degree of urbanization and industrialization (*vide* Subsidiary Tables 3·6 and 1·8).

TABLE 169—Distribution of 1,000 persons in agricultural and non-agricultural classes by natural divisions

Natural division	Agricultural classes	Non-agricultural classes
Uttar Pradesh	742	258
Himalayan	788	212
East Plain	828	172
Central Plain	752	248
West Plain	660	340
Hills and Plateau	753	247

The high proportion in the East Plain is due to the comparatively lesser degree of industrialization and urbanization in that division while the low proportion in the West Plain is due to the high degree of urbanization and industrialization (*vide* Subsidiary Tables 3·6 and 1·8).

(iv) districts

5. The agricultural population ratios of the individual districts (Subsidiary Table 4·1) are generally in the neighbourhood of the average ratio of the natural division to which they belong. Where the district ratios show marked divergence from the ratio of the natural division the reason is to be sought in the proportion of urban population (Subsidiary Table 3·6) and the proportion of non-agricultural classes in the rural areas (Subsidiary Table 5·1-A).

In the Himalayan division the typical hill districts of Garhwal, Tehri-Garhwal and Almora have abnormally high agricultural ratios (about 90 per cent.) while Naini Tal has a ratio of 65·2 per cent. and Dehra Dun 35·9 per cent. In the first three districts under 3 per cent. of the population is urban and even in the rural areas only less than 9 per cent. of the population belong to non-agricultural classes. Agriculture is the mainstay of these districts. In Naini Tal the urban population is 22·1 per cent. and 18·3 per cent. of the rural population is non-agricultural. Dehra Dun has an enormous urban population constituting 47·4 per cent. of the total population (of which Dehra Dun city alone has nearly 40 per cent.) and in the rural areas of this district as many as 34·1 per cent. of the population follow non-agricultural occupations.

In the East Plain division Banaras district presents an abnormally low ratio (59·7 per cent.). Its urban population is 21 per cent. of the total population (of which the Banaras city alone comprises about 18 per cent.), and a little over one-fourth of its rural population follows non-agricultural pursuits. Ballia is another district of this division with a comparatively low agricultural ratio (73·7 per cent.). Its urban population is not large (only 9·3 per cent.) but the non-agricultural classes in the rural areas are 22·1 per cent. Other districts of the division have neither towns nor industries developed in the rural areas and consequently show high agricultural ratios.

In the Central Plain division abnormally low agricultural ratios are returned by the districts of Kanpur (51·4 per cent.), Allahabad (69·2 per cent.), and Lucknow (45·3 per cent.). Owing principally to the presence of large cities these districts have a larger proportion of urban population—37·1, 17·9 and 46·1 per cent. respectively. Moreover, the non-agricultural proportions in the rural areas are also slightly higher in these districts, partly because many of the urban workers reside in adjacent rural areas.

In the West Plain division the districts of Saharanpur (47·8 per cent.), Bijnor (57·2 per cent.), Meerut (47·8 per cent.), Agra (53·8 per cent.) and Mathura (58·6 per cent.) show very low agricultural ratios. In the case of Agra the low ratio is due entirely to the large urban population of the district (33·2 per cent.), for the proportion of the non-agricultural population in the rural areas is slightly less than the average of the natural division. In the other districts the ratio has been lowered mainly by the high proportion of non-agricultural classes in the rural areas and to a lesser extent by the higher proportion of the urban population. Kheri (86·3 per cent.) and Budaun (84·8 per cent.) have the highest agricultural ratios in the division. Kheri has only 7·3 per cent. of the population living in urban areas (of which as many as 28·3 per cent. are agricultural) and Budaun only 11·6 per cent. (of which as many as 31·4 per cent. are agricultural), while only 9·1 per cent. and 8·2 per cent. respectively of the rural population are non-agricultural.

In the Hills and Plateau division Jhansi (63·8 per cent.) alone shows an abnormally low ratio. It has the highest proportion of urban population (24·3 per cent.) as also the highest proportion of non-agricultural classes in rural

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population (19·6 per cent.) in the division. Banda has the highest agricultural ratio in the division (84·8 per cent) because it has the lowest proportion of urban population (7·4 per cent.) as well as the lowest proportion of non-agricultural classes in rural areas (10·0 per cent.) in the division.

The five districts with the highest agricultural ratios in the State are Deoria (93·5), Tehri-Garhwal (92·0), Basti (90·7), Bahraich (89·8), and Almora (89·4) while the five districts with the lowest agricultural ratios are Dehra Dun (35·9), Lucknow (45·3), Meerut (47·8), Saharanpur (47·8), and Kanpur (51·4).

6. Table 170 gives the number and proportion of self-supporting persons, earning dependants and non-earning dependants among the agricultural classes.

TABLE 170—Number (and proportion per 1,000) of self-supporting persons, earning and non-earning dependants in agricultural and non-agricultural classes

Livelihood class	Self-supporting persons	Earning dependants	Non-earning dependants
All classes	19,259,510 (305)	7,579,806 (120)	36,376,426 (575)
Agricultural classes	13,921,531 (297)	6,650,087 (142)	26,325,053 (561)
Non-agricultural classes	5,337,979 (327)	929,719 (57)	10,051,373 (616)

Self-supporting persons, earning and non-earning dependants

The figures of all classes and non-agricultural classes also are given for purposes of comparison. It will be seen that the agricultural classes consist of 139 lakhs self-supporting persons (29·7 per cent.), 67 lakhs earning dependants (14·2 per cent.) and 263 lakhs non-earning dependants (56·1 per cent.).

7. Table 171 compares the distribution of 1,000 population among self-supporting persons, earning dependants and non-earning dependants

TABLE 171—Distribution of 1,000 persons of all agricultural classes among self-supporting persons, earning and non-earning dependants in the larger States of India

State	Self-supporting persons	Earning dependants	Total of self-supporting persons and earning dependants	Non-earning dependants
Andhra	287	117	404	596
Assam	245	170	415	585
Bihar	319	41	360	640
Bombay	246	208	454	546
Madhya Pradesh	300	289	589	411
Madras	258	51	309	691
Orissa	278	99	377	623
Punjab	268	148	416	584
Uttar Pradesh	297	142	439	561
West Bengal	260	42	302	698
Hyderabad	248	230	478	522
Madhya Bharat	319	112	431	569
Mysore	253	32	285	715
Rajasthan	393	157	550	450
Travancore-Cochin	268	76	344	656
Vindhya Pradesh	311	154	465	535

Self-supporting persons, earning and non-earning dependants in all agricultural classes in the States of India

among all agricultural classes in Uttar Pradesh and other larger States of India in 1951. It appears that owing to different interpretations of the definition of self-supporting persons and earning dependants in the various States the figures of self-supporting persons and earning dependants are not individually comparable but the total of the two is comparable. The States with a higher proportion of workers (self-supporting persons plus earning dependants according to their principal means of livelihood) than Uttar Pradesh are Madhya Pradesh (58·9 per cent.), Rajasthan (55·0 per cent.), Hyderabad (47·8 per cent.), Vindhya Pradesh (46·5 per cent.) and Bombay (45·4 per cent.). It may be noted that the proportion of workers to the total population is mainly affected by the proportion of women and children in the general population, by the nature of prevailing occupations, by the spread of education and by social customs.

8. Table 172 gives the distribution of 1,000 persons of each agricultural class among self-supporting persons, earning dependants and non-earning dependants.

Self supporting persons, earning and non-earning dependants in each agricultural livelihood class

TABLE 172—*Distribution of 1,000 persons of each agricultural class among self-supporting persons, earning and non-earning dependants*

Livelihood class	Self-supporting persons			Earning dependants			Non-earning dependants		
	P	M	F	P	M	F	P	M	F
All agricultural classes ..	297	270	27	142	38	104	561	210	351
I-Cultivators of land wholly or mainly owned and their dependants	289	267	22	141	38	103	570	212	358
II-Cultivators of land wholly or mainly unowned and their dependants	135	277	26	169	42	127	526	207	319
III-Cultivating labourers and their dependants	366	302	64	143	32	111	491	194	297
IV-Non-cultivating owners of land; agricultural rent receivers; and their dependants	381	239	142	34	15	19	585	202	383

It will be seen that the highest proportion of self-supporting persons (38·1 per cent.) is returned by Class IV followed by Class III (36·6 per cent.). The proportion is high in Class IV because a large number of women and minors in this class are returned as self-supporting mainly on the basis of their recorded rights. But the proportion of self-supporting persons is high in Class III for a different reason: a large number of women and minors in this class work for wages owing to their poverty and are thus returned as self-supporting persons.

The highest proportion of earning dependants is in Class II and the lowest in Class IV. The proportion is high in Class II because the comparatively poorer circumstances of the persons of this class compel the women and children to work on the family occupation, while it is low in Class IV because few of the zamindars and their family work or need to work. The highest proportion of non-earning dependants is in Class IV because of the low proportion of earning dependants in this class. The lowest proportion is in Class III, where a large number of women and children work for wages and are classified as self-supporting persons or earning dependants.

9. Table 173 compares the proportion of workers and non-earning dependants in the total population as also in the agricultural and non-agricultural means of livelihood separately since 1901. It will be noted that in

TABLE 173—*Percentage of workers and non-earning dependants in different means of livelihood 1901—31 and 1951**

Variation in the proportion of workers (self-supporting persons and earning dependants according to their secondary)

Means of livelihood	Percentage of workers to total population					Percentage of non-earning dependants to total population			
	1951	1931	1921	1911	1901	1951	1921	1911	1901
Total agricultural and non-agricultural ..	42·5	48·7	53·4	51·3	48·7	57·5	46·6	48·7	51·3
Total agricultural ..	32·0	35·6	40·1	35·8	31·3	41·6	34·5	35·3	33·4
Cultivation of owned and unowned land	28·4	27·8	34·0	28·9	23·0	38·2	30·2	30·9	25·5
Employment as cultivating labourer ..	3·2	6·9	5·4	6·2	5·4	2·8	3·3	3·3	3·7
Rent on agricultural land ..	0·4	0·9	0·7	0·7	2·9	0·6	1·0	1·1	4·2
Total non-agricultural ..	10·5	13·1	13·3	15·5	17·4	15·9	12·1	13·4	17·9
Production other than cultivation ..	3·5	5·3	5·7	6·4	6·0	5·1	4·6	4·9	6·1
Commerce ..	1·7	2·3	2·2	2·1	2·0	3·4	2·4	2·4	2·7
Transport ..	0·45	0·37	0·33	0·36	0·43	0·9	0·5	0·4	0·6
Other services and miscellaneous sources	4·9	5·1	5·1	6·6	9·0	6·5	4·6	5·7	8·5

*The figures of workers have been worked out from the actual figures given in Table 80 and that of non-earning dependants from Tables 79 and 80. The figures of workers in Table 80 have been subtracted from the figures of total population in Table 79 in order to arrive at the figures of non-earning dependants. For 1941, the data obtained from the "Y" sample appears to be unreliable. For 1931, the data for non-earning dependants is not available.

the agricultural means of livelihood the proportion of workers rose during 1901—21 but has been steadily declining since 1921 while in the non-agricultural means of livelihood the proportion has been steadily declining ever since 1901. The proportion of non-earning dependants shows corresponding reverse trends during 1921—51.

Examining the agricultural means of livelihood it would appear that between 1901—21, the proportion of workers rose sharply from 31·3 to 40·1 per cent. This was due principally to a rise in the proportion of workers of cultivation of owned and unowned land from 23·0 to 34·0 per cent. Owing to the rise in agricultural prices as a result of World War I there was a movement of labour back to the land and such an appreciation in agricultural incomes that in many cases where the agricultural income had formerly been subsidiary it was now converted into the principal income. Between 1921 and 1931 there was a reversal of the trends of the previous decade and the proportion of workers of the agricultural means of livelihood fell sharply from 40·1 to 35·6 per cent. This was due to a steep fall in the proportion of workers of cultivating means of livelihood from 34·0 to 27·8 per cent. and a small rise in that of workers with Employment as cultivating labourer from 5·4 to 6·9 per cent. The collapse of the price level at the end of the decade drove people from the land back to the towns and so reduced agricultural incomes that often they were no longer the principal source of livelihood. From 1931 to 1951 the proportion of workers among the agricultural means of livelihood has gone down from 35·6 to 32·0 per cent. It will be seen that the proportion of workers among the cultivating means of livelihood has gone up slightly from 27·8 to 28·4 per cent. while that of cultivating labourer has fallen sharply from 6·9 to 3·2 per cent. In the case of Employment as cultivating labourer not merely the proportions but even the absolute figures have fallen from 34 lakhs in 1931 to 20 lakhs in 1951. There are several reasons for this trend. In the first place, prices of agricultural produce have remained high for well over a decade and have now touched an all-time high. Secondly, many persons who were formerly treated only as labourers, even though they were cultivating the *sir* or *khudkashi* of zamindars, have now succeeded as a result of legislation, administrative measures and the changed social climate in getting themselves recorded as cultivators. Thirdly, a number of persons with cultivation and labour as their combined occupation, have now returned cultivation instead of labour as their principal means of livelihood. Finally, and this is most important, the cultivators, owing to the reduction in the cultivated area *per capita*, now find it unnecessary or uneconomic to engage labour.

Examining the non-agricultural means of livelihood, it will be observed that the proportion of workers fell from 17·4 to 13·3 per cent. during 1901—21, remained practically steady during 1921—31, and fell sharply from 13·1 in 1931 to 10·5 per cent. in 1951. The most noteworthy feature is the progressive decline in the proportion of workers under Production other than cultivation, ever since 1911. Here also even the absolute figures have been going down since 1911; the number was 30·6 lakhs in 1911 and only 22 lakhs in 1951. The factory labour of this class went up from 93,000 in 1931 to 229,000 in 1951 and so the reduction is accounted for mainly by the fall in the number of workers engaged in cottage and small scale industries. This decline is real, although a part of it may be due to former artisans having returned cultivation as their principal means of livelihood. These figures speak eloquently of the continuing decay of village crafts. Between 1931 and 1951 there is also a fall in the proportion of workers under Commerce and Other services and miscellaneous sources, but Transport has registered an increase.

Since the workers consist of a fair proportion of women and children as earning dependants, more particularly among the agricultural means of livelihood, the proportions can also be affected by variations in the sex-ratio or age composition of the population. Spread of primary education is also likely to raise the age at which children begin to work and thus affect the proportion of workers. But none of these factors has affected the figures appreciably. There has been no sharp change in the sex-ratio or age composition of the population and the increase of literacy has had a very minor effect on the proportion of

workers, even if it is assumed that there has been a real rise in the working age on that account.

It may be noted here that if we examine the sex of workers we find a sharp fall in the female proportion. It was 514 per 1,000 males in 1921, 423 in 1931 and 374 in 1951. Obviously the participation of women in family occupations, specially agriculture, is declining because of the prevailing under-employment.

To sum up, the decline in the area of cultivated land *per capita* together with a similar decline in non-agricultural employment has led to a reduction in the proportion of workers and consequent increase in that of non-earning dependants. The increase of non-earning dependants in absolute numbers during 1931—51 amounts to 109 lakhs* which slightly exceeds the total increase in the rural population of the State during this period. This is definitely an index of the growth of unemployment and under-employment in the State.

10. Table 174 gives the proportion of earning dependants to self-supporting persons among the agricultural classes. The proportion is the highest in Class I, followed by Classes II and III and it is the lowest in Class IV. Earning dependants consist mostly of women and children. Among Cultivators of owned land, a larger proportion of women and children take to work. In

TABLE 174—*Proportion of earning dependants of each agricultural livelihood class returning the same class as secondary means of livelihood to self-supporting persons of the same class*

Livelihood class	Self-supporting persons	Earning dependants of the class with same as secondary	Earning dependants per 1,000 self-supporting persons
All agricultural classes	13,921,531	6,045,908	434
I—Cultivators of land wholly or mainly owned; and their dependants	11,354,100	4,871,567	429
II—Cultivators of land wholly or mainly unowned; and their dependants	990,910	361,082	364
III—Cultivating labourers; and their dependants	1,322,468	359,006	271
IV—Non-cultivating owners of land; agricultural rent receivers; and their dependants	254,053	6,188	24

Class IV a large majority of the people are self-supporting by virtue of their recorded rights, whether they work or not. This is one of the reasons why the proportion of earning dependants in this class is so small.

11. Table 175 gives the proportion of female earning dependants to male earning dependants of the agricultural classes. As is to be expected from the

TABLE 175—*Sex-ratio of earning dependants in agricultural classes*

Livelihood class	Males	Females	Females per 1,000 males
All agricultural classes	1,768,497	4,881,590	2,760
I—Cultivators of land wholly or mainly owned; and their dependants	1,508,501	4,052,142	2,686
II—Cultivators of land wholly or mainly unowned; and their dependants	136,206	415,036	3,047
III—Cultivating labourers; and their dependants	113,955	401,453	3,523
IV—Non-cultivating owners of land; agricultural rent receivers; and their dependants	9,835	12,959	1,318

definition of an earning dependant the bulk of them are females. There are nearly three female earning dependants to every male earning dependant in all agricultural classes except Class IV. The highest proportion is in Class III, followed by Class II and Class I, i.e., in inverse order to the economic condition of the class.

The females per 1,000 males in the total number of dependants, both earning and non-earning in the agricultural classes, are 1,834. Of all female dependants 22.9 per cent. were returned as earning dependants while the corresponding figure for male earning dependants is only 15.2 per cent.

*See foot-note to Tables 79 and 80, page 96.

Proportion of earning dependants to self-supporting persons

Sex of earning dependants

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12. Out of the non-earning dependants in the total population of the State, 13,568,467 are males and 22,807,959 females giving a proportion of 1,681 females per 1,000 males. The sex-ratio of the non-earning dependants in the agricultural classes is exhibited in Table 176.

Sex of non-earning dependants

TABLE 176—Sex-ratio of non-earning dependants in agricultural classes

Livelihood class	Males	Females	Females per 1,000 males
All agricultural classes	9,867,505	16,457,548	1,668
I—Cultivators of land wholly or mainly owned; and their dependants	8,354,452	14,091,840	1,687
II—Cultivators of land wholly or mainly unowned; and their dependants	675,175	1,038,488	1,538
III—Cultivating labourers; and their dependants	702,852	1,071,481	1,524
IV—Non-cultivating owners of land; agricultural rent receivers; and their dependants	135,026	255,739	1,894

The number of females per 1,000 males in Class III is only 1,524 and in Class II only 1,538 as compared to the number in Class IV which is 1,894 and in Class I which is 1,687. It is obvious that in the former two classes which are poorer the females have to work in larger numbers in the family occupation.

13. Table 177 gives the distribution of population into self-supporting persons, earning dependants and non-earning dependants by natural divisions (Subsidiary Table 4.1). The figures are of great interest as they are an index of the economic condition of the various parts of the State and the extent to which women and children help to augment the family income.

Self-supporting persons, earning and non-earning dependants by natural divisions

TABLE 177—Distribution of 10,000 persons of all agricultural classes amongst self-supporting persons, earning and non-earning dependants by natural divisions

Natural division	Number per 10,000 of all agricultural classes who are—			
	Self-supporting persons	Earning dependants	Total of self-supporting persons and earning dependants	Non-earning dependants
Uttar Pradesh	2,969	1,418	4,387	5,613
Himalayan	2,671	2,970	5,641	4,359
East Plain	2,853	1,956	4,809	5,191
Central Plain	2,927	1,644	4,571	5,429
West Plain	3,162	347	3,509	6,491
Hills and Plateau	2,930	2,205	5,135	4,865

Among the factors which affect the proportion of self-supporting persons and earning dependants may be mentioned the following :

- (i) the proportion of women and children in the population ;
- (ii) the influence of caste or social custom ;
- (iii) the prevalence of occupations suitable for the participation of women and children ;
- (iv) the effects of migration ;
- (v) the spread of education.

Where the proportion of women is large the proportion of self-supporting persons will fall and that of earning and non-earning dependants will rise. If the proportion of children is large, the proportion of non-earning dependants will rise. If *purdah* is observed by women they cannot as a rule do much to

augment the family income and even if they work the fact may be concealed from the enumerator. On the other hand, the women and children of the so-called lower castes usually work either for separate wages or at the family occupation. In the rural areas women and children usually participate in the family cultivation, whereas in the urban areas they are more frequently non-earning dependants. Where male emigration is considerable as from the Himalayan, East Plain and part of Central Plain the tendency is for the self-supporting persons to diminish and earning dependants to increase. Where immigration, specially of males unaccompanied by their females, is considerable, as in Kanpur and Lucknow cities, the proportion of self-supporting persons tends to rise. Progress of education has the effect of raising the age of workers. The actual proportion of any area falling into each category—self-supporting person, earning dependant, and non-earning dependant—is the result of the interplay of all such factors, and the distribution may be taken as an index of the economic condition of the area.

The Himalayan division has the lowest proportion of self-supporting persons, by far the highest proportion of earning dependants, and easily the lowest proportion of non-earning dependants. The important factors affecting this distribution are the sex-ratio at the working ages, the very active participation of women in agricultural occupations, and emigration of males of working ages. The female ratio among the agricultural classes of this division is the highest in the State, being 1,057 against the State average of 930 for all agricultural classes (Table 178).

TABLE 178—*Females per 1,000 males in all agricultural classes and sub-classes by natural divisions*

Natural division	Total	Self-supporting persons	Earning dependants	Non-earning dependants
Uttar Pradesh	930	100	2,760	1,668
Himalayan	1,057	159	5,751	1,059
East Plain	992	146	3,314	1,498
Central Plain	936	125	2,477	1,597
West Plain	850	33	797	2,017
Hills and Plateau	951	134	3,439	1,379

The proportion of women in the working age-groups 15—34 and 35—54 is also by far the highest in this division (Subsidiary Tables 6·12 and 6·13). The women take an unusually active part in agriculture which is the mainstay of the bulk of the people of the division.* Owing to small holdings and the absence of big landlords the people work their land themselves and rarely employ labour. There is no *pardah* and no attempt to conceal the fact that women work. There is considerable migration of males of working ages from this division for employment in the Defence and other services which tends to reduce the proportion of self-supporting persons and increase that of earning dependants.

Among the three plain divisions the noteworthy feature is that the proportion of workers i.e., total of self-supporting persons and earning dependants, increase as we proceed from west to east. The West Plain is conspicuous for the very low proportion of earning dependants. It has the lowest proportion of females among all natural divisions (850 against the State average of 930) as also the lowest proportion of women at the working ages 15—34 and 35—54. The agricultural classes of this division are the most prosperous in the State and have a high proportion of the so-called high castes and higher branches of other castes who do not permit their women to work in the fields, or, even if they do, conceal the fact from the census enumerator. In the Central and East Plain the proportion of self-supporting persons is adversely affected by the considerable migration of persons of working ages (*vide* Section 4 of Chapter I).

* During the enumeration operations it was often seriously suggested by census workers of the hill districts that the women of these districts should be recorded as self-supporting persons and the males relegated to the position of earning dependants.

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The Hills and Plateau has the second highest proportion of workers. One of the reasons for this is the high proportion of children aged 5—14 among the agricultural classes of the division (Subsidiary Table 6·11) : it is second highest in the State after East Plain, which is only slightly higher. Another is the high proportion of women among the working ages 15—34 and 35—54 which is second only to the Himalayan division. Women in this division work freely in the fields and there is no attempt at concealing this fact.

14. When a person derives his livelihood from a number of occupations the most lucrative is recorded as his principal and the next most lucrative as his secondary means of livelihood. The really important combination of occupations in this country is that of agriculture (in one form or another) with any non-agricultural occupation. This may be of two kinds, those who derive their principal means of livelihood from agriculture and those for whom it provides only a subsidiary income to that derived from a non-agricultural occupation. The former class has a special economic significance for an agricultural state like Uttar Pradesh. Owing to the seasonal nature of agricultural operations the agriculturists have periods of hard work alternated by periods of idleness. The extent to which they can utilize this period for productive purposes will be a measure of their own economic prosperity and that of the nation. The secondary means of livelihood of non-agriculturists also is important as the non-agricultural income may, as a result of external factors such as rise in the price of agricultural produce, become secondary to their agricultural income.

It may, however, be noted that what would be normally regarded as one calling is often split up into two as a result of the refinements of the Census Economic Classification Scheme. For instance, a landlord cultivating part of his land and letting out the rest; a tenant cultivating his own land and working as paid labourer for others ; a person cultivating land part of which is his own tenancy and part that of others ; the man who manufactures an article and also sells it would be deemed under the classification scheme to be following two occupations, one as principal and the other as secondary. Agriculture itself has been divided into four classes and one of them can be principal and the other a secondary means of livelihood. This inevitably results in the exclusion of some non-agricultural secondary means of livelihood of agriculturists, as not more than one secondary is recorded in the census slip.*

15. Of 20,571,618 workers (males 14,427,568, females 6,144,050) who returned agriculture as principal means of livelihood 8,876,235 persons (males 3,846,965, females 5,029,270) or 43·1 per cent. (males 26·7 and females 81·9 per cent.) returned a secondary means of livelihood. Table 179 gives the distribution of 10,000 workers of agricultural classes having a secondary means of livelihood according to the nature of their secondaries. For purposes of comparison the table also gives the figures of all classes and all non-agricultural classes.

TABLE 179—Distribution of 10,000 workers returning secondary means of livelihood according to the nature of their secondary means of livelihood

Secondary means of livelihood	All classes	All agricultural classes	All non-agricultural classes
Total agricultural and non-agricultural—			
Total	10,000	10,000	10,000
Self-supporting persons	2,733	2,508	4,018
Earning dependants	7,267	7,492	5,982
Total agricultural—			
Total	7,093	7,580	4,312
Self-supporting persons	1,048	769	2,642
Earning dependants	6,045	6,811	1,670
I—Cultivation of owned land—			
Total	5,284	5,713	2,828
Self-supporting persons	348	104	1,738
Earning dependants	4,936	5,609	1,090

*Sri Turner suggested in the U. P. Census Report 1931, Part I, (page 377) that either (a) all the agricultural classes should be combined into one or (b) in the case of any of the agricultural class being returned as principal means of livelihood the secondary to be returned might be the most lucrative non-agricultural occupation, if there is one, otherwise the next most lucrative head.

Secondary means of livelihood

Secondary means of livelihood of workers of agricultural classes

TABLE 179—Distribution of 10,000 workers returning secondary means of livelihood according to the nature of their secondary means of livelihood—(contd.)

Secondary means of livelihood	All classes	All agricultural classes	All non-agricultural classes
II—Cultivation of unowned land—			
Total	609	615	573
Self-supporting persons	187	148	405
Earning dependants	422	467	168
III—Employment as cultivating labourer—			
Total	998	1,072	585
Self-supporting persons	335	357	216
Earning dependants	663	715	369
IV—Rent on agricultural land—			
Total	202	180	326
Self-supporting persons	178	160	283
Earning dependants	24	20	43
Total non-agricultural—			
Total	2,907	2,420	5,688
Self-supporting persons	1,685	1,739	1,376
Earning dependants	1,222	681	4,312
V—Production other than cultivation—			
Total	1,091	912	2,115
Self-supporting persons	633	668	433
Earning dependants	458	244	1,682
VI—Commerce—			
Total	381	288	914
Self-supporting persons	238	227	303
Earning dependants	143	61	611
VII—Transport—			
Total	95	83	163
Self-supporting persons	75	73	86
Earning dependants	20	10	77
VIII—Other services and miscellaneous sources—			
Total	1,340	1,137	2,426
Self-supporting persons	739	771	554
Earning dependants	601	366	1,942

It will appear that 75·8 per cent. of the workers of agricultural classes, who have a secondary means of livelihood, have an agricultural secondary and only 24·2 per cent. a non-agricultural secondary. The highest proportion is that of Class I (57·1 per cent.), followed by Class VIII (11·4 per cent.), Class III (10·7 per cent.) and Class V (9·1 per cent). The small proportion under Class V, Production other than cultivation, is especially significant as it shows how small a number of agriculturists take up cottage industries as secondary occupation. The figures also show the extent of the pressure on agriculture. The secondary means of livelihood of three-fourth of the agriculturists having secondaries are agricultural and even the secondary means of livelihood of 43·1 per cent. of the non-agriculturists are agricultural.

Table 180 gives the proportion of persons of agricultural classes returning a secondary means of livelihood. It will appear that the proportion is the

TABLE 180—Percentage of persons of all agricultural classes returning secondary means of livelihood by natural divisions

Natural division	Total	Self-supporting persons	Earning dependants
Uttar Pradesh	18·92	4·79	14·13
Himalayan	34·20	4·28	29·92
East Plain	25·50	5·96	19·54
Central Plain	21·50	5·13	16·37
West Plain	6·74	3·28	3·46
Hills and Plateau	27·18	5·02	22·16

highest in Himalayan and the lowest in West Plain, due mainly to the proportions returned by earning dependants. In the Himalayan women and children very actively participate in family holdings while in the West Plain their participation is very limited.

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OF AGRICULTURAL CLASSES

Table 181 gives the distribution of 10,000 workers of all agricultural classes having a secondary means of livelihood according to the nature of their secondaries, by natural divisions. The highest proportion returning agricultural secondaries

TABLE 181—*Distribution of 10,000 workers of all agricultural classes returning secondary means of livelihood according to the nature of their secondary means of livelihood by natural divisions*

Secondary means of livelihood	Uttar Pradesh	Himalayan	East Plain	Central Plain	West Plain	Hills and Plateau
Total agricultural and non-agricultural—						
Total	10,000	10,000	10,000	10,000	10,000	10,000
Self-supporting persons	2,508	1,316	2,332	2,351	4,856	1,888
Earning dependants	7,492	8,684	7,668	7,649	5,144	8,112
Total agricultural—						
Total	7,580	8,394	7,757	7,735	5,711	7,913
Self-supporting persons	769	62	804	723	1,408	540
Earning dependants	6,811	8,332	6,953	7,012	4,303	7,373
I—Cultivation of owned land—						
Total	5,713	7,808	5,700	5,927	3,974	5,505
Self-supporting persons	104	15	103	104	214	46
Earning dependants	5,609	7,793	5,597	5,823	3,760	5,459
II—Cultivation of unowned land—						
Total	615	487	627	607	584	735
Self-supporting persons	148	15	140	128	370	89
Earning dependants	467	472	487	479	214	646
III—Employment as cultivating labourer—						
Total	1,072	91	1,316	1,021	680	1,408
Self-supporting persons	357	27	462	334	387	171
Earning dependants	715	64	854	687	293	1,237
IV—Rent on agricultural land—						
Total	180	8	114	180	473	265
Self-supporting persons	160	5	99	157	437	234
Earning dependants	20	3	15	23	36	31
Total non-agricultural—						
Total	2,420	1,606	2,243	2,265	4,289	2,087
Self-supporting persons	1,739	1,254	1,528	1,628	3,448	1,348
Earning dependants	681	352	715	637	841	739
V—Production other than cultivation—						
Total	912	680	799	802	1,765	921
Self-supporting persons	668	556	574	580	1,376	598
Earning dependants	244	124	225	222	389	323
VI—Commerce—						
Total	288	131	262	251	593	268
Self-supporting persons	227	113	196	201	514	185
Earning dependants	61	18	66	50	79	83
VII—Transport—						
Total	83	64	74	70	182	67
Self-supporting persons	73	58	64	61	168	57
Earning dependants	10	6	10	9	14	10
VIII—Other services and miscellaneous sources—						
Total	1,137	731	1,108	1,142	1,749	831
Self-supporting persons	771	527	694	786	1,390	508
Earning dependants	366	204	414	356	359	323

is found in Himalayan division (83·9) followed by Hills and Plateau (79·1), East Plain (77·6), Central Plain (77·4) and West Plain (57·1). The high figure of Himalayan division is mainly due to the very high percentage (77·9) of earning dependants being engaged in family cultivation and lack of scope for non-agricultural occupations. In West Plain the low proportion of agricultural secondaries is due to the larger scope for non-agricultural occupations and the lesser participation of women and children in family agriculture.

Secondary means
of livelihood
of self-supporting
persons

16. Of 13,921,531 self-supporting persons (males 12,659,071, females 1,262,460) of agricultural classes 2,226,148 persons (males 2,078,468, females 147,680) or 16 per cent. (males 16·4 per cent., females 11·7 per cent.) returned a secondary means of livelihood. The proportion of self-supporting persons of the agricultural classes who returned a secondary means of livelihood can be seen in Table 182, which also gives for purposes of comparison the proportion in all classes, agricultural and non-agricultural combined. Relatively fewer females than males returned secondary means of livelihood and they returned proportionately less of the non-agricultural pursuits. On the whole, the proportion of self-supporting persons returning non-agricultural secondary means of livelihood is more than twice that returning an agricultural secondary means of livelihood but even then the proportion is only 11 per cent. That is, about nine-tenths of the self-supporting agriculturists have no non-agricultural secondary means of livelihood.

TABLE 182—Percentage distribution of self-supporting persons of each sex of all agricultural classes according to the nature of their secondary means of livelihood

Nature of secondary means of livelihood	All agricultural classes			All classes		
	Persons	Males	Females	Persons	Males	Females
No secondary means of livelihood	84·0	83·6	88·3	85·2	84·7	89·7
An agricultural secondary means of livelihood	4·9	4·9	4·8	5·7	5·8	4·5
A non-agricultural secondary means of livelihood	11·1	11·5	6·9	9·1	9·5	5·8

Table 183 gives by natural divisions the distribution of self-supporting persons of all agricultural classes according to the nature of their secondary means of livelihood. The highest proportion has been returned by East Plain

TABLE 183—Percentage distribution of self-supporting persons of all agricultural classes according to the nature of their secondary means of livelihood by natural divisions

Nature of secondary means of livelihood	Himalayan	East Plain	Central Plain	West Plain	Hills and Plateau
No secondary means of livelihood	83·1	79·7	82·7	89·6	82·5
An agricultural secondary means of livelihood	0·8	7·2	5·3	3·0	5·0
A non-agricultural secondary means of livelihood	16·1	13·1	12·0	7·4	12·5

and the lowest by West Plain. In the East Plain the holdings are small and the cultivators have to supplement their income either by labour or some non-agricultural pursuit. The proportion of Cultivators of unowned land (Class II) in this division is also the highest in the State excepting Hills and Plateau. This (Class III) in particular has to seek secondary means of livelihood. In the West Plain on the other hand the holdings are large and the proportion of Cultivators of unowned land (Class II), the lowest in the State. As regards division of the secondary means of livelihood into agricultural and non-agricultural the Himalayan division stands prominent. Here only 0·8 per cent. have agricultural secondary means of livelihood while 16·1 per cent. have non-agricultural secondary means of livelihood. This is due to the fact that in this division the proportion of the landlords and the cultivating labourers is the lowest

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in the State (*vide* Subsidiary Table 1·8) and it is the self-supporting persons of these two classes who mainly return an agricultural secondary means of livelihood. The proportion of non-agricultural occupations returned as secondary means of livelihood should not, however, be taken as an index of the development of non-agricultural occupations in this division.

Table 184 shows the proportion of self-supporting persons of the four agricultural classes who returned no secondary means of livelihood, an agricultural or a non-agricultural secondary means of livelihood in 1951 compared with that of 1931. The highest proportion of secondary means of livelihood

TABLE 184—*Distribution of 1,000 self-supporting persons or earners of each agricultural livelihood class according to the nature of their secondary means of livelihood in 1951 and 1931*

Livelihood class	Number per 1,000 self-supporting persons or earners with—					
	1951			1931		
	No secondary means of livelihood	An agricultural secondary means of livelihood	A non-agricultural secondary means of livelihood	No secondary means of livelihood	An agricultural secondary means of livelihood	A non-agricultural secondary means of livelihood
All agricultural classes..	840	49	111	853	76	71
I—Cultivators of land wholly or mainly owned	845	42	113	—	—	—
II—Cultivators of land wholly or mainly unowned	734	94	172	—	—	—
Total Classes I and II—Cultivators of owned and unowned land	836	47	117	848	69	83
III—Cultivating labourers	885	69	46	894	77	29
IV—Non-cultivating owners of land; and agricultural rent receivers	810	60	130	669	262	69

was returned by Cultivators of unowned land (Class II), while the least was returned by Cultivating labourers (Class III) in 1951. For 1931 the break-up for Classes I and II is not available and it appears that the highest proportion of secondary means of livelihood was returned by Non-cultivating owners of land; and agricultural rent receivers (Class IV) and the least by Cultivating labourers (Class III).

Cultivators of land (owned and unowned), Classes I and II, returned the smallest proportion of agricultural secondary means of livelihood, both in 1951 and 1931, as is to be expected. In 1951 the proportion of cultivators with secondary means of livelihood has slightly increased but the increase is confined to non-agricultural secondaries, there being a decrease in the proportion of agricultural secondaries.

Cultivating labourers, Class III, returned the lowest proportion of non-agricultural secondary means of livelihood, both in 1951 and 1931. In 1951 the proportion of cultivating labourers with secondary means of livelihood has slightly increased but the increase is confined to non-agricultural secondaries, there being a slight decrease in the proportion of agricultural secondaries.

Non-cultivating owners of land; and agricultural rent receivers, Class IV, returned the highest proportion (26·2 per cent.) of agricultural secondaries in 1931 but the proportion has suddenly come down in 1951 to less than one-fourth of the former figure. This is due to several reasons. Formerly the landlords had a large amount of land recorded as their *sir* or *khudkasht* although they were not in actual cultivating possession of it. Such land has now been recorded in the possession of tenants as a result of legal or administrative action. Secondly, the zamindars themselves parted with their *sir* and *khudkasht* in the years immediately preceding the census for consideration on account of the fear of the impending Zamindari Abolition legislation. The result is the heavy reduction in the agricultural secondaries of Class IV. As against this, the non-agricultural secondaries have increased from 6·9 per cent. to 13 per cent. Faced with the abolition of zamindari, the zamindars have taken increasingly to non-agricultural secondary occupations.

Secondary means
of livelihood of
earning depend-
ants

17. Table 185 gives the percentage distribution of earning dependants of the agricultural classes according to their secondary means of livelihood. It will appear that for the State 90·9 per cent. returned an agricultural secondary means of livelihood and only 9·1 a non-agricultural secondary means of livelihood. Among the natural divisions the highest proportion of agricultural secondary means of livelihood was returned by Himalayan (96·0 per cent.) and the lowest by West Plain (83·6 per cent.). The earning dependants in the Himalayan division mainly work on their family holdings for several reasons. In the first place, owing to the small holding the family can not afford to engage labour and allow earning dependants to take to other occupations. Secondly, there is no scope for earning dependants to engage in non-agricultural occupations as such occupations are the least developed in this division. Thirdly, the self-supporting persons of the family are often earning their living away from the household which further restricts the earning dependants to the family holdings. For contrary reasons the earning dependants take to non-agricultural secondaries in greater proportion in the West Plain.

TABLE 185—Percentage distribution of earning dependants of all agricultural classes according to the nature of their secondary means of livelihood by natural divisions

Natural division	Secondary means of livelihood	
	Agricultural	Non-agricultural
Uttar Pradesh	90·9	9·1
Himalayan	96·0	4·0
East Plain	90·7	9·3
Central Plain	91·7	8·3
West Plain	83·6	16·4
Hills and Plateau	90·9	9·1

Table 186 shows the distribution of 10,000 earning dependants of all agricultural classes according to the nature of their secondary means of livelihood by natural divisions. Among the agricultural secondaries the proportion of Class I is by far the largest in all the divisions, followed by Class III and Class II (except in the case of Himalayan where Class II precedes Class III). As regards non-agricultural secondaries the highest proportion is that of Class VIII, Other services and miscellaneous sources, followed by Class V, Production other than cultivation, in all the natural divisions (except West Plain). The reasons have already been stated above.

TABLE 186—Distribution of 10,000 earning dependants of all agricultural classes according to the nature of their secondary means of livelihood by natural divisions

Natural division	Secondary means of livelihood										
	Total agricultural	I—Cultivation of owned land	II—Cultivation of unowned land	III—Employment as cultivating labourer	IV—Rent on agricultural land	Total non-agricultural	V—Production other than cultivation	VI—Commerce	VII—Transport	VIII—Other services and miscellaneous sources	
Uttar Pradesh	9,091	7,487	623	954	27	909	326	81	13	489	
Himalayan	9,595	8,974	544	73	4	405	142	21	7	235	
East Plain	9,067	7,299	635	1,114	19	933	293	87	13	540	
Central Plain	9,167	7,613	626	898	30	833	290	65	12	466	
West Plain	8,364	7,310	415	570	69	1,636	758	154	26	698	
Hills and Plateau	9,089	6,729	797	1,525	38	911	397	103	12	399	

18. Since we have classified earning dependants according to the occupation of the self-supporting persons on whom they are dependant we are in a position to ascertain in respect of the earning dependants of the agricultural classes (i) the proportion of those having the family occupation as their secondary, (ii) the proportion of those having an agricultural secondary other than the family one, and (iii) the proportion of those having a non-agricultural secondary. The figures are given in Table 187.

Classification
of earning
dependants of
each agricultural
class by secondary
means of
livelihood

TABLE 187—*Classification of earning dependants of each agricultural class according to the nature of their secondary means of livelihood*
(Actual and percentage)

Principal means of livelihood	Number and proportion of earning dependants returning—		
	Family means of livelihood as secondary	Agricultural secondary other than the family means of livelihood	Non-agricultural secondary
All agricultural classes	5,597,843 (84·2)	448,065 (6·7)	604,179 (9·1)
I—Cultivators of land wholly or mainly owned; and their dependants	4,871,567 (87·6)	265,088 (4·8)	423,988 (7·6)
II—Cultivators of land wholly or mainly unowned; and their dependants	361,082 (65·5)	107,231 (19·5)	82,929 (15·0)
III—Cultivating labourers; and their dependants ..	359,006 (69·7)	68,482 (13·3)	87,920 (17·0)
IV—Non-cultivating owners of land; agricultural rent receivers; and their dependants	6,188 (27·1)	7,264 (31·9)	9,342 (41·0)

The highest proportion of earning dependants having their secondary identical with the family agricultural occupation is to be found in Class I (87·6 per cent.) and the least in Class IV (27·1 per cent.). The highest proportion of these having as their secondary an agricultural occupation other than that of the family is to be found in Class IV (31·9 per cent.) and the lowest in Class I (4·8 per cent.). The reason is that Class I affords the highest scope for the participation of earning members in the family occupation while Class IV affords the least scope for such participation. The highest proportion of earning dependants with a non-agricultural secondary is to be found in Class IV (41·0 per cent.) and the least in Class I (7·6 per cent.). As will appear from Subsidiary Table 4·5 more than half the non-agricultural secondaries of Class IV fall in Livelihood Class VIII (Other services and miscellaneous sources). The earning dependants of Class IV appear to have increasingly taken to non-agricultural occupations on account of the impending abolition of zamindari.

For all agricultural classes the proportion of earning dependants with their secondary identical with the family agricultural occupation is 84·2 per cent., with an agricultural secondary other than the family occupation 6·7 per cent. and with a non-agricultural secondary 9·1 per cent.

SECTION 3—RELATIVE PROPORTION OF DIFFERENT AGRICULTURAL
CLASSES CORRELATED TO DISTRIBUTION OF LAND IN
AGRICULTURAL HOLDINGS OF DIFFERENT SIZES

Increase in the proportion of agricultural workers

1. It has been seen in Section 6 of Chapter I that the proportion of workers in agricultural means of livelihood to the total population of workers has been steadily increasing. From 64·20 per cent. in 1901 it has risen to 75·36 per cent. in 1951. We will now examine the relative proportion of the four agricultural means of livelihood and ascertain how far the pattern has been affected by the size of agricultural holdings.

Relative proportion of persons of agricultural means of livelihood in the State since 1901

2. Table 188 shows the distribution of agricultural means of livelihood in the State (actual and percentage) since 1901. It will be seen that the proportion of cultivators of land among the agricultural means of livelihood has been steadily rising at the expense of the proportion of agricultural labourers and agricultural rent receivers.

TABLE 188—Distribution, actual and percentage, of agricultural means of livelihood in the State 1901—21 and 1951

Means of livelihood	1951	1921	1911	1901
Total agricultural	46,552,044 (100)	34,704,145 (100)	34,130,477 (100)	31,358,946 (100)
Cultivation of owned land	38,948,828 (83·67)	—	—	—
Cultivation of unowned land	3,144,938 (6·75)	—	—	—
Total of cultivation of owned and unowned land	42,093,766 (90·42)	29,849,821 (86·01)	28,712,015 (84·12)	23,534,772 (75·05)
Employment as cultivating labourer	3,788,831 (8·14)	4,035,887 (11·63)	4,552,043 (13·34)	4,376,293 (13·96)
Rent on agricultural land	669,447 (1·44)	818,437 (2·36)	866,419 (2·54)	3,447,881 (10·99)

The average holding (sown area plus current fallow) per family has been steadily declining during this period; it has fallen from about 7 acres in 1901 to about 5 acres in 1951. This is accounted for mainly by the progressive increase in the number of cultivators of land.

Relative proportion of agricultural classes in the natural divisions

3. Table 189 shows the distribution of 10,000 persons of all agricultural classes by natural divisions in 1951. Among the agricultural classes as many as 83·9 per cent. are Cultivators of owned land (Class I); only 6·9 per cent. are Cultivators of unowned land (Class II); 7·7 per cent. are Cultivating labourers (Class III); and only 1·4 per cent. are Non-cultivating owners of land; and agricultural rent receivers (Class IV).

TABLE 189—Distribution of 10,000 persons of all agricultural classes by natural divisions

Natural division	Number per 10,000 persons of all agricultural classes			
	I—Cultivators of land wholly or mainly owned and their dependants	II—Cultivators of land wholly or mainly unowned and their dependants	III—Cultivating labourers and their dependants	IV—Non-cultivating owners of land; agricultural rent receivers; and their dependants
Uttar Pradesh	8,393	694	770	143
Himalayan	9,230	605	139	26
East Plain	8,354	797	782	67
Central Plain	8,416	750	656	178
West Plain	8,502	508	793	197
Hills and Plateau	7,374	962	1,490	174

Examining the distribution by natural divisions, it would appear that the Himalayan has the largest proportion of Class I and the smallest of Classes III and IV. Although no authoritative data about the size of holdings of this division is available, it is fairly certain that the proportion of small holdings is about the largest in this division. Holdings being small the tenants cultivate themselves. They can neither afford to sub-let them nor engage labour for cultivation. This explains the high proportion in Class I and the low proportion in Classes II and III. As would appear from Subsidiary Table 4·1 the proportion of sub-letting in this division, which is already the lowest in the State (excepting West Plain), would have been lower still but for the high figures of Almora and Dehra Dun districts, which have presumably been affected by migration. The low proportion in Class IV is due to the presence of a large proportion of petty land owners, a large majority of whom fall in Class I as they mostly cultivate their land themselves.

The Hills and Plateau has holdings of the largest size in the State (Subsidiary Table 4·1). This results in sub-letting and the engagement of labour on a

large scale which explains why the proportions of Classes II and III in this division are the highest and that of Class I the lowest in the State.

In the three Plain divisions the holdings increase in size from East Plain to Central Plain and from Central Plain to West Plain. The proportion of Class I, however, is almost identical in all these divisions. The proportion of Class II is highest in East Plain. But this is due mainly to the very high figures of the districts of Banaras revenue division where, owing to the Permanent Settlement,* sub-letting is common. In the Gorakhpur revenue division, where the proportion of small holdings is very large, sub-letting is nominal. In the districts of Gonda and Bahraich of this division, where the proportion of holdings of over 5 acres is the largest, the proportion of sub-letting is also high. Thus sub-letting in this division also is governed by the size of the holding although, as a result of the special circumstances of Banaras revenue division, the average of the natural division turns out to be comparatively high. The proportion of Class III is high in East Plain because a large proportion of cultivators have such tiny holdings that they have to supplement their income by labour for bigger cultivators or cultivators of higher castes. These persons, who would have normally been put in Class I, are relegated to Class III as agricultural labour provides greater income to them than their holdings. The high proportion of Class III in West Plain, however, is due to a different reason. The large holdings are relatively greater in number in this division than in either East Plain or Central Plain and the tenants have to engage labour for that reason. The low proportion of Class IV in East Plain is due to the existence of a large number of petty landholders who derive their principal means of livelihood from the cultivation of their own land and who, therefore, fall under Class I. The high proportion of Class IV in West Plain is due to the existence of a higher proportion of zamindars.†

It would appear from the above that there is a definite correlation between the size of agricultural holdings and the relative distribution of the agricultural classes. Where holdings are large there is comparatively more of sub-letting and engagement of labour and so Classes II and III increase in proportion as against Class I. Likewise where holdings are small there is less of sub-letting or engagement of labour and so Class I increases at the expense of Classes II and III. Class IV is dependent on the proportion of petty landholders, most of whom are transferred to Class I when they cultivate their own land.

4. The U. P. Zamindari Abolition Committee has for the first time collected authoritative statistics about the size of holdings in each district of the State. The *khatauni* of the land records contains the record of cultivating rights in which the names and classes of tenure of all occupants of land are recorded, but the entries are grouped under various categories of rights in land. In 1946-47 special statements were prepared by the *patwaris* on the basis of this record showing (1) the number of persons cultivating or otherwise occupying land within a pargana whose names are recorded in Part I of the *khatauni* arranged according to the total area held by each person for the *fasli* year ending June 30, 1945, (2) the total area of land comprised in holdings of different sizes. These invaluable figures have been published in Volume II of the Committee's Report, and some of them have been reproduced in Subsidiary Table 4·1 of Part I-B of our Report.

Size of average holding
(†) Z.A. Committee's estimate

From the above statements it appears that the total area of land comprised in holdings in U. P. (excluding Almora, Garhwal, Rampur, Tehri-Garhwal and hill pattis of Naini Tal) in 1945 was 41,313,259 acres and the total number of persons holding them 12,288,136. From this the average area held by each person calculates to 3·36 acres. This area of cultivation includes the area of groves, fallow land, and other land not cultivated for numerous reasons though forming part of the recorded holding. If only sown area is taken into consideration the average holding calculates to only 2·98 acres. The Zamindari Abolition Committee has assumed these figures to be the average size of a holding *per family* of five persons, including dependants. But a family frequently has more than one right-holder recorded in the *khatauni* and so the true average holding of a family household must be larger than the above figures. The

*The fixed-rate tenants under the Permanent Settlement had unfettered right of sub-letting.

†U.P. Zamindari Abolition Committee Report, Volume II, Statement No. 10.

figures calculated by the Z. A. Committee relate in fact to average holding per recorded right-holder.

(ii) Estimate based on census data

5. Let us calculate from the census data of 1951 the number of families having holdings in their own right. These families will consist of (1) all persons of Livelihood Class I, Cultivators of owned land, (2) self-supporting persons of all classes other than Class I having Class I as secondary means of livelihood and (3) earning dependants of all classes other than Class I, having Class I as secondary means of livelihood. We will treat each self-supporting person and earning dependant having Class I as secondary means of livelihood as representing one family, although there may be some cases of a family having more than one person of this type. On the other hand, there may be some persons in Class IV, and a very few persons in other classes whose secondary means of livelihood is Class IV, who have holdings recorded in their names but do not cultivate them at all. Both these errors will be of a small magnitude and as they are in different directions will make the net error smaller still. According to this method (Table 190) the average holding in the State in 1951 was 5·09 acres if only sown and fallow area are taken into account. Among the natural divisions

TABLE 190—Number of families with agricultural holdings and the average size of holding per family by natural divisions

Particulars	Uttar Pradesh	Himalayan	East Plain	Central Plain	West Plain	Hills and Plateau
1 (i) Population of Class I ..	39,361,035	1,834,434	12,369,391	10,207,084	12,782,206	2,167,920
(ii) Size of rural family ..	5·068	4·644	5·453	4·872	4·990	4·886
(iii) Number of families of Class I	7,766,581	395,012	2,268,364	2,095,050	2,561,564	443,700
2 Self-supporting persons of all classes except Class I having Class I as secondary means of livelihood	362,753	30,735	131,560	93,476	87,991	18,991
3 Earning dependants of all classes except Class I having Class I as secondary means of livelihood	276,869	40,888	106,612	77,546	36,716	15,107
4 Total families ..	8,406,203	466,635	2,506,536	2,266,072	2,686,271	477,798
5 Area sown (1950-51) ..	40,108,036	1,841,763	9,611,582	9,078,489	15,193,857	4,382,345
6 Current fallow (1950-51) ..	2,662,988	119,301	436,070	527,716	832,570	747,331
7 Total area sown and current fallow (1950-51)	42,771,024	1,961,064	10,047,652	9,606,205	16,026,427	5,129,676
8 Size of average holding per family*	5·088	4·203	4·009	4·239	5·966	10·736
9 Number of right-holders according to Z.A. Committee † ..	12,278,289	60,267	3,938,408	3,056,320	4,477,551	745,743
10 Total area sown plus current fallow (1950-51) ..	40,774,596	345,343‡	10,047,652	9,606,205	15,645,720§	5,129,676
11 Size of average holding per right-holder ..	3·321	5·730	2·551	3·143	3·494	6·879

the figure is highest in Hills and Plateau (10·74) and lowest in East Plain (4·01). In the Plain divisions the average rises from East to Central and from Central to West.

Table 190 also gives the size of holding per right-holder calculated on the basis of the number of right-holders ascertained by the Z. A. Committee.¶ As a family has often more than one recorded right-holder in the *khatauni* this average works out to be substantially less than the average per family.

* The family here is used in the sense of right-holder's family. If we take the actual cultivating families their number will be slightly larger and the average family holding for U. P. reduced to 4·67 acres and similarly for other natural divisions.

† The figures are for the State excluding Garhwal, Tehri-Garhwal, Almora, Rampur and Hill portion of Naini Tal

‡ These figures are for Dehra Dun district and the plain area of Naini Tal district only.

§ Excluding Rampur.

¶ In Table 190 the figures of right-holders relate to 1944-45, those of the sown and fallow area to 1950-51, and those of agricultural families to March 1, 1951. For the purposes of comparison they have all been treated as true for 1951.

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6. A number of estimates about the average size of holding in the State or part of the State have been made previously. According to the Famine Inquiry Commission, 1945, the average size of holding in the State ranges between 4·8 acres in the Gorakhpur division where the soil is fertile and 12 acres in the Jhansi division where the soil is unfertile, the average for the whole State being about 6 acres. The U. P. Banking Enquiry Committee of 1929 divided the State (excluding the hill districts) into five tracts and estimated the average holding in the Bundelkhand tract to be between 10·5 acres to 12 acres ; in the western tract, comprising mainly of Agra and Meerut divisions, to be between 8 acres to 10·5 acres; in the northern-central tracts, consisting of the Rohilkhand division and some Avadh districts north of Lucknow, to be 6—7 acres; in the southern-central tract, consisting of the districts round about Lucknow, Kanpur and Allahabad, to be between 5 acres to 5·5 acres; and in the eastern tract, including all the districts east of Banaras and also Pratapgarh, Jaunpur and Faizabad, to be between 3·5 acres to 4·5 acres. The Census Report of 1931 estimated the average holding in the State as 6·7 acres. The Agrarian Distress Enquiry Committee, 1931, criticised the figures of the U. P. Banking Enquiry Committee and came to the conclusion that the average holding in the State was much smaller, about 5 acres.

(iii) Previous estimate

It will be seen that all these estimates are nearer the average calculated on the basis of census statistics of families engaged in cultivation than on the basis of statistics of right-holders collected by the Z. A. Committee.

7. There is, however, one supreme merit of the data collected by the Z. A. Committee. For the first time detailed figures have been collected about the proportion of the different size of holdings and the area of land occupied in each size. This data is indispensable for a study of the effects of the size of agricultural holdings on the economy of the State.

Various sizes of holdings

Subsidiary Table 4·1 presents for each district and natural division the distribution of 1,000 agricultural holdings in various sizes of holdings grouped into as many as 18 sizes.

(i) Holdings by four grades of sizes

TABLE 191—Distribution of 1,000 agricultural holdings according to size of holdings by natural divisions

Natural division	Under 2 acres	2 to 5 acres	5 to 10 acres	10 acres and over
Uttar Pradesh ..	558	254	128	60
Himalayan *	424	269	196	111
East Plain **	661	213	89	37
Central Plain ..	543	270	133	54
West Plain ..	510	280	146	64
Hills and Plateau ..	359	250	192	199

In order to analyse this data properly it is presented in Table 191 in only four sizes of holdings by natural divisions. It must be borne in mind that these holdings are throughout holdings of right holders ; the family holdings will be about 50 per cent bigger in size (*vide* Table 190). Also the data for Himalayan division relates only to Dehra Dun district and the plain portion of Naini Tal district and should not be taken to be representative of the division at all.

In the State as a whole 55·8 per cent. of the holdings are under 2 acres, 25·4 per cent. between 2 to 5 acres, 12·8 per cent. between 5 to 10 acres, and only 6 per cent. of 10 acres and over. This means that a majority of the holdings in the State are under 2 acres and as many as 81·2 per cent. are under 5 acres.

Among the natural divisions the East Plain has the highest proportion in the under 2 acres class and the lowest in each of the remaining classes while Hills and Plateau has the lowest proportion in the under 2 acres class, the lowest proportion (excepting East Plain) in the 2 to 5 acres class, the highest proportion (excepting Himalayan) in the 5 to 10 acres, and the highest proportion in the 10 acres and over class. The figures of Himalayan are not representative of the division and may be left out of account. As between Central and West Plain

* The data is for Dehra Dun district and for the plain area of Naini Tal district only.

the latter has a smaller proportion of the holdings under 5 acres and a larger proportion of the holdings over 5 acres.

It may be noted that the grades of sizes chosen for presentation in Table

TABLE 192—Average holding in the four grades of holdings by natural divisions

Natural division	Under 2 acres	2 to 5 acres	5 to 10 acres	10 acres and over
Uttar Pradesh	0.85	3.26	6.92	19.44
Himalayan	0.84	3.36	7.01	20.08
East Plain	0.78	3.21	6.86	20.30
Central Plain	0.89	3.27	6.90	18.74
West Plain	0.90	3.27	6.94	17.31
Hills and Plateau	0.94	3.33	7.08	23.43

191 are altogether arbitrary. Their selection is based entirely on convenience of discussion. As will appear from Table 192 the average size of holding in each of the four grades differs from one natural division to another.

(ii) The median, lower and upper quartiles

We will now analyse the data of Subsidiary Table 4.1 by another method viz., the calculation of the median and upper and lower quartiles (Table 193).

TABLE 193—Size of agricultural holdings (in acres) by natural divisions

Natural division	Lower quartile	Median	Upper quartile
Uttar Pradesh	0.61	1.68	3.94
Himalayan*	0.85	2.70	5.97
East Plain	0.44	1.12	2.86
Central Plain	0.66	1.76	3.99
West Plain	0.72	1.94	4.38
Hills and Plateau	1.24	3.44	8.23

If all the holdings are arranged in order of size the median will be the holding half way along the series. So in general there are as many holdings above the median as below it. Likewise the upper and lower quartiles represent the middle point of the upper and lower half of the series. A mere arithmetic mean is often

unduly influenced by abnormal individuals which are not really typical of the population in which they appear; a median is not so affected.

Thus in Table 193 if we take 1,000 holdings in the State 500 are below 1.68 acres and as many above it. Among the former 250 are below 0.61 acres and as many above it. Among the latter 250 are below 3.94 acres and as many above it. We have seen in Table 190 above that the arithmetic average holding in the State is 3.32 acres while the median holding of the State is only 1.68 acres. The former figure is affected by the larger holdings but the median is not.

The median is the highest in Hills and Plateau followed by West Plain, Central Plain and East Plain in the order named. The upper and lower quartiles follow the same order.

8. The sub-division of holdings has inevitably affected the cultivated area per effectively active worker which is now only 2.70 acres for the State. The subject has been examined at greater length in Section 8 of this chapter.

9. It will be interesting to compare the size of holdings in the State with other States. Table 194 gives the figures for 10 States. It will appear that in

TABLE 194—Distribution of 1,000 agricultural holdings according to size of holdings in the States of India

State	Under 2 acres	2 to 5 acres	5 to 10 acres	10 acres and over
Assam†	389	274	211	126
Bihar	684	183	78	55
Bombay†	275	257	223	245
Madhya Pradesh	273	225	210	292
Madras	674	162	164	161
Orissa	220	396	223	161
Uttar Pradesh	558	254	128	60
West Bengal	345	362	203	90
Mysore	668	212	120	120
Travancore-Cochin	872	73	55	55

respect of the proportion of holdings under 5 acres Travancore-Cochin, Bihar and Uttar Pradesh return the highest proportions. Other States with over 60 per cent. of holdings under 5 acres are West Bengal (70.7 per cent.), Mysore (66.8 per cent.), Madras (67.4 per cent.), Assam (66.3 per cent.), and

Orissa (61.6 per cent.). The problem of small and uneconomic holdings faces the whole country in greater or lesser degree.

* The data is for Dehra Dun district and the plain area of Naini Tal district only.

† United Nations, *Land Reforms*.

Average cultivated area per effectively active worker

Size of holdings in other States of India

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10. In other countries of the world the size of agricultural holdings is comparatively much larger than in India. In the U.S.S.R. an average collective farm is 1,600 acres. In Canada the size of a family holding is 234 acres and in U.S.A. 145 acres but in both these countries agriculture is altogether mechanized. The size of an average family holding in some other countries is as follows : Denmark—40 acres, Holland—26 acres, France—20·5 acres, Britain—20 acres, Belgium—14·5 acres and Philippines—10 acres.*

Size of holding in other countries

11. Table 195 shows the distribution of 1,000 acres in various grades of sizes of holdings classified in Table 191. It will appear that 55·8 per cent. of the agricultural families in the State fall in the under 2 acres grade but they have only 14·1 per cent. of the area i.e., only about one-fourth of their proportion.

Area under various grades of holdings

TABLE 195—Distribution of 1,000 acres according to size of agricultural holdings by natural divisions

Natural division	Under 2 acres	2 to 5 acres	5 to 10 acres	10 acres and over
Uttar Pradesh ..	141	247	262	350
Himalayan † ..	73	186	283	458
East Plain ..	204	270	238	288
Central Plain ..	147	268	280	305
West Plain ..	131	263	290	316
Hills and Plateau ..	47	116	189	648

In the 2 to 5 acres grade fall a quarter of the families and they have nearly a quarter of the area. In the 5 to 10 acres grade about 12·8 per cent. of the families have over 26·2 per cent. of the area i.e., more than double

their proportion and in the 10 acres and over grade 6 per cent. of the families have 35·0 per cent. of the area i.e., about 6 times their proportion. The two upper classes put together have 18·8 per cent. of the families with 61·2 per cent. of the area i.e., over three times their proportion. The inequalities of this distribution are apparent.

Examining the data by natural divisions it will appear that in the Himalayan division over 42 per cent. of the families in the under 2 acres grade have only 7·3 per cent. of the area; in the 2 to 5 acres grade about 27 per cent. of the families have 18·6 per cent. of the area; in the 5 to 10 and over 10 acres grade 30·7 per cent. of the families have 74·1 per cent. of the area. Thus in this division the lower two grades are both losing ones while the upper two grades are both on the gaining side.

In the East Plain division the under 2 acres grade is a heavy loser with 66·1 per cent. of the families possessing only 20·4 per cent. of the land while all the remaining three grades are gainers, more particularly the upper two grades.

In the Central Plain the under 2 acres grade is again a heavy loser with over 54·3 per cent. of the families having only 14·7 per cent. of the land, the 2 to 5 acres grade is almost at par and the other two upper grades are heavy gainers.

In the West Plain 51 per cent. of the families under 2 acres grade have only 13·1 per cent. of the land; the 2 to 5 acres grade is a slight loser while the other two upper grades are heavy gainers.

In the Hills and Plateau division about 36 per cent. of the families under 2 acres grade have only 4·7 per cent. of the land; the 2 to 5 acres grade is a heavy loser; the 5 to 10 acres grade is almost at par and the 10 acres and over grade is a heavy gainer.

It will thus appear that the under 2 acres grade is a heavy loser in all divisions; the 2 to 5 acres grade is a loser in all the divisions except East Plain; the 5 to 10 acres grade is a gainer in all the divisions except Hills and Plateau where it is at par; and the 10 acres and over grade is a heavy gainer throughout.

12. There is no doubt that the size of the agricultural holding has been progressively shrinking in this State. As in numerous other countries "the process of concentration of land in the hands of rent receiving classes was accompanied by the fractionalization of holdings amongst peasantry which made

Progressive shrinkage of size of holding

* The figures for U.S.S.R. and Canada have been taken from Sri A. N. Agarwala, *Indian Agriculture and its Problems*, those for Philippines from United Nations, *Land Reforms* and those for other countries from the Zamindari Abolition Committee Report, Part I of Uttar Pradesh.

† The data is for Dehra Dun district and the plain area of Naini Tal district only.

desperate attempts to retain its rights of cultivation.”* We have no reliable data regarding the size of holdings prior to British rule but they were certainly large enough to keep the cultivator in comfort. According to Dr. Harold Mann’s survey, “*Life and Labour in a Deccan village*”, the average holding in the village surveyed was 40 acres in 1771 and had declined to 7 acres in 1915. Dr. Mann’s general observations apply to our villages as much as to the Deccan villages he surveyed in 1917: “It is evident that in the last sixty or seventy years the character of land holding has altogether changed. In the pre-British days and the early days of British rule the holdings were of a fair size, most frequently more than 9 or 10 acres, while individual holdings of less than 2 acres were hardly known. Now the number of holdings has more than doubled and 81 per cent. of these are under 10 acres in size while no less than 60 per cent. are less than 5 acres.”

In our State Major Erskine, Commissioner on special duty in Avadh, conducted in 1880 an enquiry in Avadh covering 487 representative villages. From the figures collected by him it appears that the average holding had shrunk to about 5 acres by the early eighteen-eighties. Major Erskine observed that the process of shrinking of size of holdings was going on at a fast pace and that it threatened the efficiency of agriculture and the well-being of the cultivators. Similar observations were made by Sri Bennet in the Final Settlement Report of the Gonda district (1877).

On the basis of the census data about agricultural families and the figures of cultivated area (plus fallow land) of the census year the average holding *per family* in the State calculates to 7·0 acres in 1901, 6·0 acres in 1911, 5·4 acres in 1921 and 6·2 acres in 1931. These figures are, however, only approximate as the data for computing the agricultural families is not quite complete in all the censuses.

Existing holdings
low for economic

13. Let us now examine briefly whether the existing holdings are economic and whether their present sub-division and fragmentation affects production.

The “Economic holding” may be defined as the minimum area necessary for supporting an agricultural family. No great measure of precision in such a discussion is possible as what is economic under certain circumstances may be altogether uneconomic under different circumstances. The quality of the land and the irrigational and other facilities available are, in the first place, of supreme importance. A holding which is economic in a district like Meerut or Muzaffarnagar will certainly be uneconomic in the difficult and precarious tract of Bundelkhand. The skill and industry of the cultivators also counts. A *Brahman* would starve on a holding that may be more than sufficient for a *Koeri*. Then the standard of comfort to which different cultivators are accustomed also affects this issue. An acreage that is sufficient for a *Chamar* will be insufficient for a *Rajput*, and the standard of living of a landlord is generally higher than that of a tenant. Thus the point at which a holding becomes uneconomic in size is not fixed but variable. We will, however, consider only an average holding.

The term economic holding has been interpreted in various ways by different authorities. Some have defined it with respect to the size of the holding, some with respect to the size of the family working on it and some with respect to the method of production followed. For the State Dr. Stanley Jevons estimated the size of an economic holding to be 20 to 30 acres for a reasonable standard of comfort. The U.P. Congress Enquiry Committee, 1946 put the figure at 15 to 20 acres and the U. P. Zamindari Abolition Committee, 1948 at 10 acres. Sri Charan Singh, the present Minister for Agriculture in U. P. who was a member of this Committee thought that 6½ acres was roughly an average economic holding.

If we take 10 acres as the average size of an economic unit of cultivation 94 per cent. of the cultivators in the State have uneconomic holdings. Such cultivators hold only 65·0 per cent. of the land. Even on the basis of Sri Charan Singh’s estimate of 6½ acres as the size of the economic holding, 85·4 per cent. cultivators, holding only 45·5 per cent. of the land, have uneconomic holdings. It may further be noted that 37·8 per cent. of the cultivators holding only 6 per cent. of the area have holdings less than 1 acre. Detailed

* U. P. Zamindari Abolition Committee Report, 1948, page 11.

SECTION 3—RELATIVE PROPORTION OF DIFFERENT AGRICULTURAL 227
CLASSES CORRELATED TO DISTRIBUTION OF LAND IN
AGRICULTURAL HOLDINGS OF DIFFERENT SIZES

analysis of the holdings in four grades of sizes, has already been made above. The figures give an idea of the vastness of the problem of uneconomic holdings.*

14. Apart from the small size of the agricultural holdings in the State they suffer from another great handicap. "Even these small holdings are not to be found in compact blocks; they are generally fragmented into a number of plots scattered over different parts of the village. This results from the desire of every heir to have a piece of each kind of land. On an average a holding, whether big or small, is found fragmented into 5 to 8 strips. In some places fragmentation has been carried to such extremes that the holdings are not more than a mere fraction of an acre, making the village look like jig-saw puzzles".†

Fragmentation
of holdings

This fragmentation affects the agricultural productivity of the country. Agriculture on small and scattered bits of land is altogether uneconomic. It involves waste not only of human resources but also of working cattle and agricultural equipment. It also impedes improvements in land. It prevents supervision and leads to considerable wastage of land in boundaries. Boundary disputes and litigation are often the outcome of this dispersal of holdings. All this results in increasing the cost of cultivation and making our agriculture inefficient and unremunerative.

15. Government are fully alive to the evils of the sub-division and fragmentation of holdings and their adverse effect on agricultural production. In the Zamindari Abolition and Land Reforms Act, 1950 they have prescribed the maximum and minimum limits to the size of a holding. In future no person can acquire a holding of over 30 acres and 6½ acres will be aimed at as the minimum holding. Provisions for co-operative farming have also been made in the Act. As regards redistribution of land in order to make the holdings more equitable the question raises many controversial issues. Yet the government have welcomed Acharya Vinoba Bhave's *Bhoodan* movement and provided legislative backing to it. Fragmentation is a problem by itself and the best solution for it, if co-operative farming is not adopted, is consolidation of the scattered fields in as few plots as possible. An Act to further consolidation of holdings was passed in this State as early as 1939 and a revised Bill has been recently introduced in the State legislature in order to remove the defects of the old Act and to secure speedy and effective consolidation. The success of government's efforts in this field will be a measure of the agricultural progress of the State.

Remedies

* Sri Turner in 1931, in the absence of data about holdings of various grades of sizes, drew apparently wrong and misleading conclusions about the economic condition of the cultivators in the various natural divisions (*vide U. P. Census Report, 1931, Part 1, pages 45-47*).

† A. N. Agarwala, *Indian Agriculture and its Problems*.

SECTION 4—CULTIVATORS OF LAND WHOLLY OR MAINLY OWNED ;
AND THEIR DEPENDANTS

Cultivators of
owned land

1. As has been explained in Section I of this chapter, Class I, Cultivators of owned land, consists not only of tenants but also of such zamindars as have more income from their *sir* and *khudkasht* than from the rental of land let out to others. Tenants include exproprietary, occupancy, fixed rate and hereditary tenants but not tenants of *sir* or sub-tenants who fall in Class II, Cultivators of unowned land. The actual number of persons of Class I is about 394 lakhs of which all except 7 lakhs live in rural areas. Their distribution among the various natural divisions is given in Table 196. It will be seen that the highest proportion of this class is to be found in Himalayan and the lowest in Hills and Plateau.

TABLE 196—Population of agricultural Livelihood Class I, actual and percentage to total agricultural population by natural divisions

Natural division	Number of cultivators of land wholly or mainly owned and their dependants	Percentage to total agricultural population
Uttar Pradesh	39,361,035	83.93
Himalayan	1,834,434	92.30
East Plain	12,369,391	83.54
Central Plain	10,207,084	84.16
West Plain	12,782,206	85.02
Hills and Plateau	2,167,920	73.74

Self-supporting
persons, earning
and non-earning
dependants

2. Of the population of Class I, 11,354,100 are self-supporting persons, 5,560,643 earning dependants and 22,446,292 non-earning dependants. Table 197 gives the distribution of 10,000 persons of agricultural Livelihood Class I amongst self-supporting persons, earning dependants and non-earning dependants by natural divisions. District-wise figures are given in Subsidiary Table 4.2. It will appear that 28.9 per cent. of Class I are self-supporting, 14.1 per cent. earning dependants and 57.0 per cent. non-earning dependants.

TABLE 197—Distribution of 10,000 persons of agricultural Livelihood Class I among self-supporting persons, earning and non-earning dependants by natural divisions

Natural division	Number per 10,000 of Livelihood Class I who are—		
	Self-supporting persons	Earning dependants	Non-earning dependants
Uttar Pradesh	2,884	1,413	5,703
Himalayan	2,637	2,992	4,371
East Plain	2,762	1,954	5,284
Central Plain	2,831	1,637	5,532
West Plain	3,103	346	6,551
Hills and Plateau	2,763	2,216	5,021

SECTION 4—CULTIVATORS OF LAND WHOLLY OR MAINLY OWNED ; 229
AND THEIR DEPENDANTS

Examining this data by natural divisions it would appear that the highest proportion of self-supporting persons is in the West Plain while the lowest is in Himalayan.

TABLE 198—Distribution of 10,000 persons of each sex of agricultural Livelihood Class I in different age-groups by natural divisions

Natural division	Number per 10,000 of Livelihood Class I					
	Males			Females		
	0—14	15—54	55 and over	0—14	15—54	55 and over
Uttar Pradesh ..	3,910	5,237	853	3,891	5,242	867
Himalayan ..	3,900	5,090	1,010	3,631	5,504	865
East Plain ..	4,118	5,065	817	3,889	5,189	922
Central Plain ..	3,802	5,321	877	3,873	5,214	913
West Plain ..	3,772	5,341	887	3,930	5,263	807
Hills and Plateau ..	4,111	5,280	609	3,998	5,343	659

The reason for this is to be sought firstly in the proportion of males of the working ages in the population. As will appear from Table 198 the proportion of males 15—54 years is the highest in West Plain (53.4 per cent.) and almost the lowest in Himalayan. Secondly, a large proportion of self-supporting persons migrate from Himalayan to other parts of the State and outside the State for purposes of

employment while no such migration takes place from the West Plain. The proportion of earning dependants is the highest in Himalayan (which is the only division where the earning dependants exceed the self-supporting persons) and the lowest in West Plain. In the Himalayan the proportion of women in the working ages (Table 198) is the highest in all the divisions and the women here take an unusually active part in agriculture which explains the high proportion of earning dependants and the low proportion of non-earning dependants in this division. In the West Plain the women do not work in the fields because the cultivators are comparatively more prosperous, mostly belong to the so called higher castes and would not allow their females to take part in agricultural operations and, even where they do, will not admit it to the census enumerator. Secondly, on account of the favourable economic position the cultivators usually do not send their children to the fields but engage labour where necessary. Thirdly, the number of male children of ages 0—14 is also the lowest in this division. For these reasons the proportion of earning dependants is very small and that of non-earning dependants very high. In the Hills and Plateau division the number of earning dependants is high because women freely work in the fields and their proportion to the total population is the highest in the State after Himalayan. The number of earning dependants in the East and Central Plains is also fairly high, it is particularly high in Gorakhpur revenue division, because of the greater participation of women and children in agricultural operations.

In this connection it would be relevant to refer to Subsidiary Table 6.5 giving the number of females per 1,000 males in agricultural classes. Table 199 gives

TABLE 199—Females per 1,000 males in agricultural Livelihood Class I and its sub-classes by natural divisions

Natural division	Total	Self-sup- porting persons	Earning depend- ants	Non-earn- ing dependants
Uttar Pradesh ..	932	80	2,686	1,687
Himalayan ..	1,072	164	5,874	1,058
East Plain ..	994	122	3,225	1,526
Central Plain ..	936	103	2,390	1,614
West Plain ..	854	23	770	2,026
Hills and Plateau	940	82	3,233	1,417

the figures of this table for Class I by natural divisions. It will be seen that among the earning dependants the highest proportion of females is to be found in Himalayan (587 females per 100 males), and the lowest in West Plain (77 females per 100 males). These figures show pointedly the extent of the participation of women in agriculture. In the hill districts of Garhwal, Tehri-Garhwal and Almora of this division, the proportions are even higher than the average of the division. In the West Plain the proportions are

low throughout except in the four districts of Meerut, Bulandshahr, Mathura and Etawah. Among the non-earning dependants the proportions of females are naturally the lowest in the Himalayan and the highest in West Plain. Among the self-supporting

persons the proportion of women is the highest in Himalayan and the lowest in West Plain. Owing to heavy migration of the adult population, women are often returned as self-supporting in the Himalayan division after the departure of the male emigrant. No such factor operates in the West Plain. The proportion of females in the total population in Himalayan division is also substantially higher than in West Plain.

As regards non-earning dependants their proportion is the highest in West Plain (65·5 per cent.) and the lowest in Himalayan (43·7 per cent.). In the other divisions the percentage lies between 50—55 per cent. The factors which contribute to the increase or decrease of the proportion of earning dependants have the opposite effect on the proportion of non-earning dependants.

Secondary means
of livelihood

3. Table 200 gives the percentage of population of Class I returning a secondary means of livelihood (both self-supporting persons and earning dependants) in the State and natural divisions. The proportion is only 18·6 per cent. for the State and among the divisions it is the highest in Himalayan and the lowest in West Plain. It may be noted that this proportion in the divisions is in the same order as the proportion of earning dependants to the population of Class I. The reason is that every earning dependant has a secondary while very few self-supporting persons have one.

TABLE 200—Percentage of persons of agricultural Livelihood Class I returning secondary means of livelihood by natural divisions

Natural division	Total	Self-supporting persons	Earning dependants
Uttar Pradesh ..	18·61	4·48	14·13
Himalayan ..	34·31	4·39	29·92
East Plain ..	25·15	5·61	19·54
Central Plain ..	21·07	4·70	16·37
West Plain ..	6·57	3·11	3·46
Hills and Plateau ..	27·24	5·08	22·16

Subsidiary Table 4·2 gives by districts the proportion of persons of Livelihood Class I returning any of the eight livelihood classes as a secondary means of livelihood. These proportions, however, have been calculated to the total population of Livelihood Class I. The proportions calculated to the population of Class I returning a secondary means of livelihood only are given by natural divisions in Table 201.

TABLE 201—Distribution of 10,000 workers of agricultural Livelihood Class I returning a secondary means of livelihood according to the nature of their secondary means of livelihood by natural divisions

Secondary means of livelihood	Uttar Pradesh	Himalayan	East Plain	Central Plain	West Plain	Hills and Plateau
Total agricultural and non-agricultural—						
Total	10,000	10,000	10,000	10,000	10,000	10,000
Self-supporting persons ..	2,405	1,277	2,229	2,228	4,735	1,866
Earning dependants ..	7,595	8,723	7,771	7,772	5,265	8,134
Total agricultural—						
Total	7,674	8,409	7,873	7,802	5,815	8,019
Self-supporting persons ..	658	36	694	597	1,256	505
Earning dependants ..	7,016	8,373	7,179	7,205	4,559	7,514
I—Cultivation of owned land—						
Total	6,654	8,313	6,633	6,904	4,411	7,273
Self-supporting persons ..	..	..	..	..	..	..
Earning dependants ..	6,654	8,313	6,633	6,904	4,411	7,273
II—Cultivation of unowned land—						
Total	192	59	194	153	440	111
Self-supporting persons ..	136	10	117	108	405	90
Earning dependants ..	56	49	77	45	35	21
III—Employment as cultivating labourer—						
Total	631	31	920	547	434	341
Self-supporting persons ..	336	21	459	303	347	133
Earning dependants ..	295	10	461	244	87	208

TABLE 201—*Distribution of 10,000 workers of agricultural Livelihood Class I returning a secondary means of livelihood according to the nature of their secondary means of livelihood by natural divisions—(contd.)*

Secondary means of livelihood	Uttar Pradesh	Himalayan	East Plain	Central Plain	West Plain	Hills and Plateau
IV—Rent on agricultural land—						
Total	197	6	126	198	530	294
Self-supporting persons	186	5	118	186	504	282
Earning dependants	11	1	8	12	26	12
Total non-agricultural—						
Total	2,326	1,591	2,127	2,198	4,185	1,981
Self-supporting persons	1,747	1,241	1,535	1,631	3,479	1,361
Earning dependants	579	350	592	567	706	620
V—Production other than cultivation—						
Total	906	658	797	821	1,728	883
Self-supporting persons	683	541	590	602	1,399	600
Earning dependants.. .. .	223	117	207	219	329	283
VI—Commerce—						
Total	294	136	273	258	592	284
Self-supporting persons	235	117	209	208	519	198
Earning dependants.. .. .	59	19	64	50	73	86
VII—Transport—						
Total	86	63	76	74	184	70
Self-supporting persons	77	57	66	64	174	62
Earning dependants	9	6	10	10	10	8
VIII—Other services and miscellaneous sources—						
Total	1,040	734	981	1,045	1,681	744
Self-supporting persons	752	526	670	757	1,387	501
Earning dependants	288	208	311	288	294	243

It will appear that of the persons of Class I, returning a secondary, more than three-fourth (76·7 per cent.) have an agricultural secondary and less than one-fourth (23·3 per cent.) a non-agricultural secondary. Among the agricultural secondaries by far the most common is Class I itself (66·5 per cent.) followed by Class III, Employment as cultivating labourer (6·3 per cent.). The high figure of Class I as secondary is due to the participation of women and children in the family cultivation as earning dependants. Employment as cultivating labourer is resorted to both by self-supporting persons and earning dependants when the family holding is too small to provide a living. One of most common non-agricultural secondary is Production other than cultivation, comprising the industries of Division 'O' (such as stock-raising, plantation, forestry, etc.), the cottage and other industries. Only 9·1 per cent. of the persons of Class I having a secondary *i.e.*, less than one tenth are engaged in industrial occupations as their secondary pursuits; the proportion to the total population of Class I is only 1·69 per cent. These low proportions speak of the decadence of cottage industries in this State. The figures of Class VIII as secondary (10·4 per cent.) are comprised mostly of general labourers, which, like Cultivating labourer, is the last refuge of cultivators having small holdings. The figures under Class VI, Commerce, and Class VII, Transport, are very small.

Examining the picture by natural divisions it appears that agricultural secondaries are taken up in the Himalayan division by as many as 84·1 per cent. of the persons of Class I having secondaries while the corresponding proportion in the West Plain is only 58·1 per cent. In the Himalayan division very few self-supporting persons have an agricultural secondary; the figures of agricultural secondaries represent almost entirely the secondary of earning dependants, whose number in this division is very large. In the West Plain the proportion of agricultural secondaries is the lowest, mainly because of the very low proportion of earning dependants. The non-agricultural secondaries of Class I appear to be proportionately most highly developed in the West Plain

where 41·9 per cent. of the persons of Class I having a secondary have non-agricultural secondaries. Among these 17·3 per cent. have Class V, Production other than cultivation, and 16·8 per cent. Class VIII, Other services and miscellaneous sources, as secondaries. The non-agricultural secondaries are proportionately the least developed in Himalayan division. In the East Plain the highest proportion among the agricultural secondaries after Class I is that of Class III, Employment as cultivating labourer (9·2 per cent.) and among non-agricultural secondaries that of Class V, Production other than cultivation (8·0 per cent.) and Class VIII, Other services and miscellaneous sources (9·8 per cent.). The Central Plain and Hills and Plateau follow, more or less, the same pattern.

4. We will now examine the secondary means of livelihood of self-supporting persons and earning dependants separately. Of the self-supporting persons

Secondary means
of livelihood of
self-supporting
persons

TABLE 202—Percentage distribution of self-supporting persons of each sex of agricultural Livelihood Class I according to the nature of their secondary means of livelihood

Nature of secondary means of livelihood	Persons	Males	Females
No secondary means of livelihood	84·5	84·2	88·5
An agricultural secondary means of livelihood	4·2	4·2	4·6
A non-agricultural secondary means of livelihood	11·3	11·6	6·9

as many as 84·5 per cent. have no secondary means of livelihood at all (Table 202). Of the 15·5 per cent. who have a secondary only 4·2 per cent. have an agricultural secondary while 11·3 per cent. have a non-agricultural secondary. The proportion of female self-supporting persons having a secondary is less than that of males and they have relatively to males

more of agricultural secondaries and less of non-agricultural secondaries.

Table 203 shows that among the natural divisions the highest proportion of self-supporting persons returning a secondary is in the East Plain (20·3 per cent.), and the least in West Plain (10 per cent.). In East Plain

TABLE 203—Percentage distribution of self-supporting persons of agricultural Livelihood Class I according to the nature of their secondary means of livelihood by natural divisions

Natural division	No secondary means of livelihood	An agricultural secondary means of livelihood	A non-agricultural secondary means of livelihood
Uttar Pradesh	84·5	4·2	11·3
Himalayan	83·4	0·5	16·1
East Plain	79·7	6·3	14·0
Central Plain	83·4	4·5	12·1
West Plain	90·0	2·6	7·4
Hills and Plateau	81·6	5·0	13·4

the proportion of small holdings under 2 acres is among the highest in the State and the cultivators have to take up a secondary to make the both ends meet. In the West Plain the holdings are comparatively larger and on account of excellent irrigational facilities their productive capacity is among the highest in the State. The cultivators, therefore, have no need to take up second-

ary occupations. This accounts for the difference in the two divisions. In the Himalayan and Central Plain 16·6 per cent. and in Hills and Plateau 18·4 per cent. self-supporting persons have a secondary means of livelihood. As will appear from Table 201 the agricultural secondaries of self-supporting persons are mainly Class III, Employment as cultivating labourer and Class IV, Rent on agricultural land, while non-agricultural secondaries are mainly Class V, Production other than cultivation, and Class VIII, Other services and miscellaneous sources. The Himalayan and West Plain have the least proportion of self-supporting persons with agricultural secondaries but for different reasons. In the Himalayan owing to small holdings there is no scope for taking up others' land on sub-lease or agricultural labour for a secondary. So the secondaries have to be non-agricultural in nature (principally general labour). In the West Plain owing to the large proportion of big holdings and their comparatively more prosperous circumstances, the cultivators do not need to take up themselves either agricultural labour or others' land on sub-lease for a secondary*. In fact, they do not need to take up any secondary occupation at

* The proportions of self-supporting persons returning a secondary as Classes II and IV in West Plain should be seen in Subsidiary Table 4·2 for purposes of comparison with other divisions. In Table 201 the proportions have been calculated to the persons returning a secondary and appear high.

all. For these reasons also the proportion of self-supporting persons of Class I having non-agricultural secondary is the highest in Himalayan and lowest in West Plain.

5. Table 204 compares the proportion of self-supporting persons or earners of Classes I and II who returned a secondary means of livelihood in 1951 and 1931. The two classes have been combined for the purposes of comparison as comparable figures for individual classes are not available (*vide* Section 1). A greater proportion of self-supporting persons in the State have returned a secondary means of livelihood in 1951 than in 1931 and the proportion returning agricul-

Secondary means of livelihood of self-supporting persons of Classes I and II of 1951 compared with those of earners of 1931

TABLE 204—Distribution of 1,000 self-supporting persons or earners of agricultural Livelihood Classes I and II according to the nature of their secondary means of livelihood in 1951 and 1931 by natural divisions

Natural division	Number per 1,000 self-supporting persons or earners with—					
	1951			1931		
	No secondary means of livelihood	An agricultural means of livelihood	A non-agricultural secondary means of livelihood	No secondary means of livelihood	An agricultural secondary means of livelihood	A non-agricultural secondary means of livelihood
Uttar Pradesh ..	836	47	117	848	69	83
Himalayan ..	830	7	163	883	11	106
East Plain ..	786	68	146	810	93	97
Central Plain ..	824	49	127	851	68	81
West Plain ..	895	29	76	884	51	65
Hills and Plateau ..	807	53	140	836	78	86

tural secondaries has decreased and that returning non-agricultural secondaries increased. These are healthy trends and point to the increasing tendency among the cultivating classes to take up secondary means of livelihood of non-agricultural type. All the natural divisions follow this State trend with the exception of West Plain where the proportion returning a secondary has slightly gone down, though the decrease in the proportion of agricultural secondaries and increase in that of non-agricultural secondaries is present.

6. The proportion of all earning dependants to self-supporting persons of Class I can be seen in Table 197. In the State the earning dependants are about half of the self-supporting persons. In the natural divisions the proportion is very variable. In Himalayan they exceed the self-supporting persons and in West Plain they are only one-ninths. In Hills and Plateau they are four-fifths, in East Plain over two-thirds and in Central Plain a little less than two-thirds of the self-supporting persons.

Proportion of earning dependants to self-supporting persons

The proportion of earning dependants with Class I as secondary to self-supporting persons of Class I is shown in Table 205. Since an overwhelming majority of earning dependants have Class I as secondary means of livelihood, these proportions follow the same trends as the figures of the total number of earning dependants. In the Himalayan the earning dependants returning Class I as secondary are 108 per cent. and in West Plain only 9 per cent. of the self-supporting persons. The corresponding percentage figure for Hills and Plateau is 72 per cent., for East Plain 60 per cent and for Central Plain 51 per cent.

TABLE 205—Proportion of earning dependants of agricultural Livelihood Class I returning Class I as secondary means of livelihood to self-supporting persons of agricultural Livelihood Class I by natural divisions

Natural division	Self-supporting persons who returned Class I as principal means of livelihood	Earning dependants of Class I who returned Class I as secondary means of livelihood	Earning dependants per 1,000 of self-supporting persons
Uttar Pradesh ..	11,354,100	4,871,567	429
Himalayan ..	483,718	523,107	1,081
East Plain ..	3,415,703	2,063,450	604
Central Plain ..	2,889,763	1,484,557	514
West Plain ..	3,966,025	370,819	93
Hills and Plateau ..	598,891	429,634	717

7. We will now examine the secondary means of livelihood of earning dependants of Class I. Table 201 gives the proportional distribution of the workers of Class I returning a secondary means of livelihood with break-up into self-supporting persons and earning dependants according to their secondaries. Table 206 gives the distribution of earning dependants according to secondary means of livelihood.

Secondary means of livelihood of earning dependants

TABLE 206—*Distribution of 10,000 earning dependants of agricultural Livelihood Class I, according to the nature of their secondary means of livelihood by natural divisions*

Natural division	Secondary means of livelihood									
	Total agricultural	I—Cultivation of owned land	II—Cultivation of unowned land	III—Employment as cultivating labourer	IV—Rent agricultural land	Total non-agricultural	V—Production other than cultivation	VI—Commerce	VII—Transport	VIII—Other services and miscellaneous sources
Uttar Pradesh ..	9,238	8,761	74	389	14	762	294	77	12	379
Himalayan ..	9,599	9,520	56	12	1	401	134	21	7	239
East Plain ..	9,238	8,536	99	593	10	762	266	82	13	401
Central Plain ..	9,271	8,884	58	314	15	729	282	64	12	371
West Plain ..	8,658	8,376	66	166	50	1,342	625	139	20	558
Hills and Plateau	9,238	8,941	26	256	15	762	348	105	10	299

The outstanding fact that emerges from this table is that an overwhelming proportion (92·4 per cent.) of earning dependants have an agricultural secondary of which Class I, Cultivators of owned land, constitutes as much as 87·6 per cent. and Class III, 3·9 per cent. Among non-agricultural secondaries 2·9 per cent. have Class V, Production other than cultivation, and 3·8 per cent. have Class VIII, Other services and miscellaneous sources (principally general labour). A large majority of earning dependants of Class I are only engaged in assisting the cultivation of their family holdings. Only in a few cases they take up agricultural labour or general labour or some industrial occupations. The almost complete dependence on agriculture and lack of industrial occupations as secondary is to be noted here even more than in the case of self-supporting persons.

Among the natural divisions the largest proportion of earning dependants engaged in Class I is in the Himalayan and the smallest in West Plain, while the largest proportion engaged in Class III, Employment as cultivating labourer, is in the East Plain and the least in Himalayan. Among the non-agricultural secondaries, the proportion engaged in Class V, Production other than cultivation, as well as Class VIII, Other services and miscellaneous sources, is highest in West Plain and lowest in Himalayan. The reasons have been already discussed in Section 2.

8. As has been already explained the earning dependants are mostly women and children. The proportion of females per 1,000 males among the earning dependants in the State and the various natural divisions is shown in Table 207. It works out to 269 females per 100 males for the State. Among the natural divisions it is the highest in Himalayan (587 females per 100 males) and the least in West Plain (77 females per 100 males). In Hills and Plateau it is 323 females per 100 males, in East Plain 322 females per 100 males and in Central Plain 239 females per 100 males. The proportions indicate the extent of participation of women in the cultivation of the family holdings in the various divisions.

TABLE 207—*Sex-ratio of earning dependants of agricultural Livelihood Class I by natural divisions*

Natural division	Males	Females	Females per 1,000 males
Uttar Pradesh ..	1,508,501	4,052,142	2,686
Himalayan ..	79,852	469,033	5,874
East Plain ..	572,111	1,845,288	3,225
Central Plain ..	492,904	1,178,239	2,390
West Plain ..	250,124	192,569	770
Hills and Plateau ..	113,510	367,013	3,233

9. Table 208 gives the proportion of females per 1,000 males of the non-earning dependants of Class I by natural divisions. It will be seen that females exceed males among the non-earning dependants in all divisions. The highest proportion of females is to be found in West Plain and the lowest in Himalayan.

TABLE 208—*Sex-ratio of non-earning dependants of agricultural Livelihood Class I by natural divisions*

Natural division	Males	Females	Females per 1,000 males
Uttar Pradesh ..	8,354,452	14,091,840	1,687
Himalayan ..	389,625	412,206	1,058
East Plain ..	2,587,685	3,948,604	1,526
Central Plain ..	2,159,705	3,486,473	1,614
West Plain ..	2,767,028	5,606,460	2,026
Hills and Plateau ..	450,409	638,097	1,417

Sex of earning dependants

Sex of non-earning dependants

SECTION 5—CULTIVATORS OF LAND WHOLLY OR MAINLY UNOWNED; AND THEIR DEPENDANTS

1. Agricultural Livelihood Class II, Cultivators of land wholly or mainly unowned and their dependants, consists of tenants of *sir*, sub-tenants,

Cultivators of unowned land

TABLE 209—Population of agricultural Livelihood Class II, actual and percentage to total agricultural population by natural divisions

Natural division	Number of cultivators of land wholly or mainly unowned and their dependants	Percentage to total agricultural population
Uttar Pradesh ..	3,255,815	6.94
Himalayan ..	120,178	6.05
East Plain ..	1,179,912	7.97
Central Plain ..	909,400	7.50
West Plain ..	763,466	5.08
Hills and Plateau ..	282,859	9.62

mortgagees and others who cultivate land over which they have no right of occupancy (as *sir* or *khudkasht* holder or as tenant). From Table B-I it would appear that their total number in the State is 32.6 lakhs, being 6.94 per cent. of the total agricultural population. Their distribution among the natural divisions is given in Table 209. It will appear that the highest proportion is returned by Hills and Plateau and the lowest by West Plain.

2. Of the population of Class II, 990,910 are self-supporting persons, 551,242 are earning dependants and 1,713,663 are non-earning dependants.

Self-supporting persons, earning and non-earning dependants

TABLE 210—Distribution of 10,000 persons of agricultural Livelihood Class II among self-supporting persons, earning and non-earning dependants by natural divisions

Natural division	Number per 10,000 of Livelihood Class II who are—		
	Self-supporting persons	Earning dependants	Non-earning dependants
Uttar Pradesh ..	3,044	1,693	5,263
Himalayan ..	2,686	3,007	4,307
East Plain ..	2,934	2,096	4,970
Central Plain ..	3,103	1,815	5,082
West Plain ..	3,308	425	6,267
Hills and Plateau ..	2,746	2,484	4,770

Table 210 gives the distribution of 10,000 persons of agricultural Livelihood Class II among self-supporting persons, earning and non-earning dependants. District-wise figures are given in Subsidiary Table 4.3. Examining this data by natural divisions it would appear that the highest proportion of self-supporting persons is in the West Plain while the lowest is in the Himalayan. The reason for the high proportion in West Plain is to be sought in the high proportion of males of working ages 15—54 in this class (Table 211). The low proportion in Himalayan is due to considerable migration of self-supporting persons for purposes of earning a living. There are no significant differences in the proportion of self-supporting persons in other divisions. On the whole the differences in the proportions of self-supporting persons in the various divisions are not large.

TABLE 211—Distribution of 10,000 persons of each sex of agricultural Livelihood Class II among different age-groups by natural divisions

Natural division	Number per 10,000 of Livelihood Class II					
	Males			Females		
	0—14	15—54	55 and over	0—14	15—54	55 and over
Uttar Pradesh ..	3,874	5,385	741	4,089	5,153	758
Himalayan ..	3,789	5,359	852	3,794	5,500	706
East Plain ..	4,156	5,077	767	4,134	5,049	817
Central Plain ..	3,819	5,432	749	4,083	5,137	780
West Plain ..	3,497	5,770	733	4,054	5,267	679
Hills and Plateau ..	4,066	5,342	592	4,127	5,219	654

The differences in the proportions of earning dependants, however, among the natural divisions are very large. As in the case of earning dependants of Class I the factors affecting these figures are (a) the extent of participation of women in agricultural operations (b) the proportion of women in the population (c) the age distribution of the population of women and children and (d) migration. The age distribution of the population of agricultural Livelihood Class II has already been given in Table 211.

Table 212 gives the proportion of females per 1,000 males in agricultural Livelihood Class II and its sub-classes. The proportion of earning dependants is by far the highest in the Himalayan division; in fact this is the only division

where the earning dependants exceed the self-supporting persons. The principal reason as already stated in the previous section is that in this division

TABLE 212—Females per 1,000 males in agricultural Livelihood Class II and its sub-classes by natural divisions

Natural division	Total	Self-supporting persons	Earning dependants	Non-earning dependants
Uttar Pradesh ..	903	102	3,047	1,538
Himalayan ..	968	111	4,571	1,027
East Plain ..	971	149	3,656	1,401
Central Plain ..	899	127	2,750	1,503
West Plain ..	792	18	904	1,971
Hills and Plateau ..	935	96	3,523	1,258

the women take an unusually active part in the family cultivation. The proportion of females to males of Class II is also the highest in this division after East Plain (Table 212), and the proportion of females of working ages 15—54 is the highest of all divisions (Table 211). The proportion of earning dependants is also increased

by the migration of self-supporting persons, which is very considerable in this division. The adult males often leave their homes and go out in search of livelihood elsewhere, leaving the earning dependants to look after the family cultivation. The lowest proportion of earning dependants is in the West Plain. Here the women rarely work in the fields and even when they do the fact would not be admitted to the census enumerator. Then the proportion of women to men is the lowest in this division (Table 212) as also the proportion of male children aged 0—14 (Table 211). The proportions of earning dependants in other divisions are not very divergent. The sex-ratio and the extent of participation of women and children in the family cultivation mainly account for the variations.

The proportions of non-earning dependants are affected by the proportions of the earning dependants in the natural divisions. The proportion is the lowest in Himalayan and highest in West Plain. In other divisions the differences are not significant.

Secondary means of livelihood

3. Table 213 shows the proportion of persons of agricultural Livelihood Class II who returned a secondary means of livelihood. For the State only 25 per cent. returned a secondary means of livelihood of which only 8·1 per cent. were self-supporting persons and 16·9 earning dependants. Among the natural divisions the highest proportion returning a secondary is to be found in the Himalayan division and the lowest in the West Plain due to the proportion of earning dependants. The proportion of self-supporting persons

TABLE 213—Percentage of persons of agricultural Livelihood Class II returning secondary means of livelihood by natural divisions

Natural division	Total	Self-supporting persons	Earning dependants
Uttar Pradesh ..	25·04	8·11	16·93
Himalayan ..	36·19	6·12	30·07
East Plain ..	30·38	9·42	20·96
Central Plain ..	26·92	8·77	18·15
West Plain ..	10·16	5·91	4·25
Hills and Plateau ..	32·12	7·28	24·84

returning a secondary is the highest in East Plain and the lowest in West Plain.

Secondary means of livelihood of self-supporting persons

4. The self-supporting persons of this class consist of 900 thousand males and 91 thousand females. As will appear from Table 214 as many as

TABLE 214—Percentage distribution of self-supporting persons of each sex of agricultural Livelihood Class II according to the nature of secondary means of livelihood

Nature of secondary means of livelihood	Persons	Males	Females
No secondary means of livelihood	73·4	73·4	73·3
An agricultural secondary means of livelihood	9·4	9·3	10·4
A non-agricultural secondary means of livelihood	17·2	17·3	16·3

only 25 per cent. returned a secondary means of livelihood of which only 8·1 per cent. were self-supporting persons and 16·9 earning dependants. Among the natural divisions the highest proportion returning a secondary is to be found in the Himalayan division and the lowest in the West Plain due to the proportion of earning dependants. The proportion of self-supporting persons

may, however, be noted that the percentage of self-supporting persons having a secondary is higher in Class II (26·6 per cent.) than in Class I (15·5 per cent.) owing to the inferior economic position of Class II,

Table 215 shows by natural divisions the percentage of self-supporting persons returning no secondary, returning an agricultural secondary and returning a non-agricultural secondary.

TABLE 215—Percentage distribution of self-supporting persons of agricultural Livelihood Class II according to the nature of their secondary means of livelihood by natural divisions

Natural division	No secondary means of livelihood	An agricultural secondary means of livelihood	A non-agricultural secondary means of livelihood
Uttar Pradesh ..	73.4	9.4	17.2
Himalayan ..	77.2	3.4	19.4
East Plain ..	67.9	11.7	20.4
Central Plain ..	71.7	10.0	18.3
West Plain ..	82.1	7.0	10.9
Hills and Plateau ..	73.5	7.6	18.9

It will appear that the highest proportion of self-supporting persons returning a secondary is to be found in East Plain (32.1 per cent.) and the lowest in West Plain (17.9 per cent.). The reason is to be sought in the economic conditions prevailing in the two divisions. In East Plain the pressure on land is very great and the number of persons seeking land on

sub-lease very large. The self-supporting persons of Class II, therefore, often do not get enough land on sub-lease to make their both ends meet and have to seek a secondary pursuit. Owing to contrary conditions the self-supporting persons of Class II do not have to seek a secondary to the same extent in the West Plain.

It will also be seen in Table 215 that a greater proportion of self-supporting persons take up non-agricultural secondaries than agricultural secondaries. The nature of these secondaries will be clear from Subsidiary Table 4.3. Among the agricultural secondaries the most common is Employment as cultivating labourer, as expected, followed by Cultivation of owned land. The self-supporting persons of Class II, being in poor economic circumstances, have to take up Employment as cultivating labourer to supplement their income and a few of them have also holdings of their own, which are very small in size. Among non-agricultural secondaries the most popular is Class VIII, Other services and miscellaneous sources, consisting principally of general labour followed by Class V, Production other than cultivation. Exceptions to these general trends are to be found in Himalayan and West Plain. Among agricultural secondaries, Cultivation of owned land is returned in these divisions as a secondary by a larger proportion than Employment as cultivating labourer. In the Himalayan owing to small holdings there is no scope for employment as cultivating labourer. In the West Plain more self-supporting persons of Class II have some land of their own than in other divisions. Among non-agricultural secondaries, Class V has been returned as a secondary by a larger proportion than Class VIII in Himalayan and Hills and Plateau.

5. Table 216 gives the proportion of earning dependants of Class II returning Class II as secondary to self-supporting persons of Class II. It will appear that in the State there

TABLE 216—Proportion of earning dependants of agricultural Livelihood Class II returning Class II as secondary means of livelihood to self-supporting persons of agricultural Livelihood Class II by natural divisions

Natural division	Self-supporting persons who returned Class II as principal means of livelihood	Earning dependants of Class II who returned Class II as secondary means of livelihood	Earning dependants per 1,000 self-supporting persons
Uttar Pradesh ..	990,910	361,082	364
Himalayan ..	32,277	28,635	887
East Plain ..	346,163	153,112	442
Central Plain ..	282,220	112,017	397
West Plain ..	252,584	17,782	70
Hills and Plateau ..	77,666	49,536	638

are, on an average, 36.4 earning dependants working with 100 self-supporting persons in the family cultivation. But the proportion is very variable in the natural divisions. It is the highest in Himalayan where the number of earning dependants exceeds that of self-supporting persons and the lowest in West Plain. These proportions are governed largely by the extent of participation of women in the family occupation. The trends disclosed in Table 216

Proportion of earning dependants to self-supporting persons

are identical with those of Table 205, Section 4, relating to earning dependants of Class I.

6. Table 217 shows the distribution of earning dependants of Class II according to their secondary means of livelihood. It would appear that as many as 85 per cent. are engaged in agriculture, of which 65.5 per cent. are engaged in the family occupation itself viz., Cultivation of unowned land. About 10.4 per cent. are engaged in Employment as cultivating labourer and 8.9 per cent. in Cultivation of owned land while only a negligible proportion are engaged in

Secondary means of livelihood of earning dependants

Rent on agricultural land. Thus after the family occupation the most popular agricultural occupation is Employment as cultivating labourer and Cultivation of owned land. Among the non-agricultural occupations the most common is Class VIII, Other services and miscellaneous sources, consisting mainly of general labour, followed by Class V, Production other than cultivation.

TABLE 217—*Distribution of 10,000 earning dependants of agricultural Livelihood Class II according to the nature of their secondary means of livelihood by natural divisions*

Natural division	Secondary means of livelihood										
	Total agricultural	I-Cultivation of owned land	II-Cultivation of un-owned land	III-Employment as cultivating labourer	IV-Rent on agricultural land	Total non-agricultural	V-Production other than cultivation	VI-Commerce	VII-Transport	VIII-Other services and miscellaneous sources	
Uttar Pradesh ..	8,496	891	6,550	1,037	18	1,504	523	109	17	855	
Himalayan ..	9,566	1,548	7,923	95	..	434	257	16	9	152	
East Plain ..	8,309	886	6,191	1,212	20	1,691	561	121	15	994	
Central Plain ..	8,656	883	6,787	979	7	1,344	402	82	12	848	
West Plain ..	7,500	1,316	5,480	672	32	2,500	1,052	206	60	1,182	
Hills and Plateau ..	8,684	394	7,049	1,206	35	1,316	568	137	17	594	

Examining this data by natural divisions it would appear that the proportion of agricultural secondaries is the highest in the Himalayan division (95.7 per cent.) and lowest in West Plain (75 per cent.). In the Himalayan the non-agricultural occupations are not well developed. In West Plain there is comparatively greater scope for non-agricultural occupations. Also the earning dependants of Himalayan division have a high percentage of women while the earning dependants of West Plain have a high percentage of men. Women usually do not find it convenient to pursue other than family occupations while the same does not hold true of men. Among the agricultural occupations, the family occupation Class II, has the highest proportion in Himalayan and the lowest in West Plain, Class I has the highest in Himalayan and lowest in Hills and Plateau, Class III highest in East Plain and Hills and Plateau and lowest in Himalayan, and Class IV has insignificant proportions. Among the non-agricultural classes Class V has the highest proportion in West Plain and lowest in Himalayan, Class VIII has the highest proportion in West Plain and lowest in Himalayan, and the other two classes have very small proportions.

Sex of earning dependants

7. Table 218 gives the sex-ratio by natural divisions among earning dependants. It will appear that in the State there are more than three female earning dependants to one male earning dependant. The proportion, however, is very variable in the natural divisions. It is the highest (457 females per 100 males) in Himalayan and lowest in West Plain (90 females per 100 males). In the other three divisions the differences are not large.

TABLE 218—*Sex-ratio of earning dependants of agricultural Livelihood Class II by natural divisions*

Natural division	Males	Females	Females per 1,000 males
Uttar Pradesh ..	136,206	415,036	3,047
Himalayan ..	6,487	29,654	4,571
East Plain ..	53,124	194,206	3,656
Central Plain ..	44,018	121,033	2,750
West Plain ..	17,041	15,409	904
Hills and Plateau ..	15,536	54,734	3,523

Sex of non-earning dependants

8. Table 219 shows the sex-ratio of non-earning dependants of Class II.

TABLE 219—*Sex-ratio of non-earning dependants of agricultural Livelihood Class II by natural divisions*

Natural division	Males	Females	Females per 1,000 males
Uttar Pradesh ..	675,175	1,038,488	1,538
Himalayan ..	25,535	26,225	1,027
East Plain ..	244,219	342,200	1,401
Central Plain ..	184,635	277,494	1,503
West Plain ..	161,036	317,396	1,971
Hills and Plateau ..	59,750	75,173	1,258

It will appear that in the State there are about 154 females to every 100 males among the non-earning dependants. In the natural divisions it is the highest in West Plain and lowest in Himalayan because of the opposite trends in the sex-proportion of earning dependants. In other divisions the differences are not large.

SECTION 6—CULTIVATING LABOURERS AND THEIR DEPENDANTS

1. Cultivating labourers (or agricultural labourers) and their dependants constitute agricultural Livelihood Class III. As will appear from Table B-I in Part II-B of the Report their total number in the State is a little over 36 lakhs. Their distribution by districts is given in Table B-I and their proportional distribution by districts is given in Subsidiary Table 4.1 in Part I-B of the Report. Table 220 reproduces the distribution by natural divisions.

TABLE 220—Population of agricultural Livelihood Class III, actual and percentage to total agricultural population by natural divisions

Natural division	Number of cultivating labourers and their dependants	Percentage to total agricultural population
Uttar Pradesh ..	3,612,209	7.70
Himalayan ..	27,629	1.39
East Plain ..	1,158,436	7.82
Central Plain ..	795,439	6.56
West Plain ..	1,192,571	7.93
Hills and Plateau ..	438,134	14.90

It will be seen that Cultivating labourers constitute 7.70 per cent. of the total agricultural population. Among the natural divisions the highest proportion is to be found in Hills and Plateau and the lowest in Himalayan, while the differences in the proportion in other divisions are very small. As has been seen in Section 3, Hills and Plateau has the highest proportion of large holdings in the State and these demand the engagement of labour for their cultivation. On the contrary the proportion of small holdings is one of the highest, if not the highest, in the State in Himalayan and these do not require the assistance of outside labour for their cultivation. This accounts for the different proportions of Cultivating labourers in the two divisions.

2. Table 221 compares the number and proportion of workers, i.e., self-supporting persons combined with earning dependants according to their

TABLE 221—Number of cultivating labourers, actual and percentage to total agricultural workers since 1911

Year	Cultivating labourers	General labourers
1911 ..	2,964,552 (17.2)	917,861
1921 ..	2,508,671 (13.4)	483,943
1931 ..	3,419,185 (19.3)	580,106
1951 ..	2,014,498 (10.0)	1,106,175*

secondaries engaged as Cultivating labourers in the censuses since 1911. The figures for general labourers have also been shown in parallel columns for many of these work as cultivating labourers or general labourers as occasion offers. Between 1911 and 1921 General labourers were reduced by almost half, and Cultivating labourers were also reduced by almost as large a number. Unfortunately the 1921 figures for occupation are not very reliable† but it is known that owing to the agricultural boom and the influenza epidemic there was a distinct movement back to the land at the end of the decade 1911—21, and in addition the incomes of small tenants from their holdings were so enhanced that they often became the principal source of livelihood instead of labour. The end of the decade 1921—31 saw the reverse processes at work and in 1931 the Agricultural (Cultivating) labourers were more numerous at the expense of tenants.‡ The wheel has turned full circle again and owing to the abnormal rise of agricultural prices many of the Cultivating labourers of 1931 have gone up into Class I, Cultivating owners, on the strength of their tiny holdings. So the Cultivating labourers are now barely one-tenth of the total agricultural workers instead of about double this proportion in 1931. The general labourers have gone up in number because of increasing urbanization.

* The figure relates to the estimated number of workers of sub-division 9.0 vide Table 288.

† U. P. Census Report, 1921, Part I, page 158.

‡ U. P. Census Report, 1931, Part I, page 396.

Cultivating labourers

Comparison with previous censuses

Self-supporting persons, earning and non-earning dependants

3. Of the total number of Cultivating labourers 1,322,468 are self-supporting persons, 515,408 earning dependants and

1,774,333 non-earning dependants. Table 222 shows the distribution of self-supporting persons, earning dependants and non-earning dependants by natural divisions. It will be seen that in the State 36.6 per cent. of this class are self-supporting persons; 14.3 per cent. earning dependants and 49.1 per cent. non-earning dependants. Of all the agricultural classes the proportion of self-supporting per-

TABLE 222—Distribution of 10,000 persons of agricultural Livelihood Class III among self-supporting persons, earning and non-earning dependants by natural divisions

Natural division	Number per 10,000 of Livelihood Class III who are—			
	Self-supporting persons	Earning dependants	Total of self-supporting persons and earning dependants	Non-earning dependants
Uttar Pradesh ..	3,661	1,427	5,088	4,912
Himalayan ..	4,704	1,761	6,465	3,535
East Plain ..	3,671	1,962	5,633	4,367
Central Plain ..	3,783	1,878	5,661	4,339
West Plain ..	3,514	343	3,857	6,143
Hills and Plateau ..	3,746	2,124	5,870	4,130

sons is one of the highest in this class as a considerable proportion of women and children who work as wage earners are qualified to be classed as self-supporting persons instead of earning dependants. For this very reason the proportion of earning dependants is on the low side; in fact it is the lowest after that of Class IV. The combined proportion of self-supporting persons and earning dependants, i.e., workers is, however, the highest of all agricultural classes, for obvious reasons. The proportion of non-earning dependants is, therefore, automatically the lowest.

Examining the figures by natural divisions it appears that the proportion of self-supporting persons is the highest in Himalayan. This is due to two reasons. In the first place the women and children in this division take an unusually active part in agricultural work and the proportion of workers is, therefore, the highest in the State. Since the bulk of the workers of this class are self-supporting, the proportion of self-supporting persons in this division is also the highest. Secondly, the proportion of males as well as females in the working ages 15—54 is the highest in the State in this division (Table 223). As regards earning dependants the proportion is abnormally low in West Plain owing principally to the lesser participation of women.

TABLE 223—Distribution of 10,000 persons of each sex of agricultural Livelihood Class III in the different age-groups by natural divisions

Natural division	Number per 10,000 of Livelihood Class III					
	Males			Females		
	0—14	15—54	55 and over	0—14	15—54	55 and over
Uttar Pradesh ..	3,717	5,671	612	3,880	5,318	802
Himalayan ..	2,657	6,851	492	3,590	5,698	712
East Plain ..	3,909	5,530	561	3,918	5,246	836
Central Plain ..	3,708	5,670	622	3,763	5,303	934
West Plain ..	3,484	5,810	706	3,942	5,360	698
Hills and Plateau ..	4,019	5,530	451	3,857	5,412	731

Table 224 shows how the proportions of both earning and non-earning dependants are affected by the degree of participation of women in gainful work.

TABLE 224—Females per 1,000 males in agricultural Livelihood Class III and its sub-classes by natural divisions

Natural division	Total	Self-supporting persons	Earning dependants	Non-earning dependants
Uttar Pradesh ..	893	211	3,523	1,524
Himalayan ..	622	103	3,812	1,304
East Plain ..	963	323	4,086	1,257
Central Plain ..	938	296	3,632	1,364
West Plain ..	778	38	1,041	1,967
Hills and Plateau ..	993	342	4,819	1,218

4. It will be seen from Table 225 that only 18.5 per cent. of the Cultivating labourers returned a secondary, of which self-supporting persons returned 4.23 per cent. and earning dependants 14.27 per cent.

Secondary means of livelihood

TABLE 225—Percentage of persons of agricultural Livelihood Class III, returning secondary means of livelihood by natural divisions

Natural division	Total	Self-supporting persons	Earning dependants
Uttar Pradesh ..	18.50	4.23	14.27
Himalayan ..	22.41	4.80	17.61
East Plain ..	25.65	6.03	19.62
Central Plain ..	23.54	4.76	18.78
West Plain ..	5.83	2.40	3.43
Hills and Plateau ..	24.69	3.45	21.24

In other words, 81.5 per cent. of this class have no other source of livelihood except Cultivating labour, which is essentially seasonal in nature. This class is, therefore, economically the weakest among agricultural classes.

Examining the figures by natural divisions it appears that the proportion of persons returning a secondary is the lowest in West Plain due principally to the lesser participation of women in gainful work.

5. From Table 226 it will appear that in the State as many as 88.5 per cent.

Secondary means of livelihood of self-supporting persons

TABLE 226—Percentage distribution of self-supporting persons of agricultural Livelihood Class III, according to the nature of their secondary means of livelihood by natural divisions

Natural division	Secondary means of livelihood		
	No secondary means of livelihood	An agricultural secondary means of livelihood	A non-agricultural secondary means of livelihood
Uttar Pradesh ..	88.5	6.9	4.6
Himalayan ..	89.8	6.4	3.8
East Plain ..	83.6	10.7	5.7
Central Plain ..	87.4	8.6	4.0
West Plain ..	93.2	3.3	3.5
Hills and Plateau ..	90.8	3.5	5.7

of the self-supporting persons do not return a secondary means of livelihood. Of the 11.5 per cent. who do, 6.9 per cent. return an agricultural secondary means of livelihood and 4.6 a non-agricultural secondary means of livelihood.

Examining the figures by natural divisions the significant fact emerges that in East Plain and Central Plain the proportions of self-supporting persons offering a secondary are the highest, and that the proportion of agricultural secondaries is also the highest in these divisions. This is due to the large proportion of small holdings in these two divisions, the holders of which often have to seek agricultural labour to make the both ends meet and, owing to the larger income from labour than from cultivation, are placed in Class III.

Table 227 compares the proportion of self-supporting persons or earners returning a secondary in 1951 and 1931. The number has increased slightly in 1951,

TABLE 227—Distribution of 1,000 self-supporting persons or earners of agricultural Livelihood Class III according to the nature of their secondary means of livelihood in 1951 and 1931 by natural divisions

Natural division	Number per 1,000 self-supporting persons or earners with—					
	1951			1931		
	No secondary means of livelihood	An agricultural secondary means of livelihood	A non-agricultural secondary means of livelihood	No secondary means of livelihood	An agricultural secondary means of livelihood	A non-agricultural secondary means of livelihood
Uttar Pradesh ..	885	69	46	894	77	29
Himalayan ..	898	64	38	951	40	9
East Plain ..	836	107	57	836	124	40
Central Plain ..	874	86	40	902	76	22
West Plain ..	932	33	35	944	35	21
Hills and Plateau ..	908	35	57	935	31	34

those returning an agricultural secondary means of livelihood having gone down and those returning a non-agricultural secondary having gone up. The proportion returning an agricultural secondary was the highest in East Plain in 1931 as well as in 1951 and the proportion returning a non-agricultural secondary was the lowest in Himalayan in 1931 and in West Plain in 1951.

As will appear from Subsidiary Table 4.4 the most common of agricultural secondaries is Cultivation of owned land, followed by Cultivation of un-owned land. The Cultivating labourers have in some cases tiny holdings of their own which they cultivate, although the income from them is secondary to the income from their labour. Likewise in some cases they take land on sub-lease. These cases are, however, very few in number. In a large majority of cases the Cultivating labourers are completely "landless". Among non-agricultural secondaries the most common are Class V, Production other than cultivation, and Class VIII, Other services and miscellaneous sources.

Secondary means
of livelihood of
earning dependants

6. As will be seen from Table 228, as many as 69.7 per cent. of the earning dependants are engaged in the family

TABLE 228—Percentage distribution of earning dependants of agricultural Livelihood Class III according to the nature of their secondary means of livelihood by natural divisions

Natural division	Percentage having family means of livelihood	Percentage having other agricultural means of livelihood	Percentage having non-agricultural means of livelihood
Uttar Pradesh	69.7	13.3	17.0
Himalayan	68.2	26.3	5.5
East Plain	65.5	15.9	18.6
Central Plain	73.6	13.7	12.7
West Plain	48.5	15.4	36.1
Hills and Plateau	82.8	4.6	12.6

means of livelihood i.e., in assisting the Cultivating labourer, 13.3 per cent. are engaged in other agricultural occupations, mainly Cultivation of owned land. The remaining 17.0 per cent. are engaged in non-agricultural occupations, principally Class V, Production other than cultivation, and Class VIII, Other services and miscellaneous sources (Subsidiary Table 4.4).

Among natural divisions the proportion of earning dependants assisting in family occupation of labour is the lowest in West Plain. The proportion returning a non-agricultural secondary is also the highest in West Plain and lowest in Himalayan.

Economic condition of the class

7. The Cultivating labourers are economically the weakest of the agricultural classes. Their chief support is labour. In a very few cases they have holdings of their own, which are extremely small in size, or get land to cultivate on sub-lease, again very small in area. They get work only seasonally and not regularly. The conditions on which they work are far from pleasant. They have to work in all kinds of weather under severe physical strain. The wages they get are often inadequate and their payment frequently irregular and unsatisfactory. Their reserves or resources are almost nil and in the event of a natural calamity like famine or flood it is this class which suffers the most. In short they are the exploited class. The Report of the Sub-Committee of the National Planning Committee wrote about this class as follows :

“This labour is scattered, unorganized, ill-paid, ignorant, and very scantily nourished, clothed or housed. There is no organization among them to fight for and safeguard their interests, secure decent conditions of work, rates of wages, and a measure of social security which the industrial worker is now steadily attaining. The seasonal character of the occupation militates against any immediate improvement unless and until an all round national policy concerning land-holdings and cultivation is adopted and carried into effect.”*

Government recently conducted a survey of agricultural wages and have taken steps to fix minimum wages for certain areas. How far such measures will be effective has yet to be seen. Acharya Vinoba Bhave's *Bhoodan* movement goes to the root of the matter. The obvious relief to the landless class is allotment of land and land can only come by snatching it away from others. This creates grave issues specially when there is not enough land to go round. So Vinobaji has come out with his beautifully simple formula of *Bhoodan* in the interest of the landless. People object that any re-distribution of this sort involves further sub-division of holdings but Vinobaji has rejected this contention. He is bent on raising the landless in the socio-economic scale for how can we, otherwise, achieve a classless society. There is no doubt that Vinobaji is in grips with one of the vital problems of this country.

*National Planning Committee (Report of Sub-committee), Land Policy, Agricultural labour and Insurance, page 175.

SECTION 7—NON-CULTIVATING OWNERS OF LAND ; AGRICULTURAL RENT RECEIVERS ; AND THEIR DEPENDANTS

1. Non-cultivating owners of land ; agricultural rent receivers ; and their dependants constitute agricultural Livelihood Class IV. Table 229 gives their

Non-cultivating owners of land ; and rent receivers

TABLE 229.—Population of agricultural Livelihood Class IV, actual and percentage to total agricultural population by natural divisions

Natural division	Number of non-cultivating owners of land ; agricultural rent receivers ; and their dependants	Percentage to total agricultural population
Uttar Pradesh	667,612	1.42
Himalayan	5,253	0.26
East Plain	99,616	0.67
Central Plain	216,228	1.73
West Plain	295,438	1.97
Hills and Plateau	51,077	1.74

distribution in the State and natural divisions. Economic Table B-I in Part II-B of the Report gives the distribution by districts. The total number of persons in this class is only 6.67 lakhs comprising 1.42 per cent. of the total agricultural population of the State. Among the natural divisions the proportion of this class to the total agricultural population in the division is the highest in West Plain and lowest in Hima-

layan. The proportions in Central Plain and Hills and Plateau are on the high side while the proportion in East Plain is on the low side.

2. It should be clearly understood what categories of persons are included in this class. The class is comprised of the following :

Composition of Class IV

- (i) All zamindars i.e., persons having proprietary rights in land recorded in the *khevat*, who do not cultivate any land and whose principal means of livelihood is the income from the rental of their land.
- (ii) All zamindars who derive their income from rental as well as cultivation of land provided that the income from the former exceeds that from the latter. (The zamindars whose income from cultivation exceeds that from the rental fall in Class I and have already been described in Section 4.)
- (iii) All tenants who do not cultivate their land at all, but sublet it to others.
- (iv) All tenants who partly sublet their holdings and partly cultivate themselves, provided the income from the former is greater than the latter. (The tenants whose income from cultivation exceeds that from the rental of land leased out to others fall in Class I and have already been described in Section 4.)

The most numerous of these categories are (i) and (ii). Category (iii) cannot be numerous because of the pressure on land and legal restrictions on subletting throughout the State except the permanently settled portion of Banaras division. Category (iv) also cannot be large, only tenants with big holdings can afford to sublet their holdings to such an extent that the income from the rent of the leased land is more than the income of the land in their cultivation.

Table 230 gives by natural divisions the number of zamindars paying land revenue (a) under Rs.25 and (b) over Rs.25.* The bulk of the zamindars paying

TABLE 230—Number of zamindars in the natural divisions

Natural division	Number of zamindars paying revenue		
	Not exceeding Rs.25	Exceeding Rs.25	Total
Uttar Pradesh	1,710,530	306,253	2,016,783
Himalayan	4,776	870	5,646
East Plain	455,568	69,831	525,399
Central Plain	226,424	64,865	291,289
West Plain	903,867	144,660	1,048,527
Hills and Plateau	119,895	26,027	145,922

land revenue not exceeding Rs.25 take up cultivation as principal means of livelihood and fall in Class I. A few take up other occupations as principal means of livelihood. But zamindars paying over Rs.25 as land revenue usually have zamindari as

the principal source of livelihood. Thus a large majority of the persons of Class IV are zamindars paying over Rs.25 as land revenue. This is supported by a comparison of the figures of Tables 229 and 230. The number of

*The figures have been taken from the Zamindari Abolition Committee Report, Part II, page 12.

zamindars paying land revenue over Rs.25 is in the same order in the natural divisions as the number of persons of Class IV except for Central Plain, where owing to the prevalence of primogeniture among the taluqdars of Avadh, the number of zamindars recorded in the *khewat* is smaller than it should ordinarily have been. It also appears that in the Himalayan division Class IV includes a number of zamindars paying land revenue not exceeding Rs. 25.

Self-supporting persons, earning and non-earning dependants

3. Of the total number of Class IV, 254,053 are self-supporting persons, 22,794 are earning dependants and 390,765 are non-earning dependants.

TABLE 231—Distribution of 10,000 persons of agricultural Livelihood Class IV among self-supporting persons, earning and non-earning dependants by natural divisions

Natural division	Number per 10,000 of Livelihood Class IV who are—			
	Self-supporting persons	Earning dependants	Total of self-supporting persons and earning dependants	Non-earning dependants
Uttar Pradesh ..	3,805	342	4,147	5,853
Himalayan ..	3,710	784	4,494	5,506
East Plain ..	3,832	401	4,233	5,767
Central Plain ..	3,535	398	3,933	6,067
West Plain ..	3,946	186	4,132	5,868
Hills and Plateau ..	4,092	844	4,936	5,064

adults or minors, males or females, while in other classes the self-supporting persons are usually adult males of working ages. The proportion of earning dependants is low because zamindari as such does not provide any scope for the participation of women and children, who form the bulk of earning dependants in other classes. Secondly, this class is economically the most affluent among the four agricultural classes and so few women and children are sent to work on a secondary occupation. Thirdly, the class has a high proportion of the so called upper castes who do not send their women to work outside the home at all. The non-earning dependants are bound to be high where the earning dependants are low.

Examining the data by natural divisions it would appear that the proportion of self-supporting persons is the lowest in Central Plain which

TABLE 232—Females per 1,000 males in agricultural Livelihood Class IV and its sub-classes by natural divisions

Natural division	Total	Self-supporting persons	Earning dependants	Non-earning dependants
Uttar Pradesh ..	1,194	594	1,318	1,894
Himalayan ..	912	412	3,629	1,261
East Plain ..	1,374	909	1,741	1,802
Central Plain ..	1,135	467	999	1,926
West Plain ..	1,193	602	818	1,942
Hills and Plateau ..	1,163	587	3,434	1,732

includes a large part of Avadh. In Avadh the law of primogeniture obtains among the taluqdars and this tends to lower the proportion of members of a family recorded in the *khewat*. The differences in the proportions of self-supporting persons in other divisions are not significant. The proportion of earning dependants is highest in Hills and Plateau and Himalayan and lowest in West Plain. This is because the women work freely in the fields in the first two divisions while they seldom go out of their homes to work in West Plain, as will be seen from the proportions of women among earning dependants in Table 232.

Table 231 gives the proportional distribution of Class IV among self-supporting persons, earning dependants and non-earning dependants. It will be seen that the distribution is very much different from that observed in other agricultural classes. The proportions of self-supporting persons and non-earning dependants are both very high while that of earning dependants is very low. The proportion of self-supporting persons is high because this class consists principally of persons who are recorded as proprietors in the *khewat*, whether they are

because the women work freely in the fields in the first two divisions while they seldom go out of their homes to work in West Plain, as will be seen from the proportions of women among earning dependants in Table 232.

SECTION 7—NON-CULTIVATING OWNERS OF LAND; AGRICULTURAL RENT RECEIVERS; AND THEIR DEPENDANTS 245

4. Table 233 gives the proportion of persons of Class IV returning a secondary means of livelihood. For the State only 10·66 per cent. return a secondary, of which 7·24 per cent. are self-supporting and only 3·42 earning dependants. It is significant that the proportion of self-supporting persons returning a secondary is higher than that of earning dependants, unlike other agricultural classes where the contrary was true. This is because the proportion of earning dependants in this class as compared with that of self-supporting persons is very small.

TABLE 233—Percentage of persons of agricultural Livelihood Class IV returning secondary means of livelihood by natural divisions

Natural division	Total	Self-supporting persons	Earning dependants
Uttar Pradesh ..	10·66	7·24	3·42
Himalayan ..	15·42	7·58	7·84
East Plain ..	10·39	6·38	4·01
Central Plain ..	11·44	7·46	3·98
West Plain ..	8·80	6·94	1·86
Hills and Plateau ..	18·25	9·81	8·44

Examining the proportions by natural divisions the highest proportion returning a secondary is in Hills and Plateau and the lowest in West Plain. The variations among the proportions of self-supporting persons returning a secondary among the various divisions are not large but those in the proportions of earning dependants are significant. The highest proportion of earning dependants is in Hills and Plateau and the lowest in West Plain. The extent of participation of women as earning dependants is the chief factor governing these proportions (Table 232). The economic condition of the persons of Class IV is also bound to be another operative factor.

5. Table 234 shows that of the self-supporting persons only 19 per cent. return a secondary means of livelihood of which 6 per cent. return an agricultural secondary and 13 per cent. a non-agricultural secondary. As will appear from Subsidiary Table 4·5 the most common among agricultural secondaries is Cultivation of owned land, followed by Employment as cultivating labourer. As has already been explained, Class IV includes such zamindars as have income both from rental of land let out to others and their own cultivation. In the case of such persons, cultivation of owned land is recorded as a secondary.

TABLE 234—Percentage distribution of self-supporting persons of agricultural Livelihood Class IV according to the nature of their secondary means of livelihood by natural divisions

Natural division	No secondary means of livelihood	An agricultural secondary means of livelihood	A non-agricultural secondary means of livelihood
Uttar Pradesh ..	81·0	6·0	13·0
Himalayan ..	79·6	2·5	17·9
East Plain ..	83·4	4·8	11·8
Central Plain ..	78·9	7·8	13·3
West Plain ..	82·4	5·0	12·6
Hills and Plateau ..	76·0	7·8	16·2

probably too small an income from their zamindari and take up agricultural labour to supplement their income, but their proportion is very small. Among non-agricultural secondaries the most common in the State is Class VIII, Other services and miscellaneous sources, followed by Class V, Production other than cultivation and Class VI, Commerce. Among Class VIII, the principal occupation must be service of government or local bodies or other institutions.

Among the natural divisions Employment as cultivating labourer is more common as an agricultural secondary in Hills and Plateau and the non-agricultural Class VIII, Other services and miscellaneous sources, in Himalayan and Hills and Plateau. In the Himalayan domestic service and service of government, local bodies or other institutions must be common while in Hills and Plateau the figures of general labour included in Class VIII must be quite high.

Secondary means of livelihood

Secondary means of livelihood of self-supporting persons

Table 235 compares the secondary means of livelihood of earners or self-supporting persons in 1931 and 1951. It will appear that a lesser proportion

TABLE 235—Distribution of 1,000 self-supporting persons or earners of agricultural Livelihood Class IV according to the nature of their secondary means of livelihood in 1951 and 1931 by natural divisions

Natural division	Number per 1,000 self-supporting persons or earners with—					
	1951			1931		
	No secondary means of livelihood	An agricultural secondary means of livelihood	A non-agricultural secondary means of livelihood	No secondary means of livelihood	An agricultural secondary means of livelihood	A non-agricultural secondary means of livelihood
Uttar Pradesh ..	810	60	130	669	262	69
Himalayan ..	796	25	179	695	195	110
East Plain ..	834	48	118	700	247	53
Central Plain ..	789	78	133	647	291	62
West Plain ..	824	50	126	661	247	92
Hills and Plateau	760	78	162	640	316	44

returned a secondary in 1951, the proportion returning an agricultural secondary having gone down and that returning a non-agricultural secondary having risen significantly. These trends are observable in all the natural divisions. The reasons are as follows. Owing to the abnormal rise in the price of agricultural produce many persons of Class IV who had an agricultural secondary in 1931, have now been transferred to Class I owing to their income from the cultivation

of land having become more than that of the rental. Many zamindars have been also voluntarily parting with their cultivation on consideration for fear of the impending abolition of zamindari. Simultaneously the zamindars are directing their attention increasingly to non-agricultural secondaries.

Secondary means of livelihood of earning dependants

6. Table 236 shows the distribution of earning dependants of Class IV according to their secondary means of livelihood by natural divisions. It will appear that 59 per cent. of the earning dependants have agricultural secondaries and only 41 per cent. non-agricultural secondaries. Among the

TABLE 236—Distribution of 10,000 earning dependants of agricultural Livelihood Class IV according to the nature of their secondary means of livelihood by natural divisions

Natural division	Secondary means of livelihood										
	Total agricultural	I. Cultivation of owned land			III. Employment as cultivating labourer		IV. Rent on agricultural land	Total non-agricultural	V. Production other than cultivation		VIII. Other services and miscellaneous sources
		of un-owned land	of un-owned land	as cultivating labourer	VI. Commerce	VII. Transport					
Uttar Pradesh ..	5,902	1,956	202	1,029	2,715	4,098	1,114	625	61	2,298	
Himalayan ..	7,039	3,714	..	218	3,107	2,961	1,311	388	48	1,214	
East Plain ..	5,399	1,728	456	1,202	2,013	4,601	1,300	586	108	2,607	
Central Plain ..	6,519	2,417	123	477	3,502	3,481	798	473	49	2,161	
West Plain ..	4,532	1,980	204	768	1,580	5,468	1,522	1,020	84	2,842	
Hills and Plateau	6,768	1,051	139	2,378	3,200	3,232	1,037	485	16	1,694	

agricultural secondaries the most popular is Rent on agricultural land followed by Cultivation of owned land and Employment as cultivating labourer. Among the non-agricultural secondaries the most common is Class VIII, Other services and miscellaneous sources, followed by Class V, Production other than cultivation, and Class VI, Commerce. It will be remembered that self-supporting persons returned more non-agricultural than agricultural secondaries. The earning dependants consist mostly of women and children and this is why a majority followed agricultural secondaries. A good proportion get engaged in the family cultivation where it exists in addition to other sources and some take up Employment as cultivating labourer to supplement the family income. In Class VIII a major proportion must be of general labourer and in Class V are the persons carrying on some industrial pursuit.

Among the natural divisions the highest proportion of earning dependants with agricultural secondaries is in Himalayan and the lowest in West Plain. Of agricultural secondaries the highest proportion under Cultivation of owned land is returned by Himalayan and under Employment as cultivating labourer by Hills and Plateau. Among non-agricultural secondaries the highest proportion under Classes V, VI and VIII is returned by West Plain owing to the comparatively greater development of industry and trade in the division.

SECTION 8—ACTIVE AND SEMI-ACTIVE WORKERS IN CULTIVATION

1. Subsidiary Table 4.3 gives the number of active and semi-active workers in cultivation in the State by districts and natural divisions. Self-supporting persons having cultivation as the principal means of livelihood are classed as 'active' workers. The 'semi-active' workers consist of (a) self-supporting

Active and semi-active workers in cultivation

TABLE 237—Active and semi-active workers in cultivation, actual and percentage

Natural division	Cultivation						
	Total	Principal means of livelihood of self-supporting persons	Secondary M/L of S.S. persons whose principal M/L is other than cultivation	Secondary means of livelihood of earning dependants	I-Cultivation of owned land	II-Cultivation of unowned land	III-Employment as cultivating labourer
Uttar Pradesh ..	20,330,262 (100)	13,667,478 (67.2)	381,953 (1.9)	6,280,831 (30.9)	16,783,877 (82.5)	1,494,878 (7.4)	2,051,507 (10.1)
Himalayan ..	1,165,960 (100)	528,991 (45.4)	32,980 (2.8)	603,989 (51.8)	1,077,433 (92.4)	69,791 (6.0)	18,736 (1.6)
East Plain ..	7,028,014 (100)	4,187,173 (59.6)	130,089 (1.8)	2,710,752 (38.6)	5,679,529 (80.8)	568,382 (8.1)	780,103 (11.1)
Central Plain ..	5,449,771 (100)	3,472,897 (63.7)	93,991 (1.7)	1,882,883 (34.6)	4,523,510 (83.0)	430,856 (7.9)	495,405 (9.1)
West Plain ..	5,207,170 (100)	4,637,732 (89.1)	97,631 (1.9)	471,807 (9.0)	4,443,784 (85.3)	289,463 (5.6)	473,923 (9.1)
Hills and Plateau ..	1,479,347 (100)	840,685 (56.8)	27,262 (1.9)	611,400 (41.3)	1,059,621 (71.6)	136,386 (9.2)	283,340 (19.2)

persons of all classes other than cultivation having cultivation as their *secondary* means of livelihood and (b) earning dependants of all classes having cultivation as their *secondary* means of livelihood. Cultivation includes all agricultural livelihood classes except Class IV relating to non-cultivating owners of land and agricultural rent receivers. Table 237 gives the number of active and semi-active workers and their distribution in each cultivating class.

It will appear that of the total workers as many as 67.2 per cent. are active workers, being self-supporting persons with cultivation as their principal means of livelihood. The remaining 32.8 per cent. are semi-active workers, of which earning dependants with cultivation as secondary means of livelihood constitute 30.9 per cent. and the self-supporting persons of classes other than cultivation having cultivation as secondary, account for only 1.9 per cent. In other words, a little over two-thirds of the total workers in cultivation of the State are active and slightly less than one-third are semi-active, the bulk of the latter being earning dependants. In the natural divisions a striking contrast to this State pattern is to be found in Himalayan and West Plain. In the Himalayan only 45.4 per cent. of the workers are active and as many as 54.6 per cent. are semi-active. In the West Plain, on the other hand, as many as 89.1 per cent. of the workers are active and only 10.9 per cent. are semi-active. This is due to the nature of dependency in these two divisions, the reasons for which have already been discussed in Section 2 of this chapter.

Examining the distribution of the active and semi-active workers among the three cultivating classes in the State, it would appear that as many as 82.5 per cent. are Cultivators of owned land, while Employment as cultivating labourer account for 10.1 per cent. and Cultivators of unowned land 7.4 per cent. Striking deviations from this pattern are to be found in Himalayan and Hills and Plateau, the reasons for which have already been discussed in Section 3 of this chapter.

Effectively
active workers
in cultivation

2. We will now proceed to consider the man-power units (effectively active workers) engaged in cultivation in the State and the natural divisions. If an active worker is treated as one unit we will have to convert the semi-active workers into the active worker units. For purposes of this calculation let us assume that an earning dependant is equivalent to one-third of an active worker and a self-supporting person with cultivation as his secondary is equivalent to one-sixth of an active worker. The number of effectively active workers in the State and

TABLE 238—Average cultivated area (in acres) per effectively active worker in cultivation by natural divisions

Natural division	Effectively active workers in cultivation	Area sown plus current fallow (1950-51)	Area per effectively active worker
Uttar Pradesh..	15,824,747	42,771,024	2.70
Himalayan ..	735,817	1,961,064	2.67
East Plain ..	5,112,438	10,047,652	1.97
Central Plain ..	4,116,190	9,606,205	2.33
West Plain ..	4,811,273	16,026,427	3.33
Hills and Plateau ..	1,049,029	5,129,676	4.89

each natural division is given in Table 238 together with the cultivated area per effectively active worker. From the table it will appear that the cultivated area per effectively active worker in the State is only 2.70 acres. The largest available area per effectively active worker is in the Hills and Plateau (4.89) followed by West Plain (3.33), Himalayan (2.67), Central Plain (2.33) and East Plain (1.97). If we calculate the number of cultivating families and divide the number by the number of effectively active workers, we get the average of 1.6 effectively active workers per family. Assuming that 10 acres is an economic holding for an agricultural family the economic cultivated area per effectively active worker would be 6.17 acres. There is thus a surplus of man-power in agriculture throughout the State, the surplus being the highest in East Plain followed by Central Plain. For the whole State the surplus works out as about 89 lakhs effectively active workers, or about 114 lakhs of active and semi-active workers. This is also a measure of the under-employment in agriculture. The extent to which we can divert this surplus to non-agricultural occupations will be an index of the economic progress of the State.

Comparison with
active population
of other
countries

3. A comparison of the active population engaged in agricultural and non-agricultural occupations in selected countries and Uttar Pradesh has been made in Table 168 (Section 2 of this chapter). In Uttar Pradesh almost exactly three-fourth of the active population is engaged in agriculture and the production barely balances the requirements of the State. In U. S. A. only one-sixth of the active population is engaged in agriculture, the production is far in excess of the needs of the total population and exports to other countries are possible. So also in Canada where only about a quarter of the active population work in agriculture. In U. K. only 6 per cent. carry on agriculture and are able to produce about half the food of the people. In Japan only about half the active population are agriculturists and produce about 80 per cent. of the food of the country. These figures point to the different degrees of industrialization of the various countries as also the different degrees of development of agricultural production.

SECTION 9—PROGRESS OF CULTIVATION CORRELATED TO GROWTH OF
GENERAL POPULATION

1. We will examine in this section, whether the progress of cultivation and the outturn of food crops have kept pace with the growth of population, whether the consumption of food *per capita* is adequate, and what are the future prospects of food production and consumption in the State.

Scope of the section

2. The following subsidiary tables contained in Part I-B of the Report have been referred to in this section :

Reference to statistics

Subsidiary Table 4·7—Progress of cultivation during three decades

Subsidiary Table 4·8—Components of cultivated area *per capita* during three decades

Subsidiary Table 4·9—Land area *per capita* 1951 and trend of cultivation *per capita* during three decades

Besides the above, a number of new tables have been prepared from the Season and Crop Reports of the State and the original unpublished records of *milan khasra* in the State Land Record Office. Some tables relating to outturn and yield-rates of crops have been specially prepared by the Agriculture Department of the State. Tables relating to live-stock have been prepared from the live-stock census data. Full use has been made of the useful data compiled by Sri M. D. Chaturvedi, I.F.S., in his brochure "*Land Management in Uttar Pradesh*" written in 1945 and published in 1951. Figures of export and import of foodgrains have been obtained from the government publication "*Inland (Rail and River Borne) Trade of India*" and tables of food values and standard diet have been borrowed from Dr. Aykroyd's bulletin on "*The Nutritive Value of Indian Foods and the Planning of Satisfactory Diets*". Many other sources have been tapped for relevant data and acknowledged at the proper place.

3. Before examining the progress of cultivation, let us study the utilization of land in the State as it stood in 1950-51. Table 239 gives the data. It will appear that the net cultivated area was 55·47 per cent. and, together with current fallow, it amounted to 59·15 per cent. of the total land area. As will be shown presently this proportion of cultivated area is about the highest in the world.

Land utilization,
1950-51

TABLE 239—Utilization of land in the State, 1950-51*

Class of land	Area in acres for the State excluding Kumaon Hills (actual and percentage)	Area in acres for Kumaon Hills only (actual and percentage)		Total area in acres for the State (actual and percentage)
		As per Season and Crop Report	As revised	
Total	62,133,735 (100)	10,165,063 (100)	10,165,063 (100)	72,298,798 (100)
I—Net cultivated	38,571,170 (62·08)	1,536,866 (15·12)	1,536,866 (15·12)	40,108,036 (55·47)
II—Culturable	12,075,377 (19·43)	511,062 (5·03)	2,934,062 (28·87)	15,009,439 (20·76)
(A) Current fallow	2,584,133 (4·16)	78,855 (0·78)	78,855 (0·78)	2,662,988 (3·68)
(B) Other uncultivated land	9,491,244 (15·27)	432,207 (4·25)	2,855,207 (28·09)	12,346,451 (17·08)
1 Old fallow	717,904 (1·15)	—	—	717,904 (1·00)
2 Groves	1,317,039 (2·12)	—	—	1,317,039 (1·82)
3 Culturable waste	7,456,301 (12·00)	—	2,855,207 (28·09)	10,311,508 (14·26)

*The area figure of the State in this table relates to Land Record figures and is slightly different from that of the Surveyor General. The figures for hill districts are mere guesses and have, therefore, been separated from those of the rest of the State.

Kumaon Hills mean the districts of Almora, Garhwal, Tehri-Garhwal and Naini Tal (Hill pattis only).

The area of "other forests" in Kumaon Hills has been estimated on the basis of figures of barren land and culturable waste given in Sri M. D. Chaturvedi's brochure, *Land Management in the Uttar Pradesh*. Tehri-Garhwal has been excluded from this figure.

TABLE 239—Utilization of land in the State, 1950-51—(contd.)

Class of land	Area in acres for the State excluding Kumaon Hills (actual and percentage)	Area in acres for Kumaon Hills only (actual and percentage)		Total area in acres for the State (actual and percentage)
		As per Season and Crop Report	As revised	
(a) Other forests	1,743,693 (2·81)	—	2,513,207 (24·72)	4,256,900 (5·89)
(i) Of timber trees	377,528 (0·61)	—	—	—
(ii) Of other trees	1,366,165 (2·20)	—	—	—
(b) Other culturable waste	5,712,608 (9·19)	—	342,000 (3·37)	6,054,608 (8·37)
III—Not available for cultivation	8,279,861 (13·33)	3,432,552 (33·77)	1,009,552 (9·93)	9,289,413 (12·85)
1 Covered with water	2,675,186 (4·31)	—	—	—
2 Sites, roads and buildings	1,902,637 (3·06)	—	—	—
3 Barren lands	3,702,038 (5·96)	—	—	—
IV—Forests under Forest Department	3,207,327 (5·16)	4,684,583 (46·08)	4,684,583 (46·08)	7,891,910 (10·92)

Of the remaining area as much as 12·85 per cent. is not available for cultivation, being constituted of land covered with water, of sites, roads and buildings and of barren lands (*usar*, sheet-rocks and graveyards). The area under State forests is 10·92 per cent. and if to this is added the area of "other forests" (5·89 per cent.) which includes civil forests of the hill areas * the total forest area would be 16·8 per cent. The area under groves (excluding the hills) is 1·82 per cent. This leaves a balance of 8·37 per cent. only under "other culturable waste". As will be shown later much of the area in this last category is really not available for cultivation.

4. Table 240 shows the relation of population to land in various countries. With the exception of Uruguay, Uttar Pradesh has the highest proportion of culti-

TABLE 240—Relation of population to land in various countries†

(Source : "Land Reforms" published by United Nations)

Country	Year	Total population (thousands)	Cultivated land			
			Area (thousands of hectares)	Per cent. of total area	Per cent. of cultivable area	Per capita (hectares)
Afghanistan	1947	12,000 (1948)	1,150	1·8	..	0·10
Burma	1947	18,489 (1950)	8,754	14·6	60·8	0·47
Ceylon	1950	7,539	1,315	20·0	50·0	0·17
China	1947	463,000 (1948)	91,040	9·6	31·9	0·20
India	1947	346,000 (1949)	98,696	43·8	58·7	0·29
Indo-China	1947	27,460 (1949)	4,700	6·4	..	0·17
Indonesia	1947	72,000 (1948)	11,000	5·8	..	0·15
Iran	1943	17,000 (1948)	20,330	12·6	23·8	1·20
Iraq	1930	4,800 (1947)	7,750	17·1	84·2	1·62
Israel	1951	1,470	300	14·4	..	0·21
Japan	1948	83,196 (1950)	5,907	16·1	68·5	0·07
Jordan	1949	400	600	5·0	..	1·50
Korea	1948	29,291 (1949)	4,390	21·5	81·5	0·15
Lebanon	1949	1,247	210	20·6	41·3	0·17
Malaya	1948	5,000	2,121	16·2	76·4	0·42
Pakistan	1948	74,437 (1949)	21,100	22·6	70·1	0·28
Philippines	1949	19,518 (1950)	8,180	27·5	68·9	0·42
Syria	1948	3,465 (1949)	2,290	12·7	23·5	0·66
Thailand	1937	18,318 (1950)	5,000	10·0	..	0·27
Turkey	1948	20,935 (1950)	19,941	26·3	33·9	0·95
Uttar Pradesh	1951	63,216	17,309	59·2	86·3	0·28
Egypt	1948	20,045 (1949)	2,445	2·4	..	0·12
Tunisia	1948	3,416 (1949)	3,766	30·1	47·1	1·10
Argentina	1946	16,818 (1949)	30,000	10·8	20·7	1·78
Brazil	1947	50,350 (1950)	18,835	2·2	10·4	0·37
Canada	1941	12,883 (1948)	33,644	3·5	..	2·61
Chile	1946	5,823 (1950)	5,873	7·9	46·4	1·01
Mexico	1946	25,210 (1950)	20,000	10·2	16·7	0·79
United States	1949	150,500 (1950)	184,129	23·5	..	1·22
Uruguay	1947	2,365 (1949)	14,284	76·7	..	6·04
Australia	1947	7,579 (1947)	12,963	1·7	..	1·71

* Sri M. D. Chaturvedi, r.s.s., *Land Management in Uttar Pradesh*, page 24.† Figures of Canada, United States and Australia have been taken from the United Nations *Statistical Yearbook*, 1949-50.

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vated area in the world. Our State also has the highest proportion of cultivated to cultivable land, indicating that saturation point has already been reached in the matter of cultivation in this State. It will also be seen that some countries like Argentina, United States, Canada and Australia have a very low percentage of cultivated land and are yet able to export foodgrains. This is due to their low density and higher yields of food crops.

5. Table 241, prepared from the State Season and Crop Reports, shows the progress since 1911 of net and gross cultivated area in Uttar Pradesh

Progress of net and gross cultivated area

TABLE 241—Progress of net and gross cultivated area in the State (excluding the Kumaon Hills and former princely states)*

Year	Total area	Net cultivated area	Gross cultivated area	Percentage of net cultivated area to total area	Percentage of gross cultivated area to total area
1911	60,880,873 <i>60,617,105</i>	35,646,036 <i>34,984,886</i>	44,490,540 <i>42,358,306</i>	58·55 <i>57·71</i>	73·08 <i>69·88</i>
1916	60,870,672 <i>60,885,153</i>	35,633,086 <i>34,854,750</i>	44,794,266 <i>43,038,836</i>	58·54 <i>57·25</i>	73·59 <i>70·69</i>
1921	60,797,073 <i>60,822,655</i>	33,697,170 <i>34,304,482</i>	39,741,315 <i>42,213,301</i>	55·43 <i>56·40</i>	65·37 <i>69·40</i>
1926	60,622,615 <i>60,689,516</i>	34,196,050 <i>34,795,262</i>	41,942,174 <i>43,034,743</i>	56·41 <i>57·33</i>	69·19 <i>70·91</i>
1931	60,577,516 <i>60,597,029</i>	34,913,617 <i>34,288,370</i>	43,021,634 <i>42,273,763</i>	57·63 <i>56·58</i>	71·02 <i>69·76</i>
1936	60,553,533 <i>60,555,046</i>	35,278,077 <i>35,170,851</i>	42,853,930 <i>42,828,907</i>	58·26 <i>58·08</i>	70·77 <i>70·73</i>
1939	60,630,645	35,462,808	44,327,649	58·49	73·11
1940	60,637,728	35,883,517	44,521,425	59·18	73·42
1941	60,627,438 <i>60,598,096</i>	35,922,514 <i>35,669,788</i>	43,623,850 <i>44,180,139</i>	59·25 <i>58·86</i>	71·95 <i>72·91</i>
1942	60,627,713	35,544,719	42,875,167	58·63	70·72
1943	60,637,824	36,364,732	45,199,011	59·97	74·54
1944	60,632,699	36,590,551	45,455,698	60·35	74·97
1945	60,238,605	36,628,987	45,394,542	60·81	75·36
1946	60,580,483 <i>60,543,465</i>	36,780,963 <i>36,381,990</i>	46,095,824 <i>45,004,048</i>	60·71 <i>60·09</i>	76·09 <i>74·33</i>
1947	60,247,334	36,538,850	45,464,403	60·65	75·46
1948	60,251,526	36,655,382	45,726,830	60·84	75·89
1949	60,276,021	36,917,131	46,790,694	61·25	77·63
1950	61,083,110	37,647,015	46,806,394	61·63	76·63
1951	61,149,075 <i>60,601,413</i>	37,965,247 <i>37,144,725</i>	46,815,889 <i>46,320,842</i>	62·09 <i>61·29</i>	76·56 <i>76·44</i>

(excluding the Kumaon Hills and former princely states, for which no reliable data was previously available). It will be seen that the proportion of gross cultivated area to the total area has been gradually increasing since 1911, except for a steep fall during 1916—21 which can be easily assigned to the influenza epidemic. This increasing trend has been greatly accentuated since 1943, due obviously to War and scarcity conditions. The net area also follows, more or less, similar trends.

* Figures in italics are the quinquennial averages for the quinquennium ending the year.

Cultivation
and population
growth

6. The progress of cultivation, however, has not kept pace with the increase in population as Table 242 would show. During 1911—20 there was a decrease in population as well as cultivation owing to the influenza epidemic and

TABLE 242—Percentage variation in population and cultivated area of the State (excluding Kumaon Hills and former princely states), since 1911

Period	Percentage variation in—		
	Population	Net cultivated area*	Gross cultivated area *
1911—20	-3.1	-1.9	-0.3
1921—30	+6.6	-0.05	+0.1
1931—40	+13.6	+4.0	+4.5
1941—50	+11.9	+4.1	+4.8
1911—50	+31.2	+6.2	+9.4

the decrease in cultivation was proportionately less than that of population. During 1921—30 there was an increase in population but the cultivation more or less remained stationary. Since 1931 the population has registered phenomenal increases leaving the cultivation far behind. Between 1911 and 1950 the population growth has been 31.2 per cent. but the growth in gross cultivated area has been only 9.4 per cent. or less than one-third of that of population.

Land area per
capita since 1881

7. The correlation of progress of cultivation with population growth will be seen more graphically if we examine the figures of total land area *per capita*, area cultivated and cultivable *per capita*, and area of cultivation *per capita*. The figures are given in Table 243. It will be seen that cultivated area *per capita*

TABLE 243—Land area per capita and trend of cultivation per capita since 1881†

Year	Total land area per capita in cents. †	Area cultivated and cultivable per capita in cents. †	Area of cultivation per capita in cents. †
1881	154.0	94.9	78.4
1891	146.7	96.7	79.0
1901	125.7	107.0	73.6
1911	132.0	104.9	77.3
1921	137.2	108.9	76.1
1931	128.3	101.7	73.9
1941	113.0	89.7	67.0
1951	101.5	82.7	63.0

decreased only slightly between 1881 and 1921, but has shown a sharp decline since then and particularly since 1931. The reason is obvious. Till 1921 the population growth was spasmodic and small, while after 1921 it has been consistent and large. The cultivation has been falling behind seriously since 1921 and very seriously since 1931. The land area *per capita* has come down from about 1.5 acres in 1881 to only about 1 acre in 1951. During this period the area of cultivation *per capita* has come down from 0.78 acre to 0.63 acre.

* Figures are based on the quinquennial averages of the preceding table.

† Figures for 1881 and 1891 are for U. P., including Kumaon Hills but excluding former princely states and those for other censuses are for U. P., excluding Kumaon Hills and former princely states. These figures are based on actual annual returns and not on quinquennial averages as in Table 244.

‡ 1 cent.=1/100 acre.

8. Table 244 gives the area of cultivation *per capita* by natural divisions during the last three decades and also the figures for 1951 of the total land area *per capita* and area cultivated and cultivable *per capita*. The cultivated area *per capita* in Uttar Pradesh has been steadily decreasing, the decrease being more marked since 1921. In 1921 the cultivated area *per capita* was 0.783 acre (or 78.3 cents.) and in 1951 only 0.613 acre. The decrease is shared by all the natural divisions but is most marked in Himalayan division (38.8 per cent.), which, however, for purposes of Table 244 consists only of

Land area *per capita* by natural divisions

TABLE 244—Land area *per capita* (1951) and trend of cultivation *per capita* during three decades by natural divisions

(Source: Subsidiary table 4.9)*

Natural division	Land area <i>per capita</i> -1951		Area of cultivation <i>per capita</i> (in cents.)			
	Total land area <i>per capita</i> (in cents.)	Area cultivated and cultivable <i>per capita</i> (in cents.)	1951	1941	1931	1921
Uttar Pradesh	101.5	82.7	61.3	66.2	72.4	78.3
Himalayan	346.7	117.5	41.4	55.3	62.9	67.7
East Plain	76.4	64.3	52.9	57.6	62.9	66.9
Central Plain	89.2	73.6	55.0	59.8	66.0	71.7
West Plain	97.4	82.0	65.2	69.7	76.8	83.7
Hills and Plateau	250.1	200.7	105.8	113.6	116.4	130.0

Dehra Dun and plain portion of Naini Tal district, followed by Central Plain (23.3 per cent.), West Plain (22.1 per cent.), East Plain (20.9 per cent.), and Hills and Plateau (18.6 per cent.). The large decrease in Himalayan is due mainly to the heavy and continuous decrease of cultivated area in the plain portion of Naini Tal. This was due to the malarious climate of this area and lack of irrigation facilities. The decrease in the three plain divisions is almost uniform. The lesser decrease in the Hills and Plateau is due to the high rate of increase of cultivation and a lesser rate of population growth. The increase in cultivation resulted mainly from increased irrigation facilities.

The present position with regard to land area *per capita* among the natural divisions will be seen in the table. We may leave the Himalayan division out of account as the figures relate to a very small portion of it. Among the three Plain divisions the position deteriorates as we go from west to east. In the West Plain the total land area *per capita* is 97.4 cents and the cultivated area *per capita* 65.2 cents. In the Central Plain the corresponding figures are 89.2 cents and 55.0 cents and in East Plain 76.4 cents and 52.9 cents respectively. The pressure of population is the heaviest in East Plain and, as will be seen from the figures of area cultivated and cultivable *per capita*, the margin for further extension of cultivation is also the least in this division. Actually the highest cultivated area *per capita* is in Hills and Plateau but owing to the difficulties of the terrain the cultivation here is precarious.

9. Subsidiary Table 4.9 gives the figures of land area *per capita* by districts. The districts with the lowest net cultivated area *per capita* in 1951 (excluding Tehri-Garhwal) are in the following order :

Land area *per capita* by districts

- | | | |
|---------------|-----------------|-----------------|
| (1) Dehra Dun | (8) Faizabad | (15) Ghazipur |
| (2) Lucknow | (9) Meerut | (16) Rae Bareli |
| (3) Banaras | (10) Pratapgarh | (17) Agra |
| (4) Jaunpur | (11) Deoria | (18) Bara Banki |
| (5) Kanpur | (12) Gorakhpur | (19) Basti |
| (6) Ballia | (13) Allahabad | |
| (7) Azamgarh | (14) Sultanpur | |

* Figures for Kumaon hills and former princely states have been excluded.

If the city population is not taken into account in calculating the *per capita* figure we will get a fair indication of the cultivated area *per capita* in the remaining part of the districts. The districts with the lowest net cultivated area *per capita* in cents. (after excluding the city population from calculation) are in the following order:

(1) Jaunpur ..	47.5	(9) Sultanpur ..	52.1
(2) Dehra Dun ..	47.5	(10) Gorakhpur ..	53.4
(3) Ballia ...	47.7	(11) Ghazipur ..	53.7
(4) Azamgarh ..	48.0	(12) Rae Bareli ..	53.7
(5) Banaras ..	49.2	(13) Lucknow ..	55.5
(6) Pratapgarh ..	49.6	(14) Meerut ..	55.9
(7) Deoria ..	49.7	(15) Bara Banki ..	56.4
(8) Faizabad ..	51.6	(16) Basti ..	56.7

Of these Dehra Dun and Meerut have a high proportion of non-agricultural population in rural areas (*vide* Subsidiary Table 5.1-A). We should thus consider the whole of Gorakhpur division, Banaras division (except Mirzapur), Faizabad division (except Gonda and Bahraich), and Lucknow and Rae Bareli districts of Lucknow division as *danger spots* from the point of view of the rural food situation. Government had to face scarcity conditions recently in some parts of Gorakhpur division.

Cropping pattern

10. We will now examine if any significant changes have taken place in the cropping pattern of the State. Table 245 gives the quinquennial averages of the areas under various crops and their percentages to total cropped area.

TABLE 245—Area under various crops and their percentages to total cropped area in the State, 1901—51*

Crops	Quinquennium ending									
	1950-51	1945-46	1940-41	1935-36	1930-31	1925-26	1920-21	1915-16	1910-11	1905-06
Total crops ..	47,163 (100)	45,364 (100)	44,540 (100)	43,189 (100)	42,634 (100)	43,395 (100)	42,574 (100)	43,399 (100)	42,719 (100)	43,312 (100)
Total food crops	41,640 (88.29)	40,032 (88.25)	38,677 (86.84)	37,961 (87.90)	37,802 (88.67)	38,659 (89.09)	37,577 (88.26)	38,128 (87.85)	37,439 (87.64)	38,155 (88.09)
Rice ..	8,201 (17.39)	6,884 (15.17)	7,257 (16.29)	6,381 (14.77)	7,086 (16.62)	7,087 (16.33)	6,940 (16.30)	6,178 (14.24)	6,580 (15.40)	6,873 (15.87)
Wheat ..	7,863 (16.67)	7,723 (17.03)	7,947 (17.84)	7,758 (17.96)	7,281 (17.08)	7,118 (16.40)	6,661 (15.65)	7,108 (16.38)	6,255 (14.64)	7,133 (16.47)
Barley ..	4,691 (9.95)	4,202 (9.26)	3,896 (8.75)	4,058 (9.40)	4,269 (10.01)	4,283 (9.87)	4,485 (10.53)	4,801 (11.06)	4,864 (11.39)	4,325 (9.98)
Gram ..	6,182 (13.11)	5,997 (13.22)	5,647 (12.68)	5,515 (12.77)	5,335 (12.52)	6,599 (15.21)	4,899 (11.51)	5,378 (12.39)	4,548 (10.65)	5,401 (12.47)
Juar ..	2,256 (4.78)	2,382 (5.25)	2,226 (5.00)	2,422 (5.61)	2,398 (5.62)	2,294 (5.29)	2,176 (5.11)	2,165 (4.99)	2,619 (6.13)	2,446 (5.65)
Bajra ..	2,597 (5.51)	2,879 (6.35)	2,204 (4.95)	2,185 (5.06)	1,991 (4.67)	2,141 (4.93)	2,565 (6.02)	2,653 (6.11)	2,493 (5.84)	2,123 (4.90)
Maize ..	2,118 (4.49)	2,363 (5.21)	2,038 (4.58)	2,107 (4.88)	2,052 (4.82)	1,792 (4.13)	2,232 (5.24)	2,228 (5.13)	2,308 (5.40)	2,156 (4.98)
Total staple food crops	33,909 (71.90)	32,430 (71.49)	31,215 (70.09)	30,426 (70.45)	30,413 (71.34)	31,313 (72.16)	29,958 (70.36)	30,512 (70.30)	29,667 (69.45)	30,457 (70.32)
Other food crops	7,731 (16.39)	7,601 (16.76)	7,462 (16.75)	7,536 (17.45)	7,389 (17.33)	7,346 (16.93)	7,619 (17.90)	7,616 (17.55)	7,771 (18.19)	7,698 (17.77)
Total non-food crops	5,523 (11.71)	5,333 (11.75)	5,863 (13.16)	5,228 (12.10)	4,831 (11.33)	4,736 (10.91)	4,997 (11.74)	5,271 (12.15)	5,280 (12.36)	5,157 (11.91)
Sugarcane ..	2,182 (4.63)	1,969 (4.34)	2,133 (4.79)	1,818 (4.21)	1,476 (3.46)	1,351 (3.11)	1,386 (3.26)	1,322 (3.05)	1,207 (2.83)	1,181 (2.73)
Other non-food crops	3,341 (7.08)	3,364 (7.41)	3,730 (8.37)	3,410 (7.89)	3,355 (7.87)	3,385 (7.80)	3,611 (8.48)	3,949 (9.10)	4,073 (9.53)	3,976 (9.18)

* These figures are quinquennial averages from the quinquennium ending 1905-06 to quinquennium ending 1950-51.

These figures exclude the figures of Almora, Hill Pattis of Naini Tal, Tehri-Garhwal and Rampur. Figures for Almora and Hill Pattis of Naini Tal were available only for the quinquennia ending 1940-41 and 1950-51. The figures for Tehri-Garhwal and Rampur were available only for the years 1949-50 and 1950-51.

The figures for Garhwal were not available for the period 1901-07, so the average for four years (1908-11 in this case) has been adopted as the quinquennial average for the quinquennium ending 1905-06 as well as quinquennium ending 1910-11.

An interesting feature about the total cropped area is that it was alternately increasing and decreasing from the quinquennium ending 1905-06 to the quinquennium ending 1935-36 since when, however, it has been steadily increasing.

The proportion of food crops to the total cropped area, which stood at 88.09 at the end of the quinquennium 1905-06 now stands at 88.29. During this interval it struck the lowest proportion (86.84) at the end of the quinquennium 1940-41 and the highest (89.09) at the end of the quinquennium 1925-26, which had very favourable rainfall. Taking absolute acreage into consideration, it will appear that the area had been increasing and decreasing alternately from the quinquennium ending 1905-06 to the quinquennium ending 1935-36 but has been steadily increasing since then.

We may here examine the effect of rainfall on the cropping pattern. Table 246 gives the quinquennial averages of rainfall in Uttar Pradesh and the natural divisions. The first important point to note is that there has been no decrease in the average rainfall in the State or any natural division during the last 50

Rainfall and cropping pattern

TABLE 246—Progress of average rainfall in the State and the natural divisions, 1901—51

Quinquennium ending	Uttar Pradesh	Himalayan	East Plain	Central Plain	West Plain	Hills and Plateau
1905—06	36.20	60.89	43.08	34.77	29.15	32.86
1910—11	37.34	69.59	38.71	32.18	33.23	36.28
1915—16	37.70	62.89	44.64	38.14	29.70	32.75
1920—21	39.17	70.69	41.68	35.98	33.25	38.42
1925—26	45.55	76.59	45.32	44.94	40.91	39.31
1930—31	36.79	60.82	41.28	35.51	30.19	36.36
1935—36	37.36	64.55	40.94	31.76	34.40	33.23
1940—41	41.39	69.30	50.90	39.63	32.99	36.38
1945—46	38.29	66.01	42.38	36.16	32.69	34.05
1950—51	42.19	69.10	46.51	40.73	35.91	38.16

years. The popular belief that rainfall is decreasing is, therefore, contrary to facts. The second noteworthy point is that rainfall in all the natural divisions has been generally increasing and decreasing in alternate quinquennia. This trend fits in generally with the trend of total cropped area and the proportion of food crops to total cropped area in the various quinquennia. In particular, it will be noted that the proportion of food crops to total cropped area was the highest in the quinquennium 1925-26, when the rainfall was also the highest. The rainfall was probably the principal factor determining the fluctuations in the total cropped area as well as the proportion of area under food crops till the end of the quinquennium 1935-36. Since then it appears population pressure accompanied by increasing demand for foodgrains and higher agricultural prices have been introduced as additional determining factors.

11. Table 245 gives the figures of seven staple food crops separately and the total of the remaining food crops, which include small millets, potato and vegetables. Among the non-food crops the table only gives the figures for sugarcane separately; the other non-food crops include cotton, oilseeds, tobacco and fibre crops.

Pattern of individual crops

Examining the figures of the seven staple food crops it would appear that the proportion which stood at 70.32 per cent. in the quinquennium ending 1905-06 now stands at 71.90. The lowest proportion (69.45 per cent.) during the interval was struck in the quinquennium ending 1910-11 and the highest (72.16 per cent.) in the quinquennium ending 1925-26, the period of highest

rainfall. The other food crops which occupied 17·77 per cent. cropped area in the quinquennium ending 1905-06 are now 16·39 per cent. only. There is a perceptible, though not large, tendency towards increase of the proportion of staple food crops at the expense of the 'other food crops'.

Let us examine if there has been any significant changes in the proportions of inferior crops (barley, juar, bajra and maize) and superior crops (rice and wheat) during the last 50 years. Table 247 shows that there has been a slight increase in the proportion of superior crops and a slight decrease in the proportion of inferior crops. Thus, there has been no deterioration of quality during the last 50 years in this State.

TABLE 247—Percentages of superior and inferior crops to total cropped area in the State, 1901—51

Particulars	Quinquennium ending									
	1950-51	1945-46	1940-41	1935-36	1930-31	1925-26	1920-21	1915-16	1910-11	1905-06
Superior crops	34·06	32·20	34·13	32·73	33·70	32·73	31·95	30·62	30·04	32·34
Inferior crops	24·73	26·07	23·28	24·95	25·12	24·22	26·90	27·29	28·76	25·51

Among the individual crops rice has shown a definite increase and so also wheat and gram, though not to the same extent as rice. Barley reached the lowest proportion in the quinquennium ending 1940-41 but is showing an increasing trend since then. Juar and maize show a decreasing trend but bajra shows a slightly increasing trend. Among the 'other food crops' the area under *mandua* in Uttar Pradesh (excluding the Kumaon Hills) has come down from 245,600 acres to 60,000 acres only, that of *sawan* from 533,000 acres to 532,000 acres, that of *kodon* from 1,853,000 acres to 959,000 acres during the last 50 years. The area under potato has increased from 89,700 acres in 1917-18 to 203,000 acres in 1950-51. Among the non-food crops significant changes have taken place in the area of sugarcane and cotton. The area of sugarcane has gone up as a result of the protection given to the sugar industry in the thirties of the century, while the cotton area has gone down from 1,154,000 acres in 1901-02 to 106,000 acres in 1950-51. Tobacco has gone down from about a lakh acres in 1934-35 to 37,000 acres in 1950-51.

The conclusion to be drawn from the previous discussion is that during the last 50 years there has been no significant shift affecting food production in the cropping pattern of the State.

Progress of Irrigation

12. Having analysed the cropping pattern of the State during the last 50 years let us examine the progress of irrigation. Table 248 gives the relevant figures since 1907. The total irrigated area, which was 106 lakh acres in 1907 now stands at 117 lakh acres, an increase of about 10 per cent. only. But it will be seen that area irrigated by government canals has more than doubled, registering a rise from 20·5 lakh acres in 1907 to 44·9 lakh acres in 1951. Also a new source of irrigation has sprung up viz., tube-wells run by electric power. They irrigated 4·3 lakh acres in 1940 and 6·7 lakh acres in 1951. The area

TABLE 248—Progress of irrigation in the State, 1907—51

Year	Total land area	Area irrigated by—			Total irrigated
		Government canals	Wells Tube-wells	Others	
Before the War					
1907	58,611,361	2,054,970	..	5,938,131	10,617,260
1910	61,193,399	2,085,921	..	5,907,048	10,053,061
1915	60,866,031	2,569,552	..	6,201,173	10,970,015
1920	60,810,574	2,673,779	..	5,870,111	10,820,488
1925	60,692,068	1,878,948	..	4,308,915	8,459,361
1930	60,598,864	3,325,138	..	5,610,554	10,971,136
1935	60,556,758	3,236,799	..	5,091,648	10,609,401
1939	60,630,645	3,762,163	..	5,554,051	11,917,587

TABLE 248—Progress of irrigation in the State, 1907—51—(contd.)

Year	Total land area	Area irrigated by—			Total irrigated
		Government canals	Wells	Others	
			Tube-wells		
During and after the War					
1940	60,637,723	3,762,151	432,018	5,375,168	11,928,886
1941	60,627,438	3,773,991	512,130	5,424,137	11,592,767
1942	60,627,713	4,141,494	581,479	5,702,009	12,349,914
1943	60,637,824	3,942,649	463,240	5,096,559	11,225,549
1944	60,632,699	3,921,808	554,044	4,851,400	11,461,347
1945	60,233,605	3,837,878	527,270	4,932,692	11,343,442
1946	60,530,433	4,187,118	552,288	4,769,378	11,701,510
1947	60,247,334	4,266,612	539,759	4,602,553	11,532,964
1948	60,251,526	3,897,702	555,815	4,454,802	10,868,417
1949	60,276,021	4,093,774	631,770	4,246,353	11,005,338
1950	61,083,110	3,874,892	634,999	4,260,201	10,665,469
1951	61,149,075	4,490,061	673,241	4,641,402	11,738,755

irrigated by ordinary masonry and *kachcha* wells has gone down from 59.4 lakh acres in 1907 to 46.4 lakh acres in 1951 as a result of the introduction of the tube-wells and expansion of canals. There is no doubt that canal irrigation as well as tube-well irrigation are far more efficient than the ordinary well irrigation. The irrigation potential of the State, therefore, must have increased much more than 10 per cent. by which the total irrigated area has increased between 1907 and 1951.

An interesting point with regard to the irrigated area is its dependance on rainfall. A comparison of Table 246 and Table 248 would show that irrigated area generally varies inversely as the rainfall.

13. Table 249 gives the variation in average net area irrigated during three decades in the State and the various natural divisions. This table has been prepared from Subsidiary Table 4.7 after eliminating the figures of Kumaon Hills from the Himalayan division, of Rampur from West Plain, and Banaras state from East Plain.

Progress of irrigation by natural divisions

TABLE 249—Variation in average net area irrigated during three decades by natural divisions

Particulars	Uttar Pradesh	Himalayan	East Plain	Central Plain	West Plain	Hills and Plateau
Average area irrigated						
1921	10,994,823	112,912	3,179,638	2,926,063	4,417,169	359,041
1931	9,376,100	98,375	2,606,831	2,252,362	4,040,353	378,179
1941	11,256,841	94,215	3,346,876	2,778,667	4,535,855	501,228
1951	11,147,858	87,445	3,275,447	2,572,592	4,631,169	581,205
Variation						
1921—31	-1,618,723	-14,537	-572,807	-673,701	-376,816	+19,138
1931—41	+1,880,741	-4,160	+740,045	+526,305	+495,502	+123,049
1941—51	-108,983	-6,770	-71,429	-206,075	+95,314	+79,977
1921—51	+153,035	-25,467	+95,809	-353,471	+214,000	+222,164
Percentage of variation						
1921—31	-14.72	-12.87	-18.01	-23.02	-8.53	+5.33
1931—41	+20.06	-4.23	+28.39	+23.37	+12.26	+32.54
1941—51	-0.97	-7.19	-2.13	-7.42	+2.10	+15.96
1921—51	+1.39	-22.55	+3.01	-12.08	+4.84	+61.88

It will appear that there was a decrease in the irrigated area during the decade 1921—31 in the State and all the natural divisions except Hills and Plateau due mainly to the slump. In the decade 1931—41 owing to the opening of Sarda Canal and the tube-wells there was an increase in the irrigated area in the State and all the natural divisions except the plain portion of Himalayan division. During 1941—51 there has been a nominal decrease in the irrigated area in the State but there have been significant decreases in the plain portion of the Himalayan division and Central Plain and a significant increase in Hills and Plateau. It will be noted that the irrigated area has been uniformly decreasing in the plain portion of the Himalayan division throughout the last three decades owing to the difficult conditions of cultivation, while it has been steadily increasing in the Hills and Plateau division owing to new sources of irrigation. In other divisions there have been both decreases and increases.

Live-stock

14. Live-stock in this country live for a large part of the year on by-products of agriculture supplemented by green-fodder crops. We must, therefore, correlate it not only with the grazing available in pasture lands during the monsoon months but also with the total area under cultivation which carries a major portion of the burden of supporting the cattle population.

Table 250 gives the figures of live-stock in Uttar Pradesh from 1920 to 1951. The total has been reduced to cow-units by equating a cow to 2 goats or sheep,

TABLE 250—Live-stock in the State (excluding Almora, Garhwal and former princely states), 1920—51

(Figures in thousands)

Stock	Percentage variation										
	1951	1944	1935	1930	1925	1920	1944—51	1935—44	1930—35	1925—30	1920—25
Bulls ..	11	15	22	24	27	28	-30.7	-30.5	-5.8	-10.9	-3.9
Bullocks ..	11,373	10,215	10,131	10,071	10,198	9,874	+11.3	+0.8	+0.6	-1.2	+3.3
Cows ..	6,021	5,344	6,005	6,233	6,184	6,211	+12.7	-11.0	-3.6	+0.8	-0.4
Male buffaloes ..	1,018	834	943	781	784	834	+22.0	-11.5	+20.8	-0.4	-6.0
Cow buffaloes ..	4,911	4,418	4,245	4,082	4,072	3,596	+11.1	+4.1	+4.0	+0.2	+13.2
Young stock (calves and buffalo calves)	8,848	8,795	11,123	10,269	9,781	9,221	+0.6	-20.9	+8.3	+5.0	+6.1
Sheep ..	1,585	1,874	2,069	2,231	2,153	2,321	-15.4	-9.4	-7.3	+3.6	-7.2
Goats ..	5,171	5,473	7,933	6,563	7,473	3,779	-5.5	-31.0	+20.9	-12.2	+97.7
Horses and ponies (including young stock)	365	381	506	467	479	463	-4.1	-24.8	+8.4	-2.5	+3.5
Mules and donkeys	270	239	280	271	297	281	+13.1	-14.5	+3.1	-8.7	+5.7
Camels ..	38	31	32	26	25	20	+22.8	-2.7	+23.3	+5.1	+25.1
Ploughs ..	6,003	5,240	5,196	5,053	5,042	4,872	+14.6	+0.9	+2.8	+0.2	+3.5
Carts ..	1,558	1,303	1,094	998	963	841	+19.6	+19.1	+9.6	+3.6	+14.5
Cow-units ..	45,332	42,468	47,580	45,172	45,100	41,046	+6.7	-10.7	+5.3	+0.2	+9.9

a horse or a pony and $\frac{1}{2}$ of a buffalo. It appears that the cow-units were gradually increasing from 1920 till 1935 when there was a set back due to War and a reduction took place in 1944. The upward trend has started again, though we are yet at the figure of 1925. It is clear that any increase in the cattle population will mean an extra strain on the cultivated area.

Sri Chaturvedi in his brochure on "*Land Management in Uttar Pradesh*" has discussed the position regarding the cattle food supply in the various natural divisions of the State. He has given the following table to show the co-efficients of available food supply for a cow-unit.

TABLE 251—Available food supply for a cow-unit in the State, 1944

Regions	Grazing grounds	Agricultural by-products	Fodder crops
	Acre	Acre	Acre
1 Himalayan ..	24	1/3	1/50
2 Gangetic Plain ..	1/3	4/5	1/25
3 Hills and Plateau ..	1	1	0.0036

Sri Chaturvedi drew attention to the need for the extension of area under fodder crops in the Himalayan division; the imperative need of preventing

further inroads on pasture lands as also the extension of area under fodder crops in the Gangetic Plain ; and the need for the extension of area under fodder crops in the Hills and Plateau division.

15. But cattle are also the motive power for cultivation and for agricultural transport. Let us examine how the cattle population is increasing in relation to the number of ploughs and carts. Table 252 gives the figures since 1909. It will appear that the number of working cattle was almost steady from 1909 to 1944 but has shown about 12 per cent. increase during 1944—51. Ploughs, however, have been continually increasing and have increased by 25 per cent.

Working cattle,
ploughs and carts

TABLE 252—Working cattle, ploughs, carts and normal net cultivated area, 1909—51

(Figures in thousands)

Particulars	1951	1944	1935	1930	1925	1920	1915	1909
Working cattle	12,391	11,049	11,074	10,852	10,982	10,708	11,084	10,766
Ploughs	6,003	5,240	5,196	5,053	5,042	4,872	4,930	4,784
Carts	1,558	1,303	1,094	998	963	841	858	782
Total of ploughs and carts ..	7,561	6,543	6,290	6,051	6,005	5,713	5,788	5,566
Number of cattle per 100 ploughs	206*	211	213	215	218	220	225	225
Number of cattle per 100 ploughs and carts	164	169	176	179	183	187	191	193
Normal net cultivated area in acres	35,964	34,677	34,677	35,069	35,069	35,069	34,906	35,137
Average normal net cultivated area per plough	5.99	6.62	6.67	6.94	6.96	7.20	7.08	7.34
Average normal net cultivated area per pair of working cattle	5.80	6.28	6.26	6.46	6.39	6.55	6.30	6.53

during 1909—51. This is obviously due to the progressive sub-division of holdings. Carts too have been steadily increasing and have nearly doubled during 1909—51. This is due partly to sub-division of holdings but largely to the establishment of the sugar industry which has created a heavy demand for carts. The number of working cattle per plough, it will be noted, has been gradually going down. The working cattle cannot increase in proportion to the increase of ploughs. The average cultivated area per plough is continually decreasing and the owners of small holdings now find it more and more difficult to independently maintain a pair of cattle. Still it will be seen that the average cultivated area per pair of working cattle is decreasing and has shown a marked fall in 1951. The cultivated area per pair of working cattle has long been uneconomic in this State; it is now becoming increasingly so.

16. We will now proceed to consider the yield-rate of the various crops. Although the preparation and maintenance of forecasts of crops has been an annual routine measure of the State Government, the system by which yield-rates have been arrived at is far from satisfactory or reliable. The yield here is expressed in terms of a standard normal crop by means of an anna condition factor, a fixed number of annas representing the normal crop. The normal yield is defined as the yield which past experience has shown to be typical of the area. Normal yields are fixed for different tracts empirically on the basis of the past experience, but it is stipulated that they should be revised every five years on the basis of actual crop-cutting experiments. This system leaves many loopholes, the chief being the absence of an objective procedure and of a criterion for judging the magnitude of error inherent in it.† Recently the Indian Council of Agricultural Research has introduced a scientific system of random sampling for the estimation of crop-yields and the result of these experiments for a few crops are now available.

Yield-rate of
crops

* Working cattle for the sake of comparison here include all male cattle except the breeding bulls and all male buffaloes. If the figure is calculated on working bullocks and buffaloes alone, it works out to 204. The details of working and non-working bullocks and buffaloes are not available before 1935.

† For a detailed discussion of the defects of this system see I.C.A.R. publication, *Sample Surveys for the Estimation of Yield of Food Crops*.

Table 253 gives the approximate normal yield per acre of the principal food crops in Uttar Pradesh since 1901-02 up to 1951-52 (quinquennial

TABLE 253—*Approximate normal yield per acre of the principal crops in the State*

(Source : Agricultural Directorate of U. P.)

		Outturn in lbs. per acre					Outturn in lbs. per acre	
Crop	Quinquennium ending	Irrigated	Un-irrigated	Irrigated and un-irrigated	Crop	Quinquennium ending	Outturn in lbs. per acre	
Rice	1901-02	1,050	800	850	Juar	1901-02	600	
	1906-07	1,050	800	850		1906-07	650	
	1911-12	1,100	850	900		1911-12	650	
	1916-17	1,100	850	900		1916-17	600	
	1921-22	1,100	850	900		1921-22	600	
	1926-27	1,100	850	900		1926-27	600	
	1931-32	1,100	850	900		1931-32	600	
	1936-37	1,050	800	800		1936-37	600	
	1941-42	1,050	800	800		1941-42	600	
	1946-47	1,050	800	800		1946-47	600	
	1951-52	—	—	484				
Wheat	1902-03	1,250	800	1,050	Bajra	1901-02	500	
	1907-08	1,250	850	1,050		1906-07	550	
	1912-13	1,250	850	1,050		1911-12	550	
	1917-18	1,250	850	1,050		1916-17	550	
	1922-23	1,250	850	1,050		1921-22	550	
	1927-28	1,250	850	1,050		1926-27	550	
	1932-33	1,200	800	1,000		1931-32	550	
	1937-38	1,050	750	900		1936-37	500	
	1942-43	1,100	750	950		1941-42	500	
	1947-48	1,100	750	950		1946-47	500	
	1951-52	—	—	670				
Barley	1902-03	1,350	900	1,150	Maize	1901-02	950	
	1907-08	1,300	900	1,100		1906-07	1,050	
	1912-13	1,300	900	1,100		1911-12	1,100	
	1917-18	1,350	900	1,150		1916-17	1,100	
	1922-23	1,350	900	1,150		1921-22	1,100	
	1927-28	1,350	900	1,150		1926-27	1,100	
	1932-33	1,350	900	1,150		1931-32	1,050	
	1937-38	1,100	750	900		1936-37	1,050	
	1942-43	1,100	750	900		1941-42	1,050	
	1947-48	1,100	750	900		1946-47	1,050	
	1951-52	—	—	742				
Gram	1902-03	950	800	800				
	1907-08	950	800	800				
	1912-13	950	800	800				
	1917-18	950	800	800				
	1922-23	950	800	800				
	1927-28	950	800	800				
	1932-33	900	750	750				
	1937-38	900	750	800				
	1942-43	900	750	800				
	1947-48	900	750	800				
	1951-52	—	—	511				

averages). The yield-rate of rice, wheat and barley for the quinquennium ending 1951-52 only is based on the sample survey of I. C. A. R. while all other rates are the old official estimates based on the system already described. It will be seen that the estimates as arrived at by the I. C. A. R. Sample Surveys are substantially less than the old official estimates. It will also be seen that according to old official estimates the yield of rice, wheat, barley and maize was showing a downward trend, while that of gram, bajra and juar was steady.

Table 254 gives the results of I. C. A. R. Sample Survey experiments for the two principal crops, wheat and rice.

TABLE 254—*Estimates of average yield of rice and wheat in lbs. per acre for the natural divisions of the State as obtained by crop-cutting surveys by the random sampling method*

Natural division	1950-51	1949-50	1948-49	1947-48	1946-47	1945-46	1944-45
<i>Rice</i>							
Uttar Pradesh	434	480	603	544	504	531	—
Himalayan	—	—	—	—	—	—	—
East Plain	380	465	625	528	492	499	—
Central Plain	461	501	607	590	449	549	—
West Plain	495	501	545	549	546	600	—
Hills and Plateau	413	418	608	526	754	484	—
<i>Wheat</i>							
Uttar Pradesh	730	703	567	671	640	647	681
Himalayan	754	666	398	448	516	499	646
East Plain	731	673	431	662	725	706	784
Central Plain	866	621	578	732	702	774	671
West Plain	826	783	610	663	612	583	673
Hills and Plateau	666	674	624	571	504	634	542

The figures for rice are available from 1945-46 while those for wheat from 1944-45. From the table it would appear that the yield per acre for rice shows a downward trend while that for wheat shows a slightly upward trend. But the experiments have been carried out for only 6 or 7 years which is too short a period to draw any definite and final conclusions about yield trends.

17. In view of the uncertain data about crop-yields, it is not possible to make any dependable estimates of total production of foodgrains and net consumable grain available *per capita* for human beings in the State. At my request the Uttar Pradesh Government were good enough to ask the Chief Statistician to the Agriculture Department to prepare estimates from whatever data was available and he has kindly prepared these estimates together with a comprehensive explanatory note, which is published as Appendix V to this Report. Table 255 gives these estimates for the average total production of foodgrains

Net consumable grain per capita

TABLE 255—*Average total production of foodgrains and average net consumable grain available for human beings for the quinquennia ending 1921, 1931, 1941 and 1951 in the State*

(Figures in thousand tons)

Particulars	1951	1941	1931	1921
1 Average total production for each quinquennium	9,559	9,738	9,221	10,318
2 Average consumption of grain as seed for each quinquennium	833	759	734	710
3 Average loss of grain by drriage and storage for each quinquennium at 1.94 per cent. of average total production	186	189	179	200
4 Consumption by animals for each census year	940	936	914	895
5 Average net consumable grain available for human beings	7,600	7,854	7,394	8,513

and the average net consumable grain available for human beings for the quinquennia ending 1921, 1931, 1941 and 1951. These figures relate to the seven principal foodgrains wheat, rice, barley, gram, juar, bajra and maize and have left out the small millets which represent only about 3 per cent. of the total foodgrain production. It appears that the total production of foodgrains in Uttar Pradesh was of the order of 10,300 thousand tons in 1921. It fell to about 9,200 thousand tons in 1931 owing to the slump and reduced acreage under cultivation. In 1941 it rose to 9,700 thousand tons but fell again in 1951 to 9,600 thousand tons. The important point to note is that the trend between 1941 and 1951 is one of decrease. While the human population is registering phenomenal increases, the outturn of foodgrains is declining and the cropped and irrigated area under food crops also is not keeping pace with

the population increase. Figure 17 illustrates the difference in the progress of population, cropped and irrigated area under food crops since 1921.

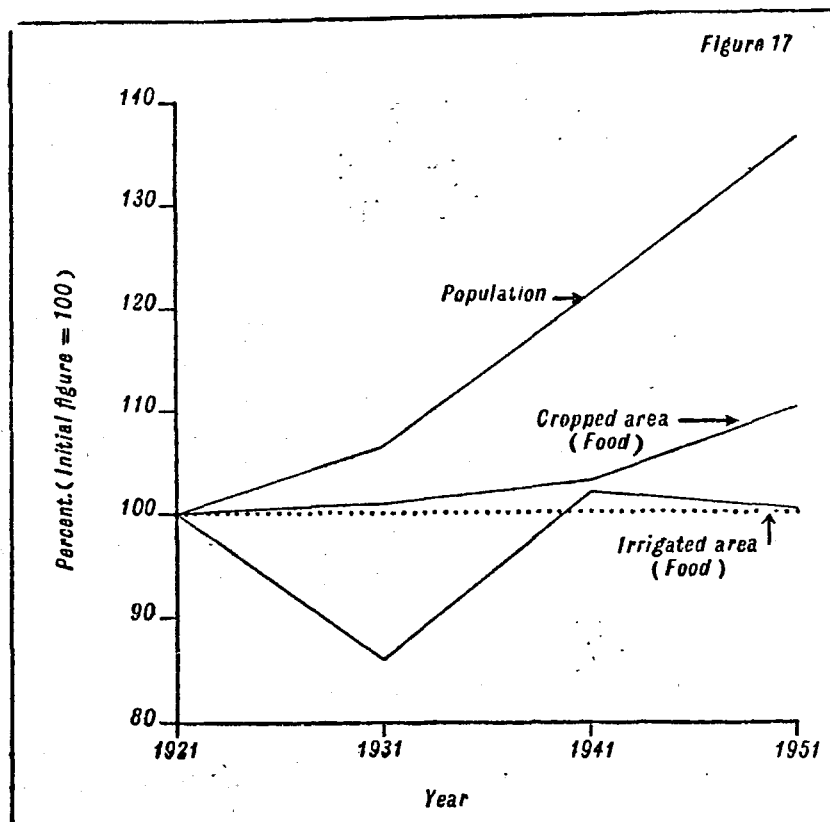


FIG. 17—Relative variation in the population, cropped and irrigated area under food crops in the State excluding Kumaon Hills and the former princely states, 1921—51

18. To estimate the *per capita* human consumption of foodgrains, we have to ascertain the figures of exports and imports of foodgrains. These have been obtained from the government publication "Inland (Rail and River Borne)

TABLE 256—Net import trade of foodgrains in the State
(Figures of import minus export in thousand tons)

Foodgrain	Quinquennial average for the quinquennium ending			
	1950-51	1940-41	1930-31	1920-21
Gram	-25.9	-77.6	N. A.	-219.5
Juar and bajra	-0.2	-56.1	N. A.	-50.3
Rice in the husk	+1.2	+3.8	N. A.	+17.2
Rice not in the husk	-8.4	+192.8	N. A.	+105.7
Wheat	+130.0	-86.9	N. A.	-247.1
Wheat flour	+5.7	+4.9	N. A.	-12.8
Other sorts	-100.4	-204.0	N. A.	-101.1
Total foodgrains	+2.0	-223.1	N. A.	-507.9

Trade of India' and are given in Table 256. No reliable figures for imports and exports by road transport could be obtained but it is known that inter-State movement of foodgrains by road is not very considerable. The figures of rail and river borne trade may, therefore, be taken to be fairly representative of the inter-State movements of foodgrains. It will be seen that Uttar Pradesh which was throughout a surplus State has in 1950-51 become a deficit State in foodgrains. In the quinquennium ending 1920-21 the State was a net exporter of all foodgrains except rice and the total export was of the order of 508 thousand tons, about 5 per cent. of the total production. In the quinquennium ending 1940-41 the State was still surplus though the magnitude of the surplus had come down to 223 thousand tons, about 2 per cent. of the total production. In the quinquennium ending 1950-51 the balance has been upset and Uttar Pradesh is deficit in foodgrains, though the deficit is yet very small. The significant point is that the State has imported in this quinquennium large quantities of wheat instead of exporting it as it used to do before and the imports of rice have practically stopped. This State used to import rice from Burma and other places but owing to stoppage of imports from Burma and the general shortage of rice no imports of rice to the State could be arranged and the rice eaters had to switch over to wheat. The exports of gram which were considerable in 1920-21, have almost ceased in 1950-51,

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and so also the export of juar and bajra. It is quite plain that the foodgrain position has definitely deteriorated in the State during the period 1921—1951 when the human population has increased by 35·5 per cent.

19. Table 257 has been prepared from the previous two tables in order to calculate the average net consumable grain available (after export and import)

TABLE 257—Average net consumable grain available (after export and import) per capita per day

Particulars	1951	1941	1931	1921
I—Average net consumable grain available for human beings (in thousand tons)	7,600	7,854	7,394	8,513
II—Net import of foodgrains (in thousand tons) ..	+2·0	—223·1	N. A.	—507·9
III—Average net consumable grain available for human beings after taking net imports of foodgrains into consideration (in thousand tons)	7,602·0	7,630·9	N. A.	8,005·1
IV—Human population in each census year (in thousands)	63,216	55,021	48,409	45,376
V—Average net consumable grain available for human beings per capita per day after taking into consideration the net import of foodgrains (in <i>chhataks</i>)	5·74	6·62	N. A.	8·42
VI—Average net consumable grain available for human beings per adult per day after taking into consideration the net import of foodgrains—				
(a) Assuming 0·85 as the conversion factor (in <i>chhataks</i>)	6·8	7·8	N. A.	9·9
(b) Assuming 0·80 as the conversion factor (in <i>chhataks</i>)	7·2	8·3	N. A.	10·5
(c) Including the production of <i>kodon</i> , <i>sawan</i> and <i>mandua</i> which is about 3 per cent. of the total and adopting 0·80 as the conversion factor—				
(i) in <i>chhataks</i>	7·40	8·54	N. A.	10·88
(ii) in ounces	15·22	17·57	N. A.	22·38
(iii) in calories (at 100 calories per oz.) ..	1,522	1,757	N. A.	2,238

per capita per day. The per capita figure can be easily converted into the per adult figure. Dr. Kunwar Kishen, the Chief Statistician of the Uttar Pradesh Agriculture Department has used 0·85 as the conversion factor. Some other authorities used 0·80 as the conversion factor. Table 257 gives calculations of the per adult figure by means of both these factors separately. If we take into account the small millets also, which are only about 3 per cent. of the total foodgrain production, the figure of available foodgrain per adult will slightly increase. This figure is given in *chhataks* as well as ounces in Table 257. It is significant that the figure, which was 22·38 ounces per adult in 1921 has now come down to only 15·22 ounces per adult. In terms of calories it means a reduction from 2,238 available calories to only 1,522 calories. This shows how seriously the increase in population has affected the availability of foodgrains during the last 30 years.

20. Thus according to the above estimates the present consumption of foodgrain per capita in the State is only 7·4 *chhataks* (or 15·2 oz.) per adult. A survey of 16 villages conducted by the Uttar Pradesh Government in 1948-49, showed an intake of 12·75 *chhataks* (26·2 oz.) per day per "consumption unit", which is supposed to be equivalent to the average consumption of one adult male. This will be equivalent to 9·6 *chhataks* (19·7 oz.) per capita per day. In the National Sample Survey in the Uttar Pradesh, the per capita intake has worked out in 1949-50 to be 10·2 *chhataks* (21·0 oz.) per day, which agrees with the figures of Uttar Pradesh Government Survey.* These are, however, figures for rural area only while the estimate of 7·4 *chhataks* (or 15·2 oz.) relates to the urban and rural area combined and is per adult only. There is thus appreciable difference in the figures of consumption arrived at by (a) calculation from actual production and apportioning it to the total human population, and (b) actual Sample Surveys of consumption in households. The elements of error in a sample consumption enquiry from household to household are very large and we consider that the figure of 7·4 *chhataks* (or 15·2 oz.) per adult arrived at from the estimates of total production is nearer the mark.

* The National Sample Survey, General Report No. 1, 1952, page 26.

Adequacy of
average person's
diet

21. Let us now consider how far the diet of the average man in the State is adequate from the point of view of nutrition standards. An average man in this State gets about 82·7 per cent. of his food calories from cereals*. We have seen above that the average consumption of foodgrains per adult in the State is about 7·4 *chhataks* (or 15·2 oz.) per day, which means an intake of about 1,500 calories. The total intake of food calories, therefore, calculates to about 1,800 calories per adult per day only in the quinquennium ending 1950-51.

22. An Expert Commission of the League of Nations has drawn up the following statement about energy requirements :

(a) An adult male or female, living an ordinary every-day life in a temperate climate and not engaged in manual work is taken as the basis on which the needs of the age-groups are reckoned. An allowance of 2,400 calories net per day is considered adequate to meet the requirements of such an individual.

(b) The following supplements for muscular activity should be added to the basic requirements in (a).

Light work—Up to 75 calories per hour of work.

Moderate work—Up to 75-150 calories per hour of work.

Hard work—Up to 150-300 calories per hour of work.

Very hard work—Up to 300 calories and upwards per hour of work.

In view of the somewhat lower basal metabolism of Indians there may be justifiable reasons for reducing basic calorie requirements below the League of Nations standards. The actual calorie allowances for Indians as adopted by the Nutrition Advisory Committee of the Indian Research Fund Association have been set out in Table 258.†

TABLE 258—*The actual number of calories required for an adult by sex*

Particulars	Nature of work	Net calories required
Man (120 lbs.)	1 Light work	2,400
	2 Moderate work	3,000
	3 Very hard work	3,600
Woman (100 lbs.)	1 Light work	2,100
	2 Moderate work	2,500
	3 Very hard work	3,000
	4 Pregnancy	2,100
	5 Lactation	2,700

It is obvious from the above that the present calorie intake in Uttar Pradesh is far below the "adequate" standards, to say nothing of the "optimum" standard.

23. The Health Bulletin No. 23 gives the composition of a balanced Indian diet adequate for the maintenance of good health as in Table 259.

TABLE 259—*Composition of a balanced diet (adequate for the maintenance of good health)*

Articles	Ounces	Articles	Ounces
1 Cereals	14	7 Milk	10
2 Pulses	3	8 Sugar and jaggery	2
3 Green leafy vegetables	4	9 Vegetable oil, ghee etc.	2
4 Root vegetables	3	10 Fish and meat	3
5 Other vegetables	3	11 Eggs	1 egg
6 Fruits	3		

* Indian Council of Medical Research, *Special Report No. 25*, page 23.

† Health Bulletin No. 23. *The Nutritive Value of Indian Foods and the Planning of Satisfactory Diets.*

SECTION 9—PROGRESS OF CULTIVATION CORRELATED TO GROWTH OF GENERAL POPULATION 265

It will be at once seen that the chief defect in the Uttar Pradesh diet is lack of sufficient milk, vegetables, fruits and sugar or protective foods in general. The following remarks in the Indian Council of Medical Research's Special Report No. 20 on "Results of Diet Surveys in India" may be quoted here :

"The average diet of an Indian is lopsided primarily because of its extremely high cereal content. The other noticeable feature is that the diet lacks in adequate amounts of protective foods leading to inadequacy of minerals and most of the important vitamins in more or less varying degrees."

24. The shortage of milk deserves special attention in a country where large masses are vegetarians. Table 260 gives the figures of cows and cow-buffaloes per mille of human population in the last three cattle censuses. The

TABLE 260—Number of cows and cow-buffaloes in relation to human population, 1935, 1944 and 1951

Year	Cows kept for breeding or milk production	Cow-buffaloes kept for breeding or milk production	Total	Human population	Number of cows per mille of human population	Number of cows and cow-buffaloes per mille of human population
1935	5,726,249	4,060,877	9,787,126	47,291,576*	121	207
1944	5,325,086	4,396,455	9,721,541	53,731,216†	99	181
1951	6,096,050	4,960,136	11,056,186	61,391,174‡	99	180

number was 207 in 1935 ; it came down to 181 in 1944 and 180 in 1951. As the milk yield per milch cattle is not increasing it is apparent that the quantity of milk supply available for *per capita* human consumption is progressively decreasing. The present yield is estimated at 3 *chhataks* (6 oz.) *per capita* § and after taking into account the conversion of milk into ghee and the consumption of milk by sweetmeat vendors, the available supply will be much smaller. This shows that the present supply is far less than the standard of 10 oz. per adult suggested by the Nutrition Committee as the minimum practicable objective and is only a small fraction of the standard of 20 oz. per adult commonly accepted as adequate.

25. Having seen that the progress of cultivation and the outturn of food-crops have not kept pace with the growth of population, specially during the last 30 years and that the present diet of an average citizen in Uttar Pradesh

Future prospects

TABLE 261—Details of cultivable area, actual and percentage, 1951

Class of land	Area in acres for the State excluding Kumaon Hills	Area in acres for Kumaon Hills only		Area in acres for Uttar Pradesh
		As per Season and Crop Report	As revised||	
I—Current fallow	2,584,133 (4.16)	78,855 (0.78)	78,855 (0.78)	2,662,988 (3.68)
II—Other uncultivated land excluding current fallow	9,491,244 (15.27)	432,207 (4.25)	2,855,207 (28.09)	12,346,451 (17.08)
A—Old fallow	717,904 (1.15)	—	—	717,904 (1.00)
B—Groves	1,317,039 (2.12)	—	—	1,317,039 (1.82)
C—Culturable waste	7,456,301 (12.00)	—	2,855,207 (28.09)	10,311,508 (14.26)
(a) Other forests	1,743,693 (2.81)	—	2,513,207 (24.72)	4,256,900 (5.89)
(i) Of timber trees	377,528 (0.61)	—	—	—
(ii) Of other trees	1,366,165 (2.20)	—	—	—
(b) Other cultivable waste	5,712,608 (9.19)	—	342,000 (3.37)	6,054,608 (8.37)
Total cultivable lands	12,075,377 (19.43)	511,062 (5.03)	2,934,062 (28.87)	15,009,439 (20.76)

* 1931 population of Uttar Pradesh excluding Almora, Garhwal and three princely states.
 † 1941 population of Uttar Pradesh excluding Almora, Garhwal and three princely states.
 ‡ 1951 population of Uttar Pradesh excluding Almora, Garhwal and Tehri-Garhwal.
 § U. P. Cattle Census Report, 1944.
 || See foot-note to Table 239.

is inadequate and unbalanced, let us examine the future prospects of food production and consumption in the State. In this connection we have first to examine the possibilities of the area known as "culturable waste".* This area stood on March 1, 1951, as in Table 261. A scrutiny of the area described as "uncultivated land excluding current fallow" in the Season and Crop Report shows that its magnitude is considerably exaggerated. The analysis given in Table 261 will show that the really culturable waste in the State excluding Kumaon Hills is only 57 lakh acres or about 9 per cent. although in the Season and Crop Report it is shown as 95 lakh acres. This difference is due to the inclusion of groves, old fallow and other forests in the figures of "culturable waste" in the Season and Crop Report.

The returns of the "culturable waste" since 1911 in Table 262 afford interesting study. The sudden increase of the area in 1930 is due to a change

TABLE 262—Progress of culturable waste land in the State

(Area in thousand acres)

Before the War		During and after the War	
Year ending June	Area of culturable waste land	Year ending June	Area of culturable waste land
1911	4,309	1940	8,378
1915	4,306	1941	8,343
1920	4,077	1942	8,309
1925	3,923	1943	8,183
1930	8,790	1944	8,083
1935	8,734	1945	8,405
1939	8,442	1946	8,437
		1947	8,255
		1948	8,157
		1949	7,994
		1950	7,931
		1951	7,707

in the definition of old fallow. After that the area was, more or less, steady till 1946 since when it is slowly decreasing, obviously as a result of the pressure of population.

But in spite of the impact of population pressure, there is not much scope for extension of cultivation in this culturable waste. In the year 1949-50 the Uttar Pradesh Agriculture Department conducted through the District Officers a detailed enquiry into the nature of the area recorded as culturable waste in each district and the results may be seen in Table 263. Out of the 9.4 million acres of land recorded as culturable waste

TABLE 263—Detailed classification of culturable waste land in the State during the year 1949-50

Particulars	Uttar Pradesh	Himalayan	East Plain	Central Plain	West Plain	Hills and Plateau
Total culturable waste (A+B+C) ..	9,403,093 (100)	400,251 (4.26)	1,506,356 (16.02)	2,234,951 (23.77)	2,759,257 (29.34)	2,502,238 (26.61)
A—Area under culturable waste land not available for immediate cultivation	4,514,046 (48.01)	161,572 (40.37)	720,753 (47.85)	1,227,119 (54.91)	1,155,859 (41.89)	1,248,743 (49.91)
(i) Forest under any legal enactment ..	390,767 (4.15)	40,960 (10.23)	111,034 (7.37)	4,757 (0.21)	48,798 (1.77)	185,218 (7.40)
(ii) Groves	1,324,752 (14.09)	5,071 (1.27)	351,139 (23.31)	632,563 (28.30)	287,440 (10.42)	48,539 (1.94)
(iii) Forests of timber trees	361,044 (3.84)	34,734 (8.68)	84,562 (5.61)	25,941 (1.16)	134,907 (4.89)	80,900 (3.24)
(iv) Thatching grasses shrubs and bushes ..	1,443,926 (15.36)	80,209 (20.04)	99,344 (6.60)	321,732 (14.40)	543,835 (19.71)	398,806 (15.94)
(v) Land kept for grazing	993,557 (10.57)	598 (0.15)	74,674 (4.96)	242,126 (10.84)	140,879 (5.10)	535,280 (21.39)

*This subject has been examined by Sri M. D. Chaturvedi in his brochure, *Land Management in Uttar Pradesh*, and this discussion follows the same lines.

TABLE 263—Detailed classification of culturable waste land in the State during the year 1949-50 (contd.)

Particulars	Uttar Pradesh	Himalayan	East Plain	Central Plain	West Plain	Hills and Plateau
B—Area under culturable waste land available for immediate cultivation but which could not be cultivated	2,099,235 (22·32)	7,359 (1·84)	438,676 (29·12)	515,578 (23·07)	732,919 (26·56)	404,703 (16·17)
Of which due to—						
(i) <i>Kans</i> growth	80,776 (0·86)	331 (0·08)	12,463 (0·83)	7,721 (0·35)	34,146 (1·24)	26,115 (1·04)
(ii) Threshing floors	91,320 (0·97)	—	25,967 (1·72)	33,965 (1·52)	10,937 (0·40)	20,451 (0·82)
(iii) Malaria	40,576 (0·43)	230 (0·06)	4,244 (0·28)	1,192 (0·05)	34,855 (1·26)	55 (0·00)
(iv) Floods	87,200 (0·93)	11 (0·00)	11,555 (0·76)	18,321 (0·82)	56,739 (2·06)	574 (0·02)
(v) Lack of drains	35,669 (0·38)	410 (0·10)	3,724 (0·25)	16,030 (0·72)	13,605 (0·49)	1,900 (0·08)
(vi) Lack of water	375,531 (3·99)	1,389 (0·35)	42,140 (2·80)	166,254 (7·44)	111,480 (4·04)	54,268 (2·17)
(vii) Distance from <i>abadi</i>	120,694 (1·28)	379 (0·09)	15,800 (1·05)	40,425 (1·81)	23,759 (0·86)	40,331 (1·61)
(viii) Damage from wild animals	278,593 (2·96)	340 (0·09)	49,692 (3·30)	35,098 (1·57)	96,694 (3·50)	96,769 (3·87)
(ix) Other causes	988,876 (10·52)	4,269 (1·07)	273,091 (18·13)	196,572 (8·79)	350,704 (12·71)	164,240 (6·56)
C—Area under culturable waste land that can be brought under immediate cultivation after some improvements besides the area given against B	2,789,812 (29·67)	231,320 (57·79)	346,967 (23·03)	492,254 (22·02)	870,479 (31·55)	848,792 (33·92)

2·8 million or 29·67 per cent. only can be brought under immediate cultivation after some improvements, 4·5 million acres or 48·01 per cent. is not available for immediate cultivation at all (being forests, groves, thatching grass shrubs, grazing land, etc.), 2·1 million acres or 22·32 per cent. is infested with *kans* or not available for cultivation for other reasons. The largest area returned as culturable waste as well as the largest areas which can be immediately brought under cultivation after some improvements, were returned by West Plain followed by Hills and Plateau. The districts returning the largest areas of culturable waste are Mirzapur, Jhansi, Banda, Kheri, Hamirpur, Naini Tal, Allahabad, Gonda, Rae Bareli, Pilibhit, Bahraich and Bijnor. But the districts returning the largest area which can be brought under immediate cultivation after some improvement are Jhansi, Naini Tal, Mirzapur, Etah, Hamirpur and Pilibhit.

Sri M. D. Chaturvedi* made the following recommendations about the utilization of culturable waste, keeping the requirements of good land management in view :

- (1) *The Himalayan Tract*—98 thousand acres in the hills be preserved as a protective belt ; in the Tarai and Bhabar 240 thousand acres be preserved for tree growth and pastures and only 100 thousand acres earmarked for cultivation.
- (2) *The Gangetic Basin*—The entire area of culturable waste (5,663 thousand acres) be utilized for the creation of fuel and fodder reserves.
- (3) *The Central India Plateau*—697 thousand acres be earmarked for cultivation and the rest be managed as tree land and pastures.

This shows how little scope there is now left in this State for further extension of cultivation.

26. Let us also examine if some profitable use can be made of the "area not available for cultivation." Details of this area as it stood on March 1, 1951, are given in Table 264. It will be seen that as much as 16·20 per cent. area of this State is not available for cultivation. Excluding Kumaon Hills, this percentage comes to 13·33. Of this 4·31 per cent. is covered with water,

*Sri Chaturvedi has used area figures of 1944, and has excluded old fallow from the term "culturable waste."

TABLE 264—*Details of area, actual and percentage to total area, not available for cultivation, 1951*

Particulars	Area covered with water	Sites, roads and buildings	Barren lands	Total area not available for cultivation*
Uttar Pradesh (Total)	N.A.	N.A.	N.A.	11,712,413 (16·20)
Uttar Pradesh excluding hills	2,675,186 (4·31)	1,902,637 (3·06)	3,702,038 (5·96)	8,279,861 (13·33)
Himalayan (Total)	N.A.	N.A.	N.A.	3,551,191 (28·98)
Himalayan excluding hills	52,014 (2·49)	31,096 (1·49)	35,529 (1·70)	118,639 (5·68)
East Plain	682,712 (4·99)	442,895 (3·24)	310,414 (2·27)	1,436,021 (10·50)
Central Plain	835,117 (5·81)	535,104 (3·72)	1,139,811 (7·92)	2,510,032 (17·45)
West Plain	803,495 (3·62)	733,595 (3·30)	1,246,752 (5·61)	2,783,842 (12·53)
Hills and Plateau	301,848 (3·09)	159,947 (1·64)	969,532 (9·92)	1,431,327 (14·65)

3·06 per cent. contains sites, roads and buildings and 5·96 per cent. is barren land. Table 265 gives the progress of barren land since 1911. The area had

TABLE 265—*Progress of barren lands in the State*
(Area in thousand acres)

Before the War		During and after the War	
Year ending June	Area of barren land	Year ending June	Area of barren land
1911	9,511	1940	9,564
1915	9,462	1941	9,524
1920	9,591	1942	9,473
1925	9,712	1943	9,436
1930	9,629	1944	9,440
1935	9,558	1945	9,002
1939	9,586	1946	8,889
		1947	8,375
		1948	8,322
		1949	8,287
		1950	8,263
		1951	8,146

been, more or less, steady up to 1944; the fall in 1945 is due to transfer of some barren land to culturable waste category by order of the Board of Revenue; and since 1945 the fall is due to pressure of population. But it is apparent that there is hardly any further room for reclaiming these barren lands. A sort of equilibrium seems to have been reached between human effort and the intractable nature of these lands.

Sri Chaturvedi's recommendations about the utilization of this land were as follows:

- (1) *Lands covered with water*—Lands under water offer opportunities for organized pisciculture, extension of *singhara*, casual cultivation on fresh alluvium in river-beds and the planting of canal banks, which are included in this head. The canal system in the Gangetic basin could support trees equivalent to a forest of 75 thousand acres.

* The figures have been taken from the *Season and Crop Report, 1950-51*.

(2) *Land under sites, roads and railways*—should be utilized for planting of trees.

(3) *Barren land*—Fodder grasses and scattered trees of indigenous species can be grown on ravines. *Usar* land should be utilized for fuel and fodder reserves.

It will be seen that this category too does not afford any appreciable field for increase of food resources of the State.

27. There being no scope for increase of the cultivated area in the State the only other way to increase the food larder is to secure greater production per acre. Table 266 gives the yield per acre of wheat in the various countries of the world and Table 267 likewise gives the yield per acre of paddy. It

TABLE 266—Yield of wheat in lbs. per acre

(Source : International Yearbook of Agricultural Statistics, 1941-42 to 1945-46)

Year	U.S.A.	Canada	Italy	France	Argentina	Australia	India
1934—38	788.7	643.6	1305.4	1432.3	888.4	725.2	643.6
1939	861.2	1187.5	1387.0	1441.4	634.6	970.0	643.6
1940	933.7	1142.2	1269.1	1078.8	1096.9	398.9	716.2
1941	1033.4	879.3	1287.3	1160.3	988.1	843.1	652.7
1942	1205.7	1568.3	1151.3	1160.3	1187.5	1024.4	670.8
1943	1015.3	1033.4	1096.9	1368.8	1033.4	852.1	725.2
1944	1106.0	1087.8	1214.7	1387.0	852.1	380.7	652.7
1945	1033.4	824.9	843.1	1006.2	870.3	761.5	670.8

TABLE 267—Average approximate yield of paddy in lbs. per acre

(Source : W. Burns, *Technological possibilities of Agricultural Development in India*)

Country	1936—39	1931—36	1926—31	1909—13
India (including Burma)	805	829	851	982
Burma	868	845	887	..
Siam	878	961	1,017	..
United States	1,482	1,413	1,333	1,000
Italy	3,000	2,963	2,797	1,952
Spain .. ..	..	3,709	3,749	2,969
Egypt	2,079	1,799	1,845	2,119
Japan	2,307	2,053	2,124	1,827
Uttar Pradesh	800	800	900	900

will appear that our country is very backward in this respect and there is a large room for improvement. The recent crop prize schemes* have proved that with proper cultivation very large yields are a distinct possibility in India. Towards this end we should now bend all our energies.

*The maximum yields per acre obtained in crop competitions in Uttar Pradesh in 1951—52 are as follows :

Crop	Yield			District
	Mds.	Srs.	Ch.	
(1) Rice	54	37	2	Bijnor
(2) Wheat	54	5	5	Allahabad
(3) Juar	28	35	0	Jhansi
(4) Bajra	49	10	0	Budaun
(5) Maize	60	20	0	Meerut
(6) Potato	735	0	0	Bulandshahr

SECTION 10—CONCLUDING REMARKS

Overwhelming
dependence on
agriculture

1. Let us now collect the important conclusions of the previous sections. India is traditionally an agricultural country and Uttar Pradesh is one of the more agricultural states of India. As many as 74·2 per cent. of the people of the State belong to the agricultural classes as against 69·8 per cent. in India. In fact Uttar Pradesh has a higher agricultural ratio than practically all the other well-known countries of the world.

Within the State the agricultural proportion is highest in East Plain (about 83 per cent.) and increases from West to East in the plains. In the rural areas of the State as many as about 84 per cent. of the population belong to the agricultural classes.

This abnormal dependence on agriculture is one of the cardinal facts of Indian economics. The unfortunate fact is that the proportion of population dependent on agriculture had been increasing ever since 1901; only in this census the speed of the process seems to have been arrested. The main reason for this "de-industrialization" is the gradual decline of village arts and handicrafts and the result is an increase in "the occupational unbalance in the country and the pressure on the impoverished soil."*

Self-supporting
persons and de-
pendants; increase
of dependency

2. Of the agricultural classes of the State 29·7 per cent. are self-supporting persons, 14·2 per cent. earning dependants and the remaining 56·1 per cent. non-earning dependants. Since 1931 the proportion of workers (self-supporting persons plus earning dependants according to their secondary) to the total population has been falling in the agricultural as well as the non-agricultural means of livelihood. The proportion has come down by 3·6 per cent. among the agricultural means of livelihood. The reduction is most marked among Cultivating labourers. Owing to the reduction of cultivated area *per capita* the cultivating classes find it unnecessary or uneconomic to engage labour. This fall in the proportion of workers of the total population means a corresponding rise in the number of non-earning dependants and is an index of the increasing unemployment and under-employment.

Secondary means
of livelihood

3. Since agriculture provides only seasonal work, secondary occupations can play an important part in the economic life of the agriculturists. But they are very ill-developed in this State. Of the self-supporting persons of all agricultural classes only 16 per cent. have a secondary; of these 4·9 per cent. have an agricultural secondary and 11·1 per cent. a non-agricultural secondary. Among the earning dependants over 90 per cent. are engaged in the family agricultural occupation; only 9·1 per cent. are employed in non-agricultural occupations. The paucity of non-agricultural secondaries is a serious gap and has to be rapidly redressed if the prevailing poverty and under-employment among the agricultural classes has to be removed. In Japan organized attempts are made to provide supplementary jobs to agriculturists and in 1947 as many as 52 per cent. had such work.†

Small and un-
economic hold-
ings

4. The Uttar Pradesh Zamindari Abolition Committee has for the first time collected data regarding the various sizes of holdings in the State. It appears that 55·8 per cent. of the holdings are under 2 acres, 81·2 per cent. are below 5 acres, and 94 per cent. are below 10 acres. A large majority of the cultivators, therefore, have small and uneconomic holdings. It is also clear that as a result of the increase of agricultural population out of all proportion with the increase in the cultivated area during the last 50 years and more particularly the last 30 years, the average holding is getting more and more attenuated in size. To make the conditions still worse these tiny holdings are scattered at several places, making agricultural operations inconvenient, inefficient and un-economic. An immediate re-organization of agriculture alone can resolve this desperate situation.

The 'load' on
agriculture

5. There are over 203 lakh active and semi-active workers in cultivation. If semi-active workers are equated to active workers we have 158 lakhs effectively active workers in cultivation. If 10 acres be taken as the economic holding for a family the economic cultivated area per effectively active worker would be about 6·17 acres. As against this the present average is only 2·70 acres. There is thus surplus man-power employed in agriculture. That is a

* Radhakamal Mukerjee, *Food Planning for Four Hundred Millions*, pages 12-13.

† Chaman Lal, *Cottage Industries and Agriculture in Japan*, page 72.

measure of the "load" on agriculture and of the under-employment in agriculture. A solution for this evil, so deep-seated in our economy, has to be sought in the concurrent adoption of twofold programme—rationalization of agriculture and diverting the surplus labour force into cottage, small scale and large scale industries and tertiary occupations. *

6. An examination of the figures of net and gross cultivated area shows that both these areas are increasing since 1921 but the rate of increase is far behind the rate of increase of population. Fortunately, there has been no significant change in the cropping-pattern of the State. The proportion of superior and inferior grains also shows no deterioration, nor is there any diminution in the average quantity of the annual rainfall. The irrigated area has increased, specially that irrigated by government canals and a new source of irrigation, tube-wells, has sprung up. But the progress of irrigated area too falls behind the rate of increase of the population. This is also true of the progress of double-cropped area.

Progress of cultivation

7. The correlation of the progress of cultivation with population growth has been examined by the figures of total land area *per capita* and the area of cultivation *per capita*. The cultivated area *per capita* decreased only slightly between 1881 and 1921 but has shown a sharp decline since then and particularly since 1931. The land area *per capita* has come down from about 1.5 acres in 1881 to only about 1 acre in 1951 and during the same period the area of cultivation *per capita* has come down from 0.78 acre to 0.63 acre.

Land area *per capita*

8. Scientific sampling experiments for the determination of yield of crops have begun only recently and it is too early to draw conclusions from them. The old estimates showed a downward trend in the yield of rice, wheat, barley and maize and a steady trend in the yield of gram, bajra and juar.

Yield-rate of crops

9. The net consumable grain *per capita* available in the State, which was 22.38 ounces per adult in 1921 has now come down to only 15.22 ounces per adult as a result of the population increasing at greater speed than the food resources.

Net consumable grain *per capita*

10. The present consumption of foodgrains *per capita* in the State is only 7.4 *chhatak* (or 15.2 oz.). This will give only about 1,500 calories from foodgrains and as foodgrains constitute 82.7 per cent. of the total food consumption the total intake of calories per adult calculates to about 1800. This is far below the "adequate" standards, to say nothing of the "optimum" standard. It also appears that the diet of an average Indian is lopsided primarily because of its extremely high cereal content and lack of protective foods like milk.

Consumption *per capita* and its adequacy

11. The proportion of cultivated to total area and to cultivable area in U. P. is about the highest in the world. The saturation point in cultivation in the State has already been reached. There is very little scope for extension of cultivation, particularly in the plain divisions. Any extension in the plains is likely to upset the agronomical balance which must be maintained between agriculture, forestry, grazing ground, human habitation and communications. Already the ill-planned rural economy resulting in thoughtless extension of cultivation engulfing grazing grounds, village roads and tree lands, is recoiling on itself by the operation of the law of diminishing returns. In the Gangetic Basin any extension of cultivation should be viewed with the greatest concern and permitted only under a special licence. †

Future prospects

The only other alternative is to maximise agricultural production in terms of yield per acre. This involves land reform, increase of irrigation, better seed and manure supply, improvement in agricultural practices, and promotion of intensive cultivation. The Uttar Pradesh Government are alive to this need and are doing whatever is possible in this direction.

As regards population control, which is another method of tackling the problem of food supply, the Indian Government is probably the only government in the world who have officially approved of family planning and are taking active steps to educate the people. It is too early to say how far these efforts will succeed but without success in this field there is little hope of any lasting solution of the food problem.

* Report of Grow-More-Food Enquiry Committee, 1952.

† M. D. Chaturvedi, I.F.S., *Land Management in Uttar Pradesh*.

CHAPTER V—NON-AGRICULTURAL CLASSES

SECTION 1—PRELIMINARY REMARKS

1. The importance of the data on economic activities has already been explained in the beginning of the previous chapter. It has also been pointed out in the foregoing chapter that the agricultural situation in India is a vicious circle in which population density, lack of capital, low productivity and countless other features mutually reinforce one another. "This vicious circle cannot be broken by agricultural reform alone. It can be broken only by the *deus ex machina* of industrialization."* Herein lies the significance of the non-agricultural occupations which will be dealt with in this chapter.

Significance of non-agricultural occupations

2. As has been explained in Section 1 of the previous chapter the economic characteristics of the population were ascertained by means of Q. 9 (a) and (b), Q. 10, and Q. 11 in the census slip.

Figures how obtained

The classification of self-supporting persons into employers, employees and independent workers has been made for the first time in this census on the basis of replies to Q. 9 (b). The terms were defined in the Instructions to Enumerators as follows :

An 'employer' is only that person who has necessarily to employ other persons in order to carry on the business from which he secures his livelihood. Thus if a person employs a cook or other person for domestic service he should not be recorded as an 'employer' merely for that reason.

An 'employee' is a person who ordinarily works under some other person for a salary or a wage in cash or kind, as the means of earning his livelihood. There may be persons who are employed as managers, superintendents, agents, etc., and in that capacity control other workers. Such persons are also employees only and should not be regarded as employers.

An 'independent worker' means a person who is not employed by any one else and who also does not employ any body else in order to earn his livelihood.

These terms have been further elaborated in Instructions to Enumerators (*vide* Appendix I).

The main difficulties encountered in enumeration and the steps taken to overcome them have already been described in Section 1 of the previous chapter. An additional hurdle in the case of non-agricultural occupations was that enumerators sometimes failed to describe the occupations with sufficient clarity which made classification difficult and even uncertain.

3. In this census the slips were sorted into eight livelihood classes at the very first stage of sorting, on the basis of answer to Q. 10 and all important census data has been cross-tabulated by livelihood classes in addition to other cross-tabulations. The whole population—and not merely persons who are gainfully occupied—has been thus divided into livelihood classes, four of which are agricultural and four non-agricultural. The agricultural classes have been mentioned in the previous chapter. The non-agricultural classes are as follows :

Processing of the data

V—Production other than cultivation

VI—Commerce

VII—Transport

VIII—Other services and miscellaneous sources

The sorters were specially trained in livelihood classification and on the whole performed this duty very satisfactorily. In the case of agricultural classes the slips themselves contained the classification. But in the case of non-agricultural classes explanation of the economic classification scheme was necessary. Extracts from the important instructions given to sorters are reproduced in Appendix VI.

* Kingsley Davis, *The population of India and Pakistan*, page 213.

After this preliminary classification came the detailed classification into the economic divisions, sub-divisions and groups. At this stage the work grew more complicated. The sorters were required to sort out the slips of self-supporting persons only by occupations and a specially selected and trained staff was then deputed to give the code numbers of divisions, sub-divisions and groups to these occupational returns. The principal instructions given to the staff in this connection are reproduced in Appendix VI. For reasons of economy the slips of earning dependants were not classified.

The Indian Census Economic Classification Scheme

4. A comprehensive note on the Indian Census Economic Classification Scheme has been published in Part II-B of the Report. The complete list of occupational divisions and sub-divisions in 1951 is also given there. It may be added that the Indian Scheme has been framed with due regard to international comparability.

Comparability with previous censuses

5. The data regarding occupational classification can be really useful only if it can be compared with the data collected in previous censuses. This, however, presents serious difficulties owing to variations in the classification scheme from census to census. An attempt has been made to prepare a comparative table with as great a degree of approximation as possible. The divisions and sub-divisions of 1951 census with their corresponding occupational groups in 1931, 1921, 1911 and 1901 are given in Appendix VII.

As has been explained in Table 166 of Section 1 of the previous chapter some groups falling under Pasture and Agriculture in previous censuses have now been classified under Class V, Production other than cultivation or Class VIII, Other services and miscellaneous sources. A few additional details regarding the comparability of occupational sub-divisions and groups of 1931 and 1951 are given in Appendix VII.

Accuracy of the data

6. On the whole the accuracy of the data on economic classification is as high as at any previous census. Owing to the better quality of enumerators the enumeration of 1951 was probably superior to former censuses but there is an inevitable element of error in classification which, however, becomes progressively smaller as we proceed from individual occupations to groups, sub-divisions and divisions.

The statistics where found

7. The statistics regarding non-agricultural classes will be found in Economic Tables B-I, B-II and B-III in Part II-B of the Report.

As has been said in Section 1 of Chapter IV, Table B-I is an entirely new table, giving classification of the whole enumerated population into livelihood classes and sub-classes by sex and rural-urban break-up.

Table B-II gives the number by sex of each of the eight livelihood classes possessing a secondary means of livelihood which have been cross-classified according to their nature under the same eight classes.

Table B-III follows Table X of 1931, "Occupations or means of livelihood". The classification by economic status is new. This table gives by sex and rural-urban break-up the number of only self-supporting persons engaged in non-agricultural occupations classified by Industrial divisions and sub-divisions with further classification according to economic status into (i) Employers, (ii) Employees and (iii) Independent workers.

The proportionate figures are given in the following subsidiary tables in Part I-B of the Report :

Subsidiary Tables 5.1, 5.1-A, 5.1-B—Non-agricultural classes per 1,000 persons of general, rural and urban population separately. Number in each class and sub-class per 10,000 persons of non agricultural classes and number of employers, employees and independent workers per 10,000 self-supporting persons of all non-agricultural classes. The Tables 5.1-A and 5.1-B are for rural and urban population respectively.

Subsidiary Tables 5.2 to 5.5 (including rural and urban tables)—(One for each of the four non-agricultural classes) giving the number per 10,000 persons of the class in each sub-class; number per 10,000 self-supporting persons of the class who are employers, employees and independent workers; and secondary means of livelihood of 10,000 persons of the class. The rural-urban tables are only for the State and the natural divisions.

Subsidiary Table 5.6—Classification of population of Uttar Pradesh by livelihood classes at the 1951, 1941 and 1931 censuses.

Subsidiary Tables 5·7 to 5·17—Territorial distribution of 10,000 self-supporting persons of the different industries and services in the State by divisions and sub-divisions.

Subsidiary Table 6·6 giving females per 1,000 males in non-agricultural classes and sub-classes has also been utilized.

The District Index of Non-agricultural Occupations given in Part I-B of the Report gives the details of the actual number of persons engaged in the different divisions, sub-divisions and groups of all Industries and Services in the State and natural divisions.

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Non-agricultural population ratio of Uttar Pradesh compared with other States of India and other countries of the world

1. In spite of progressive industrialization India is still a predominantly agricultural country. The number of people dependant on non-agricultural occupations is very much smaller than those deriving their livelihood from agriculture.

Table 167 (Section 2 of Chapter IV) gives the non-agricultural population ratios of the larger States of India. In India as a whole the non-agricultural population ratio is 30·2 per cent. of the total population.. In two States it ranges between 40 and 50 per cent. ; in five it is between 30 and 40 per cent. ; in six between 20 and 30 per cent. ; and in two between 10 and 20 per cent. In Uttar Pradesh it is 25·8 per cent. As many as ten States have a higher non-agricultural population ratio than Uttar Pradesh, viz., Travancore-Cochin (45·2), West Bengal (42·8), Bombay (38·5), Punjab (35·5), Madras (35·1), Hyderabad (31·8), Mysore (30·1), Rajasthan (29·1), Madhya Bharat (27·8) and Assam (26·7).

Table 168 (Section 2 of Chapter IV) gives the non-agricultural population ratios of *active** population of the selected countries of the world. With the exception of Rumania every other country shown in the table has a higher non-agricultural ratio than Uttar Pradesh. The ratio is 94 per cent. for United Kingdom and 82·4 per cent. for U. S. A.

Non-agricultural population ratios of the natural divisions

2. Table 268 gives the non-agricultural population ratios of the State by natural divisions with separation for rural and urban areas. It will be noticed that in the rural areas of the State 16·1 per cent. of the population or 8,763,836 persons belong to non-agricultural classes while in the urban areas as many as 87·6 per cent. of the population or 7,555,235 persons belong to these classes.

TABLE 268—*Proportion of non-agricultural population to 1,000 persons of general, rural and urban population by natural divisions*

Natural division						General population	Rural population	Urban population
Uttar Pradesh	..	..	..	..	..	258	161	876
Himalayan	..	..	..	..	..	212	114	951
East Plain	..	..	..	..	..	172	121	832
Central Plain	..	..	..	..	..	248	139	922
West Plain	..	..	..	..	..	340	220	864
Hills and Plateau	..	..	..	..	..	247	150	839

Among the general population of the natural divisions the highest non-agricultural ratio has been returned by the West Plain (34·0 per cent.) and the lowest by East Plain (17·2 per cent.). The West Plain has the highest non-agricultural ratio in the rural areas also (22·0 per cent.) but in the urban areas its ratio is lower than two other divisions. The non-agricultural occupations are most highly developed in the rural areas of this division. The urban area of this division, though the largest of all the divisions, consists of a considerable number of small towns, having a higher proportion of agricultural population. The East Plain has the lowest non-agricultural ratio in the rural (except Himalayan) and urban population. This tract is predominantly agricultural and is the least urbanized of all the divisions.

Non-agricultural population ratios of the districts

3. Among the districts the non-agricultural ratios are generally in the vicinity of the ratio of the natural division to which they belong (Subsidiary Table 5·1). Where there is divergence the explanation is to be sought in the varying proportions of urban-rural population (Subsidiary Table 3·1) and the varying proportions of non-agricultural classes in the rural and urban areas (Subsidiary Tables 5·1-A and 5·1-B).

In the Himalayan division Tehri-Garhwal, Almora and Garhwal have abnormally low non-agricultural ratios. Not even 3 per cent. of the population of these districts is urban and even in rural areas under 9 per cent. of the population is non-agricultural. Dehra Dun, however, has the highest non-agricultural

* For definition of the term "active population" see foot-note on page 205.

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ratio in the State (64·1 per cent.) because 47·4 per cent. of the population of the district is urban and even in rural areas 34·1 per cent. of the population belong to non-agricultural classes. Naini Tal also has a fairly high non-agricultural ratio (34·8 per cent.).

In the East Plain, Banaras has the highest ratio (40·3 per cent.) owing to the presence of a large city and a high non-agricultural ratio in the rural areas (25·6 per cent.) while the lowest ratios are those of Deoria (6·5 per cent.) and Basti (9·3 per cent.) which have very little urban area as well as a low proportion of non-agricultural classes in rural areas.

In the Central Plain, the highest ratios are those of Lucknow (54·7 per cent.), Kanpur (48·6 per cent.) and Allahabad (30·8 per cent.) owing to the high proportion of urban population in these districts. The lowest ratios have been returned by Sultanpur (11·5 per cent.), Hardoi (13·3 per cent.) and Pratapgarh (13·4 per cent.) which have a low urban proportion as well as a very low proportion of non-agricultural classes in rural areas.

In the West Plain, five districts have a non-agricultural ratio over 40 per cent. viz., Saharanpur (52·2 per cent.), Meerut (52·2 per cent.), Agra (46·2 per cent.), Bijnor (42·8 per cent.) and Mathura (41·4 per cent.). Of these Saharanpur, Meerut, Bijnor and Mathura have both a large urban area, and a high proportion of non-agricultural population in the rural areas. Agra has a big city, though the non-agricultural population of its rural areas is only 21·6 per cent. The lowest non-agricultural ratio in this division is returned by Kheri (13·7 per cent.) and Budaun (15·2 per cent.) which have both a low proportion of urban population and a very low proportion of non-agricultural classes in rural areas.

In the Hills and Plateau, Jhansi shows the highest ratio (36·2 per cent.) owing to its urban population and to the comparatively higher proportion of non-agricultural classes in rural areas.

The five districts with the highest non-agricultural ratios are Dehra Dun (64·1 per cent.), Lucknow (54·7 per cent.), Saharanpur (52·2 per cent.), Meerut (52·2 per cent.) and Kanpur (48·6 per cent.) while the five districts with the lowest non-agricultural ratios are Deoria (6·5 per cent.), Tehri-Garhwal (8·0 per cent.), Basti (9·3 per cent.), Bahraich (10·2 per cent.) and Almora (10·6 per cent.).

4. Table 269 shows the distribution of 1,000 persons of each non-agricultural class among self-supporting persons, earning dependants and non-earning dependants. It will be seen that among the non-agricultural classes the proportion of self-supporting persons is 32·7 per cent., that of earning dependants 5·7 per cent. and that of non-earning dependants 61·6 per cent. As against this the proportions among the agricultural classes, as we have seen in the previous chapter (Table 170), were 29·7, 14·2 and 56·1 per cent. respectively. The principal difference in the two classes is in respect of the proportion of the earning dependants because of the greater scope in agriculture for the participation of women and children in family cultivation.

TABLE 269—Distribution of 1,000 persons of each non-agricultural class among self-supporting persons, earning and non-earning dependants

Livelihood class	Self-supporting persons			Earning dependants			Non-earning dependants		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
All non-agricultural classes*	327	291	36	57	22	35	616	227	389
V—Production other than cultivation*	324	295	29	67	25	42	609	220	389
VI—Commerce*	287	269	18	42	23	19	671	241	430
VII—Transport*	307	301	6	38	17	21	655	236	419
VIII—Other services and miscellaneous sources*	351	298	53	58	19	39	591	224	367

Among the non-agricultural classes the highest proportion of self-supporting persons has been returned under Class VIII, Other services and miscellaneous sources, mainly because of the larger proportion of female self-supporting persons under this class. This is due principally to the inclusion of general labour in

* Including dependants.

Self-supporting persons, earning and non-earning dependants

this class. The earning dependants are constituted of a large majority of females in all non-agricultural classes except Class VI, Commerce, where males predominate. Among commercial classes females seldom participate in the family trade; it is more usually the males who work. The largest proportion of earning dependants has been returned under Class V, Production other than cultivation, because cottage and small scale industries, which provide ample field for the participation of women and children in the family vocation, fall under this class. The next highest proportion of earning dependants is to be found in Class VIII, Other services and miscellaneous sources, because of the inclusion of general labour in the class. Among non-earning dependants the highest proportion has been returned under Class VI, Commerce, followed by Class VII, Transport. The females predominate among non-earning dependants in all non-agricultural classes.

Comparison
with other States
of India

5. Table 270 compares the distribution of 1,000 persons of the non-agricultural classes among self-supporting persons, earning dependants and non-earning dependants in the larger States of India. Owing to differences in the dividing line between self-supporting persons and earning dependants in the various States, the figures of self-supporting persons and earning dependants are not individually comparable. But the total of the two, viz., the figure of *workers* is comparable. It will be seen that as many as eight States have a higher proportion of workers than Uttar Pradesh, viz., Assam (47·6 per cent.), Madhya Pradesh (45·6 per cent.), Vindhya Pradesh (43·7 per cent.), Hyderabad (41·0 per cent.), West Bengal (40·7 per cent.), Orissa (40·3 per cent.), Rajasthan (39·3 per cent.) and Bombay (38·6 per cent.). This proportion is governed principally by the extent of participation of women and children in family occupations and also by minor factors such as the spread of literacy which tends to raise the age at which children begin to work.

TABLE 270—*Distribution of 1,000 persons of all non-agricultural classes among self-supporting persons, earning and non-earning dependants by the larger States of India*

State	Self-supporting persons	Earning dependants	Total of self-supporting persons and earning dependants	Non-earning dependants
India	313	59	372	628
Assam	410	66	476	524
Bihar	295	42	337	663
Bombay	314	72	386	614
Madhya Pradesh	312	144	456	544
Madras	270	41	311	689
Orissa	316	87	403	597
Punjab	266	86	352	648
Uttar Pradesh	327	57	384	616
West Bengal	388	19	407	593
Hyderabad	279	131	410	590
Madhya Bharat	311	55	366	634
Mysore	277	38	315	685
Rajasthan	316	77	393	607
Travancore-Cochin	307	76	383	617
Vindhya Pradesh	342	95	437	563

Variation in the
proportion of
workers in the
non-agricultural
classes

Proportion of
earning dependants
to self-supporting
persons

6. Table 173 in Section 2 of Chapter IV compares the proportion of workers of both agricultural and non-agricultural classes to total population since 1901. The reasons for variations have also been discussed in that section.

7. Table 271 gives the proportion of earning dependants to self-supporting persons among the non-agricultural classes. The proportion is the highest in Class V, Production other than cultivation, which provides scope for the

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participation of women and children in the cottage and small scale industries carried on in the houses of workers. The next highest proportion is under Class VIII, Other services and miscellaneous sources, which includes general labour where also women and children participate freely. The least proportion is returned under Class VII, Transport which affords comparatively smaller scope for such participation.

TABLE 271—*Proportion of earning dependants of each non-agricultural livelihood class returning the same class as secondary means of livelihood to self-supporting persons of the same class*

Livelihood class	Self-supporting persons	Earning dependants of the class with same as secondary	Earning dependants per 1,000 self-supporting persons
All non-agricultural classes*	5,337,979	670,167	125.55
V—Production other than cultivation*	1,714,932	212,839	124.11
VI—Commerce*	912,618	70,987	77.78
VII—Transport*	263,805	5,870	22.25
VIII—Other services and miscellaneous sources*	2,446,624	245,485	100.34

8. The females predominate among the earning dependants of non-agricultural classes (1,650 females per 1,000 males). The comparable figure of agricultural classes was much higher (2,760). Among the individual classes the number of females per 1,000 males is the highest under Class VIII (2,094) followed by Class V (1,692), Class VII (1,253) and Class VI (837).

Sex of earning dependants

9. The females predominate among the non-earning dependants of non-agricultural classes also (1,716 females per 1,000 males). The comparable figure of agricultural classes was about the same (1,668). Among the individual classes there are no great variations in the ratio, the figures for Classes V, VI, VII and VIII being respectively 1,763, 1,785, 1,775, and 1,639.

Sex of non-earning dependants

10. Table 272 gives the distribution of non-agricultural classes of general, rural and urban population, among self-supporting persons, earning

Self-supporting persons, earning and non-earning dependants by natural divisions

TABLE 272—*Distribution of 10,000 persons of all non-agricultural classes of general, rural and urban population among self-supporting persons, earning and non-earning dependants by natural divisions*

Natural division	Self-supporting persons			Earning dependants			Non-earning dependants		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
Uttar Pradesh—									
General	3,271	2,912	359	570	215	355	6,159	2,268	3,891
Rural	3,411	2,931	480	804	227	577	5,785	2,144	3,641
Urban	3,109	2,890	219	298	201	97	6,593	2,411	4,182
Himalayan—									
General	3,854	3,629	225	979	223	756	5,167	2,100	3,067
Rural	3,933	3,658	275	1,840	321	1,519	4,227	1,829	2,398
Urban	3,783	3,603	180	194	133	61	6,023	2,347	3,676
East Plain—									
General	3,245	2,699	546	883	259	624	5,872	2,250	3,622
Rural	3,310	2,662	648	1,135	276	859	5,555	2,166	3,389
Urban	3,123	2,766	357	415	228	187	6,462	2,405	4,057
Central Plain—									
General	3,366	3,001	365	680	252	428	5,954	2,212	3,742
Rural	3,455	2,920	535	1,121	324	797	5,424	2,037	3,387
Urban	3,285	3,078	207	271	186	85	6,444	2,374	4,070
West Plain—									
General	3,179	2,911	268	308	170	138	6,513	2,331	4,182
Rural	3,391	3,031	360	344	136	208	6,265	2,219	4,046
Urban	2,943	2,777	166	269	207	62	6,788	2,455	4,333
Hills and Plateau—									
General	3,375	2,832	543	980	277	703	5,645	2,146	3,499
Rural	3,539	2,868	671	1,478	349	1,129	4,983	2,018	2,965
Urban	3,195	2,793	402	435	198	237	6,370	2,286	4,084

* Including dependants.

and non-earning dependants by natural divisions (*vide* Subsidiary Tables 5.1, 5.1-A and 5.1-B). The figures are of great interest as they are an index of the economic conditions of the various parts of the State and the extent to which women and children help to augment the family income.

The factors which affect the proportion of self-supporting persons and earning dependants have been set out in Section 2 of Chapter IV.

In all the natural divisions it would appear that the proportion of self-supporting persons is slightly higher while that of earning dependants is significantly lower in the non-agricultural than the agricultural classes (Table 177). The non-earning dependants, on the other hand, return a substantially higher proportion in the non-agricultural than the agricultural classes. The reasons for these variations have already been examined in Section 6 of Chapter I.

The rural and urban portions of the non-agricultural classes show significant differences in the proportion of self-supporting persons, earning dependants and non-earning dependants. The proportions of both self-supporting persons and earning dependants (i.e., workers) are higher in the rural than in the urban areas and this trend appears in all the natural divisions. It would be seen that the principal reason for these variations is the larger proportion of female self-supporting persons and earning dependants in rural areas. In rural areas women work generally more freely than in urban areas and the bulk of small scale and cottage industries, which provide scope for the participation of women and children are located in rural areas. Moreover, the male children do not participate in family non-agricultural occupations to the same extent in urban as in rural areas owing to the greater spread of education in the former.

11. Table 273 gives the distribution of 10,000 persons of all non-agricultural classes of the general, rural and urban population in each non-agricultural

TABLE 273—*Distribution of 10,000 persons of all non-agricultural classes of the general, rural and urban population in each non-agricultural livelihood class by natural divisions*

Natural division	General population				Rural population				Urban population			
	V	VI	VII	VIII	V	VI	VII	VIII	V	VI	VII	VIII
Uttar Pradesh ..	3,249	1,948	527	4,276	3,594	1,473	374	4,559	2,847	2,500	705	3,948
Himalayan ..	2,438	1,699	429	5,434	3,342	1,110	300	5,248	1,615	2,235	546	5,604
East Plain ..	3,466	2,095	560	3,879	3,671	1,797	465	4,067	3,084	2,650	737	3,529
Central Plain ..	3,137	1,932	520	4,411	3,244	1,577	332	4,847	3,039	2,260	694	4,007
West Plain ..	3,254	1,918	513	4,315	3,678	1,298	350	4,674	2,782	2,608	694	3,916
Hills and Plateau	3,423	1,929	616	4,032	4,080	1,379	399	4,142	2,703	2,531	855	3,911

livelihood class by natural divisions. It will appear that both in the rural and the urban areas the highest proportion is returned by Class VIII, Other services and miscellaneous sources, followed by Class V, Production other than cultivation, Class VI, Commerce, and Class VII, Transport. The proportions of Classes V and VIII are higher in rural than in urban areas while those of Classes VI and VII show a reverse trend. It may further be noted that Classes V and VIII together constitute 81.5 per cent. of the rural non-agricultural population while the corresponding proportion for urban areas is only 67.9 per cent. On the other hand, Classes VI and VII together constitute 32.1 per cent. of the urban non-agricultural population while the corresponding proportion for rural areas is only 18.5 per cent. The above trends hold good for all natural divisions with the exception of Himalayan where Class VIII is higher in urban than in rural areas due mainly to proportionately larger figures of non-agricultural population falling in Division 9 (general labour, domestic services, etc.).

12. Table 274 gives the proportion of persons of all non-agricultural classes returning a secondary means of livelihood. It will appear that only 9.5 per cent.

Distribution of non-agricultural classes by natural divisions

Secondary means of livelihood

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of the total non-agricultural population returned a secondary means of livelihood of which 3·8 per cent. were self-supporting persons and 5·7 per cent. earning dependants. It will be recalled that the corresponding proportions for agricultural classes are higher (Table 180), the main difference being in the higher proportion of earning dependants.

TABLE 274—Percentage of persons of all non-agricultural classes returning secondary means of livelihood by natural divisions

Natural division	Total	Self-supporting persons	Earning dependants
Uttar Pradesh	9·52	3·82	5·70
Himalayan	17·39	7·60	9·79
East Plain	14·61	5·78	8·83
Central Plain	10·45	3·65	6·80
West Plain	5·83	2·75	3·08
Hills and Plateau	14·66	4·86	9·80

Among the natural divisions the highest proportion of secondaries is returned by the Himalayan and the lowest by West Plain (as in the case of agricultural classes). The difference is due to the varying extent of the participation of women in family occupations.

13. Of 6,267,698 workers (males 5,102,831, females 1,164,867) who returned non-agricultural occupations as the principal means of their livelihood 1,554,187 persons (males 932,733, females 621,454) or 24·80 per cent. (males 18·28, females 53·35) returned a secondary means of livelihood. Table 275 gives the distribution of 10,000 workers of non-agricultural classes returning a secondary means of livelihood according to the nature of their secondary.

Secondary means of livelihood of workers of non-agricultural classes

TABLE 275—Distribution of 10,000 workers of all non-agricultural classes returning secondary means of livelihood according to the nature of their secondary means of livelihood by natural divisions

Secondary means of livelihood	Uttar Pradesh	Himalayan	East Plain	Central Plain	West Plain	Hills and Plateau
Total agricultural and non-agricultural—						
Total	10,000	10,000	10,000	10,000	10,000	10,000
Self-supporting persons	4,018	4,374	3,957	3,493	4,714	3,314
Earning dependants	5,982	5,626	6,043	6,507	5,286	6,686
Total agricultural						
Total	4,312	7,791	5,066	3,849	3,408	3,878
Self-supporting persons	2,642	3,703	2,994	2,370	2,496	2,098
Earning dependants	1,670	4,088	2,072	1,479	912	1,780
I—Cultivation of owned land—						
Total	2,828	6,880	3,305	2,636	2,051	1,687
Self-supporting persons	1,738	3,193	2,055	1,586	1,468	1,082
Earning dependants	1,090	3,687	1,251	1,050	583	605
II—Cultivation of unowned land —						
Total	573	581	846	563	333	497
Self-supporting persons	405	268	567	419	280	344
Earning dependants	168	313	279	144	53	153
III—Employment as cultivating labourer—						
Total	585	153	703	356	520	1,371
Self-supporting persons	216	81	227	99	287	384
Earning dependants	369	72	476	257	233	987

TABLE 275—*Distribution of 10,000 workers of all non-agricultural classes returning secondary means of livelihood according to the nature of their secondary means of livelihood by natural divisions—(contd.)*

Secondary means of livelihood	Uttar Pradesh	Himalayan	East Plain	Central Plain	West Plain	Hills and Plateau
IV—Rent on agricultural land—						
Total	326	177	211	294	504	323
Self-supporting persons	283	161	145	266	461	288
Earning dependants	43	16	66	28	43	35
Total non-agricultural—						
Total	5,688	2,209	4,934	6,151	6,592	6,122
Self-supporting persons	1,376	671	963	1,123	2,218	1,216
Earning dependants	4,312	1,538	3,971	5,028	4,374	4,906
V—Production other than cultivation—						
Total	2,115	887	1,959	2,005	2,582	2,255
Self-supporting persons	433	212	279	320	757	372
Earning dependants	1,682	675	1,680	1,685	1,825	1,883
VI—Commerce—						
Total	914	290	827	976	1,046	997
Self-supporting persons	303	102	229	274	459	256
Earning dependants	611	188	598	702	587	741
VII—Transport—						
Total	163	57	146	103	268	136
Self-supporting persons	86	25	84	36	156	60
Earning dependants	77	32	62	67	112	76
VIII—Other services and miscellaneous sources—						
Total	2,496	975	2,002	3,067	2,696	2,734
Self-supporting persons	554	332	371	493	846	528
Earning dependants	1,942	643	1,631	2,574	1,850	2,206

It will appear that of the persons of non-agricultural classes who returned a secondary 43·1 per cent. returned an agricultural secondary and 56·9 per cent., a non-agricultural secondary. The high proportion of agricultural secondaries is noteworthy. Of the 43·1 per cent. returning an agricultural secondary 28·3 per cent. belong to Class I, Cultivation of owned land. Of the 56·9 per cent. returning a non-agricultural secondary 25·0 per cent. belong to Class VIII, Other services and miscellaneous sources, and 21·2 per cent. to Class V, Production other than cultivation.

Among the natural divisions the highest proportion returning agricultural secondaries is to be found in Himalayan (77·9 per cent.), followed by the East Plain (50·7) and the least proportion returning agricultural secondaries is to be found in West Plain (34·1 per cent.). The reason is that the former two divisions are the least urbanized and industrialized while the West Plain is the most highly urbanized and industrialized division in the State.

14. Of 5,337,979 self-supporting persons of non-agricultural classes (males 4,751,964, females 586,015) 624,468 persons (males 581,866, females 42,602) or 11·7 per cent. (males 12·2, females 7·3) returned a secondary means of livelihood. The percentage distribution of self-supporting persons of each sex of all non-agricultural classes classified according to the nature of their secondary means of livelihood is given in Table 276. The most significant fact is

TABLE 276—*Percentage distribution of self-supporting persons of each sex of all non-agricultural classes according to the nature of their secondary means of livelihood*

Self-supporting persons with—	Persons	Males	Females
No secondary means of livelihood	88·3	87·8	92·7
An agricultural secondary means of livelihood	7·7	8·1	3·9
A non-agricultural secondary means of livelihood	4·0	4·1	3·4

Secondary means of livelihood of self-supporting persons

SECTION 2—NON-AGRICULTURAL POPULATION RATIOS, SELF-SUPPORTING 283
PERSONS AND DEPENDANTS; SECONDARY MEANS OF LIVELIHOOD
OF NON-AGRICULTURAL CLASSES

that about nine-tenth (88·3 per cent.) of the self-supporting persons have no secondary at all and among those who have a secondary the number returning an agricultural secondary is about twice that returning a non-agricultural secondary. Relatively fewer females than males returned a secondary and they also returned proportionately less of non-agricultural than agricultural secondaries.

Among the natural divisions the highest percentage of self-supporting persons returning a secondary is in Himalayan (19·7 per cent.) followed by East Plain (17·8 per cent.) and the lowest is in West Plain (8·6 per cent.). The higher percentage in the former two divisions is due to the higher proportion of self-supporting persons returning an agricultural secondary. These two divisions are predominantly agricultural and even persons with non-agricultural occupations as their principal means of livelihood have agricultural affiliations. The West Plain shows contrary trends.

Table 277 gives the distribution of 1,000 self-supporting persons of individual non-agricultural classes classified according to the nature of their secondary means of livelihood. It will be seen that there are no significant variations from the trends observed in Table 276.

TABLE 277—*Distribution of 1,000 self-supporting persons or earners of all non-agricultural livelihood classes according to the nature of their secondary means of livelihood in 1951 and 1931*

Livelihood class	Number per 1,000 self-supporting persons or earners with—					
	1951			1931		
	No secondary means of livelihood	An agricultural secondary means of livelihood	A non-agricultural secondary means of livelihood	No secondary means of livelihood	An agricultural secondary means of livelihood	A non-agricultural secondary means of livelihood
All non-agricultural classes	883	77	40	869	95	36
V—Production other than cultivation	870	84	46	860	105	35
VI—Commerce	885	63	52	855	98	47
VII—Transport	909	62	29	909	63	28
VIII—Other services and miscellaneous sources	889	79	32	880	88	32

Table 277 also compares the data of 1931 and 1951. It will be noted that in the non-agricultural classes a lesser proportion have returned a secondary in 1951 than in 1931. It will also be seen that in 1951 a relatively larger proportion of self-supporting persons have returned a non-agricultural secondary and a lesser proportion an agricultural secondary. These trends are generally true for all the natural divisions also, except Himalayan where a higher percentage of self-supporting persons have returned a secondary in 1951 and the proportions of both agricultural and non-agricultural secondaries are higher in 1951.

15. There are 929,719 earning dependants of non-agricultural classes (males 350,867, females 578,852). Table 278 gives the distribution of 10,000 earning dependants of non-agricultural classes according to their secondary means of livelihood by natural divisions. It will be observed that 27·9 per cent. of the

Secondary means of livelihood of earning dependants

TABLE 278—*Distribution of 10,000 earning dependants of all non-agricultural classes according to the nature of their secondary means of livelihood by natural divisions*

Natural division	Secondary means of livelihood							
	I-Cultivation of owned land	II-Cultivation of unowned land	III-Employment as cultivating labourer	IV-Rent on agricultural land	V-Production other than cultivation	VI-Commerce	VII-Transport	VIII-Other services and miscellaneous sources
Uttar Pradesh	1,822	280	617	73	2,812	1,021	129	3,246
Himalayan	6,554	556	129	28	1,199	335	57	1,142
East Plain	2,071	461	787	110	2,780	990	102	2,699
Central Plain	1,614	222	396	43	2,590	1,078	102	3,955
West Plain	1,103	100	440	82	3,453	1,109	213	3,500
Hills and Plateau	905	229	1,476	52	2,816	1,108	114	3,300

earning dependants returned an agricultural secondary and 72.1 per cent. a non-agricultural secondary. Among the agricultural secondaries the most popular is Class I, Cultivation of owned land, followed by Class III, Employment as cultivating labourer. Among the non-agricultural secondaries the most common is Class VIII, Other services and miscellaneous sources, followed by Class V, Production other than cultivation.

Examining the data by natural divisions, it would appear that the highest proportion of agricultural secondaries is returned by the Himalayan followed by East Plain and the least by West Plain. The first two divisions are predominantly agricultural and even the non-agricultural classes have agricultural connections. The conditions in West Plain are contrary to this. In all natural divisions the main agricultural secondary is Class I, Cultivation of owned land, the exception being Hills and Plateau, where owing to large holdings Class III, Agricultural labour, is the predominant agricultural secondary. As regards non-agricultural secondaries Class VIII, Other services and miscellaneous sources, is the principal secondary in all natural divisions except Himalayan and East Plain where Class V, Production other than cultivation, slightly exceeds Class VIII; and Class V is a close second except in Himalayan and East Plain where it is first.

Examining the data by individual classes (Table 279) it would appear that the highest proportion of earning dependants returning an agricultural secondary is under Class VII, Transport. Apparently a large proportion of persons engaged in rail and road transport have roots in villages. Among non-agricultural secondaries the largest proportion under each class has been returned, as expected, by earning dependants of that very class with the exception of Class VII, Transport. Under Transport the majority of self-supporting persons are employees whose earning dependants cannot participate in their vocation. This is not so in other non-agricultural classes, where the earning dependants have ample field for association in the occupations of the self-supporting persons on whom they are dependent.

TABLE 279—*Distribution of 10,000 earning dependants of each non-agricultural livelihood class according to the nature of their secondary means of livelihood*

Livelihood classes	Secondary means of livelihood								
	I-Cultiva- tion of owned land	II-Cultiva- tion of unowned land	III-Employ- ment as cultivating labourer	IV-Rent on agri- cultural land	V-Product- ion other than cultivation	VI-Com- merce	VII-Trans- port	VIII-Other services and miscel- laneous sources	
All non-agricultural classes*	1,822	280	617	73	2,812	1,021	129	3,246	
V—Production other than cultivation*	1,614	302	584	67	5,967	414	63	989	
VI—Commerce*	..	1,627	188	308	98	1,259	5,373	137	1,010
VII—Transport*	..	2,164	464	1,245	88	1,381	523	1,793	2,342
VIII—Other services and miscellaneous sour- ces*	2,040	276	694	69	672	184	51	6,014	

* Including dependants.

SECTION 3—EMPLOYERS, EMPLOYEES AND INDEPENDENT WORKERS;
AND EMPLOYMENT IN FACTORIES AND SMALL SCALE INDUSTRIES

1. For the first time in 1951 data have been collected regarding the employment status of the self-supporting persons of the non-agricultural classes engaged in industries and services. "Employment status" (otherwise called "occupational status", "industrial status", "class of worker", "social status", "position in industry", etc.) refers to the classification distinguishing employers, employees, independent workers and others. This is considered as an important classification of the economically active population and was introduced in the Indian census in accordance with the recommendations of the U. N. O. Population Commission. While the employment status of all self-supporting persons was recorded in the census slip, tabulation of the data has been made only for the self-supporting persons of the non-agricultural classes.*

2. Table 280 (prepared from Subsidiary Tables 5.1, 5.1-A and 5.1-B) gives the proportion of employers, employees, independent workers and others

Employers,
employees and
independent
workers

TABLE 280—Distribution of 10,000 self-supporting persons of all non-agricultural classes of general, rural and urban population according to employment status by natural divisions

Natural division	General				Rural				Urban			
	Em- ployers	Em- ployees	Inde- pendent workers	Others	Em- ployers	Em- ployees	Inde- pendent workers	Others	Em- ployers	Em- ployees	Inde- pendent workers	Others
Uttar Pradesh ..	280	2,815	6,628	277	141	1,816	7,729	314	458	4,085	5,227	230
Himalayan ..	261	4,656	4,686	397	132	3,712	5,750	406	382	5,550	3,679	389
East Plain ..	382	2,574	6,719	325	238	2,110	7,265	387	668	3,490	5,641	201
Central Plain ..	259	3,471	5,930	340	120	1,726	7,700	454	394	5,173	4,204	229
West Plain ..	266	2,462	7,057	215	109	1,596	8,085	210	466	3,573	5,739	222
Hills and Plateau	178	2,328	7,227	267	107	1,700	7,908	285	265	3,091	6,400	244

among 10,000 self-supporting persons of the general, rural and urban population of the non-agricultural classes by natural divisions. The following conclusions emerge from this table :

In the first place, it will be observed that employees and independent workers constitute about 94 per cent. of the population of self-supporting persons of non-agricultural classes in the State, the proportion being slightly higher in the rural than in the urban areas. This trend is true for the natural divisions also where the combined proportion of employees and independent workers varies from 92.9 to 95.6 per cent.

Secondly, the proportion of employers is very small. It is only 2.80 per cent. for the general population. It is, however, considerably higher in the urban (4.58 per cent.) than in the rural (1.41 per cent.) population. This was to be expected as organized industries are mostly situated in the urban areas. This trend is also true for all the natural divisions.

Thirdly, there is an overwhelming preponderance of independent workers over employees in the rural areas of the State (4.3:1) while in the urban areas the independent workers have only a slender majority (1.3:1). The independent worker still rules supreme in the rural areas because of the absence of organized modern industries while owing to industrialization in the urban areas the independent workers are gradually giving place to employees. Moreover, the service classes (i. e., chiefly Livelihood Class VII, Transport, and Class VIII, Other services and miscellaneous sources) preponderate in the urban areas. This trend is also true for all the natural divisions except the urban areas of Himalayan and Central Plain where the proportion of employees exceeds that of the independent workers. In the Himalayan division the high proportion of employees is due to

* For detailed definition of the terms 'employers', 'employees', and 'independent workers' see "Instructions to Enumerators" (Appendix I) relating to Q. 9(2). "Others" represent the economically unproductive persons viz., (i) persons living principally on income from non-agricultural property, (ii) persons living principally on pensions, remittances, scholarships and funds, (iii) inmates of alms-houses and recipients of doles, (iv) beggars and vagrants, and (v) all other persons living principally on income derived from non-productive activities; prostitutes.

the existence in the urban areas of a large service class and employees engaged in Transport. In the Central Plain the proportion has been affected by the three cities of Kanpur, Lucknow and Allahabad. Kanpur has a large industrial population, while all the three cities have a large service class and large railway colonies.

The proportion of "others", i. e., economically unproductive persons to the total population is only 0.23 per cent. in the State, the proportion being higher in the urban (0.63 per cent.) than in the rural areas (0.17 per cent.). This is mainly due to the high proportion of beggars in the urban areas.

3. Table 281 shows the distribution of 10,000 self-supporting persons of each non-agricultural livelihood class of rural and urban population

TABLE 281—*Distribution of 10,000 self-supporting persons of each non-agricultural livelihood class of rural and urban population according to employment status by natural divisions*

Livelihood class	Uttar Pradesh		Himalayan		East Plain		Central Plain		West Plain		Hills and Plateau	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
V—Production other than cultivation—												
Employers ..	204	485	120	806	263	711	186	357	194	504	165	303
Employees ..	1,193	3,493	2,760	2,758	1,223	1,869	1,136	5,774	1,154	2,712	764	1,695
Independent workers..	8,603	6,022	7,120	6,436	8,514	7,420	8,678	3,869	8,652	6,784	9,071	8,002
VI—Commerce—												
Employers ..	285	1,110	457	1,031	498	1,538	229	1,105	180	1,037	211	692
Employees ..	345	1,426	675	1,481	554	1,371	268	1,797	246	1,284	257	1,059
Independent workers	9,370	7,464	8,868	7,488	8,948	7,091	9,503	7,098	9,574	7,679	9,532	8,249
VII—Transport—												
Employers ..	143	277	225	649	149	144	208	209	102	347	168	212
Employees ..	4,028	5,114	4,849	6,257	4,334	5,220	4,921	5,728	3,396	4,609	4,081	4,999
Independent workers..	5,829	4,609	4,926	3,094	5,517	4,636	4,871	4,063	6,502	5,044	5,751	4,789
VIII—Other services and miscellaneous sources—												
Employers ..	54	140	76	93	130	211	45	121	27	153	23	44
Employees ..	2,535	5,647	4,797	7,183	3,194	5,691	2,314	6,219	2,150	5,201	2,734	4,578
Independent workers	6,758	3,677	4,356	2,111	5,811	3,580	6,758	3,118	7,387	4,122	6,617	4,829
Others ..	653	536	771	613	865	518	883	542	436	524	626	549

according to employment status by natural divisions. The following points emerge from this table :

In the first place, the proportion of employers, both in rural and urban areas, is highest under Class VI, Commerce, followed by Class V, Production other than cultivation, Class VII, Transport and Class VIII, Other services and miscellaneous sources. The proportion is very much higher in the urban than in the rural area. The existence of an employer postulates the existence of an establishment with employees. Commerce is traditionally carried on by small establishments which are mostly situated in *mandis* or urban areas. Production is carried on in factories and in a large number of cottage and small scale industrial establishments. Rail transport is now entirely State-managed and also the bulk of the motor road transport but there are still many employers who run *ekkas*, *tongas*, *rickshaws*, etc., through employees. Under Class VIII the State is the biggest employer and other employers exist principally in Division 9, Services not elsewhere specified, and Division 5, Construction and utilities. Thus the participation of the State as an employer mainly determines the proportion of employers in the various livelihood classes. These trends are generally true of the natural divisions also,

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Secondly, the employees and independent workers together constitute an overwhelming majority of the self-supporting persons in all classes, both in rural and urban areas and in all natural divisions. The independent workers greatly preponderate over the employees in all classes, both in rural and urban areas, with the exception of Class VII, Transport and Class VIII, Other services and miscellaneous sources, in urban areas where employees exceed the independent workers. These trends are generally true of all natural divisions. In the Central Plain the proportion of urban employees is the highest in Classes V and VI and the second highest in Classes VII and VIII, owing principally to the large industrialized city of Kanpur and the large number of government employees in the cities of Lucknow and Allahabad.

4. Table 282 gives the average daily number of workers employed in the factories in Uttar Pradesh in 1951.

Employment in
factories by
industries

TABLE 282—Average daily number of workers employed in the factories in Uttar Pradesh, 1951

(Source : Annual Report of the working of Factories Act in Uttar Pradesh)

Name of industry	Average daily number of workers	
	Actual	Percentage
Total all industries *	228,511	100
Food except beverages	58,192	25.47
Beverages	1,489	0.65
Tobacco	2,354	1.03
Process allied to agriculture	465	0.20
Textiles	62,347	27.28
Footwear, other wearing apparels and made-up textile goods	3,801	1.66
Leather and leather products except footwear	2,358	1.03
Basic metal industries	4,448	1.95
Manufacture of metal products (except machinery and transport equipment)	2,558	1.12
Transport and transport equipment	20,158	8.82
Electrical machinery, apparatus, appliances and supplies	126	0.05
Manufacture of machinery except electrical machinery	5,699	2.49
Chemicals and chemical products	4,118	1.80
Miscellaneous industries	34,197	14.97
Non-metallic mineral products (except products of petroleum and coal)	9,936	4.35
Manufacture of rubber and rubber products	113	0.05
Manufacture of wood and cork (except manufacture of furniture)	1,369	0.60
Furniture and fixtures	145	0.06
Paper and paper products	1,812	0.79
Printing, publishing and allied industries	8,867	3.88
Electricity, gas and steam	3,260	1.43
Water and sanitary services	699	0.31

It will be seen that the total number of workers was 2.29 lakhs. In 1931 this number was over 93,000. It gradually rose to over 1.60 lakhs in 1939, largely as a result of the rapid progress of Sugar Industry in the State. Then came the Great War and the number reached the peak of 2.78 lakhs in 1944. Since then the figure has been falling gradually.

It may be noted here that the number of factories which stood at about 500 in 1935, rose gradually to about 900 in 1944, has been steadily increasing even after the latter year and stood at over 1300 in 1951, although the number of workers has been declining.

The figures of number of factories and the average daily number of workers employed in factories in Uttar Pradesh are compared with those of India and other States in Table 283. It will be seen that both in the number of factories and in the average daily number of workers employed in factories the three States of Bombay, West Bengal and Madras return higher figures. In fact the proportion of factories and workers employed in Uttar Pradesh is less than 10 per cent. of the total for India, which is less than its proportionate share (17·7) in the population of the country.

TABLE 283—Number of factories covered by the Factories Act and the average number of workers employed therein by States, 1949

(Source : The Indian Labour Year-book, 1949-50)

State	Number of factories	Average daily number of workers employed
India	19,829	2,433,988
Assam	774	61,132
Bihar	731	155,334
Bombay	6,835	789,463
Madhya Pradesh ..	1,062	96,273
Madras	5,432	323,950
Orissa	254	13,359
Punjab	744	39,364
Uttar Pradesh ..	1,349	233,837
West Bengal	2,197	665,008
Ajmer	51	15,380
Coorg	9	82
Delhi	388	38,806
Andaman and Nicobar Islands	3	2,000

We will now examine the employment of workers in various categories of factories :

Textiles—The largest proportion of workers is under this class of factories (27·28 per cent.). Cotton, Jute, Woollen mills, etc., fall in this class.

Cotton textile industry has been rapidly progressing in this State. The production of yarn which was 117,704 thousand lbs. in 1938-39 has gone down slightly to 109,953 thousand lbs. in 1951 while that of cloth has risen from 238,802 thousand yards to 309,512 thousand yards during the same period. The number of workers in 1951 in this industry was 50,987. Our production of cloth (in yards) however, is only 7·6 per cent. of that of India.

The number of Jute Mills in the State is only three. During the decade 1941-50 the production increased from 6·5 lakh maunds in 1940-41 to a peak of 7·63 lakh maunds in 1943-44 but fell to 3·62 lakh maunds in 1950-51. The number of workers also varied more or less in the same proportion as production and stood at about 6,600 in 1951.

Food (excluding beverages)—Under this category fall sugar, edible oil, rice, hydrogenated oil, flour, tea and other factories. As many as 25·47 per cent. of the total workers are employed in these factories.

The sugar industry received an impetus in the State on the grant of protection to the industry in 1932. The number of factories rose from about 26 in 1930 to about 122 in 1933 but has now fallen to about 80. The number of workers, which was only about 7,000 in 1930 has now gradually risen to about 46,000. The production has risen from about 66,000 tons in 1931-32 to over 593,000 tons in 1950-51. This State produced in 1950-51 over 55 per cent. of the sugar in this country. In 1943-44 the State was producing over 60 per cent. of the country's sugar but other States are now gradually developing the industry.

Edible and hydrogenated oil is another developing industry. In 1930 there were only about 20 factories employing about 2,000 workers, in 1940 there were about 27 factories with about 3,000 workers, while in 1949 there were about 97 factories employing about 6,600 workers. The production has been increasing too and stands in 1951 at 18·8 lakh maunds.

The number of workers in the tea factories stood at 728 in 1951 while that in both factories and gardens at 2,886. The production had reached a peak of 34·0 lakh lbs. in 1947 and was 19·6 lakh lbs. only in 1951. The number of workers also has fallen. The production shows an upward trend again since 1948.

Miscellaneous industries—Under this category fall the Ordnance factories, in which 26,703 workers were employed in 1951, and other factories which employed a little over 7,000 workers.

Transport and transport equipment—This category employs 8·82 per cent. of the total workers. The railway workshops employ 16,608 workers, motor vehicles workshops 3,402 and the remainder are employed in cycle industry.

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Mention may be made of a few other industries of potential importance. The production of electricity has been rapidly growing in the State. The production was only 257,000 thousand units in 1939 and has now gone up gradually to nearly 600,000 thousand units. Iron and steel industry is still in its infancy; it employed about 4,000 workers in 1951. Leather and tanning industry is growing; it employed over 6,000 workers in 1951. Paper industry seems to be stationary for the last ten years; it employed 1,812 workers in 1951.

6. Table 284 gives the average daily number of workers employed in factories by natural divisions. The figures relate to 1948 but the

TABLE 284—Actual and percentage distribution of average daily number of workers employed in factories by natural divisions, 1948

(Source; Growth of Factories in U.P.)

Natural division	Average daily number of workers	
	Actual	Percentage
Uttar Pradesh	239,875	100
Himalayan	3,446	1.44
East Plain	35,619	14.85
Central Plain	119,076	49.64
West Plain	77,427*	32.28
Hills and Plateau	4,307	1.79

Hills and Plateau being very small.

7. Table 285 gives the estimated number of workers engaged in small scale and cottage industries and their percentage to total population in the State in 1911—31 and 1951. The census tables give the combined figures of workers in factories and small scale and cottage industries and an attempt has been made to estimate the number of workers in small scale and cottage industries exclusively by subtracting from the combined figures the known figures of workers in factories. It would appear that not merely the proportion to total population but also the absolute figures of workers engaged in small scale and cottage industries has been steadily declining since 1911. This is proof of the decline of small scale and cottage industries—the de-industrialization that is going on in the State, particularly in the rural areas.

TABLE 285—Estimated number of workers engaged in small scale and cottage industries and their percentage to total population in 1911—31 and 1951

Year	Total workers engaged in Class V, Production other than cultivation, according to census†	Average daily number of workers employed in factories	Estimated number of persons engaged in small scale and cottage industries	
			Actual	Percentage to total population
1911	3,055,853	48,052 †	3,007,801	6.26
1921	2,658,501	69,172 †	2,589,329	5.57
1931	2,604,998	93,223 †	2,511,775	5.06
1951	2,192,832	224,552	1,968,280	3.11

workers engaged in small scale and cottage industries has been steadily declining since 1911. This is proof of the decline of small scale and cottage industries—the de-industrialization that is going on in the State, particularly in the rural areas.

8. Table 286 gives the number and proportion to total population of workers engaged in small scale and cottage industries by natural divisions.

TABLE 286—Estimated number and percentage to total population, of workers engaged in small scale and cottage industries by natural divisions

Natural division	Total workers engaged in Class V, Production other than cultivation, according to census 1951||	Average daily number of workers employed in factories 1948§	Estimated number of persons engaged in small scale and cottage industries	
			Actual	Percentage to total population
Uttar Pradesh	2,827,108	239,875	2,587,233	4.09
Himalayan	103,312	3,446	99,866	3.96
East Plain	719,637	35,619	684,018	3.82
Central Plain	705,742	119,076	586,666	3.64
West Plain	1,088,851	77,427*	1,011,424	4.44
Hills and Plateau	209,566	4,307	205,259	5.26

It will be noted that the highest proportion of such workers is to be found in Hills and Plateau followed by West Plain while the lowest is in Central and East Plain.

*The figures exclude those of Rampur.

†The figures do not include the persons who are engaged in Class V, Production other than cultivation as secondary means of livelihood while the figures of Table 286 include them.

‡The figures include the persons who are engaged in electricity, gas, steam, sanitary works and water supply.

§The figures include the workers of electricity, gas, steam, sanitary works and water supply.

||Workers here include self-supporting persons of Class V and those of other classes with Class V as secondary and earning dependants of all classes with Class V as secondary.

Employment in factories by natural divisions

Employment in small scale and cottage industries since 1911

Employment in small scale and cottage industries by natural divisions

SECTION 4—EMPLOYMENT IN INDUSTRIES AND SERVICES

1. As has been explained earlier the self-supporting persons of non-agricultural classes have been elaborately classified under divisions, sub-divisions and groups in accordance with the Indian Census Economic Classification Scheme and the data presented in Table B-III published in Part II-B of the Report. For reasons of economy similar data regarding earning dependants was not extracted from the slips. The Indian Census Economic Classification Scheme has been described in detail in Part II-B of the Report.

2. Table 287 gives the number of self-supporting persons of non-agricultural classes under each economic division and their percentage to total.

Self-supporting
persons employed
in various economic
divisions

TABLE 287—*Self-supporting persons employed in Industries and Services by Divisions*

Division	Persons		Males		Females	
	Actual	Percentage to all industries and services	Actual	Percentage to total self-supporting persons	Actual	Percentage to total self-supporting persons
All Industries and Services—						
General	5,189,960	100	4,641,531	89·43	548,429	10·57
Rural	2,895,106	100	2,499,400	86·33	395,706	13·67
Urban	2,294,854	100	2,142,131	93·34	152,723	6·66
Division 0—Primary industries not elsewhere specified—						
General	162,508	3·13	142,528	87·71	19,980	12·29
Rural	125,922	4·35	109,380	86·86	16,542	13·14
Urban	36,586	1·59	33,148	90·60	3,438	9·40
Division 1—Mining and Quarrying—						
General	11,392	0·22	9,320	81·81	2,072	18·19
Rural	8,497	0·29	6,716	79·04	1,781	20·96
Urban	2,895	0·13	2,604	89·95	291	10·05
Division 2—Processing and Manufacture—Foodstuffs, Textiles, Leather and Products thereof—						
General	911,464	17·56	811,879	89·07	99,585	10·93
Rural	541,557	18·71	464,337	85·74	77,220	14·26
Urban	369,907	16·12	347,542	93·95	22,365	6·05
Division 3—Processing and Manufacture—Metals, Chemicals and Products thereof—						
General	186,762	3·60	182,266	97·59	4,496	2·41
Rural	77,335	2·67	74,667	96·55	2,668	3·45
Urban	109,427	4·77	107,599	98·33	1,828	1·67
Division 4—Processing and Manufacture—not elsewhere specified—						
General	442,806	8·53	413,958	93·49	28,848	6·51
Rural	296,494	10·24	273,295	92·18	23,199	7·82
Urban	146,312	6·38	140,663	96·14	5,649	3·86
Division 5—Construction and Utilities						
General	283,703	5·47	218,080	76·87	65,623	23·13
Rural	189,872	6·56	138,775	73·09	51,097	26·91
Urban	93,831	4·09	79,305	84·52	14,526	15·48
Division 6—Commerce—						
General	912,618	17·58	854,305	93·61	58,313	6·39
Rural	403,555	13·94	366,398	90·79	37,157	9·21
Urban	509,063	22·18	487,907	95·84	21,156	4·16

TABLE 287—Self-supporting persons employed in Industries and Services by Divisions—(contd.)

Division	Persons		Males		Females	
	Actual	Percentage to all industries and services	Actual	Percentage to total self-supporting persons	Actual	Percentage to total self-supporting persons
Division 7—Transport, Storage and Communications—						
General	284,465	5·48	278,937	98·06	5,528	1·94
Rural	105,188	3·63	102,103	97·07	3,085	2·93
Urban	179,277	7·81	176,834	98·64	2,443	1·36
Division 8—Health, Education and Public Administration—						
General	495,489	9·55	465,125	93·87	30,364	6·13
Rural	185,242	6·40	172,433	93·09	12,809	6·91
Urban	310,247	13·52	292,692	94·34	17,555	5·66
Division 9—Services not elsewhere specified—						
General	1,498,753	28·88	1,265,133	84·41	233,620	15·59
Rural	961,444	33·21	791,296	82·30	170,148	17·70
Urban	537,309	23·41	473,837	88·19	63,472	11·81

It will be seen that Division 9, Services not elsewhere specified, employs the highest proportion of self-supporting persons (28·88 per cent.), followed by Division 6, Commerce (17·58 per cent.) and Division 2, Processing and manufacture of foodstuffs, textiles and leather products (17·56 per cent.). Division 9 is the residuary division consisting of domestic servants, barbers, workmen, employees of hotels and restaurants and independent labourers etc.

Only 10·57 per cent. of the total self-supporting persons in all industries and services are females. The proportion of females to total self-supporting persons in the divisions is highest in Division 5, Construction and utilities (23·13 per cent.), followed by Division 1, Mining and quarrying (18·19 per cent.), Division 9, Services not elsewhere specified (15·59 per cent.) and Division 0, Primary industries not elsewhere specified (12·29 per cent.).

3. The progressive decline in the proportion of non-agricultural workers to the total population since 1901 has already been noted in Section 2 of Chapter IV. It would be interesting now to examine the trends in the absolute and relative numbers of workers employed under the various industries and services during the past five decades. For this purpose the economic classifications of the previous censuses since 1901 have been re-arranged for comparison* in Tables 288 and 289 in the lay-out of the 1951 Classification Scheme. Appendices VI and VII explain how this re-arrangement has been carried out. For 1951 the data for self-supporting persons only was available and so the figures of workers had to be estimated for purposes of comparison†. It may be noted that only figures of workers of the various censuses are comparable and not those of self-supporting persons and earning dependants individually as the earning dependant was not separately enumerated until 1931 (when also its definition differed from that of 1951). This has been explained in detail in Section 1 of Chapter IV.

4. Table 288 gives the number of workers in each economic division and sub-division since 1901 while Table 289 gives proportions per 10,000 of the total population.

*For obvious reasons the comparison has been confined to principal occupations, leaving out the secondary ones.

†The self-supporting persons of 1951 were first converted into earners on the assumption that the proportion of earners to total workers in 1951 was the same as in 1931 in each livelihood class. Next, the number of workers was estimated by assuming that the earner-worker ratio in each occupation was the same in 1951 as in 1931. If the total number of workers so arrived at for a means of livelihood differed from the known figure of workers under that means of livelihood, proportionate adjustments were made under all occupations.

Variation in the number and proportion of workers in each economic division and sub-division, 1901—51.

TABLE 288—Number of workers in each economic

Occupation	1951				1931		
	Self-supporting persons			Estimated workers	Workers		
	Persons	Males	Females		Persons	Males	Females
TOTAL NON-AGRICULTURAL	5,337,979	4,751,964	586,015	6,612,325	6,478,643	4,564,713	1,913,930
V—Production other than cultivation	1,714,932	1,559,951	154,981	2,192,832	2,604,998	1,824,068	780,930
<i>Division 0—Primary industries not elsewhere specified</i>	<i>162,508</i>	<i>142,528</i>	<i>19,980</i>	<i>218,286</i>	<i>637,447</i>	<i>487,473</i>	<i>149,974</i>
0-1 Stock raising	82,909	72,306	10,603	114,575	554,508	430,572	123,936
0-2 Rearing of small animals and insects	773	451	322	932	45	42	3
0-3 Plantation industries	13,269	11,698	1,571	17,500	32,139	21,780	10,359
0-4 Forestry and wood-cutting ..	53,615	46,535	7,080	69,234	27,465	16,190	11,275
0-5 Hunting (including trapping and game propagation)	1,186	1,186	Nil	1,453	2,313	2,229	84
0-6 Fishing	10,756	10,352	404	14,592	20,977	16,660	4,317
<i>Division 1—Mining and Quarrying</i> ..	<i>11,392</i>	<i>9,320</i>	<i>2,072</i>	<i>14,086</i>	<i>6,637</i>	<i>4,742</i>	<i>1,895</i>
<i>Total 1-0, 1-5 and 1-6—Non-metallic mining and quarrying otherwise unclassified including stone-quarrying, clay, sand-pits and mica</i>	<i>9,210</i>	<i>7,491</i>	<i>1,719</i>	<i>11,407</i>	<i>1,548</i>	<i>1,270</i>	<i>278</i>
1-0 Non-metallic mining and quarrying not otherwise classified	797	773	24	961	Nil	Nil	Nil
1-5 Stone-quarrying, clay and sand-pits	8,381	6,696	1,685	10,407	1,548	1,270	278
1-6 Mica	32	22	10	39	Nil	Nil	Nil
1-1 Coal mining	416	309	107	501	100	100	Nil
<i>Total 1-2 and 1-3—Metal mining</i> ..	<i>1,239</i>	<i>1,124</i>	<i>115</i>	<i>1,494</i>	<i>Nil</i>	<i>Nil</i>	<i>Nil</i>
1-2 Iron ore mining	374	339	35	451	Nil	Nil	Nil
1-3 Metal mining except iron ore mining	865	785	80	1,043	Nil	Nil	Nil
1-4 Crude petroleum and natural gas	318	201	117	383	Nil	Nil	Nil
1-7 Salt, saltpetre and saline substances	209	195	14	301	4,989	3,372	1,617
<i>Division 2—Processing and Manufacture—Foodstuffs, Textiles, Leather and Products thereof</i>	<i>911,464</i>	<i>811,879</i>	<i>99,585</i>	<i>1,174,967</i>	<i>1,352,193</i>	<i>826,390</i>	<i>525,803</i>
<i>Total 2-0 and 2-2—Food industries otherwise unclassified including vegetable oil and dairy products</i>	<i>154,823</i>	<i>136,882</i>	<i>17,941</i>	<i>198,530</i>	<i>290,909</i>	<i>180,039</i>	<i>110,870</i>
2-0 Food industries otherwise unclassified	63,474	60,242	3,232	78,227	61,246	55,579	5,667
2-2 Vegetable oil and dairy products ..	91,349	76,640	14,709	120,303	229,663	124,460	105,203
2-1 Grains and pulses	105,409	71,255	34,154	136,810	266,988	73,492	193,496
2-3 Sugar industries	64,323	63,077	1,246	77,856	7,026	6,952	74
2-4 Beverages	6,460	6,204	256	8,500	3,260	2,505	755
2-5 Tobacco	14,610	12,382	2,228	17,673	888	800	88
2-6 Cotton textiles	266,645	244,462	22,183	351,194	437,662	302,250	135,412
2-7 Wearing apparel (except footwear) and made-up textile goods	147,987	138,813	9,174	187,706	127,571	93,288	34,283
2-8 Textile industries otherwise unclassified	65,477	55,169	10,308	85,973	61,897	33,924	27,973
2-9 Leather, leather products and footwear	85,730	83,635	2,095	110,725	155,992	133,140	22,852
<i>Division 3—Processing and Manufacture—Metals, Chemicals and Products thereof</i>	<i>186,762</i>	<i>182,266</i>	<i>4,496</i>	<i>231,648</i>	<i>115,735</i>	<i>110,670</i>	<i>5,065</i>
<i>Total 3-0, 3-1 and 3-2—Manufacture of metal products otherwise unclassified including basic manufacture</i>	<i>129,598</i>	<i>126,229</i>	<i>3,369</i>	<i>161,837</i>	<i>111,207</i>	<i>106,321</i>	<i>4,886</i>

division and sub-division, 1901—31, 1951

1921			1911			1901		
Workers			Workers			Workers		
Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
6,183,564	4,196,422	1,987,142	7,436,058	5,021,558	2,414,500	8,452,478	5,803,370	2,649,108
2,658,501	1,720,754	937,747	3,055,853	2,002,831	1,053,022	2,921,017	2,006,557	914,460
643,512	488,860	154,652	725,957	583,163	142,794	484,137	382,776	101,361
594,032	454,838	139,194	632,681	521,207	111,474	380,592	310,441	70,151
154	130	24	627	479	148	106	78	28
15,852	10,826	5,026	33,314	22,120	11,194	77,294	52,282	25,012
19,755	13,228	6,527	36,285	23,217	13,068	5,741	4,586	1,155
2,140	1,629	511	2,773	2,559	214	3,220	2,985	235
11,579	8,209	3,370	20,277	13,581	6,696	17,184	12,404	4,780
4,870	3,351	1,519	4,612	3,448	1,164	7,348	6,069	1,279
1,234	667	567	1,330	1,199	131	286	236	50
—	—	—	—	—	—	283	233	50
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	3	3	Nil
134	132	2	31	27	4	2	2	Nil
567	550	17	27	16	11	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	Nil	Nil	Nil
Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
2,935	2,002	933	3,224	2,206	1,018	7,060	5,831	1,229
1,439,090	771,714	667,376	1,641,316	878,251	763,065	1,671,626	1,007,506	664,120
273,628	162,004	111,624	311,446	186,807 (including 4*1)	124,639	281,329	185,489	95,840
48,517	43,113	5,404	72,755	60,659	12,096	56,947	49,392	7,555
225,111	118,891	106,220	238,691	126,148 (including 4*1)	112,543	224,382	136,097	88,285
304,858	75,621	229,237	402,427	84,160	318,267	315,533	105,780	209,753
7,012	6,515	497	14,704	14,107	597	31,856	29,820	2,036
479	381	98	1,642	983	659	3,382	3,223	159
819	653	166	1,222	981	241	3,976	2,790	1,186
505,286	286,230	219,056	526,880	333,338	193,542	669,328	419,694	249,634
140,783	88,743	52,040	168,151	104,564	63,587	171,437	113,468	57,969
48,824	22,426	26,398	87,127	43,030	44,097	46,798	29,108	17,690
157,401	129,141	28,260	127,717	110,281	17,436	147,987	118,134	29,853
113,590	103,993	9,597	125,026	113,986	11,040	172,588	154,949	17,639
108,389	100,284	8,105	115,448	107,052	8,396	148,055	136,442	11,613

TABLE 288—Number of workers in each economic

Occupation	1951			1931			
	Self-supporting persons			Estimated workers	Workers		
	Persons	Males	Females	Persons	Persons	Males	Females
3·0 Manufacture of metal products otherwise unclassified	121,124	118,132	2,992	151,622	111,001	106,117	4,884
3·1 Iron and steel (basic manufacture)	7,974	7,628	346	9,613	206 (including 3·2)	204	2
3·2 Non-ferrous metals (basic manufacture)	500	469	31	602	Included	in	3·1
3·3 Transport equipment	26,324	26,034	290	32,131	1,138	1,076	62
3·4 Electrical machinery, apparatus, appliances and supplies	3,830	3,764	66	4,618	Included	in	5·5
3·5 Machinery (other than electrical machinery) including engineering workshops	13,045	12,736	309	15,972	652	652	Nil
<i>Total 3·6, 3·7 and 3·8—Manufacture of chemical products</i>	<i>13,965</i>	<i>13,503</i>	<i>462</i>	<i>17,090</i>	<i>2,738</i> (including 4·3)	<i>2,621</i>	<i>117</i>
3·6 Basic industrial chemicals, fertiliser and power alcohol	3,667	3,493	174	4,421	—	—	—
3·7 Medical and pharmaceutical preparations	701	678	23	845	—	—	—
3·8 Manufacture of chemical products otherwise unclassified	9,597	9,332	265	11,824	—	—	—
<i>Division 4—Processing and Manufacture— not elsewhere specified</i>	<i>442,806</i>	<i>413,958</i>	<i>28,848</i>	<i>553,845</i>	<i>492,986</i>	<i>394,793</i>	<i>98,193</i>
<i>Total 4·0 and 4·5—Manufacturing industries otherwise unclassified including rubber products</i>	<i>104,635</i>	<i>101,399</i>	<i>3,236</i>	<i>128,468</i>	<i>100,330</i>	<i>96,042</i>	<i>4,288</i>
4·0 Manufacturing industries otherwise unclassified	104,108	100,890	3,218	127,833	—	—	—
4·5 Rubber products	527	509	18	635	—	—	—
4·1 Products of petroleum and coal ..	1,415	1,314	101	1,706	38	38	Nil
4·2 Bricks, tiles and other structural clay products	39,357	35,466	3,891	49,866	13,810	10,588	3,222
4·3 Cement—cement pipes and other cement products	513	502	11	623	Included	in	4·4
4·4 Non-metallic mineral products ..	96,796	88,482	8,314	125,717	191,027 (including 4·3)	125,263	65,764
4·6 Wood and wood products other than furniture and fixtures	170,569	158,275	12,294	211,478	182,933	158,152	24,781
4·7 Furniture and fixtures	6,837	6,424	413	8,372	1,354	1,284	70
4·8 Paper and paper products	4,389	4,097	292	5,291	Included	in	3·8
4·9 Printing and allied industries ..	18,295	17,999	296	22,324	3,494	3,426	68
VI—Commerce	912,618	854,305	58,313	1,061,513	1,147,108	801,639	345,469
<i>Division 6—Commerce</i>	<i>912,618</i>	<i>854,305</i>	<i>58,313</i>	<i>1,061,513</i>	<i>1,147,108</i>	<i>801,639</i>	<i>345,469</i>
6·0 Retail trade otherwise unclassified ..	449,619	422,105	27,514	516,824	137,450 (including part of 6·5)	114,644	22,806
<i>Total 6·1 and 6·4—Trade in foodstuffs ..</i>	<i>301,973</i>	<i>277,916</i>	<i>24,057</i>	<i>360,336</i>	<i>846,530</i>	<i>556,285</i>	<i>290,295</i>
(i) <i>Trade in grains and pulses</i>	<i>89,311</i>	<i>84,345</i>	<i>4,966</i>	<i>103,933</i>	<i>340,942</i>	<i>271,446</i>	<i>69,496</i>
(ii) <i>Trade in other foodstuffs</i>	<i>212,662</i>	<i>193,571</i>	<i>19,091</i>	<i>256,403</i>	<i>505,633</i>	<i>284,839</i>	<i>220,799</i>
6·1 Retail trade in foodstuffs (including beverages and narcotics)	272,467	249,349	23,118	327,433	—	—	—
6·4 Wholesale trade in foodstuffs	29,506	28,567	939	32,903	—	—	—
6·2 Retail trade in fuel (including petrol)	23,162	21,044	2,118	27,293	44,805 (including part of 6·5)	20,618	24,187
6·3 Retail trade in textile and leather goods	96,749	94,506	2,243	110,615	63,806 (including part of 6·5)	60,136	3,670

division and sub-division, 1901—31, 1951—(contd.)

1921			1911			1901		
Workers			Workers			Workers		
Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
107,369	99,297	8,072	113,808	105,551	8,257	—	—	—
1,020 (including Included	987 in	33 3·2) 3·1	1,640 (including Included	1,501 in	139 3·2) 3·1	—	—	—
357	323	34	817	803	14	1,885	1,776	109
Included	in	5·5	Included	in	5·5	Nil	Nil	Nil
834	620	214	804	659	145	604	572	32
4,010	2,766	1,244	7,957	5,472	2,485	22,044	16,159	5,885
—	—	—	—	—	—	20,965	15,171	5,795
—	—	—	—	—	—	187	160	27
—	—	—	—	—	—	891	828	63
457,439	352,836	104,603	558,942	423,983	134,959	585,318	455,257	130,061
99,864	90,512	9,352	101,679	95,914	5,765	120,752	109,345	11,407
—	—	—	—	—	—	120,752	109,345	11,407
—	—	—	—	—	—	—	—	—
295	58	237	Included	in	2·2	Nil	Nil	Nil
5,395	4,222	1,173	9,111	7,465	1,646	3,408	2,945	463
58	34	24	105	95	10	1	1	Nil
177,330	110,404	66,926	219,504	133,611	85,893	214,911	139,057	75,854
170,470	144,029	26,441	220,549	179,328	41,221	240,772	198,550	42,222
935	775	160	2,491	2,167	324	768	701	67
573	461	112	276	258	18	612	586	26
2,519	2,341	178	5,227	5,145	82	4,094	4,072	22
1,014,841	716,551	298,290	1,028,550	700,700	327,850	986,698	749,673	237,025
1,014,841	716,551	298,290	1,028,550	700,700	327,850	986,698	749,673	237,025
168,701 (including part of	134,237 part of	34,464 6·5)	162,074 (including part of	124,563 part of	37,511 6·5)	233,057	185,567	47,490
653,641	434,769	218,872	679,675	436,040	243,635	590,855	425,634	165,221
254,014	204,749	49,265	305,518	243,883	61,635	276,202	226,617	49,585
399,627	230,020	169,607	374,157	192,157	182,000	314,653	199,017	115,636
—	—	—	—	—	—	590,855	425,634	165,221
—	—	—	—	—	—	—	—	—
48,469 (including part of	23,011 part of	25,458 6·5)	56,433 (including part of	23,982 part of	32,451 6·5)	29,088	16,503	12,585
59,820 (including part of	53,331 part of	6,489 6·5)	53,874 (including part of	48,437 part of	5,437 6·5)	64,538	57,163	7,375

TABLE 288—Number of workers in each economic

Occupation	1951			1931			
	Self-supporting persons		Estimated workers	Workers			
	Persons	Males	Females	Persons	Males	Females	
6·5 Wholesale trade in commodities other than foodstuffs	7,761	7,357	404	8,654	Included in 6·0, 6·2 & 6·3		
6·6 Real estate	3,238	2,071	1,167	3,615	5,209 (including 7·5)	5,130	79
<i>Total 6·7 and 6·8—Moneylending, banking and other financial business including insurance</i>	<i>30,116</i>	<i>29,306</i>	<i>810</i>	<i>34,176</i>	<i>49,258</i>	<i>44,826</i>	<i>4,432</i>
6·7 Insurance	2,468	2,448	20	2,753	—	—	—
6·8 Moneylending, banking and other financial business	27,648	26,858	790	31,423	—	—	—
VII—Transport	263,805	258,577	5,228	284,472	182,833	178,905	3,928
<i>Division 7—Transport</i>	<i>263,805</i>	<i>258,577</i>	<i>5,228</i>	<i>284,472</i>	<i>182,833</i>	<i>178,905</i>	<i>3,928</i>
7·0 Transport and communications otherwise unclassified and incidental services	2,581	2,445	136	2,757	—	—	—
7·1 Transport by road	157,196	154,268	2,928	170,434	105,489	103,162	2,327
7·2 Transport by water	7,077	6,566	511	7,715	15,581	14,796	785
7·3 Transport by air	1,488	1,457	31	1,589	Nil	Nil	Nil
7·4 Railway transport	95,463	93,841	1,622	101,977	61,763	60,947	816
					(including part of 5·2)		
VIII—Other Services and Miscellaneous Sources	2,446,624	2,079,131	367,493	3,073,508	2,543,704	1,760,101	783,603
<i>Division 5—Construction and Utilities</i>	<i>283,703</i>	<i>218,080</i>	<i>65,623</i>	<i>348,386</i>	<i>274,522</i>	<i>156,085</i>	<i>118,437</i>
5·0 Construction and maintenance of works otherwise unclassified	23,576	20,225	3,351	28,339	—	—	—
5·1 Construction and maintenance—buildings	78,291	75,039	3,252	97,473	42,031	38,118	3,913
5·2 Construction and maintenance—roads, bridges and other Transport works	16,566	14,166	2,400	20,110	6,727	5,632	1,095
					(part included in 7·4)		
5·3 Construction and maintenance—Telegraph and Telephone lines	417	350	67	501	—	—	—
5·4 Construction and maintenance operations—irrigation and other agricultural works	15,341	13,930	1,411	18,518	1,424	1,263	161
<i>Total 3·4 and 5·5—Electricity, heat, light and gas</i>	<i>9,719</i>	<i>9,566</i>	<i>153</i>	<i>11,708</i>	<i>1,338</i>	<i>1,293</i>	<i>45</i>
5·5 Works and services—electric power and gas supply	5,889	5,802	87	7,090	1,338 (including 3·4)	1,293	45
5·6 Works and services—domestic and industrial water supply	2,503	2,316	187	3,009	Included in 8·6		
5·7 Sanitary works and services—including scavengers	141,120	86,252	54,868	173,346	223,002	109,779	113,223
<i>Division 7—Storage, Warehousing and Communications</i>	<i>20,660</i>	<i>20,360</i>	<i>300</i>	<i>24,925</i>	<i>10,947</i>	<i>10,938</i>	<i>9</i>
7·5 Storage and warehousing	1,784	1,640	144	2,144	Included in 6·6		
<i>Total 7·6, 7·7, 7·8 and 7·9—Communications</i>	<i>18,876</i>	<i>18,720</i>	<i>156</i>	<i>22,781</i>	<i>10,947</i>	<i>10,938</i>	<i>9</i>
7·6 Postal services	15,149	15,107	42	18,301	—	—	—
7·7 Telegraph services	2,255	2,226	29	2,710	—	—	—
7·8 Telephone services	1,188	1,103	85	1,428	—	—	—
7·9 Wireless services	284	284	Nil	342	—	—	—
<i>Division 8—Health, Education and Public Administration</i>	<i>495,489</i>	<i>465,125</i>	<i>30,364</i>	<i>599,683</i>	<i>263,461</i>	<i>243,088</i>	<i>20,373</i>

division and sub-division, 1901—31, 1951—(contd.)

1921			1911			1901		
Workers			Workers			Workers		
Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
Included in 6·0, 6·2 and 6·3			Included in 6·0, 6·2 and 6·3			Nil	Nil	Nil
10,134 (including 8,994)	8,994	1,140 (7·5)	10,599 (including 10,159)	10,159	440 (7·5)	—	—	—
74,076	62,209	11,867	65,895	57,519	8,376	69,160	64,806	4,354
—	—	—	—	—	—	Nil	Nil	Nil
—	—	—	—	—	—	69,160	64,806	4,354
152,814	146,263	6,551	172,889	164,787	8,102	207,204	198,658	8,546
152,814	146,263	6,551	172,889	164,787	8,102	207,204	198,658	8,546
—	—	—	—	—	—	—	—	—
81,540	77,602	3,938	107,569	101,987	5,582	159,703	152,966	6,737
9,382	8,615	767	10,676	9,425	1,251	17,745	16,115	1,630
1	1	Nil	Nil	Nil	Nil	Nil	Nil	Nil
61,891	60,045	1,846	54,644	53,375	1,269	29,756	29,577	179
(including part of 5·2)			(including part of 5·2)			—	—	—
2,357,408	1,612,854	744,554	3,178,766	2,153,240	1,025,526	4,337,559	2,848,482	1,489,077
259,215	139,641	119,574	313,929	180,796	133,133	273,642	170,894	102,748
—	—	—	—	—	—	—	—	—
36,939	33,271	3,668	61,101	52,596	8,505	40,285	38,923	1,362
4,830	4,065	765	10,596	9,416	1,180	8,437	6,624	1,813
(part included in 7·4)			(part included in 7·4)			—	—	—
—	—	—	—	—	—	—	—	—
1,024	881	143	6,038	5,606	432	5,536	3,313	2,223
256	240	16	290	286	4	2	2	Nil
256 (including 240)	240	16 (3·4)	290 (including 286)	286	4 (3·4)	2	2	Nil
Included in 8·6			Included in 8·6			—	—	—
216,166	101,184	114,982	235,904	112,892	123,012	219,382	122,032	97,350
6,769	6,676	93	9,844	9,785	59	19,856	19,351	505
Included in 6·6			Included in 6·6			12,901	12,398	503
6,769	6,676	93	9,844	9,785	59	6,955	6,953	2
—	—	—	—	—	—	6,493	6,491	2
—	—	—	—	—	—	453	453	Nil
—	—	—	—	—	—	9	9	Nil
—	—	—	—	—	—	—	—	—
266,650	247,990	18,660	305,558	283,670	21,888	290,921	277,143	13,778

TABLE 288—Number of workers in each economic

Occupation	1951				1931		
	Self-supporting persons			Estimated workers	Workers		
	Persons	Males	Females		Persons	Males	Females
8·1 Medical and other Health services ..	50,950	40,023	10,927	62,186	30,920	15,083	15,837
8·2 Educational services and Research ..	107,582	95,486	12,096	129,911	52,071	48,384	3,687
<i>Total 8·3, 8·7, 8·8 and 8·9—Employees of State, Union and Foreign Governments</i>	<i>209,893</i>	<i>205,920</i>	<i>3,973</i>	<i>254,071</i>	<i>78,139</i>	<i>77,871</i>	<i>268</i>
8·3 Army, Navy and Air Force ..	Included in 8·8			—	—	—	—
8·7 Employees of State Governments ..	145,063	141,924	3,139	176,096	36,713	36,447	266
8·8 Employees of the Union Government	64,333	63,597	736	77,378	—	—	—
	(including 8·3)						
8·9 Employees of non-Indian Governments	497	399	98	597	—	—	—
8·4 Police (other than village watchmen)	64,146	64,107	39	77,105	39,314	39,314	Nil
8·5 Village officers and servants, including village watchmen	24,642	24,636	6	30,130	48,537	48,290	247
8·6 Employees of Municipalities and Local Boards (but not including persons classified under any other division or sub-division)	38,276	34,953	3,323	46,280	14,480	14,146	334
					(including 5·6)		
<i>Division 9—Services not elsewhere specified</i>	<i>1,498,753</i>	<i>1,265,133</i>	<i>233,620</i>	<i>1,907,825</i>	<i>1,764,142</i>	<i>1,180,791</i>	<i>583,351</i>
9·0 Services otherwise unclassified ..	858,347	721,532	136,815	1,106,175	580,314	371,126	209,188
9·1 Domestic services (but not including services rendered by members of family households to one another)	246,344	200,365	45,979	305,522	537,924	348,901	189,023
9·2 Barbers and beauty shops ..	122,113	114,595	7,518	152,247	222,434	170,927	51,507
9·3 Laundries and laundry services ..	125,278	97,269	28,009	162,310	228,761	124,665	104,096
9·4 Hotels, restaurants and eating houses	17,352	15,488	1,864	20,899	4,562	4,297	265
9·5 Recreation services	32,888	26,968	5,920	40,590	33,950	24,460	9,490
9·6 Legal and business services ..	33,457	32,725	732	40,325	22,880	22,835	45
9·7 Arts, letters and journalism ..	3,841	3,636	205	4,864	1,485	1,432	53
9·8 Religious, charitable and welfare services	59,133	52,555	6,578	74,893	131,832	112,148	19,684
<i>Non-productive Sources</i>	<i>148,019</i>	<i>110,433</i>	<i>37,586</i>	<i>192,689</i>	<i>230,632</i>	<i>169,199</i>	<i>61,433</i>
1 Persons living principally on income from non-agricultural property	37,684	30,540	7,144	45,297	23,854	19,176	4,678
2 Persons living principally on pensions, remittances, scholarships and funds							
3 Inmates of asylums, alms-houses and recipients of doles	2,716	2,164	552	13,113	36,948	35,675	1,273
4 Beggars and vagrants	102,749	75,329	27,420	127,942	165,512	114,216	51,296
5 All other persons living principally on income derived from non-productive activities; prostitutes	4,870	2,400	2,470	6,337	4,318	132	4,186

SECTION 4—EMPLOYMENT IN INDUSTRIES AND SERVICES

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division and sub-division, 1901—31, 1951—(contd.)

1921			1911			1901		
Workers			Workers			Workers		
Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
23,983	12,190	11,793	30,764	12,055	18,709	22,816	10,198	12,618
34,469	31,875	2,594	27,834	25,985	1,849	20,696	19,849	847
87,869	86,266	1,603	89,006	88,345	661	59,851 (including part of 8·4)	59,840	11
—	—	—	—	—	—	—	—	—
43,279	42,507	772	41,959	41,787	172	26,997 (including part of 8·4)	26,987	10
—	—	—	—	—	—	32,854	32,853	1
—	—	—	—	—	—	—	—	—
39,511	38,951	560	40,279	39,958	321	61,584	61,546 (part included in 8·7)	38
73,529	71,805	1,724	109,743	109,517	226	112,230	112,064	166
7,289 (including 5·6)	6,903	386	7,932 (including 5·6)	7,810	122	13,744	13,646	98
1,561,446	1,041,013	520,433	2,209,656	1,451,472	758,184	3,340,398	2,107,352	1,233,046
483,943	320,118	163,825	917,861	596,625	321,236	1,812,118	1,048,543	763,575
531,122	339,270	191,852	637,506	409,197	228,309	744,623	512,180	232,443
185,645	148,006	37,639	243,737	176,725	67,012	304,057	218,243	85,814
210,152	113,299	96,853	221,838	121,552	100,286	256,742	150,101	106,641
1,956	1,519	437	2,559	1,889	670	115	110	5
26,587	17,040	9,547	47,648	30,145	17,503	47,342	32,446	14,896
13,472	13,136	336	13,599	13,370	229	17,885	17,849	36
1,602	1,406	196	1,478	1,338	140	524	488	36
106,967	87,219	19,748	123,430	100,631	22,799	156,992	127,392	29,600
263,328	177,534	85,794	339,779	227,517	112,262	412,742	273,742	139,000
15,174	11,907	3,267	27,284	19,841	7,443	36,262	27,043	9,219
16,193	15,709	484	23,365	22,175	1,190	26,178	25,151	1,027
213,450	140,610	72,840	289,130*	185,501*	103,629*	340,112	221,017	119,095
18,511	9,308	9,203	—	—	—	10,190	531	9,659

* This includes the figure under "All other persons living principally on income derived from non-productive activities; prostitutes".

TABLE 289—Number of workers per 10,000 of total population in each economic division and sub-division, 1901—31, 1951

Occupation	1951	1931	1921	1911	1901
TOTAL NON-AGRICULTURAL	1,046·0	1,305·8	1,329·5	1,548·7	1,743·0
V—Production other than cultivation	346·9	525·1	571·6	636·5	602·3
<i>Division 0—Primary industries not elsewhere specified</i>	34·5	128·5	138·4	151·2	99·8
0·1 Stock raising	18·1	111·8	127·7	131·8	78·5
0·2 Rearing of small animals and insects	0·1	..	..	0·1	..
0·3 Plantation industries	2·8	6·5	3·4	6·9	15·9
0·4 Forestry and wood-cutting	11·0	5·5	4·3	7·6	1·2
0·5 Hunting (including trapping and game propagation)	0·2	0·5	0·5	0·6	0·7
0·6 Fishing	2·3	4·2	2·5	4·2	3·5
<i>Division 1—Mining and Quarrying</i>	2·2	1·3	1·0	1·0	1·5
<i>Total 1·0, 1·5 and 1·6—Non-metallic mining and quarrying otherwise unclassified including stone-quarrying, clay, sand-pits and mica</i>	1·7	0·3	0·3	0·3	0·1
1·0 Non-metallic mining and quarrying not otherwise classified	0·1	Nil	—	—	0·1
1·5 Stone-quarrying, clay and sand-pits	1·6	0·3	—	—	—
1·6 Mica .. ..	..	Nil	—	—	..
1·1 Coal mining	0·1	..	..	..	..
<i>Total 1·2 and 1·3—Metal mining</i>	0·3	Nil	0·1	..	—
1·2 Iron ore mining	0·1	Nil	—	—	—
1·3 Metal mining except iron ore mining	0·2	Nil	—	—	Nil
1·4 Crude petroleum and natural gas	0·1	Nil	Nil	Nil	Nil
1·7 Salt, saltpetre and saline substances .. ..	..	1·0	0·6	0·7	1·4
<i>Division 2—Processing and Manufacture—Foodstuffs, Textiles, Leather and Products thereof</i>	185·9	272·6	309·4	341·9	344·7
<i>Total 2·0 and 2·2—Food industries otherwise unclassified including vegetable oil and dairy products</i>	31·4	58·7	58·8	64·9 (including 4·1)	58·0
2·0 Food industries otherwise unclassified	12·4	12·4	10·4	15·2	11·7
2·2 Vegetable oil and dairy products	19·0	46·3	48·4	49·7 (including 4·1)	46·3
2·1 Grains and pulses	21·6	53·8	65·6	83·8	65·1
2·3 Sugar industries	12·3	1·4	1·5	3·1	6·6
2·4 Beverages	1·4	0·7	0·1	0·3	0·7
2·5 Tobacco	2·8	0·2	0·2	0·3	0·8
2·6 Cotton textiles	55·6	88·2	108·6	109·7	138·0
2·7 Wearing apparel (except footwear) and made-up textile goods	29·7	25·7	30·3	35·0	35·4
2·8 Textile industries otherwise unclassified	13·6	12·5	10·5	18·2	9·6
2·9 Leather, leather products and footwear	17·5	31·4	33·8	26·6	30·5
<i>Division 3—Processing and Manufacture—Metals, Chemicals and Products thereof</i>	36·7	23·3	24·4	26·0	35·6
<i>Total 3·0, 3·1 and 3·2—Manufacture of metal products otherwise unclassified including basic manufacture</i>	25·6	22·4	23·3	24·0	30·5
3·0 Manufacture of metal products otherwise unclassified	24·0	22·4	23·1	23·7	—

TABLE 289—Number of workers per 10,000 of total population in each economic division and sub-division, 1901—31, 1951—(contd.)

Occupation	1951	1931	1921	1911	1901
3·1 Iron and steel (basic manufacture)	1·5		0·2 (including	0·3 3·2)	—
3·2 Non-ferrous metals (basic manufacture) ..	0·1		Included	in 3·1	—
3·3 Transport equipment	5·1	0·2	0·1	0·2	0·4
3·4 Electrical machinery, apparatus, appliances and supplies	0·7		Included	in 5·5	—
3·5 Machinery (other than electrical machinery) including engineering workshops	2·5	0·1	0·2	0·2	0·1
<i>Total 3·6, 3·7 and 3·8—Manufacture of chemical products</i>	2·8	0·6 (including 4·8)	0·8	1·6	4·6
3·6 Basic industrial chemicals, fertiliser and power alcohol	0·7	—	—	—	4·3
3·7 Medical and pharmaceutical preparations ..	0·2	—	—	—	0·1
3·8 Manufacture of chemical products otherwise unclassified	1·9	—	—	—	0·2
<i>Division 4—Processing and Manufacture—not elsewhere specified</i>	87·6	99·4	98·4	116·4	120·7
<i>Total 4·0 and 4·5—Manufacturing industries otherwise unclassified including rubber products</i>	20·3	20·2	21·5	21·2	24·9
4·0 Manufacturing industries otherwise unclassified ..	20·2	—	—	—	24·9
4·5 Rubber products	0·1	—	—	—	—
4·1 Products of petroleum and coal	0·3	..	0·1	Included in 2·2	Nil
4·2 Bricks, tiles and other structural clay products ..	7·9	2·8	1·2	1·9	0·7
4·3 Cement—cement pipes and other cement products	0·1	Included in 4·4	..	..	..
4·4 Non-metallic mineral products	19·9	38·5 (including 4·3)	38·1	45·7	44·3
4·6 Wood and wood products other than furniture and fixtures	33·5	36·9	36·7	45·9	49·7
4·7 Furniture and fixtures	1·3	0·3	0·2	0·5	0·2
4·8 Paper and paper products	0·8	Included in 3·8	0·1	0·1	0·1
4·9 Printing and allied industries	3·5	0·7	0·5	1·1	0·8
VI—COMMERCE	167·9	231·2	218·2	214·2	203·5
<i>Division 6—Commerce</i>	167·9	231·2	218·2	214·2	203·5
6·0 Retail trade otherwise unclassified	81·7	27·7 (including	36·3 part of	33·8 6·5)	48·1
<i>Total 6·1 and 6·4—Trade in foodstuffs</i>	57·0	170·6	140·5	141·6	121·8
(i) <i>Trade in grains and pulses</i>	16·4	68·7	54·6	63·7	56·9
(ii) <i>Trade in other foodstuffs</i>	40·6	101·9	85·9	77·9	64·9
6·1 Retail trade in foodstuffs (including beverages and narcotics)	51·8	—	—	—	121·8
6·4 Wholesale trade in foodstuffs	5·2	—	—	—	—
6·2 Retail trade in fuel (including petrol) ..	4·3	9·0 (including	10·4 part of	11·7 6·5)	6·0
6·3 Retail trade in textile and leather goods ..	17·5	12·9 (including	12·9 part of	11·2 6·5)	13·3
6·5 Wholesale trade in commodities other than foodstuffs	1·4	Included in 6·0, 6·2 and 6·3			Nil
6·6 Real estate	0·6	1·1 (including	2·2 7·5)	2·2	—
<i>Total 6·7 and 6·8—Moneylending, banking and other financial business including insurance</i>	5·4	9·9	15·9	13·7	14·3
6·7 Insurance	0·4	—	—	—	Nil

TABLE 289—Number of workers per 10,000 of total population in each economic division and sub-division, 1901—31, 1951

Occupation	1951	1931	1921	1911	1901
6·8 Moneylending, banking and other financial business	5·0	—	—	—	14·3
VII—Transport	45·0	36·8	32·9	36·0	42·7
<i>Division 7—Transport</i>	<i>45·0</i>	<i>36·8</i>	<i>32·9</i>	<i>36·0</i>	<i>42·7</i>
7·0 Transport and communications otherwise unclassified and incidental services	0·4	—	—	—	—
7·1 Transport by road	27·0	21·3	17·6	22·4	32·9
7·2 Transport by water	1·2	3·1	2·0	2·2	3·7
7·3 Transport by air	0·3	Nil	..	Nil	Nil
7·4 Railway transport	16·1	12·4	13·3 (including part of 5·2)	11·4	6·1
VIII—Other Services and Miscellaneous Sources	486·2	512·7	506·8	662·0	894·5
<i>Division 5—Construction and Utilities</i>	<i>55·1</i>	<i>55·3</i>	<i>55·7</i>	<i>65·4</i>	<i>56·4</i>
5·0 Construction and maintenance of works—otherwise unclassified	4·5	—	—	—	—
5·1 Construction and maintenance—buildings	15·4	8·5	7·9	12·7	8·3
5·2 Construction and maintenance—roads, bridges and other Transport works	3·2	1·3	1·0 (part included in 7·4)	2·2	1·7
5·3 Construction and maintenance—Telegraph and Telephone lines	0·1	—	—	—	—
5·4 Construction and maintenance operations—irrigation and other agricultural works	2·9	0·3	0·2	1·3	1·2
<i>Total 3·4 and 5·5 Electricity, heat, light and gas</i>	<i>1·8</i>	<i>0·3</i>	<i>0·1</i>	<i>0·1</i>	<i>..</i>
5·5 Works and services—electric power and gas supply	1·1	0·3	0·1 (including 3·4)	0·1	..
5·6 Works and services—domestic and industrial water supply	0·5	—	Included in 8·6	—	—
5·7 Sanitary works and services—including scavengers	27·4	44·9	46·5	49·1	45·2
<i>Division 7—Storage, Warehousing and Communications</i>	<i>3·9</i>	<i>2·2</i>	<i>1·5</i>	<i>2·0</i>	<i>4·1</i>
7·5 Storage and warehousing	0·3	—	Included in 6·6	—	2·7
<i>Total 7·6, 7·7, 7·8 and 7·9—Communications</i>	<i>3·6</i>	<i>2·2</i>	<i>1·5</i>	<i>2·0</i>	<i>1·4</i>
7·6 Postal services	2·9	—	—	—	1·3
7·7 Telegraph services	0·4	—	—	—	0·1
7·8 Telephone services	0·2	—	—	—	—
7·9 Wireless services	0·1	—	—	—	—
<i>Division 8—Health, Education and Public Administration</i>	<i>94·9</i>	<i>53·1</i>	<i>57·3</i>	<i>63·6</i>	<i>60·0</i>
8·1 Medical and other Health services	9·8	6·2	5·1	6·4	4·7
8·2 Educational services and Research	20·6	10·5	7·4	5·8	4·3
<i>Total 8·3, 8·7, 8·8 and 8·9—Employees of State, Union and Foreign Governments</i>	<i>40·2</i>	<i>15·8</i>	<i>18·9</i>	<i>18·5</i>	<i>12·4</i> (including part of 8·4)
8·3 Army, Navy and Air Force	Included in 8·8	—	—	—	—
8·7 Employees of State Governments	27·9	7·4	9·3	8·7	5·6 (including part of 8·4)
8·8 Employees of the Union Government	12·2 (including 8·3)	—	—	—	6·8
8·9 Employees of non-Indian Governments	0·1	—	—	—	—

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TABLE 289—Number of workers per 10,000 of total population in each economic division and sub-division, 1901—31, 1951—(concl.)

Occupation	1951	1931	1921	1911	1901
8·4 Police (other than village watchmen)	12·2	7·9	8·5	8·4	12·7 (part included in 8·7)
8·5 Village officers and servants, including village watchmen	4·8	9·8	15·8	22·8	23·1
8·6 Employees of Municipalities and Local Boards (but not including persons classified under any other division or sub-division)	7·3	2·9	1·6 (including	1·7 5·6)	2·8
<i>Division 9—Services not elsewhere specified</i>	<i>301·8</i>	<i>355·6</i>	<i>335·7</i>	<i>460·2</i>	<i>688·9</i>
9·0 Services otherwise unclassified	175·0	117·0	104·1	191·2	373·7
9·1 Domestic services (but not including services ren- dered by members of family household to one an- other)	48·3	108·4	114·2	132·8	153·6
9·2 Barbers and beauty shops	24·1	44·8	39·9	50·8	62·7
9·3 Laundries and laundry services	25·7	46·1	45·2	46·2	52·9
9·4 Hotels, restaurants and eating houses	3·3	0·9	0·4	0·5	..
9·5 Recreation services	6·4	6·9	5·7	9·9	9·8
9·6 Legal and business services	6·4	4·6	2·9	2·8	3·7
9·7 Arts, letter and journalism	0·8	0·3	0·3	0·3	0·1
9·8 Religious, charitable and welfare services	11·8	26·6	23·0	25·7	32·4
<i>Non-productive Sources</i>	<i>30·5</i>	<i>46·5</i>	<i>56·6</i>	<i>70·8</i>	<i>85·1</i>
1 Persons living principally on income from non- agricultural property	7·2	4·8	3·2	5·7	7·5
2 Persons living principally on pensions, remittances, scholarships and funds					
3 Inmates of asylums, alms-houses and recipients of doles	2·1	7·4	3·5	4·9	5·4
4 Beggars and vagrants	20·2	33·4	45·9	60·2*	70·
5 All other persons living principally on income derived from non-productive activities; prosti- tutes	1·0	0·9	4·0	—	2·1

*This includes the figure under "All other persons living principally on income derived from non-productive activities; prostitutes"

5. We will now proceed to examine the variations under each division and important sub-divisions of the various means of livelihood.

V—Production other than cultivation

Division 0—Primary industries not elsewhere specified—All the sub-divisions of this division show a declining trend since 1911 with the exception of 0·2, Rearing of small animals and insects and 0·4, Forestry and wood-cutting, which have shown significant rise since 1931. The absolute figures under rearing of small animals are so small as to be insignificant. The employment under 0·4, Forestry and wood-cutting has, however, more than doubled since 1931. This is due to forests now supplying the bulk of the fuel-wood for the State as also railway sleepers in larger numbers.

The decline under 0·1, Stock raising, from 6·33 lakhs in 1911 to 1·15 lakhs in 1951 is most noteworthy. The reasons are to be traced in the decline in the number of sheep, goats, horses and ponies. The fall in the number of sheep is due to reduction of pasturage, lack of organization of the wool industry and increased slaughter for meat and hide. The fall in the number of goats is due to reduction of pasturage and increased slaughter for meat and hide, specially during the War years. The fall in the number of horses and ponies is to be accounted for mainly to the mechanization of transport, export during War years, and the increased cost of their maintenance.

The decline under 0·3, Plantation industries, seems to be largely due to the fact that owing to a rise in the price of agricultural produce, the principal means of livelihood of many persons who were engaged in cultivation as well as market gardening, has been converted into cultivation. Rose cultivation in Kannauj and other areas has now declined. Employment in tea industry has, however, risen and now stands at about 3,000.

Sub-division 0·6, Fishing, has declined, presumably for the same reasons as plantation industries.

Division 1—Mining and Quarrying—There is on the whole a rise in employment in this division from about 4,600 in 1911 to about 14,000 in 1951. The increase is shared by all sub-divisions except 1·7, Salt, saltpetre and saline substances, which has shown a marked decline. The increase is the largest under 1·5, Stone-quarrying, clay and sand-pits in which the workers have risen from about 1,500 in 1931 to about 10,000 in 1951, apparently as a result of increased building activities.

Division 2—Processing and Manufacture—Foodstuffs, Textile, Leather and Products thereof—This is an important division employing over half the workers of means of livelihood V and over one-sixth of the workers of all non-agricultural means of livelihood. It will be seen that there has been a steady fall in the employment of workers under this division since 1901. The fall is not merely in the proportion of workers but also in their absolute numbers. The main reason for this fall is the decline of several important cottage industries as a result of the establishment of factories.

Sub-division 2·0, Food industries otherwise unclassified, consists of making and selling of sweetmeats; slaughter, preparation and preservation of meat and its sale; bakers and biscuit factories; *chat* makers; canning and preservation of fish. This sub-division shows an increase in employment between 1931—51 but the increase has only just kept pace with the increase in population. The industries of this sub-division have not had to usually face competition from any organized factories.

Sub-division 2·1, Grains and pulses and 2·2, Vegetable oil and dairy products have both registered heavy falls since 1911. Grinding of wheat into flour, hand-pounding of rice, milling of pulses and extraction of oil from oil-seeds, which used to be carried out as cottage industries have now been gradually giving place to the power-driven mills. The number of grain-parchers has been steadily going down since 1901 (except for a small rise during 1921—31). It was 176,000 in 1901 and is now only 62,000. The fall during the last decade seems to have been aggravated by the food controls. It is interesting to find that the consumption of parched grains is on the decline, which is evidence of a change in the food habits of the people. The number of rice-pounders and huskers and flour-grinders has been steadily declining since 1911, when it was

2·39 lakhs ; it now stands at only 48,500. Manufacturers and refiners of vegetable and mineral oil have declined heavily since 1931 ; their figure was 2·3 lakhs in 1931 and is only 1·06 lakhs in 1951.

Sub-division 2·3, Sugar industries, shows a big rise owing mainly to the development of vacuum pan factories consequent on the grant of protection to sugar industry in 1932.

Sub-division 2·4, Beverages, also shows a big rise, due to the development of manufacture of ice, aerated water, and spirituous liquors. The number of toddy-drawers has fallen as a result of the excise policy of the government.

Sub-division 2·5, Tobacco, also has registered a big rise owing to the establishment of a large cigarette manufacturing factory at Saharanpur and the development of *bidi*-making.

Sub-division 2·6, Cotton textiles, shows a big fall since 1901. The introduction of factories for cotton ginning and cleaning, spinning and weaving has affected the old cottage industries. Then the production of cotton itself has come down in the State. Of the 3·5 lakh workers in this sub-division over one-third are employed in cotton textile factories. The number of persons employed in cotton spinning, sizing and weaving has gradually fallen from 5·82 lakhs in 1901 to about 3·17 lakhs in 1951, while those employed in cotton ginning, cleaning and pressing has fallen from 70,000 in 1901 to only about 22,000 in 1951.

Sub-division 2·7, Wearing apparel (except footwear) and made-up textile goods, consists of tailors, milliners, dress-makers and darners ; *patwas* ; hosiery manufacture ; embroideries ; makers of crepe, lace and fringes ; fur dressers and dyers ; hat makers ; manufacture of house-furnishing textiles ; tent makers ; umbrella-makers and repairers ; makers of *sooti kalin and niwar* ; and makers of made-up textile goods. This sub-division has registered a large increase over 1931 although it was declining between 1901—31. The tailors form the bulk of this sub-division.

Sub-division 2·8, Textile industries otherwise unclassified, includes jute, woollen, silk, hemp and flax, rayon, rope and other such industries. This sub-division also shows a rise from about 62,000 workers in 1931 to about 86,000 workers in 1951. The workers in jute mills have increased from about 1,000 to about 6,600. Jute growing is being encouraged in the State and the number of jute mills has increased from one in 1931 to three in 1951. Employment in silk industry shows a decline.

Sub-division 2·9, Leather, leather products and footwear, shows a heavy fall between 1931—51. The establishment of leather tanning and shoe manufacturing factories has resulted in a decline of the cottage leather industries.

Division 3—Processing and manufacture—metals, chemicals and products thereof—Owing to development of large scale industry and transport all the sub-divisions show improvement since 1931, in particular 3·0, Manufacture of metal products otherwise unclassified ; 3·1 and 3·2, Basic manufacture of metals ; 3·3, Transport equipment, including manufacture, repair and assemblage of bicycles, coach builders and makers of carriages, repair of railway equipment and repair of motor vehicles ; 3·5, Machinery including engineering workshops ; and 3·6, 3·7 and 3·8, Manufacture of chemical products.

Division 4—Processing and manufacture not elsewhere specified—This division shows all-round improvement since 1921 with the exception of Sub-division 4·4, Non-metallic mineral products, which includes potters and makers of earthenwares whose number has come down from 177,614 in 1931 to about 87,000 in 1951. The Sub-divisions showing marked rise are 4·2, Bricks, tiles and other structural clay products ; 4·6, Wood and wood products ; 4·7, Furniture and fixtures ; and 4·9, Printing and allied industries.

VI—Commerce

Division 6, Commerce, employs about 16·1 per cent. of the non-agricultural workers. There has been a gradual fall under this division in the proportion of workers to the total population and between 1931—51 even the absolute figures have come down by about a lakh. The fall is due to reduction under trade in foodstuffs as a result of government controls ; reduction under retail trade in fuel due to disappearance of local fuel reserves, government control

over distribution of fuel and kerosene, and replacement of kerosene by electricity for lighting purposes; and the reduction under moneylending as a result of debt relief legislation.

Sub-divisions 6·1 and 6·4, Retail and wholesale trade in foodstuffs, has registered a big fall since 1931; the obvious result of the introduction of government controls and rationing in the beginning of the decade 1941—50. Only a limited number of retailers in foodstuffs are now licenced. The dealers in grains and pulses also were 3·41 lakhs in 1931 and are now only 1·04 lakhs. The number of dealers in dairy products, eggs and poultry has come down from 1·29 lakhs in 1931 to about 40,000 in 1951 and the number of dealers in fodder for animals has come down from 42,000 in 1931 to about 8,000 in 1951.

Sub-division 6·2, Retail trade in fuel has gone down since 1911 mainly as a result of the disappearance of fuel reserves in the outskirts of towns and villages. Formerly labourers, chiefly women used to collect fuel and sell it in the nearest bazaars but this trade has nearly disappeared. The fall in the number of women-workers in this sub-division is noteworthy. The fuel requirements of the towns are now met by fuel-wood from the forests. Another retail trade in this sub-division was that of kerosene oil, which has received a set-back as a result of controls and the replacement of kerosene by electricity for domestic lighting.

Sub-division 6·3, Retail trade in textile and leather goods shows a large increase since 1911 because of the increase in the number of cloth retailers. Although cloth was also under government control recently licences for the retail of cloth were (unlike those for retail of foodstuffs) distributed rather liberally, in particular to displaced persons. Retail trade in leather goods also has apparently shown an improvement.

Sub-divisions 6·7 and 6·8, Moneylending, banking and other financial business, including insurance, has been declining greatly since 1921. No separate figures for insurance are available for the previous censuses. The reduction in 1931 was due to the economic depression and the subsequent decline is due to exhaustive legislation on the regulation of credit and relief of debt as also to the impending abolition of zamindari.

VII—Transport

Division 7, Transport, now employs 4·3 per cent. of the non-agricultural workers. It has registered a significant rise since 1921 and specially between 1931—51. Transport by road, air and railway all show large increases; only transport by water shows a fall. The development of road transport is mainly due to the introduction of motor vehicles as also to the increase in the mileage of *pukka* roads. It may be mentioned that owing to mechanized transport animal driven transport has received a set-back. Air transport is a new feature. The State has important civil aerodromes at Kanpur, Lucknow and Allahabad. Railway transport shows a rise owing to the increase in the number of railway employees.

VIII—Other Services and Miscellaneous Sources

Means of livelihood VIII is a residuary one and employs the largest proportion of non-agricultural workers. It consists of portions of Division 7 and the whole of Divisions 5, 8 and 9 and non-productive sources. There is a marked rise in the means of livelihood VIII between 1931 and 1951 and the rise is shared by all the divisions constituting it.

Division 5, Construction and utilities, shows an all-round rise. The apparent decline in Sub-division 5·7 is due to the transfer of some of the employees to Sub-divisions 5·6 and 8·6; there is actually no real decline. The rise is obviously due to increasing activities under all the sub-divisions—Construction and maintenance of works—buildings, roads, bridges, Telegraph and Telephone lines, irrigation and agricultural works; electric power and gas supply and domestic and industrial water-supply.

Sub-divisions 7·6, 7·7, 7·8 and 7·9, Communications, relate mainly to employees in Postal, Telegraph, Telephone and Wireless services. Their number has greatly increased since 1921 and specially since 1931 due to expansion of these departments.

Division 8, Health, education and public administration, has registered a large increase since 1931. All sub-divisions show increases with the exception of village officers and servants. The reduction in village officers and servants might be due to reduction in the number of village chaukidars. The increases in medical and health services, educational services and research, police, and employees of municipalities need no comment; they are the result of expansion of activities.

Division 9, Services not elsewhere specified comprises 28·9 per cent. of the non-agricultural workers. It shows a small rise of absolute numbers since 1921. But four sub-divisions show decreases—domestic services, barbers and beauty shops, laundries and laundry services, and religious and welfare services. Domestic servants have declined because of the rise in the cost of living which has made the engagement of a domestic servant beyond the means of most middle class families. Barbers who used to perform many functions during marriages, etc., are now in less demand for these purposes; some of them have taken to other professions including cultivation. The reduction in the number under laundry services may be due to cultivation having become their principal means of livelihood of most of the rural workers. The reduction under religious, charitable and welfare services is due to the priestly class being not now so much in demand as before. Hotels and restaurants have increased as also legal and business services and arts, letters and journalism.

Non-productive sources—They show a steady decline, both in absolute and proportionate figures since 1901. Their number has come down from 4·13 lakhs in 1901 to 1·9 lakhs in 1951.

Beggars and vagrants, who form the bulk of the non-productive sources, have also been steadily declining. Their number has come down from 3·40 lakhs in 1901 to 1·28 lakhs in 1951. The next numerous non-productive source consists of persons living on income from non-agricultural property, pensions, remittances, scholarships and funds. This has been increasing since 1921, presumably due to increase in the number of pensioners.

6. Table 290 gives the number of workers in agricultural and non-agricultural occupations and their percentage to total population by sex since 1901. It will be seen that the proportion of female workers in non-agricultural

Variation in the number and proportion of female workers since 1901

TABLE 290—*Distribution of workers in agricultural and non-agricultural occupations and their percentage to total population by sex since 1901*

Year	Persons			Males			Females		
	Total	Agricultural occupations	Non-agricultural occupations	Total	Agricultural occupations	Non-agricultural occupations	Total	Agricultural occupations	Non-agricultural occupations
1901 ..	23,610,903 (48·7)	15,158,425 (31·3)	8,452,478 (17·4)	16,472,621 (65·8)	10,669,251 (42·6)	5,803,370 (23·2)	7,138,282 (30·4)	4,489,174 (19·1)	2,649,108 (11·3)
1911 ..	24,641,446 (51·3)	17,205,388 (35·8)	7,436,058 (15·5)	16,801,251 (67·0)	11,779,693 (47·0)	5,021,558 (20·0)	7,840,195 (34·2)	5,425,695 (23·7)	2,414,500 (10·5)
1921 ..	24,830,283 (53·4)	18,645,719 (40·1)	6,183,564 (13·3)	16,400,670 (67·3)	12,204,248 (50·1)	4,195,422 (17·2)	8,429,613 (33·1)	6,442,471 (29·1)	1,987,142 (9·0)
1931 ..	24,159,472 (48·7)	17,680,829 (35·6)	6,478,643 (13·1)	16,974,737 (65·1)	12,410,024 (47·6)	4,564,713 (17·5)	7,184,735 (30·5)	5,270,805 (22·4)	1,913,930 (8·1)
1951 ..	26,839,316 (42·5)	20,226,991 (32·0)	6,612,325 (10·5)	19,530,399 (59·0)	14,295,036 (43·2)	5,235,313 (15·8)	7,308,917 (24·3)	5,931,905 (19·7)	1,377,012 (4·6)

occupations has been steadily going down since 1901 and the fall is very steep between 1931—51. Even the absolute figures have gone down from 26·5 lakhs in 1901 to 13·8 lakhs in 1951. The proportions are also falling in agricultural occupations since 1921. These figures speak eloquently of the lack of avenues of employment with the natural adverse effect on the employment of women. This increases the proportion of non-earning dependants and may even have an effect on the position of women in the home.

In order to study the variations in the employment of women since 1901, Tables 291 and 292 have been prepared from the figures contained in Tables 288 and 289; Table 292

TABLE 291—*Important economic sub-divisions in which employment of women has declined in Uttar Pradesh*

Economic sub-division	Number of female										
	Number of workers of both sexes per 10,000 of total population					Self-sup- porting persons	Workers				
	1951	1931	1921	1911	1901		1951	1931	1921	1911	1901
0·1 Stock raising	18·1	111·8	127·7	131·8	78·5	10,603	123,936	139,194	111,474	70,151	
0·4 Plantation industries	2·8	6·5	3·4	6·9	15·9	1,571	10,359	5,026	11,194	25,012	
0·4 Forestry and wood-cutting	11·0	5·5	4·3	7·6	1·2	7,080	11,275	6,527	13,068	1,155	
0·5 Hunting (including trapping and game propagation)	0·2	0·5	0·5	0·6	0·7	Nil	84	511	214	235	
0·6 Fishing	2·3	4·2	2·5	4·2	3·5	404	4,317	3,370	6,696	4,780	
1·7 Salt, saltpetre and saline substances	..	1·0	0·6	0·7	1·4	14	1,617	933	1,018	1,229	
Total 2·0 and 2·2—Food industries otherwise unclassified including vegetable oil and dairy products	31·4	58·7	58·8	64·9 (including 4·1)	58·0	17,941	110,870	111,624	124,639 (including 4·1)	95,840	
2·1 Grains and pulses	21·6	53·8	65·6	83·8	65·1	34,154	193,496	229,237	318,267	209,753	
2·4 Beverages	1·4	0·7	0·1	0·3	0·7	256	755	98	659	159	
2·6 Cotton textiles	55·6	88·2	108·6	109·7	138·0	22,183	135,412	219,056	193,542	249,634	
2·7 Wearing apparel (except footwear) and made-up textile goods	29·7	25·7	30·3	35·0	35·4	9,174	34,283	52,040	63,587	57,969	
2·8 Textile industries otherwise unclassified	13·6	12·5	10·5	18·2	9·6	10,308	27,973	26,398	44,097	17,690	
2·9 Leather, leather products and footwear	17·5	31·4	33·8	26·6	30·5	2,095	22,852	28,260	17,436	29,853	
4·4 Non-metallic mineral products	19·9	38·5 (including 4·3)	38·1	45·7	44·3	8,314	65,764 (including 4·3)	66,926	85,893	75,854	
4·6 Wood and wood products other than furniture and fixtures	33·5	36·9	36·7	45·9	49·7	12,294	24,781	26,441	41,221	42,222	
Total 6·1 and 6·4—Trade in foodstuffs	57·0	170·6	140·5	141·6	121·8	24,057	290,295	218,872	243,635	165,221	
6·2 Retail trade in fuel (including petrol)	4·3	9·0	10·4	11·7	6·0	2,118	24,187	25,458	32,451	12,585	
		(including part of 6·5)					(including part of 6·5)				
6·3 Retail trade in textile and leather goods	17·5	12·9	12·9	11·2	13·3	2,243	3,670	6,489	5,437	7,375	
		(including part of 6·5)					(including part of 6·5)				
Total 6·7 and 6·8—Money-lending, banking and other financial business including insurance	5·4	9·9	15·9	13·7	14·3	810	4,432	11,867	8,376	4,354	
5·7 Sanitary works and services including scavengers	27·4	44·9	46·5	49·1	45·2	54,868	113,223	114,982	123,012	97,350	
9·0 Services otherwise unclassified	175·0	117·0	104·1	191·2	373·7	136,815	209,188	163,825	321,236	763,575	
9·1 Domestic services (but not including services rendered by members of family household to one another)	48·3	108·4	114·2	132·8	153·6	45,979	189,023	191,852	228,309	232,443	
9·2 Barbers and beauty shops	24·1	44·8	39·9	50·8	62·7	7,518	51,507	37,639	67,012	85,814	
9·3 Laundries and laundry services	25·7	46·1	45·2	46·2	52·9	28,009	104,096	96,853	100,286	106,641	
9·8 Religious, charitable and welfare services	11·8	26·6	23·0	25·7	32·4	6,578	19,684	19,748	22,799	29,600	

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TABLE 292—Important economic sub-divisions in which employment of women has increased in Uttar Pradesh

Economic sub-division	Number of workers of both sexes per 10,000 of total population					Self-sup- porting persons	Number of female				
							Workers				
	1951	1931	1921	1911	1901		1951	1931	1921	1911	1901
0·2 Rearing of small animals and insects	0·1	..	..	0·1	..	322	3	24	148	28
Total 1·0, 1·5 and 1·6—Non-metallic mining and quarrying otherwise unclassified including stone-quarrying, clay, sand-pits and mica	1·7	0·3	0·3	0·3	0·1	1,719	278	567	131	50	
1·1 Coal mining	0·1	..	..	..	..	107	Nil	2	4	Nil
Total 1·2 and 1·3—Metal mining	0·3	Nil	0·1	..	—	115	Nil	17	11	—	
1·4 Crude petroleum and natural gas	0·1	Nil	Nil	Nil	Nil	117	Nil	Nil	Nil	Nil	
2·3 Sugar industries	12·3	1·4	1·5	3·1	6·6	1,246	74	497	597	2,036	
2·5 Tobacco	2·8	0·2	0·2	0·3	0·8	2,228	88	166	241	1,186	
3·1 Iron and steel (basic manufacture)	1·5	..	0·2 (including 3·2)	0·3	—	346	2	33 (including 3·2)	139	—	
3·3 Transport equipment	5·1	0·2	0·1	0·2	0·4	290	62	34	14	109	
3·5 Machinery (other than electrical machinery) including engineering workshops	2·5	0·1	0·2	0·2	0·1	309	Nil	214	145	32	
Total 3·6, 3·7 and 3·8—Manufacture of chemical products	2·8	0·6 (including 4·8)	0·8	1·6	4·6	462	117 (including 4·8)	1,244	2,485	5,885	
4·1 Products of petroleum and coal	0·3	..	0·1	Included in 2·2	Nil	101	Nil	237	Included in 2·2	Nil	
4·2 Bricks, tiles and other structural clay products	7·9	2·8	1·2	1·9	0·7	3,891	3,222	1,173	1,646	463	
4·7 Furniture and fixtures	1·3	0·3	0·2	0·5	0·2	413	70	160	324	67	
4·8 Paper and paper products	0·8	Included in 3·8)	0·1	0·1	0·1	292	Included in 3·8	112	18	26	
4·9 Printing and allied industries	3·5	0·7	0·5	1·1	0·8	296	68	178	82	22	
6·0 Retail trade otherwise unclassified	81·7	27·7 (including part of 6·5)	36·3	33·8	48·1	27,514	22,806 (including part of 6·5)	34,464	37,511	47,490	
6·6 Real estate	0·6	1·1 (including 7·5)	2·2	2·2	—	1,167	79 (including 7·5)	1,140	440	Nil	
7·3 Transport by air	0·3	Nil	..	Nil	Nil	31	Nil	Nil	Nil	Nil	
7·4 Railway transport	16·1	12·4 (including part of 5·2)	13·3	11·4	6·1	1,622	816 (including part of 5·2)	1,846	1,269	179	
5·2 Construction and maintenance—roads, bridges and other Transport works	3·2	1·3 (part included in 7·4)	1·0	2·2	1·7	2,400	1,095 (part included in 7·4)	765	1,180	1,813	
5·4 Construction and maintenance operations—irrigation and other agricultural works	2·9	0·3	0·2	1·3	1·2	1,411	161	143	432	2,223	
5·5 Works and services—electric power and gas supply	1·1	0·3 (including 3·4)	0·1	0·1	..	87	45 (including 3·4)	16	4	Nil	
Total 7·6, 7·7, 7·8 and 7·9—Communications	3·6	2·2	1·5	2·0	1·4	156	9	93	59	2	

TABLE 292—Important economic sub-divisions in which employment of women has increased in Uttar Pradesh—(contd.)

Economic sub-division	Number of female										
	Number of workers of both sexes per 10,000 of total population					Self-sup- porting persons	Workers				
	1951	1931	1921	1911	1901		1951	1931	1921	1911	1901
8·2 Educational services and Research	20·6	10·5	7·4	5·8	4·3	12,096	3,687	2,594	1,849	847	
Total 8·3, 8·7, 8·8 and 8·9— Employees of State, Union and Foreign Governments	40·2	15·8	18·9	18·5	12·4 (including part of 8·4)	3,973	268	1,603	661	11 (including part of 8·4)	
8·4 Police (other than village watchmen)	12·2	7·9	8·5	8·4	12·7 (part included in 8·7)	39	Nil	560	321	38 (part included in 8·7)	
8·6 Employees of Municipalities and Local Boards (but not including persons classified under any other division or sub-division)	7·3	2·9 (including	1·6 (including	1·7 5·6)	2·8	3,323	334 (including	386 5·6)	122	98	
9·4 Hotels, restaurants and eating houses	3·3	0·9	0·4	0·5	..	1,864	265	437	670	5	
9·6 Legal and business services	6·4	4·6	2·9	2·8	3·7	732	45	336	229	36	
9·7 Arts, letters and journalism	0·8	0·3	0·3	0·3	0·1	205	53	196	140	36	

containing a list of important non-agricultural sub-divisions in which the employment of women shows increasing trend and Table 291 containing a list of sub-divisions in which the employment of women shows declining trend in 1951 as compared with previous censuses.

There are very few occupations in which an increasing trend is observable in 1951 and these are generally those employing relatively a small number of persons. The principal sub-divisions in this category are 6·0, Retail trade otherwise unclassified, in which the number of women in 1951 shows an increase only over that of 1931, but is still behind that of previous censuses; and 8·2, Educational services and research, in which the increase is obviously due to increase in the number of women teachers.

On the other hand Table 291 contains a large number of important sub-divisions in which the employment of women shows a declining trend. The principal falls are under sub-division 0·1, Stock raising; 2·0 and 2·2, Food industries; 2·1, Grains and pulses; 2·6, Cotton textiles; 2·7, Wearing apparel; 2·9, Leather and leather products; 4·4, Non-metallic mineral products; 4·6, Wood and wood products; 6·1 and 6·4, Trade in foodstuffs; 6·2, Retail trade in fuel; 5·7, Sanitary works and services including scavengers; 9·0, Services otherwise unclassified; 9·2, Barbers and beauty shops; 9·3, Laundries and laundry services; and 9·8, Religious, charitable and welfare services. The reasons for the decline have already been discussed above. The point to note is that the decline has fallen more heavily on females than males.

SECTION 5—CONCLUDING REMARKS

1. Let us now collect the important conclusions of the previous sections of this chapter. In spite of progressive industrialization, India is still a predominantly agricultural country and the number of persons dependent on non-agricultural occupations for their livelihood is very much smaller than those dependent on agriculture. In India as a whole the non-agricultural population is 30·2 per cent. while the corresponding figures for United Kingdom is 94 per cent. and for U. S. A. 82·4 per cent. Uttar Pradesh is one of the more agricultural States of India, its non-agricultural population being only 25·8 per cent.

Low non-agricultural population ratio in India and U. P.

2. Among the non-agricultural classes the proportion of self-supporting persons is 32·7 per cent., of earning dependants, 5·7 per cent. and that of non-earning dependants, 61·6 per cent. The main difference in the proportions as compared with the agricultural classes is in respect of earning dependants who represent 14·2 per cent. of the agricultural classes. This is due to the greater scope in agriculture for the participation of women and children in family cultivation.

Self-supporting persons, earning and non-earning dependants

3. Among the self-supporting persons of non-agricultural classes the employees and independent workers together constitute about 94 per cent. The proportion of employers is very small (2·80 per cent.) the proportion being considerably higher in the urban (4·58 per cent.) than in the rural (1·41 per cent.) areas. This was to be expected as organized industries and trade are mostly located in the urban areas. There is an overwhelming preponderance of independent workers over employees in the rural areas of the State while in the urban areas the independent workers have only a slender majority. The independent worker still rules supreme in the rural areas while in the urban areas, the independent workers are gradually giving place to employees.

Employers, employees and independent workers

4. There has been a progressive decline in the proportion of non-agricultural workers to the total population since 1901. The proportion fell from 17·4 per cent. to 13·3 per cent. during 1901—21, remained practically steady during 1921—31 and fell sharply from 13·1 to 10·5 per cent. in 1951. The decline is particularly noteworthy in means of livelihood V, Production other than cultivation, where even the absolute figures have gone down since 1911; the number was about 30·6 lakhs in 1911 and only about 22 lakhs in 1951. The reduction is accounted for mainly by the fall in the number of workers engaged in cottage and small scale industries. The reduction in the proportion of female workers has been greater than in the proportion of male workers. There has been a corresponding increase in the proportion of non-earning dependants.

Progressive decline in the proportion of workers

5. Examining the variation in the proportion of workers by economic divisions and sub-divisions, it appears that the important divisions and sub-divisions in which marked decline has taken place are the following :

Employment in industries and services

Division 1—Primary industries not elsewhere specified—0·1, Stock raising.

Division 2—Processing and manufacture of foodstuffs, textiles, leather and products thereof—2·1, Grains and pulses ; 2·2, Vegetable oil and dairy products ; 2·6, Cotton textiles ; and 2·9, Leather, leather products and footwear.

Division 6—Commerce—6·1 and 6·4, Retail and wholesale trade in foodstuffs ; 6·2, Retail trade in fuel ; and 6·7 and 6·8, Moneylending, banking and other financial business.

The above list is only illustrative. It, however, shows clearly why there is a retrogression in the employment trends. Stock-raising is going down because of reduction in pasture-lands as a result of pressure of cultivation and because of the decline in animal transport in competition with motor transport. The industries of Division 2, Processing and manufacture of foodstuffs, textiles, leather and products thereof, have all been hard hit by the establishment of factories. Mahatma Gandhi pointedly focussed attention on this decline and advocated the encouragement of village industries in order to provide very essential secondary employment to the poor people. Trade in foodstuffs has declined because of controls. The trade in fuel has declined because the increasing pressure of population, specially during the last 30 years, has resulted

in the dwindling of local fuel reserves. There is no doubt whatsoever that there has been a definite deterioration in the general employment position in spite of the expansion of large scale industries.

A very significant feature of this decline in employment is the particularly heavy decline in the employment of women. This is due to the fact that many of the industries which have registered a decline used to employ a large proportion of women. Men also usually drive women out of the employment field whenever there is lack of scope for employment. The inevitable result of this reduction in the number of women workers is the increase in the number of non-earning dependants. The family is tending to be more and more monolithic i.e., dependent on one principal earner, and its economic condition is deteriorating. This is also likely to affect the status of women in the family.

It is apparent that the decline in employment in non-agricultural occupations is one of the chief causes of the existing unemployment and under-employment in the country.

CHAPTER VI—FAMILIES, SEXES AND PRINCIPAL AGE-GROUPS

SECTION I—PRELIMINARY REMARKS

1. The previous chapters have dealt with the growth of population and its occupational composition. In this chapter it is proposed to deal with certain other aspects of the composition of the population—household, sex, marital status, and age.

2. The statistics reviewed in this chapter are set out in Table A-I, Area, houses and population, in Part II-A of the Report and in the following tables in Part II-C of the Report :

Reference to
statistics

Table C-I—Household (size and composition)

Table C-II—Livelihood classes by age-groups

Table C-III—Age and civil condition

Table C-V—Single year age returns

Table C-I, which shows certain characteristics of households, is a new table. Tables C-II and C-V are also new. Table C-III corresponds to a similar table of 1931. The table dealing with households exhibits the data of a 4 per cent. sample of households. The census tables dealing with livelihood classes by age-groups, civil condition and single year age returns are based on a 10 per cent. sample of population.

The proportionate figures reviewed in this chapter are given in the following subsidiary tables in Part I-B of the Report :

Subsidiary Table 6.1—Persons per 1,000 households and households per 100 square miles and comparison with past censuses

Subsidiary Table 6.1-A—Variation in population, number and size of households

Subsidiary Table 6.2—Number of households per 1,000 houses, and distribution by size of 1,000 sample households of rural and urban population

Subsidiary Table 6.3—Family composition of 1,000 households of the general population

Subsidiary Table 6.4—Females per 1,000 males (general, rural and urban population) and comparison with previous censuses

Subsidiary Table 6.5—Females per 1,000 males in agricultural classes and sub-classes

Subsidiary Table 6.6—Females per 1,000 males in non-agricultural classes and sub-classes

Subsidiary Table 6.6-A—Number of females per 1,000 males at different age-periods for the last five censuses

Subsidiary Table 6.6-B—Number of female births/deaths per 1,000 male births/deaths since 1891

Subsidiary Table 6.6-C—Number of females per 1,000 males in cities for the last five censuses

Subsidiary Table 6.7—Marital status of 1,000 of each sex of general population and comparison with previous censuses

Subsidiary Table 6.8—Age distribution of 1,000 married persons of each sex and comparison with 1941 census

Subsidiary Table 6.8-A—Distribution by civil condition of 1,000 of each sex and age-group at each of the last five censuses

Subsidiary Table 6.9—Infants per 10,000 persons

Subsidiary Table 6.10—Young children aged 1—4 per 10,000 persons

Subsidiary Table 6.11—Boys and girls aged 5—14 per 10,000 persons

Subsidiary Table 6.12—Young men and women aged 15—34 per 10,000 persons

Subsidiary Table 6·13—Middle-aged persons aged 35—54 per 10,000 persons

Subsidiary Table 6·14—Elderly persons aged 55 and over per 10,000 persons

Subsidiary Table 6·15—Mean variation in population at certain age-periods

Subsidiary Table 6·15-A—Mean variation in population at certain age-periods

Subsidiary Table 6·16—Age distribution of 10,000 of each sex in the State and each natural division

Subsidiary Table 6·17—Age distribution (smoothed) of 10,000 of each sex in the State, 1951

Subsidiary Table 6·18—Proportion of children under 10 and of persons 60 and over to those aged 15—44; also of married females aged 15—44 to females of all ages.

Comparability
with previous
censuses

3. Wherever possible comparative figures of the previous censuses have been given in the subsidiary tables. Subsidiary Table 6·4 showing the sex-ratio statistics has been prepared from Table A-II in Part II-A of the Report in which the population of the previous censuses has been duly adjusted for changes in area, and the statistics of 1951 are, therefore, fully comparable with those of the previous censuses. But the figures of sex-ratio in the agricultural and non-agricultural classes given in Subsidiary Tables 6·5 and 6·6 are not comparable with those given in the previous census Reports on account of differences in the economic classification of people at the different censuses. While considering the age groupings in subsidiary tables it should be borne in mind that the statistics for 1931 were based on a total count and were smoothed but for the censuses prior to it the statistics were not smoothed. The figures of the 1941 census are based on a 2 per cent. sample and are adopted from Table 1, Age and civil condition, in "Census of India, Paper No. 6, 1951—Age Tables—Uttar Pradesh—1941—on 'Y'—Sample". The limitations of the 'Y'—Sample are as follows :

"The 2 per cent. slips, unfortunately were not extracted everywhere strictly according to instructions ; in certain areas more than 2 per cent. and in certain others less than 2 per cent. were taken out. The age distribution within the 'Y' Sample does not, therefore, directly reflect the age characteristics of the total population as correctly as a random 2 per cent. sample should. In the process of reconstruction, adjustments were made, as far as possible on available evidence, to make allowances for these deviations, so that the appended tables show the distribution of the total population".*

However, in Table 1 of the 'Y' Sample mentioned above the bias in favour of certain ages was eliminated to an appreciable extent by forming certain auxiliary age-groups before transforming them to those actually presented. The method employed was in the main that recommended by Sri Vaidyanathan in the *Actuarial Report* on the Census of India 1931. On the other hand, as has been said before, the statistics in the subsidiary tables of 1951 are based on a 10 per cent. sample and no smoothing formula has been applied in the formation of the age-groups.

*Supplementary Tables 1941 based on 'Y' Sample by Indian Statistical Institute, 1950.

SECTION 2—TERRITORIAL DISTRIBUTION OF HOUSES AND HOUSEHOLDS

1. The aggregation of population in the natural divisions and districts has been considered in Chapter I. It now remains to examine its aggregation in the smallest available unit, that of the house and household. The figures for houses and households for each district in the State are given in Table A-I and notes to that table respectively. The proportionate figures of households are given in Subsidiary Table 6·1 and 6·1-A.

2. Following the practice of all advanced countries the Indian census has recognised 'house' and 'household' as different conceptions for the first time in 1951. A 'house' has been defined as any human dwelling having a separate main entrance while a 'household' is any family group living as a commensal unit within a house. Groups other than family groups living in houses as commensal units have been called 'institutions'.* Persons or families not living in a house have been termed "houseless population". The household population as distinct from the institutional and houseless population has been determined separately for the first time in this census.

Definition of
'house' and
'household'

It appears that when the decennial series of censuses started in India in 1881 two separate terms 'house' and 'family' were used and even data for 'occupied houses' and 'families' was presented separately. But the house had been defined as the dwelling place of one or more families with their resident servants, "having a separate principal entrance from the common way". This resulted in a block of flats or an *ahata* (enclosure) containing several houses being treated as one census house. In 1891 the definition was modified slightly by adding the proviso that in case of enclosures inhabited by *four or more families* the parts of the enclosure inhabited by each family *might* be considered as a separate house. In 1901 the definition was further modified as follows: "when more than one independent family inhabited one enclosure, the part occupied by each is a separate house". It is obvious that these three censuses failed to clear the distinction between a 'house' and 'household' (or family) and finally almost merged the two. In 1911 a clear-cut definition of 'house' was given for the first time as follows:

"A house for census purposes is the dwelling place of a single commensal family which uses the same *chulha*, whether it be a building or part of a building or a temporary shelter. For the purposes of the general village register the patwari should be ordered to count each family which "eats from one and the same *chulha*."

The above definition of a house, which held the field till 1941, is in fact the definition of what other advanced countries call a 'household' or 'family'. The 1951 census has accepted it as the definition of a 'household' and defined 'house' separately as any human dwelling having a separate main entrance.

3. The advanced countries, besides distinguishing house and household, also elaborate the term 'house'.

Elaboration of the
term 'house' in
other countries

The Australian census of 1947, for instance, defined the following terms: †

Family means a household group living together as a family unit.

Dwelling is defined for the purposes of the census as a room or a collection of rooms occupied by a household group living together as a family unit, whether comprising the whole or only a part of a house or other building (including temporary structures).

Private house (shared by two or more families) is a private house shared by two or more family units for which only one householder's schedule was received, instead of separate schedules for each portion occupied separately. Figures shown under this heading represent not "occupied dwellings" but "houses" occupied by more than one family.

Share of private house is a portion of a shared private house which is occupied separately and for which a separate householder's schedule was furnished. "Shares" are correctly described as dwellings for census purposes.

Flat is part of a house or other building ordinarily intended for occupation by a separate family group and is a self-contained unit with both cooking and bathing facilities.

* In some Western countries the term used is 'non-family households'.

† *Census of the Commonwealth of Australia, 1947, Bulletin No. 25,*

Tenement is a part of a house or other building ordinarily intended for occupation by a separate family group but is not a self-contained unit and consists in the main of a room with cooking facilities.

It may be useful to introduce some elaboration in the Indian definition of a house also in future.

4. Getting the difference between 'house' and 'household' across to the enumerator, turned out to be a formidable task. In order to make sure that the new ideas went home the numbering of houses as well as households (where more than one household lived in the same house) was ordered. Some of the instructions given are summarised below :

The test of a 'house' is the existence of an *entrance*. It may open on a public street or in a verandah (as in the case of flats) or in a common outer courtyard (as in the case of *ahatas*).

In hotels or *sarais* each room or suite of rooms allotted to a different traveller or family is a house.

In the compounds of bungalows each tenement in a row of servants' quarters is a house.

Where more than one household is residing within a house each should be given a separate number as follows : Three households living within house No. 129 should be numbered 129 (A), 129(B) and 129 (C) but the numbers should be marked *only* at the entrance of the house as indication of the existence of several households within the house.

In spite of these clear instructions errors were committed at many places. At least in two urban areas the household numbers were put inside the houses over the *chulha* and a large number of tehsils and urban areas first numbered only the household, ignoring the distinction between house and household, as in past censuses.

These difficulties, however, had been anticipated and house-list abstracts, which were called at headquarters, clearly indicated where the errors had taken place. The errors were ordered to be corrected in time and the difference between 'house' and 'household' was well understood by the enumeration date. The National Register of Citizens which contains separate columns for house and household numbers, affords verifiable evidence in support of this statement.

5. The total institutional and houseless population in Uttar Pradesh is 200,699 consisting of 163,753 males and 36,946 females.* This has been separately ascertained for the first time in this census. By an oversight the tabulation plan did not provide for counting the number of institutions and separation of institutional and houseless population.

6. Subsidiary Table 6.1 gives the number of households per 100 square miles in each district and natural division of the State. The order of natural

TABLE 293—Variations in population and the density of households

Natural division	Percentage variation in					
	Population			Density of households		
	1941—51	1931—41	1921—31	1941—51	1931—41	1921—31
Uttar Pradesh	12.19	13.57	6.67	10.78	7.31	2.06
Himalayan	12.34	13.71	8.30	14.91	6.81	5.19
East Plain	11.59	12.00	7.27	11.86	8.05	4.26
Central Plain	12.75	14.17	5.13	10.92	8.87	0.63
West Plain	12.10	14.34	6.78	11.44	6.68	1.01
Hills and Plateau	13.10	13.85	8.74	6.08	7.07	3.87

divisions arranged according to the average number of households per 100 square miles corresponds exactly with their order according to population density, which

* The institutional and houseless population as derived from Table C-I in Part II-C of the Report is 257,796 (males 194,231, females 63,565) due to an error in the figures of Kheri (rural) discovered at a late stage.

Difficulties of instructing enumerators about 'house' and 'household'

Institutional and houseless population

Density of households

shows that the number of families plays a more important part in determining density than the relative size of family. Table 293 gives the rate of variation in the density of households during the last three decades. The figures for 1921—31 have been affected by the inclusion of empty houses in the figures of houses at the census of 1921. It would appear that the density is progressively increasing in all natural divisions. The rate of increase of density of households during 1921—31 and 1931—41 was less than the rate of increase of population as part of the increase was absorbed by the increase in the size of the average household. But the rate of increase is practically the same in 1941—51 as that of the population and is likely to follow this trend in future.

7. Table 294 gives the number of households per 1,000 houses in each of the natural divisions. As each household would prefer to live in a house with

TABLE 294—Households per 1,000 houses

Natural division	Total	Rural	Urban
Uttar Pradesh	1,200	1,184	1,307
Himalayan	1,069	1,059	1,156
East Plain	1,135	1,124	1,299
Central Plain	1,158	1,137	1,303
West Plain	1,311	1,304	1,343
Hills and Plateau	1,182	1,183	1,177

an independent exit, if one were available, the figures may be roughly taken as the index of pressure of population on housing in the State.

The number of households per 1,000 houses in the State is 1,200, that is, there are 6 households

Households per house

(i) In the State

living in 5 houses on the average. The congestion of households is greater by about 10 per cent. in urban areas as compared with rural areas. This is in accordance with known facts. The rate of increase in population of urban areas during the last three decades has been more than twice as much as that of the rural areas and the construction of houses has not kept pace with this rate of growth of population. The proportion of households to houses is likely to remain constant for rural areas but will tend to increase for urban areas, in as much as the construction of new houses is lagging behind the growth of population.

8. Examining the data by natural divisions it would appear that the largest and smallest proportion of households per house, both in the rural and urban areas, is to be found in the West Plain and the Himalayan respectively. The explanation is obvious. The West Plain is the most urbanized and industrialized division of Uttar Pradesh while the Himalayan is among the least urbanized and industrialized. In point of urban congestion of households the Central Plain and East Plain closely follow the West Plain.

(ii) In the natural divisions

9. Examining the data by cities (Table 295) it appears that Lucknow tops the list with 2,018 households per 1,000 houses followed by Banaras (1,912) and Agra (1,831). Some of the Class II cities like Amroha (1,626) and Firoz-

(iii) In the cities

TABLE 295—Households per 1,000 houses in cities

City	Households per 1,000 houses
<i>Class I cities</i>	1,403
1 Kanpur	1,122
2 Lucknow	2,018
3 Agra	1,831
4 Banaras	1,912
5 Allahabad	1,452
6 Meerut	1,312
7 Bareilly	1,404
8 Moradabad	1,828
9 Saharanpur	1,152
10 Dehra Dun	1,074
11 Aligarh	1,277
12 Rampur	1,570
13 Gorakhpur	1,005
14 Jhansi	1,279
15 Mathura	1,270
16 Shahjahanpur	1,488

TABLE 295—*Households per 1,000 houses in cities—(contd.)*

	City					Households per 1,000 houses
<i>Class II cities</i>	1,264
17 Mirzapur	1,103
18 Faizabad	1,132
19 Farrukhabad	1,358
20 Firozabad	1,448
21 Muzaffarnagar	1,268
22 Sambhal	1,209
23 Etawah	1,333
24 Amroha	1,626
25 Hardwar	1,098
26 Hathras	1,647
27 Budaun	1,097
28 Jaunpur	1,193
<i>Class III cities</i>	1,251
29 Pilibhit	1,256
30 Ghaziabad	1,245

abad (1,448) also show high figures. Kanpur's figures are surprisingly low (1,122.) It may be that in some places the distinction between 'house' and 'household' was not correctly understood and households were numbered as houses. Still the figures may be taken *roughly* as the index of pressure on housing accommodation.

SECTION 3—SIZE AND COMPOSITION OF FAMILY HOUSEHOLDS

Introductory

1. For the first time in the history of Indian Census data regarding the size and composition of family households has been collected in this census. Table C-I in Part II-C of the Report gives the data regarding household size and composition for each district in the State while the proportionate figures are given in Subsidiary Tables 6.1, 6.2 and 6.3.

2. It may be stated at the outset that the data regarding the households have been compiled from a 4 per cent. sample. The census slips have been copied household-wise in the National Register of Citizens. The 4 per cent. sample of households was selected from these registers by the random sampling method. The results of this sample have been checked by the available data of the main tables and also by a cent. per cent. sorting of households of one urban city tract and three rural tracts (*vide* Appendix VIII). The following conclusions can be derived from this check :

- (a) The average sample household is slightly smaller than the average household in the State, that is, the sampling has resulted in a selection of higher proportion of small households.
- (b) The average sample household has a slightly lesser proportion of females than the average household in the State.
- (c) The accuracy of the results of the sample increases with the increase in the area of the field. The figures would be progressively more accurate as we go from the tract to the district, natural division, and State. Among the household characteristics studied in Table C-I of Part II-C of the Report for the State the error cannot be significant except in the case of (i) proportion of very large households (ii) proportion of infants and (iii) proportion of widowed and divorced persons, where the sample gives unreliable figures.

3. Table 296 gives the size of household in 1951 for general, rural and urban population by natural divisions. It would appear that the rural household is about 4 per cent. bigger in size than the urban household. This is due to (a) migration from rural to urban areas which usually means the movement of only a part of the existing rural household to urban areas and (b) the joint family system, which is breaking up at a lesser speed in the rural than the urban area. Among the natural divisions the biggest rural

Size of household, 1951

TABLE 296—Size of household, 1951

Natural division	General	Rural	Urban
Uttar Pradesh ..	5.04	5.07	4.87
Himalayan ..	4.65	4.64	4.67
East Plain ..	5.42	5.45	5.01
Central Plain ..	4.85	4.87	4.69
West Plain ..	4.98	4.99	4.94
Hills and Plateau	4.89	4.89	4.88

as well as urban household is in East Plain and the smallest in Himalayan division. The bigger size of the household in the East Plain is due to the lesser degree of urbanization in the division, while the smaller size of the Himalayan household is mainly the result of large migration of part of families from the hills for employment and winter cultivation in the *Tarai*. It is significant that the variations in the size of household from district to district are very small (*vide* Subsidiary Table 6.1). With the exception of six districts of East Plain and Kheri district of West Plain, the size varies between 4.4 and 5.4. This is in conformity with the homogeneous character of the population of this State.

4. Owing to the shifting definition of 'house' from 1881 to 1901 the data regarding the size of household during these censuses are not comparable.

Variations in the size of household since 1901

TABLE 297—Size of household since 1911

Year	General	Rural	Urban
1911 ..	4.63	4.64	4.54
1921 ..	4.56	4.57	4.54
1931 ..	4.77	4.82	4.40
1941 ..	5.04	5.01	5.25
1951 ..	5.04	5.07	4.87

But the definition has remained consistent since 1911. Table 297 gives the size of the general, rural and urban household since 1911. The census Report of 1911 noted a sudden decrease in the size of the household from 1901, considered the data of 1901 as unreliable and yet ascribed the fall to break-up of the joint family system. As the number of households had artificially increased at the time of the 1911 census enumeration due to the prevalence of plague in an epidemic form in a large part of the State the actual size of the

household must be slightly higher than what the figures indicate. In 1921 one would have expected a substantial fall in the size of the household as a result of the influenza epidemic. But the fall is very small and if the error of counting empty houses as occupied houses in many places, which did occur in 1921, is taken into account the fall will become insignificant. The 1911 figures, however, are lower than actual as already stated and so it may be concluded that a small fall in the size of the household was registered during 1911—21. The population fell in this decade by 3·13 per cent. and the number of households by 1·71 per cent., thereby causing a decrease in the size of household by 1·45 per cent. (*vide* Subsidiary Table 6·1-A). "About one-third of the decrease in population was due to the decrease in the size of the average family and two-third to the disappearance of complete families as a result of disease especially the influenza epidemic."* According to 1921 Report the break-up of the joint family system which was observed in 1911 was arrested in 1921 owing to a rise of prices.

In 1931 the population, the number of households, and size of household all show increases. The population during this decade increased by 6·67 per cent., the number of households by 2·02 per cent., thereby causing an increase in the size of household by 4·56 per cent. (*vide* Subsidiary Table 6·1-A). During this decade the population started recovering from the effect of the influenza epidemic. "Between 1921 and 1931 we may say that at least half the increase in population was due to the increase in the size of the average family and the remainder due to the increase in the number of families. The latter is due partly to the growth of the habit of labour migrating to towns in search of employment and leaving their families at home, and partly to the continued break-up of the joint family system."* According to 1931 Report the process of break-up of the joint family system, if arrested in the previous decade, had been resumed during 1921—31, largely as a result of favourable agricultural conditions of the greater part of this decade.* It is significant that the urban household registered a fall in size even in this decade due to the increase in the number of urban households by 16·24 per cent. accompanied by the increase in urban population of only 12·81 per cent. This was apparently caused by a large migration of labour unaccompanied by their families from rural to urban areas as a result of the abnormal fall in agricultural prices at the end of the decade.

In 1941 the population, the number of households and persons per household again show increases. The population during this decade rose by 13·57 per cent. while the number of household increased by 7·62 per cent. only resulting in an increase of 5·53 per cent. in the size of household (*vide* Subsidiary Table 6·1-A). More than half of the increase in population between 1931—41 was due to increase in the number of households and the remaining to the increase in the size of the average household. It was a healthy decade and the households were recouping the losses incurred during the influenza epidemic. The causes of the increase in the number of households were the same as in the previous decade. In rural areas owing to favourable agricultural conditions the tendency towards the break-up of the joint family system made itself felt during the decade. The rural population rose by 11·99 per cent. while the number of rural households rose by 7·89 per cent., thereby causing a rise in the size of the rural household by 3·81 per cent. The increase in the size of the urban household, on the other hand, is phenomenal (19·31 per cent.). The urban population during this decade also shows a marked rise of 26·10 per cent., due largely to immigration from rural to urban areas arising out of the War. The number of households in urban areas increased by 5·71 per cent. only during 1931—41 as against a corresponding increase of 16·24 per cent. in the previous decade. This shows that immigrants had to join existing urban households as guests or visitors or to huddle up in larger households owing to difficulties of housing and this accounts for the abnormal rise in the size of the urban household from 1931 to 1941.

In 1951 the population and the number of households have again increased by 12·19 per cent. and 11·65 per cent. respectively and so the size of the average household remains practically the same as in the previous decade. The size of the urban household has, however, registered a decrease. Thus in this decade the whole of the increase in population is attributable to the increase in the number of households. Apparently the loss incurred by households in the influenza epidemic has been made up in the decade 1931—40. The increase

* U. P. Census Report, 1931, Part I, page 109.

in the number of households is due principally to the movement of population from rural to urban areas, secondly to the increased mobility of urban population, thirdly to the continued break-up of the joint family system and fourthly, to the improvement in the housing position. The decrease in the size of the urban household by 7.27 per cent. is due to the extraordinary increase of 30.88 per cent. in the number of urban households as against an increase of 23.23 per cent. in the urban population.

5. Table 298 gives the average size of household in Part 'A' States of India. It will be observed that the largest and smallest size of both rural and urban household is to be found in Assam and Madhya Pradesh respectively. Uttar Pradesh closely follows Assam.

Comparison with Part 'A' States of India

TABLE 298—Size of household in Part 'A' States of India

State	Persons per 1,000 households, 1951		
	General	Rural	Urban
Assam	5,208	5,202	5,325
Bihar	N.A.	N.A.	N.A.
Bombay	4,977	5,045	4,831
Madhya Pradesh	4,255	4,212	4,549
Madras	4,725	N.A.	N.A.
Orissa	4,598	4,607	4,405
Punjab	N.A.	5,033	N.A.
Uttar Pradesh	5,040	5,068	4,870
West Bengal	N.A.	N.A.	N.A.

6. Examining the data by natural divisions in Subsidiary Table 6.1-A it would appear that the trends generally run parallel to the State trends with certain exceptions. The size of the general household registered a slight decrease in the Himalayan and East Plain during 1941—51 contrary to the State trend due to the comparatively larger migration of population from these areas. The urban household in the Himalayan has been showing trends contrary to the State trends ever since 1911. During 1911—21 and 1921—31 the increase in the size of urban household in this division as against a decrease in the urban household of the State was due probably to the comparatively lesser incidence of the epidemics. Between 1931—41 the decrease in the size of the urban household in this division as against an increase in the State was the result of a proportionately larger increase in the number of households due largely to the immigration of small size households in the city of Dehra Dun. Between 1941—51 the increase in the size of the urban household in Himalayan as against a decrease in the State is due to the influx of displaced persons, mostly in the city of Dehra Dun.

Trends in natural divisions

7. Households have been classified into four classes according to size—(i) small consisting of 3 members or less, (ii) medium consisting of 4—6 members, (iii) large consisting of 7—9 members, and (iv) very large consisting of 10 members or more. Table 299 gives the distribution of 1,000 sample households by these classes in the State and natural divisions.

Classification of households by size

TABLE 299—Distribution by size of 1,000 sample households of general, rural and urban population

Natural division	Distribution by size of 1,000 sample households											
	General				Rural				Urban			
	Small 3 mem- bers or less	Medium 4—6 mem- bers	Large 7—9 mem- bers	Very large 10 mem- bers or more	Small 3 mem- bers or less	Medium 4—6 mem- bers	Large 7—9 mem- bers	Very large 10 mem- bers or more	Small 3 mem- bers or less	Medium 4—6 mem- bers	Large 7—9 mem- bers	Very large 10 mem- bers or more
Uttar Pradesh	341	427	168	64	328	435	171	66	415	380	150	55
Himalayan	396	420	139	45	377	436	142	45	503	328	126	43
East Plain	315	418	184	84	306	423	186	85	411	361	158	70
Central Plain	367	420	154	59	346	434	159	61	482	347	126	45
West Plain	334	436	171	59	324	444	173	59	374	403	165	58
Hills and Plateau	341	446	159	53	338	448	161	53	368	434	144	54

It will be seen that about 34 per cent. of the households in the State are of small size and 43 per cent. of medium size. The figures for large and very large sizes are not very reliable but roughly 17 per cent. of the households may be tak-

en to be large and 6 per cent. as very large. The urban areas have 42 per cent. small and 38 per cent. medium size households as compared with 33 per cent. small and 44 per cent. medium in rural areas. There is no significant difference between rural and urban areas so far as the proportion of large and very large households is concerned. The variation in the proportion of small and medium size households in urban and rural areas is largely due to the nature of rural-urban migration in the State, many of the migrants coming to urban areas without or with only part of their families.

Among the natural divisions the largest number of small size households is to be found in the Himalayan and the smallest in the East Plain. This is as it should be for it has been already noted in the previous section that the average size of household is biggest in the East Plain and smallest in Himalayan due to the comparatively lesser break-up of the joint family system in the former and large migrations in the latter. Likewise the proportion of large and very large households is the highest in East Plain and lowest in Himalayan. There are no other significant variations in respect of the proportion of medium size, large and very large households in the rural areas of the natural divisions. But in urban areas these proportions of West Plain and Hills and Plateau show significantly different trends from other divisions. The percentage of medium size households is greater than that of small size households in the urban areas of these two divisions only. Probably this is due to the fact that the rural-urban migration in these two divisions is not big enough to affect the proportion of small size households.

Among the districts the highest proportion of small size households is to be found in the urban areas of Tehri-Garhwal (58 per cent.), Kanpur (57 per cent.), Almora (55 per cent.) and Garhwal (55 per cent.) due obviously to the migration of only part of families from rural areas to the urban areas. Another significant feature is the inordinately high percentage of very large households (about double of other districts) in the two districts of Ghazipur and Ballia, which are also the highest in the State in point of the average size of household (*vide* Subsidiary Table 6.1).

Composition of family households

8. Table 300 gives the composition of 1,000 family households in the State and the natural divisions. An average family household consists of 4.9* persons of whom 2.6 are males and 2.3 females.

TABLE 300—Family composition of 1,000 households

(Source : Subsidiary Table 6.3)

Natural division	Sample household population			Heads of households and their wives		Sons of heads of households	Daughters of heads of households	Other male relations of heads of households	Other female relations of heads of households	Visitors, unrelated persons and resident servants	
	P	M	F	M	F					M	F
Uttar Pradesh ..	4,926	2,613	2,313	935	731	1,054	713	560	805	64	64
		(53.0)	(47.0)	(19.0)	(14.8)	(21.4)	(14.5)	(11.3)	(16.4)	(1.3)	(1.3)
Himalayan ..	4,506	2,335	2,171	908	773	955	682	414	682	58	34
		(51.8)	(48.2)	(20.1)	(17.2)	(21.2)	(15.1)	(9.2)	(15.1)	(1.3)	(0.8)
East Plain ..	5,307	2,729	2,578	929	746	1,105	763	657	1,015	38	54
		(51.4)	(48.6)	(17.5)	(14.1)	(20.8)	(14.4)	(12.4)	(19.1)	(0.7)	(1.0)
Central Plain ..	4,733	2,504	2,229	922	715	982	691	524	738	76	85
		(52.9)	(47.1)	(19.5)	(15.1)	(20.7)	(14.6)	(11.1)	(15.6)	(1.6)	(1.8)
West Plain ..	4,862	2,653	2,209	950	726	1,087	700	541	725	75	58
		(54.6)	(45.4)	(19.5)	(14.9)	(22.4)	(14.4)	(11.1)	(14.9)	(1.6)	(1.2)
Hills and Plateau ..	4,860	2,547	2,313	945	740	1,023	705	522	795	57	73
		(52.4)	(47.6)	(19.4)	(15.2)	(21.1)	(14.5)	(10.7)	(16.4)	(1.2)	(1.5)

Of 1,000 heads of households as many as 935 are males and 65 females. In this State females are rarely heads of households ; they have to assume this function only when the husbands are away or when they have become widows with no other adult male relations to look after the house. The male heads numbering 935 have only 666 (731 minus 65) wives living with them, i.e., only 71.2 per cent. male heads have their wives living in the household. This means that old widowers have in many cases been returned as heads.

* This is the size of the household as derived from the 4 per cent. sample. The size as given in Subsidiary Table 6.1 is 5.04.

The heads of households and their wives together constitute 33·8 per cent. or one-third of the household population.

The sons and daughters of the heads of households constitute about 35·9 per cent. of the household population, i.e., a little over one-third, of which the sons constitute 21·4 per cent. The disparity between the percentages of sons and daughters is obviously due to the marriage of daughters which results in their transfer to another household.

“Other male and female relations of the heads of households” are 27·7 per cent. of which the females constitute 16·4 per cent. The higher percentage of females in this category is accounted for by the inclusion of daughters-in-law and also the female widowed relations of the head of the household. In this country a son after marriage usually continues to be a member of his father’s household unlike the Western countries where he usually sets up an independent household of his own. The widows also in this country have to seek the shelter of some relative’s household on the break-up of their own household after the husband’s death.

The percentage of “visitors, unrelated persons and resident servants” is only 2·6 and calls for no comment.

Examining the data by natural divisions it would be seen that East Plain has the largest household while the Himalayan has the smallest. The highest number of male heads of households is recorded in the West Plain which has also the smallest number of widows (*vide* Subsidiary Table 6·7). The smallest number of male heads of households is recorded in Himalayan, the obvious result of male labour migration and the relatively higher proportion of widows. There are no significant differences in the proportions of sons and daughters of the heads of households in the various natural divisions. But as regards “other male and female relations of heads of households” the East Plain records the highest proportion (31·5 per cent.) and Himalayan the lowest (24·3 per cent.). It is interesting to note that “other male and female relations of heads of households” chiefly determine the size of a household, the variation in the rest of the household being not so significant in the various natural divisions. The percentage of “visitors, unrelated persons and resident servants” is highest in Central Plain (3·4 per cent.) owing to its *taluqdari* background and lowest in East Plain (1·7 per cent.) owing to the large number of small holdings.

SECTION 4—SEX

Importance of sex-ratio

1. The classification by sex is one of the most important in almost all types of population statistics, and at the same time one of the easiest to obtain in a census*. It has been obtained in all the censuses in this State and likewise at the 1951 census the distinction of sex is maintained in all the census tables. The sex-ratio has been expressed in this Report as the number of females per 1,000 males.

Sex-ratio of the population affects social and economic problems† and the balance between the sexes is an important aspect of population structure. If there are more males than females the proportion of men who can marry will be smaller than if the numbers of the sexes are even. If there are more females there will be a relatively large proportion of unmarried women. The sex-proportion determines the number of workers and dependants also. If the proportion of males is higher than that of females more workers will be available. The female death-rate is generally lower than the rate for the opposite sex and consequently a population having a higher proportion of females may have a relatively lower death-rate as compared to the population in which the males preponderate. Besides, the birth-rate, the amount of prostitution, the magnitude and direction of migration, etc., are all more or less directly related to the sex-ratio of a population.

Reference to statistics

2. For the purpose of this section the most important tables are A-I in Part II-A of the Report in which the general population of the State has been given district-wise by rural-urban separation and separation for sex, and C-II in Part II-C of the Report in which the break-up of the population by age-groups and sex has been shown. The relevant proportionate figures are given in the following subsidiary tables :

Subsidiary Table 6.4—Females per 1,000 males (general, rural and urban population) and comparison with previous censuses

Subsidiary Table 6.5—Females per 1,000 males in agricultural classes and sub-classes

Subsidiary Table 6.6—Females per 1,000 males in non-agricultural classes and sub-classes

Subsidiary Table 6.6-A—Number of females per 1,000 males at different age-periods for the last five censuses

Subsidiary Table 6.6-B—Number of female births/deaths per 1,000 male births/deaths since 1891

Subsidiary Table 6.6-C—Number of females per 1,000 males in cities for the last five censuses

Sex-ratio of the State

3. Table 301 gives the sex-ratio of the State since 1881, both for the enumerated and natural population (where available). It will be

TABLE 301—Sex-ratio of the State since 1881

Year	Number of females per 1,000 males in the	
	Actual population	Natural population
1881	925	—
1891	930	—
1901	937	923
1911	915	903
1921	909	896
1931	904	890
1941	907	—
1951	910	897‡

seen that there has always been a deficiency of females, that the deficiency decreased from 1881—1901, increased between 1901—1931, and has again been slowly decreasing since 1931. The deficiency is considerably more marked in the natural population but the rate of variation has been practically identical for both the actual and natural population.

Accuracy of the figures

4. In the early part of this century certain European statisticians cast doubts on the Indian census statistics because they show an excess of males. Sir Edward Gait in his India Census Report for 1911 refuted this criticism with most convincing arguments.§ The subsequent censuses also have been giving good reasons to support the accuracy of the sex data. So far as the census of

*United Nations, *Population Census Methods*, page 14.

†W. S. Thompson—*Population Problems* (Mc Graw-Hill Book Company Inc., New York, 1942), pages 99-100.

‡The displaced persons have been offset against the exodus of Muslims.

§*India Census Report*, 1911, Part I, page 208 et seq.

1951 is concerned a sample verification through the agency of gazetted officers was carried out soon after the main census enumeration and the error discovered is an under-enumeration of 0.47 per cent. in the case of males and 0.92 per cent. in the case of females (*vide* page 10). The census data regarding sex-proportions is, therefore, entirely reliable.

5. For the sake of comparison the figures of the 1951 census for India and the States of India are shown in Table 302. In only 5 States, comprising about 23 per cent. of the population of India, the females exceed males; in 16 States, comprising over 62 per cent. of the population of India, the sex-ratio varies between 900—1,000; and in 7 States, comprising over 14 per cent. of

Sex-ratio of other States

TABLE 302—Sex-ratio of the State compared with other States of India, 1951

State	Sex-ratio	State	Sex-ratio
India	947	Madhya Bharat	925
Kutch	1,079	Rajasthan	921
Manipur	1,036	Bhopal	911
Orissa	1,022	Himchal Pradesh	910
Travancore-Cochin	1,008	Uttar Pradesh	910
Madras	1,006	Sikkim	907
Madhya Pradesh	993	Tripura	904
Bihar	989	Assam	879
Hyderabad	978	Punjab	863
Saurashtra	975	West Bengal	859
Vindhya Pradesh	950	P. E. P. S. U.	844
Mysore	949	Coorg	830
Bilaspur	948	Delhi	768
Bombay	932	Andaman and Nicobar Islands	625
Ajmer	925		

the population the sex-ratio is under 900. It will be seen that the sex-ratio of this State is substantially lower than that of India (947) and lower than all other Part 'A' States except Punjab, West Bengal and Assam.

6. Table 303 gives the sex-ratio of the State since 1891 with comparable figures of the Part 'A' States of India. It will be noted that the ratio of this State has always been below that of India and most of the other Part 'A' States.

Trends in sex-ratio in Part 'A' States since 1891

TABLE 303—Sex-ratio of the State compared with other Part 'A' States of India, 1891—1951

State	1951	1941	1931	1921	1911	1901	1891
India	947	946	951	956	964	972	965
Assam	879	889	889	910	929	934	934
Bihar	989	995	993	1,015	1,041	1,052	1,047
Bombay	932	935	936	935	949	963	951
Madhya Pradesh	993	996	999	1,002	1,008	1,019	985
Madras	1,006	1,010	1,021	1,024	1,030	1,028	1,024
Orissa	1,022	1,053	1,067	1,086	1,056	1,037	1,015
Punjab	863	855	834	828	814	855	853
Uttar Pradesh	910	907	904	909	915	937	930
West Bengal	859	845	885	900	921	943	966

From the point of view of trends the States fall into several distinctive groups. The trends for this State are almost identical to those of India as a whole and the State of Punjab. There was a rise in the sex-ratio between 1891—1901 followed by a continuous fall during 1901—1931 after which again the recent trends are towards a rise. Bengal and Assam both show a steep and almost continuous fall. Bombay, Madras, Bihar, Orissa and Madhya Pradesh fall into another distinctive group which first showed a slight rise in the ratio but is now showing a tendency towards a gradual fall. It will be observed that during 1901—1931 most of the States registered a fall in the sex-ratio, due mainly to the epidemics which affected the females more than males.

Sex-ratio of other countries

7. Table 304 gives the latest data for a few selected countries of the world, relating to the distribution between the sexes. The sex-ratio is lowest in colonial areas which attract large labour force, e.g., Malaya and Ceylon, or in certain countries which have attracted immigrants, e.g., Argentina, Canada and South Africa. In Canada the effect of the immigrant tide has been partially offset by a very long expectation of life, whereas in Argentina comparatively

TABLE 304—*Population by sex and sex-ratio of selected countries*

(Source: United Nations, *Demographic Yearbook*, 1950-51)

Country	Year	Males	Females	Sex-ratio
Germany	1950	22,505,300	25,106,900	1,116
France	1950	20,200,000	21,734,000	1,076
England and Wales	1950	21,169,000	22,661,000	1,070
Italy	1949	22,428,923	23,567,232	1,051
Japan	1950	40,740,000	42,370,000	1,040
Belgium	1950	4,253,652	4,385,717	1,031
Mexico	1940	9,695,787	9,957,765	1,027
Peru	1940	3,067,868	3,140,099	1,024
U. S. A.	1950	75,439,000	76,333,000	1,012
Korea	1944	12,521,173	12,599,001	1,006
Brazil	1940	20,614,088	20,622,227	1,000
Egypt	1937	7,966,675	7,954,019	998
Australia	1947	3,797,370	3,781,988	996
Union of South Africa	1946	1,194,626	1,178,064	986
Formosa	1940	2,776,808	2,733,451	984
Canada	1950	7,030,300	6,790,700	966
Nepal	1941	3,206,104	3,075,742	959
Burma	1931	7,490,601	7,176,545	958
Argentina	1947	8,145,175	7,748,652	951
India	1951	183,305,654	173,523,831	947
Uttar Pradesh	1951	33,098,866	30,116,876	910
Malaya	1947	2,579,976	2,298,462	891
Ceylon	1946	3,532,218	3,125,121	885

low expectation of life has had the reverse effect. The highest ratios are found in those countries which have been sending out a considerable number of emigrants, e.g., the countries of western and northern Europe, although the high expectation of life in these countries is also a contributing factor.

Prime factors which determine the sex-ratio

8. The prime factors which determine the sex-ratio are births, deaths and migration. Let us examine each in turn.

9. It has been stated above that the sex-ratio of the natural population of the State has always been less than that of the enumerated population. This is due to the effect of migration. Table 305 will make the position clear.

Effect of migration on sex-ratio

TABLE 305—*Sex-ratio of migrants since 1911*

(Figures in thousands)

Year	Immigrants			Emigrants			Excess of emigrants over immigrants		
	Males	Females	Sex-ratio	Males	Females	Sex-ratio	Males	Females	Sex-ratio
1911 ..	276	362	1,312	855	555	649	579	193	333
1921 ..	208	274	1,317	851	560	658	643	286	445
1931 ..	251	308	1,227	960	599	624	709	291	410
1951* ..	390	517	1,325	941	595	632	550	78	141

To get the natural population the emigrants are added and the immigrants deducted from the actual population. It will be seen that the sex-ratio among immigrants in the State is favourable to females on account of the volume of marriage migration. The sex-ratio among the emigrants is, on the other hand, favourable to males, far more men than women emigrating from the State. On the balance of migration the State loses far more males than females. When this excess of emigrants over immigrants is added to the actual population to get the natural population, males increase far more than females and the sex-ratio goes down.

On the other hand, the figures for excess of emigrants over immigrants are so small compared with the actual population of the State (comprising only 1·7 per cent. in case of males and 0·3 per cent. in case of females) that although they bring down the sex-ratio appreciably for the natural population, quite large variations in the sex-ratio of the excess of emigrants over immigrants do not appreciably affect the difference between the sex-ratio of the actual and natural populations. This difference has varied between 12—14 during 1911—1951. Thus the fluctuations in the sex composition of migrants to and from the State have not been to any appreciable extent responsible for variations in the sex-ratio of the actual population of the State as a whole since 1911.

10. Let us now examine the vital statistics in order to see the effects produced in the sex-ratio by the sex-proportions at birth and in deaths.

Masculinity at birth

In all countries of the world there are more males born than females and this State or India is no exception to this rule. As yet no one seems to have given adequate explanation to this phenomenon. Some of the theories as to causation of sex have been discussed in the previous Reports, but these have only an academic interest. Mankind has not yet reached the stage when the sex of child could be determined by the parents at will.

In Subsidiary Table 1·9 will be found the number of recorded births and deaths for each sex in each year since 1921. It also exhibits the number of female births and deaths per 1,000 of male births and deaths respectively. Subsidiary Table 6·6-B gives these proportionate figures with additional data for the period 1891—1920 and Figure 18 illustrates the same. It will be seen that the proportion increased steadily from 905 in 1891 to 931 in 1900. At the turn of the century, however, the trend was suddenly reversed, and ever since, there

*The figures of immigrants exclude the figures of displaced persons, and those of emigrants do not take the Muslim exodus into account.

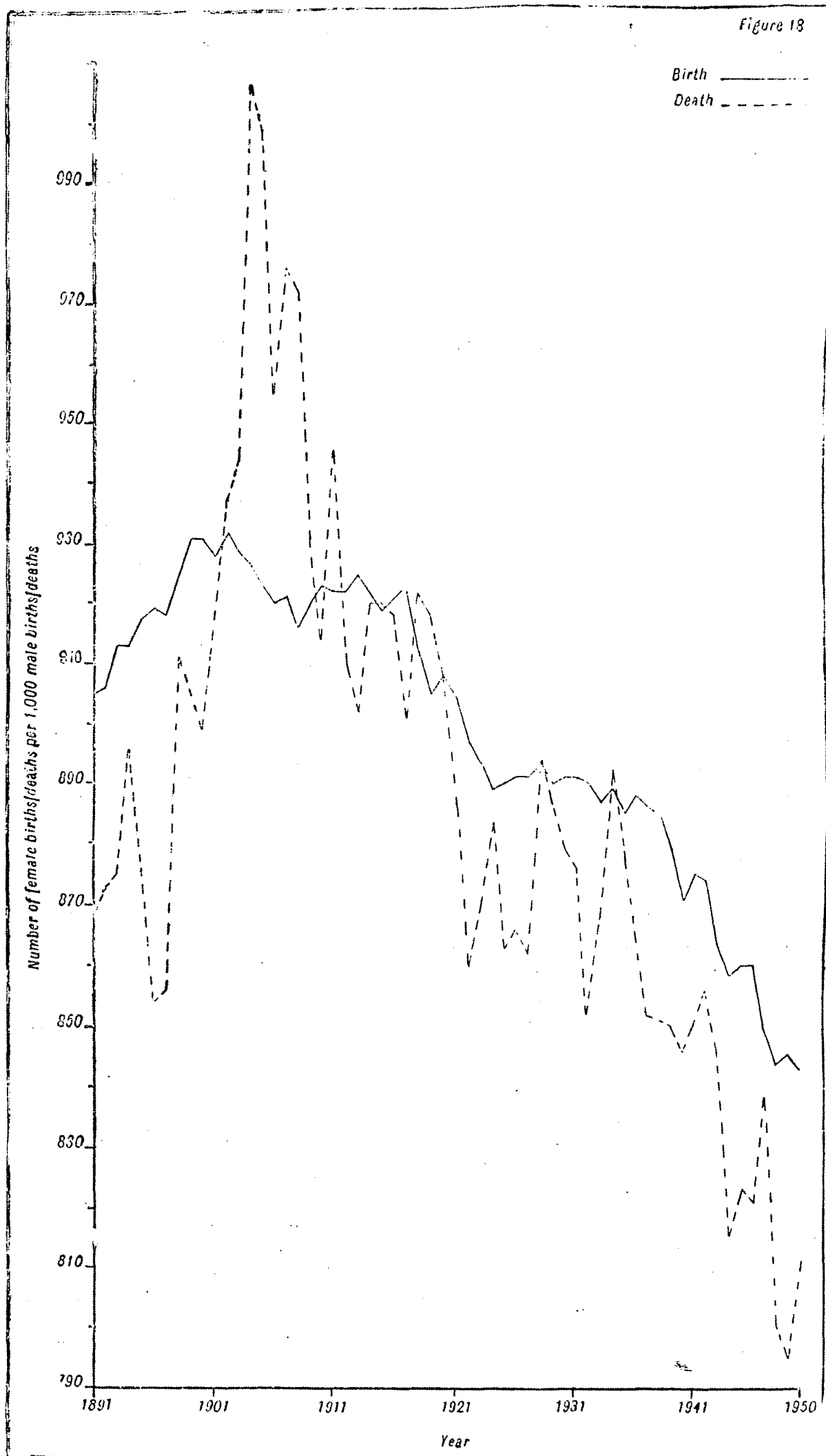


FIG. 18—Sex-proportion at birth/death in Uttar Pradesh, 1891--1950

has been a steady fall in this proportion which now stands at only 843. Part of this fall, however, is due to under-registration, which is more in the case of females

than males.* As all previous census Reports have remarked the vital statistics in this country are by no means reliable but they can be safely taken as guide for the State trends. The fall in the female birth-ratio may, therefore, be taken as genuine. Masculinity at birth has thus been increasing steadily for the last fifty years in this State.

11. Subsidiary Table 6·6-B also gives the proportion of female deaths per 1,000 male deaths in each year since 1891 and the data is likewise illustrated in Figure 18.

It would be at once noted that far greater fluctuations occur in sex-ratio at death. This is the result of the selective nature of certain diseases. Plague, which is well known to be far more fatal to women than to men, was largely responsible for the peaks of the curve in the early part of the century, and to a less extent in 1924 and 1928. Even in normal times certain causes of deaths are applicable exclusively to females, e.g., maternity deaths. For these reasons greater variations are naturally to be expected in sex-ratio at death. Even allowing for these variations and for the gross inaccuracy of the data at certain periods* a clear downward trend in the sex-ratio at death is clearly discernible. The proportion of female deaths per 1,000 male deaths which stood at 911 in 1898 now stands at only 811 in 1950.

12. Let us now analyse the extent to which the various factors that influence the sex-ratio have been responsible for the change in the sex-ratio since 1941. Table 306 gives the figures for the State as a whole.

TABLE 306.—*Effects of births, deaths, and migration on sex-ratio*

(Figures in thousands)

Item	Males	Females	Sex-ratio
1 Actual population 1941	29,639	26,893	907
2 Estimated births	10,832	10,042	927
3 Total 1 and 2	40,471	36,935	913
<i>A—Effect of births on sex-ratio</i>			+6
4 Estimated deaths	7,334	6,898	941
5 1 minus 4	22,305	19,995	896
<i>B—Effect of deaths on sex-ratio</i>			—11
6 Balance of migration	—38	+80	—
7 1 Plus 6	29,601	26,973	911
<i>C—Effect of balance of migration on sex-ratio</i>			+4
8 Actual population in 1951 (1+2—4+6)	33,099	30,117	910

In view of the errors in the vital statistics the figures estimated by the method described in Appendix III have been used. This table shows that the effect of births on the sex-ratio was to increase, the effect of deaths on the sex-ratio was to decrease, and the effect of the balance of migration was to slightly increase the sex-ratio of the actual population. Although the proportion of deaths among females has always been lower than the corresponding proportion among males, the latter proportion has now gained on the proportion of deaths among females and this has been the sole cause of the increase in the sex-ratio of the actual population since 1941. The same factors have been responsible for the increase in the sex-ratio of the natural population.

*By the method adopted in Appendix III the registration error for the State works out as follows :

Decade	Births			Deaths		
	Persons	Males	Females	Persons	Males	Females
1921—30	15	14	16	22	18	25
1931—40	11·6	9·1	14·2	15·3	10·9	19·6
1941—50	28·5	25·9	31·4	29·9	25·6	34·6

Sex-ratio at death

Analysis of the causes of variation in the sex-ratio of the actual population since 1941

Sex-ratio at death by age-periods

13. The vital statistics cannot be considered as very reliable for deaths at certain age-periods but they may be roughly taken as indicative of the trends.

TABLE 307—Sex-ratio at death by age-periods

Age	Females per 1,000 males, 1951	Female deaths per 1,000 male deaths, 1941—50
All ages	910*	827
Under 1	941	791
1—5	978	837
5—10	916	821
10—15	841	829
15—20	875	917
20—30	927	1,049
30—40	865	928
40—50	844	733
50—60	812	708
60 and over	1,015	813

Table 307 gives the number of female deaths per 1,000 male deaths at certain age-periods and Figure 19 illustrates the data.

These figures are very striking. Females outnumber males in this State only in the age-group 60 and over, and the sex-ratio for the State is 910. From the following curve it will be seen that the proportion of female to male deaths keeps well below the proportion of female to male population except during the age-period 15—40. It

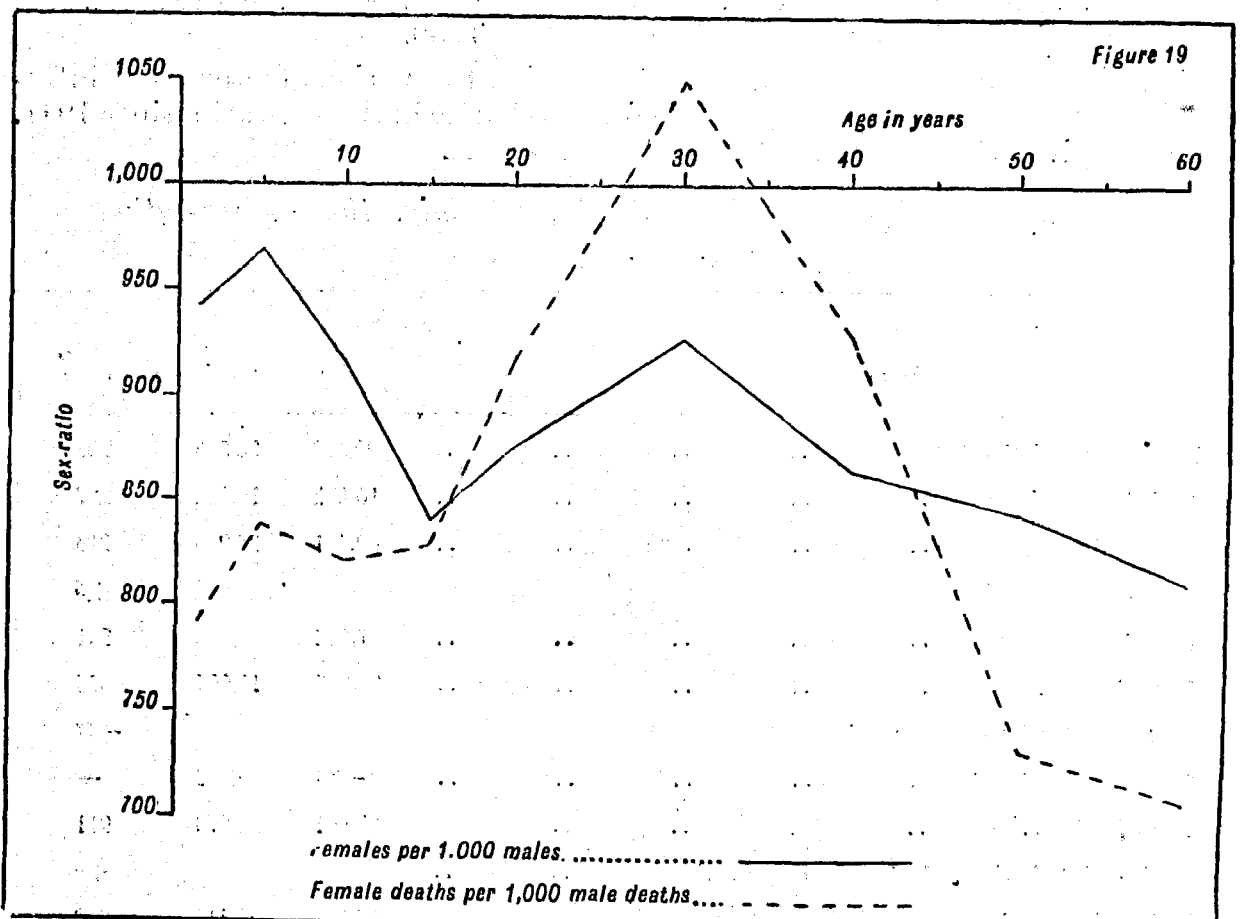


FIG. 19—Females per 1,000 males and female deaths per 1,000 male deaths at certain age-periods, 1951

will be remembered that age-group 15—40 is the main child bearing period in this country and the high female mortality in these age-groups is entirely due to the perils of maternity and its aftermath. The curve reaches the peak between the ages 20—30 which shows that these dangers are not limited to the birth of the first born but continue as a result of subsequent and frequent births or as a result of disorder and disease arising from child birth.

Variations in sex-ratio at death by age-groups

14. Table 308 gives the variations in the sex-ratio at death by age-groups since 1911. The sex-ratio at death has fallen significantly since 1911 at all

*This figure represents the sex-ratio of the total population. The sex-ratio of the 10 per cent. sample population, which forms the basis of all age tables in the 1951 census, is only 894.

ages with the exception of 20—39. These satisfactory trends are the result of the rise in the age of marriage of girls and improvements in medical facilities.

TABLE 308—*Sex-ratio at death by age-periods, 1911—50*

Age		1941—50	1931—40	1921—30	1911—20
All ages	.. ..	827	864	876	918
Under 1	.. ..	791	812	838	877
1—4	.. ..	837	879	915	981
5—9	.. ..	821	855	871	911
10—14	.. ..	829	885	847	864
15—19	.. ..	917	1,036	1,000	981
20—29	.. ..	1,049	1,038	1,070	1,044
30—39	.. ..	928	956	912	934
40—49	.. ..	733	732	758	816
50—59	.. ..	708	750	784	837
60 and over	.. ..	813	864	877	936

15. Table 309 gives the sex-ratio of Hindus, Muslims, Christians, Jains and Sikhs at each of the last five censuses.

TABLE 309—*Sex-ratio by religion since 1911*

Religion	Females per 1,000 males				
	1951	1941	1931	1921	1911
Hindus	910	909	905	909	916
Muslims	915	900	899	912	920
Christians	912	870	837	841	766
Jains	891	864	846	844	844
Sikhs	781	782	744	589	519

It would appear that the proportion of females among the Muslims has been always slightly higher than among the Hindus with the exception of 1931 and 1941 when it was slightly lower. The sex-ratio of Hindus and Muslims fell from 1911 to 1931 but has been rising ever since. The sex-ratio of Christians, Jains and Sikhs has been steadily rising since 1911.

16. The sex-ratio of natural divisions and districts is appreciably affected by migration, specially the large volume of internal marriage migration (which is all female). It is, therefore, of great interest to study for such smaller areas the sex-ratio of the natural population. Unfortunately, birth-place of emigrants from the State has not been enumerated by districts in this census and so the natural population of districts is not available. The following observations, therefore, are based on the sex-ratio of the actual population for the smaller units of area.

Table 310 gives the sex-ratio of the general, rural and urban population of the various natural divisions for the last four censuses.

TABLE 310—*Sex-ratio of the general, rural and urban population and comparison with previous censuses*

Natural division	General population				Rural population				Urban population			
	1951	1941	1931	1921	1951	1941	1931	1921	1951	1941	1931	1921
Uttar Pradesh	910	907	904	909	925	923	917	919	820	805	807	826
Himalayan	964	925	929	932	1,016	966	963	975	645	566	558	514
East Plain	979	967	955	963	989	975	964	968	857	855	835	885
Central Plain	909	912	918	920	932	938	936	936	777	747	769	787
West Plain	849	851	845	850	852	857	850	852	838	821	818	835
Hills and Plateau	939	951	949	952	947	956	958	958	892	913	891	904

Sex-ratio by religion

Sex-ratio by natural divisions

It will be at once seen that with the solitary exception of Himalayan (rural) in 1951, females have been in deficit in all the natural divisions at all the last four censuses.

Considering the general population only, the highest sex-ratio is in the East Plain while the lowest is in the West Plain. The trends in East Plain and in Himalayan are towards an increase in the sex-ratio while in the other three divisions they are towards a decline.

Considering the rural population only, the highest sex-ratio is that of Himalayan and the lowest again that of West Plain. The trends in Himalayan and East Plain are towards a rise while those in the other three divisions are towards a decline.

Considering the urban population only, the highest sex-ratio is that of Hills and Plateau while the lowest is that of Himalayan which has a very small urban population. With the exception of Hills and Plateau, the trends in each of the remaining divisions are towards a rise.

17. The sex-ratio of each district is given in Subsidiary Table 6.4. Table 311 gives the number of districts in each natural division in five grades of sex-ratio. It will appear that there are nine districts with a sex-ratio of over 1,000 and they are distributed in Himalayan, East Plain and Central Plain divisions. Similarly, there are seven districts with a sex-

TABLE 311—Number of districts in each natural division in various grades of sex-ratio

Sex-ratio	Number of districts in—					
	Uttar Pradesh	Himalayan	East Plain	Central Plain	West Plain	Hills and Plateau
1,000 and over	9	3	5	1	..	..
950—1,000	7	..	3	3	..	1
900—950	9	..	2	3	..	4
850—900	12	..	..	3	9	..
Less than 850	14	2	..	2	10	..
	51	5	10	12	19	5

ratio 950—1,000 distributed in East Plain, Central Plain and Hills and Plateau divisions ; nine districts with a sex-ratio of 900—950 distributed in East Plain, Central Plain and Hills and Plateau divisions ; twelve districts with a sex-ratio of 850—900 distributed in Central Plain and West Plain ; and fourteen districts with a sex-ratio of less than 850, ten of which lie in West Plain and two each in Himalayan and Central Plain. It will be thus seen that while districts with sex-ratio under 900 are concentrated in West Plain, the districts with sex-ratio over 900 are distributed in at least three of the remaining four divisions. It is noteworthy that the proportion of females is greater towards east and decreases from east to west. The districts in which females are in excess of males are Garhwal, Tehri-Garhwal, and Almora of the Himalayan division; Deoria, Jaunpur, Ballia and Azamgarh of the East Plain and Pratapgarh of the Central Plain. Districts with the greatest deficit of females are Naini Tal and Dehra Dun of the Himalayan division. The low sex-ratio in these two districts is chiefly the result of the large number of male immigrants and, in Dehra Dun, partly also due to the dearth of females among the Jaunsaris of Chakrata tehsil.

18. As will appear from Table 310, the sex-ratio of urban population of the State has always been considerably lower than that of the rural population, the difference being about 100 per one thousand. Considering the figures by natural divisions this rural-urban gap is the highest in Himalayan (which has the second lowest proportion of urban population) and the lowest in West Plain (which has the highest proportion of urban population).

Table 312 gives the sex-ratio in the cities of Uttar Pradesh. Only 4 cities have a sex-ratio over 900 while 16 cities have a sex-ratio between 800 and 900 and 10 cities have a sex-ratio under 800.

Sex-ratio by districts

Sex-ratio in cities and other urban areas

TABLE 312—Sex-ratio in cities of Uttar Pradesh, 1951

Class of city	Name of city	Sex-ratio	Class of city	Name of city	Sex-ratio
900 and over			800—850 (contd.)		
II	Amroha	964	I	Mathura	813
I	Rampur	938	I	Aligarh	812
II	Mirzapur	910	I	Banaras	811
II	Sambhal	907	I	Saharanpur	805
850—900			750—800		
II	Jaunpur	868	I	Allahabad	795
II	Budaun	867	I	Lucknow	783
II	Farrukhabad	859	II	Faizabad	783
I	Jhansi	858	I	Gorakhpur	777
I	Shahjahanpur	855	II	Hardwar	770
800—850			II	Firozabad	762
I	Bareilly	844	II	Muzaffarnagar	757
I	Moradabad	840	I	Meerut	752
III	Pilibhit	839	Under 750		
II	Hathras	835	I	Dehra Dun	709
III	Ghaziabad	833	I	Kanpur	699
II	Etawah	820			
I	Agra	820			

Subsidiary Table 6·6-C* gives the sex-ratio of cities for the last five censuses. It will appear that the trend in all the Class I cities (with the exception of Moradabad and Gorakhpur) is towards a rise of the sex-ratio. As regards Class II and III cities, half of them show a trend towards a rise in the sex-ratio and the remaining towards a decline.

19. Subsidiary Table 6·6-A gives the sex-ratio at different age-periods for the last five censuses and the data has been illustrated for ages 0—4 in Figure 20 and for other ages in Figure 21.

Sex-ratio at different age-periods

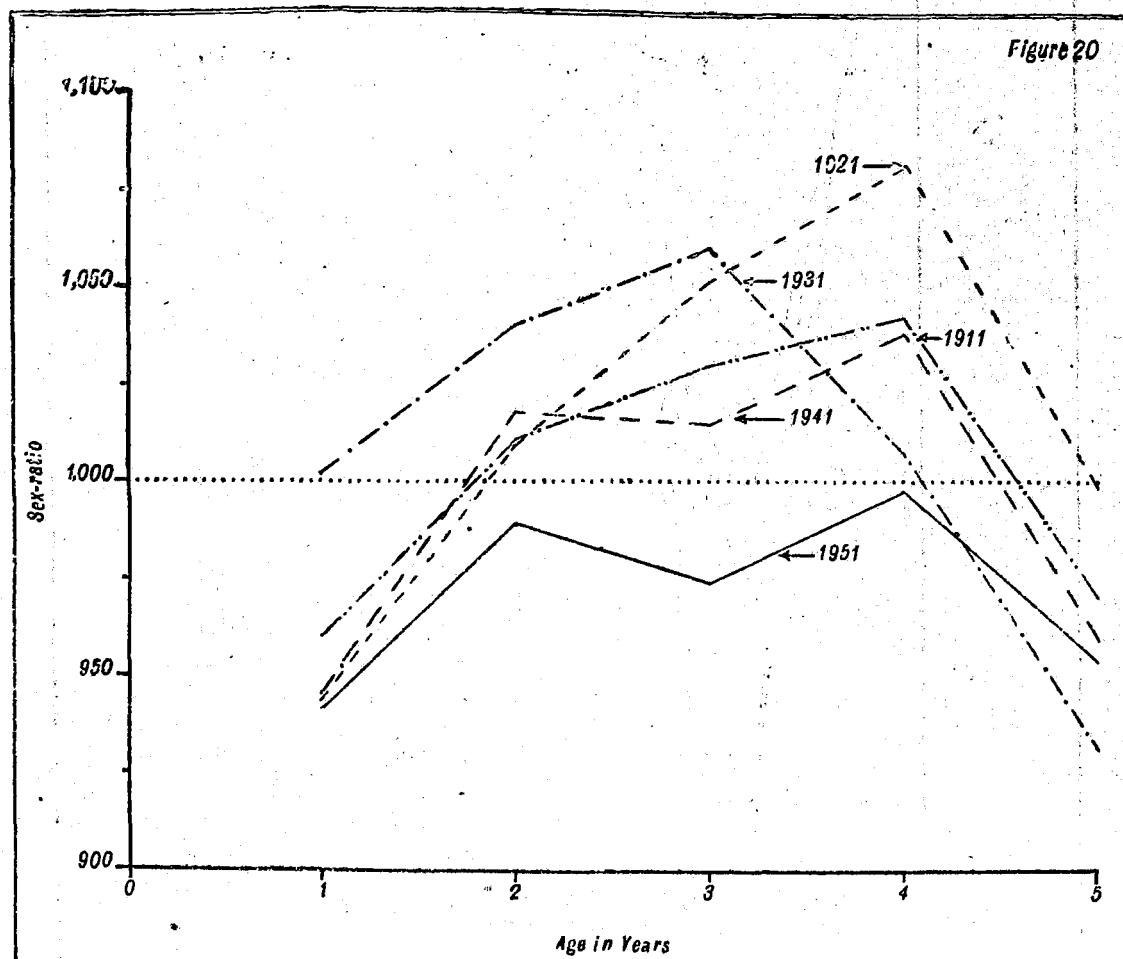


FIG. 20—Number of females per 1,000 males at ages 0—4, 1911—51

*Four Class I cities viz., Gorakhpur, Jhansi, Mathura and Shahjahanpur have been wrongly classified under Class II in this table.

In the age-group 0—4 there is a rise in 1951 in the sex-ratio from 0 to 1 year, a small fall from 1 to 2 years, a slight rise from 2 to 3 years and fall again from 3 to 4 years. The rise in the sex-ratio from 0 to 1 year is to be found in all the last five censuses. While males exceed the females at the time of birth, the death-rate of the male infants in the first year of their life is higher than that of the female infants and so the sex-ratio increases. From 1 to 2 years there was a rise in the sex-ratio between 1911—31 and a slight fall in 1941 and 1951. The enumeration of the lower ages is not at all reliable and so the trends of 1941 and 1951 for ages 1-2 are probably not correct. The likelihood is that the sex-ratio continues to rise during ages 1-2 years. During 2-3 years there is a rise in the sex-ratio in all the five censuses except that of 1931 when the fall was explained as the result of smoothing and not

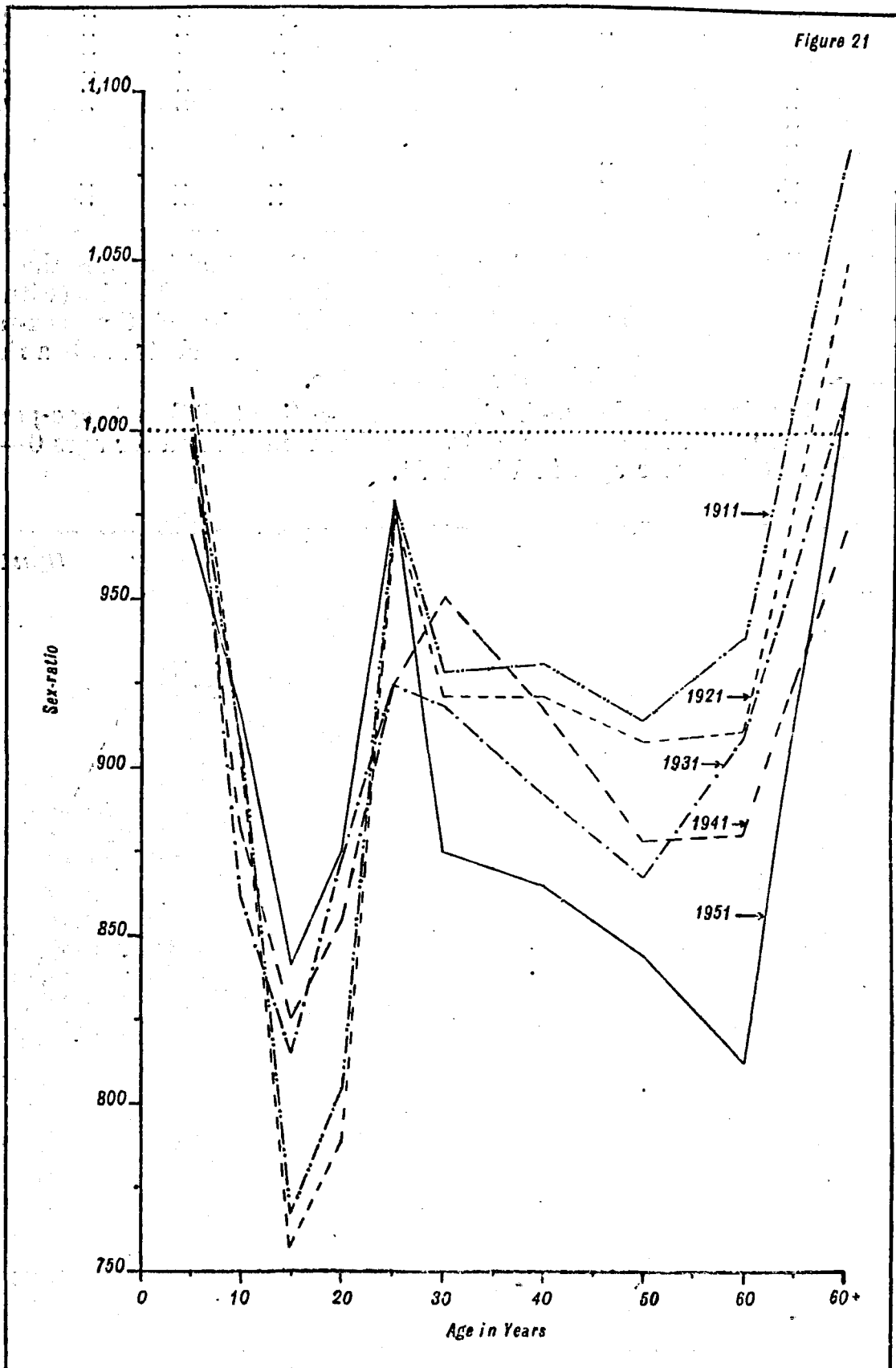


FIG. 21—Number of females per 1,000 males at different age-periods, 1911—51

genuine. During ages 3-4 there is a fall in all the last five censuses. Thus, it would appear that the sex-ratio rises up to the age of 3 years when its decline starts.

As would appear from Figure 21 this decline continues up to about 15 years, when the ratio rises and the rise continues up to about 25 years. After this there is again a tendency towards decline which continues up to about 50 years when a rise again sets in. The decline in the sex-ratio between the ages 5—15 may be attributed to the lesser care devoted to female than to male children and the risks of maternity in early ages. Other variations are the direct result of the differentials in female and male death-rates. It may be noted, however, that the effects of these differentials are counterbalanced for some time by the excess of males over females. It is significant that the trends just described are common to all the last five censuses.

Examining the trends of the sex-ratio in the various age-groups since 1911 (Subsidiary Table 6·6-A) it would appear that there is a decreasing trend in the age-group 0—4, increasing trend in the age-groups between 5—24, and a decreasing trend in the remaining age-groups.

20. Table 313 gives the sex-ratio by livelihood classes in the 1951 census. Among agricultural classes, the highest sex-ratio is that of Class IV and the next highest is that of Class I followed by Class II and Class III. It is significant that the sex-ratio varies directly with the economic prosperity of the agricultural classes. It is the highest for Non-cultivating owners of land and agricultural rent receivers and the lowest for Cultivating labourers.

Sex-ratio by
livelihood
classes

TABLE 313—Sex-ratio by livelihood classes, 1951

Livelihood class	Sex-ratio	Livelihood class	Sex-ratio
<i>All agricultural classes</i>	930	<i>All non-agricultural classes</i>	854
I—Cultivators of land wholly or mainly owned and their dependants	932	V—Production other than cultivation	853
II—Cultivators of land wholly or mainly un-owned and their dependants	903	VI—Commerce	878
III—Cultivating labourers and their dependants	893	VII—Transport	806
IV—Non-cultivating owners of land; agricultural rent receivers; and their dependants	1,194	VIII—Other services and miscellaneous sources	849

Among the non-agricultural classes, it will be noted, the sex-ratio is generally lower than those of the agricultural classes. The non-agricultural classes mainly reside in urban areas, where owing to the migration factor the sex-ratio is low. The highest sex-ratio is that of Class VI, followed by Class V, Class VIII and Class VII. Again it is significant that the sex-proportion bears a close relationship with the economic prosperity of these classes. It is highest for the people engaged in Commerce and the lowest for the Transport workers.

21. We have seen that there are hardly any racial factors affecting the determination of the sex-ratio in the State. It is the territorial, occupational and the temporary factors which really affect the ratio. Among the temporary factors, migration probably plays a significant part in determining the sex-ratio in smaller areas such as districts and it also affects the sex-ratio of the State as a whole. There has been no famine since 1908-09 in the State. As regards epidemics they took a heavy toll between 1901—21 and the influenza caused a very heavy mortality in 1918-19, both of which were more fatal to females than to males. But the effect of these factors has now almost disappeared as is evident from a rise in the sex-ratio since 1931. The death-rate of females at the reproductive ages, which used to play an important part in reducing the sex-ratio is also now going down, partly as a result of the rise in the marriage age and partly owing to the improvement in the sanitary, medical and gynaecological facilities. The rise in the sex-ratio is likely to be maintained in the foreseeable future.

Conclusion

SECTION 5—MARITAL STATUS

Importance of marital status

1. Marital status is another fundamental classification of the population which has been obtained in the censuses of almost all countries. From the demographic point of view, the marital status of the population has an obvious importance as a factor influencing reproductivity and thereby the population growth. In addition the data on marital status have a great value for the study of sociological problems connected with customs of marriage, widowhood, divorce, etc. Such statistics are also helpful in economic analysis, e.g., in the estimation of demand for housing and other goods and in the analysis of problems of dependency and of factors affecting the supply of labour.*

The statistics : where found

2. The statistics relating to marital status are given in Table C-III according to age-groups and sex, for each district and the State, with separation for rural and urban areas. The proportionate figures are given in the following three subsidiary tables

Subsidiary Table 6·7—Marital status of 1,000 of each sex of general population and comparison with previous censuses

Subsidiary Table 6·8—Age distribution of 1,000 married persons of each sex and comparison with 1941 census

Subsidiary Table 6·8-A—Distribution by civil condition of 1,000 of each sex and age-group at each of the last five censuses

Figures how obtained

3. Question 3 related to marital status and was quite simple : “Are you unmarried, married, widowed, or divorced?” Information regarding ‘divorced’ was collected separately for the first time in this census. In order to ensure preciseness the following explanations of terms were given in the ‘Instructions to Enumerators’ :

A person should be treated as ‘unmarried’ only if he or she never married. Prostitutes, concubines and any women who have never been married by any recognised form should be entered as ‘unmarried’ whether they are living with a man or not.

A person should be recorded as ‘married’ if he or she has been married in accordance with any religious rite or by registration or according to any custom or form of marriage recognised by his community and has not been widowed or divorced. Persons who have married again should also be recorded as ‘married’.

‘Widowed’ means persons widowed but not remarried. If a person marries again after being widowed he or she shall be recorded as ‘married’.

‘Divorced’ means persons whose marital ties have been severed by law and custom and are free to remarry. A husband and wife living separately by mutual consent or order of a court or that of a caste panchayat should be treated as ‘divorced’. If a ‘divorced’ person marries again he or she should be recorded as married.

The statistics : their accuracy

4. In the younger ages some concealment on account of the Child Marriage Restraint Act, 1929 (Sarda Act) was expected. Actually, however, it was discovered that there is no attempt at concealment. The punitive provisions of the Sarda Act were never effectively applied and the people have almost forgotten that such a law exists. The statistics presented may, therefore, be taken as accurate except that the presentation of data by age-groups suffers from the inherent difficulties of age determination in this country.

Marriage customs

5. The subject of marriage customs in this State was dealt with at great length in 1911 by Sri Blunt.† In 1931 Sri Turner tried briefly to survey the changes and modifications occurring in those customs between 1911—30.‡ It is not possible to deal with the subject satisfactorily within the scope of this Report. Suffice it to say that gradual but perceptible changes are taking place in these customs among all communities—particularly those residing in urban areas—as a result of the impact of social and economic forces.

* United Nations, *Population Census Methods*, page 21.

† U. P. *Census Report*, 1911, Part I, page 207 et seq.

‡ U. P. *Census Report*, 1931, Part I, page 309 et seq.

6. Figure 22 and Table 314 illustrate for the State the proportion in each main age-group of the unmarried, married and widowed, separately for males and females. Main features
of statistics

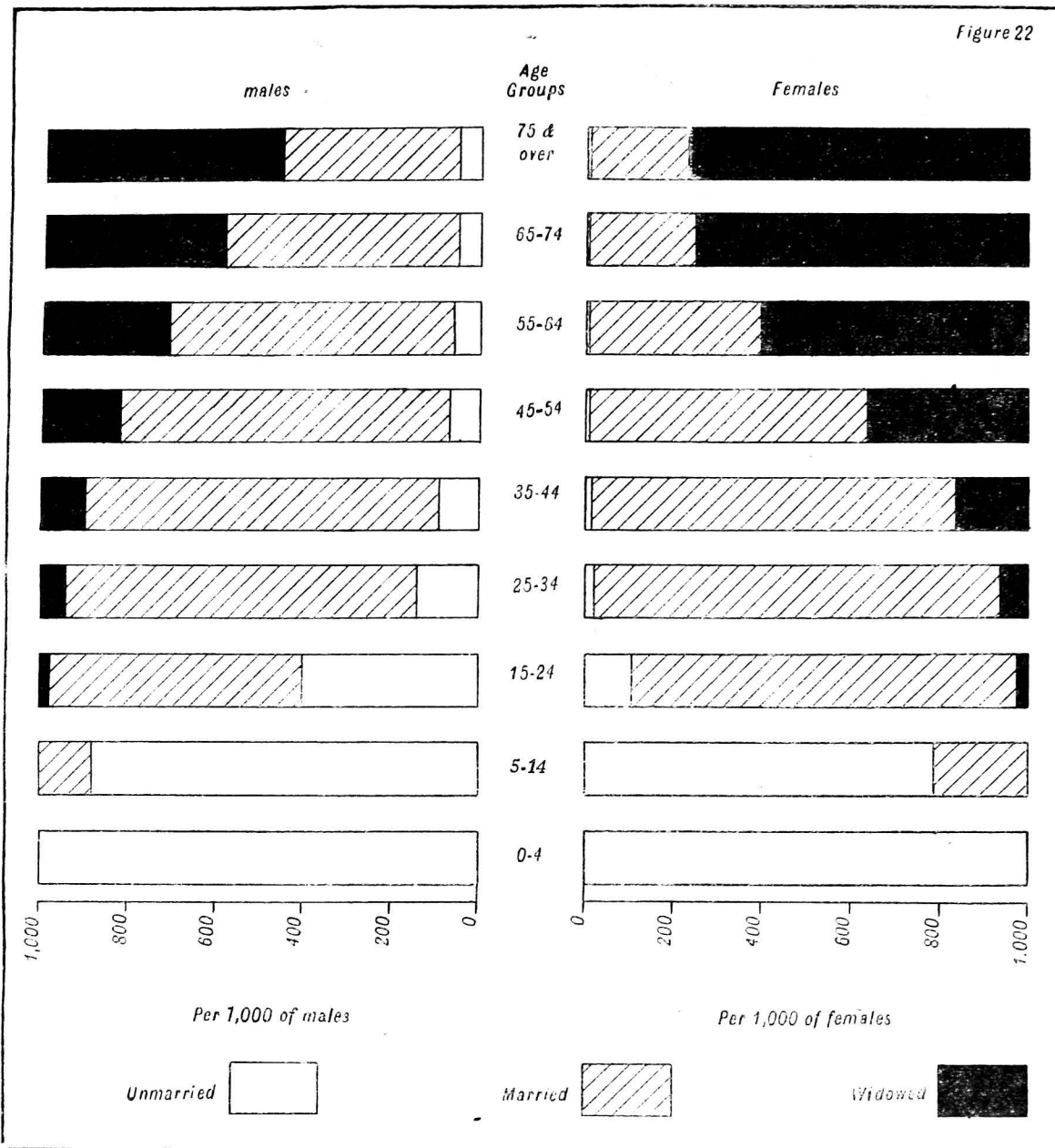


FIG. 22—The proportion of unmarried, married and widowed per 1,000 of each age-group by sex, 1951

TABLE 314—Distribution of 1,000 persons of each sex and age-group according to marital status

Age	Males			Females		
	Unmarried	Married	Widowed and divorced	Unmarried	Married	Widowed and divorced
All ages	463	466	71	359	521	120
0—14	923	76	1	863	135	
15—24	401	579	20	105	874	21
25—34	143	802	55	20	922	58
35—44	88	810	102	15	825	160
45—54	70	750	180	9	633	358
55—64	61	650	289	8	390	602
65—74	47	536	417	6	244	750
75 and over.. ..	48	407	545	12	218	770

The distinctive features of the statistics, which were also observed in previous censuses, are as follows :

- (a) the universality of marriage, specially among females ;
- (b) the early age of marriage ;
- (c) the large proportion of widowed.

To these might be added a fourth :

- (d) the small proportion of divorced persons.

Let us deal with each of these in turn, and examine what changes have occurred during the last fifty years or so.

(a) *Universality of marriage*

7. The most striking feature in the statistics of civil condition is the universality of marriage, as a glance at Figure 22 will show. The number of married is 466 per thousand among males and 521 per thousand among females, a very high proportion as compared with other countries. Examined by age-groups, the universality of marriage becomes even more striking. Table 315 exhibits the age distribution of 1,000 of each marital status by sex. Amongst males 761 per thousand of all unmarried and amongst females 933 per thousand of all unmarried are under 14 years of age. At age 15—24 the proportion of unmarried is only 145 per thousand among males and 50 per

TABLE 315—Age distribution of 1,000 persons of each marital status by sex

Age	Unmarried		Married		Widowed and divorced	
	Males	Females	Males	Females	Males	Females
0	70	95	..	..	..	..
1—4	209	296	..	..	..	..
5—14	482	542	62	101	8	8
15—24	145	50	207	289	47	31
25—34	47	8	263	268	120	74
35—44	23	5	213	183	178	154
45—54	14	2	149	105	238	257
55—64	7	1	74	38	216	256
65—74	2	1	24	11	126	148
75 and over	1	..	8	5	67	72

thousand among females. It can be safely asserted that by the age of 24 almost all females get married with the few exceptions of prostitutes, concubines or bodily infirm. Among males the usual age of marriage is comparatively higher, husbands being older than wives. The proportion of unmarried males is, however, reduced to the insignificant figure of 47 per thousand for age-group 25—34. Thus marriage in U. P. as in the rest of India, is universal both among men and women. Celibacy and postponement of marriage, so common in Western countries, are rare in India. The natural instinct to marry and beget children has been encouraged in this country by the precepts of religion, which, among Hindus and Jains, make marriage a duty incumbent upon all, and in all Indian communities encourage the state of wedlock as necessary and desirable for both sexes and for the community in general.

It would be interesting to compare the conditions in this State with those of other countries. Table 316 gives the proportion of unmarried per 1,000 of each age-group in seven other countries. It would appear that Japan and Formosa (China) resemble Uttar Pradesh in respect of universality (though not in respect of early age of marriage) while conditions in U. S. A., Canada, Brazil, England and Wales and France are altogether different,

TABLE 316—Proportion of unmarried per 1,000 of each age-group by sex in the State and seven selected countries

(Source: United Nations, *Demographic Yearbook*, 1949-50)

Country	All ages	Under 15	15—24	25—34	35—44	45—54	55—64	65 and over
<i>Males</i>								
Uttar Pradesh (1951) ..	463	923	401	143	88	70	61	47
U. S. A. (1940) ..	501	1,000	858	287	140	111	107	98
Canada (1941) ..	563	1,000	920	400	190	136	127	117
Brazil (1940) ..	683	1,000	885	341	168	122	104	96
England and Wales (1931)	518	1,000	929	352	125	108	102	86
France (1946) ..	466	1,000	879	334	144	89	73	68
Japan (1930) ..	571	1,000	901	191	32	17	13	9
Formosa (China) (1930) ..	584	1,000	736	148	53	32	25	17
<i>Females</i>								
Uttar Pradesh (1951) ..	359	863	105	20	15	9	8	8
U. S. A. (1940) ..	442	1,000	681	189	104	87	90	93
Canada (1941) ..	519	1,000	783	275	146	108	101	113
Brazil (1940) ..	636	1,000	682	260	178	151	140	144
England and Wales (1931)	500	1,000	860	330	194	164	156	154
France (1946) ..	403	1,000	740	203	124	122	107	100
Japan (1930) ..	499	1,000	656	63	21	15	12	9
Formosa (China) (1930) ..	498	999	436	32	11	6	6	2

8. The variations in the marital status of each sex by age-groups is given in Subsidiary Table 6·8-A. It would appear that the proportion of unmarried to total population has been gradually increasing in all age-groups for both males and females since 1911. (The slight decrease in 1931 is due to smoothing of ages and a rise in the number of marriages before the enforcement of the Sarda Act*.) This increase of unmarried, however, is not the result of any material change in the universality of marriage or the age structure of the young population. It is entirely explained by the gradual rise in the age of marriage for both sexes, particularly in the case of females, about which more will be said in the following paragraph.

9. The early age of marriage is another outstanding feature of this country and affords interesting comparison with the conditions in other countries. While in Uttar Pradesh in the age-group 0—14 there are 77 per thousand males and 137 per thousand females married or widowed in 1951, in Western and even in most oriental countries hardly any person is married before the age of 15 and the question on civil condition is not even put to persons under that age. Table 316 shows that in the age-group 15—24 there are, in Uttar Pradesh, only 401 per thousand among males and 105 per thousand among females unmarried, i. e., three-fifth of the males and nine-tenth of the females are married before the age of 25. The number of unmarried in this age-group for males in the six countries, U. S. A., Canada, Brazil, England and Wales, France and Japan is between 858 and 929 per thousand and even in Formosa, which may be somewhat representative of conditions in China, this number is as high as 736 per thousand. The corresponding figures for females, in the above six countries are between 656 and 860 per thousand and in Formosa 436 per thousand. In Uttar Pradesh by the age of 35 about four-fifth of the males and practically all the females get married. In U. S. A., Canada, Brazil, England and Wales and France the number of unmarried in the age-group 25—34 ranges from 287 to 400 per thousand among males and 189 to 330 per thousand among females. In Japan and Formosa, where the marriage appears to be as universal as in India, the proportion of unmarried in this group is, however, comparable to the figures of Uttar Pradesh.

(b) *The early age of marriage*

* U. P. Census Report, 1931, Part I, page 292.

10. A glance at the Subsidiary Table 6·8-A will show that the proportion of unmarried males is increasing, though slightly, in practically all age-groups since 1911. The corresponding figures for females, however, indicate a very marked increase in all the age-groups up to 24 years. In the age-group 5—9 the proportion has increased from 894 in 1911 to 927 in 1951; in the age-group 10—14 it increased from 465 in 1911 to 630 in 1951; and in the age-group 15—24 the increase was from 49 in 1911 to 105 in 1951. These figures show beyond doubt that the evil custom of early marriage of females is fast disappearing and that the age of marriage of girls is increasing progressively. It is also significant that the number of persons remaining unmarried after the age of 24 is increasing, specially among the males.

(c) Large proportion of widowed

11. Table 317 shows by age-periods the proportion of widowers and widows for the State as a whole in 1951 compared with the latest available corresponding data of seven other countries. It will appear that the proportion of widowers is the highest in Uttar Pradesh and is about double of that of U. S. A.,

TABLE 317—*Proportion of widowed per 1,000 of each age-group by sex in the State and seven selected countries*

(Source : United Nations, *Demographic Yearbook*, 1949—50)

Country	All ages	Under 15	15—24	25—34	35—44	45—54	55—64	65 and over
<i>Males</i>								
Uttar Pradesh (1951) ..	68	2	18	51	99	177	286	450
U. S. A. (1940) ..	32	..	1	5	17	41	90	251
Canada (1941) ..	29	..	..	4	14	37	81	236
Brazil (1940) ..	21	..	1	13	37	73	126	251
England and Wales (1931)	38	..	..	7	18	43	101	294
France (1946) ..	42	..	1	7	19	41	90	261
Japan (1930) ..	34	..	1	11	29	74	149	348
Formosa (China) (1930) ..	33	..	2	16	50	116	209	403
<i>Females</i>								
Uttar Pradesh (1951) ..	117	4	20	56	156	352	595	745
U. S. A. (1940) ..	87	..	3	18	59	131	264	556
Canada (1941) ..	63	..	1	9	37	96	201	477
Brazil (1940) ..	62	..	5	34	105	231	406	620
England and Wales (1931)	86	..	1	11	52	114	224	504
France (1946) ..	142	..	3	28	59	145	321	593
Japan (1930) ..	98	..	3	23	82	207	420	744
Formosa (China) (1930) ..	103	..	5	32	124	326	603	876

Canada, England and Wales, France, Japan, and Formosa; and three times that of Brazil. The difference is marked in all age-groups but is particularly significant in the lower age-groups. This is due largely to the heavier female mortality at the reproductive ages in this country. An evidence of this fact is the relative proportion between the widowers and widows in the age-groups 15—24 and 25—34 as compared with the proportion in other age-groups. In these age-groups the number of widowers and widows is almost equal while in all other age-groups the widows far outnumber the widowers. The number of widows at all ages in Uttar Pradesh is higher than that of all the countries selected for comparison with the exception of France where the average has been affected by the large proportion of females and widows in the higher age-groups. But the most striking fact is the distribution of widows by age. Table 318 shows the percentage of widows below 45 years of age in Uttar Pradesh and the seven selected countries. In Brazil alone the proportion is about that of Uttar Pradesh while in all the remaining six countries the proportion is very much smaller. This exceptional feature in respect of widows

in this State is the result partly of the early age at which girls are married, partly to the disparity of age that often exists between males and females, but largely to the prejudice against the remarriage of widows. As a rule widows are not remarried among the higher castes of Hindus at all while the custom is not so rigid among the lower castes. Among the Muslims, widow remarriage is not prohibited by religion but is not

TABLE 318—Percentage of widows below 45 years of age in the State and seven selected countries

Country	Widows
Uttar Pradesh	25.2
U. S. A.	13.6
Canada	9.7
Brazil	26.9
England and Wales	10.7
France	8.9
Japan	12.4
Formosa (China)	16.8

usually looked upon with favour.

12. As would appear from Subsidiary Table 6.8-A* the number of widowers and widows has been going down during the last 30 years. The proportion of widowers was 79 per thousand in 1911. It went down to 76 per thousand in 1941 and showed a further decrease to 71 per thousand in 1951. The number of widows which was as high as 172 per thousand in 1911 came down to 136 per thousand in 1941 and has registered a further significant decrease to 120 per thousand in 1951. This marked downward trend bespeaks of the social progress during the last two generations. The custom of early marriage of girls is fast disappearing and the mortality of both males and females has gone down. The remarriage of widows among the Hindus is taking place in appreciable numbers though it has not yet become common. These trends are likely to gather strength and greater improvements ought to be recorded in future.

TABLE 319—Number of divorced persons per 1,000 of each sex in the State and seven selected countries

Country	Divorced	
	Males	Females
Uttar Pradesh	2	2
U. S. A.	9	13
Canada	7	9
Brazil	1	2
England & Wales	1	1
France	9	12
Japan	9	12
Formosa (China)	7	5

(d) Small proportion of divorced persons

and in the seven selected countries. These figures take no account of the actual number of divorces. All persons who have remarried after divorce are shown in the married category. As is well known remarriage after divorce is common elsewhere but rare in India. Even so the figures show that the proportion of divorced in U. P. is very small as compared with other countries. This is due to the fact that Hindu-

ism, the predominant religion of India, does not permit divorce while Islam though permitting it also looks upon it with disfavour.

14. The statistics of marital status by sex will be found in Subsidiary Table 6.7*. Table 320 reproduces the figures for natural divisions. It will be seen that there are considerable local variations. The highest proportion of

Marital status by natural divisions

TABLE 320—Marital status of 1,000 of each sex by natural divisions, 1951

Natural division	Number per mille of—					
	Males			Females		
	Unmarried	Married	Widowed and divorced	Unmarried	Married	Widowed and divorced
Uttar Pradesh	463	466	71	359	521	120
Himalayan	483	471	46	377	496	127
East Plain	457	477	66	340	533	127
Central Plain	428	497	75	337	542	121
West Plain	491	435	74	392	500	108
Hills and Plateau	460	477	63	348	510	142

* The figures of widows and widowers in this table include those of divorced.

unmarried males as well as females is in the West Plain while the Central and East Plains record the lowest proportions.

The main factors that affect the number of unmarried are :

- (i) age distribution of males and females ;
- (ii) the proportion of males and females ;
- (iii) marriage customs ;
- (iv) migration.

Let us see how each of these factors has affected the statistics as between the natural divisions. Table 321 shows the age distribution in three age-groups

TABLE 321—*Distribution of 1,000 of each sex in age-groups by natural divisions, 1951*

Natural division	Males			Females		
	0—14	15—34	35—54	0—14	15—34	35—54
Uttar Pradesh	382	320	215	388	324	202
Himalayan	368	314	228	367	351	201
East Plain	407	307	205	389	314	205
Central Plain	371	321	225	386	320	203
West Plain	369	327	216	391	330	198
Hills and Plateau	401	332	206	393	333	201

by natural divisions. The figures (specially those of age-group 0—14) do not correspond with those of Table 320. We shall, therefore, have to seek for explanation in other factors.

TABLE 322 gives the sex-ratio by natural divisions. It would appear that the proportion of females per 1,000 males is the lowest in West Plain and the highest in East Plain. This factor tends to increase the proportion of the unmarried in the West.

TABLE 322—*Sex-ratio by natural divisions, 1951*

Natural division	Females per 1,000 males
Uttar Pradesh	910
Himalayan	964
East Plain	979
Central Plain	909
West Plain	849
Hills and Plateau	939

As regards customs, by far the most important is the age at which marriages are contracted. Table 323 shows at a glance that the normal age of marriage is lower in the East and Central Plains than in West Plain. This has a marked effect on the proportions in the various civil conditions.

As regards migration it takes place usually at the working ages among males by which time most of them are married. As male emigration is greater in the East Plain than in West Plain this factor tends to increase the proportion of unmarried males in the east as against the west. The western districts gain and the eastern districts lose on the balance of female migration. The marriage migration must to some extent increase the proportion of married and widowed in the west at the expense of the east. It is, however, obvious that the effect of this factor is not very appreciable.

TABLE 323—*Distribution of 1,000 married or widowed of each sex in age-groups by natural divisions, 1951*

Natural division	Number per mille of each sex married or widowed					
	Males			Females		
	0—4	5—9	10—14	0—4	5—9	10—14
Uttar Pradesh	50	184	73	370		
Himalayan	25	29	13	189		
East Plain	69	273	105	490		
Central Plain	95	270	127	449		
West Plain	4	59	10	200		
Hills and Plateau	38	228	64	481		

15. Table 324 shows the figures of marital status for the rural and urban areas. As regards males there is not much difference between the rural and urban figures, though the proportion of unmarried is slightly higher in urban areas. As regards females, however, there is a marked difference in the rural and urban figures. While the proportion of unmarried females in rural areas is 352 per thousand that of the urban areas is 410 per thousand. It would

Marital status
by age-groups in
rural and urban
population

TABLE 324—*Distribution of 1,000 persons of each sex and age-group by marital status*

Age	Rural			Urban		
	Unmarried	Married	Widowed and divorced	Unmarried	Married	Widowed and divorced
<i>Males</i>						
All ages	461	467	72	476	464	60
0—4	1,000	..	..	1,000	..	..
5—14	872	126	2	964	35	1
15—24	383	597	20	502	481	17
25—34	145	798	57	126	826	48
35—44	92	804	104	65	849	86
45—54	74	742	184	46	799	155
55—64	62	645	293	48	693	259
65—74	48	528	424	38	595	367
75 and over	48	401	551	48	449	503
<i>Females</i>						
All ages	352	526	122	410	484	106
0—4	1,000	..	..	1,000	..	..
5—14	769	227	4	902	96	2
15—24	91	887	22	194	788	18
25—34	18	922	60	34	917	49
35—44	13	824	163	28	834	138
45—54	7	632	361	29	638	333
55—64	7	388	605	14	405	581
65—74	4	243	753	21	250	729
75 and over	10	226	764	30	160	810

appear from the above table that the proportion of unmarried females is higher in all age-groups in the urban areas. In the lower ages, particularly, the difference is very large. There are several reasons for these variations. The custom of early marriage is dying out faster in urban than in the rural communities. Secondly, the urban areas are situated largely in the West Plain where the age of marriage of girls is comparatively higher.

SECTION 6—AGE COMPOSITION

Importance of
age-data

1. Family size and composition, sex-ratio and marital status are some of the factors that influence the reproductivity of a population. Age composition is another such factor that helps understanding the future trends, because the variations in it influence the number of births and deaths. Information on the age structure of the population is required for many purposes including the analysis of the factors of population change and the preparation of current population estimates and forecasts ; the calculation of morbidity and mortality rates as a guide for public health activities and as a measure of their success ; actuarial analysis, for commercial and other purposes, of the probability of survival and related measures ; analysis of the factors of labour supply and of man power for military purposes ; and the study of problems of dependency represented by persons in the very young and very old age-groups. In addition, data on age are of fundamental importance as a basis for the analysis of other data obtained in the population census, such as the statistics of marital status, educational characteristics, fertility, economic activities and ethnic groups—all of which become much more meaningful for demographic, economic and sociological analysis when they are presented for various age-groups. The applications of data on age are, in fact, so numerous and so varied that it is of the utmost importance in a population census to obtain detailed information on this subject with the greatest possible accuracy.*

The figures
how obtained

2. Uptill 1921 the instructions for recording age were as follows : “Enter the number of years each person has completed. For infants less than one year old enter the word ‘*bachcha*’ (infant)”. In other words the *age last birthday* was recorded.†

In 1931 the instructions given were : “Enter the number of years to the *nearest birthday* or the nearest age (in years) known. For infants less than six months old enter 0 ; for infants six months old but less than eighteen months enter 1. In every case the age must be shown in whole years.”

In view of Sri Meikle’s assumption referred to in the foot-note of this page, it was believed that the change from the “last birthday” to the “nearest birthday” was not likely to have affected appreciably the actual age returned. However, a larger difference might have occurred as a result of the omission of the use of the word ‘*bachcha*’ for infants. Sri Edey drew attention to the errors that had occurred in recording the ages of young children on account of the use of this word both in 1921 and at previous censuses.‡ Its omission must have resulted in more accurate returns at the census of 1931 and to this extent it might vitiate comparison with the figures of the prior censuses.§

There was again a change in 1941. At the time of enumeration age was recorded in years and months but it was corrected at the time of tabulation to *age last birthday*. Children under 1 year were tabulated as of age 0.

In 1951 also the age has been reckoned as at *last birthday*. The instructions were : “Write age last birthday ; that is, the actual number of completed years. Write 0 for infants below 1”. This is the definition of age recommended by the United Nations Population Commission.||

Reliability of
the data

3. In the censuses of all countries there are some errors in the reporting of ages. In this State owing mainly to the low level of literacy a large majority of the people have no correct idea of their age. The enumerator had to fix the age by estimates. He endeavoured to estimate it by enquiries from the members of the family or the neighbours with reference to well remembered events such as the earthquake of 1934 or some purely local events like a flood. But as compared to the previous censuses the conditions in 1951 had definitely improved. The number of enumerators at the 1951 census was greatly reduced and most of them were the village patwaris or panchayat secretaries or officials of local bodies. It may be safely assumed that almost every one of them was capable of making an intelligent guess about the age of a person. With the

*United Nations, *Population Census Methods*, page 14.

†Sri H.G. W. Meikle, F.F.A., Actuary to the Government of India in paragraph 14 of his “*Report on the Age Distribution and Rates of Mortality deduced from the Indian Census Returns of 1921 and previous enumeration*” gave strong reasons for assuming that in spite of these clear instructions the age to the nearest birthday was generally entered.

‡*U. P. Census Report*, 1921, Part I, page 65.

§*U. P. Census Report*, 1931, Part I, page 210.

||United Nations, *Population Census Methods*, page 15.

increase of literacy and social contact the householders also are now better qualified to estimate the age of the other members of their household. Certain unintentional errors, however, are inherent in the guessing of ages. Briefly they are :

- (1) The guesses are less inaccurate for younger ages and the net result of errors at each age under 5 is negligible.
- (2) At the older ages, say over 70, the errors are very high and returns are of little value.
- (3) Between 5 and 9 greater preference is shown for ages 5, 8 and 6.
- (4) At ages 10 and over 0 is the popular digit, ages often being quoted to the nearest 10. The next most popular digit is 5 followed by 2, 8, 4 and 6.

Figure 23 illustrates the above observations.

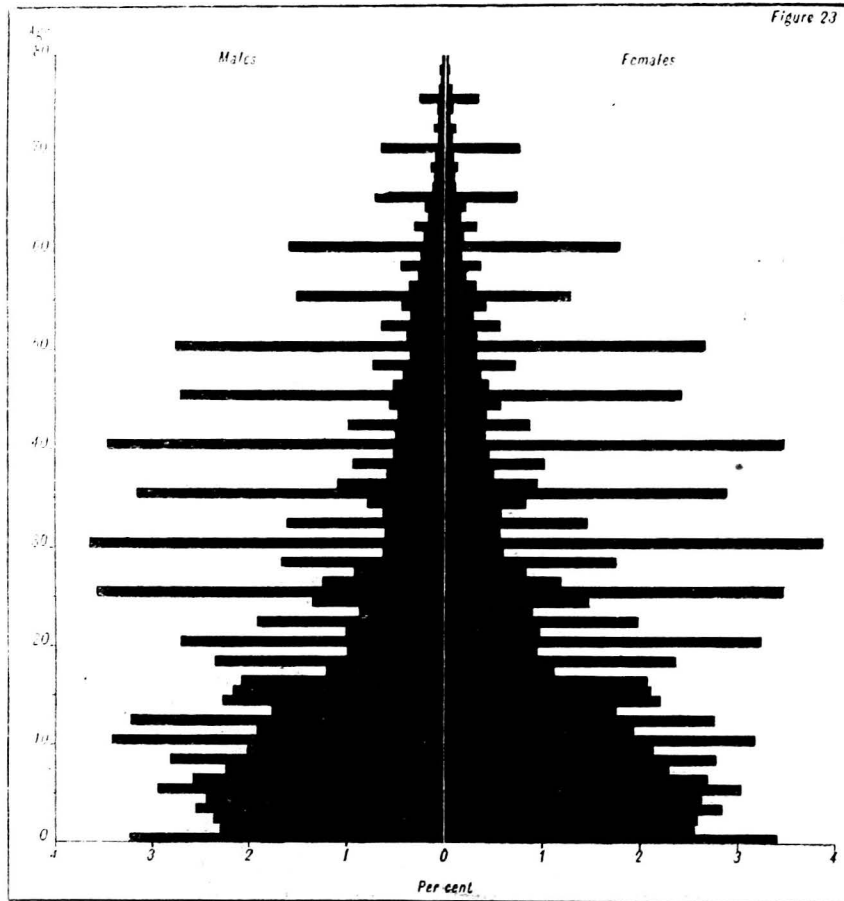


FIG. 23—Single year age pyramid

There are also some intentional errors in recording age. But this is not nearly so serious a matter. It is certainly no more prevalent than in the countries of the West where there is a tendency for women in certain age ranges to understate their ages. In this State where females have remained unmarried up to an advanced age ages are apt to be understated. But the number of such females is so small as to be insignificant. The Sarda Act has had little effect on the age-data, at least in this census.

4. The real problem, therefore, is the elimination of the unintentional errors. From the above discussion it will be evident that it is not safe to rely on the single year age returns. The Census Actuary has produced separately the smoothed Age Tables and Life Tables after removing the observed preference for particular digits in actual age returns. For purposes of this Report even the unsmoothed figures are good enough, if for the tabulation of results the age-groups adopted are the decennial groups which include all the digits with the most favoured 0 at the centre. On the other hand it might be expected that the age of very young children would be somewhat accurately guessed.* For these reasons the groupings used in the census of 1951 are : 0, 1—4, 5—14, 15—24, 25—34, 35—44, 45—54, 55—64, 65—74 and 75 and over. Persons whose ages are not stated have been

Age-groups used
in tabulation of
results

*See note on the next page.

tabulated as a separate group. The number of such persons is only 16 (males 7, females 9) per 100,000 of population.

Age composition of the State at the 1951 census compared with that of U. S. A. and other countries

5. Every population has people of all ages in it but the proportions in the different age-groups differ greatly from one population to another. Famines, epidemics, migration, wars and changes in the vital trends all leave their impressions on the age structure. Figure 24 compares the age pyramid of this State

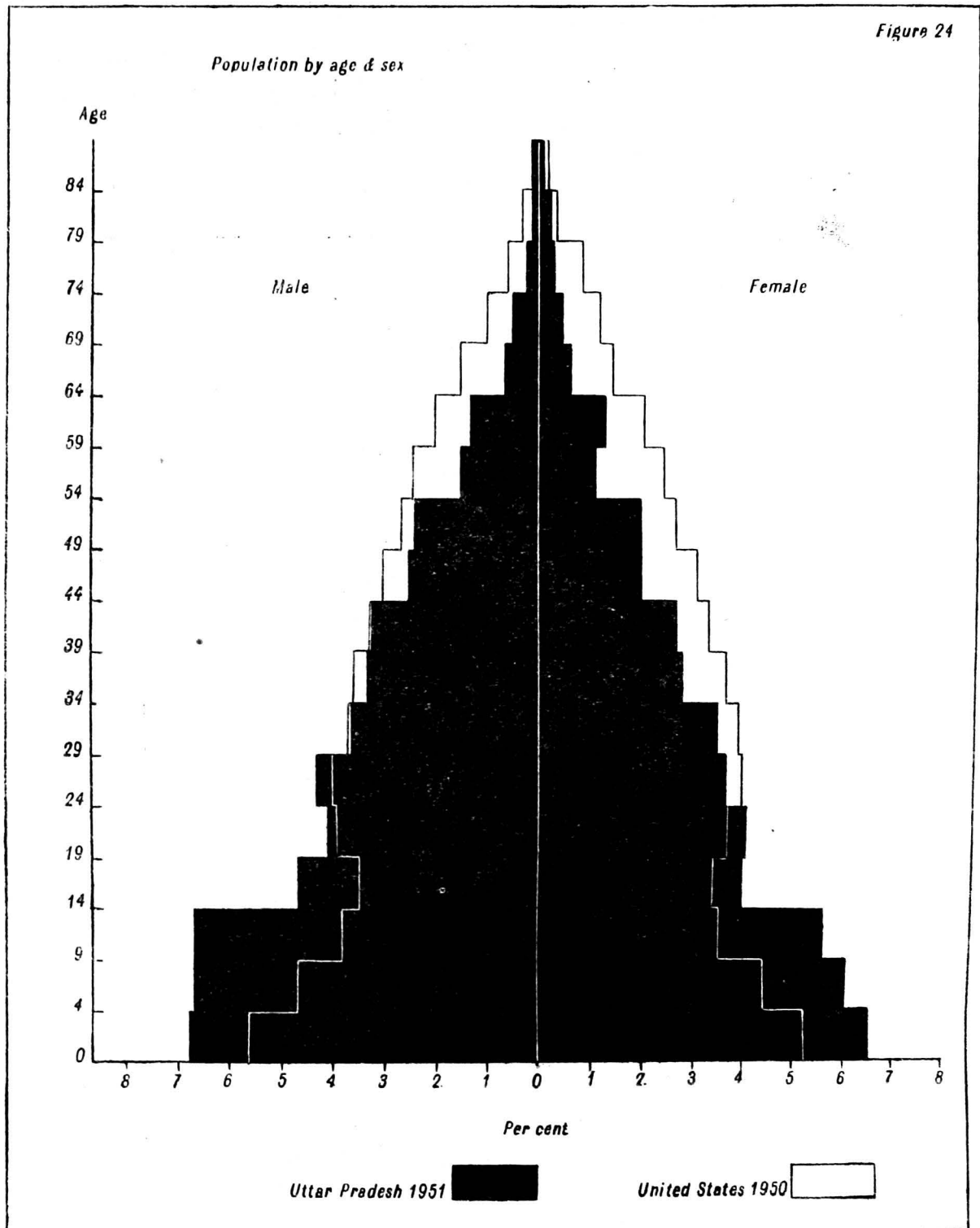


FIG. 24—Superimposed age pyramids for Uttar Pradesh, 1951, and for United States, 1950

NOTE—The table below shows that there is very little variation between the unsmoothed and smoothed data of age distribution if the returns are shown in broad age-groups. The smoothed figures are those worked out by the Census Actuary.

Age-group	Percentage of population of each sex			
	Unsmoothed		Smoothed	
	Males	Females	Males	Females
0—4	12·9	14·0	12·9	13·9
5—14	25·3	24·8	24·1	24·1
15—24	16·7	17·2	18·8	18·5
25—34	15·3	15·2	15·1	14·9
35—44	12·2	11·6	12·0	11·4
45—54	9·3	8·6	8·7	8·2
55—64	5·3	5·1	5·1	5·0
65 and over	3·0	3·5	3·3	4·0

for 1951 with that of the United States for 1950* and shows some of the age differences. In it the population of each five year age-group is measured by a bar the length of which is proportionate to the size of the age-group. Males are shown on the left hand side of the pyramid and the females on the right.

It will be observed that the age structure of this State stands in marked contrast to that of the United States. High death-rates of the State have decimated the upper ages while high birth-rates have provided a heavy concentration of population in the younger ages. The pyramid, therefore, has a broad base and a quickly attenuating top. On the other hand, the birth-rates as well as the death-rates in the United States have been low. The progressive decline in the birth-rate is best shown by the slabs for the ages 25—29, 20—24 and 15—19. A general rise in the birth-rate appears to have taken place recently, but it may only be a temporary phenomenon.† At the upper ages the slabs display the effects of rapid population growth in the past shaped by the higher birth-rate, by the low death-rate and by migration.

The proportion of population represented by each slab is shown in Table 325.

TABLE 325—Percentage distribution of population of Uttar Pradesh, 1951, and United States, 1950,* by five-year age-groups

Age-group	Uttar Pradesh			United States		
	Persons	Males	Females	Persons	Males	Females
0—4	13·4	6·8	6·6	10·9	5·6	5·3
5—9	12·8	6·7	6·1	9·2	4·7	4·5
10—14	12·3	6·7	5·6	7·5	3·8	3·7
15—19	8·7	4·7	4·0	7·0	3·5	3·5
20—24	8·2	4·1	4·1	7·7	3·9	3·8
25—29	8·0	4·3	3·7	8·1	4·0	4·1
30—34	7·3	3·8	3·5	7·6	3·7	3·9
35—39	6·1	3·3	2·8	7·3	3·6	3·7
40—44	5·9	3·2	2·7	6·6	3·3	3·3
45—49	4·5	2·5	2·0	6·1	3·0	3·1
50—54	4·4	2·4	2·0	5·4	2·7	2·7
55—59	2·6	1·5	1·1	4·9	2·4	2·5
60—64	2·6	1·3	1·3	4·1	2·0	2·1
65—69	1·2	0·6	0·6	3·0	1·5	1·5
70—74	1·0	0·5	0·5	2·2	1·0	1·2
75—79	0·5	0·2	0·3	1·4	0·6	0·8
80—84	0·3	0·1	0·2	0·7	0·3	0·4
85 and over	0·2	0·1	0·1	0·3	0·1	0·2

It will be noted that the percentage of the people under age 15 is, Uttar Pradesh 38·5, United States 27·6 ; the percentage of young men and women (15—34) is, Uttar Pradesh 32·2, United States 30·4 ; the percentage of middle-aged men and women (35—54) is, Uttar Pradesh 20·9, United States 25·4 ; and the percentage of elderly persons (55 and over) is, Uttar Pradesh 8·4, United States 16·6.

* United Nations, *Demographic Yearbook*, 1951, Table 4. The figures for United States are only estimates and have not been adjusted in accordance with the results of 1950 census.

† Kingsley Davis, *Population of India and Pakistan*, page 86 (foot-note 2).

It is obvious that, when such differences in age exist, certain other differences will follow in their wake. Two of the important differences may be distinguished. They are—

First—The high proportion of children in the population of Uttar Pradesh means a substantially large burden of dependency and thereby a greater need for child welfare work, education, etc. The United States, on the other hand, and also most of the other Western countries which have curtailed their birth and death-rates have at present a greater proportion of their population in the working ages (15—54), and fewer dependants. This can be seen from Figure 25.

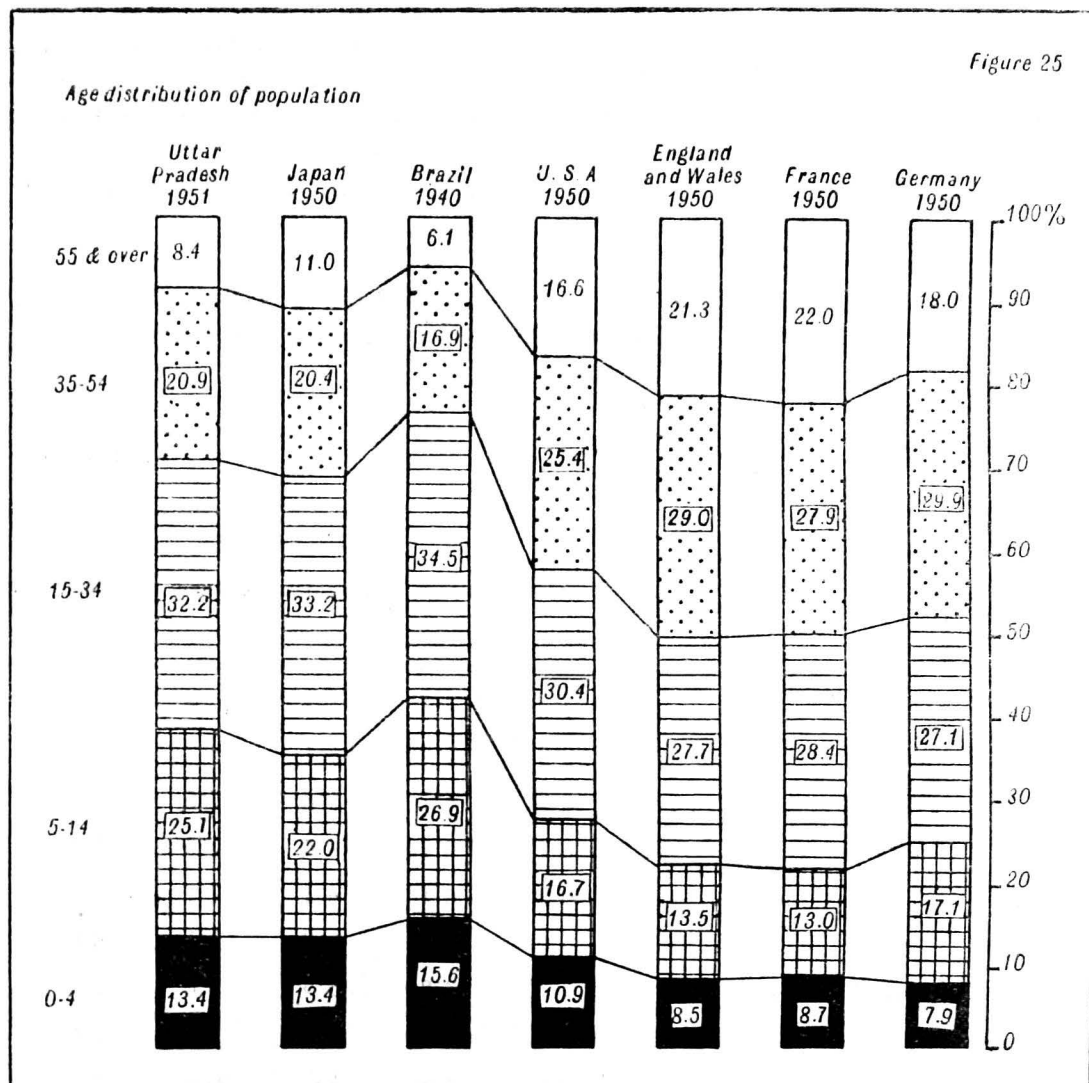


FIG. 25—Percentage of population in major age-groups in selected countries*

While the United States has 55.8 per cent. of its population in the ages 15—54, England and Wales 56.7 per cent., France 56.3 per cent., Germany 57.0 per cent. and Japan 53.6 per cent., Uttar Pradesh has only 53.1 per cent. A large number of the elderly people also participate in the productive activities but the proportion of elderly persons is only 8.4 per cent. in this State as against 11.0 per cent. in Japan, 16.6 per cent. in United States, 21.3 per cent. in England and Wales, 22.0 per cent. in France and 18.0 per cent. in Germany. Only Brazil has a younger population.

Second—The age structure of Uttar Pradesh is indicative of rapid population growth. The very broad foundations of the population structure predicate it. Even if fertility is somehow curtailed, for which there appear to be no chances in the near future, the increasing stocks of potential parents in the young ages will tend to counteract the effects of falling fertility and if deaths continue to decline the growth of population will be enormous. There will be, at the same time, a great increase in the labour force and so the need for greater avenues for employment. The age composition of the United States, of England and Wales, France, Germany, etc., on the other hand, is indicative of population decline unless it is averted by an increase in the average family size or through immigration.

*United Nations, *Demographic Yearbook*, 1951, Table 4, pages 131—141.

6. There are a number of interesting differences in age composition between these countries themselves. The extent to which the proportion of the young and the elderly persons in the population has changed in Uttar Pradesh between 1891 and 1951 and in England and Wales, France, Germany and United States between 1880-81 and 1950* can be seen from Table 326 and Figure 26.

TABLE 326—Percentage distribution of population by age, in Uttar Pradesh, 1891 and 1951 and in selected countries 1880-81 and 1950

Country	Year	Age-group					
		Under 10	10—19	20—29	30—39	40—49	50 and over
Uttar Pradesh	1951	26.2	21.0	16.2	13.4	10.4	12.8
	1891	26.8	18.4	17.6	14.6	10.4	12.2
England and Wales	1950	15.5	12.7	14.5	14.8	14.9	27.6
	1881	25.7	20.6	17.0	12.6	9.8	14.4
France	1950	15.2	13.9	15.8	11.8	14.7	28.6
	1881	18.3	17.1	15.8	13.8	12.4	22.5
Germany	1950	16.1	16.1	14.9	12.7	15.9	24.3
	1880	25.1	19.7	15.9	13.0	10.4	15.8
United States	1950	20.1	14.5	15.8	14.8	12.7	22.1
	1880	26.7	21.4	18.2	12.7	9.1	11.8

In 1880 or 1881 England and Wales, Germany and United States had over 25 per cent. of their population below 10 and the Uttar Pradesh figure of 1891 was also close to it. People of age 50 and over formed only 11.8 per cent. to 15.8 per cent. of the population in Uttar Pradesh and these countries with the exception of France which alone had an aging population even in 1881.

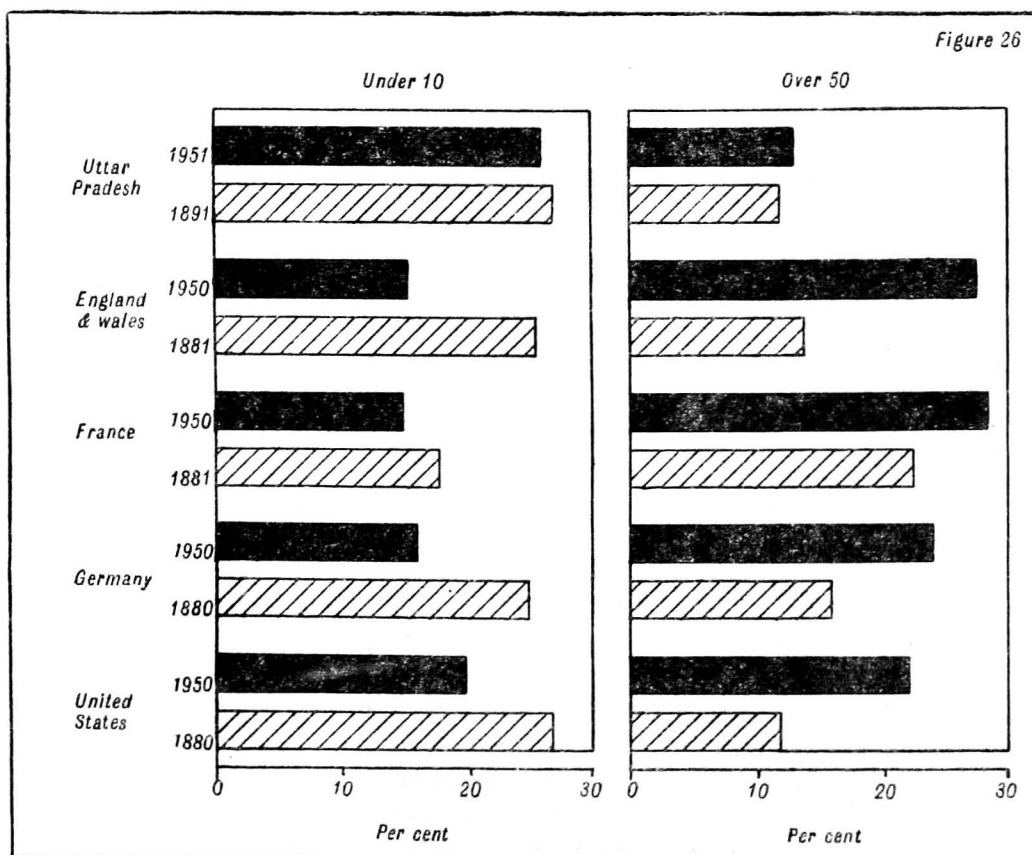


FIG. 26—Percentage of the population under 10 years of age and over 50 years of age in selected countries

*Thompson, *Population Problems* and United Nations, *Demographic Yearbook*, 1951. Figures for 1880-81 have been taken from the former (page 102) and those for 1950 from Table 4 of the latter.

There has been a striking change in the age composition of these countries since 1880. In England and Wales the proportion of the young (under 10) has come down to 15·5 in 1950 from 25·7 per cent. in 1881 and that for the old men and women (50 and over) has increased from 14·4 to 27·6 per cent. during the same period. In Germany and United States and to some extent in France also there is a significant decline in the proportion of the young and increase in the proportion of the old men and women. The proportions in Uttar Pradesh, on the other hand, have remained almost unchanged, the proportion of the young having decreased only by 0·6 per cent. and that of the oldsters having increased by 0·6 per cent. This indicates that while the curtailment of the birth and death-rates has brought about a change in the age composition of the countries listed here, Uttar Pradesh with its high birth and death-rates still has almost the same proportion of the young and the old which it had in 1891.

7. Let us now examine the similarities and differences in the age composition of this State as returned at the recent censuses of 1931, 1941 and 1951. The proportions for each sex in the State in the five-year age-groups since 1891 are shown in Subsidiary Table 6·16. Figure 27 shows separately for males and females the per cent. of population of each sex by five-year age-groups in 1951 and the corresponding figures for 1941 and 1931. Data for five-year age-groups over age 69 are not available for 1941 and 1931 and, therefore, the tops of the pyramids for these years appear to be flat.

The figures of age distribution of 10,000 of each sex in the State are reproduced for 1951, 1941 and 1931 in Table 327 from the Subsidiary Table 6·16.

TABLE 327—Age distribution of 10,000 of each sex in the State at the last three censuses

Age-group	1951*		1941		1931	
	Males	Females	Males	Females	Males	Females
0—4	1,295	1,403	1,310	1,440	1,436	1,602
5—9	1,264	1,294	1,382	1,345	1,276	1,219
10—14	1,262	1,186	1,117	1,017	1,182	1,068
15—19	883	863	887	838	905	877
20—24	785	860	878	896	912	935
25—29	803	785	851	892	874	890
30—34	729	732	766	770	795	791
35—39	630	581	672	687	653	640
40—44	597	577	555	542	562	545
45—49	471	431	499	479	448	426
50—54	455	429	361	338	348	343
55—59	281	240	283	286	233	242
60—64	246	270	192	198	183	199
65—69	115	120	115	120	84	92
70 and over :	183	227	132	152	109	131

The points that emerge from the table and the figure are :

- (1) *Age-group 0—4.*—A large decrease from 1931 to 1941 and a slight decrease from 1941 to 1951 in the proportion of either sex. From 1931 to 1951 there is a marked decrease in the proportion of either sex.
- (2) *Age-group 5—9.*—An increase from 1931 to 1941 and decrease from 1941 to 1951 in the proportion of either sex. From 1931 to 1951 there is a small decrease in the proportion of males and an increase in the proportion of females.
- (3) *Age-group 10—14.*—A decrease from 1931 to 1941 and increase from 1941 to 1951 in the proportion of either sex. From 1931 to 1951 there is an increase in either sex.

*The figures of age not stated are: male 1, females 2.

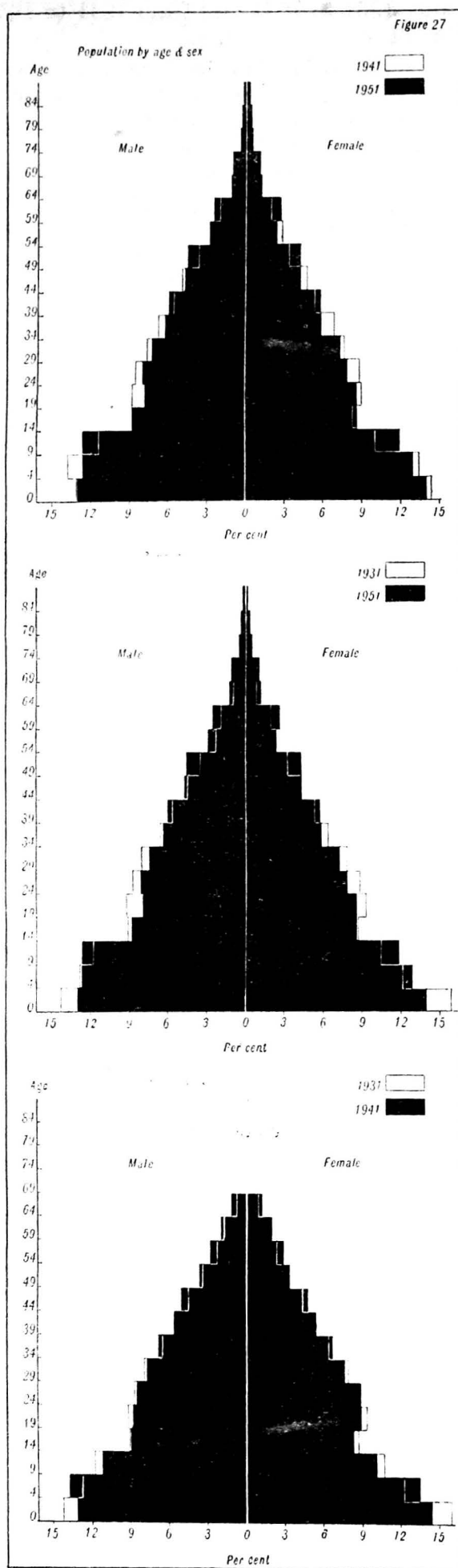


FIG. 27—Superimposed age pyramids of Uttar Pradesh, 1931, 1941, and 1951

proportion of females in the age-group 55—59 from 242 per 10,000 of females in 1931 to 240 in 1951.

(4) *Age-group 15—19.*—A decrease from 1931 to 1941 in the proportion of either sex and from 1941 to 1951 an insignificant decrease in the proportion of males and an increase in that of females. From 1931 to 1951 there is a decrease in the proportion of males and a smaller decrease in that of females.

(5) *Age-groups 20—24, 25—29, 30—34 and 35—39.*—From 1931 to 1941 a decrease in the proportion of males of all the quinary groups except 35—39 (where there is an increase), and an alternate decrease and increase in the proportion of females in quinary groups starting from 20—24, the increase in the age-group 25—29 being very insignificant (from 890 to 892 per 10,000); and from 1941 to 1951 a decrease in the proportion of either sex in all the quinary groups. From 1931 to 1951 there is a decrease in the proportion of either sex in all the quinary groups.

(6) *Age-group 40—44.*—From 1931 to 1941 a very small decrease in the proportion of males as well as females; and from 1941 to 1951 an increase in the proportion of either sex. From 1931 to 1951 there is an increase in the proportion of either sex.

(7) *Age-groups 45—49, 50—54, 55—59, 60—64 and 65—69.*—From 1931 to 1941 an increase in the proportion of males in each quinary group and an alternate increase and slight decrease in the proportion of females in each quinary group starting from 45—49; and from 1941 to 1951 an alternate decrease and increase in the proportion of either sex starting from the quinary group 45—49 and parity for either sex in the age-group 65—69. From 1931 to 1951 the net trend is an increase in the proportion of either sex in each quinary group except for an insignificant decrease in the

- (8) *Age-group 70 and over.*—From 1931 to 1941 and from 1941 to 1951 an increase in the proportion of either sex.

Causes of the variations in the age distribution, 1931, 1941 and 1951

8. Each age and sex distribution reflects the experience of society over the entire period of the human life span. As has been said before, famines, epidemics, migration and changes in the birth and death-rates leave their impressions on the population pyramid and for the understanding of the causes of the variations described above, one has to look into these factors :

- (1) *Age-group 0—4.*—This group represents the survivors of children born during five years preceding each census. The proportion of this group is much smaller in 1941 than it was in 1931, partly on account of piling up on this group due to smoothing of ages at the 1931 census and partly as a result of the influenza epidemic of 1918-19 which had left its scars on the age-group 5—9 of 1931. The proportion of females at ages 5—9 at the 1931 census was very low due to the heavy decline in births during the years following the outbreak. It had come down from 1,405 per 10,000 females in 1921 to 1,219 in 1931. This age-group had entered reproduction near about the year 1936 with the consequence that the births in the later half of the decade 1931—40 diminished.

The decrease in the age-group 0—4 continued during the decade 1941—50 though the decrease was a very small one. It is obvious from the pyramid for 1931 and 1941 that the proportion of females at the ages 10—24 and 30—34 was depleted in 1941 as against that at the census of 1931, and that for the ages 25—29 was almost at a par. The influence of influenza had persisted. The result was a heavy fall in the birth-rate during the decade 1941—50, the mean decennial birth-rate during this decade being 24·8 (estimated 34·9) against 34·2 (estimated 38·8) during the previous decade. This explains the depletion in the age-group 0—4 of the 1951 census, which is accentuated for females because, as the vital statistics show, only 848 females were born between 1946 and 1950 to every 1,000 males against 882 between 1936 and 1940 and the fall in the proportion of female to male infantile mortality was not so large.

- (2) *Age-group 5—9.*—There is an increase in the proportion of either sex of this age-group from 1931 to 1941. The group 5—9 at any census represents the survivors of those born during the first five years of the previous decade. Between 1931 and 1935 births were high in view of the increased proportion of females of ages 10—29 and mortality was low with the result that the group 5—9 in 1941 was large. Between 1921 and 1925 births were fewer as an aftermath of the influenza epidemic and deaths were relatively high, which accounts for the lower figure of group 5—9 in 1931.

There are substantial decreases in the proportional figures of this age-group since 1941 especially in respect of males. This has been brought about by a substantial decline in the birth-rate during the decade 1941—50 which has already been described above in relation to age-group 0—4. The decline was somewhat accentuated for males because, as the vital statistics show, the proportion of male to female infantile mortality was greater between 1941 and 1945 than in the quinquennium 1931—35.

- (3) *Age-group 10—14.*—The proportional figures of this group for 1941 show a decrease since 1931 in respect of both the sexes. The past history of the group for the two censuses does not give a satisfactory explanation for this behaviour. The age-group 10—14 of 1931 represents the survivors of those born in the second quinquennium of the decade 1911—20. It has been said earlier that the influenza epidemic of 1918-19 occasioned a heavy decline in the number of births at the end of that decade and, as expected, the age-group 0—4 was a depleted one. On the other hand, the age-group 10—14 of 1941 had a good history. In spite of it the proportions came down. It may be that the age-group 0—4 at the 1931 census had some inflated proportion due to smoothing of ages at the cost of age-group 5—9. It may also be that

the group 10—14 of 1931 was itself inflated on account of the bunching on age 15 of which some was now included in this age-group. But the most likely explanation is that the figure of 1941 based on the 2 per cent. 'Y' Sample is itself unreliable. This receives support from the examination of the trends between 1931 and 1951. There is an increase in the population of either sex in 1951 from 1931. While the age-group 10—14 of 1931 which corresponds to the age-group 0—4 of 1921 was depleted due to the incidence of influenza, the age-group 10—14 of 1951 had a good history. The increase thus appears to be true.

- (4) *Age-group 15—19.*—The proportion in this group was lower in 1941 than in 1931, especially in the case of females. Age-group 15—19 of 1941 corresponds to the age-group 5—9 of 1931 which represents the survivors of those born during the first five years of the decade 1921—30. As has been noted above the influenza had occasioned a decrease in this age-group. On the other hand the corresponding group 5—9 of the group 15—19 of the 1931 census represented the survivors of those born during the first five years of the decade 1911—20. Between 1911 and 1915 births were high and mortality low with the result that in spite of the influenza epidemic of 1918-19 the group 5—9 was in 1921 unusually large. It is noteworthy that the influenza epidemic had a selective incidence and group 5—9 of 1921 was one of the least affected groups. The decline was accentuated for females because, as the vital statistics show, the proportion of females to males born between 1921 and 1925 was lower than that of those born between 1911 and 1915 and the proportion of female to male infantile mortality was somewhat greater between 1921 and 1925 than in the quinquennium 1911—15.

Between 1941 and 1951 there is a decrease from 887 to 883 per 10,000 males if unsmoothed figures of 1951 are taken into account and an increase from 887 to 997 if the smoothed figures* are employed. The proportion for females has recorded an increase whether smoothed or unsmoothed figures are used. The corresponding group of ages 15—19 of the censuses of 1941 and 1951 are the age-group 5—9 of the censuses of 1931 and 1941 respectively. It has been pointed out above that there were significant increases in 1941 from 1931 in respect of either sex in the age-group 5—9. The corresponding groups 15—19 at the censuses of 1941 and 1951 should show like trends for both males and females.

Examining the trends between 1931 and 1951 it appears that there is a fall in 1951 in either sex if unsmoothed figures of 1951 are taken into consideration, but the trends are reversed if smoothed figures are taken into account. The births of 1931—35 show a trend of fall as compared with those of 1911—15 and the age-group 5—9 of 1941 census also shows a similar trend when compared with the corresponding age-group of 1921. The unsmoothed figure of 1951 fits in with these trends.

- (5) *Age-groups 20—24, 25—29, 30—34 and 35—39.*—These groups represent in 1931 survivors of persons who were aged 7—26 at the time of the epidemic of 1918-19. Influenza was not so fatal in the ages 5—9 and 10—14. The proportion of males between the ages 20—34 in 1941 decreased since 1931. As compared to age-groups 20—24 and 30—34 of 1941, the same groups of 1931 had a better history. Group 20—24 of 1941 represents the survivors of those born during the second quinquennium of the decade 1911—20 in which the births were greatly reduced as an aftermath of the influenza and the death-rates were high. The corresponding period of the decade 1901—10 was an almost equally bad quinquennium for children aged 0—4 the survivors of which are the people of 20—24 of 1931. This quinquennium suffered from a severe plague in 1907 and 1910, a partial famine in 1906, a very severe famine and severe malaria in 1908 and

*The proportions of smoothed figures for the age-group 15—19 worked out by the Census Actuary per 10,000 of each sex are: males 997, females 979.

malaria in 1909. Fewer were born and more died. Even then the corresponding period of the decade 1911—20 was relatively worse affected, so far as the male population was concerned and, therefore, a decrease appears to have taken place in the proportion of males in 1941. The survivors of group 0—4 of 1911 represented the persons of group 30—34 of 1941. As said before this group was depleted by the calamities of the second quinquennium of the decade 1901—10. As compared to this the second half of the decade 1891—1900 had a better history and the survivors of this period represented the group 30—34 of 1931. This accounts for the decrease in the proportion of males of this age-group in 1941. But the group 25—29 of 1941 had a better history as compared to the corresponding group 25—29 of 1931. 1921 had a considerable advantage over 1911 in respect of group 5—9 the survivors of which represent group 25—29 of 1941 and 1931 respectively. The influenza had not been fatal to this group the survivors of which were born in the first quinquennium of 1911—20 in which the birth-rate was high. In spite of this, there was a decrease in the proportion of males at the census of 1941. This may either be the result of smoothing in 1931 or some error in the figures of 1941. Age-group 35—39 of 1941 shows an increase since 1931 as is expected. Persons of this group are the survivors of those born in the first quinquennium of the decade 1901—10 and 1891—1900 respectively. This quinquennium of the decade 1901—10 was free of calamities except for an epidemic of plague in 1905 and the births were higher than those of the corresponding period of the decade 1891—1900.

The proportions for females in these age-groups at the 1941 census have similar trends as those for males except in the age-group 25—29 which shows a small increase since 1931 from 890 to 892 per 10,000 females. The group 20—24 had relatively a better history as compared with that of the same group at the 1931 census. In spite of this the proportion of females in this age-group decreased in 1941. It may be due to matrimonial migration outside the State or to some discrepancies in the figures. As said above ages 25—29 of 1941 had also fared better in the past as against group 25—29 of 1931. As was the case with the males the group 30—34 for females had a bad history and the next group 35—39 had a good one.

In 1951 these groups represent persons who were born during the period 1911 and 1930. The decreases at this census in the proportions of either sex since 1941 or 1931 appear to be real.* The variations need no detailed treatment as the past history of the groups has already been described above. The variations are mainly attributable to influenza of 1918-19. A further contributory cause may be migration of Muslims to Pakistan and also to some extent the matrimonial migration. Another factor which may help to account for the variations is the decline in mortality, general as well as infantile, since 1931. The increased survival tends to increase the proportion of children in the population while greater longevity increases the proportion at the higher ages. Table 328 shows that the fall in the death-rate has

TABLE 328—*Proportion of middle-aged persons (20—39) per 10,000 of each sex compared with that of persons of age below 20 years and over 40 years, 1891—1951*

Year	Persons under 20		Middle-aged persons aged 20—39		Persons aged 40 and over	
	Males	Females	Males	Females	Males	Females
1891	4,640	4,399	3,181	3,248	2,179	2,353
1901	4,645	4,410	3,145	3,225	2,203	2,357
1911	4,584	4,377	3,212	3,313	2,204	2,310
1921	4,634	4,454	3,118	3,213	2,248	2,333
1931	4,799	4,766	3,234	3,256	1,967	1,978
1941	4,696	4,640	3,167	3,245	2,137	2,115
1951	4,704	4,746	2,947	2,958	2,348	2,294

*The smoothed figures for these age-groups worked out by the Census Actuary show similar trends. Their proportions per 10,000 of each sex are: age-group 20—24—males 880, females 873; age-group 25—29—males 794, females 784; age-group 30—34—males 719, females 703; and age-group 35—39—males 641, females 614.

occasioned a striking change in the age structure. The proportion of middle-aged persons (20—39) generally remained steady up to 1931 when a decline set in. The decline is very marked in 1951. On the other hand, from 1931 to 1951 there is a parity in the proportion of persons under age 20 in spite of a decline in the birth-rate from 34·0 (estimated 39·9) in 1931 to 24·8 (estimated 34·9) in 1951. It is also striking that the proportion of persons of ages 40 and over has increased from 1,967 for males and 1,978 for females in 1931 to 2,348 for males and 2,294 for females in 1951.

- (6) *Age-group 40—44.*—The persons of this group in 1931, 1941 and 1951 were respectively 27—31, 17—21 and 7—11 at the time of the epidemic of 1918-19. The ages 27—31 and 17—21 were heavily affected by the epidemic which was not so fatal to ages 7—11. This explains the increases in the proportions of males and females in 1951 since 1941 or 1931. Another contributory cause may be the continuous fall in the death-rate since 1931. The decreases in the proportions of 1941 since 1931 are negligible and need no comment.
- (7) *Age-groups 45—49, 50—54, 55—59, 60—64 and 65—69.*—The persons at these age-periods date their birth back to the prolific decade 1891—1900, very prolific decade 1881—90 and the not unfavourable decade 1872—80. The explanation for behaviour of these age-groups between 1931 and 1951 must be found in the varying effects of famines and scarcities and plague in the earlier decades on the age-groups of which they are the survivors and in the way in which the influenza epidemic differentiated against different ages. It is also obvious that the progressive reduction in mortality among persons in the higher ages since 1931 must have increased the proportion in these age-groups. Variations in the quinquennial groups may also be attributed partly to the smoothing procedures adopted in 1931 and 1941, to the inadequacy of the 'Y' Sample of the latter census and to the figures of 1951 being unsmoothed.
- (8) *Age-group 70 and over.*—The progressive increase in the proportion of people of age 70 and over is mainly due to greater longevity.

9. Subsidiary Tables 6·15 and 6·15-A give the mean variation in population of the various age-groups during the last five decades. These variations expressed as percentage increase or decrease support the conclusions already arrived at by a study of the proportionate figures of Subsidiary Table 6·16. The variations in the decade 1941—50 over the previous decade are specially significant. They indicate a fairly normal increase in the lower ages up to 19, a sub-normal increase in the ages 20—39, and an abnormal increase in the higher ages. The causes of these trends have already been examined.

Mean variation in
age-groups

Summation curves

10. Figure 28 illustrates the summation or cumulative age curves for males and females separately for the State in 1951.

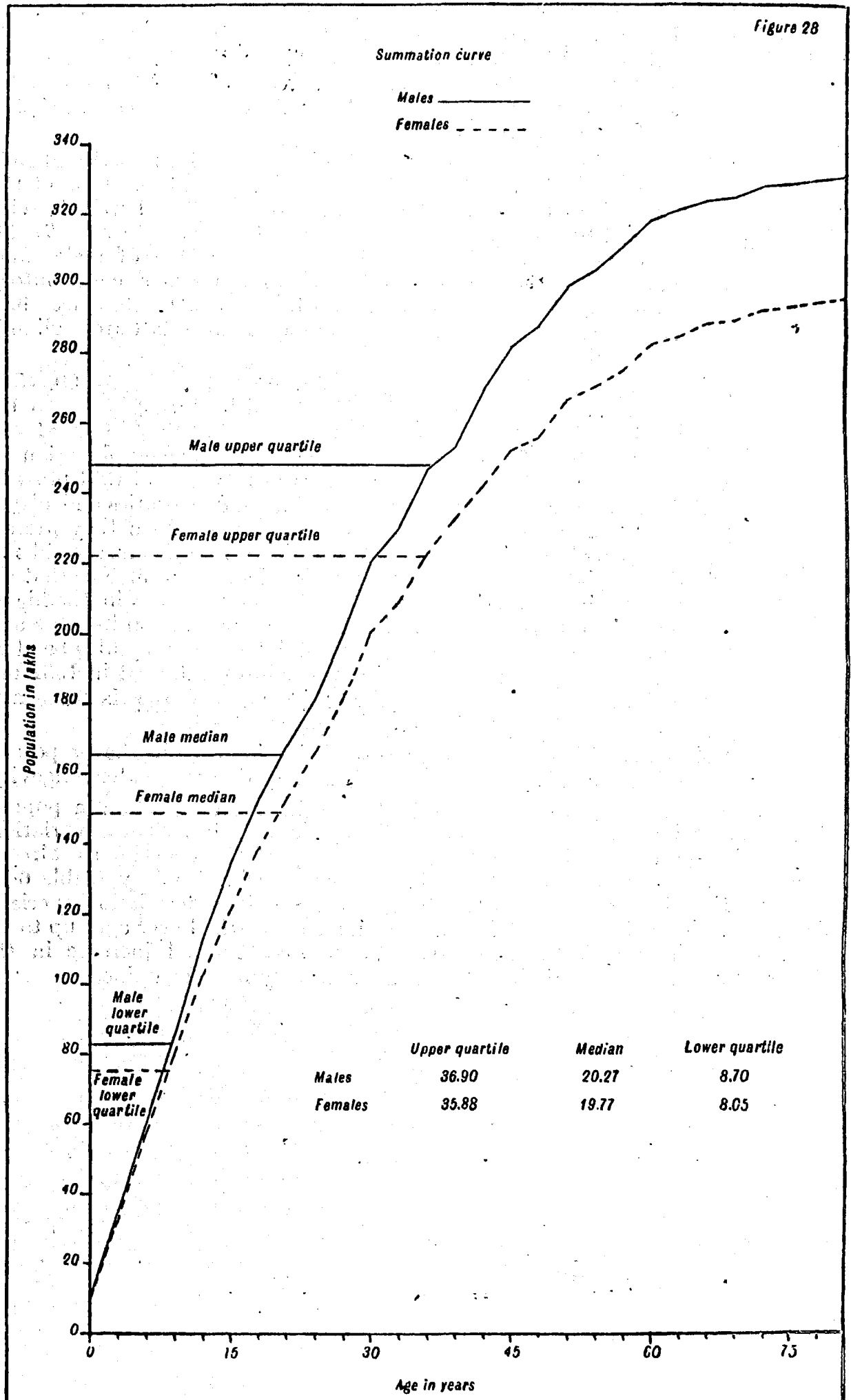


FIG. 28—Summation curve for age, 1951

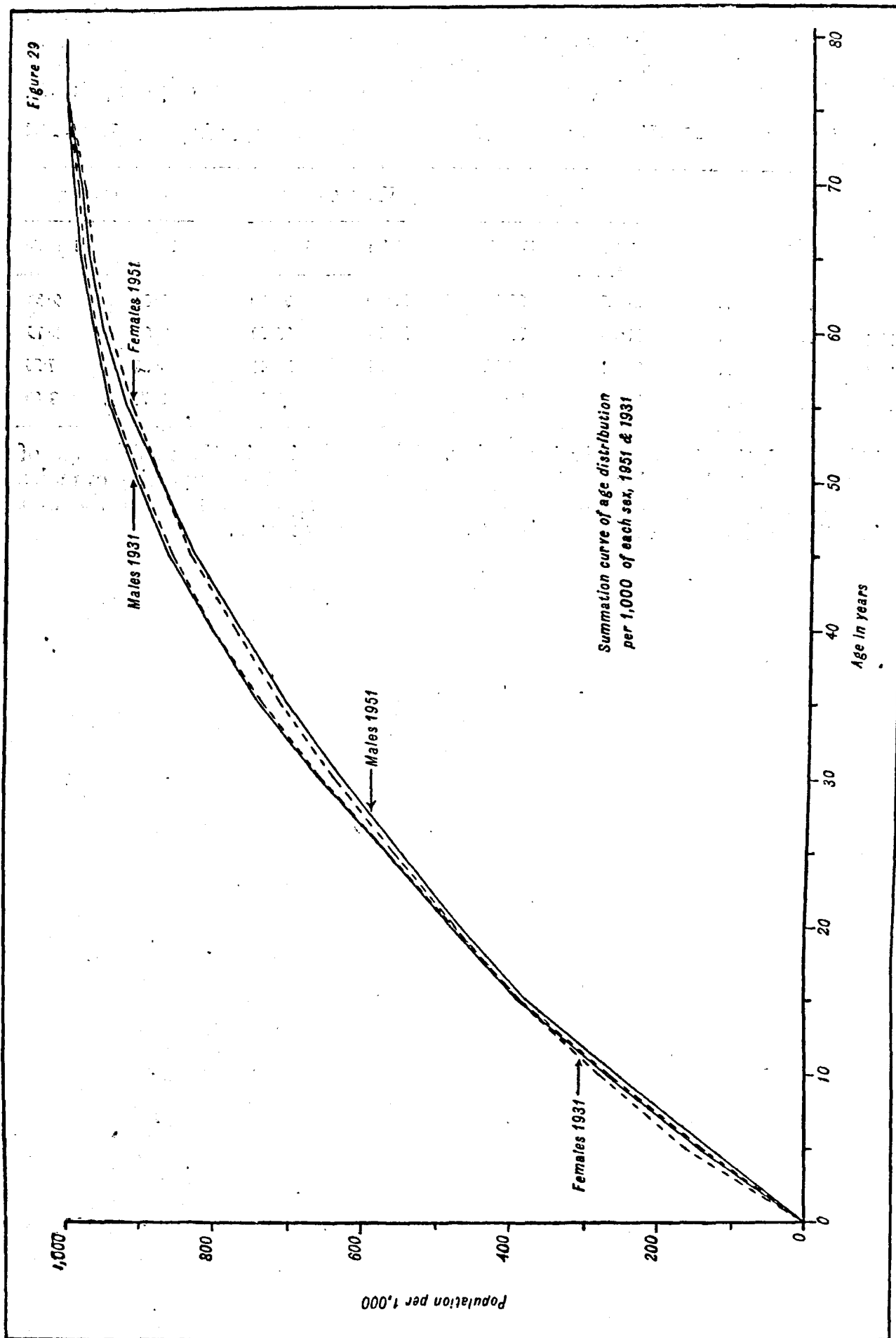
Each curve shows at any given age the total number of males or females below that age. The "Median age" of the population is deduced from this curve. If the whole population were placed in a line in order of their ages the median age would be the age of the middle person or middle two persons in the line according as the total population is odd or even. The median age, the upper quartile and lower quartile for this census and three previous censuses are set out in Table 329. It will appear that the median is gradually going down, both for males and females, which shows that the proportion of young to the

TABLE 329—*Median, upper quartile and lower quartile ages in years, 1921—51*

Year	Median		Upper quartile		Lower quartile	
	Males	Females	Males	Females	Males	Females
1921	22.25	22.75	37.50	38.50	9.83	9.33
1931	21.00	21.25	35.75	36.00	9.00	8.75
1941	20.81	21.22	36.24	36.41	8.01	7.56
1951	20.27	19.77	36.90	35.88	8.70	8.05

older population is gradually increasing. The reduction in the median age of 1951 over that of 1931 is explained by a large decrease in the proportion of males between the ages 15—39 and females between the ages 20—44. For the first time the median age of females is lower than that of males.

Figure 29 is the summation curve of the age distribution per mille of each sex of this State in 1951 and 1931.



The greater straightening of the curve between 0 and 80 in 1951 than in 1931 indicates a higher survival value. The curve further shows that in 1931 the females had a lower survival value than males till the age of 14 after which they had a higher survival value. In 1951, however, the males have a higher survival value till the age of 50 after which the females take the lead.

11. Another index of age distribution of a population is the "Mean age". By mean age is meant the average age of all persons enumerated at the census. It is quite different from the mean duration of life, which has been calculated separately by the Census Actuary. Table 330 gives the mean ages of males and females at each of the last six censuses.

Mean age.

TABLE 330—Mean age, 1901—1951

Year	Mean age			
	Males		Females	
	Years	Months	Years	Months
1901	24	10.4	25	6.7
1911	25	1.0	25	8.1
1921	25	3.3	25	7.7
1931	24	0.6	24	0.6
1941	24	5.6	24	5.9
1951	24	7.4	24	4.3

It would appear that the mean age of males had been slowly rising from 1901 to 1921, showed a steep fall in 1931 and has again been rising. In the case of females also the trends are similar with the exception of an insignificant decrease in 1921 and a doubtful decrease from 1941 to 1951.

Among the possible causes of a lower mean age may be a larger proportion of younger persons or relatively early deaths among adults or both, while a higher mean age may mean greater average longevity, a lower birth-rate and a higher infantile mortality.

From 1901 to 1911 the rise in the mean age of both sexes was due to high infantile mortality, low birth-rate and diminution of longevity. From 1911 to 1921 the slight increase in the mean age of males and a slight decrease in that of females was due to heavy diminution of males of ages 0—4 and 10—24 coupled with increases in the proportions at ages 35—39 and 45 and over, and increase in the proportion of females of ages 0—4 and especially 5—9 coupled with losses in the proportion of those aged 25—34. These variations were caused by the selective nature of influenza epidemic. Male children under 5 are more delicate than female children under 5 and suffered more heavily. Males of 10—24 and females of 10—34 suffered a specially heavy mortality.

From 1921 to 1931 part of the fall is due to smoothing of ages which was introduced for the first time in 1931. The main cause of the fall is a large reduction in the proportion at ages 25 and onwards, which together with the actual increase in females below 5 resulted in the mean age of females falling proportionately far more than that of males.

From 1931 to 1951 the increase in the mean age is due mainly to greater average longevity of the population, especially of persons of ages 45 and over. Birth-rate too has definitely fallen during this period but so has infantile mortality. Lower birth-rate has not, therefore, played a significant part in lowering the mean age. For the first time the mean age of males is now slightly higher than that of females. This is due to a greater survival value of males than females in 1951 as compared with 1931.

12. It will be seen from the above discussion that the reproductive ages at the census of 1951 are depleted. It has been seen that the proportion of females of the ages 15—44 has come down to 4,398 in 1951 from 4,625 in 1941 or by 4.9 per cent. This should tend to decrease the birth-rate in the coming years. The age-group 10—14 with its larger proportion, will soon start reproduction with a progressive tendency to increase the birth-rate. The age-groups 5—9 and 0—4, with their smaller proportion, will start maturing in the middle of and at the end of the current decade respectively, with a progressive tendency to decrease the birth-rate. The cumulative effect is likely to be a decrease in birth-rate till the middle of the decade 1961—70. This is, however, likely to be followed by a rise, the result of higher survival and the fall in death-rate. These observations are based on the presumption that no Malthusian check will come into operation during this period.

Deductions from the age distribution

13. Let us now examine the age composition of the population by using the larger periods commonly adopted in demographic study, viz., 0—14, 15—49 and 50 and over for which the figures are more accurate. In all countries where migration does not seriously disturb the figures, half the population falls in the age-group 15—49. The "type" of population is determined by the relative

Sundbarg's formula

12

proportions of the rest of the population found in the other two periods. Sundbarg distinguishes three types, viz., *Progressive*, *Stationary* and *Retrogressive*. The progressive population is one in which the proportion in the age-group 0—14 is more than twice in the group 50 and over; the stationary population is one in which this proportion is just twice; and the retrogressive population is one in which this proportion is less than twice. Whipple adds two more types, viz., the *Accessive* and *Seccessive*. The population is accessive when it gains by migration and seccessive when it loses, and in these cases the figure for the age-group 15—49 will be more and less respectively than 50. Table 331 gives the percentage of total population of Uttar Pradesh aged 0—14, 15—49 and 50 and over respectively. It will appear that the population of either sex continues to be progressive but the progressiveness is decreasing since 1931 owing to the increase of the population

TABLE 331—Age distribution according to Sundbarg's formula, 1931—51

	Sex	Percentage of population aged		
		0—14	15—49	50 and over
1931	Males	39	51	10
	Females	39	51	10
1941	Males	38	51	11
	Females	38	51	11
1951	Males	38	49	13
	Females	39	48	13

of persons of 50 and over. While comparing the figures for 1951 with those of 1931 it should, however, be remembered that the smoothing of ages in 1931 had resulted in a general lowering of the higher ages (specially of females) so that the group 15—49 had become proportionally larger than it would otherwise had been.* But even allowing for this the 1951 population would still appear to be less progressive than that of 1931.†

14. Table 332 gives the age distribution of the population of the State and the natural divisions for the last three censuses, the classification being according to Sundbarg's formula just discussed.

TABLE 332—Age distribution by natural divisions, 1931—51

Natural division	1951			1941			1931			
	0—14	15—49	50 and over	0—14	15—49	50 and over	0—14	15—49	50 and over	
Uttar Pradesh	Males	38	49	13	38	51	11	39	51	10
	Females	39	48	13	38	51	11	39	51	10
Himalayan	Males	37	49	14	36	51	13	36	53	11
	Females	37	51	12	36	52	12	37	52	11
East Plain	Males	41	47	12	40	49	11	41	49	10
	Females	39	48	13	38	50	12	40	50	10
Central Plain	Males	37	50	13	37	52	11	38	52	10
	Females	39	48	13	37	52	11	38	52	10
West Plain	Males	37	49	14	37	52	11	38	52	10
	Females	39	49	12	39	51	10	40	51	9
Hills and Plateau	Males	40	50	10	40	51	9	40	52	8
	Females	39	50	11	39	51	10	39	52	9

All the natural divisions are progressive in type. The most progressive is Hills and Plateau division, both for males and females. The least progressive divisions in 1951 are the Himalayan and West Plain for males and Central Plain and East Plain for females. The progressiveness in the divisions also has been decreasing since 1931.

Among the sexes, males are more progressive than females in the East Plain and the Hills and Plateau divisions, while the females are more progressive than males in the remaining divisions.

* U. P. Census Report, 1931, Part I, page 221.

† The percentage figures of age distribution according to the smoothed figures for 1951 worked out by the Census Actuary are: age-group 0—14—males 37.0, females 38.0; age-group 15—49—males 50.7, females 49.4; age-group 50 and over—males 12.3, females 12.6.

The figures under age-group 15—49 reflect the effect of migration. The male population of the Himalayan, the East Plain and the West Plain divisions shows the effect of loss by migration, the loss being greater in the East Plain. The female population shows the effect of loss by migration in the East, Central and West Plain divisions, the loss being greatest in the East Plain. The losses in the West Plain are principally the result of Muslim migration to Pakistan. The losses in the East Plain are chiefly due to labour migration in the case of males and marriage migration in the case of females.

15. The age composition of rural and urban areas presents striking differences as a result largely of migration. Table 333 shows the age distribution of 1,000 of each sex, separately for rural areas, the urban areas and the cities

Age differences by residence

TABLE 333—Age distribution of 1,000 of each sex by residence, 1951

Age-group	Total		Rural		Urban		Cities		Class I cities	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
0—4	129	140	130	140	124	142	120	142	116	142
5—9	126	129	130	131	107	119	100	117	98	116
10—14	126	119	127	118	120	124	116	129	114	128
15—24	167	172	163	170	191	189	196	197	198	199
25—34	153	152	151	152	166	152	177	153	183	155
35—44	123	116	122	116	126	112	130	109	133	108
45—54	93	86	93	87	91	82	88	78	87	78
55—64	53	51	54	51	47	47	45	44	44	44
65—74	21	24	21	24	19	21	19	20	19	19
75 and over	9	11	9	11	9	12	9	11	8	11

and Figure 30 illustrates the percentage of population in major age-groups by residence.

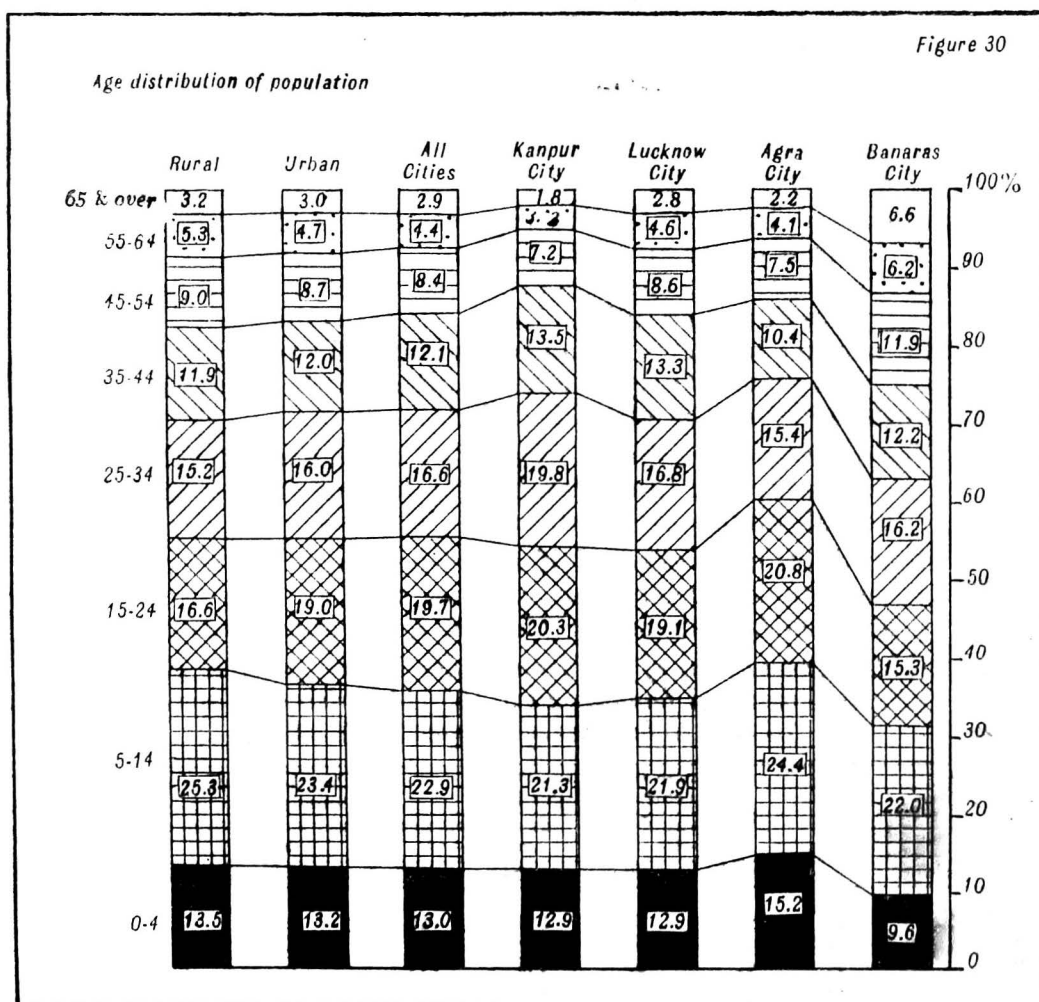


FIG. 30—Percentage of population in major age-groups by residence

The following conclusions emerge from these figures :

- (1) The proportion of children of ages 0—4 is slightly lower in the urban than in the rural areas and it is lower still for the cities in general. The city of Agra seems to be an exception. The proportion for Banaras city is very low probably because the proportion of old people in this city is unusually high due to religious reasons.
- (2) *Age-group 0—14.*—The proportions of males of this group are much higher in the rural than in the urban areas, and among urban areas they are lowest in cities, especially Class I cities. This is expected, because very few males of this group migrate from the rural areas to urban areas. The proportions of this group for females are also higher in rural than in urban areas though not to the same extent as in the case of males. Presumably the lesser difference is due to the migration of some females of this group from rural to urban areas as wives of the males of middle ages, who constitute the bulk of rural-urban migration.
- (3) *Age-group 15—44.*—The proportion of persons in this group and especially of males is higher in urban than in rural areas, and among urban areas it is highest in the cities, especially Class I cities. This is due to the nature of rural-urban migration, which, in the case of males, is mainly confined to these ages. In the case of females, however, the proportions are higher in the urban areas only up to the age-group 25—34, after which they are lower. This is also explained by the nature of rural-urban migration. The females who migrate are mainly the wives of workers and the wives are always considerably younger than their husbands.
- (4) *Age-group 45 and over.*—The proportions, for both males and females, are higher in rural than in urban areas, and among urban areas they are lowest in cities, especially Class I cities. Very few persons of this class migrate from rural to urban areas. On the contrary the workers return from the urban areas to their homes in rural areas after passing their middle age.

It is noteworthy that the proportion of persons of ages 65 and over is unusually high for Banaras city, being 6·6 per cent. against the State figures of 3·2 per cent. in the rural areas, 3·0 per cent. in the urban areas and 2·9 per cent. in case of cities as a whole. It is due to religious reasons.

Natural fecundity

16. Subsidiary Table 6·18 gives by districts and natural divisions the proportion of children under 10 (*i*) to persons aged 15—44 and (*ii*) to married females aged 15—44, as also the proportion of married females aged 15—44 to females of all ages in 1941 and 1951. Table 334 gives this data by natural divisions. In the absence of more reliable data about fecundity of the population we will measure the fecundity by the index given in these tables. The following points must, however, be borne in mind :

- (1) The number of children aged 0—9 is the number of those who have survived, and the index is thus rather one of survivals than of actual births or fecundity ;
- (2) Reproduction is affected if married women die more freely at the reproductive ages than at other ages, so that the index may be affected by this factor which is quite unconnected with fertility.

TABLE 334—*Proportion of children under 10 to persons aged 15—44 and married females aged 15—44 ; also of married females aged 15—44 to females of all ages, 1941—51*

Natural division	Number of children under 10 (both sexes) per 100				Number of married females aged 15—44 per 100 females of all ages		Percentage of females to total population	
	Persons aged 15—44		Married females aged 15—44		1951	1941	1951	1941
	1951	1941	1951	1941				
Uttar Pradesh	59	59	144	143	39	40	48	48
Himalayan	55	54	128	130	40	40	49	48
East Plain	63	63	146	144	37	40	49	49
Central Plain	59	57	142	137	39	41	48	48
West Plain	58	59	146	148	39	40	46	46
Hills and Plateau	59	62	144	148	39	40	48	49

The fecundity is the highest in the West and the East Plain divisions and the least in the Himalayan division. Among the districts the highest fecundity is to be found in Ghazipur (169), Jaunpur (163), Moradabad (159), Banaras (159), Azamgarh (157), Agra (157) and Budaun (157) and the lowest in Tehri-Garhwal (100), Garhwal (125), Bara Banki (128) and Kheri (128).

Compared with 1941, the fecundity has slightly increased in the State as a whole. Among the natural divisions only the East and Central Plain divisions have recorded an increase while the remaining divisions have recorded a decrease. The decrease is the heaviest in the Hills and Plateau division which is the only division to record a decrease in the percentage of females to total population and which has also recorded a decrease in the proportion of married females aged 15—44 to females of all ages.

We may examine the State trends of fecundity since 1891. In 1891 the fecundity was 139; it fell to 135 in 1901 and 133 in 1911. In 1921 it rose to 143 as a result of the heavy mortality among the females of reproductive ages in 1918. It rose to 146 in 1931, fell to 143 in 1941 and rose again to 144 in 1951. The main conclusion is that 1921 is the dividing line for fecundity. Fecundity is much higher after 1921 than before it although the birth-rate has declined but no significant trends after 1921 are yet apparent.

17. Subsidiary Table 6-18 gives for each district and natural division the proportion of persons aged 60 and over to those aged 15—44 in 1951. Table 335 shows the data for the natural divisions.

Longevity

TABLE 335—Proportion of persons aged 60 and over to 100 aged 15—44, 1951

Natural division	Number of persons aged 60 and over per 100 aged 15—44	
	Males	Females
Uttar Pradesh	12	14
Himalayan	13	12
East Plain	12	16
Central Plain	12	15
West Plain	13	13
Hills and Plateau	8	11

The highest longevity, in the case of males, is to be found in the Himalayan and the West Plain while the lowest is in the Hills and Plateau. In the case of females the highest longevity is in the East Plain and the lowest again in the Hills and Plateau. The Hills and Plateau recorded the lowest longevity in the previous censuses also. The reason for the continuous low longevity in

the Hills and Plateau is the extremely unhealthy and severe climate of this area. The unresponsive soil and very low water level involve a degree of exposure and exertion which the physique of the people is unable to sustain*. The high longevity of males in the Himalayan is mainly due to the migration of males of working ages which automatically raises the proportion of people of higher ages. The higher longevity of females in the East Plain is partly due to marriage migration of females of younger ages, which raises the proportion of females of higher ages.

Among the districts the highest longevity is recorded by Garhwal, Tehri-Garhwal, Almora, Banaras, Jaunpur, Ghazipur, Ballia, Azamgarh and Sultanpur. These are also the districts from which labour migration is the highest. The higher longevity is thus due to the migration of people of working ages, which increases the proportion of people of higher ages. The longevity in the three hill districts mentioned above is also partly the result of a good climate. Among the districts of lowest longevity are Naini Tal, Pilibhit, Kanpur and the districts of Jhansi division. The low longevity in Naini Tal and Pilibhit is due partly to malarious and unhealthy climate and partly to labour immigration from the hill areas. The low longevity of Kanpur is due to the industrial city of Kanpur, which has a preponderance of persons of working ages. The reasons of the low longevity of the districts of Jhansi division which fall in the Hills and Plateau division, have already been noted.†

* U. P. Census Report, 1921, Part I, page 17.

† The longevity figures of Fatehpur, Etah and Budaun for 1951 in Subsidiary Table 6-18 appear to be incorrect.

Table 336 shows the trends of longevity in the State since 1891. It would appear that the longevity of both males and females is rising since 1931 and that the longevity of females has always been higher than that of males. Since 1921 there has been a steady fall in the death-rate and the number of old persons has been increasing. The large drop at the census of 1931 was to some extent the result of smoothing of ages which, as has been said before, resulted in a general reduction of the higher ages. The influenza of 1918-19 was also a contributory cause,

TABLE 336—Proportion of persons aged 60 and over to 100 aged 15—44, since 1891

Year	Number of persons aged 60 and over per 100 aged 15—44	
	Males	Females
1891	11	14
1901	10	13
1911	10	12
1921	11	13
1931	8	9
1941	10	10
1951	12	14

as a result of which the proportion of middle-aged persons at the census of 1931 increased and that of the old people decreased.*

* U. P. Census Report, 1931, Part 1, page 232.

SECTION 7— INFANTS AGED 0

1. Having analysed the age composition of the State in Section 6 we will proceed to examine in this and the succeeding sections the distribution of population in the following six age-groups :

- (1) Infants aged 0,
- (2) Young children aged 1—4,
- (3) Boys and girls aged 5—14,
- (4) Young men and women aged 15—34,
- (5) Middle-aged persons aged 35—54, and
- (6) Elderly persons aged 55 and over.

2. The comparative figures of infants aged 0 for 1951 and 1941 for the natural divisions and the districts will be found in Subsidiary Table 6-9 in Part I-B of the Report. Subsidiary Table 6-16 in the same part of the Report shows the age distribution of 10,000 of each sex for the natural divisions. Table 337 gives the number of infants per 10,000 persons in the State and the natural divisions since 1921.

Variation in the proportion of infants

TABLE 337—*Infants per 10,000 persons in the State and the natural divisions since 1921*

Natural division	Infants per 10,000 persons in											
	1951			1941			1931			1921		
	P	M	F	P	M	F	P	M	F	P	M	F
Uttar Pradesh	332	171	161	249	128	121	309	154	155	306	157	149
Himalayan	303	151	152	270*	136	133	323	159	164	340	171	169
East Plain	275	142	133	225	117	108	269	133	136	260	132	128
Central Plain	331	166	165	247	126	121	286	143	143	314	162	152
West Plain	379	197	182	260	134	126	357	180	177	343	177	166
Hills and Plateau	344	189	155	292*	149	142	298	149	149	252	133	119

It will be observed from the figures that the number of infants per 10,000 persons in the State was 306 in 1921. It increased to 309 in 1931, declined to 249 in 1941 and again increased to 332 in 1951. The figures for 1911 and 1901 were 329 and 310 respectively. The fall in 1921 may be attributed to the influenza of 1918-19 which was most fatal to the females of the reproductive ages. The health conditions were greatly improved during 1930 and the infant mortality rate had declined from about 220 per mille of live-births in 1920 to about 171 in 1930 while the birth-rates during the two years continued to be steady being 18.6 for males and 16.9 for females in 1920 and 18.6 for males and 16.6 for females in 1930. In spite of this there was only a small increase in the proportion of infants in 1931. It appears that there was a piling up at age 0 at the expense of ages 1 and 2 in 1921 due to the use of the word *bachcha*. This had disappeared in 1931. The number of infants may also have decreased as a result of the smoothing process adopted in 1931. The heavy reduction in the number of infants in 1941 is not supported by the vital statistics. The birth-rates in 1940 were 16.5 for males and 14.4 for females while the corresponding figures for 1930 were 18.6 and 16.6. The infant mortality rate came down to 135.3 in 1940 from 170.8 in 1930. There should not be, therefore, a steep decline in the figures of infants in 1941. The figures for 1941 based on the 'Y' Sample do not appear to be true. The recording of vital statistics has greatly deteriorated by 1950 and the recorded figures are of no help in explaining the proportion of infants in 1951. It has, however, been made clear in Chapter I that there has been a real fall in the birth-rate since 1940.† At the same time there has also been a real decline in infant mortality‡ and a consequent rise in survival. A piling up at age 0 in the returns for 1951 census is also likely. On the other hand we have seen in the previous section that if ages 0—4 are considered together the trends between 1931 and 1951 are satisfactorily explained.

* The reason for the slight difference in the figure of persons and the total of males and females is explained on page 314.

† The recorded birth-rates for 1950 were only 11.6 for males and 9.7 for females against 16.5 for males and 14.4 for females in 1940.

‡ The recorded infant mortality declined from 135.3 in 1940 to 104.3 in 1950.

3. The proportion of infants is not similar in all the divisions. If we discard the figures of 1941 as incorrect it will be found that the proportion has always been the highest in the West Plain and the lowest in the East Plain except in 1921 when the Hills and Plateau recorded a slightly lower proportion. It will also be observed that the number of infants continues to decline in the Himalayan since 1921, in the Central Plain it declined in 1931 and had a rise in 1951, while in the other three divisions there has been a continuous increase. The order in case of the natural divisions in respect of the number of infants is not the same as that of the birth-rate. This is due to the differences in the magnitude of registration error in the different divisions. It is also attributable to infant mortality which does not vary in the same manner between one natural division and another as does the birth-rate.

In view of the inaccuracies in the vital statistics and in the unsmoothed single year age returns, any attempt at an examination of the variations in the proportions for districts would be unprofitable.

Differences between the number of male and female infants

4. Because the sex-ratio at birth is not equal and because the infant mortality rate is also not the same, there are differences in the number of male and female infants. The figures in Table 337 show that the number of male infants has always been higher than that of female infants except in 1931 when the figures were affected by smoothing. The number of girls born per 1,000 boys was only 908 in 1920, 891 in 1930, 871 in 1940 and 843 in 1950. This is usual. Although more boys than girls die in the first year*, the higher survival rate for girls is not sufficient to compensate the deficiency at birth.

Among the natural divisions the proportion of female infants exceeded that of male infants in the Himalayan and in East Plain in 1931 and in the Himalayan in 1951. Among the districts in 1951 the female infants were in excess in all the districts of the Himalayan division except Almora; in four districts of the East Plain—Basti, Gonda, Bahraich and Ballia; in five districts of the Central Plain—Kanpur, Fatehpur, Allahabad, Faizabad and Pratapgarh; in six districts of the West Plain—Bareilly, Pilibhit, Rampur, Kheri, Agra and Moradabad; and only in Jalaun of the Hills and Plateau division.

Differences in the proportion of infants by residence

5. The data showing proportion of the infants in the rural and urban population and also amongst the agricultural and non-agricultural classes are reproduced for the State and the natural divisions in Table 338 from Subsidiary Table 6.9.

TABLE 338—*Infants per 10,000 persons by residence and livelihood classes, 1951*

Natural division	Infants per 10,000 persons of											
	Rural population			Urban population			Agricultural classes			Non-agricultural classes		
	P	M	F	P	M	F	P	M	F	P	M	F
Uttar Pradesh	330	169	161	346	183	163	324	164	160	356	191	165
Himalayan	304	152	152	297	149	148	305	152	153	299	151	148
East Plain	273	140	133	307	169	138	269	137	132	308	166	142
Central Plain	331	165	166	328	169	159	328	163	165	343	177	166
West Plain	381	197	184	368	196	172	375	190	185	385	210	175
Hills and Plateau	341	189	152	365	192	173	338	188	150	361	192	169

It is interesting to note that for the State as a whole the number of infants in the urban population is higher (346) than that in the rural population (330). This is rather unexpected. There is no conclusive data to prove that the birth-rate is higher in the urban areas than in the rural areas or that the infant mortality rate is lower in the former than in the latter.† There may be excessive piling at the age 0 in the urban areas. As has been seen in the previous section, if the figures for infants and young children are taken together, the proportion for rural areas calculates to 1,350 persons per 10,000 of population as against 1,321 for the urban areas, as is expected.

* The infant mortality rates were : 1920—223.3 for males, 216.9 for females ; 1930—177.1 for males, 163.7 for females; 1940—141.0 for males, 128.8 for females ; and 1950—107.6 for males, 100.3 for females.

† See Section 5 of Chapter III.

Among the natural divisions the Himalayan, the Central Plain and the West Plain record a higher proportion of infants for the rural than for the urban population, and the other two divisions show the opposite trend. In view of the limitations of the single year age returns, the district figures will not help us in arriving at any definite conclusion.

6. Table 338 shows that the number of infants is also higher amongst the non-agricultural classes (356) than that in the agricultural classes (324). This holds true in all the natural divisions except the Himalayan. It will be interesting to note that in the rural population itself the proportion of infants in the agricultural classes is only 324 (males 164, females 160) as against 363 (males 196, females 167) in the non-agricultural classes. The corresponding figures for the urban population are 334 (males 175, females 159) for the agricultural classes and 347 (males 184, females 163) for the non-agricultural classes. The figures, as they are, show that the differences in the proportions between the agricultural and the non-agricultural classes are not attributable to the differences in the proportions amongst the rural and the urban population. Then, are we to believe that the non-agricultural population is relatively more fertile than the agricultural or that the infant mortality is comparatively lower in the former than in the latter? It does not appear safe to accept the data based on single year age returns as conclusive evidence of such generalizations.

Differences in the proportion of infants by occupation

SECTION 8—YOUNG CHILDREN AGED 1—4

Variation in the proportion of young children

1. The most noticeable point in Table 339 is the greatly increased proportion of young children aged 1—4 in 1931 which was 1,226 per 10,000 persons against 908 in 1921. This was the highest figure on record since 1901. The figures for 1911 and 1901 were only 884 and 959. Since 1931 the proportion has declined to 1,123 in 1941 and 1,013 in 1951. If the figures of infants and young

TABLE 339—Young children aged 1—4 per 10,000 persons in the State and each natural division since 1921

Natural division	Young children aged 1—4 per 10,000 persons in											
	1951			1941			1931			1921		
	P	M	F	P	M	F	P	M	F	P	M	F
Uttar Pradesh ..	1,013	512	501	1,123	559	564	1,226	600	626	908	445	463
Himalayan ..	996	494	502	992*	483	510	1,094	533	561	824	400	424
East Plain ..	1,028	521	507	1,157	574	583	1,329	623	706	1,022	493	529
Central Plain ..	973	488	485	1,066	535	531	1,159	575	584	846	412	434
West Plain ..	1,033	525	508	1,133	564	569	1,213	609	604	856	428	428
Hills and Plateau ..	1,009	505	504	1,233*	619	615	1,188	588	600	984	488	496

children are considered together it will be observed that there were 1,345 persons aged 0—4 per 10,000 persons in the State in 1951 as compared to 1,372 in 1941, 1,535 in 1931 and 1,214 in 1921. These figures reveal the same trends as are shown by the data for young children in Table 339. The factors that have brought about these variations have already been examined in paragraph 8 of Section 6 of this chapter.

2. It will also be observed from the figures in Table 339 that the proportion of young children in 1951 shows marked variations from one natural division to another. It is higher than the average for the State (1,013) in the West Plain (1,033) and in the East Plain (1,028) divisions. The other natural divisions are in order, Hills & Plateau (1,009), Himalayan (996) and Central Plain (973). If age reporting is assumed to be equally good in the natural divisions, the variations in the proportions will be mainly attributable to the differences in the survivals in ages 1—4 and their relation to the numbers in the other age-groups.

It will also be seen that the proportion of young children registered an increase in 1931 in all the natural divisions as in the State. The proportion in 1931 is the highest on record for all the divisions except the Hills and Plateau where the proportion of 1941 (1,233) exceeded that of 1931 (1,188). It will be remembered that the increase in the proportion at the 1931 census was partly on account of smoothing of ages. During 1931—40 the Hills and Plateau division recorded one of the highest birth-rates. The rise in the proportion of young children in this division at the census of 1941 is partly the result of this rise in the birth-rate. The proportion in the other natural divisions decreased in 1941. Since then there has again been a decline in the proportion at the census of 1951 in all the divisions except in the Himalayan where there has been a negligible rise from 992 in 1941 to 996 in 1951. The general fall in the birth-rate during the decade 1941—50 explains the decrease in the present group 1—4.

3. It will be observed from the figures in Subsidiary Table 6·10 that the proportion of young children has declined since 1941 in all the districts of the State except eight, viz., Garhwal (from 960 to 984), Naini Tal (from 863 to 959), Almora (from 1,087 to 1,094) and Dehra Dun (from 872 to 966) of the Himalayan division, Lucknow (from 926 to 959) of the Central Plain and Saharanpur (from 989 to 1,124), Bareilly (from 1,026 to 1,031) and Bijnor (from 1,062 to 1,119) of the West Plain. The significant decreases since 1941 in the districts are in Banaras (from 1,213 to 988), Ghazipur (from 1,346 to 1,130) and Azamgarh (from 1,267 to 1,053) of the East Plain, in Fatehpur (from 1,192 to 868) and Allahabad (from 1,247 to 977) of the Central Plain, in Etah (from 1,158 to 921) and Etawah (from 1,224 to 982) of the West Plain and in Banda (from 1,208 to 979) and Mirzapur (from 1,325 to 971) of the Hills and Plateau.

* The reason for the slight difference in the figure of persons and the total of males and females is explained on page 314.

4. Table 340 shows the proportion of young children in the rural and urban population and also in the agricultural and non-agricultural classes.

Differences in the proportion of young children by residence

TABLE 340—*Young children per 10,000 persons by residence and livelihood classes, 1951*

Natural division	Young children per 10,000 persons of											
	Rural population			Urban population			Agricultural classes			Non-agricultural classes		
	P	M	F	P	M	F	P	M	F	P	M	F
Uttar Pradesh ..	1,020	514	506	975	504	471	1,020	514	506	994	507	487
Himalayan ..	1,004	497	507	923	470	453	1,011	500	511	929	470	459
East Plain ..	1,038	524	514	910	490	420	1,037	522	515	991	519	472
Central Plain ..	978	489	489	945	488	457	979	490	489	953	483	470
West Plain ..	1,039	528	511	1,006	514	492	1,039	530	509	1,021	516	505
Hills and Plateau ..	903	498	505	1,038	546	492	1,012	501	511	1,001	518	483

It will be noticed that the proportion of young children in the rural population is higher than that in the urban population in the State and in all the natural divisions except the Hills and Plateau where the proportion is only 903 in the rural against 1,038 in the urban population. On the whole the figures are in accordance with the known conditions except in the Hills and Plateau where there appears to be an excessive piling up in the urban areas in ages 1—4. Presumably the rural areas have a comparatively higher birth-rate and a lower mortality rate at the young ages which better the chance of survival in the rural as compared with the urban areas. Another contributory factor which helps to lower the proportion of young children in the urban areas is that in the towns the proportion of persons in the working ages is higher than in the rural areas.

5. It will also be seen in Table 340 that, contrary to the trends observed in respect of infants in the previous section, the proportion of young children is higher amongst the agricultural classes than amongst the non-agricultural classes in the State, as also in all the natural divisions. This is perhaps as expected but it will be rash to advance any theories on the basis of this data.

Differences in the proportion of young children by occupation

6. The proportional figures in Table 339 are remarkable in another respect. They show that in this age-group the females had always had some advantage over males except at the census of 1951. Females were 564 against 559 males for every 10,000 persons in 1941, 626 against 600 in 1931, 463 against 445 in 1921, 445 against 439 in 1911, 482 against 477 in 1901 and 519 against 501 in 1891. These figures suggest that female children have a relatively higher survival and in spite of the great disadvantage at birth they gain over the males before crossing into the next age-group. In 1951 the proportion of females stood at 501 against 512 for males. The vital statistics, as far as they go, generally support these observations. They show that only 848 females were born between 1946 and 1950 to every 1,000 males against 882 between 1936 and 1940, while the fall in the proportion of female to male infantile mortality was not so large.

Differences between the number of male and female young children

It will also be observed that in 1951 the proportion of male young children exceeded that of the females in all the natural divisions except the Himalayan where the males were only 494 against 502 females for every 10,000 persons. In the rural and urban population as also in the agricultural and non-agricultural classes the males have an advantage over the females (Table 340). The female deficiency was specially large in the urban population and in the non-agricultural classes. The females exceeded the males in the rural population of the Himalayan (females 507, males 497) and the Hills and Plateau (females 505, males 498) only, while in the urban population they suffered in proportion in all the natural divisions. Their number again exceeded in the agricultural classes in the Himalayan (females 511, males 500) and the Hills and Plateau (females 511, males 501) divisions, while in the non-agricultural classes they were less than the males in all the natural divisions.

SECTION 9—BOYS AND GIRLS AGED 5—14

Varlation in the
proportion of boys
and girls

1. In 1891 the State possessed 1,290 males and 1,074 females in the ages 5—14 for every 10,000 persons. In 1901 the figures had risen to 1,317 for males and 1,129 for females and by 1911 they were 1,339 for males and 1,124 for females. In 1921 as will be observed from the figures in Table 341, the figures registered a rise in respect of either sex but in 1931 the proportions, both for males and females, registered a decrease. Since then there has been a rise in the proportion of boys and girls in 1941 as well as 1951. There are now 1,334 males and 1,171 females to every 10,000 persons in the State. It is noteworthy that the proportions for both boys and girls in 1951 are among the highest during the last 60 years.

TABLE 341—Boys and girls aged 5—14 per 10,000 persons in the State and each natural division since 1921

Natural division	Boys and girls aged 5—14 per 10,000 persons in											
	1951			1941			1931			1921		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
Uttar Pradesh	2,505	1,334	1,171	2,434	1,311	1,123	2,376	1,291	1,085	2,530	1,376	1,154
Himalayan	2,371	1,240	1,131	2,353*	1,254	1,097	2,203	1,157	1,046	2,452	1,282	1,170
East Plain	2,677	1,405	1,272	2,507	1,343	1,164	2,494	1,338	1,156	2,625	1,414	1,211
Central Plain	2,480	1,309	1,171	2,384	1,280	1,104	2,336	1,262	1,074	2,409	1,306	1,103
West Plain	2,382	1,294	1,088	2,428	1,320	1,108	2,321	1,288	1,033	2,521	1,396	1,125
Hills and Plateau	2,622	1,400	1,222	2,400	1,278	1,122	2,427	1,291	1,136	2,689	1,434	1,255

2. The variations up to the year 1921 tell the tale of abnormal years of famine, fever, plague and influenza with intervals of prosperity and good health. The unusual prosperity of the period 1881—90 was reflected in the rise of the proportions in 1901. Famine, plague and fevers marred the period between 1901 and 1911. Lower birth-rate of the second quinquennium of the decade 1891—1900 as compared to that of 1881—90 also reduced the number of persons aged 5—14 in 1911. The influenza of 1918-19 had differentiated in favour of this age-group while the higher ages were seriously affected. On the other hand, between 1911 and 1915 births were high and mortality low with the result that the group 5—9 was in 1921 unusually large. These factors brought about a rise in the proportion of boys and girls aged 5—14 in 1921. The conditions changed after 1921. The period of abnormal deaths by famines and diseases was over though the influence of influenza still persisted and continued to affect the birth-rate. The variations between 1921 and 1951 are the results of variations in the vital trend. Some reasons for the changes in the proportion of age-group 5—14 have already been suggested in Section 6 of this chapter.

3. Differences in the incidence of the diseases and in the aftermath of the influenza in the natural divisions are reflected in the figures of Table 341. In 1951 the proportion is higher than the average for the State (2,505) in the East Plain (2,677) and the Hills and Plateau (2,622) divisions. The other divisions are in order, the Central Plain (2,480), the West Plain (2,382) and the Himalayan (2,371). It will also be observed that the proportions in the East Plain and the Hills and Plateau have always been higher than that for the State since 1921 (except for 1941 when the Hills and Plateau had a slightly lower proportion) while the proportions in the other divisions have always been below that for the State. The variations in the natural divisions between 1921 and 1951 have been generally similar to the changes in the proportions in the State.

4. It will be seen from Subsidiary Table 6·11 that in the Himalayan all the districts except Tehri-Garhwal (from 2,411 to 1,992) have registered an increase in 1951 over 1941. In the East Plain, the Central Plain and the Hills and Plateau divisions the increase appears in all the districts except Gonda (from 2,426 to 2,332), Fatehpur (from 2,544 to 2,403) and Sultanpur (from 2,497 to 2,476). It has been seen that in the West Plain the proportion has come down. Among

* The reason for the slight difference in the figure of persons and the total of males and females is explained on page 314.

the districts of this division showing a rise are—Muzaffarnagar (from 2,476 to 2,526), Bulandshahr (from 2,325 to 2,458), Mathura (from 2,371 to 2,454), Agra (from 2,461 to 2,499), Mainpuri (from 2,486 to 2,538), Etawah (from 2,501 to 2,535) and Farrukhabad (from 2,492 to 2,519).

5. The rural-urban migration does not affect the proportion of boys and girls as would appear from Table 342.

Differences in the proportion by residence

TABLE 342—Boys and girls aged 5—14 per 10,000 persons by residence and livelihood classes, 1951

Natural division	Boys and girls per 10,000 persons of											
	Rural population			Urban population			Agricultural classes			Non-agricultural classes		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
Uttar Pradesh	2,530	1,346	1,184	2,341	1,254	1,087	2,547	1,357	1,190	2,382	1,266	1,116
Himalayan	2,392	1,238	1,154	2,182	1,258	924	2,439	1,258	1,181	2,081	1,165	916
East Plain	2,696	1,412	1,284	2,418	1,314	1,104	2,699	1,414	1,285	2,565	1,359	1,206
Central Plain	2,509	1,322	1,187	2,294	1,228	1,066	2,522	1,329	1,193	2,350	1,247	1,103
West Plain	2,390	1,304	1,086	2,341	1,244	1,097	2,404	1,320	1,084	2,336	1,241	1,095
Hills and Plateau	2,655	1,418	1,237	2,418	1,291	1,127	2,685	1,437	1,248	2,428	1,287	1,141

The proportion of boys and girls in the rural population is much higher than that in the urban population in the State as also in natural divisions. It is noticeable that for every 10,000 persons the rural proportion of boys and girls shows an excess of 189 over that of urban proportion for the State. This excess is the highest in East Plain (278) and the other divisions in order are the Hills and Plateau (237), the Central Plain (215), the Himalayan (210) and the West Plain (49). It appears that like young children the boys and girls aged 5—14 have also a better chance of survival in the rural areas.

6. It may also be observed from Table 342 that the proportion of boys and girls amongst the agricultural classes exceeds that amongst the non-agricultural classes in the State as also in the natural divisions. Boys and girls aged 5—14 together with young children and infants generally determine the extent of dependency. Their combined proportion in the State in 1951 is shown in Table 343.

Differences in the proportion by occupation

TABLE 343—Persons aged 0—14 per 10,000 persons in the State and each of the natural divisions by occupation, 1951

Natural division	Persons aged 0—14 per 10,000 persons of		
	All classes	Agricultural classes	Non-agricultural classes
Uttar Pradesh	3,850	3,891	3,732
Himalayan	3,670	3,755	3,309
East Plain	3,980	4,005	3,864
Central Plain	3,784	3,829	3,646
West Plain	3,794	3,818	3,742
Hills and Plateau	3,975	4,035	3,790

7. The data in Table 341 and 342 show that the boys predominate over the girls in all classes in the age-group 5—14. It will also be evident from Subsidiary Table 6.11 that their number exceeds those for girls throughout the State except in the rural and agricultural population of Tehri-Garhwal and Fatehpur, the agricultural population of Banaras and the urban population of Unnao.

Differences between the sexes

It is also noticeable that the proportion of males for the age-group 5—14 has always registered a higher figure than that of females at all the censuses since 1891. It appears that the survival of boys, which is lower for young male children aged 1—4 as compared to that for young female children in all the decades except 1941—50, is higher than that of girls in the age-group 5—14,

SECTION 10--YOUNG MEN AND WOMEN AGED 15--34

Variation in the proportion of young men and women

1. The figures showing proportions of young men and women in the State as a whole at each of the last seven censuses will be found in Table 344. It will

TABLE 344—Young men and women per 10,000 persons in the State since 1891

Year			Persons	Males	Females
1891	..	..	3,447	1,790	1,657
1901	..	..	3,440	1,781	1,659
1911	..	..	3,478	1,815	1,663
1921	..	..	3,368	1,765	1,603
1931	..	..	3,490	1,831	1,659
1941	..	..	3,388	1,774	1,614
1951	..	..	3,218	1,688	1,530

be seen that the proportions had remained almost steady between 1891 and 1911, varying between 1,657 and 1,663 in case of women and between 1,781 and 1,815 in case of men for every 10,000 persons. In 1921 the proportions both for men and women had decreased followed by an increase in 1931. There was a steep fall

in 1941 in respect of either sex and the decline continued till 1951 when the figures are the lowest on record.

2. The effects of the severe famine of 1868-69 and of the scarcity of 1877-78 and the fever of 1879 are to be traced in these ages (15—34) in the figures of 1901, the former in the low figures at the age 30—34, and the latter at 20—24. The figures in Subsidiary Table 6-16 will confirm the conclusions. For the age-group 20—24 the figures were 829 for males and 885 for females in 1901 against 858 for males and 899 for females per 10,000 of each sex in 1891, while the figures for the age-group 30—34 in 1901 were 869 for males and 881 for females against 892 for males and 910 for females in 1890. On the other hand, the age-groups 15—19 and 25—29 in 1901 had an advantage over those of 1891. The over-all result was a slight decrease in 1901, with the young women in a favourable position. The increase in 1911 is mainly attributable to the very considerable increase at ages 20—29. The persons at these age-periods date their birth back to the prosperous and prolific decade 1881—90. The other age-groups, 15—19 and 30—34, were, on the other hand, not much reduced. The decrease in 1921 was the result of the influenza epidemic of 1918-19 which occasioned a heavy decline in these ages, particularly of males between 20—24 and of females between 20—34. The reasons for the variations in the proportion of young men and women after 1921 have already been traced out in Section 6 of this chapter.

3. The variations in the proportions of young adult ages, especially in respect of those of females, are very significant because these are the ages at which most births occur. Their influence on the birth-rate has already been discussed in Chapter I.

4. The variations in the proportion of young men and women between the censuses of 1941 and 1951 are shown in Table 345. The figures of this age-group are not available by natural divisions for the censuses prior to 1941.

TABLE 345—Young men and women per 10,000 persons in the State and each natural division since 1941

Natural division	Young men and women per 10,000 persons of general population in					
	1951			1941		
	Persons	Males	Females	Persons	Males	Females
Uttar Pradesh	3,218	1,688	1,530	3,388	1,774	1,614
Himalayan	3,320	1,614	1,706	3,435*	1,775	1,661
East Plain	3,108	1,562	1,546	3,269	1,650	1,619
Central Plain	3,208	1,698	1,510	3,394	1,774	1,620
West Plain	3,283	1,783	1,500	3,455	1,866	1,589
Hills and Plateau	3,324	1,730	1,594	3,479	1,790	1,689

*The reason for the slight difference in the figure of persons and the total of males and females is explained on page 314.

The reduction in the proportions since 1941 is noticeable in all the natural divisions except in the case of females in the Himalayan where there is a rise from 1,661 to 1,706 for every 10,000 persons. The obvious result of the decline is a fall in the birth-rate. The reduction in the proportion of young children aged 0—4 since 1941 confirms the fall in birth-rate. The proportion for the young children had registered a decline in all the natural divisions except in the Himalayan where it has increased from 1,262 in 1941 to 1,299 in 1951 and in the West Plain where the increase has been from 1,393 in 1941 to 1,412 in 1951.* The rise in the proportion of children aged 0—4 in the former division is in conformity with the rise in the proportion of the young adult females, while in the latter division it appears that the fall in the birth-rate has been compensated by a fall in infant mortality.

The variations from one census to another and between one natural division and another are attributable to the differences in fertility and mortality. In addition, migration to and from a natural division is a very potent factor in the determination of the proportion of young men and women. It is at these ages that the bulk of matrimonial migration takes place. We have considered it in Chapter I. All other permanent and semi-permanent migrations to and from the State and within the State also take place mostly at these ages. Probably it is due mainly to migration, which has cut in especially heavily upon the male side, that the proportion of young women exceeds that of young men in the Himalayan division in 1951. Whereas the proportion of male emigrants to female emigrants from the Himalayan division to other parts of the State is as high as 1,372, it is only 790 for the East Plain, 432 for the Central Plain, 1,093 for the West Plain and 592 for the Hills and Plateau. Again, in the Himalayan division the proportion of such male emigrants calculates to 1·28 per cent. of the population of the division, while the percentage is only 0·88 for the East Plain, 0·72 for the Central Plain, 0·74 for the West Plain and 1·27 for the Hills and Plateau.

5. It is significant that the proportion of young men and women has registered a fall in all the districts of the State since 1941. It will be observed from Subsidiary Table 6·12 that between 1941 and 1951 the following districts record a fall of 200 or above for every 10,000 persons—Naini Tal (4,072 to 3,760) of the Himalayan; Jaunpur (3,212 to 2,827), Azamgarh (3,154 to 2,840), Ghazipur (3,125 to 2,858), Banaras (3,340 to 3,079) and Ballia (3,199 to 2,986) of the East Plain; Lucknow (4,044 to 3,370), Faizabad (3,358 to 3,017), Hardoi (3,422 to 3,196) and Fatehpur (3,338 to 3,122) of the Central Plain; Saharanpur (3,717 to 3,384), Shahjahanpur (3,561 to 3,228), Etah (3,405 to 3,119), Bareilly (3,588 to 3,319), Moradabad (3,415 to 3,153), Bijnor (3,473 to 3,259) and Budaun (3,265 to 3,063) of the West Plain; and Banda (3,486 to 3,225) and Hamirpur (3,509 to 3,263) of the Hills and Plateau. The first 10 districts that registered the highest proportion in the age-group 15—34 at the census of 1951 are Dehra Dun (3,806), Naini Tal (3,760), Kanpur (3,566), Etawah (3,435), Rampur (3,427), Jhansi (3,416), Kheri (3,408), Jalaun (3,402), Pilibhit (3,391) and Mathura (3,385).

6. The distinguishing feature of the urban population is the abundance of persons in the young adult ages. It will be observed from the figures in Table 346 that the proportion of young men and women in the urban population is higher than that in the rural population in all the natural divisions. It is noteworthy that the urban population for the State as a whole has attained a lead of 321 for every 10,000 persons over the rural proportion. The Himalayan division (894) heads the list in this respect and the other divisions in order are the Central Plain (511), the East Plain (235), the West Plain (192) and the Hills and Plateau (95). This excess of the urban proportion has mainly been occasioned by the higher proportion of males in these ages in the urban population than in the rural. This feature is noticeable in every district of the State except Bijnor, Pilibhit, Rampur, Budaun, Moradabad, Shahjahanpur and Hamirpur where the proportion of males in these ages in the rural population is higher than that in the urban population. The reasons that have brought about

Differences in the proportion by residence

*The proportions for the other natural divisions in 1941 and 1951 respectively are: East Plain—1,382 and 1,303; Central Plain—1,313 and 1,304; and Hills and Plateau—1,525 and 1,353.

these differences in the rural-urban proportions in the age-group 15—34 should be associated with the phenomena of migration.

TABLE 346—*Young men and women per 10,000 persons by residence and livelihood classes, 1951*

Natural division	Young men and women per 10,000 persons of											
	Rural population			Urban population			Agricultural classes			Non-agricultural classes		
	P	M	F	P	M	F	P	M	F	P	M	F
Uttar Pradesh	3,176	1,646	1,530	3,497	1,971	1,526	3,173	1,640	1,533	3,350	1,831	1,519
Himalayan	3,232	1,492	1,740	4,126	2,727	1,399	3,144	1,396	1,748	4,080	2,555	1,525
East Plain	3,091	1,542	1,549	3,326	1,818	1,508	3,096	1,542	1,554	3,170	1,659	1,511
Central Plain	3,139	1,633	1,506	3,650	2,112	1,538	3,133	1,625	1,508	3,439	1,923	1,516
West Plain	3,250	1,756	1,494	3,442	1,913	1,529	3,262	1,770	1,492	3,329	1,811	1,518
Hills and Plateau	3,311	1,712	1,599	3,406	1,845	1,561	3,309	1,704	1,605	3,368	1,809	1,559

Differences in the proportion by occupation

7. It will again be noticed from the data in Table 346 that the proportion of young men and women amongst the non-agricultural classes exceeds that of the agricultural classes in the State as also in all the natural divisions. Here also the higher proportion in the non-agricultural population than in the agricultural population is attributable to the higher proportion of males in the former than in the latter. It may also be pointed out that the proportion of males of the age-group 15—34 should have a large share in determining the proportion of workers.

Differences between the sexes

8. Table 344 shows that amongst the young adult persons the males have always exceeded the females. The deficiency in 1951 is of 158 for every 10,000 persons. This deficiency will be found in all the natural divisions except the Himalayan where the males are short by 92 for every 10,000 persons. A perusal of Subsidiary Table 6.12 shows that the males are in excess in every district of the State except Garhwal (males 1,298, females 1,772), Tehri-Garhwal (males 1,532, females 1,814) and Almora (males 1,371, females 1,765) of the Himalayan, Gorakhpur (males 1,610, females 1,651), Deoria (males 1,574, females 1,594), Jaunpur (males 1,368, females 1,459), Ghazipur (males 1,378, females 1,480), Ballia (males 1,369, females 1,617) and Azamgarh (males 1,393, females 1,447) of the East Plain, Sultanpur (males 1,535, females 1,546) and Pratapgarh (males 1,439, females 1,551) of the Central Plain. It is evident that males migrate in large number from these districts to earn their livelihood, leaving their women behind to look after their cultivation in the rural areas. This gap between the male and female figures varies for the rural and urban population. The gap is small in the case of rural population but large for the urban population. The reasons are to be sought in the factor of migration.

SECTION 11—MIDDLE-AGED PERSONS AGED 35—54

1. This is another age-group which determines the labour force and exerts influence upon the birth-rate. It will be observed from the figures in Table 347 that upto 1921 the proportion of persons in this age-group had been steadily

Variation in the proportion of middle-aged persons

TABLE 347—Middle-aged persons per 10,000 persons in the State since 1891

Year	Persons	Males	Females
1891	2,096	1,083	1,013
1901	2,128	1,089	1,039
1911	2,155	1,122	1,033
1921	2,164	1,134	1,030
1931	1,983	1,056	927
1941	2,068	1,095	973
1951	2,090	1,137	953

rising. There was a steep decline in 1931 followed by a rise in 1941. In 1951 the proportion has remained steady, there being a rise of only 42 in respect of males and a fall of only 20 in respect of females for every 10,000 persons. There are now, 1,137 males and 953 females per 10,000 persons in the State. It is noteworthy that the proportion for males is

the highest during the last 60 years though that for the females is among the lowest during this period.

2. There had been no very severe calamities between 1872 and 1901 save scarcity and famine which least affect persons in the prime of life and the fever of 1879 the effect of which was mostly reflected in the age-group 20—24 of 1901. The decade 1891—1900 thus started with a large number of persons in or approaching the ages 35—54. In 1894 and 1897 death-rates were enormously high, especially in case of the males. Still the proportions in the ages 35—54 were high. The middle-aged persons of 1911 on the whole did not have a bad history except for those in the ages 40—44 who to some extent reflected the effects of the severe famine of 1868-69. Consequently the decade 1901—10 also started with a large number of persons in or approaching these ages, and even plague which is chiefly fatal to persons in their prime or middle age, was unable to entirely obliterate the high figure. That females had lost slightly whilst males had increased was due chiefly to their greater liability to plague. For the small increase in these ages in 1921 the explanation must be found in the way in which the influenza epidemic differentiated against different ages. The proportions for both males and females in the ages 35—44 had suffered a small decline but the loss was more than compensated by the increase in the proportion of ages 45—54 which brought the figure for middle-aged females on a par with that of 1911, while that for males registered an increase. The influence of the influenza persisted in the later decade. The middle-aged persons of 1931 were the survivors of persons of ages 25—44 in 1921. The influenza had been very fatal to persons in the ages 20—34 in 1921. Consequently the proportion for middle-aged persons was greatly reduced in 1931. Another contributory factor was the process of smoothing adopted in 1931. The explanation of the trends since 1931 must again be found in the selective nature of the influenza. The 5—14 age-group was least affected and the epidemic dominated all the variations in respect of the other groups also. The influence of these differentiations was felt in the ages 35—54 in 1941 and in 1951.

A full discussion of the changes in birth-rate occasioned by the variation in the proportion of females in different age-groups will be found in Section 5 of Chapter II.

3. The variations in the proportion of middle-aged persons since 1941 are shown in Table 348 for each natural division with break-up for the ages 35—44 and 45—54.

TABLE 348—Middle-aged persons per 10,000 persons in the State and each natural division since 1941

Age-group	Uttar Pradesh	Himalayan	East Plain	Central Plain	West Plain	Hills and Plateau
1941						
35—54 ..	Persons	2,068	2,082*	2,058	2,141	1,964
	Males	1,095	1,094	1,027	1,126	994
	Females	973	987	1,031	1,015	970
35—44 ..	Persons	1,228	1,234	1,217	1,274	1,184*
	Males	644	643	600	663	610
	Females	584	591	617	611	575
45—54 ..	Persons	840	848*	841	867	780*
	Males	451	451	427	463	384
	Females	389	396	414	404	395

*The reason for the slight difference in the figure of persons and the total of males and females is explained on page 314.

TABLE 348—*Middle-aged persons per 10,000 persons in the State and each natural division since 1941—(contd.)*

Age-group		Uttar Pradesh	Himalayan	East Plain	Central Plain	West Plain	Hills and Plateau
1951							
35—54	Persons	2,090	2,150	2,050	2,148	2,081	2,038
	Males	1,137	1,172	1,042	1,190	1,181	1,075
	Females	953	978	1,008	958	900	963
35—44	Persons	1,194	1,221	1,179	1,225	1,178	1,212
	Males	647	646	599	680	665	638
	Females	547	575	580	545	513	574
45—54	Persons	896	929	871	923	903	826
	Males	490	526	443	510	516	437
	Females	406	403	428	413	387	389

It will be observed that middle-aged males have registered an increase in all the divisions since 1941 but, on the other hand, the proportion of middle-aged females has fallen throughout except the West Plain where there is a negligible increase of 2 for every 10,000 persons. The decline in the proportion of females in the age-group 35—44 is significant because to some extent it also explains the fall in the birth-rate during the decade 1941—50 which has mainly been brought about by a reduction in the age-group 15—34 (as already explained in the previous section).

4. It will be seen from Subsidiary Table 6·13 that there is a rise in the proportion of middle-aged persons since 1941 in as many as 29 districts of the State while the rest have registered a fall.

5. Contrary to what we have seen in respect of persons in the age-group 15—34, it will be noticed from the figures in Table 349 that the proportion of middle-aged persons in the rural population is higher than that in the urban population in the State and in all the natural divisions except the East Plain where the proportion in the urban population is 2,130 against 2,044 in the rural for every 10,000 persons. It is significant that the males in the urban population out-

TABLE 349—*Middle-aged persons per 10,000 persons by residence and livelihood classes, 1951*

Natural division	Middle-aged persons per 10,000 persons of											
	Rural population			Urban population			Agricultural classes			Non-agricultural classes		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
Uttar Pradesh	2,094	1,128	966	2,062	1,197	865	2,083	1,115	968	2,110	1,202	908
Himalayan	2,175	1,158	1,017	1,924	1,296	628	2,176	1,134	1,042	2,040	1,336	704
East Plain	2,044	1,037	1,007	2,130	1,105	1,025	2,043	1,033	1,010	2,083	1,084	999
Central Plain	2,157	1,173	984	2,093	1,296	797	2,146	1,163	983	2,156	1,272	884
West Plain	2,091	1,182	909	2,036	1,178	858	2,070	1,165	905	2,102	1,213	889
Hills and Plateau	2,040	1,070	970	2,033	1,109	924	2,014	1,053	961	2,114	1,143	971

number the males in the rural population in all the natural divisions except the West Plain where also the difference is only of 4 for every 10,000 persons. It is obvious that this is the result of migration. The difference between the male and female proportions in the rural and urban population is also noteworthy. Migration from the villages to the towns is mostly without family. The result is the greater deficiency of females in the urban population.

Subsidiary Table 6·13 also shows that the proportion for males is relatively smaller in the rural areas than in the urban in most of the districts of the State, the exceptions being Dehra Dun, Fatehpur, Allahabad, Unnao, Sitapur, Hardoi, Bareilly, Bijnor, Pilibhit, Rampur, Kheri, Aligarh, Agra, Moradabad, Shahjahanpur, Etawah, Jhansi, Jalaun and Hamirpur.

Differences in the proportion by residence

6. It will further be observed from the figures in Table 349 that the proportion of middle-aged males amongst the non-agricultural classes exceeds that for those amongst the agricultural classes in all the natural divisions. This holds true in case of most of the districts also (as will be seen from Subsidiary Table 6.13) the only exceptions being Dehra Dun, Banaras, Jaunpur, Ballia, Fatehpur, Hardoi, Sultanpur, Rampur, Aligarh, Agra and Shahjahanpur.

Differences in the proportion by occupation

7. Table 350 shows the proportion of persons of employable age (15—54) in the agricultural and non-agricultural classes as returned at the census of

TABLE 350—Persons of employable age 15—54, per 10,000 persons by occupation, 1951

Natural division	Agricultural classes			Non-agricultural classes		
	Persons	Males	Females	Persons	Males	Females
Uttar Pradesh	5,256	2,755	2,501	5,460	3,033	2,427
Himalayan	5,320	2,530	2,790	6,120	3,891	2,229
East Plain	5,139	2,575	2,564	5,253	2,743	2,510
Central Plain	5,279	2,788	2,491	5,595	3,195	2,400
West Plain	5,332	2,935	2,397	5,431	3,024	2,407
Hills and Plateau	5,323	2,757	2,566	5,482	2,952	2,530

1951. The proportion of males of employable age (15—54) should be the principal factor in determining the proportion of workers.

8. Amongst the middle-aged persons also, the males have always exceeded the females. Subsidiary Table 6.13 shows that the excess in the number of males in 1951 is to be found in all the natural divisions and also in all the districts of the State except Garhwal, Jaunpur, Ballia, Azamgarh, Sultanpur and Pratapgarh. This is the result of migration.

Differences between the sexes

SECTION 12—ELDERLY PERSONS AGED 55 AND OVER

Variation in the proportion of elderly persons

1. Table 351 gives the number of elderly persons of age 55 and over per 10,000 of the population of the State since 1891. The proportions went down from 1891 to 1901, reflecting the effects of famine. In the next decade also there was a small decrease. It is noticeable that despite malaria and plague during the decade 1901—10, the figures for males remained almost the same as those of the previous decades. It was due to decreased fatality from famine. The fall in the proportion for females is doubtlessly due to the

TABLE 351—Elderly persons per 10,000 persons in the State since 1891

Year	Persons	Males	Females
1891	722	339	383
1901	710	337	373
1911	691	340	351
1921	725	362	363
1931	636	321	315
1941	738	378	360
1951	840	435	405

heavy incidence of plague and malaria. The proportions in 1921 show an increase over 1911 in respect of both the sexes. The explanation must again be found in the way in which the influenza epidemic differentiated against different ages. The rise in the proportion of elderly persons was obviously due to the heavy decrease in the number of persons aged 15—44 to whom the epidemic proved to be more fatal. The proportions again came down in respect of both the sexes in 1931, when they are the lowest on record. Health conditions during the decade 1921—30 had considerably improved and the death-rate among the old had come down. Subsidiary Table 1·12 shows that the registered death-rate of males as well as females of the age 50 and over declined between 1921 and 1931. It is, therefore, evident that the reduction in the proportions in 1931 was largely due to the smoothing of ages which specially decreased the numbers at the higher ages.* The striking increase since 1931 in the proportion of either sex is due to the longer duration of life consequent on the improvement in public health and medical facilities. The vital statistics confirm this conclusion. The registered death-rate of elderly males and females further declined between 1931 and 1951 (*vide* Subsidiary Table 1·12). It is noteworthy that the proportions in 1951 are the highest on record.

2. As will appear from the figures in Table 352, the increase in the proportions since 1941 is noticeable in all the natural divisions except the Himalayan where the proportion of females has declined from 417 in 1941 to 398 per 10,000 persons in 1951.

TABLE 352—Elderly persons per 10,000 persons in the State and each natural division since 1941

Natural division	Elderly persons per 10,000 persons of general population in					
	1951			1941		
	Persons	Males	Females	Persons	Males	Females
Uttar Pradesh	840	435	405	738	378	360
Himalayan	858	460	398	868†	453	417
East Plain	861	407	454	784	378	406
Central Plain	858	436	422	768	388	380
West Plain	840	476	364	684	378	306
Hills and Plateau	662	317	345	632	293	339

Subsidiary Table 6·14 shows that the rise in the number is to be found in all the districts of the State, except Garhwal, Almora, Dehra Dun, Gorakhpur-cum-Deoria and Unnao, where the proportion has decreased since 1941.

*U. F. Census Report, 1931, Part I, page 215.

†The reason for the slight difference in the figure of persons and the total of males and females is explained on page 314.

3. The proportion of elderly persons shows marked variations between the rural and urban population (Table 353).

Differences in the proportion by residence

TABLE 353—*Elderly persons per 10,000 persons by residence and livelihood classes*

Natural division	Elderly persons per 10,000 persons of											
	Rural population			Urban population			Agricultural classes			Non-agricultural classes		
	P	M	F	P	M	F	P	M	F	P	M	F
Uttar Pradesh	849	438	411	776	420	356	852	437	415	806	432	374
Himalayan	892	475	417	547	322	225	925	490	435	569	329	240
East Plain	858	406	452	903	422	481	856	403	453	880	426	454
Central Plain	884	445	439	686	376	310	890	449	441	756	394	362
West Plain	848	480	368	804	457	347	848	478	370	825	472	353
Hills and Plateau	649	309	340	738	362	376	641	310	331	726	338	388

The return migration of males to the villages from the towns is reflected in the figures. Except in the East Plain and the Hills and Plateau the rural figures are higher than those of the urban areas. But, as figures in Subsidiary Table 6-14 show, the deficiency in the rural proportion exists in many of the districts. It appears that some elderly persons from among the rural migrants have stayed behind in the towns in these districts either permanently or in search of opportunities for employment. Another contributory factor may be that the towns have proved to be more attractive to many retired officers, zamindars, etc., who have settled down there. Banaras calls for special notice. It has the highest proportion of elderly persons in the urban population of the State, the figures being 583 for males and 608 for females for every 10,000 persons. The elderly persons have settled in the city of Banaras for religious reasons.

4. Table 353 also compares the proportions of elderly persons amongst the agricultural and non-agricultural classes. It will be seen that except in the East Plain and the Hills and Plateau divisions the proportion of elderly persons is larger amongst the agricultural classes than amongst the non-agricultural classes.

Differences in the proportion by occupation

5. It will be noticed from Table 351 that the proportion for elderly females was higher than that for males till 1921. Since 1931 the male proportion has registered a higher figure. The differences between the male and female proportions since 1931 have, however, been very trivial. This demonstrates clearly the greater longevity of females which has enabled them to make up the losses suffered at the reproductive ages.

Differences between the sexes

SECTION 13—CONCLUDING REMARKS

1. We have discussed in this chapter a number of important characteristics of the population of the State, families (or households), sexes, marital status and principal age-groups. Let us briefly summarise the main conclusions of the discussion.

Houses and households

2. For the first time the Indian census has distinguished the 'house' from the 'household'. A 'house' has been defined as any human dwelling having a separate main entrance while a 'household' is any family group living as a communal unit within a house.

The number of households per 1,000 houses in the State is 1,200 i.e., there are 6 households living in 5 houses on the average. The congestion of households per house is about 10 per cent. greater in the urban than in the rural areas. This is because the construction of houses in urban areas has not kept pace with the growth of population. If new construction is not stepped up the urban congestion may worsen still further. Figures show that this congestion is at its worst in the cities of Lucknow (2,018), Banaras (1,912), and Agra (1,831).

Size and composition of family households

3. Data regarding the size and composition of family households has been collected for the first time in this census. The average size of rural household is 5·07 persons, that of urban household 4·87 persons and that of general household 5·04. The size of the general household was 4·63 in 1911; it fell to 4·56 in 1921 owing principally to the devastations of influenza; rose to 4·77 in 1931 and 5·04 in 1941; and remains steady at the 1941 figure in 1951. The rural household has been gradually increasing in size since 1911 with a slight set-back in 1921. The urban household, however, shows variable trends. It was steady in size (4·54) in 1911 and 1921, fell to 4·40 in 1931 owing to a large migration of rural population to urban areas unaccompanied by families; increased to 5·25 in 1941, and fell to 4·87 in 1951. The tendency of the Hindu joint family to break up has also played a part in determining the size of the average household.

Classed by size 34 per cent. of the households in the State are small (3 members or less) and 43 per cent. medium (4—6 members). The proportion of large households (7—9 members) is only about 17 per cent. and that of very large (10 members or more) only 6 per cent. The urban areas have 42 per cent. small and 38 per cent. medium size households as compared with 33 per cent. small and 44 per cent. medium in rural areas. There is no significant difference between rural and urban areas with regard to the proportion of large and very large households. The variation in the proportion of small and medium size households in urban and rural areas is largely due to the nature of rural-urban migration in the State, many of the migrants coming to urban areas without or with only part of their families.

As regards the internal composition of the households there are for every 1,000 households 935 male heads and 65 female heads; 666 wives of heads of households, 1,054 sons of heads of households, 713 daughters, 560 other male relatives, 805 other female relatives, and 128 visitors, servants or unrelated persons.

Sex

4. The present sex-ratio (the number of females per 1,000 males) of the State is 910. Examining the figures since 1881, it would appear that there has always been a deficiency of females in this State. The deficiency decreased between 1881—1901, increased between 1901—31 and has again been slowly decreasing since 1931.

The all-India sex-ratio is 947. In only five States—Kutch, Manipur, Orissa, Travancore-Cochin and Madras—there is an excess of females over males. In sixteen States the sex-ratio varies between 900—1,000 and in seven States it is under 900.

Examining the sex-ratio of other countries of the world it appears that it is the lowest in colonial areas which attract large labour force, e.g., Malaya and Ceylon or in certain countries which have attracted immigrants, e.g., Argentina, Canada and South Africa. The highest ratios are found in those countries which have been sending out a considerable stream of emigrants, e.g., the countries of western and northern Europe. Expectation of life also operates as a contributing factor.

In all countries of the world male births are slightly higher than female births. Male infants are more delicate than female infants and so the male infant mortality exceeds female infant mortality. Nature thus tends to equalise the sex-ratio. But there are sex-differentials in mortality at higher ages, which cause inequality in the sexes. Apart from migration this is the chief cause of excess or deficit of one sex over another. In this State great fluctuations occur in sex-ratio at death. This is the result of the selective nature of certain diseases. Plague, which is well-known to be far more fatal to women than to men, was largely responsible for the high female mortality in the early part of the century. Then maternity deaths, which apply exclusively to females, are high in this country and cause variations in the sex-ratio at death. But the proportion of female deaths now shows a downward trend.

The sex-ratio of the urban population is considerably lower than that of the rural population, the difference being about 100 per thousand. It is particularly low in the cities. Of the 30 cities only 4 have a ratio between 900—1,000 while 16 have a ratio between 800—900 and 10 have a ratio under 800.

5. The chief features of the statistics of marital condition in Uttar Pradesh, as in the rest of India, are :

Marital status

- (a) universality of marriage ;
- (b) early age of marriage, specially of girls ;
- (c) the large proportion of widowed, more specially widows ; and
- (d) small proportion of divorced persons.

Compared with seven selected countries it appears that the universality of marriage is to be found also in China and Japan but not in Western countries like U.S.A., Canada, Brazil, England and Wales and France where considerable proportion of male as well as female population remains single. In these countries hardly any marriage takes place before the age of 15. In all these countries the marriage age is much higher than in India. In the matter of proportion of widowers and widows, India stands unique. In both cases the proportion far exceeds that of other countries. The contrast is very much marked in the case of female widows of lower age-groups. The number of divorced in Uttar Pradesh is comparatively lower than other countries.

Among the natural divisions, the number of unmarried is higher in West Plain than in the Central Plain and East Plain. The difference is particularly marked in the unmarried females of lower age-groups. The main reasons for this difference are the comparatively higher age of marriage and lower sex-ratio in the west.

Comparing the rural and urban figures, it appears that while the number of unmarried males does not differ very widely in the two portions, the number of unmarried females, particularly of the lower age-groups, is very much higher in the urban than in rural areas.

6. A study of the relative proportion of the population in different age-groups shows that for every 10,000 persons, 332 are infants below 1 year, 1,013 are young children aged 1—4, 2,505 are boys and girls aged 5—14, 3,218 are young men and women aged 15—34, 2,090 are middle-aged persons aged 35—54 and 840 are elderly persons aged 55 and over. This age structure of the State stands in marked contrast to that in the United States and in most of the other Western countries which have curtailed their birth and death-rates. Uttar Pradesh has only 53.1 per cent. of its population in the ages 15—54, while the United States has 55.8 per cent., England and Wales 56.7 per cent., France 56.3 per cent. and Germany 57.0 per cent. The proportion of elderly persons is only 8.4 per cent. in this State as against 16.6 per cent. in the United States, 21.3 per cent. in England and Wales, 22 per cent. in France and 18 per cent. in Germany. Thus it is plain that this State has a relatively lower proportion of the population in the working ages and a higher proportion of children which means a substantially large burden of dependency and thereby a greater need for child welfare work, education, etc.

The age structure

Further, the age structure of this State is indicative of a rapid population growth. Table 354 shows the increases that are likely to take place in the next thirty years in the general population with break-up for three age-groups 0—14 15—54 and 55 and over, assuming that there will be no violent changes in birth and death-rates during this period.

TABLE 354—*Actual growth of population between 1921—51 and expected growth between 1951—81, with break-up in three age-groups**

(Population in thousands)

Year	All ages			0—14		15—54		55 and over	
	Persons	Males	Females	Males	Females	Males	Females	Males	Females
1921	46,669 (10,000)	24,451 (5,239)	22,218 (4,761)	9,233 (1,978)	8,237 (1,765)	13,531 (2,899)	12,287 (2,633)	1,687 (362)	1,694 (363)
1931	49,777 (10,000)	26,147 (5,253)	23,630 (4,747)	10,181 (2,045)	9,189 (1,846)	14,371 (2,887)	12,870 (2,585)	1,595 (321)	1,571 (316)
1941	56,532 (10,000)	29,639 (5,243)	26,893 (4,757)	11,292 (1,997)	10,225 (1,809)	16,211 (2,868)	14,635 (2,589)	2,136 (378)	2,033 (359)
1951	63,216 (10,000)	33,098 (5,236)	30,118 (4,764)	12,648 (2,001)	11,696 (1,850)	17,715 (2,802)	15,836 (2,505)	2,735 (433)	2,586 (409)
1961	70,010 (10,000)	36,641 (5,234)	33,369 (4,766)	14,316 (2,045)	12,851 (1,835)	19,275 (2,753)	17,683 (2,526)	3,050 (436)	2,835 (405)
1971	78,036 (10,000)	40,677 (5,213)	37,359 (4,787)	15,953 (2,044)	14,671 (1,880)	21,473 (2,752)	19,733 (2,529)	3,251 (417)	2,955 (378)
1981	87,437 (10,000)	45,644 (5,220)	41,793 (4,780)	18,124 (2,073)	16,303 (1,865)	24,132 (2,760)	22,439 (2,566)	3,388 (387)	3,051 (349)

It will appear from the above table that the proportion of population in the age-group 0—14 will continue to increase and that in the age-group 55 and over continue to decrease.* In other words, the population will become more and more progressive. This is true for both males and females. In absolute figures the increase in the number of the persons of age-group 0—14 will be of the order of 10,083 thousands during the next thirty years. In the age-group 15—54, which represents the bulk of the labour force, the increase will be of the order of 13,020 thousands during the same period. This roughly gives some idea of the demand for increased avenues of employment. Altogether, the increase in population during the next thirty years is bound to present to the State a number of difficult problems for solution.

* This table is taken from the India Census Report 1951 (page 180) where the method of calculation of population of the three age-groups is explained in detail. The slight difference in the figures of population projection for 1961 and 1971 as shown in this table and as given in Chapter I (page 106) is due to the different methods adopted.

CHAPTER VII—LITERACY, EDUCATION AND LANGUAGE

SECTION 1—PRELIMINARY REMARKS

1. Information on literacy and the educational status is important in connection with the planning of educational programmes and programmes for economic, social and political advancement, besides being one of the very best indicators of the quality of the population. Two principal varieties of statistics on educational characteristics have been obtained at the census of 1951 : (i) data on literacy ; and (ii) data on educational level. These are exhibited in Tables C-IV, Age and literacy and D-VII, Livelihood classes by educational standards, given in Part II-C of the Report. Some proportionate figures will be found in the following subsidiary tables in Part I-B of the Report :

Reference to
statistics :
(i) Literacy
and education

Subsidiary Table 7-1—Progress of literacy

Subsidiary Table 7-2—Literacy standard of livelihood classes ; number per 1,000 males and 1,000 females of each livelihood class by literacy and educational standard

Subsidiary Table 7-3—Educational services and research

Table C-IV, Age and literacy, corresponding to similar table of the 1931 census and of the censuses prior to it, gives the figures of age and literacy with additional information regarding rural and urban areas. But it has been prepared on the basis of the data collected from a 10 per cent. sample of the enumeration slips excluding the slips of displaced persons. It may be mentioned here that children aged 0—4 years have been taken as illiterate and that the age-groups of literates (5—9, 10—14, 15—24, 25—34, 35—44, 45—54, 55—64, 65—74, and 75 and over) are unsmoothed like those of the general population. For further details about age recording and the age-groups, reference may be made to paragraphs 2—4 of Section 6 of Chapter VI.

Table D-VII, Livelihood classes by educational standards, is a new table. It is designed to show the distribution of educated man-power among the different livelihood classes according to educational qualifications. Persons who are literate but who do not possess any qualification are simply classified as "literate". Others have been classified according to the highest examination passed under the following educational standards :

- (i) Middle School ;
- (ii) Matriculate or S. L. C., Higher Secondary ;
- (iii) Intermediate in Arts or Science ;
- (iv) Graduates in Arts or Science ;
- (v) Post-graduates in Arts or Science ;
- (vi) Degree or diploma in Teaching ;
- (vii) Degree or diploma in Engineering ;
- (viii) Degree or diploma in Agriculture ;
- (ix) Degree or diploma in Veterinary ;
- (x) Degree or diploma in Commerce ;
- (xi) Degree or diploma in Law ;
- (xii) Degree or diploma in Medicine ; and
- (xiii) Other degrees or diplomas.

Subsidiary Table 7-1, Progress of literacy, gives the figures of literacy by sex for the State, the natural divisions and the districts for 1941 and 1951 for the age-groups 5—9, 5—14, 5 and upwards and 15 and upwards. It may be borne in mind that the data for the 1941 census are based on 2 per cent. 'Y' Sample (*vide* paragraph 2 of Section 1 of Chapter VI). *Subsidiary Table 7-2*, Literacy standard of livelihood classes, is prepared from Table D-VII. *Subsidiary Table 7-3*, Educational services and research, has been prepared from the "Index of non-agricultural occupations" given in Part I-B of the Report. It shows the actual as well as proportionate figures for self-supporting persons only who are engaged in different categories of educational activities,

In addition to the above statistics, literacy figures by sex about each village and town will be found in the Primary Census Abstracts given in the District Census Handbooks. It may, however, be noted that the figures of "literate" in the Abstract differ slightly from those in Table D-VII. The former have been sorted from a secondary source—the National Register of Citizens.

(ii) *Language*

2. The data on languages are exceedingly important in connection with problems of education and assimilation and for studying social, economic and cultural diversities or the ethnic groups. The statistics are contained in Table D-I which corresponds to similar tables of the previous censuses and presents the languages spoken and the number of persons speaking each of them by rural-urban break-up in two parts :

(i) *Mother-Tongue*, showing for each sex figures for languages spoken from the cradle.

(ii) *Bi-lingualism*, showing figures for persons who commonly employ any *Indian language* other than their mother-tongue for domestic and business purposes.

It may be noted that contrary to the past practice* any language, dialect or sub-dialect which was given a distinctive name has generally been shown in the tables exactly as returned at this census. Only a few Indian sub-dialects for which an insignificant number of persons were returned (and which found no mention in Grierson's "*Linguistic Survey of India*") have been clubbed together with the principal language of the tract concerned. Furthermore, in case of persons whose mother-tongue was recorded as Hindi or Urdu or Hindustani neither of these languages has been shown as a subsidiary language.

These statistics are presented in a different form in the following subsidiary tables given in Part I-B of the Report:

Subsidiary Table 7.4—Showing the distribution of the total population of the State by mother-tongues (actual figures).

Subsidiary Table 7.5—Showing the distribution (proportional) by mother-tongue of ten thousand population of each district and natural division.

Subsidiary Table 7.4 presents the classification of languages into family and sub-family, branch and sub-branch, and group and sub-group arranged according to the classification adopted by Sir George Grierson in the *Linguistic Survey of India*. This classification requires technical study of languages and is wholly unfamiliar to the general public.

*In the past the dialects were at the time of tabulation clubbed together with the main language of which they formed part.

SECTION 2—GENERAL LITERACY AND ITS PROGRESS

1. It is necessary to understand the basis of the figures of literacy before examining them. In 1891 the population was divided in respect of literacy in three categories—Learning, Literate and Illiterate. The unsoundness of it has been explained in previous reports. In practice some confusion was caused in enumerating “Learning” and the “Illiterate”. In consequence there can be no satisfactory comparison with the statistics of 1891. It was, therefore, decided in 1901 to confine the entries to the two categories of “Literate” and “Illiterate”. But the figures of that year are vitiated for comparative purposes for a different reason. In the definition no definite criterion of literacy was prescribed. A clear definition was first adopted in 1911. Only those were to be considered as literate who could write a letter to a friend and read the answer to it. This resulted in excluding many who could only piece together their signatures. This definition has continued till now. The statistics of 1911 to 1951 are, therefore, comparable. For the instructions given to the enumerators at the census of 1951 the reader may refer to Appendix I of the Report.

The figures :
how obtained

Furthermore, in the 1951 census the semi-literates, namely, those who can read but are not able to write have been separately enumerated. In addition, the highest examination passed was recorded in the case of literate persons. No attempt was made at the present census to record the language or script in which any person is literate.

2. The statistics may safely be accepted as accurate. The definition was simple and everywhere well understood. There is, however, one point that may be remembered when comparing the literacy figures of age-groups. The age-groups of the 1951 census are unsmoothed while those for the 1931 census were smoothed and the data for the 1941 census are based on 2 per cent. ‘Y’ Sample age statistics the limitations of which have been mentioned in Section 1 of Chapter VI.

The accuracy of
the statistics

3. There are now out of every thousand of the population 108 literate persons ; out of every thousand males 174 ; and out of every thousand females 36. The comparative figures for the last five censuses are given in Table 355.

The extent and
general progress
of literacy

TABLE 355—Number and proportion of literates in the State, 1911—51

Year	Number of literates			Number of literates per 1,000 population of		
	Persons	Males	Females	Persons	Males	Females
1911	1,636,052	1,522,913	113,139	34	61	5
1921	1,717,736	1,583,732	134,004	37	65	6
1931	2,309,358	2,091,059	218,299	47	80	9
1941	4,728,297	4,097,400	630,897	84	139	24
1951	6,825,072	5,753,580	1,071,492	108	174	36

It will be observed that though the growth in the number of literates per 1,000 of the population has been considerable, the end result to-day is not impressive. In 1911 only 3·4 per cent. (males 6·1, females 0·5) of the population could read and write, and in 1951, 10·8 per cent. (males 17·4, females 3·6), could do so. It is evident that literacy has as yet but touched the fringe of the population and that primary education has yet to be extended very greatly. It will also be seen that the increase in the actual numbers between 1941 and 1951 has been 44·3 per cent. (males 40·4, females 69·8) as against 104·7 per cent. (males 95·9, females 189·0) increase between 1931 and 1941. The increase in the proportional figures was 28·6 per cent. (males 25·2, females 50·0) between 1941 and 1951, as against 78·7 per cent. (males 73·8, females 166·7) in the previous decade.

In spite of the present low level of literacy it will be seen that the progress of literacy since 1921 has been very marked. The pace has been more rapid in the case of females than males, though the absolute figures for females are still barely one-fifth of those of males. In 1921 the Montagu-Chelmsford Reforms were introduced in India. A system of dyarchy in administration was introduced with education as a transferred subject in the charge of a popular minister. Increased funds were allotted for education and, in particular,

primary education. In 1937, provincial autonomy was granted to India as a result of the Government of India Act, 1935. The Congress party, which had so far boycotted office, accepted office in 1937, and continued in office till 1939 when they resigned on the War issue. During these two years of Congress regime, schemes of expansion of primary education as well as adult education received great impetus and the results are reflected in the literacy figures of 1941. The years 1939 to 1946 were the period of Great War II and the Adviser's regime in the State. Primary education received a set-back. In 1946, the popular ministries returned to office and still continue to function. The period after 1946 has seen a great increase in the tempo of expansion of primary and adult education which is reflected in the literacy figures of 1951. The 1951 figures would have shown a much greater progress in literacy if the expansion had not been arrested during the War years.

Comparison with figures of other States of India

4. Children under the age of 5 years have been treated as illiterate. The proportions of literates per mille of the population aged 5 years and over are: persons 124, males 197 and females 42. Table 356 gives the comparative figures for the other States of India.

TABLE 356—Number per mille of population aged 5 years and over who are literate in the States of India, 1951

State	Number per mille aged 5 and over who are literate			State	Number per mille aged 5 and over who are literate		
	Persons	Males	Females		Persons	Males	Females
India	183	271	89				
Assam	209	308	94	Rajasthan	78	125	27
Bihar	135	220	48	Saurashtra	219	312	122
Bombay	280	403	146	Travancore-Cochin	538	645	432
Madhya Pradesh	155	250	58	Ajmer	203	303	92
Madras	219	324	115	Bhopal	99	153	39
Orissa	126	206	46	Himachal Pradesh and Bilaspur	56	85	24
Punjab	184	257	98	Coorg	321	397	227
Uttar Pradesh	124	197	42	Delhi	373	435	287
West Bengal, Chandernagore and Sikkim	249	346	132	Kutch	196	278	120
Hyderabad	107	176	36	Manipur	126	229	27
Madhya Bharat	117	186	41	Tripura	156	245	56
Mysore	234	342	118	Vindhya Pradesh	73	128	13
PEPSU	104	147	53	Andaman and Nicobar Islands	303	394	139

It will be seen that the literacy of this State is only about two-third of that of India and that it takes a very low position relative to the other States. Travancore-Cochin holds the first place as regards literacy. Among the Part 'A' States the relatively high figures of Bombay, West Bengal and Madras are noteworthy and to a less extent of Assam, Punjab, Madhya Pradesh, Bihar and Orissa. The Part 'B' and 'C' States of Delhi, Coorg, Mysore, Saurashtra, Ajmer, etc., are also more literate than this State. The only States with a lower level of literacy than Uttar Pradesh are Himachal Pradesh and Bilaspur, Vindhya Pradesh, Rajasthan, Bhopal, PEPSU, Hyderabad and Madhya Bharat.

The number per mille of population aged 5 years and over who are literate was 55 (males 94, females 11) in 1931, and thus the increase in the proportion of literates in this State during the last 20 years has been about 125 per cent. as against an increase in India of 93 per cent. over the figures of undivided India in 1931. As compared to this, the percentage increase over the unadjusted figures of 1931 has been about 175 per cent. in Bombay, 158 per cent. in Madhya Pradesh, 130 per cent. in Assam and 103 per cent. in Madras. It is gratifying to note that the rate of increase in literacy in this State during these years has generally been keeping pace with that of the other States.

5. The figures in Table 357 show that this State is one of the world's most illiterate regions. Comparison with figures of some selected countries

TABLE 357—Percentage of population aged 10 and over who are illiterate in selected countries*

Country	Date	Percentage of population aged 10 and over who are illiterate	Country	Date	Percentage of population aged 10 and over who are illiterate
Egypt	1937	85.2	Belgium (7 years and over)	1930	5.6
Canada	1931	3.8	Bulgaria	1934	31.4
Guatemala (7 years and over)	1940	65.4	France	1936	3.8
Mexico	1940	51.6	Greece	1928	40.8
Panama	1940	35.3	Hungary	1941	6.0
United States	1930	4.3	Italy	1931	21.6
Brazil	1940	56.7	Portugal	1940	48.7
Columbia	1938	44.2	Romania (7 years and over)	1948	23.1
Peru	1940	56.6	Spain	1940	23.2
Venezuela	1941	56.6	Sweden	1930	0.1
Ceylon (5 years and over)	1946	42.2	India	1951	80.1
Turkey	1935	79.1	Uttar Pradesh	1951	86.3
Palestine (7 years and over)	1931	67.4			

Between 1911 and 1951 the literacy of the total population of Uttar Pradesh has increased from 3.4 per cent. to 10.8 per cent. Chile had 23 per cent. of its total population literate in 1875 which was raised to 56 per cent. in 1930. Russia had only 24 per cent. of its population aged 9 and over literate in 1897 which increased to 81.2 per cent. by 1939.† There are other countries also (notably Japan) who have achieved quick progress in literacy during recent decades. Obviously there is ample scope for increasing the pace of the progress of literacy in this State.

It may be added here that the Indian census has used a very strict definition of literacy. Only those who were able to read as well as to write were recorded as literate. Thus it differed from a good many countries which merely require that the person be able to read.‡ In this State in 1951, 647,000 persons who can read but cannot write have been treated as illiterate.

*United Nations, *Statistical Yearbook*, 1949-50, pages 486-94.

†Kingsley Davis, *Population of India and Pakistan*, pages 150-51.

‡*Ibid.*, page 151.

Literacy by natural divisions

6. The proportions by sex of those aged 5 years and over who are literate in each natural division are shown in Subsidiary Table 7-1. These statistics are illustrated in Figure 31.

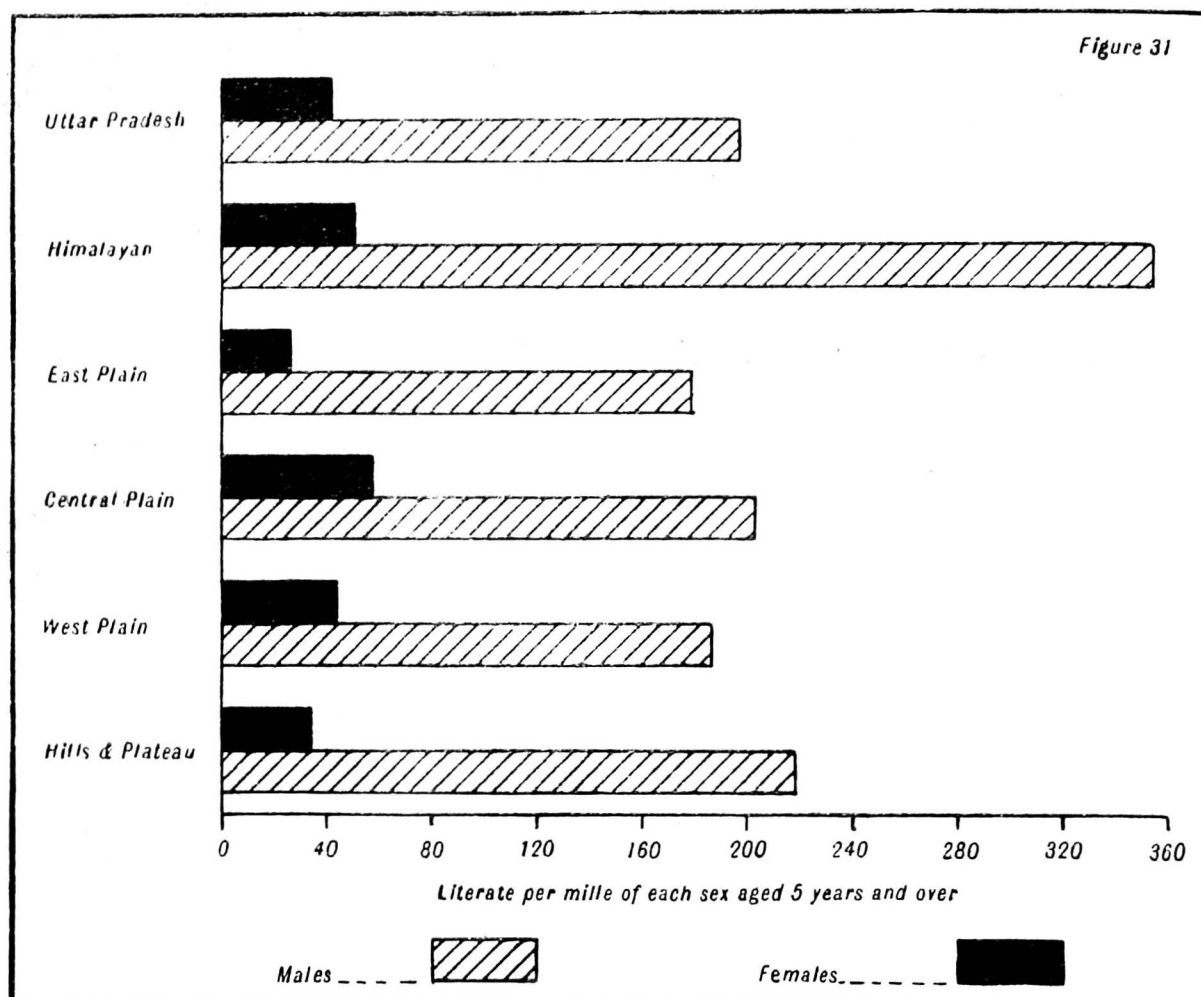


FIG. 31—Number of literates per mille of each sex aged 5 years and over by natural divisions, 1951

It will be seen that the Himalayan division easily leads the way in male literacy (354 per mille) and is a close second to the Central Plain (57) in female literacy (51). After the Himalayan division comes Hills and Plateau (219) in point of male literacy followed by the Central Plain (203). At the rear are the West Plain (187) and the East Plain (179) divisions. The West Plain (44) is third in order in female literacy, followed by the Hills and Plateau (35) and the East Plain (27) divisions. The reason for the high literacy in the Himalayan is mainly social. All the people there, except the labouring community, are of approximately equal and fairly high social status, and the absence of *parda* facilitates female education. The lead of the Central Plain in female literacy is mainly due to the existence of the large cities of Kanpur, Lucknow and Allahabad which are prominent centres of education. Female literacy is noticeably higher in the west than in the east which has a larger proportion of backward communities.

Literacy by districts
(i) Male literacy

7. The figures for male literacy by districts are shown in Subsidiary Table 7-1. These are reproduced in Table 358. The districts have been grouped into five classes for the sake of study.

TABLE 358—Number of literates per mille of males aged 5 years and over by districts classified under literacy groups, 1951

Class I 300 and over	Class II 250—300	Class III 200—250	Class IV 150—200	Class V Under 150
Dehra Dun (407)	Mathura (286)	Jalaun (246)	Mirzapur (191)	Deoria (148)
Garhwal (400)	Agra (264)	Aligarh (242)	Gorakhpur (186)	Hardoi (146)
Almora (349)	Tehri-Garhwal (259)	Meerut (234)	Faizabad (176)	Moradabad (145)
Kanpur (344)	Banaras (259)	Allahabad (233)	Saharanpur (170)	Pilibhit (141)
Naini Tal (343)	Jhansi (257)	Etawah (225)	Muzaffarnagar (165)	Bareilly (138)
Lucknow (312)	Ballia (251)	Ghazipur (223)	Rae Bareli (163)	Basti (134)
Fatehpur (303)		Farrukhabad (221)	Sultanpur (159)	Shahjahanpur (126)
		Jaunpur (211)	Etah (159)	Gonda (123)
		Bulandshahr (211)	Pratapgarh (157)	Rampur (122)
		Hamirpur (207)	Unnao (150)	Sitapur (116)
		Bijnor (205)		Bara Banki (114)
		Mainpuri (202)		Bahraich (101)
		Banda (202)		Budaun (101)
		Azamgarh (201)		Kheri (101)

It has already been seen that the State male literacy in 1951 is 197 per mille. The districts of Class I (300 and over) are, therefore, districts of very high literacy. Among these are four districts of Himalayan division, two districts containing KABAL towns of Kanpur and Lucknow and the district of Fatehpur. Class II (250—300) may be considered as representing a high level of literacy. Classes III (200—250) and IV (150—200) contain districts of average literacy. Class V contains districts of low literacy (under 150). Among the last, are four districts of East Plain, three of Central Plain and seven of West Plain divisions. It will be seen that the districts of Rohilkhand revenue division with the exception of Bijnor together with Kheri stand at the bottom of the list.

The explanation for the high proportion in Dehra Dun lies in the fact that 47·4 per cent. of its population is urban and the urban population is composed of a high proportion of literates. Outside the Himalayan division the proportion is generally higher in the districts where there is a larger proportion of urban population.

8. Table 359 likewise shows the figures of female literacy by districts. (ii) Female literacy
The State figure of female literacy is 42 per mille.

TABLE 359—Number of literates per mille of females aged 5 years and over by districts classified under literacy groups, 1951

Class I 100 and over	Class II 50—100	Class III 30—50	Class IV Under 30
Fatehpur (236)	Agra (70)	Etawah (49)	Garhwal (27)
Dehra Dun (165)	Allahabad (61)	Bareilly (48)	Gorakhpur (27)
Lucknow (144)	Aligarh (54)	Mainpuri (48)	Hardoi (27)
Kanpur (119)	Mathura (54)	Jalaun (47)	Shahjahanpur (27)
Naini Tal (111)	Farrukhabad (54)	Meerut (45)	Unnao (26)
	Banaras (52)	Rampur (44)	Hamirpur (26)
	Jhansi (51)	Ballia (43)	Deoria (25)
	Bijnor (50)	Ghazipur (42)	Jaunpur (25)
	Moradabad (50)	Muzaffarnagar (38)	Azamgarh (25)
		Saharanpur (36)	Faizabad (23)
		Etah (36)	Banda (23)
		Almora (35)	Sitapur (22)
		Bulandshahr (35)	Kheri (21)
		Pilibhit (33)	Rae Bareli (19)
		Mirzapur (32)	Bara Banki (17)
		Budaun (31)	
			Tehri-Garhwal (15)
			Sultanpur (14)
			Basti (12)
			Gonda (12)
			Bahraich (12)
			Pratapgarh (12)

In Class I which contains districts of high female literacy (100 and over) are Naini Tal and Dehra Dun of Himalayan division, two districts Kanpur and Lucknow each containing a KABAL town and the district of Fatehpur. All these districts are also in Class I of male literacy. The district of Fatehpur occupies the first place. Among the districts of low literacy (under 30) are Tehri-Garhwal and Garhwal of Himalayan division, 7 districts of East Plain, 8 districts of Central Plain, 2 of West Plain and 2 of Hills and Plateau division.

It will be seen that the female literacy figure is generally high in districts with large towns. Fatehpur appears to be the solitary exception to this rule.

A comparative study of Tables 358 and 359 brings out the extreme inequality between male and female literacy. The male literacy exceeds the female literacy in every district. For every literate woman in the population there were in 1951 more than 5 literate men. This inequality in literacy is the result of views regarding the goal of education. It has been mainly confined to economic necessity. Women have generally been confined to their domestic duties and are not required to seek employment. The result is that they have been left behind in education. In addition, early marriage of females and the *parda* system accentuate the inequality. Yet the progress of literacy between 1911 and 1951 has been much faster for females than for males.

9. The progress in literacy in the State as a whole since 1911 has been referred to in paragraph 3 above. The proportions by sex of those aged 5 years and over who were returned as literate at the last three censuses, the variations in these proportions and the net variation between 1931 and 1951 for the natural divisions and the districts are shown in Table 360.

Progress in literacy
by natural divisions
and districts

TABLE 360—Progress in literacy by natural divisions and districts, 1931—51

Natural division and district	Number per mille of each sex aged 5 years and over who were returned as literate						Variation 1941—51		Variation 1931—41		Net Variation 1931—51	
	Males			Females			M	F	M	F	M	F
	1951	1941	1931	1951	1941	1931						
Uttar Pradesh	197	158	94	42	29	11	+39	+13	+64	+18	+103	+31
<i>Himalayan</i>	354	245	164	51	33	14	+109	+18	+81	+19	+190	+37
Garhwal	400	287	171	27	18	5	+113	+9	+116	+13	+229	+22
Tehri-Garhwal	259	105	130	15	2	4	+154	+13	-25	-2	+129	+11
Naini Tal	343	242	159	111	59	26	+101	+52	+83	+33	+184	+85
Almora	349	261	167	35	30	10	+88	+5	+94	+20	+182	+25
Dehra Dun	407	309	190	165	111	54	+98	+54	+119	+57	+217	+111
<i>East Plain</i>	179	155	89	27	19	8	+24	+8	+66	+11	+90	+19
Gorakhpur	186	—	—	27	—	—	—	—	—	—	—	—
Deoria	148	—	—	25	—	—	—	—	—	—	—	—
Gorakhpur-cum-Deoria	167	126	64	26	14	5	+41	+12	+62	+9	+103	+21
Basti	134	129	69	12	9	4	+5	+3	+60	+5	+65	+8
Gonda	123	155	59	12	19	4	-32	-7	+96	+15	+64	+8
Bahraich	101	93	53	12	11	4	+8	+1	+40	+7	+48	+8
Banaras	259	279	174	52	46	20	-20	+6	+105	+26	+85	+32
Jaunpur	211	181	113	25	20	7	+30	+5	+68	+13	+98	+18
Ghazipur	223	187	130	42	32	13	+36	+10	+57	+19	+93	+29
Ballia	251	201	124	43	33	11	+50	+10	+77	+22	+127	+32
Azamgarh	201	146	96	25	18	8	+55	+7	+50	+10	+105	+17
<i>Central Plain</i>	203	163	88	57	34	10	+40	+23	+75	+24	+115	+47
Kanpur	344	255	139	119	76	21	+89	+43	+116	+55	+205	+98
Fatehpur	303	191	118	236	25	9	+112	+211	+73	+16	+185	+227
Allahabad	233	206	118	61	44	20	+27	+17	+88	+24	+115	+41
Lucknow	312	264	123	144	155	27	+48	-11	+141	+128	+189	+117
Unnao	150	145	85	26	18	8	+5	+8	+60	+10	+65	+18
Rae Bareli	163	129	70	19	11	5	+34	+8	+59	+6	+93	+14
Sitapur	116	122	54	22	16	7	-6	+6	+68	+9	+62	+15
Hardoi	146	135	63	27	24	9	+11	+3	+72	+15	+83	+18
Faizabad	176	126	83	23	19	6	+50	+4	+43	+13	+93	+17
Sultanpur	159	110	67	14	8	4	+49	+6	+43	+4	+92	+10
Pratapgarh	157	115	68	12	9	4	+42	+3	+47	+5	+89	+8
Bara Banki	114	104	57	17	13	5	+10	+4	+47	+8	+57	+12
<i>West Plain</i>	187	142	89	44	32	14	+45	+12	+53	+18	+98	+30
Saharanpur	170	163	85	36	38	14	+7	-2	+78	+24	+85	+22
Bereilly	138	121	75	48	35	15	+17	+13	+46	+20	+63	+33
Bijnor	205	146	80	50	34	16	+59	+16	+66	+18	+125	+34
Pilibhit	141	108	54	33	24	9	+33	+9	+54	+15	+87	+24

TABLE 360—Progress in literacy by natural divisions and districts, 1931—51—(contd.)

Natural division and district	Number per mille of each sex aged 5 years and over who were returned as literate									Variation 1941—51		Variation 1931—41		Net Variation 1931—51	
	Males			Females											
	1951	1941	1931	1951	1941	1931	M	F	M	F	M	F			
Rampur	122	110	34	44	9	3	+12	+35	+76	+6	+88	+41			
Kheri	101	72	49	21	7	6	+29	+14	+23	+1	+52	+15			
Muzaffarnagar	165	140	79	38	32	15	+25	+6	+61	+17	+86	+23			
Meerut	234	189	109	45	39	19	+45	+6	+80	+20	+125	+26			
Bulandshahr	211	149	94	35	24	11	+62	+11	+55	+13	+117	+24			
Aligarh	242	132	115	54	20	15	+110	+34	+17	+5	+127	+39			
Mathura	286	187	145	54	32	17	+99	+22	+42	+15	+141	+37			
Agra	264	207	143	70	50	26	+57	+20	+64	+24	+121	+44			
Mainpuri	202	146	96	48	37	15	+56	+11	+50	+22	+106	+33			
Etah	159	121	77	36	31	11	+38	+5	+44	+20	+82	+25			
Budaun	101	82	52	31	19	10	+19	+12	+30	+9	+49	+21			
Moradabad	145	133	73	50	51	17	+12	-1	+60	+34	+72	+33			
Shahjahanpur	126	106	70	27	27	13	+20	..	+36	+14	+56	+14			
Etawah	225	171	107	49	43	13	+54	+6	+64	+30	+118	+36			
Farrukhabad	221	161	103	54	41	17	+60	+13	+58	+24	+118	+37			
<i>Hills and Plateau</i>	219	196	123	35	25	11	+23	+10	+73	+14	+96	+24			
Jhansi	257	194	137	51	34	16	+63	+17	+57	+18	+120	+35			
Jalaun	246	223	145	47	29	12	+23	+18	+78	+17	+101	+35			
Hamirpur	207	184	116	26	21	7	+23	+5	+68	+14	+91	+19			
Banda	202	189	107	23	17	8	+13	+6	+82	+9	+95	+15			
Mirzapur	191	194	116	32	23	9	-3	+9	+78	+14	+75	+23			

Progress has occurred in every natural division for both sexes. The greatest increase has occurred during 1931—41 in all the natural divisions except in the case of males in the Himalayan division where the largest increase of 109 per mille was recorded between 1941 and 1951 against an increase of 81 between 1931 and 1941. The greatest increase between 1931 and 1951 in male literates per mille of males aged 5 years and over has occurred in the Himalayan division (190) and the least in the East Plain (90). The greatest increase in the female proportion has occurred in the Central Plain (47) and again the least in the East Plain division (19).

The variations in the districts have been more uneven. The changes in the male proportion vary between an addition of 141 per mille in Lucknow district and retrogression to the extent of 25 per mille in Tehri-Garhwal district between 1931 and 1941. The variation between 1941 and 1951 is between an addition of 154 per mille in Tehri-Garhwal and retrogression to 32 per mille in Gonda. Between 1931 and 1951 all the districts have registered an increase, the variation being between an addition of 229 in Garhwal district and of 48 in Bahraich district. The highest increases in female literacy were recorded by Lucknow district (128) between 1931 and 1941, by Fatehpur district (211) between 1941 and 1951 and again by Fatehpur district (227) between 1931 and 1951. The lowest variation was in Tehri-Garhwal district (-2) between 1931 and 1941, in Lucknow district (-11) between 1941 and 1951 and in the districts of Basti (+8), Gonda (+8), Bahraich (+8) and Pratapgarh (+8) between 1931 and 1951. It has not been possible to ascertain the causes of decrease in literacy during 1941—51 recorded by certain districts. It may be noted that the 1941 figures are based on the 'Y' Sample, which can show aberrations at the district level.

Rural-urban-city
literacy

10. Analysis of Table 361 shows that the urban population is much more literate than the rural. The male literacy is about three times as high in the urban areas and more than three times as high in the cities as in the rural areas, while the female literacy of the urban areas is more than nine times as great and that of the cities eleven times as great as that of the rural areas. This is but natural, for the urban areas are better provided with schools than the rural and the cities particularly contain a number of schools and most of the higher educational institutions. The urban areas, specially the cities, contain the principal law courts and government offices, and are the centres of commerce and industry. Most of the municipalities have introduced compulsory primary education. Lastly, in the towns there are fewer openings for the remunerative employment of children on wages, and they are required less for herding cattle and other simple occupations in which they join at an early age in the rural areas.

TABLE 361—Number per mille aged 5 years and over who are literate in rural, urban and city areas

Locality	Number returned as literate per mille aged 5 years and over		
	Persons	Males	Females
Uttar Pradesh	124	197	42
Rural	93	158	21
Urban	334	446	193
Cities	378	489	232

A better idea of the difference in level of literacy and about the relatively greater nearness of female literacy to the male literacy in the larger cities and their surrounding districts can be gathered from the figures in Table 362.

TABLE 362—Number per mille aged 5 years and over who are literate in the cities and their surrounding districts, 1951

Locality	Number per mille aged 5 years and over who are literate			Locality	Number per mille aged 5 years and over who are literate		
	Persons	Males	Females		Persons	Males	Females
Kanpur city	457	568	284	Rest of Aligarh district	125	205	31
Rest of Kanpur district	134	209	42	Rampur city	249	337	153
Lucknow city	439	527	320	Rest of Rampur district	32	54	6
Rest of Lucknow district	85	138	25	Gorakhpur city	439	585	257
Agra city	310	423	169	Rest of Gorakhpur district	86	158	14
Firozabad city	335	437	187	Jhansi city	367	513	197
Rest of Agra district	126	202	33	Rest of Jhansi district	127	215	28
Banaras city	236	318	148	Mathura city	425	542	266
Rest of Banaras district	141	246	33	Rest of Mathura district	153	253	31
Allahabad city	468	590	306	Shahjahanpur city	264	367	139
Rest of Allahabad district	91	158	20	Rest of Shahjahanpur district	62	99	14
Meerut city	393	469	269	Mirzapur city	333	483	161
Ghaziabad city	473	591	303	Rest of Mirzapur district	92	162	20
Rest of Meerut district	118	199	22	Faizabad city	391	523	220
Bareilly city	379	497	229	Rest of Faizabad district	85	154	13
Rest of Bareilly district	46	72	15	Farrukhabad city	361	478	201
Moradabad city	335	423	226	Rest of Farrukhabad district	130	200	43
Amroha city	229	322	136	Muzaffarnagar city	468	574	316
Sambhal city	178	234	110	Rest of Muzaffarnagar district	91	144	25
Rest of Moradabad district	67	103	23	Etawah city	367	482	225
Saharanpur city	287	405	130	Rest of Etawah district	132	209	38
Hardwar city	456	760	123	Budaun city	329	421	218
Rest of Saharanpur district	81	127	24	Rest of Budaun district	59	88	23
Dehra Dun city	518	617	357	Jaunpur city	349	462	218
Rest of Dehra Dun district	207	298	80	Rest of Jaunpur district	109	201	19
Aligarh city	376	487	237	Pilibhit city	337	433	220
Hathras city	383	545	190	Rest of Pilibhit district	68	112	15

It would be seen that the cities of highest literacy are Dehra Dun, Ghaziabad, Allahabad, Muzaffarnagar, Kanpur, Hardwar and Lucknow. The cities with the lowest literacy figures are Sambhal and Amroha.

In 1921 the number returned as literate per mille aged 5 years and over in the 24 cities was 157 (males 236, females 55). It increased in 1931 for 23 cities to 204 (males 296, females 82), and in 1951 for the 30 cities to 378 (males 489, females 232). The addition to the proportion of male literates in the cities since 1931 is about twice that in the State as a whole and to that of female literates nearly 5 times that in the whole State.

11. Table 363 shows the distribution of literates and illiterates of each sex by age-groups.

Literacy by age-groups

TABLE 363—*Distribution of literates and illiterates of each sex by age-groups, 1951*

Age-group	Number per 10,000 literates			Number per 10,000 illiterates		
	Persons	Males	Females	Persons	Males	Females
5—9	582	519	917	1,605	1,682	1,531
10—14	1,795	1,743	2,074	1,363	1,378	1,350
15—24	2,618	2,519	3,146	1,863	1,767	1,954
25—34	2,005	2,052	1,754	1,727	1,687	1,765
35—44	1,346	1,411	997	1,385	1,408	1,362
45—54	916	976	601	1,051	1,087	1,018
55—64	479	505	344	617	630	604
65—74	186	198	120	268	254	281
75 and over	72	76	45	119	105	133
Age not stated	1	1	2	2	2	2

It is noticeable that the age-groups 5—9 and 10—14 together account for 29·7 per cent. (males 30·6, females 28·8) of the illiterates aged 5 years and over. The most effective way of removing illiteracy is to provide schooling to the boys and girls below 15 years of age. Of the boys and girls of ages 5—14 only 10·2 per cent. (boys 15·4, girls 4·3) are literate and the rest are illiterate. The figures of literates for 1941 and 1931 were 7·2 (boys 11·0, girls 2·9) and 3·3 per cent. (boys 5·3, girls 1·0) respectively.

12. The number per mille aged 5 years and over who are literate in rural, urban and city population is shown by age-groups in Table 364.

TABLE 364—Number of literates per mille by age-groups in rural, urban and city population, 1951

Age-group	Persons			Males			Females		
	Total	Rural	Urban City	Total	Rural	Urban City	Total	Rural	Urban City
	5 and over	124 93 334 378	197 158 446 489	42 21 193 232			
5—9	49 34 166 200	71 53 203 244	25 13 125 152				
10—14	158 124 385 422	237 202 471 505	63 31 281 327				
15—24	166 121 430 481	259 204 558 611	66 34 270 314				
25—34	142 105 371 421	230 183 502 547	42 20 196 234				
35—44	121 92 314 348	198 159 433 460	31 15 149 179				
45 and over	103 78 279 315	172 137 409 442	23 11 114 143				

The hiatus between the rural and urban literacy and urban and city literacy is striking, both in the case of males and females in each age-group. It will also be observed that for each sex in the total population the proportion rises between age-groups 5—9 and 10—14, 10—14 and 15—24, falling gradually in the succeeding age-groups.

The comparative figures for the State as a whole for 1941 and 1951 are illustrated in Figure 32. It will be seen that there is a rise in literacy in all age-groups. But the biggest increase in literacy during this decade has been registered by the age-group 10—14, the direct result of the expansion of primary education.

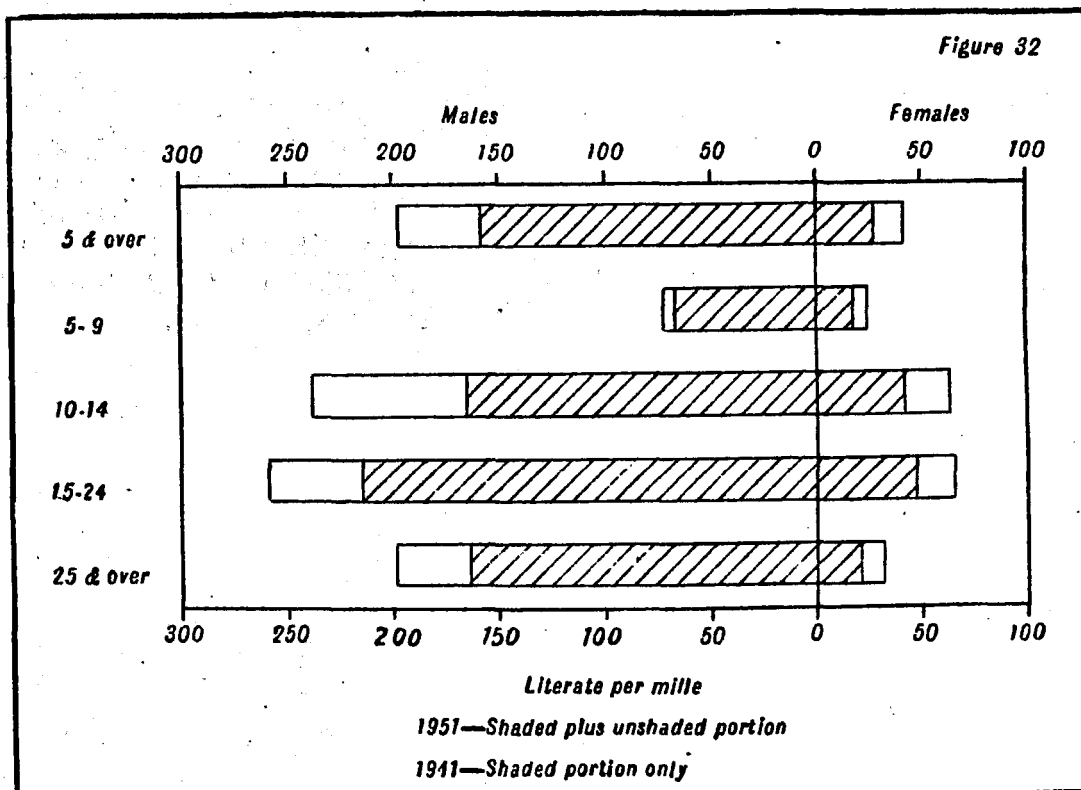


FIG. 32—Number of literates per mille of each sex in certain age-periods, 1941 and 1951

13. Table 365 shows the number of literate males and females per 1,000 of each sex in certain age-groups in the State and the natural divisions for 1941 and 1951.

TABLE 365—*Progress of literacy between 1941 and 1951 by natural divisions*

Age-group	Year	Sex	Population	Number of literates per 1,000 of the age-group in					
				Uttar Pradesh	Himalayan	East Plain	Central Plain	West Plain	Hills and Plateau
5—9	1951	Males	Total ..	71	147	64	70	68	75
			Rural ..	53	129	56	43	49	60
			Urban ..	203	339	185	273	167	180
		Females	Total ..	25	40	16	37	25	20
			Rural ..	13	21	10	20	9	8
			Urban ..	125	260	111	169	101	101
5—14	1941	Males	Total ..	66	123	65	67	57	83
		Females	Total ..	19	31	14	22	20	20
	1951	Males	Total ..	154	318	137	144	157	157
			Rural ..	127	301	125	105	125	131
			Urban ..	345	470	311	411	316	330
		Females	Total ..	43	69	26	58	47	35
Rural ..			21	39	17	28	19	14	
Urban ..			204	417	163	271	176	177	
5 years and over	1941	Males	Total ..	110	193	107	111	97	138
		Females	Total ..	29	42	20	33	32	30
	1951	Males	Total ..	197	354	179	203	187	219
			Rural ..	158	319	160	150	139	186
			Urban ..	446	609	419	513	408	418
		Females	Total ..	42	51	27	57	44	35
Rural ..			21	27	17	29	17	15	
Urban ..			193	356	157	253	170	163	
15 years and over	1941	Males	Total ..	158	245	155	163	142	196
		Females	Total ..	29	33	19	34	32	25
	1951	Males	Total ..	215	368	199	227	198	247
			Rural ..	171	325	177	169	144	211
			Urban ..	481	649	461	546	441	453
		Females	Total ..	41	45	27	56	43	35
Rural ..			20	22	17	29	17	16	
Urban ..			188	331	155	246	167	158	
1941	Males	Total ..	178	264	176	183	160	219	
	Females	Total ..	29	29	19	35	33	23	

It will be noted that literacy amongst boys aged 5—9 years has increased since 1941 in all the natural divisions except the East Plain and the Hills and Plateau which show a fall of 0·1 and 0·8 per cent. respectively. The highest increase of 2·4 per cent. is recorded by the Himalayan division. Female literacy in this age-group has generally increased everywhere, the largest increase being of 1·5 per cent. in the Central Plain division. Furthermore, very

significant differences will be observed in the figures for rural and urban areas specially in the case of females. The percentage of literacy amongst females is almost negligible in the rural areas, the highest figure being only 2.1 per cent. in the Himalayan division.

The percentage of literacy in the State in the age-group 5—14 in 1951 is 15.4 for boys and 4.3 for girls as against 11.0 for boys and 2.9 for girls in 1941. The highest increase in the case of boys has taken place in the Himalayan division (12.5 per cent.) followed by the West Plain (6.0), while the highest increases in female literacy in this age-group are recorded by the Himalayan (2.7) and the Central Plain (2.5) divisions. The lowest increases for both males and females will be found in the Hills and Plateau division (males 1.9, females 0.5). The variations between the rural and urban figures for 1951 in each natural division and between natural divisions are significant. The Himalayan division leads both in rural and urban literacy for boys as well as girls.

The age-group 5 and upwards gives a fair idea of the over-all literacy position in the State and the natural divisions. The highest increases since 1941 are recorded by the Himalayan (10.9 per cent.) for males and the Central Plain (2.3) for females and the lowest by the East Plain both in case of males (2.4) and females (0.8). The highest rural and urban literacy (31.9 and 60.9) in 1951 for males is recorded in the Himalayan division, while the highest rural literacy for females is found in the Central Plain (2.9) and urban literacy in the Himalayan division (35.6).

The Himalayan division maintains its lead in the increase in male literacy since 1941 in the age-group 15 and over, the increase being 10.4 per cent. The East Plain (2.3) has recorded the lowest increase. In case of females the highest increase will be found in the Central Plain (2.1) and the lowest in the East Plain (0.8). Further, in 1951 the Himalayan division records a substantial lead in male literacy over the other natural divisions, while in female literacy the highest figure for rural literacy is recorded by the Central Plain (2.9) and that for the urban literacy by the Himalayan division (33.1) again.

The semi-literates

14. In this census the number of persons who can read but cannot write was separately obtained. They have not been counted as literates. They may be classed as semi-literates. They are principally the products of our schemes of adult education. Some also represent a relapse into semi-literacy after a year or so at the primary school. Their number for the State is 6.47 lakhs (males 4.84 lakhs, females 1.63 lakhs). Their distribution in the various natural divisions is given in Table 366.

TABLE 366—*Semi-literates in 1951 by natural divisions*

(Figures in thousand)

Natural division	Persons	Males	Females
Uttar Pradesh	647	484	163
Himalayan	26	23	3
East Plain	160	131	29
Central Plain	184	134	50
West Plain	220	166	54
Hills and Plateau	57	30	27

SECTION 3—LITERACY BY LIVELIHOOD CLASSES AND EDUCATIONAL STANDARDS

1. A brief discussion may now be directed to the distribution of literacy among the eight livelihood classes and the various educational levels. It has already been said earlier that the statistics for literates in the different livelihood classes by educational standards were collected for the first time at the 1951 census and they have been shown in Table D-VII, Livelihood classes by educational standards, given in Part II-C of the Report. The statistics for educational standards, however, cannot be safely accepted as accurate. It is likely that the educational standards are intermixed and in the case of degrees and other higher qualifications there may be under-enumeration.

Introductory

2. There are differences in literacy among the livelihood classes. Table 367 gives the proportions in each livelihood class by sex for the general, rural and urban population of the State.

Literacy by livelihood classes

TABLE 367—Number of literates per 1,000 of general, rural and urban population in each livelihood class by sex

Livelihood class	General			Rural			Urban		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
All classes ..	108	174	36	78	136	15	300	401	176
I ..	80	142	14	78	139	13	197	303	68
II ..	41	74	5	38	69	4	103	166	32
III ..	19	33	3	18	32	2	53	88	13
IV ..	253	396	134	180	313	75	591	726	447
V ..	148	227	54	88	149	17	235	337	111
VI ..	288	410	150	179	302	42	363	482	225
VII ..	222	296	131	126	195	46	281	355	187
VIII ..	201	282	106	98	161	28	339	436	217

It will be seen that in the total population the percentage of literacy varies from 1·9 (males 3·3, females 0·3) in the case of Livelihood Class III, Cultivating labourers, to 28·8 (males 41·0, females 15·0) for that of Livelihood Class VI, Commerce. Further, it appears that the literacy of the agricultural classes is generally low with the exception of Class IV, Non-cultivating owners of land and agricultural rent receivers, whose literacy is very high and a second to that of Class VI, Commerce. The non-agricultural classes are relatively more literate. The largest percentage of literacy is found in Class VI, Commerce, followed in order among non-agricultural classes by Class VII, Transport, Class VIII, Other services and miscellaneous sources, and Class V, Production other than cultivation. The same trends are observed in respect of males and females in the general population. The position in rural population is similar except that Classes IV and VI have interchanged places and the former stands first in percentage of both male and female literacy. In the urban population also Class IV leads the other livelihood classes and Class III is the most backward. While in the rural population the third place in literacy is taken by Class VII, it has changed place with Class VIII in the urban population.

A literacy differential exists not only between one class and another but also between rural and urban areas and between one sex and the other. The literacy percentage is higher for all the livelihood classes in the urban areas than that of the rural areas. In the rural areas the percentage of literacy varies between 1·8 for Class III to 18·0 in Class IV, while in the urban areas the variation is between 5·3 per cent. in Class III to 59·1 per cent. in Class IV. It is significant that male and female literacy approach greater equality in each class in the urban than in the rural population.

The reasons for the differentials in literacy are not far to seek. The cultivating labour class comprises of the poorest people who are not able to spare money as well as the children of school-going age for education. Their boys and girls are required to work at an early age and thus supplement the poor resources of the family. Non-cultivating owners of land and agricultural rent receivers, on the other hand, enjoy a higher social and economic status and their children are not driven to work at the school-going age. Agricultural Classes I and II occupy an intermediate position. Among the non-agricultural classes, Class VI, Commerce, contains the highest percentage of literate males and females. The reasons for this are also obvious. Their boys and girls must be given some education for ultimately carrying on the family business. The other classes have also high literacy percentage because literacy helps them in their occupation. The rural-urban differences in literacy have already been treated in the previous sections. The wide gulf between them in case of each class suggests that the urban people are relatively modernized; they have got greater means and facilities for education; and their children are not required to work in the family occupation at an early age.

Literacy in livelihood classes by natural divisions

3. The natural divisions present roughly the same picture as the State as a whole, as Table 368 shows. In all the natural divisions the agricultural Livelihood Class IV and the non-agricultural Livelihood Classes VI, VII and VIII lead in literacy, although between them they have sometimes interchanged positions. Literacy is the lowest in Livelihood Class III almost everywhere and the others, from this end of the scale, are Classes II, I and V in case of all the natural divisions. Some reasons for this have already been suggested in the previous paragraph.

TABLE 368—Number of literates per 1,000 of population of each sex in livelihood classes by natural divisions

Livelihood class	Uttar Pradesh		Himalayan		East Plain		Central Plain		West Plain		Hills and Plateau	
	Males	Fe-males	Males	Fe-males	Males	Fe-males	Males	Fe-males	Males	Fe-males	Males	Fe-males
All classes	174	36	313	54	157	23	177	42	166	41	196	27
I	142	14	272	17	145	15	129	12	125	14	190	14
II	74	5	136	8	62	3	83	5	69	8	79	4
III	33	3	107	13	25	2	32	3	42	3	24	3
IV	396	134	600	291	435	128	426	132	371	146	313	67
V	227	54	320	126	212	36	287	89	199	46	213	32
VI	410	150	571	316	393	97	433	177	390	158	443	94
VII	296	131	457	253	310	100	350	182	248	115	304	121
VIII	282	106	507	247	279	78	316	140	239	90	327	85

Literates by educational standards

4. Of 6,825,072 literates in the State only 1,002,986 or 14.7 per cent. have attained the Middle School or higher standard of education. Of them 484,660 or 7.1 per cent. have attained only the Middle School standard, 240,359 or 3.5 per cent. are Matriculate or S. L. C. or Higher Secondary, 60,257 or 0.9 per cent. are Intermediate in Arts or Science and only 217,710 or 3.2 per cent. have attained some degree or diploma. Among the degree and diploma holders 44,372 or 0.7 per cent. of the total literates are Graduates in Arts or Science, 12,777 or 0.2 per cent. are Post-graduates in Arts or Science and the rest hold degrees or diplomas in Teaching (19,891), Engineering (1,759), Agriculture (1,484), Veterinary (549), Commerce (2,211), Law (8,698), Medicine (4,991) and in other subjects (120,978). Table 369 shows the distribution of literates in the general, rural and urban population of the State according to educational standards.

SECTION 3—LITERACY BY LIVELIHOOD CLASSES AND EDUCATIONAL STANDARDS 399

TABLE 369—Number of literates per 1,000 of each sex according to educational standards in general, rural and urban population of the State, 1951

Educational standard	General			Rural			Urban		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
All educational standards	108	174	36	78	136	15	300	401	176
Literate	92	147	32	70	120	14	237	304	155
Middle School	8	13	2	5	10	1	23	34	10
Matriculate or S. L. C., Higher Secondary	4	6	1	1	2	..	20	33	5
Intermediate in Arts or Science	1	2	..	..	1	..	6	9	1
Degrees or Diplomas	3	6	1	2	3	..	14	21	5
Graduates in Arts or Science	1	1	..	..	..	..	5	7	1
Post-graduates in Arts or Science	..	1	..	..	..	..	1	2	..
Teaching	..	1	..	..	..	..	1	2	1
Engineering	..	..	..	..	..	..	..	..	..
Agriculture	..	..	..	..	..	..	..	..	..
Veterinary	..	..	..	..	..	..	..	..	..
Commerce	..	..	..	..	..	..	..	..	..
Legal	..	..	..	..	..	..	1	2	..
Medical	..	..	..	..	..	..	1	1	..
Others	2	3	1	2	3	..	5	7	3

The figures call for no special comments.

It is, however, interesting to record that of the Middle School passed only 59 per cent. were enumerated in the rural areas of the State and 41 per cent. in the urban areas; of the Matriculates or S. L. C. or Higher Secondary only 27 per cent. were found in the rural areas and 73 per cent. in the urban areas; of the Intermediates in Arts or Science only 18 per cent. were recorded in the rural areas and 82 per cent. in the urban areas; of the Degree or Diploma holders 46 per cent. were enumerated in the rural areas and 54 per cent. in the urban areas; and of those who were simply literates 65 per cent. were found in the rural parts of the State and the rest 35 per cent. in the urban parts. The figures of Degree and Diploma holders in the rural areas appear to be inflated. To some extent this may be due to the number of persons who have attained education in Sanskrit.

5. The figures of literates by educational standards in each livelihood class afford useful information. These are shown in Table 370.

Literates by educational standards in each livelihood class

TABLE 370—Number per 1,000 of each sex in each livelihood class by educational standards

Livelihood class	Literate	Middle School	Matriculate or S. L. C., Higher Secondary	Intermediate in Arts or Science	Total Degrees or Diplomas
All classes—					
Persons	92	8	4	1	3
Males	147	13	6	2	6
Females	32	2	1	..	1
I Persons	72	5	1	..	2
Males	128	9	2	..	3
Females	14	..	..	..	..
II Persons	37	2	1	..	1
Males	65	4	1	1	2
Females	5	..	..	..	..
III Persons	18	1	..	..	..
Males	31	1	..	..	1
Females	2	1	..	..	..
IV Persons	208	20	12	4	9
Males	308	38	25	9	16
Females	125	4	2	1	2
V Persons	131	8	5	1	3
Males	200	12	8	2	5
Females	50	2	1	..	1
VI Persons	252	17	10	2	7
Males	351	25	17	5	12
Females	139	7	2	..	2
VII Persons	169	16	24	4	9
Males	213	22	39	7	15
Females	114	9	4	1	3
VIII Persons	144	23	16	5	13
Males	191	36	27	7	21
Females	89	8	4	1	4

It is interesting to note that Class VIII, Other services and miscellaneous sources, leads in higher education and Classes VI, Commerce, and IV, Non-cultivating owners of land and agricultural rent receivers which lead in general literacy are left behind. A considerable proportion of persons in Class VIII is engaged in public health, education and public administration services for which they are required to attain higher educational standards while the education up to the matriculate standard is generally sufficient for the requirements of the business community and the agricultural rent receivers. Class VII, Transport, which includes railway, is a close second to Class VIII, with the highest proportion of matriculates.

6. The distribution of the total literates in the State and the natural divisions among the different educational standards is exhibited in Table 371.

TABLE 371—Number per 1,000 of each sex in natural divisions by educational standards

Educational standard	Uttar Pradesh		Himalayan		East Plain		Central Plain		West Plain		Hills and Plateau	
	M	F	M	F	M	F	M	F	M	F	M	F
All educational standards	174	36	313	54	157	23	177	42	166	41	196	27
Literate	147	32	262	46	128	21	152	38	140	37	175	25
Middle school	13	2	29	5	14	1	12	2	13	2	11	1
Matriculate or S. L. C., Higher Secondary	6	1	13	2	4	..	7	1	7	1	5	1
Intermediate in Arts or Science	2	..	3	..	1	..	2	..	2	..	1	..
Degrees or Diplomas	6	1	6	1	10	1	4	1	4	1	4	..
Graduates in Arts or Science	1	..	2	..	1	..	2	1	1	..	1	..
Post-graduates in Arts or Science	1	..	1	..	..	..	1	..	..	..	..	..
Teaching	1	..	1	..	..	..	..	..	1	..	1	..
Engineering	..	..	..	..	..	..	..	..	..	..	..	..
Agriculture	..	..	..	..	..	..	..	..	..	..	..	..
Veterinary	..	..	..	..	..	..	..	..	..	..	..	..
Commerce	..	..	..	..	..	..	..	..	..	..	..	..
Legal	..	..	..	..	..	..	..	..	..	..	..	..
Medical	..	..	..	..	..	..	..	..	..	..	..	..
Others	3	1	2	1	9	1	1	..	2	1	2	..

It will be seen that the Himalayan division leads in all the educational standards except in Degrees or Diplomas in which it is a second to the East Plain. The figures of East Plain for Degrees and Diplomas are high not because of the fact that this division has got a relatively higher proportion of Graduates or Post-graduates in Arts or Science but because it has probably a larger number of scholars in oriental learning.

SECTION 4—EDUCATION, EDUCATIONAL SERVICES AND RESEARCH

1. Most of the statistics relating to education dealt with in this section have kindly been supplied by the Director of Education.* The data regarding educational services and research is to be found in Subsidiary Table 7-3 in Part I-B of the Report. The educational services have been classed under the following three categories :

Introductory

- (i) Managers, clerks and servants of educational and research institutions including libraries and museums, etc.
- (ii) Professors, lecturers and teachers other than those employed in universities, colleges and research institutions.
- (iii) Professors, lecturers, teachers and research workers employed in universities, colleges and research institutions.

2. Table 372 gives the statistics of educational institutions and of scholars attending them at each of the last six census years, obtained from the Director of Education, and compares them with the number of census literates.

Number of educational institutions and scholars

TABLE 372—Number of educational institutions, scholars and census literates in the State, 1901—51

Year	Number of educational institutions	Number of scholars	Number of census literates	Number of persons of school-going age (5—20)	Number of persons aged 5—20 per educational institution
1901	13,920	433,499	1,478,865†	15,562,743	1,118
1911	15,525	645,787	1,618,465	15,447,359	995
1921	21,268	1,047,761	1,688,872	15,134,557	712
1931	25,957	1,512,747	2,259,638	15,824,185	610
1941	26,273	1,881,655	4,633,787	18,133,100	690
1951‡	39,821	3,671,913	6,825,072	21,212,610	533

These figures show unmistakably the remarkable improvement that has taken place in education since 1901. In the last 50 years the number of institutions has increased by 186 per cent. and that of scholars by 747 per cent. Meanwhile the number of census literates has risen by more than 361 per cent. while the number of persons aged 5—20 has increased by only 36 per cent.

Between 1921 and 1951, institutions have increased by 87 per cent. and the number of scholars by more than 250 per cent. The census literates have increased by 304 per cent. during this period while the number of persons of school-going age has increased by 40.2 per cent. only.

In the last decade, institutions have increased by about 52 per cent. while scholars have risen by 95 per cent. Scholars have continued to increase in number during the decade. Census literates have also increased considerably.

3. The figures of primary education are of great importance. They throw light on the progress of literacy. Table 373 gives the main relevant statistics for the last six census years.

Primary education

TABLE 373—Progress of primary education in the State and the number of census literates under 15 years of age, 1901—51

Year	Number of primary schools	Number of scholars	Number of census literates under 15	Number of census literates under 15 per mille of scholars in primary schools
1901	6,982	276,396	191,710†	694
1911	10,008	469,862	258,264	550
1921	16,368	848,356	256,429	302
1931	21,596	1,204,214	386,299	328
1941	19,914	1,372,406	974,800	710
1951‡	31,985||	2,728,210||	1,607,120	589

* The figures obtained from the office of the Director of Education for 1949 and 1951 may be treated as provisional.

† The figure was unduly high because of the defective definition of literacy adopted in 1901.

‡ The figures for 1951 relate to the State while the figures for the censuses prior to it do not include the statistics for the former states of Tehri-Garhwal, Rampur and Banaras.

|| The figures include those for nursery schools and scholars.

Figure 33 illustrates the total number of census literates and that of scholars of primary schools since 1901.

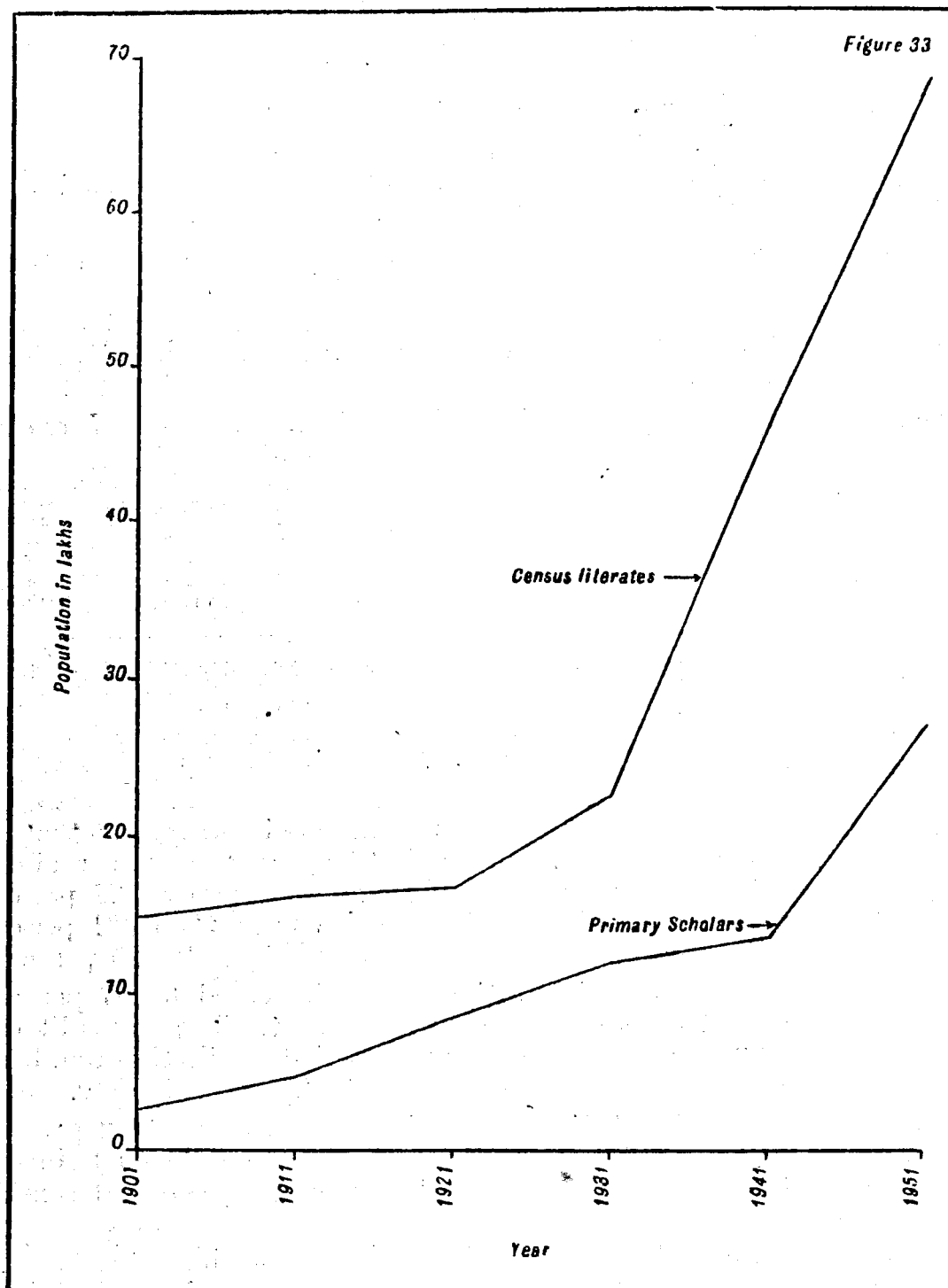


FIG. 33—Number of census literates and primary scholars since 1901

The statistics are interesting. The average number of scholars per school on the attendance rolls of primary schools was 40 in 1901, 56 in 1931 and 85 in 1951. This shows that schools are gradually becoming larger. Further, the number of primary schools and scholars has been steadily rising except for the year 1941 when the number of primary schools actually declined. The Basic Primary Education in this State was introduced as early as 1938 but no attempt was made at its expansion till 1947. According to the Director of Education it was found that only 1,500,000 children within the age-range of 6—11 were receiving schooling out of the total of 5,800,000 that needed such provision. A ten-year Primary Education Plan was drawn up with the object of opening 22,000 three-teachers primary schools. Buildings were to be raised by the public as a subsidiary basis at Rs. 1,000 per building as government grant-in-aid. The public was found to be very enthusiastic over the scheme which was converted into a Five-Year Plan. In the first three years 11,000 schools were opened. The tempo of the expansion had to be slowed down after 1950 owing to financial stringency. By 1951 the number of

primary schools was 31,985 and more than 27 lakhs of children were receiving schooling. The number of children getting primary education has increased to about 35 lakhs in 1952. 20 districts have reached almost the saturation point and in them schools are available for all scholars for the age-range 6—11 within $1\frac{1}{2}$ miles of their residence. There is compulsion in 86 municipal boards and 357 rural areas. Education is given through the media of crafts and the possibility of making the school self-supporting to some extent is being explored. A Marketing Officer is looking after the sale and disposal of the produce in crafts. The supply of the increased demand for trained teachers was met by opening 7 Basic Training Centres, by raising the number of Normal Schools and by starting 50 Mobile Training Squads which train the teachers without detaching them from work.

4. The existing framework of secondary education came into existence in 1921. Before that date secondary education had no identity of its own. It continued to be dominated by the universities till the Sadler Commission recommended the creation of the separate unit for Classes XI and XII. A Board of High School and Intermediate Education was founded in the State to regulate courses of study and to conduct examinations. The measure of reform resulted in a very large increase in the number of scholars and it needed only a few years to show that there were gaps in the system. The education was too literary and without direction. It remained divorced from the social realities and the economic needs of the times. The result was unemployment on a large scale. With the assumption of office by the popular Ministry in 1937 a committee was appointed under the presidentship of Acharya Narendra Deva to examine the whole educational system with its cognate problems. The committee made certain far-reaching recommendations. A few of the proposals in regard to the primary education were given effect to immediately but those relating to the secondary education could not be taken in hand because of the resignation of the Ministry. On resumption of office in 1946 the Congress Ministry started where it had left. The aim was to provide to the scholars training as workers and producers to instil in them the virtues of citizenship and to enable them to realise their own potentialities. The rapidly expanding Basic Primary Education also warranted a reorientation at the secondary stage. The change to be brought in was both qualitative as well as quantitative. It meant not only an increase in the number of schools to be opened but also the provision of such syllabuses for secondary schools as would provide for courses of study properly correlated to those of the primary education. The State was committed to the task of providing an education for its children which should be suited to their age, ability and aptitude.

Secondary
education

Secondary education at present has two stages :

- (i) The Junior High School Stage comprising Classes VI, VII and VIII, and
- (ii) The Higher Secondary Stage comprising Classes IX, X, XI and XII.

(i) *The Junior High School Stage*—There were before the reorganization two types of Junior High Schools (i) Hindustani Middle Schools and (ii) Anglo-Hindustani Middle Schools. The distinction between Hindustani Middle School and Anglo-Hindustani Middle School has been done away with. There is now only one type of school called the Junior High School and only one syllabus. This school forms the bedrock of the State educational framework. The subjects of study are :

- (A) Art is compulsory and with it one of the Basic Crafts from amongst Spinning and Weaving, Wood Craft, Metal Craft, Book Craft, Agriculture, Rural Knowledge and House Craft (for girls only).
- (B) The other compulsory subjects are language, i. e., Hindi, Mathematics (Arithmetic, Algebra and Geometry), Social Studies (History, Geography and Civics) and Physical Culture.
- (C) Two of the following optional subjects have also to be taken: Music, Physiology and Hygiene, one Classical Language, Commerce, English, a Modern Indian Language and General Science.

In addition, a student may take one more optional as a non-examination subject. It is proposed to make General Science a compulsory subject but so long as all the Junior High Schools are not in a position to provide for its teaching, it will remain as optional. Provision is being made to introduce

General Science in schools, and so far some 500 schools have been provided with qualified staff, furniture and equipment at government cost. Table 374 gives an idea of increase in the number of schools and scholars during the last 30 years.

TABLE 374—*Number of Junior High Schools in the State and scholars attending them, 1920—51*

Type of school	Year	Number of institutions	Number of scholars
Middle School—			
Boys	1920	560	50,184
Girls	1920	112	10,957
Middle School—			
Boys	1930	772	93,503
Girls	1930	212	27,366
Middle School—			
Boys	1940	964	124,659
Girls	1940	383	62,129
Junior High School—			
Boys	1949	1,733	203,048
Girls	1949	460	72,672
Junior High School—			
Boys	1951	2,386	278,339
Girls	1951	468	69,798

The enormous increase in the number of schools and scholars required the supply of an increased number of trained teachers every year. In 1950-51 there were still out of a total of 11,923 men and 2,905 women teachers, 3,043 men and 932 women teachers untrained respectively. To provide for the training of the teachers for the Junior High Schools a new course called the J. T. C. was instituted in 1948. Eight Government Normal Schools have been converted into Junior Training Colleges. Some private training institutions have also been allowed to run J. T. C. Courses. The number of all such institutions is 14. The average output works out to be about 1,500. The syllabus of Junior High School Training course has been improved and has been brought in line with the course of the syllabus of Junior High Schools.

(ii) *The Higher Secondary Stage*—It comprises Classes IX, X, XI and XII. The policy is that an institution should steadily either have all these four classes or should be reduced to a Junior High School. Every year a number of High Schools (boys and girls) are raised to the status of full Higher Secondary School. One significant feature of the scheme is the provision of four types of courses for students. This was found necessary for providing such variety of instruction and training as may be made available to scholars with differing aptitudes, preferences and abilities. The four types of courses are :

- (1) Literary,
- (2) Scientific,
- (3) Constructive, and
- (4) Aesthetic.

The Constructive courses are entirely new in nature. The new course upholds the dignity of manual labour and while giving sound general education, helps the scholars to acquire such proficiency in vocation as will help them in settling down as workers and producers. The crafts taught in these schools are, Wood Craft, Book Craft, Metal Craft, Commerce, Spinning and Weaving, Agriculture, Industrial Chemistry, Ceramics, Tailoring, Leather Work and Home Science (for girls only). The Aesthetic type of school

provides the scholars the opportunity of learning an Art and earning a living out of it. Instruction in General Knowledge and Physical Culture is compulsory at this stage. English has now become one of the optional subjects instead of compulsory except in a particular group or groups with which it has to be taken as a compulsory subject. Hindi has been made the medium of instruction.

As is shown in Table 375 there has been phenomenal increase in the number of aided and recognized Secondary Schools during the last 30 years due to the voluntary efforts of a public which is keen to have wider facilities for Higher Secondary Education.

TABLE 375—Number of institutions giving higher secondary education in the State and the number of scholars attending them, 1920—51

Year	Institutions	Number	Scholars
1920	Arts Colleges—		
	Boys	15	5,377
	Girls	7	81
	High Schools—		
	Boys	176	47,229
	Girls	45	5,168
1930	Inter. Colleges—		
	Boys	33	4,866
	Girls	3	155
	High Schools—		
	Boys	174	72,425
	Girls	28	5,770
1940	Inter. Colleges—		
	Boys	49	7,529
	Girls	9	468
	High Schools—		
	Boys	241	102,985
	Girls	49	14,353
1949	Higher Secondary Schools—		
	Boys	647	258,985
	Girls	127	38,556
1951	Higher Secondary Schools—		
	Boys	833	359,580
	Girls	154	57,825

Consequent on the enormous increase in the number of higher secondary institutions it became necessary to increase the yearly supply of the teachers. There are at present two Government Training Colleges for men and one for women besides a dozen recognized training colleges run by different Degree Colleges. There are three training colleges run by the Universities of Banaras, Aligarh and Lucknow. In all there were 16 training colleges in 1951 which trained 1,958 teachers.

5. The higher education has also been progressing steadily since 1930-31. It will be observed from the data shown in Table 376 that between 1930-31 and 1950-51 the number of students has increased by 380.9 per cent. in

Higher
education

the Universities, by 275·5 per cent. in the Arts Colleges and by 593·0 per cent. in the Professional Colleges.

TABLE 376—Number of institutions of higher education in the State and the number of scholars attending them, 1930-31—1950-51

Particulars	1950-51		1945-46		1940-41		1935-36		1930-31	
	Institu- tions	Scholars	Institu- tions	Scholars	Institu- tions	Scholars	Institu- tions	Scholars	Institu- tions	Scholars
Universities*—										
Boys ..	6 {	18,468	5 {	10,335	5 {	7,949	5 {	6,556	5 {	4,173
Girls ..		1,602		—		—		—		
Arts Colleges†—										
Boys ..	29	24,046	107	17,087	65	10,839	43	8,937	43	6,760
Girls ..	3	1,966	20	1,341	13	722	8	335	6	168
Professional ‡ Colleges—										
Boys ..	211	22,429	12	11,133	11	6,989	8	4,461	9	3,508
Girls ..	36	1,945	3	114	..	22	..	10	..	9

Expenditure on
education

6. Of the budgeted amount for education Rs.5,737,977 or 8·1 per cent. was spent on the Universities, Arts and Professional Colleges, Rs.16,362,316 or 23 per cent. was spent on secondary education (including Intermediate classes), Rs.32,050,640 or 45·1 per cent. was spent on primary education and Rs.16,862,735 or 23·8 per cent. was spent on special education, inspection and direction, etc. The details of total expenditure including expenditure from government funds, district boards, municipal boards, fees, endowments and other sources since 1930-31 are given in Table 377.

*The figures of scholars in Universities include only those in the university departments.

†The figures in 1950-51 are for Colleges for general education.

‡The number of scholars in Professional Colleges include the students reading in the professional departments attached to the Universities and Degree Colleges (i.e., students of law, commerce, engineering and medicine).

TABLE 377—Expenditure on education in the State, 1930-31—1950-51*

Particulars	Total expenditure in—									
	1950-51†		1945-46		1940-41		1935-36		1930-31	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
Direction and inspection ..	4,322,731	303,093	2,528,434	..	1,725,761	..	1,727,849	..	1,565,943	..
Universities	19,348,221	..	8,231,539	..	5,503,277	..	4,707,590	..	4,849,823	..
Board of Secondary education ..	2,163,269	..	619,242	..	297,833	..	267,367	..	216,350	..
Miscellaneous	22,039,636	1,708,549	12,049,441	..	7,507,432	..	6,042,364	..	7,639,348	..
Unrecognised	173,376	4,309	—	—	—	—	—	—	—	—
Arts Colleges	4,849,799	381,727	1,434,780	49,229	1,053,605	44,162	1,035,697	35,054	821,419	36,671
Professional Colleges	10,181,364	892,149	2,333,846	39,566	1,089,102	..	705,564	..	1,231,065	..
High Schools including Inter. Colleges	33,978,837	6,046,726	12,526,497	2,505,109	9,456,252	1,470,129	8,310,269	1,083,487	7,099,899	851,243
Middle Schools	10,509,364	2,840,536	3,709,053	1,911,744	2,731,197	1,346,950	2,543,700	1,228,475	2,458,594	907,441
Primary Schools	32,774,849	3,401,848	8,962,215	944,675	9,087,805	697,552	8,731,053	685,267	8,570,765	611,510
Special Schools	7,274,563	129,511	1,908,366	401,501	1,682,451	302,759	1,617,453	227,980	1,829,610	238,677
Grand total (males and females) ..	163,324,457		60,155,237		43,996,267		38,949,169		38,928,358	

*The figures for direction and inspection and miscellaneous prior to 1950-51 include the figures of females also.

†The figures for 1950-51 are of whole Uttar Pradesh and prior to it the figures do not include the figures for the former states of Tehri-Garhwal, Rampur and Banaras.

It will be observed that since 1930-31 the expenditure on primary education has risen by 294·0 per cent. and that on secondary education has increased by 371·6 per cent.

Information regarding the sources that meet the expenditure on education may be interesting. The statistics for 1950-51 are shown in Table 378.

TABLE 378—General summary of expenditure on education in Uttar Pradesh, 1950-51

Type of institution	Expenditure on education for boys							
	Total expenditure	Percentage of expenditure from						
		Government funds	District Board funds	Municipal Board funds	Fees	Endowments, etc.	Other sources	
Universities	19,348,221	36·00	..	..	17·00	..	47·00
Board of secondary education ..	2,163,269	7·00	..	..	93·00	..	..
Colleges for general education ..	4,849,799	31·30	0·06	0·61	58·84	3·29	5·90	
Colleges for professional education ..	5,960,099	86·89	0·01	..	6·88	2·34	3·88	
Colleges for special education ..	192,264	78·00	..	..	18·00	..	4·00
High/Higher Secondary Schools ..	33,978,837	32·47	0·10	1·00	54·40	1·87	10·16	
Middle / Senior Basic / Junior High Schools	10,509,364	28·00	10·00	7·00	45·00	1·00	9·00	
Primary/Junior Basic/Basic Primary Schools	32,665,296	64·90	20·80	8·90	4·13	0·01	1·27	
Nursery Schools	109,553	20·00	..	43·45	34·83	..	1·72	
Schools for professional education	4,221,265	89·60	0·20	0·64	5·91	0·50	3·15	
Schools for special education ..	7,082,299	11·67	0·29	0·38	0·04	16·24	71·38	
Total	121,080,266	44·16	2·85	5·62	30·80	2·30	14·30	
Direction and inspection ..	4,322,731	85·19	9·04	5·77	..	..	..
Miscellaneous	22,039,636	43·16	8·89	2·76	13·24	2·73	29·22	
Unrecognized	173,376	..	..	..	51·00	24·00	25·00
Grand total	147,616,009	36·11	3·94	3·31	29·47	9·22	17·97	

Type of institution	Expenditure on education for girls							
	Total expenditure	Percentage of expenditure from						
		Government funds	District Board funds	Municipal Board funds	Fees	Endowments, etc.	Other sources	
Universities .. .. .	..	..	..	..	..	..	..
Board of secondary education ..	..	..	..	..	..	..	..
Colleges for general education ..	381,727	26·24	..	0·72	45·35	1·41	26·28	
Colleges for professional education ..	242,140	85·38	..	..	3·45	..	11·17
Colleges for special education ..	..	..	..	..	..	..	..
High/Higher Secondary Schools ..	6,046,726	46·84	0·14	4·38	36·39	0·74	11·51	
Middle/Senior Basic/Junior High Schools	2,840,536	49·39	8·06	17·16	14·34	1·61	9·44	
Primary/Junior Basic/Basic Primary Schools	3,401,848	41·81	11·81	44·11	0·99	0·02	1·26	
Nursery Schools .. .. .	..	..	..	..	..	..	..
Schools for professional education ..	650,009	85·16	..	8·22	2·36	2·19	2·07	
Schools for special education ..	129,511	26·62	0·11	1·01	0·87	0·07	71·32	
Total	13,692,497	51·63	2·88	10·80	14·83	0·86	19·00	
Direction and inspection ..	303,093	90·96	1·84	7·20	..	..	..
Miscellaneous	1,708,549	46·64	6·87	15·01	7·12	4·13	20·23	
Unrecognized	4,309	..	..	..	55·00	10·00	35·00
Grand total	15,708,448	40·14	2·41	7·30	24·46	4·31	21·37	

The figures need no comments.

7. Table 379 shows the statistics of the newspapers and periodicals published in this State in the whole year preceding each census year since 1900.

Publication of newspapers and periodicals

TABLE 379—Number of newspapers and periodicals published in the State, 1900—50*

Particulars	1950	1940	1930	1920	1910	1900
Total newspapers and periodicals	731	908	626	427	278	142
<i>Frequency of publication—</i>						
Daily	55	45	36	11	4	6
Bi-weekly	2	18	9	12	4	3
Weekly	301	302	202	88	63	59
Monthly	230	353	263	219	164	51
Other periods	143	190	116	97	43	23
<i>Language in which printed—</i>						
Hindi	435	367	253	175	86	34
Urdu	140	268	225	151	116	69
English	62	109	84	71	56	34
Tri-lingual	14	48	20			
Hindi-Urdu	14	14	14		1	2
Hindi-English	19	7	9		1	
Hindi-Gujarati		2	2			
Sanskrit	1	5	4		4	
Urdu in Roman script	1	2	1		3	
Urdu in Persian and Roman script			3		2	
Urdu-English		1	5	30	1	1
Urdu-Roman script-English					1	
Urdu-Arabic		1	1		1	1
Gorkhali (Nagari script)			1			
Marathi					1	
Gujarati					2	
Bengali		4	3		2	1
Bengali-English					1	
Tamil			1			
Other languages	45	80				

These figures give some idea of the increased use that is being made of literacy in the State. Newspapers and periodicals published here are about five times as numerous as they were 50 years ago. The decline in number during the last decade is due mainly to fall in the number of English and Urdu papers. The Hindi papers show a considerable increase.

8. We now return to the census figures. Subsidiary Table 7-3 shows the number of males and females engaged in different categories of educational services and research and their number per lakh of population for the State and the natural divisions. In all 107,582 persons (males 95,486, females 12,096) or 0.17 per cent. (males 0.15, females 0.02) of the population earn their livelihood through educational services. Of them, 13,071 (males 11,292, females 1,779) or 0.02 per cent. are simply employed as managers, clerks and servants of educational institutions, libraries, museums, etc.; 19,869 persons (males 17,912, females 1,957) or 0.03 per cent. are professors, teachers and research workers employed in universities, colleges and research institutions; and 74,642 persons (males 66,282, females 8,360) or 0.12 per cent. are on the teaching staff of the primary and secondary schools.

Educational services and research

* Data supplied by Director of Information, U, P.

Table 380 gives the figures received from the Director of Education. It will be observed that the number of teachers working in different kinds of institutions in the State exceeds the number that has been recorded in the census of 1951. However, in making this comparison it should be borne in mind that the census returns relate only to persons who were returned as self-supporting and whose principal means of livelihood was service in educational institutions. It is plain, then, that the census returns exclude persons whose secondary

TABLE 380—Number of teachers in different kinds of institutions in the State, 1950-51

Particulars	Males	Females
Total	101,480	11,365
Universities	1,201	71
Arts Colleges	1,175	74
Professional Colleges and Schools	1,514	240
High Schools	15,453	2,774
Junior High Schools	11,605	2,900
Primary Schools	65,118	5,203
Special Colleges and Schools..	5,414	103

means of livelihood was teaching or who were simply earning dependants.

9. Table 381 shows the distribution among the natural divisions of males and females engaged in educational services by rural-urban break-up.

TABLE 381—Number of males and females in natural divisions engaged in educational services by rural-urban break-up and their number per lakh of population

Natural division	Number engaged in educational services		Number per 100,000 of population	
	Males	Females	Males	Females
Uttar Pradesh—				
Total	95,486	12,096	151	19
Rural	49,222	4,232	90	8
Urban	46,264	7,864	536	91
Himalayan—				
Total	7,054	977	280	39
Rural	4,689	339	210	15
Urban	2,365	638	804	217
East Plain—				
Total	21,020	2,610	118	15
Rural	13,401	1,707	81	10
Urban	7,619	903	590	70
Central Plain—				
Total	22,743	2,949	141	18
Rural	8,809	726	63	5
Urban	13,934	2,223	619	99
West Plain—				
Total	37,646	4,633	165	20
Rural	18,240	1,165	98	6
Urban	19,406	3,468	458	82
Hills and Plateau—				
Total	7,023	927	180	24
Rural	4,083	295	122	9
Urban	2,940	632	535	115

The figures reveal the vast differences in educational facilities that exist between the rural and urban areas throughout the State. Further, it is obvious that the Himalayan division which leads in general literacy has the highest proportion of males as well as of females engaged in educational services both in the rural and the urban areas.

10. It will be useful to compare the figures of the present census with those of censuses prior to it. Table 382 gives the proportion of persons engaged in educational services. Comparison with
past censuses

TABLE 382—Number of males and females engaged in educational services in 1921, 1931 and 1951 censuses per lakh of population*

Natural division	Number per 100,000 of total population engaged in educational services in					
	1951		1931		1921	
	Males	Females	Males	Females	Males	Females
Uttar Pradesh	151	19	97	7	69	6
Himalayan	280	39	111	11	72	21
East Plain	118	15	66	3	34	2
Central Plain	141	18	101	8	83	5
West Plain	165	20	115	9	84	7
Hills and Plateau	180	24	113	11	82	5

It will be observed that in 1921 the percentage of persons engaged in educational services was only 0·08 (males 0·07, females 0·01). It increased to 0·17 (males 0·15, females 0·02) in 1951. This increase will be found in all the natural divisions.

* The figures for 1951 are of 'self-supporting persons', for 1931 of 'earners' and for 1921 of 'actual workers'.

SECTION 5—LANGUAGES

Figures how
obtained and
their accuracy

1. The information regarding language was collected through two questions in the census questionnaire :

Q. 7—*Mother-tongue*—Mother-tongue is the language spoken from the cradle. In the case of infants and deaf-mutes give the mother-tongue of the mother.

Q. 8—*Bi-lingualism*—If a person commonly speaks any *Indian* language other than his mother-tongue, record it. Record only one subsidiary language.

The name of the mother-tongue was to be recorded *as given out by the respondents*. Thus the citizen was free to give out the name of his mother-tongue as Hindi or Urdu or Hindustani and the enumerator had to record it as such in the census slip. (In the 1931 census, enumerators had been directed to enter the "*ordinary language*" of the State as Hindustani and they were prohibited from recording either 'Urdu' or 'Hindi'.)

Under bi-lingualism the language to be recorded was to be *Indian* and so English was ruled out. The language was to be recorded only if the person enumerated spoke it fluently and habitually for domestic or business purposes. For those whose mother-tongue was Hindi or Urdu or Hindustani neither of these languages was to be recorded under Question 8.

The Hindi-Urdu-Hindustani controversy to which detailed references will be found in the Reports for the censuses of 1911 and 1931 was not allowed to raise its head in this census. The citizen was free to describe his mother-tongue by any name he pleased and the enumerator was bound to record it in the census slip. The instructions were thoroughly understood at this census and the statistics may be taken as presenting an accurate account of the language distribution of the State.

Mother-tongue
how tabulated

2. In this census mother-tongues have been tabulated as returned with the exception of a few returned by an insignificant number of people, which have been combined with the principal mother-tongue of the tract concerned after consulting the District Officer. In previous censuses the mother-tongue table was presented after grouping sub-dialects and dialects under the appropriate languages. This explains why Table D-I (i) of this census presents 85 mother-tongues as against only 64 of 1931.

Distribution of
population by
mother-tongues

3. As many as 85 spoken languages or dialects were returned as mother-tongues at the census of 1951. Of the 85 recorded mother-tongues only 14, Hindi, Hindustani, Urdu, Kumaoni, Garhwali, Punjabi, Bengali, Jaunsari, Sindhi, Pahari, Gujarati, Marathi, Nepali and English, are spoken by more than 10,000 persons each. The other languages or dialects are spoken by a relatively small group of people and many of them are foreign to this State. Table 383 below gives the distribution by mother-tongue of 10,000 population of the State and each natural division.

TABLE 383—*Distribution by mother-tongue of 10,000 population of the State by natural divisions, 1951*

Language	Uttar Pradesh	Himalayan	East Plain	Central Plain	West Plain	Hills and Plateau
Hindi	7,981	4,712	9,137	8,470	6,907	9,040
Hindustani	1,067	202	514	825	1,828	718
Urdu	680	213	320	619	1,144	178
Pahari including Kumaoni and Garhwali	170	4,241	..	1	2	..
Punjabi	51	192	6	39	84	23
Bengali	12	13	13	18	7	3
Jaunsari	9	214	..	..	..	..
Sindhi	9	6	2	12	12	9
Gujarati	2	1	1	2	3	2
Marathi	2	2	1	2	2	7
Rajasthani-cum-Marwari	1	3	2	1	2	1
Nepali including Gorkhi.. .. .	10	161	3	3	3	6
English	2	5	..	3	2	2
Others	4	35	1	5	4	11

4. It will be seen that 79·8 per cent. of the population have returned Hindi, 10·7 per cent. as Hindustani and 6·8 per cent. as Urdu as their mother-tongue. These three total to 97·3 per cent. Pahari, including Kumaoni, Garhwali, and Jaunsari have been returned by about 1·8 per cent. In 1931 Hindi, Urdu, Pahari and Jaunsari were all enumerated as Hindustani and 99·7 per cent. of the population was returned under it. The corresponding percentage of this census is 99·1. Jaunsari is a spoken language returned by about 54 thousand people living in a tract of Dehra Dun district. Pahari, Kumaoni and Garhwali are the spoken languages of the hills where Hindi is also easily intelligible. Hindustani is also a spoken language. It is plain then that for literature, for education, for public life we have only two languages in this State, viz., Hindi and Urdu. These languages are the two literary forms of the speech of North India, which really are one speech split into two by two totally different scripts, the *Devanagari* and the Persian*. Viewed in this way, there is no linguistic diversity in this State. Hindi in the *Devanagari* script has been adopted as the official language of the State.

The principal languages of the State

5. The other mother-tongues of the State have no numerical importance. Purbi (1,664 speakers), Bhojpuri (260), Avadhi (189) and Bihari are dialects of Hindi. Some other mother-tongues like Bishari (730), Binhari (551), Jubli (516), Siraji (86), Mandali (50), Sirmori (34) and Parvati (17) are the hill dialects. Certain gypsy dialects also find a home in the State. While four such dialects, Haburi, Kanjari, Kanphari and Nati, with a total population of 399 were enumerated in 1931 only two of them, Haburi and Kanjari, with a total population of 178 have been enumerated in 1951. These dialects are apparently dying out. As these wandering tribes are taking to a more settled manner of living they have to use the language of their neighbours to an increasing extent and their own dialect is falling into disuse.

Other mother-tongues of the State

6. Some of the important mother-tongues foreign to the State are also shown in Table 383. There are many others with negligible number of speakers. The figures are shown in Table D-I, Languages, and the Subsidiary Table 7·4, Distribution of the total population of the State by mother-tongues. These figures give information about the number and nationality of immigrants and visitors to the State who have not yet become merged in the resident population.

Mother-tongues foreign to the State

7. Table 384 shows the distribution of the rural and urban population of the State and the natural divisions by mother-tongues.

Mother-tongues in rural and urban areas

TABLE 384—Distribution by mother-tongue of 10,000 population of the rural and urban areas of the State and the natural divisions

Mother-tongue	Uttar Pradesh		Himalayan		East Plain		Central Plain		West Plain		Hills and Plateau	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Hindi ..	8,290	6,031	4,672	5,014	9,297	7,080	8,848	6,143	7,240	5,450	9,190	8,122
Hindustani	1,101	848	145	630	504	632	818	866	2,025	967	757	483
Urdu ..	388	2,531	122	899	195	1,928	327	2,420	701	3,083	41	1,018
Pahari including Kumaoni and Garhwali	188	58	4,600	1,522	..	..	..	4	1	9	..	..
Punjabi ..	13	293	73	1,090	1	69	4	257	25	343	1	154
Bengali ..	1	77	5	78	1	174	1	122	1	32	1	21
Sindhi ..	1	59	3	29	..	22	1	84	1	59	..	64
Jaunsari ..	10	..	242	4	..	..	..	..	..	..	..	..
Gujarati ..	..	15	..	10	..	19	..	16	..	14	1	8
Marathi ..	..	11	1	12	..	10	..	12	..	8	..	41
Rajasthani cum-Marwari	..	8	2	5	1	15	..	7	1	6	..	7
Nepali including Gorkhi	6	35	105	588	1	35	..	18	3	5	..	44
English ..	..	11	1	34	..	3	..	18	1	8	..	16
Others ..	2	23	29	85	..	13	1	33	1	16	9	22

* Suniti Kumar Chatterji, *Languages and the Linguistic Problem* (Oxford Pamphlets on Indian Affairs: Oxford University Press), page 4.

It will be seen that the proportion of speakers of Urdu is higher for the urban than for the rural population in all the natural divisions. It will further be noted that the languages foreign to the State also record a relatively much higher proportion for the urban population than for the rural. This is due to the fact that the bulk of the immigrants have settled in the urban areas.

8. Table 385 gives the variations in the proportions of population speak-

TABLE 385—Distribution by mother-tongue of 10,000 population of the State in 1911, 1931 and 1951

Mother-tongue	Number per 10,000 in		
	1951	1931	1911
Hindi, Urdu, Hindustani, Pahari (including Kumaoni, Garhwali and Jaunsari)	9,907	9,968	9,969
Punjabi	51	5	6
Bengali	12	6	5
Sindhi	9	—	..
Gujarati	2	1	1
Marathi	2	1	1
Rajasthani-cum-Marwari	1	4	1
Nepali including Gorkhi	10	6	4
English	2	7	8
Others	4	2	5

ing the various mother-tongues since 1911. It will be seen that the proportion of population speaking the principal languages of the State remained steady at 99·7 per cent. during the period 1911—31, but went down to 99·1 per cent. during the period 1931—51. This loss is almost entirely due to gains recorded by mother-tongues foreign to State, viz., Punjabi, Bengali, Sindhi, Marathi, Gujarati and Nepali. Any changes that have taken place in these are generally

changes not of language but of population, and these have been dealt with in Chapter I. The increase in the proportion of Punjabi during 1931—51 from 0·06 per cent. to 0·51 per cent. and of Sindhi is easily explained by the influx of displaced persons from the Punjab and Sindh as a result of partition. The increase in the proportion of Bengali is also partly due to this reason. Increased labour migration accounts for the rise in the proportion of Nepali. The decrease in the proportion of English is due to the departure of the British and emigration of a considerable number of Anglo-Indians. The decrease in the proportion of Rajasthani-cum-Marwari is apparently due to many Marwaris returning Hindi as their mother-tongue.

9.* Hindi, Urdu and Hindustani have been returned by 97·3 per cent. of the population of the State. These languages are the principal mother-tongues of the State and are distributed throughout the State. Even the hill districts with the exception of Tehri-Garhwal have returned a high proportion of the population with Hindi or Urdu or Hindustani as mother-tongue. Pahari, Garhwali, and Kumaoni with a total of about 11 lakhs have been returned mainly by the districts of Almora (487,000), Tehri-Garhwal (409,000), Naini Tal (104,000), Garhwal (45,000), and Dehra Dun (25,000). It appears that most of the people of Garhwal have returned the literary language Hindi as their mother-tongue in place of the spoken language Garhwali. The distribution of other languages is as follows :

- (i) *Punjabi* (323,000 persons)—The speakers of Punjabi are to be found throughout the State but are principally concentrated in Meerut (62,000), Saharanpur (37,000), Dehra Dun (33,000), Kanpur (25,000), Agra (24,000), Lucknow (19,000), Naini Tal (13,000), Allahabad (10,000) and Moradabad (10,000). At the 1931 census only 27,000 Punjabi-speaking persons were recorded and they were confined mainly to Moradabad district and the Meerut division. The large increase is obviously due to the immigration of displaced persons from the Punjab.
- (ii) *Bengali* (73,000 persons)—The Bengali-speaking people are also to be found in all the districts of Uttar Pradesh but are mainly concentrated in Banaras (19,000), Allahabad (12,000), Kanpur (8,000), Lucknow (8,000), Dehra Dun (3,000), Gorakhpur (3,000), Meerut (3,000), Mathura (3,000), and Agra (3,000). The Bengalis are chiefly in government, railway and mercantile services, but there are obviously many pilgrims included in the figures of Banaras, Allahabad and Mathura. In 1931 only about 23,000 persons were recorded under Bengali.

* The figures within brackets have been rounded off to the nearest thousand.

Variation in the proportion of people speaking various mother-tongues

Distribution of mother-tongues by districts

- (iii) *Nepali-cum-Gorkhi* (61,000 persons)—The Nepali is chiefly spoken in Dehra Dun (22,000), Naini Tal, (12,000), Almora (3,000), Gorakhpur (3,000), Garhwal, Jhansi, Kheri, Lucknow, Saharanpur and Banaras (about 2,000 each). In 1931 only 31,000 persons spoke Nepali. The increase is due to intervening labour migration from Nepal.
- (iv) *Sindhi* (54,000 persons)—The Sindhi-speaking people are chiefly concentrated in Agra (15,000), Kanpur (9,000), Lucknow (5,000), and Meerut (4,000). Nearly all of them are displaced persons from Sindh.
- (v) *Gujarati* (14,000 persons)—Gujarati is spoken in a large majority of the districts of the State but the principal districts are Banaras, Saharanpur, Kanpur and Meerut (about 2,000 each). In 1931 only about 4,000 were recorded under this language.
- (vi) *Marathi* (11,000 persons)—Marathi, like Gujarati, is spoken in a large majority of the districts but is chiefly concentrated in Jhansi, Saharanpur, Kanpur, Banaras, Allahabad and Mathura with figures ranging from one to two thousand. The corresponding figures for 1931 were only about 4,000.
- (vii) *Rajasthani-cum-Marwari* (9,000 persons)—This language too is spoken widely in the State, the main districts being Banaras, Agra, Lucknow, Meerut, Kanpur and Basti (about 1,000 each). The corresponding figures for 1931 were 18,000.
- (viii) *English* (11,000 persons)—English has been returned by Anglo-Indians and British nationals. They are scattered throughout Uttar Pradesh, but the chief districts are Lucknow (2,000), Saharanpur, Allahabad, Agra, Kanpur, Dehra Dun, Jhansi, Budaun and Meerut (about 1,000 each).
- (ix) *Bhotia and Tibetan* (592 persons)—Bhotia is spoken by settlers and traders from Tibet principally in the district of Almora and also in the districts of Naini Tal, Dehra Dun, Garhwal, Kanpur, Saharanpur and Lucknow. The corresponding figures for 1931 were about 4,000. The main cause for decrease is the assimilation of the settlers.

Other languages are spoken by an insignificant number of people and call for no comments.

10. Subsidiary Table 7·4 exhibits the languages returned in this census according to Grierson's classification of languages into family and sub-family, branch and sub-branch, group and sub-group. This is a highly technical classification with which the common people are altogether unfamiliar. It will, however, be of interest to scholars and linguists.

Grierson's
classification of
mother-tongues

11. Table D-I (ii), Bi-lingualism, exhibits the figures of mother-tongues cross-tabulated with subsidiary Indian languages regularly used in daily life. It will appear that a very small number of persons—roughly only 1·11 per cent.—use in their day to day business an Indian language other than their mother-tongue. This is in striking contrast with some other parts of India, e.g., Madhya Pradesh, Bombay, Hyderabad, etc.

Bi-lingualism

12. Among the subsidiary languages to Hindi, Urdu and Hindustani the largest number was returned for Punjabi (52,487), the chief districts being Saharanpur (12,893), Meerut (4,978), Kanpur (4,723), Dehra Dun (3,180), Muzaffarnagar (3,114), Moradabad (3,087), Lucknow (2,798), and Agra (2,218). At the 1931 census only 2,415 were recorded as speaking Punjabi as a subsidiary language, mainly in the districts of Meerut and Bijnor. The large increase is due to the immigration of displaced persons from the Punjab resulting in wider contact with the local population. The next highest number was recorded under Bengali (6,543) and the districts are those having considerable Bengali speaking population, viz., Kanpur (1,315), Meerut (733), Fatehpur (581), Agra (552), Mathura (404), Lucknow (314), Jhansi (307), and Allahabad (228). Sindhi is another subsidiary language under which considerable numbers were enumerated (4,349). This is again due to the influx of displaced persons and the main districts are those having an appreciable number of Sindhi displaced persons, viz., Kanpur (1,919), Bareilly (657), Lucknow (365), Sitapur (313) and Meerut (247). Garhwali (1,565) is spoken as a subsidiary language principally in Dehra Dun; Rajasthani or Marwari (1,355) in a few scattered areas as a result of business contacts; Marathi (1,271) in Kanpur (383), Saharanpur (340),

Subsidiary
languages to
Hindi, Urdu and
Hindustani

Jhansi (130), and in a few other scattered areas; Gujarati (1,178) in Kanpur (222), Saharanpur (115), Mathura (115), Aligarh (100) and a few other scattered areas ; and Nepali (606) in Garhwal (194), Dehra Dun (86), Gorakhpur (77), Naini Tal (60), Lucknow (50) and Agra (27). The number of persons speaking other languages as subsidiary is insignificant and calls for no comment. It will be seen that the number of persons speaking these languages as subsidiary generally varies as the number of persons speaking these as mother-tongue because the former is the result of contacts with the latter. It is also likely that some of the speakers of these languages have returned the national language Hindi as their mother-tongue and their own language as a subsidiary one.

Altogether, of those who returned Hindi, Hindustani or Urdu as their mother-tongues 12 per 10,000 returned a subsidiary language as against 1 per 10,000 recorded in 1931.

13. In a State where 97·3 per cent. speak Hindi, Urdu and Hindustani as mother-tongue, people speaking other mother-tongues are bound to use one of the former as a subsidiary language in their day to day intercourse. The recorded figures support this statement. Under all the mother-tongues other than Hindi, Urdu and Hindustani large numbers have been recorded as speaking one of the latter as subsidiary language. Usually the number is about half of the number under the mother-tongue.

SECTION 6—CONCLUDING REMARKS

1. The population in the State has a very low literacy ratio. There are now out of every thousand of the population 108 literate persons ; out of every thousand males 174 ; and out of every thousand females 36. Of the population of age 5 years and over 124 per mille are literate, the corresponding values for males and females being 197 and 42. The urban population is much more literate than the rural. The number returned as literate per mille aged 5 years and over in 1951 is 93 (males 158, females 21) for the rural areas, 334 (males 446, females 193) for the urban areas and 378 (males 489, females 232) for the thirty cities of the State. It is obvious that the male literacy is almost three times as high in the urban areas and more than three times as high in the cities as in the rural areas, while the female literacy of the urban areas is more than nine times as great and that of the cities eleven times as great as that of the rural areas.

General literacy

2. Differences in literacy exist not only between men and women, between the rural areas and the towns, between one district and another, but also between the various classes of persons following different economic pursuits. The non-agricultural classes as a whole are more literate than the agricultural classes. The percentage of literacy varies from 1.9 (males 3.3, females 0.3) in the case of Livelihood Class III, Cultivating labourers, to 28.8 (males 41.0, females 15.0) for that of Livelihood Class VI, Commerce.

Literacy by livelihood classes and educational standards

In respect of educational attainments among the literates only 14.7 per cent. have attained the Middle School or higher standards of education and the rest are literate in the sense that they can read and write. Of the 108 literate persons per 1,000 of the population 8 are Middle School, 4 have attained the Matriculate or S. L. C., Higher Secondary standard, 1 is Intermediate in Arts and Science, 1 is Graduate in Arts or Science and 2 hold other Degrees or Diplomas and the remaining 92 are simply literates.

3. Very rapid progress in general literacy has been made since 1911. In that year only 3.4 per cent. (males 6.1, females 0.5) of the population could read and write and in 1951, 10.8 per cent. (males 17.4, females 3.6) could do so. The pace has been more rapid in the case of females than males, though the absolute figures for females (10.7 lakhs) are still barely one-fifth of those of males (57.5 lakhs). Progress has occurred in every natural division and district and in urban as well as rural areas for both sexes.

Progress of literacy

The number of educational institutions has increased from 13,920 in 1901 to 39,821 in 1951 and that of scholars from 4.3 lakhs in 1901 to 36.7 lakhs in 1951. These figures show unmistakably the remarkable improvement that has taken place in education. The primary education figures also throw light on the progress of literacy. The number of primary schools and scholars increased from 6,982 and 2.8 lakhs in 1901 to 31,985 and 27.3 lakhs in 1951 respectively. The number of persons engaged in educational services has also increased with the progress in education and literacy. 69 males and 6 females per 100,000 of population were engaged in educational services in 1921. The corresponding figures for males and females for 1951 were 151 and 19.

It has, however, to be recorded that though the progress in literacy has been considerable the end result to-day is by no means impressive. Literacy in this State is only 10.8 per cent. It is about two-third of that of India and it takes a very low position relative to the other States of India. But there are reasons for this apparently slow progress. The State is handicapped by its limited resources. The people are extremely poor and cannot bear even the small school expenses. In the predominantly agricultural set up the parents find no gain in sending their children to school when they could be adding to the family income at home. Then there is the difficult race with the inevitable growth of population, specially the population of school-going age. Reflecting on this net-work of inter-related obstacles an American observer remarks that "one is amazed at the progress that has been actually made" in the field of literacy in India.*

4. Fortunately there is no great diversity of language in this State. The diversity could have been an additional hindrance to the progress of education. 79.8 per cent. of the population have returned Hindi, 10.7 per cent. Hindustani and 6.8 per cent. Urdu as their mother-tongue. These three

Language

*Kingsley Davis, *Population of India and Pakistan*, page 152.

total to 97·3 per cent. Pahari, including Kumaoni, Garhwali and Jaunsari have been returned by about 1·8 per cent. The hill dialects as well as Hindustani are only the spoken languages and only Hindi and Urdu are the two literary forms of the speech of North India. These two also are really one speech split into two by two totally different scripts, the *Devanagari* and the Persian. Hindi in the *Devanagari* script has been adopted as the official language of the State.

CHAPTER VIII—RELIGION AND SPECIAL GROUPS

1. The figures relating to religion are given in Table D-II, Religion, and those for the special groups* in Table D-III, Scheduled Castes and Scheduled Tribes in Part II-C of the Report.

2. The religion of every person was recorded under Question 2(b) of the census slip. The instructions were : " You must ascertain the religion of a person by actually interrogating him and record the answer as given by him ".

The Arya Samajists were enumerated separately. But many Radhaswamis gave out their religion as Hinduism and special group as Radhaswami. The Radhaswamis, therefore, have not been shown separately in the table.

The U. P. Christian Council represented that it has reasons to believe that their community had been under-enumerated previously. As a special case, therefore, they were permitted to send their representatives as co-enumerators in the blocks bearing an appreciable number of Indian Christians.

The figures obtained may be taken as accurate.

3. Table 386 gives the general distribution of the population in the State by religion for the last eight censuses. In 1951 the Hindus are a little over

TABLE 386—*Distribution of 10,000 population by religion, 1881—1951*

Religion	Number per 10,000 of total population in							
	1951	1941†	1931	1921	1911	1901	1891	1881
<i>Total Hindus</i>	8,505	8,367	8,436	8,492	8,505	8,520	8,586	8,597
(i) Aryas	38	—	64	44	27	14	5	—
(ii) Others	8,467	8,367	8,372	8,448	8,478	8,506	8,581	8,597
Sikhs	31	42	10	3	3	3	2	1
Jains	15	18	14	15	16	18	18	18
Buddhists	1	1	..	..	..	..	..	..
Zoroastrians	..	..	..	..	..	..	..	..
Muslims	1,428	1,543	1,498	1,446	1,438	1,438	1,382	1,374
Christians	20	29	42	44	38	21	12	10
Jews	..	..	..	..	..	..	..	..
Others	..	..	..	..	..	..	..	..
(i) Tribal	..	..	..	..	..	..	..	..
(ii) Non-tribal	..	..	..	..	..	..	..	..

85 per cent. of which the Aryas constitute only 0.38 per cent.; the Muslims are 14.28 per cent.; the Sikhs 0.31 per cent.; the Christians 0.20 per cent.; the Jains 0.15 per cent.; and the Buddhists 0.01 per cent. of the total population.

4. The variations under each religion may be examined separately :

(i) *Hindus*—For the first time since 1881 the Hindus have shown a rise in the proportion to the total population. Their population, which was 86 per cent. in 1881, had been gradually declining and stood at 83.67 in 1941. It has now suddenly risen to 85.05, the figure at which it stood in 1911. The reasons for the decline of the population are given in previous Reports. Briefly it was due to losses in the Hindu religion incurred as a result of conversion to Sikhism or Christianity and to the higher rate of increase of population among the Muslims. The increase in the present census is due principally to the exodus of Muslims to Pakistan, to the influx of displaced persons and to the reversion to Hinduism of the imperfectly converted Sikhs and Christians.

*Scheduled Castes and Anglo-Indians constitute the special groups of this census.

†In 1941 the figures for Hindus include the figures of 'tribes'.

The figures where found

The statistics how obtained

General distribution by religion

Variations since 1881

- (ii) *Muslims*—The Muslim proportion to the total population, which stood at 13·74 in 1881, steadily rose to 15·43 in 1941 but has now declined to 14·28, the figure at which it stood in 1901. The decline is mainly explained by the departure of some Muslims to Pakistan.
- (iii) *Sikhs*—The number of Sikhs in Uttar Pradesh was about 11,000 in 1891. It increased to about 15,000 in 1911 and remained steady up to 1921. At the 1931 census it rose to over 46,000 due mainly to the Pachlada Jats of Moradabad returning themselves as Sikhs for the first time.* In 1941 the number registered an even greater increase to about 233,000 as a result of proselytizing activities mainly in the Rohilkhand, Agra and Meerut divisions. In 1951 the number has fallen to about 198,000. An analysis by districts shows that the Sikhs have lost over a lakh population in eleven districts where they had recorded heavy gains in 1941. At the same time they have recorded gains of about 71,000 population in 36 districts.
- (iv) *Christians*—The Christians were only 48,000 in 1881. They kept on increasing at each census till their figure reached 208,000 in 1931. Their number fell to 163,000 in 1941 and further to 124,000 in 1951. The main cause of these reductions is the reversion to their original religion of imperfectly converted persons. In 1951 an additional reason is the departure of British nationals and an appreciable number of Anglo-Indians from the country. The number of Anglo-Indians fell from 13,390 in 1941 to 6,343 in 1951.
- (v) *Jains*—The Jains stood at about 85,000 in 1891 and 1901. In 1931 the number enumerated was only 68,000 but it rose to 103,000 in 1941. In 1951 the number is about 98,000. The losses between 1901 and 1931 are explained in previous census Reports as (a) laxity in religious matters leading to many Jains being enumerated as Hindus, (b) inter-marriage of Jains with Hindus, (c) conversion to Aryaism, (d) migration outside the State for trade reasons, and (e) infrequency and short duration of marriage among the community. The increase between 1931 and 1941 may be ascribed to (a) increase in the duration of marriage and (b) increased immigration. The decrease for 1941 to 1951 is not very significant. It may be due to some Jains returning themselves as Hindus.
- (vi) *Buddhists*—The number of Buddhists which had shown a heavy increase from 731 in 1931 to 5,492 in 1941 has now registered a fall to 3,221. Reasons for the rise and fall are not quite clear.

5. Table 387 gives the distribution of the main religions per 1,000 of total population in the various natural divisions of the State. It will be seen that Hindus and Muslims are predominant in all natural divisions and the other religions are relatively unimportant.

TABLE 387—*Distribution of religions per 1,000 population by natural divisions, 1951*

Natural division	Number per mille of total population of		
	Hindus	Muslims	Others
Uttar Pradesh	850	143	7
Himalayan	954	31	15
East Plain	873	126	1
Central Plain	870	126	4
West Plain	793	195	12
Hills and Plateau	938	56	6

6. *Hindus*—Hindus vastly outnumber all other religions in every district. Only in Rampur they are challenged numerically by Muslims who number 266,155 against 268,298 Hindus. Muslims also form a powerful minority in the districts of Moradabad (1,019,940 Hindus and 615,527 Muslims) and Bijnor (610,865 Hindus and 359,189 Muslims). In all other districts

*U.P. Census Report, 1931, Part I, page 503.

Distribution of religions by natural divisions

Distribution of religions in the districts

Hindus outnumber all other religions by multiples varying between 2 and 18, while in districts Garhwal, Tehri-Garhwal and Almora over 99 per cent. of the population is Hindu.

Aryas—A majority of the Aryas (238,000) are concentrated chiefly in Meerut (87,000), Rohilkhand (55,000), and Agra revenue divisions (41,000), and the districts with the highest number are Meerut (30,200), Bulandshahr (23,700), Bijnor (19,000), Saharanpur (17,200), (Aligarh 15,500) and Muzaffarnagar (13,500).

Muslims—In three districts the Muslims exceed 33 per cent. of the total population—Rampur (49·0), Moradabad (37·1), Bijnor (36·5). In six districts they are between 20 and 33 per cent.—Saharanpur (30·4), Muzaffarnagar (27·3), Bareilly (27·1), Bahraich (23·8), Lucknow (20·2) and Meerut (20·0). In Jhansi they are only 4·5 per cent. and in Garhwal, Tehri-Garhwal and Almora under 1 per cent. In the rest of the districts they are between 4·9 and 19·7 per cent.

Sikhs—The majority of the Sikhs (198,000) are concentrated chiefly in Meerut (68,500), Rohilkhand (40,600) and Agra revenue divisions (27,700). The districts with the largest Sikh population are Meerut (20,600), Saharanpur (18,400), Dehra Dun (17,900), Kanpur (17,700), Moradabad (12,600) and Agra (11,400).

Christians—The Christians (124,000) are distributed throughout the State but substantial numbers are concentrated in Rohilkhand (40,300), Agra (25,500), and Allahabad revenue divisions (16,400) and the districts with the highest Christian population are Budaun (13,600), Moradabad (11,700), Etah (10,000) and Bareilly (8,900).

Jains—Jains (98,000) are distributed throughout the State but the majority are concentrated in the Meerut (40,400), Agra (30,200) and Jhansi revenue divisions (11,800). The districts with the highest Jain population are Meerut (21,200), Agra (16,400), Jhansi (11,000) and Muzaffarnagar (9,900).

Buddhists—Buddhists (3,200) are found chiefly in Agra (1,493) and Kumaon revenue divisions (623). The districts with the largest Buddhist population are Aligarh (948), Almora (407), Etah (229), Mathura (201) and Naini Tal (182).

7. Table 388 gives the number per mille of the total population and of each main religion who live in towns.

Distribution by religion in urban and rural areas

TABLE 388—Number per mille of the total population and of each main religion who live in urban areas, 1951

Natural division	Total population	Hindus		Muslims	Christians
		Aryas	Others		
Uttar Pradesh	136	276	105	299	461
Himalayan	117	337	98	392	589
East Plain	72	228	58	164	402
Central Plain	140	545	109	322	905
West Plain	186	254	141	350	314
Hills and Plateau	141	646	120	422	812

It will be seen that while only about 10 per cent. of the Hindus live in towns the percentage of Muslims living in towns is nearly 30 per cent. and that of Christians 46. Even among the Aryas about 28 per cent. live in towns. Among the Hindus the highest urban population is shown by West Plain division (14·2 per cent.) and the lowest by East Plain (5·9). Among the Muslims the lowest urban population is in the East Plain (16·4 per cent.) while in the rest of the divisions between 32 and 42 per cent. of the Muslims live in towns. The high proportion of urban Muslims is due "largely to the fact that most of the larger towns were originally Muslim foundations and partly because the Muslim invaders made no serious attempt to dispossess Hindus of their rights to cultivate the soil, but clung rather to urban pursuits".* Among the Christians the highest urban proportion is in the Central Plain division (90·5 per cent.) and lowest in the West Plain division (31·4 per cent.).

* U. P. Census Report, 1931, Part I, page 137.

8. Another picture of the rural-urban distribution is given by Table 389 which shows the proportion of Hindus, Muslims and others in the rural and urban areas of the various natural divisions.

TABLE 389—*Proportion of Hindus, Muslims and other religions in rural and urban areas by natural divisions, 1951*

Natural division	Number per 10,000 of total population who are			Number per 10,000 of rural population who are			Number per 10,000 of urban population who are		
	Hindus	Muslims	Others	Hindus	Muslims	Others	Hindus	Muslims	Others
Uttar Pradesh ..	8,505	1,428	67	8,805	1,160	35	6,602	3,130	268
Himalayan ..	9,536	314	150	9,730	216	54	8,069	1,057	874
East Plain ..	8,729	1,263	8	8,858	1,138	4	7,072	2,865	62
Central Plain ..	8,697	1,264	39	8,997	997	6	6,847	2,916	237
West Plain ..	7,928	1,946	126	8,361	1,555	84	6,038	3,656	306
Hills and Plateau	9,378	562	60	9,596	378	26	8,049	1,685	265

It will be seen that of the total urban population about 66 per cent. are Hindus, 31 per cent. Muslims and 2·7 per cent. are of other religions. The Muslims have the highest proportion of urban population in West Plain division (36·6 per cent.) and the lowest in Himalayan division (10·6 per cent.).

9. Table 390 gives the distribution of the city population of the State among Hindus, Muslims and others.

TABLE 390—*Distribution of city population according to religion since 1901*
(Actual and percentage)

Religion	1951	1941	1931	1921	1911	1901
All religions	4,777,384 (100)	3,428,189 (100)	2,486,152 (100)	2,182,415 (100)	2,171,441 (100)	1,890,551 (100)
Hindus	3,253,089 (68·1)	2,023,855 (59·1)	1,438,785 (57·9)	1,304,889 (59·8)	1,267,265 (58·4)	1,213,273 (64·2)
Muslims	1,365,053 (28·6)	1,307,304 (38·1)	978,285 (39·3)	818,119 (37·5)	837,114 (38·5)	640,496 (33·9)
Others	159,242 (3·3)	97,030 (2·8)	69,082 (2·8)	59,407 (2·7)	67,062 (3·1)	36,782 (1·9)

It will be seen that Hindus have shown an increase from 57·9 per cent. in 1931 and 59·1 per cent. in 1941 to 68·1 per cent. in 1951 and on the other hand the Muslims have recorded a sudden decrease in 1951 to 28·6 per cent. from 39·3 per cent. in 1931 and 38·1 per cent. in 1941. This variation has mainly been brought about by the exodus of Muslims to Pakistan.

10. There are now 11,479,102 (males 5,881,481, females 5,597,621) Scheduled Castes* in the State or about 18·2 per cent. of the total population. Their district-wise distribution can be seen from Table D-III in Part II-C of the

* The following is the list of Scheduled Castes in Uttar Pradesh as notified under C. O. 19, the Constitution (Scheduled Castes) Order, 1950 :

(I) Throughout the State—

(1) Agariya	(17) Beldar	(33) Domar	(49) Kol
(2) Badi	(18) Beriya	(34) Dusadh	(50) Korwa
(3) Badhik	(19) Bhandu	(35) Gharami	(51) Lalbegi
(4) Baheliya	(20) Bhoksa	(36) Ghasiya	(52) Majhwar
(5) Baiga	(21) Bhuiya	(37) Gual	(53) Nat
(6) Baiswar	(22) Bhuyiar	(38) Habura	(54) Pankha
(7) Bajaniya	(23) Boria	(39) Hari	(55) Parahiya
(8) Bajgi	(24) Chamar	(40) Hela	(56) Pasi
(9) Balahar	(25) Chero	(41) Jatava	(57) Patari
(10) Balmiki	(26) Dabgar	(42) Kalabaz	(58) Rawat
(11) Bangali	(27) Dhangar	(43) Kanjar	(59) Saharya
(12) Banmanus	(28) Dhanuk	(44) Kapariya	(60) Sanaurhiya
(13) Bansphor	(29) Dharkar	(45) Karwal	(61) Sansiya
(14) Barwar	(30) Dhobi	(46) Khairaha	(62) Shilpkar
(15) Basor	(31) Dhusia or Jhusia	(47) Kharot	(63) Turaiha
(16) Bawariya	(32) Dom	(48) Kharwar (excluding Benbansi)	

(II) In Bundelkhand division and the portion of Mirzapur district, South of Kaimur Range—Gond

Distribution by religion in the cities

Scheduled Castes and Scheduled Tribes :
(i) Distribution

Report. The proportionate figures in the general population and in the rural and urban population are given in Table 391.

TABLE 391—Number of Scheduled Castes per 10,000 persons of general, rural and urban population in each district and natural division

Natural division and district	General			Rural			Urban		
	P	M	F	P	M	F	P	M	F
Uttar Pradesh ..	1,816	930	886	1,984	1,015	969	754	398	356
<i>Himalayan</i> ..	927	498	429	976	517	459	557	353	204
Garhwal ..	362	179	183	364	178	186	294	186	108
Tehri-Garhwal ..	514	242	272	518	242	276	264	214	50
Naini Tal ..	1,432	802	630	1,621	901	720	764	451	313
Almora ..	1,325	692	633	1,341	699	642	805	469	336
Dohra Dun ..	1,079	655	424	1,625	959	666	474	318	156
<i>East Plain</i> ..	1,699	838	861	1,773	874	899	744	376	368
Gorakhpur ..	2,059	1,020	1,039	2,151	1,065	1,086	913	460	453
Deoria ..	1,359	651	708	1,382	662	720	702	341	361
Basti ..	1,970	985	985	1,987	992	995	1,117	623	494
Gonda ..	768	395	373	793	408	385	289	148	141
Bahraich ..	1,360	711	649	1,419	742	677	318	166	152
Banaras ..	1,717	864	853	2,008	1,005	1,003	623	332	291
Jaunpur ..	1,701	822	879	1,765	853	912	614	295	319
Ghazipur ..	2,147	1,032	1,115	2,266	1,087	1,179	1,183	588	595
Ballia ..	1,349	656	693	1,369	671	698	1,163	516	647
Azamgarh ..	2,332	1,128	1,204	2,424	1,171	1,253	646	339	307
<i>Central Plain</i> ..	2,204	1,130	1,074	2,468	1,263	1,205	576	308	268
Kanpur ..	1,328	705	623	1,817	954	863	499	282	217
Fatehpur ..	1,749	870	879	1,803	899	904	761	347	414
Allahabad ..	2,003	997	1,006	2,284	1,139	1,145	716	349	367
Lucknow ..	2,156	1,110	1,046	3,607	1,856	1,751	463	240	223
Unnao ..	2,836	1,470	1,366	2,947	1,527	1,420	867	467	400
Rae Bareli ..	2,655	1,323	1,332	2,742	1,365	1,377	733	396	337
Sitapur ..	3,021	1,601	1,420	3,231	1,711	1,520	460	258	202
Hardoi ..	3,019	1,625	1,394	3,244	1,741	1,503	754	451	303
Faizabad ..	1,720	850	870	1,843	910	933	513	267	246
Sultanpur ..	1,604	804	800	1,620	812	808	460	247	213
Pratapgarh ..	2,177	1,046	1,131	2,211	1,061	1,150	786	437	349
Bara Banki ..	2,729	1,421	1,308	2,860	1,487	1,373	872	475	397
<i>West Plain</i> ..	1,649	875	774	1,837	975	862	831	441	390
Saharanpur ..	2,135	1,131	1,004	2,673	1,405	1,268	518	305	213
Bareilly ..	1,141	623	518	1,342	739	603	435	214	221
Bijnor ..	1,905	991	914	2,280	1,191	1,089	722	360	362
Pilibhit ..	1,278	693	585	1,429	775	654	417	227	190
Rampur ..	1,065	568	497	1,456	778	678	239	127	112
Kheri ..	2,482	1,293	1,189	2,634	1,371	1,263	559	306	253
Muzaffarnagar ..	1,588	852	736	1,742	941	801	821	412	409
Meerut ..	1,350	687	663	1,519	779	740	749	362	387
Bulandshahr ..	1,645	852	793	1,758	912	846	1,030	523	507
Aligarh ..	1,662	876	786	1,805	952	853	1,042	547	495
Mathura ..	1,815	925	890	2,032	1,028	1,004	961	516	445
Agra ..	1,880	1,000	880	1,978	1,037	941	1,682	926	756
Mainpuri ..	1,550	838	712	1,597	864	733	974	518	456
Etah ..	1,586	869	717	1,643	902	741	1,178	632	546
Budaun ..	1,412	773	639	1,506	823	683	692	393	299
Moradabad ..	1,508	804	704	1,818	971	847	521	273	248
Shahjahanpur ..	1,692	913	779	1,898	1,024	874	522	283	239
Etawah ..	2,132	1,148	984	2,263	1,217	1,046	1,006	556	450
Farrukhabad ..	1,467	805	662	1,563	854	709	809	467	342
<i>Hills and Plateau</i> ..	2,291	1,130	1,161	2,499	1,230	1,269	1,023	516	507
Jhansi ..	2,024	1,027	997	2,418	1,229	1,189	796	396	400
Jalaun ..	2,274	1,167	1,107	2,423	1,246	1,177	1,489	749	740
Hamirpur ..	2,181	1,076	1,105	2,262	1,111	1,151	1,537	798	739
Banda ..	2,026	993	1,033	2,115	1,037	1,078	924	462	472
Mirzapur ..	2,809	1,339	1,470	3,063	1,457	1,605	800	407	393

It will be seen that the Scheduled Castes are most numerous in the districts of Sitapur (30·2 per cent.), Hardoi (30·2), Unnao (28·4), Mirzapur (28·1), Bara Banki (27·3) and Rae Bareli (26·6). At the other end of the scale we find the districts of Garhwal (3·6), Tehri-Garhwal (5·1), Gonda (7·7), Rampur (10·7) and Dehra Dun (10·8). It will further be seen that as compared to the urban areas they are relatively more numerous in the rural areas of the State where they form the backbone of the labour class.

The number of Scheduled Castes appear to have decreased since 1941.* Their total population was 11,931,320 (males 6,127,853, females 5,803,467), in 1941 as against 11,479,102 in 1951. The decrease has mainly been brought about by a change in the list of Scheduled Castes. Khatiks, Aherias, Koris (excluding Koris of Meerut, Rohilkhand and Agra divisions) and Tharus who were treated as Scheduled Castes in 1941 have now been excluded from the list. In 1931 their number was about 10 lakhs which, according to the general rate of growth between 1931 and 1951, must have increased to about 1,300 thousand. On the other hand, certain castes have been newly added to the 1951 list namely, Baiga, Baiswar, Bhoksa, Dhusia and Dusadh whose total population in 1941 was about 80 thousand and must be about 90 thousand in 1951. These changes, therefore, account for a decrease of about 1,200 thousand in the population of Scheduled Castes in 1951 and almost fully explain the difference between the population of 1941 and 1951. The remaining difference may be assigned to the Scheduled Castes having returned themselves by names which are not included in the list. It is of interest to note that many Shilpkars or Hill Doms and Chamars have returned Aryaism.

11. The livelihood pattern of Scheduled Castes may be of some significance. Table 392 gives their distribution according to livelihood classes.

TABLE 392—*Distribution of 1,000 Scheduled Castes in livelihood classes by natural divisions*

Natural division	Livelihood classes									
	Total	Agricultural classes				Non-agricultural classes				
		I	II	III	IV	Total	V	VI	VII	VIII
Uttar Pradesh ..	785	525	84	172	4	215	55	9	9	142
Himalayan ..	771	559	173	38	1	229	98	5	4	122
East Plain ..	864	550	100	212	2	136	31	9	8	83
Central Plain ..	841	619	88	130	4	159	33	6	5	115
West Plain ..	664	448	56	154	6	336	91	11	14	220
Hills and Plateau ..	807	379	103	318	7	193	70	9	7	107

It will be seen that more than three-fourth of the Scheduled Castes derived their livelihood from agricultural occupations. Among agricultural population Class I, consisting of owner cultivators, represents 52·5 per cent. of their population. Next in importance is Class III, Cultivating labourers (17·2 per cent.). Among the non-agricultural classes the highest proportion belongs to Class VIII, Other services and miscellaneous sources (14·2 per cent.) and next in importance is Class V, Production other than cultivation (5·5 per cent.).

Examining the pattern by natural divisions, it would appear that the highest proportion of agricultural classes (86·4 per cent.) is in East Plain. Next in order are the Central Plain (84·1 per cent.), Hills and Plateau (80·7 per cent.), Himalayan (77·1 per cent.) and the West Plain (66·4 per cent.). The highest proportion belonging to Class III (31·8 per cent.) in Hills and Plateau is significant.

Among the non-agricultural classes, the highest proportion (33·6 per cent.) is found in West Plain and the lowest proportion in East Plain (13·6).

*A second count of the Scheduled Castes was carried out from a secondary record, the National Register of Citizens and the figures are given by villages and mohallas in the District Population Statistics. According to this count the total number of Scheduled Castes in the State is 11,854,103. The discrepancy is due to the counting in the latter count (i) of Ahirwars of Farrukhabad district, Raidas and Bhagat as *Chamars*, and (ii) of Bhangis, Khakrob, Sweeper, Harijan, Mehtar, Jamadar and Achhut as *Balmikis*. In the original census sorting people returning themselves by these synonyms had mostly been left out of the count of Scheduled Castes.

12. It will be interesting to compare the livelihood pattern of the general population and the Scheduled Castes. Table 393 gives the comparative figures.

TABLE 393—*Comparison of the livelihood pattern of Scheduled Castes with general population*

Livelihood class	Population	
	General	Scheduled Castes
All classes	1,000	1,000
All agricultural classes	742	785
I—Cultivators of land wholly or mainly owned and their dependants	623	525
II—Cultivators of land wholly or mainly unowned and their dependants	51	84
III—Cultivating labourers and their dependants	57	172
IV—Non-cultivating owners of land; agricultural rent receivers; and their dependants	11	4
All non-agricultural classes (including dependants)	258	215
V—Production	84	55
VI—Commerce	50	9
VII—Transport	14	9
VIII—Other services and miscellaneous sources	110	142

As expected, the Scheduled Castes have a higher proportion of population depending on agricultural occupations than the general population. The proportion of Scheduled Castes depending on Classes II and III is higher than that for the general population. It is also significant that the percentage of Scheduled Castes depending on Class IV, Non-cultivating owners of land and agricultural rent receivers and Class VI, Commerce, is very low. It is evident from the figures that the Scheduled Castes are relatively poor and backward.

13. No tribal religions have been returned at this census and there are no Scheduled Tribes in this State.

14. The Anglo-Indians also constitute a special group. They numbered 6,343 (males 3,388, females 2,955) in 1951. They are mostly concentrated in the districts of Allahabad (1,065), Lucknow (1,030), Kanpur (675), Jhansi (575) and Agra (507). They are found chiefly in the cities and the larger towns. The cities returned 4,469 (i.e., 70·4 per cent.) of them. Of the rest 804 (i.e., 12·7 per cent.) were recorded in the other towns and 1,070 (i.e., 16·9 per cent.) in the rural areas.

Anglo-Indians have decreased since 1941. They were 13,390 in 1941 as compared to 6,343 in 1951. The reasons for their decrease may be summed up as follows :

- (i) Many of the Anglo-Indians who were in government service, especially in the Railway and Post and Telegraph departments, opted for Pakistan after the partition of the country.
- (ii) Many of them have migrated to Australia, Canada, New Zealand and other overseas countries after the partition.
- (iii) Some families shifted to the big cities in India like Calcutta and Bombay for social and economic reasons.
- (iv) Their figures for 1941 probably include a few Indian Christians who returned themselves as Anglo-Indians for certain social and economic gains. Such persons have now returned themselves as Indian Christians.
- (v) It is likely that some Anglo-Indians have preferred to return themselves as Indian Christians at the census of 1951.

The Anglo-Indians

CHAPTER IX—NON-INDIAN NATIONALS

1. The statistics are to be found in Table D-VI, Non-Indian Nationals, in Part II-C of the Report. Introductory

All persons who were not Indian citizens under Articles 5—8 of the Constitution on March 1, 1951, were shown in this table as non-Indian nationals. Indian citizenship was defined as follows :

A—*Citizenship under Article 5 of the Constitution*—A person would be a citizen if he has his domicile in India on January 26, 1950, and if

- (a) he was born in India (as now understood), or
- (b) any of his parents was born in India, or
- (c) he has been ordinarily a resident in India for not less than five years immediately before January 26, 1950.

B—A person who migrated from Pakistan to India before July 19, 1948, would be a citizen of India, if

- (a) he or any of his parents or grandparents was born in undivided India (including Pakistan), and
- (b) he has been ordinarily a resident in India since his migration.

C—A person who migrated from Pakistan to India on or after July 19, 1948, but before July 25, 1949, will be a citizen if he applied for and obtained registration as a citizen and possesses a citizenship certificate.

A person who migrated from Pakistan to India on or after July 25, 1949, was not treated as an Indian citizen unless he had special registration. All foreigners including Nepalese have been treated as non-Indian nationals unless they had taken an Indian domicile certificate.

The statistics about such foreigners have been collected for the first time and the degree of accuracy of the returns is by no means very high. In the nature of things the enumerator could not apply the citizenship definition strictly in case of the Nepalese and the Pakistanis who had crossed into India from the frontier areas.

2. In 1951, there were only 27,602 persons (males 20,955, females 6,647) living in this State who were non-Indian nationals—a mere 0.04 per cent. of the population. Table 394 exhibits their figures for the State and the natural divisions. Distribution of non-Indian nationals

TABLE 394—*Distribution of non-Indian nationals by natural divisions, 1951*

Non-Indian national	Uttar Pradesh		Himalayan		East Plain		Central Plain		West Plain		Hills and Plateau	
	M	F	M	F	M	F	M	F	M	F	M	F
Total non-Indian nationals	20,955	6,647	12,606	3,639	2,313	1,187	910	677	3,627	506	1,499	638
Nepalese	19,364	5,615	12,227	3,367	2,153	1,094	451	252	3,132	341	1,401	561
Pakistani	331	10	46	..	3	1	4	5	278	4	..	..
Tibetan	108	73	106	73	1	..	..	..	1	..	..	..
Chinese	86	56	11	5	3	..	59	41	6	5	7	5
Afghan	68	13	19	1	3	..	35	12	3	..	8	..
Burmese	47	24	19	12	2	3	7	6	18	1	1	2
Bhutanese	24	14	24	14	..	..	..	..	..	..	..	..
Malayan	15	6	..	..	15	6	..	..	..	..	..	..
Ceylonese	14	6	..	..	8	1	4	5	1	..	1	..

TABLE 394—*Distribution of non-Indian nationals by natural divisions, 1951—(contd.)*

Non-Indian national	Uttar Pradesh		Himalayan		East Plain		Central Plain		West Plain		Hills and Plateau	
	M	F	M	F	M	F	M	F	M	F	M	F
Goanese	9	5	..	..	2	..	2	4	..	..	5	1
Iranian	8	3	..	..	3	3	3	..	2	..	..	..
Siamese	4	4	..	..	4	4	..	..	..	..	..	..
Indo-chinese	4	4	4	4	..	..	..	..	..	..	..	..
Arab	4	..	..	..	..	..	1	..	3	..	..	..
Indonesian	4	..	..	..	3	..	..	..	1	..	..	..
Turkish	3	..	..	..	..	..	..	..	2	..	..	..
Iraqi	1	1	..	..	..	..	1	1	..	..	..	..
Philippino	1	..	..	..	..	..	1	..	..	..	..	..
Armenian	1	..	..	..	..	..	..	..	1	..	..	..
Russian .. .. .	..	1	..	..	..	..	..	..	..	1	..	..
British	540	469	84	88	73	41	241	222	84	74	58	44
German	23	59	4	21	..	2	11	31	6	..	2	5
Italian	41	34	7	2	3	3	12	13	18	13	1	3
Irish	21	21	12	12	1	2	2	3	5	3	1	1
Swiss	13	9	5	3	8	6	..	..	..	..	..	..
French	11	7	..	1	2	..	2	5	4	..	3	1
Swedish	5	7	..	..	..	..	1	4	4	3	..	..
Dutch	4	7	..	..	..	1	1	..	3	6	..	..
Greek	3	5	1	..	..	..	2	4	..	1	..	..
Portuguese	4	3	1	2	..	..	2	1	..	..	1	..
Spanish .. .. .	..	3	..	2	..	..	..	1	..	..	..	..
Lithuanian	1	2	1	2	..	..	..	..	..	..	..	..
Austrian .. .. .	..	3	..	..	..	3	..	..	..	..	..	..
Norwegian .. .. .	..	2	..	..	..	..	..	..	..	2	..	..
Finnish	2	..	2	..	..	..	..	..	..	..	..	..
Hungarian	2	..	2	..	..	..	..	..	..	..	..	..
Belgian	1	..	..	..	..	..	1	..	..	..	..	..
Danish	1	..	..	..	..	..	1	..	..	..	..	..
European nationality unspecified ..	28	33	..	1	..	..	20	21	8	11	..	..
African	14	5	..	..	1	2	5	2	8	..	..	1
American	105	112	20	14	9	8	34	41	37	41	5	8
Canadian	12	4	1	4	11	..	..	..	..	..	..	..
Argentine	1	1	1	1	..	..	..	..	..	..	..	..
West Indian	1	..	..	..	..	..	..	..	1	..	..	..
Australian	11	12	3	5	4	6	4	1	..	..	..	..
New Zealander	11	11	2	2	1	1	3	2	..	..	5	6
Nationality unspecified	4	3	4	3	..	..	..	..	..	..	..	..

It will be observed that of the non-Indian nationals 25,931 (males 20,096, females 5,835) or 93.9 per cent. are from the Asiatic countries. Among them the Nepalese lead, their number being 24,979 or 90.5 per cent. of the foreigners. This is as expected. Nepal is a friendly country having close cultural and economic contacts with this State. Labour and military recruitment,

pilgrimage, education and short visits mainly account for their large numbers. They are mainly concentrated in the Himalayan division. Among the districts with the largest number are Dehra Dun (6, 525), Naini Tal (6,193), Gorakhpur (1,968), Garhwal (1,918) and Jhansi (1,906).

As many as 341 persons are Pakistan nationals. They were chiefly enumerated in Saharanpur (253), Naini Tal (28), Rampur (16), Almora (14) and Bijnor (10). Their entry into India is regulated by permits.

Of the other foreigners from Asiatic countries, the chief figures are of Tibet (181), China (142), Afghanistan (81) and Burma (71). Tibetans are mostly found in the districts of Almora (148), Dehra Dun (13), Naini Tal (12) and Garhwal (6). They are mainly the Bhotia traders. Chinese who are chiefly traders were mostly enumerated in Lucknow (35), Kanpur (32), Allahabad (28), Jhansi (12) and Dehra Dun (10). The Afghans and Burmese also generally traded in this State but some of the latter might have come on pilgrimage. The Afghans were concentrated in Allahabad (37), Naini Tal (11) and Dehra Dun (9) and the Burmese were mostly found in Dehra Dun (31), Saharanpur (11) and Allahabad (7).

The number of foreign nationals from outside Asia is only 1,664* (males 855, females 809). Among them the British are 1,009. Next come the Americans with 217 persons. Germans and Italians were 82 and 75 respectively. Most of the foreigners from the non-Asiatic countries are in the employment of factories and educational institutions or are working as missionaries. The British were chiefly enumerated in Kanpur (215), Lucknow (145), Dehra Dun (124), Allahabad (79) and Jhansi (76). The Americans were mostly found in the districts of Allahabad (33), Meerut (24), Lucknow (23), Almora (16) and Dehra Dun (16). Most of the Germans were found in Naini Tal (23), Allahabad (18), Kanpur (12) and Lucknow (10). The Italians were chiefly returned by the districts of Allahabad (12), Saharanpur (12) and Agra (7). The other non-Asiatic foreigners are mainly Irish, Swiss, Canadians, French, Australians and New Zealanders.†

*It excludes 7 persons of nationality unspecified.

†For comparison of figures of foreign nationals with those of foreign-born, see Section 4 of Chapter I.

CHAPTER X—DISPLACED PERSONS

1. One of the most formidable problems which confronted India immediately after partition was that of the displaced persons. Millions were driven from their homes in West or East Pakistan and settled in other States of India. The relief and rehabilitation of these unfortunate persons constitute a special responsibility of the Government of India and of the States. With a view to obtain the fullest and latest possible data about them it was decided to include a special question in the census questionnaire. The slips of the displaced persons were also separately processed so that the demographic characteristics of this section of the population could be thoroughly studied.

Q. 6 relating to displaced persons had two parts and was in the following terms : " Are you a displaced person from Pakistan ? If so, give the date of your arrival in India and the district of origin in Pakistan. " The instructions issued to enumerators were as follows :

" If the person enumerated is not a displaced person write 0 in both compartments. If he is a displaced person, write the date of arrival (month/year) in India in the first compartment and the district of origin in Pakistan in the second compartment. For children of displaced persons born after their arrival in India write 0 in the first compartment and the district of origin in Pakistan of their parents in the second compartment " (*vide* Appendix I).

A displaced person was defined as " any person who has entered India having left or being compelled to leave his home in West Pakistan on or after March 1, 1947, or his home in East Pakistan on or after October 15, 1946, on account of civil disturbances or on account of the setting up of the two Dominions of India and Pakistan."*

The material collected in response to the question has been compiled in the following tables :

Table B-I—Livelihood classes and sub-classes

Table B-II—Secondary means of livelihood

Table B-III—Employers, employees and independent workers in industries and services by divisions and sub-divisions

Table C-II—Livelihood classes by age-groups

Table C-III—Age and civil condition

Table C-IV—Age and literacy

Table C-V—Single year age returns

Table D-V—Displaced persons by year of arrival in India and by livelihood classes

Only Table D-V has been published in Part II-C of the Report. Other tables will be suitably utilized in the all-India brochure. In addition to the above tables, statistics about the village and town-wise distribution of displaced persons would be found in the District Census Handbooks.

2. 480,270 displaced persons (males 257,147, females 223,123), including their children born after their arrival in India, were enumerated in this State in 1951. They comprise 0.76 per cent. of the population of the State. As against this the number of registered displaced persons in this State was 410,765 on March 31, 1951. Of the total enumerated at the census 431,082 or 89.8 per cent. were enumerated in the urban areas and only 49,188 or 10.2 per cent. in the rural areas.

Population of displaced persons and its distribution by districts

*Some persons who migrated to India before the prescribed dates have also returned themselves as displaced persons.

Table 395 gives the district-wise distribution of their population.
TABLE 395—Distribution of displaced persons with rural-urban break-up by districts

Natural division and district	Total			Rural			Urban		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
Uttar Pradesh	480,270	257,147	223,123	49,188	27,740	21,448	431,082	229,407	201,675
<i>Himalayan</i>	63,033	33,689	29,344	12,232	7,010	5,222	50,801	26,679	24,122
Garhwal	603	349	254	47	28	19	556	321	235
Tehri-Garhwal	223	137	86	10	4	6	213	133	80
Naini Tal	13,688	7,743	5,945	9,704	5,592	4,112	3,984	2,151	1,833
Almora	439	217	222	128	60	68	311	157	154
Dehra Dun	48,080	25,243	22,837	2,343	1,326	1,017	45,737	23,917	21,820
<i>East Plain</i>	18,144	9,534	8,610	2,412	1,269	1,143	15,732	8,265	7,467
Gorakhpur	3,461	1,811	1,650	335	187	148	3,126	1,624	1,502
Deoria	553	303	250	247	133	114	306	170	136
Basti	1,305	708	597	407	212	195	898	496	402
Gonda	1,798	956	842	469	256	213	1,329	700	629
Bahraich	444	247	197	190	104	86	254	143	111
Banaras	9,112	4,740	4,372	511	245	266	8,601	4,495	4,106
Jaunpur	391	204	187	105	53	52	286	151	135
Ghazipur	217	120	97	4	2	2	213	118	95
Ballia	333	177	156	82	39	43	251	138	113
Azamgarh	530	268	262	62	38	24	468	230	238
<i>Central Plain</i>	100,486	53,248	47,238	5,628	3,065	2,563	94,858	50,183	44,675
Kanpur	45,251	24,058	21,193	1,843	1,001	842	43,408	23,057	20,351
Fatehpur	532	285	247	200	112	88	332	173	159
Allahabad	13,817	7,267	6,550	1,095	621	474	12,722	6,646	6,076
Lucknow	29,478	15,675	13,803	1,023	548	475	28,455	15,127	13,328
Unnao	658	339	319	95	53	42	563	286	277
Rae Bareli	1,141	596	545	353	184	169	788	412	376
Sitapur	1,804	986	818	403	208	195	1,401	778	623
Hardoi	903	468	435	82	48	34	821	420	401
Faizabad	5,311	2,706	2,605	176	97	79	5,135	2,609	2,526
Sultanpur	640	370	270	202	121	81	438	249	189
Pratapgarh	273	131	142	50	20	30	223	111	112
Bara Banki	678	367	311	106	52	54	572	315	257
<i>West Plain</i>	287,629	154,556	133,073	28,377	16,043	12,334	259,252	138,513	120,739
Saharanpur	65,684	34,875	30,809	5,179	2,874	2,305	60,505	32,001	28,504
Bareilly	16,259	8,725	7,534	1,569	979	590	14,690	7,746	6,944
Bijnor	5,593	3,032	2,561	563	365	198	5,030	2,667	2,363
Pilibhit	2,308	1,314	994	603	393	210	1,705	921	784
Rampur	6,676	3,618	3,058	1,305	777	528	5,371	2,841	2,530
Kheri	2,315	1,302	1,013	1,029	621	408	1,286	681	605
Muzaffarnagar	15,126	8,031	7,095	1,867	1,045	822	13,259	6,986	6,273
Meerut	68,113	37,343	30,770	10,262	5,611	4,651	57,851	31,732	26,119
Bulandshahr	5,279	2,847	2,432	447	262	185	4,832	2,585	2,247
Aligarh	9,880	5,352	4,528	424	251	173	9,456	5,101	4,355
Mathura	12,299	6,333	5,966	488	289	199	11,811	6,044	5,767
Agra	44,695	24,041	20,654	1,078	589	489	43,617	23,452	20,165
Mainpurj	2,939	1,535	1,404	304	183	121	2,635	1,352	1,283
Etah	1,837	980	857	560	290	270	1,277	690	537
Budaun	3,901	2,066	1,835	215	130	85	3,686	1,936	1,750
Moradabad	15,766	8,333	7,433	1,615	905	709	14,151	7,427	6,724
Shahjahanpur	4,346	2,328	2,018	278	158	120	4,068	2,170	1,898
Etawah	2,427	1,347	1,080	370	201	169	2,057	1,146	911
Farrukhabad	2,186	1,154	1,032	221	119	102	1,965	1,035	930
<i>Hills and Plateau</i>	10,978	6,120	4,858	532	353	186	10,439	5,767	4,672
Jhansi	8,339	4,616	3,723	283	193	90	8,056	4,423	3,633
Jalaun	1,020	558	462	115	76	39	905	482	423
Hamirpur	267	152	115	30	19	11	237	133	104
Banda	900	540	360	76	46	30	824	494	330
Mirzapur	452	254	198	35	19	16	417	235	182

It will be observed that of the total population of displaced persons as many as 287,629 or 59.9 per cent. have settled in the West Plain. The number in the other divisions is much smaller, being only 20.9 per cent. in the Central Plain, 13.1 per cent. in the Himalayan, 3.8 per cent. in the East Plain and 2.3 per cent. in the Hills and Plateau. It will also be seen that the western districts of the State, particularly Meerut (14.2 per cent.), Saharanpur (13.7 per cent.), Dehra Dun (10 per cent.) and Agra (9.3 per cent.), being nearer to the abandoned areas and having a somewhat similar environment have attracted them most. But as the local economy of the western districts could not absorb their increasing numbers, they had to move to the central and to some of the eastern districts of the State. It is also to be noted that they have chiefly congregated in large cities of the State. This is due to the urban character of the population of displaced persons and their belonging mainly to the commercial and service classes.

3. Table 396 shows the figures of displaced persons who migrated from West Pakistan or East Pakistan and were enumerated in this State and also the year of their arrival in India.

Place of origin
and year of arrival
in India

TABLE 396—Displaced persons by place of origin and year of arrival in India

Year/month of arrival	From West Pakistan			From East Pakistan			From district unstated		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
Total	448,703	241,154	207,549	9,598	4,707	4,891	21,969	11,286	10,683
Year 1946	4,529	2,303	2,226	200	142	58	178	90	88
Year 1947	346,316	187,364	158,954	6,272	3,029	3,243	15,107	7,892	7,210
January	5,189	2,765	2,424	157	47	110	417	257	160
February	4,585	1,677	2,908	145	71	74	219	125	94
March	9,450	4,831	4,619	232	58	174	463	226	237
April	9,303	4,445	4,858	214	39	175	410	167	243
May	7,995	3,237	4,758	199	61	138	371	144	227
June	10,438	4,351	6,087	451	167	284	372	148	224
July	21,728	10,846	10,882	386	216	170	567	279	288
August	102,927	58,396	44,531	1,440	805	635	3,845	2,056	1,789
September	62,620	34,876	27,744	634	281	353	2,488	1,320	1,168
October	45,275	24,027	21,248	1,128	592	536	2,515	1,280	1,235
November	35,232	19,005	16,227	537	216	321	1,961	1,073	888
December	31,574	18,908	12,666	749	476	273	1,479	822	657
Year 1948	67,268	34,803	32,465	2,069	925	1,144	3,313	1,733	1,580
January	16,646	8,829	7,817	394	176	218	709	351	358
February	9,294	4,992	4,302	357	144	213	481	260	221
March	10,597	5,008	5,589	237	147	90	463	227	236
April	4,930	2,506	2,424	240	77	163	203	120	83
May	2,863	1,474	1,389	133	45	88	150	84	66
June	3,342	1,735	1,607	102	49	53	188	82	106
July	3,047	1,562	1,485	88	38	50	221	138	83
August	4,538	2,504	2,034	135	66	69	247	137	110
September	3,125	1,312	1,813	109	47	62	132	66	66
October	2,331	1,381	950	61	29	32	168	57	111
November	1,914	943	971	75	49	26	106	52	54
December	4,641	2,557	2,084	138	58	80	245	159	86
Year 1949	5,797	2,953	2,844	315	167	148	769	363	406
Year 1950	2,859	1,427	1,432	535	325	210	862	295	567
Year 1951	476	283	193	25	14	11	168	125	43
Date unstated	13,371	8,118	5,253	144	77	67	1,065	540	525
Children born in India	8,087	3,903	4,184	38	28	10	507	243	264

An overwhelming majority of the displaced persons have come from West Pakistan, the migrants from East Pakistan being only about 2 per cent. Of them 303,060 persons or 63.1 per cent. are from West Punjab, 69,476 or 14.5 per cent. from Sindh, 62,644 or 13 per cent. from North-West Frontier Province and the remainder from Baluchistan (5,731 or 1.2 per cent.), the Pakistan states (7,792 or 1.6 per cent.), East Bengal (9,378 or 2.0 per cent.), Sylhet (220) and the districts unstated (21,969 or 4.6 per cent.). Among the

districts mainly contributing are Lahore (38,519), Gujrat (35,756), Rawalpindi (32,198), Sukkur (23,920), Montgomery (23,450), Lyallpur (23,413), Multan (22,059), Sialkot (19,077), Gujranwala (18,502) and Shahpur (17,626). Most of the displaced persons who migrated from East Pakistan have got settled in the intervening States of Bengal, Bihar and Orissa which were nearer to their abandoned homes. Those who migrated to this State belonged mainly to the districts of Dacca (2,500), Chittagong (1,327), Mymensingh (967), Faridpur (687) and Noakhali (542).

From Table 396 it is easy to construct the history of the influx of the displaced persons in this State. Even in the year 1946 about 5,000 persons had migrated to this State, mainly from West Punjab. Then the trickle started in January, 1947, it became bigger in March owing to disturbances in the Punjab, it became still bigger in June with the increasing tempo of riots, and finally it became a flood with the creation of Pakistan in August, 1947. With the exchange of population between Pakistan and India, the influx continued to be sizable till the end of 1947, after which it abated in volume and took the shape largely of overflow from East Punjab. This overflow continued throughout 1948, when a little over 72,000 displaced persons entered this State. The influx in subsequent years has been negligible—about 6,800 in 1949, about 4,000 in 1950, and 669 in January-February, 1951—and represents largely the movements of unrehabilitated persons from one place to another in search of a livelihood.

4. We will now proceed to analyse some of the demographic characteristics of the population of displaced persons and to compare them with those of the population of the State. As an overwhelming majority of the displaced persons in this State belong to urban areas their demographic characteristics are really comparable with the urban population of the State only.

5. The State Government's concern, after providing immediate relief to the displaced persons, was their permanent rehabilitation. Plans for their systematic absorption were prepared. Some of the principles followed to achieve this object were as under :

- (i) Facilities were provided for carrying on the same vocation, as far as possible, which these persons were following in Pakistan, having regard to the economic capacity of the particular area and of the State as a whole to absorb new families in that particular vocation.
- (ii) Where the number of families exceeded the capacity of a particular vocation to give employment, arrangements were made for imparting training in other vocations which could absorb them.
- (iii) If the population of displaced persons exceeded the maximum absorption capacity of all vocations in an area, the surplus families were moved to other places within the State where they could be settled in profitable employments or vocations.

This policy of the government has been largely successful and most of the displaced persons have been rehabilitated in the same occupations as they were following in Pakistan. The occupational distribution of the displaced persons at the census of 1951 shows that only 4.5 per cent. had settled in agricultural occupations and the rest in non-agricultural occupations. The distribution of their population according to the principal livelihood classes is shown in Table 397 by natural divisions.

TABLE 397—*Distribution of 1,000 displaced persons in livelihood classes by natural divisions*

Natural division	Agricultural classes					Non-agricultural classes				
	Total	I	II	III	IV	Total	V	VI	VII	VIII
Uttar Pradesh	45	37	4	2	2	955	161	431	88	275
Himalayan	139	121	10	6	2	861	141	343	64	313
East Plain	20	12	4	..	4	980	178	477	122	203
Central Plain	5	3	..	1	1	995	176	403	108	308
West Plain	40	33	3	2	2	960	160	460	84	256
Hills and Plateau	19	13	5	1	..	981	142	380	110	349

Means of livelihood:

(i) Livelihood pattern

The number of agriculturists among the displaced persons coming to this State was very small. They were mostly settled in the new colonization areas in *Tarai* in the district of Naini Tal and the *Ganga Khadar* in the district of Meerut. Outside the colonization areas too, efforts were made to allot cultivable waste land to as many families as possible.

Among the non-agricultural classes the highest percentage of displaced population falls under Class VI, Commerce. It is noticeable that while in the urban population of the State only 21.9 per cent. of the population belong to this livelihood class the proportion among the displaced persons is as high as 43.1 per cent. The next highest percentage falls under Class VIII, Other services and miscellaneous sources. Only 27.5 per cent. of the displaced population belongs to Class VIII as against 34.6 per cent. of the urban population. 16.1 per cent. of the displaced population falls under Class V, Production other than cultivation, and 8.8 per cent. under Class VII, Transport, as compared to 24.9 per cent. and 6.2 per cent. of the urban population belonging to these classes respectively. The livelihood pattern of the displaced persons is thus very much different from that of the urban population of the State, to say nothing of the general population with which it has no resemblance.

The exceptional occupational composition of the population of displaced persons has caused serious difficulties to the authorities in charge of rehabilitation plans. The displaced persons were anxious to be settled in the same occupation as they were following in their homeland and every efforts have been made to fulfil this natural desire. As has been seen above a large proportion have settled in Commerce, mainly as retail shopkeepers. Government have set up special temporary stalls for them in most of the cities of the State. The next largest proportion has been rehabilitated in services, mainly under government, followed by industrial production.

6. Table 398 shows the distribution of 1,000 displaced persons of each livelihood class among self-supporting persons, earning dependants and non-earning dependants.

(ii) *Self-supporting persons, earning dependants and non-earning dependants*

TABLE 398—*Distribution of 1,000 displaced persons in each livelihood class according to the dependency status*

Livelihood class		Self-supporting persons	Earning dependants	Non-earning dependants
All classes		270	22	708
<i>Agricultural classes</i>		309	60	631
I	.. .. .	307	66	627
II	.. .. .	293	28	679
III	.. .. .	417	51	532
IV	.. .. .	257	17	726
<i>Non-agricultural classes</i>		268	20	712
V	.. .. .	301	18	681
VI	.. .. .	243	25	732
VII	.. .. .	279	14	707
VIII	.. .. .	284	16	700

It will appear that 27 per cent. of the displaced persons are self-supporting, 2.2 per cent. are earning dependants and 70.8 per cent. are non-earning dependants. The corresponding percentages for self-supporting persons, earning dependants and non-earning dependants* in the urban population are 30.6, 3.4 and 66.0. It is obvious that the burden of non-earning dependency is heavier among the displaced persons than in the urban population of the State.

Examining the figures by agricultural and non-agricultural classes it will appear that the agricultural classes of the displaced persons have a slightly higher percentage of self-supporting persons and slightly lower percentage of non-earning dependants as compared with the urban agricultural classes of the State. But as has been already noted the displaced persons of the agricultural classes are only 4.5 per cent. of the total and it is the non-agricultural classes that constitute the bulk of the displaced persons. It will be seen that the proportion of self-supporting persons among the displaced persons is 26.8 per cent. as against

*Vide Table 159, page 194.

31.1 per cent., that of earning dependants 2 per cent. against 3 per cent., and that of non-earning dependants 71.2 per cent. against 65.9 per cent. of the non-agricultural classes of the State. This is evidence of the gap in the rehabilitation process of the displaced persons, though the gap is surprisingly small.

(iii) Secondary means of livelihood of self-supporting displaced persons

7. Of 129,557 self-supporting displaced persons (males 124,815, females 4,742) 4,698 (males 4,482, females 216) returned a secondary means of livelihood. The number per 1,000 of self-supporting displaced persons of each livelihood class according to the nature of the secondary means of livelihood is shown in Table 399.

TABLE 399—Distribution of 1,000 self-supporting displaced persons of each livelihood class according to the nature of their secondary means of livelihood

Livelihood class	No secondary means of livelihood	Total	Agricultural secondary means of livelihood				Non-agricultural secondary means of livelihood				
			I- Cultivation of owned land	II- Cultivation of unowned land	III- Employment as cultivating labourer	IV- Rent on agricultural land	V- Pro- duction	VI- Com- merce	VII- Trans- port	VIII- Other services and miscellaneous sources	
All classes	964	8	3	1	3	1	28	5	9	3	11
All agricultural classes	908	12	2	6	3	1	80	10	15	1	54
I	901	10	..	7	2	1	89	11	15	1	62
II	967	8	2	..	2	4	25	2	15	..	8
III	951	20	16	4	..	..	29	11	2	..	16
IV	860	51	35	4	12	..	89	11	47	4	27
All non-agricultural classes	967	8	3	1	3	1	25	5	9	3	8
V	969	3	2	..	..	1	28	4	11	6	7
VI	956	10	3	1	5	1	34	6	14	4	10
VII	990	4	2	1	..	1	6	1	2	1	2
VIII	973	9	4	..	3	2	18	4	3	1	10

It will be observed that 96.4 per cent. of the self-supporting displaced persons had no secondary means of livelihood and of the remaining, 0.8 per cent. had an agricultural secondary means of livelihood and 2.8 per cent. had a non-agricultural secondary means of livelihood. As compared to this 85.2 per cent. of the self-supporting persons in the general population* had no secondary means of livelihood, 5.7 per cent. had an agricultural secondary means of livelihood and 9.1 per cent. had a non-agricultural secondary means of livelihood. Presumably this difference is also due to the fact that not all the displaced persons had been rehabilitated up till the time of the census. The other figures need no special comments.

(iv) Employers, employees and independent workers

8. Table 400 gives the comparative proportions of employers, employees and independent workers and others among 10,000 self-supporting persons of the non-agricultural classes among the displaced population as well as in the urban population.

TABLE 400—Distribution of 10,000 self-supporting persons (of displaced population and urban population) of each non-agricultural livelihood class according to the employment status

Livelihood class	Displaced population				Urban population			
	Emp-loyers	Emp-loyees	Inde-pendent workers	Others (eco-nomically unpro-ductive persons)	Emp-loyers	Emp-loyees	Inde-pendent workers	Others (eco-nomically unpro-ductive persons)
All non-agricultural classes (including dependants)	573	3,938	5,295	194	458	4,085	5,227	230
V—Production other than cultivation	833	4,330	4,837	..	485	3,493	6,022	..
VI—Commerce	753	1,204	8,043	..	1,110	1,426	7,464	..
VII—Transport	436	6,627	2,937	..	277	5,114	4,609	..
VIII—Other services and miscellaneous sources	210	6,519	2,632	639	140	5,647	3,677	536

*The figures relating to the urban population are not available.

It will be seen that the proportion of employers is higher and that of employees lower among the displaced persons. This is evidence of the enterprising character of the population of the displaced persons (specially in the field of industrial production and transport).

9. Table 401 gives the comparative distribution of 10,000 self-supporting persons of all non-agricultural occupations of the displaced and urban population of the State according to economic divisions.

(v) Self-supporting persons employed in various economic divisions

TABLE 401—Distribution of 10,000 self-supporting persons of all non-agricultural occupations of displaced and urban population according to economic divisions

Name of division	Displaced population	Urban population
All industries and services	10,000	10,000
0—Primary industries not elsewhere specified	68	159
1—Mining and Quarrying	3	13
2—Processing and Manufacture—Foodstuffs, Textiles, Leather and Products thereof	1,067	1,612
3—Processing and Manufacture—Metals, Chemicals and Products thereof ..	386	477
4—Processing and Manufacture not elsewhere specified	413	638
5—Construction and Utilities.. .. .	176	409
6—Commerce	4,174	2,218
7—Transport, Storage and Communications	1,068	781
8—Health, Education and Public Administration	1,383	1,352
9—Services not elsewhere specified	1,262	2,341

It will be seen that compared with the urban population of the State the displaced persons have got much more than their proportionate share in Division 6, Commerce, and Division 7, Transport, and a slightly higher than their proportionate share in Division 8, Health, Education and Public Administration while they are under-represented in all the other divisions.

10. Of the displaced persons 173,646 (males 90,418, females 83,228) or about 36·2 per cent. were under 15 years of age at the census of 1951, 177,500 (males 93,384, females 84,116) or 37 per cent. were young men and women aged 15—34, 91,913 (males 52,401, females 39,512) or 19·1 per cent. were middle-aged persons aged 35—54, and 37,117 (males 20,892, females 16,225) or 7·7 per cent. were elderly persons aged 55 and over.*

Age composition

Table 402 gives the age distribution of 100 displaced persons and compares it with the age distribution of the general and urban population of the State.

TABLE 402—Age distribution of 100 persons of the displaced, general and urban population of the State

Age-group	Displaced population			General population			Urban population		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
Under 15 ..	36·2	35·2	37·3	38·5	38·2	38·8	36·6	35·1	38·5
15—34 ..	37·0	36·3	37·7	32·2	32·0	32·4	35·0	35·6	34·1
35—54 ..	19·1	20·4	17·7	20·9	21·5	20·2	20·6	21·7	19·4
55 and over ..	7·7	8·1	7·3	8·4	8·3	8·6	7·8	7·6	8·0

It will be seen that there are no marked differences in the age composition of the displaced persons on the one hand and that of the urban and general population of the State on the other. The composition has a striking similarity with that of the urban population of the State, as expected. The displaced population is progressive, the proportion of younger people being over four times that of older people. It is confirmed from the age-structure of the displaced persons that whole families have migrated from Pakistan.

*34 displaced persons (males 52, females 42) had not stated their ages.

Sex-ratio

11. Table 403 gives the sex-ratio of the displaced persons and compares it with the sex-ratio of the general and urban population of the State.

TABLE 403—*Sex-ratio of the displaced, general and urban population of the State*

Age-group		Displaced population	General population	Urban population
All ages	.. .. .	868	910*	820*
0—4	.. .. .	884	969	921
5—9	.. .. .	952	916	901
10—14	.. .. .	921	841	836
15—19	.. .. .	1,009	875	765
20—24	.. .. .	948	979	844
25—29	.. .. .	846	875	745
Total 0—29	.. .. .	928	909	840
30—39	.. .. .	765	865	730
40—49	.. .. .	753	844	716
50—59	.. .. .	718	812	731
60 and over	.. .. .	813	1,015	918
Total 30 and over	.. .. .	761	870	753

It will be seen that the sex-ratio of displaced persons was 868 against 820 of the urban and 910 of the general population. It will be interesting to note that the sex-ratio in the pre-partition Punjab was only 847 in 1941 and in the East Punjab in 1951 it is only 863.

Civil condition

12. 221,264 displaced persons (males 124,145, females 97,119) were returned as unmarried; 226,928 (males 120,587, females 106,341) as married and 32,078 (males 12,415, females 19,663) as widowed or divorced at the census of 1951. Table 404 compares the civil condition of displaced persons with that of the urban population of the State.

TABLE 404—*Distribution of 1,000 of each sex of the displaced and urban population by civil condition and age-groups*

Age-group	Displaced population						Urban population					
	Unmarried		Married		Widowed or divorced		Unmarried		Married		Widowed or divorced	
	M	F	M	F	M	F	M	F	M	F	M	F
Total	483	435	469	477	48	88	476	410	464	484	60	106
0—4	1,000	1,000	..	..	..	..	1,000	1,000	..	..	..	..
5—14	978	959	22	40	..	1	964	902	35	96	1	2
15—24	576	287	413	702	11	11	502	194	481	788	17	18
25—34	96	34	877	922	27	44	126	34	826	917	48	49
35—44	33	24	915	853	52	123	65	28	849	834	86	138
45—54	21	14	859	669	120	317	46	29	799	638	155	333
55—64	16	10	733	478	251	512	48	14	693	405	259	581
65—74	19	10	610	342	371	648	38	21	595	250	367	729
75 and over	13	13	558	211	429	776	48	30	449	160	503	810
Age not stated	442	333	327	381	231	286	472	273	233	464	295	263

* The sex-ratio of the general and urban population relates to the total count while that of the age-groups relates to the 10 per cent. sample from which age tables have been prepared.

It will be seen that marriage among displaced persons is as universal as in the urban population. The proportion of unmarried males and females among the displaced persons is only slightly higher than that of the urban population of the State. It will also be noted that the age of marriage, both among males and females, is higher in the displaced than in the urban population. The number of widowed or divorced is less in the displaced than in the urban population.

13. Table 405 shows the number of literates among the displaced persons at different age-groups and compares their figures with the corresponding figures for the urban population.

Literacy

TABLE 405—*Number literate per 1,000 of each sex in the displaced and the urban population of the State*

Age-group	Displaced population			Urban population		
	Persons	Males	Females	Persons	Males	Females
5 and over ..	572	676	451	334	446	193
5—9	334	388	277	166	203	125
10—14	644	714	567	385	471	281
15—24	682	775	586	430	558	270
25—34	642	750	509	371	502	196
35—44	571	702	397	314	433	149
45 and over ..	473	636	259	279	409	114

It will be seen that the level of literacy of the displaced persons is considerably higher than that of the urban population of the State, both in the case of males and females. The difference in the case of females is striking. The displaced persons mostly belong to the commercial and service classes whose literacy is higher than the average. The literacy in 1951 of urban population aged 5 years and over in East Punjab is 42·0 per cent. and that of general population 18·4 per cent. The displaced persons from the Punjab now in U. P., therefore, belong to the more educated urban classes.

CHAPTER XI—UNEMPLOYMENT

1. At this census, Q. 13 was left to the discretion of State Governments in order to enable them to collect data on any matter of local importance. Some decided to obtain information on fertility of women, some on selected disabilities, some on unemployment, and some on other matters. The U. P. Government chose to make enquiries regarding the extent of unemployment in the State.

Introductory

2. Within the ambit of one question it was difficult to cover all the aspects of unemployment. But the question was carefully framed so as to obtain data regarding (a) persons outside the labour force* (b) persons in the labour force consisting of (i) gainfully employed and (ii) unemployed. In the case of unemployed even the period of continuous unemployment was obtained in years and months. The instructions to enumerators were as follows :

“ Write 0 for all persons below 16 or above 60 years of age, housewives, permanently disabled persons, etc., who are not gainfully employed ; also for unemployed persons not seeking employment. *If either of them is gainfully employed write '1'.*”

Write 1 for persons gainfully employed on the date of enumeration or on leave from gainful employment on that date.

Write 2 for persons unemployed and seeking employment and give the period of continuous unemployment in years and months as follows :

2—1 year 9 months” (*vide* Appendix I).

The statistics collected in response to this question have been presented in Table B-IV in Part II-B of the Report. The table gives the number of persons outside the labour force, persons gainfully employed, and persons unemployed by livelihood classes with separation for sex and rural-urban break-up. In the case of unemployed the period of unemployment is also given in four categories (i) under six months, (ii) between six months and one year, (iii) between one year and two years, and (iv) over two years.

3. The figures of unemployed have come out to be unexpectedly small, both in the rural and urban areas. At first sight one would declare them to be inaccurate. But fortunately a statistical check of the figures is possible. The self-supporting persons plus earning dependants whose number has been ascertained under Q. 9 should be roughly equal to the gainfully employed ascertained under Q. 13. The total number of self-supporting persons and earning dependants in the State is 195 lakh males and 73 lakh females while that of persons gainfully employed is 190 lakh males and 74.7 lakh females. If we take into account the fact that the economically inactive among the self-supporting persons have *not* been treated as “ gainfully occupied ” the figures of gainfully occupied males closely approximate to that of male self-supporting persons and earning dependants. These figures are further confirmed by comparison with the total number of males between the ages of 16 and 60, which is 185 lakhs. The figure of gainfully employed females is no doubt slightly higher than that of the female self-supporting persons and earning dependants but the error is very small and the explanation obvious. Some enumerators have by mistake recorded housewives as gainfully occupied. This check has been applied to the figures of individual livelihood classes and to males and females separately and the approximation is throughout very close (with minor aberrations). If the figures of “ gainfully occupied ” are so accurate there is no reason to believe that the figures of unemployed or persons outside the labour force are any less accurate. No confusion between persons outside the labour force or persons unemployed was possible. The conclusion is, therefore, irresistible that the figures of unemployed too are of a high order. If they are unexpectedly low the reason is to be sought elsewhere.

Accuracy of the data collected

4. Only 33,155 persons (males 25,983, females 7,172) were enumerated as unemployed throughout the State, including rural and urban areas.

Extent of unemployment in the State

* According to the recommendations of the sixth International Conference of Labour Statisticians all persons either employed or seeking employment on a given day or during a given period (not exceeding one week) should be classified as members of the labour force—United Nations, *Population Census Methods*.

Table 406 gives the number of gainfully employed, the unemployed and the percentage of unemployed to gainfully employed by natural divisions. The last figure is a very convenient index or yardstick for measuring the extent of unemployment.

TABLE 406—*Extent of unemployment among persons aged 16—60 by natural divisions*

Natural division					Number gainfully employed	Number unemployed	Percentage of unemployed to gainfully employed
Uttar Pradesh—							
Total	..	..	..	..	26,553,546	33,155	0·12
Rural	..	..	..	..	23,690,022	9,620	0·04
Urban	..	..	..	..	2,863,524	23,535	0·82
Himalayan—							
Total	..	..	..	..	1,360,560	2,148	0·16
Rural	..	..	..	..	1,249,507	1,243	0·10
Urban	..	..	..	..	111,053	905	0·81
East Plain—							
Total	..	..	..	..	8,317,215	4,202	0·05
Rural	..	..	..	..	7,860,997	1,747	0·02
Urban	..	..	..	..	456,218	2,455	0·54
Central Plain—							
Total	..	..	..	..	7,053,758	12,090	0·17
Rural	..	..	..	..	6,269,726	4,408	0·07
Urban	..	..	..	..	784,032	7,682	0·98
West Plain—							
Total	..	..	..	..	8,077,413	8,856	0·11
Rural	..	..	..	..	6,762,273	1,870	0·03
Urban	..	..	..	..	1,315,140	6,986	0·53
Hills and Plateau—							
Total	..	..	..	..	1,744,600	5,859	0·34
Rural	..	..	..	..	1,547,519	352	0·02
Urban	..	..	..	..	197,081	5,507	2·79

The figures suggest that unemployment at the time of enquiry was not a grave problem anywhere in the State. It will also be seen that unemployment is relatively much greater in the urban areas than in the rural. This is mainly due to the fact that in the rural areas the adult members of a family generally remain engaged in their family holdings though there may not be sufficient work for all of them. All such persons have been returned as gainfully employed. The urban occupations, on the other hand, are of a different nature. They do not give employment to all the members of a family. Another reason for this is the fact that the urban population is more educated than the rural. The educated persons at present seek employment mostly in white-collared professions while the less educated take to the plough or the spade.

5. Table 407 shows the figures of unemployment by livelihood classes.

TABLE 407—*Unemployment among persons aged 16—60 by livelihood classes with rural-urban break-up*

Livelihood class	Number of persons gainfully employed in			Number of unemployed persons in			Percentage of unemployed to the number of persons gainfully employed in		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
All classes	26,553,546	23,690,022	2,863,524	33,155	9,620	23,535	0·12	0·04	0·82
All agricultural classes..	20,394,589	20,050,527	344,062	7,615	6,682	933	0·04	0·03	0·27
I	16,906,008	16,671,363	234,645	5,187	4,722	465	0·03	0·03	0·20
II	1,500,686	1,450,886	49,800	707	596	111	0·05	0·04	0·22
III	1,770,023	1,738,326	31,697	1,155	1,102	53	0·07	0·06	0·17
IV	217,872	189,952	27,920	566	262	304	0·26	0·14	1·09
All non-agricultural classes	6,158,957	3,639,495	2,519,462	25,540	2,938	22,602	0·41	0·08	0·90
V	2,038,618	1,298,592	740,026	6,309	1,160	5,149	0·31	0·09	0·70
VI	1,047,875	492,288	555,587	3,836	303	3,533	0·37	0·06	0·64
VII	294,359	118,734	175,625	1,406	183	1,223	0·48	0·15	0·70
VIII	2,778,105	1,729,881	1,048,224	13,989	1,292	12,697	0·50	0·07	1·21

The figures confirm the observations made above. The extent of unemployment is relatively smaller among the agricultural than the non-agricultural classes. It is high both in rural and urban population among persons belonging to livelihood Class IV, who are relatively more educated and conscious of their standard of living. It is the highest in the urban population for

persons belonging to Class VIII who relatively attain higher educational standards and who generally belong to the middle class families with service as the traditional occupation.

6. Table 408 shows the percentage of unemployed persons to the total number of gainfully employed persons by educational standards.

Unemployment
by educational
standards

TABLE 408—*Unemployment among persons aged 16—60 by educational standards in the State*

Educational standard	Number of persons gainfully employed	Number of persons unemployed	Percentage of unemployed to gainfully employed
Total	26,553,546	33,155	0.12
Illiterate	22,787,914	14,336	0.06
Literate	3,154,562	10,143	0.32
Middle School	291,195	2,983	1.02
Matriculate or S. L. C., Higher Secondary	155,441	3,588	2.31
Intermediates in Arts or Science	32,130	866	2.70
Degrees or Diplomas	132,304	1,239	0.94
Graduates in Arts or Science	28,147	415	1.47
Post-graduates in Arts or Science	8,982	147	1.64
Teaching	16,983	167	0.98
Engineering	1,177	17	1.44
Agriculture	983	48	4.88
Veterinary	434	27	6.22
Commerce	1,621	11	0.68
Legal	7,682	52	0.68
Medical	4,255	11	0.26
Others	62,040	344	0.55

It will be seen that the extent of unemployment is the lowest among illiterates and increases with educational qualifications upto Intermediate standard. It is higher for persons who have read up to Middle School, higher still for persons who have passed the High School examination and the highest for persons who have passed the Intermediate examination. As regards persons with Degrees and Diplomas it has already been explained in a previous chapter that the census figures are unreliable. But it can be safely asserted on the basis of the data collected that there is very little unemployment among persons with commercial and other technical degrees or diplomas.

7. Table 409 gives the number of unemployed in each livelihood class by duration of unemployment.

TABLE 409—*Unemployment in each livelihood class by duration of unemployment*

Livelihood class	Under 6 months	Between 6 months and one year	Between one year and two years	Over two years
All classes	11,734	6,387	6,787	8,247
All agricultural classes	2,358	996	1,559	2,702
I	1,317	771	1,292	1,807
II	161	68	81	397
III	784	62	53	256
IV	96	95	133	242
All non-agricultural classes	9,376	5,391	5,228	5,545
V	2,861	1,261	1,160	1,027
VI	1,150	930	806	950
VII	342	250	350	464
VIII	5,023	2,950	2,912	3,104

It will be seen that about one-third of the unemployed, both in the agricultural and non-agricultural classes, have returned the duration of unemployment as under 6 months. It is significant that in the non-agricultural classes the remaining two-thirds are almost equally divided in duration between (i) 6 months and one year, (ii) one year and two years and (iii) over two years. These are cases of chronic unemployment and hardship.

Recent developments in the unemployment problem

8. From the figures collected at the last census of 1951 it would appear that the magnitude of unemployment on that date was not at all large. During 1953, however, there is a country-wide outcry that unemployment exists in a grave form. There was no such agitation in 1951 and 1952 and so the problem must be of a recent origin. The last two years have seen an unusually large and increasing spate of passes at the Middle, High school and higher examinations. New avenues for employment have not developed to the same extent. In fact, there has been of late an economic recession. The Finance Minister of the Government of India recently* analysed the problem in detail in Parliament. These developments should not, however, be allowed to cloud the accuracy of the data collected at the census.

Under-employment

9. Along with unemployment we must consider the problem of under-employment to which pointed reference was made in Chapters I and IV. Population is growing faster than cultivation. During the last twenty years in particular there has been a general decline in the cultivated land *per capita* unaccompanied by increase in non-agricultural employment. The productive capacity of the land shows no sign of any significant increase and the village handicrafts are, if anything, declining. The net result has been a growing burden on agriculture where we have a surplus man-power of about a crore. This is the measure of under-employment and poverty that now stalks the rural areas. In the urban areas unemployment affects principally the educated classes, the nature and magnitude of which is fairly reflected in the periodic returns of the Employment Exchanges and under-employment is not of a serious nature.

*November, 1953.

APPENDICES

APPENDIX I

INSTRUCTIONS TO ENUMERATORS, UTTAR PRADESH, CENSUS 1951

I. QUESTIONNAIRE FOR 1951 CENSUS

1. Name and relationship to head of household—After the name write :

- 1 for the head of the household.
Actual relationship for wife, son, daughter, brother, sister, father, mother, husband, son-in-law, daughter-in-law or brother's wife.
- 2 for other relatives,
- 0 for unrelated person (if any) living in the household and
- 3 for visitors enumerated along with the household, patients in hospitals or nursing homes or asylums, and inmates of jails and other such institutions.

2. (a) Nationality—Write 1 for all Indian Nationals. For others write nationality in full.

(b) Religion—Write 1 for Hindu, 2 for Muslim and 0 for those who say they do not profess any religion. For others write the answer as actually returned in words, e.g., *Christian, Sikh, Jain, Buddhist, Zoroastrian (or Parsee), Jew, etc.*

(c) Special groups—This is intended to record castes of some Hindus and Muslims and to enumerate the Anglo-Indians. For all others write a 'X'. Write:

- 0 for any Hindu who says he is not a member of any caste or tribe and
- 1 for any Hindu who says he is a member of one of the castes in the list given below.

Actual name of caste as returned by other Hindus.

Actual name of caste for only such Muslims as belong to the list of eight castes given below.

- A for Anglo-Indians and
- X for all others.

List of Hindu Castes for which '1' is to be recorded

1 Ahar	6 Bhat	11 Gaddi	16 Rajbhar	20 Taga
2 Baghban	7 Bhil	12 Jat	17 Rajput	21 Tharu
3 Balai	8 Bhishti	13 Kalwar	(Thakur)	22 Vaishya
4 Barai	9 Brahman	14 Kayastha	18 Saini	
5 Bharbhunja	10 Faqir	15 Khattri	19 Sainthwar	

List of Muslim Castes which will be enumerated

1 Dhuniya	5 Kunjra
2 Jhojha	6 Lunia
3 Julaha (Ansar)	7 Manihar
4 Kori	8 Murao

3. Civil Condition—Write 1 for unmarried 2 for married and 3 for widowed. If divorced, write 0.

4. Age—Write age last birthday ; that is, the actual number of completed years. Write 0 for infants below 1.

5. Birth-place—Write 1 for every person born in your district. For persons born in other districts of Uttar Pradesh ascertain the name of the district and record it. For persons born in a State other than Uttar Pradesh write the name of the State. For persons born in a foreign country, write the name of the country, e.g., Pakistan, China, etc.

6. Displaced persons—If the person enumerated is not a displaced person write 0 in both compartments. If he is a displaced person, write the date of arrival (Month/Year) in India in the first compartment and the district of origin in Pakistan in the second compartment. For children of displaced persons born after their arrival in India write 0 in the first compartment and the district of origin in Pakistan of their parents in the second compartment.

7. Mother-tongue—Write 1 for Hindi, 2 for Urdu and 3 for Hindustani. For others write the name of the language as returned in words.

8. Bi-lingualism—If a person commonly speaks any Indian language other than his mother-tongue, record it. (Do not write English for it is not an Indian language.) For those whose mother-tongue is Hindi, Urdu or Hindustani neither of these languages should be recorded in this question. But for those whose mother-tongue is other than Hindi, Urdu or Hindustani you can write either of these three languages as their secondary language, using the same contractions as prescribed in Question 7.

9. Economic Status—

- (1) *Dependency*—Write the answer in the first compartment. Write :
- 1 for a self-supporting person,
 - 2 for a non-earning dependant and
 - 3 for an earning dependant.
- (2) *Employment*—*The answer to this question is to be written only for self-supporting persons.* Write the answer in the second compartment. Write :
- × for all 'earning' and 'non-earning' dependants,
- 1 for self-supporting person who earns his principal means of livelihood as an employer,
 - 2 for self-supporting person who earns his principal means of livelihood as an employee,
 - 3 for self-supporting person who earns his principal means of livelihood as an independent worker and
 - 0 for self-supporting person who earns his principal means of livelihood otherwise.

10. Principal Means of Livelihood—An answer to this question should be recorded on every slip. If the slip relates to a self-supporting person, record his principal means of livelihood. If the slip relates to a dependant (whether earning or non-earning) record here the principal means of livelihood of the self-supporting person on whom he is dependent. The means of livelihood which provides the largest income is the principal means of livelihood for a self-supporting person who has more than one means of livelihood. In the case of self-supporting persons having only one means of livelihood "Principal Means of Livelihood" is the same thing as "Means of Livelihood". Use the following contractions :

- 1 for a person who cultivates land owned by him,
- 2 for a person who cultivates land owned by another person,
- 3 for a person who is employed as a labourer by another person who cultivates land and
- 4 for a person who receives rent in cash or kind in respect of land which is cultivated by another person.

For all other means of livelihood, write fully and clearly what the person does in order to earn his livelihood and where he does it.

11. Secondary Means of Livelihood—For a self-supporting person who has more than one means of livelihood, write the means of livelihood next in importance to his principal means of livelihood. *If he has only one means of livelihood, write 0.*

For every earning dependant an entry in this question is compulsory. Write here the means of livelihood which provides the earning to the earning dependant. If it is the same as the principal means of livelihood of the self-supporting person repeat the entry already made in Question 10. (Do not repeat the secondary occupation of the self-supporting person on whom the earning dependant is dependent.)

For every non-earning dependant write 0. (Do not repeat the secondary occupation of the self-supporting person on whom the non-earning dependant is dependent.)

12. Literacy and Education—Write :

- 0 for a person who can neither read nor write,
- 1 for a person who can read but can not write, and
- 2 for a person who can both read and write.

If a person who can read and write has also passed any examination, note the highest examination passed, instead of writing 2.

13. Unemployment—Write :

0 for all persons below 16 or above 60 years of age, housewives, students, permanently disabled persons, who are not gainfully employed ; also for unemployed persons not seeking employment. *If either of them is gainfully employed write '1'.*

- 1 for persons gainfully employed on the date of the enumeration or on leave from gainful employment on that date and
- 2 for persons unemployed and seeking employment and give the period of continuous unemployment in years and months as follows:

"2—1 year 9 months".

14. Sex—Write 1 for a male and 2 for a female,

II. DETAILED INSTRUCTIONS ON THE QUESTIONNAIRE

Q. 1. Name and relationship to head of household

After the name write :

- 1 for the head of household.
Actual relationship for wife, son, daughter, brother, sister, father, mother, *husband*, son-in-law, daughter-in-law or brother's wife.
- 2 for other relatives,
- 0 for unrelated persons (if any) living in the household and
- 3 for visitors enumerated along with a household, patients in hospitals or asylums and inmates of jails and such institutions.

Enter first the slip for the head of the household followed by the near relatives, other relatives, unrelated persons and visitors. Enter at start the names and the relationship to the head of the household in all the slips of the household and then make other entries.

Write the full name of the person enumerated. If an infant has not been named enter the word "infant" and add the name of the father. If a lady cannot or will not give her name or that of her husband do not compel her to do so. Endeavour to ascertain the name by enquiries from others and verify the name from the lady herself.

For purposes of the census, a "house" has been defined as a dwelling with a separate main entrance. A "household" means all the persons who live together in the same house and have a common mess. In some houses there may be more than one group of persons with a separate mess. In these cases each group should be recorded as a separate household for the purposes of the census. The head of the household is a person on whom falls the chief responsibility for the maintenance of the household. You need not make any detailed enquiry about this ; treat as the head of the household any person who is actually acknowledged as such. A household may include persons (e.g., domestic servants, lodgers, etc.) who are not related to the head of the household but live together and have a common mess.

The term "head of the household" is not to be confused with "self-supporting person" in Question 9. A "head of the household" can be "self-supporting" or "dependant" or "partly dependant".

Supplementary Instructions—*In addition to writing the name of the person enumerated write also (a) husband's name in the case of married and widowed ladies and (b) father's name in the case of males and other ladies. This additional information is necessary for preparation of electoral rolls from the National Register of Citizens.*

The information regarding "relationship to head of household" is intended for a study of the composition of Indian households. It is, therefore, necessary that only persons who are normally members of the household are enumerated as such. Thus if sons, daughters or near relations are normally members of a different household and are only on a temporary visit enumerate them as "visitors" i.e., '3'.

Q. 2. (a) Nationality, (b) Religion, (c) Special Groups

(a) *Nationality*—Write 1 for all Indian Nationals. For others write nationality in full.

In order to find out whether a person is an Indian National you should ascertain whether he belongs to any of the following classes of citizens :

A. **Citizenship under Article 5 of the Constitution**—A person would be a citizen if he has his domicile in India on January 26, 1950 and if—

- (a) he was born in India (as now understood), or
- (b) any of his parents was born in India, or
- (c) he has been ordinarily a resident in India for not less than five years immediately before January 26, 1950.

B. A person who migrated from Pakistan to India before July 19, 1948, would be a citizen of India, if—

- (a) he or any of his parents or grand-parents was born in undivided India (including Pakistan), and
- (b) he has been ordinarily a resident in India since his migration.

C. A person who migrated from Pakistan to India on or after July 19, 1948, but before July 25, 1949, will be a citizen if he applied for and obtained registration as a citizen and possesses a citizenship certificate,

It should be noted that no person, whether Hindu or Muslim, who migrated from Pakistan to India on or after July 25, 1949, can be an Indian citizen without special registration.

In the case of foreigners like Chinese, British, etc., write the nationality as Chinese, British, etc., unless they have taken an Indian domicile certificate.

(b) *Religion*—Write 1 for Hindu, 2 for Muslim and 0 for those who say they do not profess any religion. For others write the answer as actually returned in words.

You must ascertain the religion of a person by actually interrogating him and record the answer as given by him.

(c) *Special Groups*—Write :

A for Anglo-Indians,

× for all non-Hindus except Anglo-Indians,

0 for any Hindu who says he is not a member of any caste or tribe, and

1 for any Hindu who is a member of one of the castes mentioned in the attached list of non-backward castes.

In all other cases write the name of the caste or tribe as returned by the person enumerated.

It will appear from the above that the caste of every Hindu will not be recorded in full in this census. Government have decided not to attach much importance to castes. The enumeration of Scheduled Castes and backward castes is necessary under the Constitution of India and so provision has been made for it. Anglo-Indians have been allowed certain privileges for a number of years under the Constitution of India. This is why they also are being enumerated.

Supplementary Instructions—It should be noted that the caste of a person is to be recorded as returned by him. Thus if *Barhais* give their caste as "Panchal Brahmins" record as such. Do not identify "Panchal Brahman" with "Brahman" for whom the contraction '1' is to be used. Likewise "Tamoli" should be treated as different from "Barai", "Kahar" as different from "Bhishti", etc.

Q. 3. Civil Condition—Unmarried, Married, Widowed or Divorced

Write 1 for unmarried, 2 for married and 3 for widowed. If divorced write 0.

This question has to be answered for *every* person. Do not omit to ask the question in respect of babies, and minor boys and girls. Not only is marriage still current among children and infants but also widowhood or widowerhood among them is not infrequent. There may be some hesitation on the part of the parents of married children and infants to give correct information. They should be assured that the information will be treated as strictly confidential and cannot be utilized for any purpose other than that of the census.

A person should be treated as "unmarried" only if he or she never married. Prostitutes, concubines and any women who have never been married by any recognised form should be entered as "unmarried" whether they are living with a man or not.

A person should be recorded as "married" if he or she has been married in accordance with any religious rite or by registration or according to any custom or form recognised by his or her community and has not been widowed or divorced. Persons who have married again should also be recorded as "married".

"Widowed" means persons widowed but not remarried. If a person marries again after being widowed he or she shall be recorded as "married".

"Divorced" means persons whose marital ties have been severed by law and custom and are free to remarry. A husband and wife living separately by mutual consent or order of a court or that of a caste panchayat should both be treated as "divorced". If a "divorced" person marries again he or she should be recorded as "married".

NOTE—If you ask widowed persons, "Are you married?" many may reply "yes" without reflecting that they are now single. Therefore, in all cases put another question, "Is your wife or husband alive?"

Q. 4. Age

Write age last-birthday; that is, the actual number of completed years. Write 0 for infants below 1.

This is a very important question and you should try to record as correct an answer as possible. Many persons are likely to find it difficult to state their age correctly. You should assist them and make enquiries from other members of the family and neighbours. One way of locating the correct age may be reference to some important event of

the past, e.g., death of Queen Victoria in 1901, the Coronation of King George V in 1911, the earthquake of 1934 or some purely local events like a flood. You should use any local calendars of such events which may have been prepared for the purpose.

Note that you have to record the number of completed years of age on or before March 1, 1950. Many persons give their running age, i. e., the would-be age at their next birthday. You should, therefore, invariably check this up by asking the question, "When did you attain this age and when will you be one year older?"

Q. 5. Birth-place

Write 1 for every person born in your district. For persons born in other districts of Uttar Pradesh ascertain the name of the district and record it. For persons born in a State of the Indian Union other than Uttar Pradesh write the name of the State (*vide* list below). For persons born in a foreign country write the name of the country e.g., Pakistan, China, etc.

The list of States included in the Union of India is as follows :

Part A— 1. Assam 2. Bihar 3. Bombay 4. Madhya Pradesh 5. Madras
6. Orissa 7. Punjab 8. Uttar Pradesh 9. West Bengal

Part B— 1. Hyderabad 2. Jammu and Kashmir 3. Madhya Bharat
4. Mysore 5. Patiala and East Punjab States Union 6. Rajasthan
7. Saurashtra 8. Travancore-Cochin 9. Vindhya Pradesh

Part C— 1. Ajmer 2. Bhopal 3. Bilaspur 4. Cooh-Bihar 5. Coorg
6. Delhi 7. Himachal Pradesh 8. Kutch 9. Manipur
10. Tripura

Part D—The Andaman and Nicobar Islands

All other territories must be treated as foreign countries.

Q. 6. Are you a displaced person from Pakistan ? If so, when did you arrive in India from Pakistan, and what was your original district in Pakistan ?

If the person enumerated is not a displaced person write 0 in both compartments. If he is a displaced person, write the date of arrival (Month/Year) in India in the first compartment and the district of origin in Pakistan in the second compartment.

This question will apply only to displaced persons from Pakistan.

The definition of a 'displaced person' is as follows :—“A 'displaced person' means any person who has entered India having left or being compelled to leave his home in Western Pakistan on or after the 1st March, 1947, or his home in Eastern Pakistan on or after the 15th October, 1946, on account of civil disturbances or on account of the setting up of the two Dominions of India and Pakistan.”

Q. 7. Mother-tongue

Write 1 for Hindi, 2 for Urdu and 3 for Hindustani. For others write the name of the language as returned in words.

Mother-tongue is the language spoken from the cradle. In the case of infants and deaf-mutes give the mother-tongue of the mother.

Q. 8. What other Indian language besides your mother-tongue do you commonly speak ?

If a person commonly speaks any Indian language other than his mother-tongue record it. For others write 0. Use the contractions indicated in Question 7. Record only one subsidiary language.

Note that the language to be recorded under this question must be *Indian*. "English" can not be recorded as it is not an Indian language. The language should be recorded only if the person enumerated speaks it fluently and habitually for domestic or business purposes. Do not enter learned languages like Sanskrit. It must be a language which is used for the ordinary purpose of every day life. If a person is fluent in several Indian languages, only one in which he is most fluent should be recorded.

Q. 9. Economic Status

The Census is concerned with two economic characteristics of every individual—his economic status, and his means of livelihood. Question 9 relates to economic status and Questions 10 and 11 deal with the principal and secondary means of livelihood.

(1) *Dependency*—Write 1 for a self-supporting person, 2 for a non-earning dependant and 3 for an earning dependant. Write the answer in the first compartment.

You are asked to distinguish every person whom you enumerate as either a "self-supporting person" or an "earning dependant" or a "non-earning dependant".

A "self-supporting" person is one who is in receipt of an income and that income is sufficient at least for *his own* maintenance. To be "self-supporting" a person need not be able to support his family. All that is necessary is that he should be earning sufficient for his personal needs. *For purposes of this question the person enumerated is the unit and not the family or household.*

Anyone who is not a "self-supporting" person in this sense is a "dependant". A "dependant" may be either an "earning dependant" or a "non-earning dependant". The test is whether he secures a regular (and not casual) income, even though it may be small. Such income may be in cash or kind; it may be by continuous or seasonal employment. When the income which he secures is not sufficient to support him that person is an "earning dependant". A person who does not earn any income either in cash or kind is a "non-earning dependant".

Where two or more members of a family household jointly cultivate land and secure an income therefrom, each of them should be regarded as earning a part of the income. None of them is, therefore, a non-earning dependant. Each of them should be classed as either a "self-supporting person" or an "earning dependant" according to the share of income attributable to each. The same applies to any other business carried on jointly. The share of the income is what the head of household deems it to be.

This does not mean that every one *who works* is necessarily a self-supporting person or an earning dependant. Thus, for instance, a house wife who cooks for the family, brings up the children or manages the household is doing very valuable work. Nevertheless, her economic status is that of a "non-earning dependant", if she does not also earn an income, and should be recorded as such.

Illustrations: (1) A father in a family earns Rs.120 per mensem. The wife and children live with him but do not contribute to the support of the family and are entirely dependent on the father. The father is a "self-supporting" person. The others are "non-earning dependants".

(2) In a family a father gets a regular income from investments, one son earns a small income which is not sufficient to support him independently, and the other members do not earn anything. The father is a "self-supporting" person, the son is an "earning dependant" and the other members of the family are "non-earning dependants".

(3) In a household a father gets a pension of Rs.15 per mensem, the eldest son earns Rs.75 per mensem, the second son earns Rs.20 per mensem and the son-in-law living with them earns Rs.45 per mensem. If they say that Rs.45 per mensem is sufficient for the subsistence of a person with their standard of living, the first son and the son-in-law are "self-supporting" persons, while the father and the second son are "earning dependants" and the remaining members of household are "non-earning dependants".

(4) A child aged four has some cultivation in his name. The annual income from the land is sufficient for his own maintenance. The child is a "self-supporting" person.

(5) A street singer or beggar who earns by begging is also a "self-supporting" person.

(6) Convicts in jail, lepers or lunatics in an asylum are "non-earning dependants".

(7) Patients in hospitals and undertrial prisoners should be classified according to their original professions.

Supplementary Instructions—Take care to distinguish "self-supporting" person and "head of the household". The head of the household need not necessarily be self-supporting; he may be an earning or non-earning dependant. There can be only one head of the household but there can be several self-supporting persons in the household.

A self-supporting person is one who is in receipt of an income which is sufficient at least for *his own* maintenance. It is not necessary that this income be derived from his personal labour; only he should be receiving the income in his own right. Thus minors or old persons who do not work themselves but live on income received from zamindari or tenancy recorded in their names are self-supporting persons. Likewise a person having income from pension or from investments is self-supporting provided the income is sufficient for his own personal maintenance.

Illustrations: (1) An agricultural family consists of—

- (i) Father, aged 58, in whose name alone the occupancy is recorded but who does not work on the fields;
- (ii) mother, aged 50, who occasionally works on the fields and does domestic work in the household;
- (iii) son, aged 30, who works on the fields;
- (iv) son, aged 8, who only looks after the grazing of cattle; and
- (v) daughter, aged 7, who only helps her mother in household work.

In this family the father is self-supporting although he does not work, as the land is recorded in his name and he derives income therefrom. The mother is an earning dependant as she occasionally works on the fields. The son aged 30 is self-supporting as he works and earns sufficient for his own maintenance. The son aged 8 is non-earning dependant as grazing the cattle does not provide any income in cash or kind. If, however, he is also grazing others' cattle on wages, he will be an earning dependant or even a self-supporting person according to the income from this source. The daughter aged 7 is a non-earning dependant.

For Question 10 the principal means of livelihood of the *whole* family is Agriculture contraction '1'. (Do not write '1' only for the father in whose name the land is recorded and '2' for the rest.) If, however, persons other than family members are living in the household and sharing in cultivation, their principal means of livelihood will be Agriculture contraction '2'.

For Question 9 (2), which is to be recorded only for self-supporting persons, the father is category '0' for he is neither an employer nor employee nor independent worker. But the son aged 30 who works on the fields is an independent worker '3'.

For Question 13 the son aged 30 is '1' and so also the mother who partly works on the fields. All the rest including the father who does not work are '0'.

(2) A family consists of a husband who is a lawyer and a wife who is a wholetime teacher in a school. Both are self-supporting, though the husband alone is the head of the household.

(3) A father and an adult son both work on their shop. Both are self-supporting, though the father alone is the head of the household.

(4) Where a wife is head of a household consisting of non-earning dependants and living on an allowance sent by her husband working elsewhere, the lady herself should be treated as a non-earning dependant. This will then be a household without any self-supporting person because the bread-winner is working elsewhere.

(2) *Employment*—This question has to be answered only for "self-supporting" persons. In respect of "earning" or "non-earning" dependants, write 'X'. If a self-supporting person earns his principal means of livelihood as an employer, write 1; as an employee, write 2; and as an independent worker, write 3. Write 0 in other cases. Write the answer in the second compartment.

An "employer" is only that person who has necessarily to employ other persons in order to carry on the business from which he secures his livelihood. Thus if a person employs a cook or other person for domestic services, he should not be recorded as an "employer" merely for that reason.

An "employee" is a person who ordinarily works under some other person for a salary or a wage in cash or kind, as the means of earning his livelihood. There may be persons who are employed as managers, superintendents, agents, etc., and in that capacity control other workers. Such persons are also employees only and should not be regarded as employers.

An "independent worker" means a person who is not employed by any one else and who also does not employ anybody else in order to earn his livelihood.

It is to be noted that dependants, whether earning or non-earning are *not* to be classified under either of these three heads. In their case put a 'X' in this part. In those comparatively rare cases where "self-supporting" persons who support themselves without gainful occupation or economic activity (e.g., rentiers, pensioners, persons living on interest of securities or shares, deposits or Government Promissory Notes) put a '0' in this part.

Illustrations: (1) Doctors and lawyers are employers as they engage compounders or clerks to relieve them of part of the work.

(2) A money-lender who employs persons to realize interest is an employer.

(3) The Collector employs a number of persons for service in the Collectorate. But he is not to be regarded as an employer. He is himself an employee under government.

(4) A clerk in a government office has a few bighas of land in his name and engages labourers for doing work on it. His principal income is through government service. He should be regarded as an "employee" and not an "employer".

Supplementary Instructions—All agriculturists who work on their own land themselves are "independent workers". If, however, they engage labourers to cultivate the land, they are "employers".

All shopkeepers who work on their own shops are "independent workers". But if they engage salesmen to help them they are "employers".

Doctors and lawyers are "employers" if they engage compounders or clerks. But if a doctor or a lawyer works alone without a compounder or a clerk, he is an "independent worker".

Sweepers, Dhobis, Kahars, etc., who work for several masters are "independent workers". If, however, any of them accepts wholtime employment under one master, he becomes an "employee".

Daily wage-earners who work for different masters are likewise "independent workers". But if they accept employment under one master (e.g., a factory), they become "employees".

Beggars should be classed as '0'. Write '0' also for self-supporting persons who support themselves without gainful occupation or economic activity, e.g., rentiers, pensioners, persons living on interest of investments.

Q. 10. Principal Means of Livelihood

An answer to this question should be recorded on every slip. If the slip relates to a self-supporting person, record his principal means of livelihood. If the slip relates to a dependant (whether earning or non-earning) record here the principal means of livelihood of the self-supporting person on whom he is dependent. The means of livelihood which provides the largest income is the principal means of livelihood for a self-supporting person who has more than one means of livelihood. In the case of self-supporting persons having only one means of livelihood "Principal Means of Livelihood" is the same thing as "Means of Livelihood." Use the following contractions :

- 1 for a person who cultivates land owned by him,
- 2 for a person who cultivates land owned by another person,
- 3 for a person who is employed as a labourer by another person who cultivates land and
- 4 for a person who receives rent in cash or kind in respect of land which is cultivated by another person.

For all other means of livelihood, write fully and clearly what the person does in order to earn his livelihood and where he does it.

"Means of livelihood" of any person ordinarily means the gainful occupation from which he derives normally the income on which he maintains himself; but it is more comprehensive inasmuch as, in exceptional cases, income may be secured without gainful occupation. "Principal means of livelihood" means the same thing as "Means of livelihood" for every person who has only one means of livelihood. Where a person has more than one, that which gives him the greater part of his income is his "Principal means of livelihood". That which gives him the next most important part of his income is called the "Secondary means of livelihood". You have to record only the principal means of livelihood against Question 10. The secondary means of livelihood should be recorded separately under Question 11.

In the sense thus defined, every human being, without any exception, has a "Principal means of livelihood"—whether or not he is a self-supporting person. Every non-earning dependant is maintained exclusively by the income of some self-supporting person on whom he is dependent. Consequently, the "Principal means of livelihood" of the latter is required to be recorded as the "Principal means of livelihood" of the former. Every earning dependant is maintained partly by the income of some self-supporting person on whom he is partly dependent. So the "Principal means of livelihood" of a partly dependent person also is required to be recorded as that of the self-supporting person on whom he is partly dependent (no attempt being made to assess the degree of sufficiency of his own income or the extent of his dependence on others). Thus, the answer to Question 10 should be the same for a self-supporting person, as well as all other persons who may be dependent on him, whether earning or non-earning.

Four simple contractions have been provided which will cover most cases where the livelihood is dependent on agriculture. If you find that a person falls under two of these four categories, note that category which provides the largest income as principal means of livelihood under Question 10 and the second as secondary means of livelihood under Question 11. No note need be taken of more than two such categories in any case. The test of "ownership" is the existence of a right of occupancy in land which should be a heritable but not necessarily a transferable right. Distinction should be made between "cultivation of the land" and "performance of labour necessary for cultivating the land". There are, of course, millions who perform both functions but the functions are distinguishable and should be distinguished. The man who takes the responsible decisions which constitute the direction of the process of cultivation (e.g., when and where to plough; where and what to sow; where and when to reap and so forth) is the person who should be referred to as the cultivator, even though he does not perform any manual labour whatever. The man who ploughs, sows, reaps, etc., under the direction of someone else is the cultivating labourer and *not* the cultivator,

Thus under category 1 fall all Bhumidars, ex-proprietary, occupancy or hereditary tenants, etc., (whether they cultivate the land themselves or through hired labourers). Category 2 includes land cultivated by sub-tenants, etc. Category 3 relates to agricultural labourers. Category 4 includes zamindars or tenants who receive rent for land cultivated by another person.

In all other cases you should write fully and clearly what the person does in order to earn his livelihood and where he does it.

There are three lines provided in the slip for answering this question. Use them fully. Avoid vague and general terms. Do not merely write "service" or "labour". At the time of tabulation hundreds of professions will be separately tabulated and accounted for and, therefore, the greatest accuracy of detail in describing the profession is necessary. Some hints are given below :

1. **Trade**—In enumerating a trader, describe the articles in which he trades and state clearly whether he is a wholesaler or retailer. A retail trader sells to the public, while a wholesaler sells to retailers only. A distinction should also be made between a trader who merely sells articles manufactured by others and a trader who manufactures articles and sells them, e.g., "manufacture and sale of furniture, Lucknow".
2. **Factory workers**—Give the name of the factory together with the product it manufactures, the name of the department in which he works, e.g., "worker in such and such sugar mill—panman", "worker in such and such cloth mill—weaver", etc. Distinguish between the clerical staff and the mill-hands.
3. **Engineering works or repairing shops**—State what kind of work the person enumerated is engaged in, e.g., tram, bus or motor works ; or general engineering. Say whether he is an engineer by profession or foreman or mechanic, e.g., "mechanic in motor repairing works, Allahabad".
4. **Railway**—Mention branch of administration, e.g., traffic manager, driver, guard, porter or auditor.
5. **Small Industries**—State whether he is both maker and seller, e.g., maker and/or seller of *bidis*.
6. **Professions**—
 - (a) **Law**—Say whether barrister, judge, solicitor, pleader, advocate, mukhtar, clerk, etc.
 - (b) **Medicine**—Say whether doctor of medicine, hakeem, vaid, compounder, nurse, hospital orderly, etc.
 - (c) **Civil Service**—State specifically what service, e.g., Government service—clerk in Collectorate ; Government service—Assistant Secretary in Secretariat, etc.
 - (d) **Police**—State whether Superintendent Police, Deputy Superintendent Police, Inspector, Sub-Inspector, Head Constable, Constable, etc., if in Armed Police, say so.
 - (e) **Defence Services**—State whether Indian Air Force or Army or Navy and give the service rank.
 - (f) **Teaching**—State whether the institution employing him is a primary or secondary school or college, etc.
 - (g) **Finance**—Whether banker, money-lender, broker, etc. If engaged in Banking, state whether manager, assistant, cashier, accountant, etc.

Supplementary Instructions—Attention is invited to the following points on which errors are commonly committed by enumerators :

(i) An entry in Question 10 is compulsory in every slip and so no slip should have a blank or even '0' under this question.

(ii) While writing the agricultural occupations, use only the correct contraction. Do not write words such as "*kasht*" or "*zamindari*". Both a cultivator and a zamindar can fall in either of the categories '1' or '4'.

(iii) While writing the occupation of people in service, the recording of the word "service" alone is altogether insufficient. Write whether it is Government or Municipal service or service of some firm, etc., and also state the exact nature of the service.

(iv) While writing the occupation of workers, give the place of their work. For instance state whether a carpenter works in a motor workshop, a textile mill, in a furniture firm, or only works independently on daily wages. It is not necessary to mention the town or village where he works.

(v) While writing the occupation of traders, the recording of word "business" only is altogether insufficient. State the exact nature of business and whether it is retail or wholesale.

(vi) The principal means of livelihood of all members of a family living on occupancy tenancy is '1' although the tenancy may be recorded in the name of one person only. If non-members of a family are sharing in cultivation, their principal means of livelihood is '2'.

Q. 11. Secondary Means of Livelihood

For a self-supporting person who has more than one means of livelihood, write the name of livelihood, next in importance to his principal means of livelihood. For an earning dependant, write the means of livelihood which provides the earning. Use contractions given in Question 10.

For a self-supporting person who has only one means of livelihood, write 0. In the case of non-earning dependants also write 0.

The answer to this question must be recorded on every slip.

If a person who has been enumerated as self-supporting person against Question 9 (1) has more than one means of livelihood, enter here that occupation of his which provides him the next largest income after his principal means of livelihood.

If a person has been enumerated as an earning dependant, enter here the means of livelihood which provides his income or if he has more than one means of livelihood, the one which provides the largest part of his income. An entry must be made for each earning dependant under this question, even if the means of livelihood of the earning dependant is the same as the principal means of livelihood of the self-supporting person on whom he is dependent. Thus, if an earning dependant assists the self-supporting person in cultivation of their occupancy land, both the principal and secondary means of livelihood of the earning dependant will be Agriculture, category 1.

For both self-supporting persons and earning dependants, use the same contractions and broad descriptions of occupations as given in Question 10.

If a self-supporting person has only one means of livelihood, write '0' under this question. In the case of all non-earning dependants also, write '0'.

It will thus be seen that in the case of a self-supporting person, you should record only his most important means of livelihood against Question 10 and his next important means of livelihood against Question 11, while, in the case of earning dependants, only the most important means of livelihood should be recorded against Question 11 and his other less important occupations should be ignored.

Supplementary Instructions—Attention is invited to the following points on which errors are committed by enumerators :

(i) In the case of earning dependants, an entry in this question is compulsory. Write the occupation which provides the earning to the earning dependant. If it is the same as the principal means of livelihood, repeat the entry made in Question 10, and do not write '0'. Do not repeat for an earning dependant the secondary means of livelihood of the self-supporting person on whom he is dependent.

(ii) For all non-earning dependants write '0' only.

Points (ii) to (v) under Question 10 above apply to this question also.

Q. 12. Literacy and Education

Write :

0 for a person who can neither read nor write,

1 for a person who can read but can not write and

2 for a person who can both read and write.

If a person who can read and write has also passed any examination, note the highest examination passed, instead of writing 2.

The test for *reading* is ability to read a simple letter whether in print or in manuscript. The test for *writing* is ability to write a simple letter in any language. You are not to hold an examination, only make verbal enquiries. In cases of doubt, however, you may test him by asking him to read a simple printed or manuscript letter or asking him to write down a simple letter.

A person will be regarded as *literate* if he can *both* read and write in *any* one language.

The question is also intended to secure information on the educational level reached by each person. If, therefore, a person who can both read and write, has also passed an examination or examinations, record the highest form of examination or examinations

passed instead of writing 2 in the slip, e.g., "IV Class", "M.A.", "M.A., LL.B.", "M.Sc.," "D.Sc. (Chemistry)", "B.A., Dip. in Library Science (Calcutta)". Take care to record all the highest examinations which indicate the educational qualifications of the person enumerated. Thus if a person has passed M.A., no lower examination like B.A. need be mentioned but if he has obtained any diploma, or degree in addition, mention it e.g., "M.A., Ph.D. (Economics) (London)". It is intended to prepare tables of educational qualifications and so you should try to ascertain carefully the higher qualifications from educated persons. Such persons will be found mostly in urban areas. The importance of disclosing their diplomas and degrees in detail may be explained to them.

Q. 13. Unemployment

Write 0 for all persons below 16 or above 60 years of age, housewives, permanently disabled persons, etc., who are not gainfully employed. Write 0 also for persons not seeking employment.

Write 1 for persons gainfully employed on the date of enumeration or on leave from gainful employment on that date.

Write 2 for persons unemployed and seeking employment and give the period of continuous unemployment in years and months as follows—"2—1 year 9 months".

An answer to this question should be recorded on each slip.

From the point of view of employment, every person will fall in either of the three categories mentioned.

In the first category are all persons below 16 or above 60 years of age, housewives, permanently disabled persons, etc., who are not in the race for employment at all. Also fall in this category persons who, although unemployed, are not seeking employment. If, however, any of them is gainfully employed he falls in the second category.

In the second category are all persons gainfully employed on the date of enumeration or on leave from gainful employment on that date. A person should be deemed to be in "gainful employment" if he has an existing means of livelihood. Intermittent or seasonal break of employment should not be taken to be "unemployment". For instance, a weaver earning his living by weaving may not be having any work on the day of enumeration, but is to be treated as "gainfully employed". An "earning dependant" who earns some income by selling firewood should likewise be treated as "gainfully employed" even if on the enumeration day he is not doing the work.

In the third category are persons unemployed and seeking employment. If an unemployed person is not seeking employment, he falls in the first category.

The question is intended mainly to assess the nature and magnitude of unemployment in Uttar Pradesh.

Supplementary Instructions—If a person below 16 or above 60 years of age, housewife, student or permanently disabled person is gainfully occupied write '1' for him.

All agriculturists working on their land are gainfully employed. So also are all employees of Government, Local bodies, etc. Write '1' for them and not '0'.

For all earning dependents write '1' (except when they are not gainfully employed, e.g., pensioners and persons deriving income from investments).

Q. 14. Sex

Write 1 for male and 2 for female.

Eunuchs and hermaphrodites should be treated as *males*.

ENUMERATION SLIP, 1951

(Location code to be recorded here)

- | | | |
|-----|--|-------------|
| 1. | Name and relationship to head of household..... | |
| 2. | (a) Nationality.....(b) Religion..... | |
| | (c) Special Groups..... | |
| 3. | Civil Condition..... | |
| 4. | Age..... | |
| 5. | Birth-place..... | |
| 6. | Date of arrival of D. P. / District of origin in
Pakistan | |
| 7. | Mother-tongue..... | |
| 8. | Bi-lingualism..... | |
| 9. | Dependency | /Employment |
| | | |
| 10. | Principal Means of Livelihood..... | |
| | | |
| | | |
| 11. | Secondary Means of Livelihood..... | |
| 12. | Literacy and Education..... | 14. |
| 13. | Unemployment..... | Sex |

APPENDIX II

VITAL STATISTICS IN U. P.

By DR. A. N. DAS, M.B., D.R.P.H. (U.S.A.), *Director of Medical and Health Services, U. P.*

Brief history of the laws and procedure relating to collection of vital statistics in U. P.—In the days of Hindu and Mohamadan rulers of India there was no legislation for the civil registration of births and deaths. These were, however, noted by the temple priests and *kazis*. Among the Hindus horoscope of the new-born babe was generally prepared and a copy kept with the temple priest, whereas the birth of a Muslim babe was recorded by the *kazi*.

In the British rule matters began to improve. Birth and death registration was first introduced in 1886 on a voluntary basis being only compulsory for municipalities. In the year 1912 with the beginning of inauguration of service of Medical Officers of Health and after passing of the Municipalities Act II, 1916, a decided step towards civil registration was taken in the urban areas. Bye-laws were framed under section 298 J (b) of Act II of 1916 in order to establish a uniform system of vital statistics.

In the rural areas due to lack of above facilities reporting of vital statistics was not obligatory. The duty of collection of vital statistics was entrusted to the village chaukidar (village policeman) the lowest-paid public servant over and above his normal duties.

The advent of the popular government brought further progress in registration of vital statistics of rural areas. With the passing of the Panchayat Raj Act of 1947 and formation of village panchayats in the State, reporting of births and deaths has been made obligatory under law, as in urban areas. Under rule 143 of the Panchayat Raj Act, the work of registration of births and deaths and the reporting of epidemic diseases has been entrusted to village panchayats since January 1, 1951, and under this rule the head of the family is required to report the occurrences in the family to Secretary, President or Vice-President of the gaon sabha concerned.

Registration areas and non-registration areas—Before the integration of the states, the registration area in Uttar Pradesh was whole of U. P. excluding the states of Tehri-Garhwal, Rampur and Banaras. Now since these form part of Uttar Pradesh, the registration area has been extended to them also so that it comprises the whole of the State.

THE AGENCY FOR THE COLLECTION OF STATISTICS AND ITS LIMITATION

Urban areas—They comprise of municipalities, town areas, notified areas and cantonment areas. In whole of the urban area registration of births and deaths is obligatory by law and the first charge is on the heads of families and keepers of hotels, inns, *dharamshalas*, etc., as the primary reporter of every occurrence of birth and death in the family within three days. Then as a check against omissions, the sweepers, *dais* and midwives are also instructed to report every occurrence of birth and death that comes to their knowledge. In some of the larger municipalities, there are also *moharrirs* at burning ghats and grave yards to record deaths.

The reports of births and deaths received day to day from different reporting agencies are then compiled after the completion each month and the consolidated monthly statement of births and deaths are submitted to the District Medical Officer of Health.

Rural areas—In rural areas before January 1, 1951, the village chaukidar was supplied with two books wherein he noted births and deaths. These entries were copied at the police thana where one book was kept and the other given to the chaukidar. After a month these books were exchanged. The chaukidar being a poorly paid illiterate official was unable to write the occurrences in the books and, therefore, had to wait till someone did it for him or till he next visited the police station where the entry was made. As the chaukidar went to thana once a fortnight, he most likely forgot the number of births and deaths in the preceding fortnight. Therefore, figures were never accurate.

Since January 1, 1951, the duty of registration of births and deaths has been transferred to village panchayats. The head of the family is required to report birth or death occurring in his family within 3 days of occurrence to the President, Vice-President or Secretary of the gaon sabha and the officer on receiving the report issues receipt of the same to the reporter. In order to have a check against omissions by head of a family, the police chaukidar in the village is also required to report to the registering official every birth or death occurring in the area assigned to him within 2 days of the occurrence. The report of the informant who reports first is recorded in the register of births and deaths.

In urban areas there being better communication and more literacy among the population, registration is fairly accurate though offenders exist due to the apathy of public to get the events registered and there is still much to be desired. In rural areas registration under the U. P. Panchayat Raj Act is still in its infancy and comments on its working will be premature. The foundation has, however, been laid here also on the fundamental principle of compulsion or obligation to report birth or death as a matter of law.

SYSTEM OF COMPILATION

I—*Urban Areas*

(a) **Municipalities**—Births or deaths recorded at the municipal registration offices are reported monthly by the Municipal Medical Officer of Health where there is one and to the Secretary or Executive Officer where there is no Municipal Medical Officer of Health. The notified areas and town areas also submit their monthly birth and death statements to the District Medical Officer of Health.

(b) **Cantonments**—In cantonments these statistics are reported to the Cantonment Magistrate. Monthly summaries of all births and deaths in Cantonments are then forwarded by the Cantonment Officer to the District Medical Officer of Health.

(c) **Registration within railway limits**—All births and deaths among families of railway employees and others on the railway premises within the limit of their stations outside municipal limits are reported by the Station Masters to the gaon sabhas concerned. All births and deaths among the families of railway premises within the limit of a municipality are reported by the head of the family to the railway authorities who send a monthly return to the Municipal Medical Officer of Health concerned for inclusion of the figures in their monthly returns.

II—*Rural Areas*

The primary unit or circle of registration in the rural areas now is a gaon sabha and the President, Vice-President of the sabha or Secretary of the panchayati adalat maintains a combined register of births and deaths in each gaon sabha. There are about 36,000 gaon sabhas and 8,414 panchayati adalats in the State covering about 120,000 villages. The Secretary of the panchayati adalat maintains compilation sheets for births and deaths. He has to visit each gaon panchayat once a week for other work. During his first monthly visit to each of them he is required to copy out the figures into his compilation sheet from village registers kept by the President of gaon sabha. He was required to submit the consolidated statement of all the villages under him to the panchayat inspector by the 10th of every month. Each panchayat inspector on receipt of the Secretary's returns in his circle got them consolidated and submitted the return of his circle to the District Medical Officer of Health by the 15th of every month. In order to eliminate so many stages in the compilation, recently the Secretaries are now required to submit their statements direct to the District Medical Officer of Health where the consolidation of the district return is done.

From the monthly statement submitted to the District Medical Officer of Health by the municipalities, notified areas, town areas, cantonment authorities and Secretaries of Panchayat Raj Department as stated above, consolidated monthly and annual statements are prepared for the whole district in the office of the District Mortuary Registrar and submitted to the Director of Medical and Health Services, U. P.

Accuracy of the statistics—The vital statistics collected in U. P. and even in whole of India are far from being accurate. The inaccuracy is not only in respect of under-reporting but also in reporting of the causes of deaths. The remedy lies in developing the system of reporting by gaon panchayats.

Suggestion for improvement—There is not much to improve under the existing conditions except that to keep a watch on the working of the present system and to make changes whenever an improvement is needed. Efforts to that effect are continuously being made.

APPENDIX III

ESTIMATION OF OMISSIONS IN REGISTRATION OF BIRTHS AND DEATHS DURING 1941—50 AND 1931—40

1. Prior to 1911, the Census Superintendents regarded the reporting of births and deaths to be fairly accurate. Since then somewhat different methods were adopted by them to find out the error in registration. Sri Blunt in 1911 presumed that the population of 1901 (if we neglect migration for the time being) was equal to the population aged 10 and over in 1911 plus all deaths in the decade minus the deaths of such persons as were born after the census of 1901 and died before that of 1911. He proceeded with the assumption that registration of births was fairly accurate. In the census of 1921, Sri Edge did not adopt any statistical method but on the figures supplied by the Sanitary Commissioner, he made some conjectures about the error in the registration of deaths which was estimated to be 8 per cent. He took the birth error to be the same as reported by Health Department. A better attempt was made in 1931 for finding out the error in the registration of births and deaths and practically the same method has been adopted by us for the calculations for the decades 1931—40 and 1941—50.

2. The underlying principle in ascertaining the registration error in births and deaths is that the number of children aged 0—9 in 1951 is the number of children born in 1941—50, less roughly half the number of those who died aged 0-1 in 1941, those who died aged 0-1 and half those who died aged 1-2 in 1942, those who died 0—2 and half those who died 2-3 in 1943, and so on up to those who died aged 0—9 and half those who died aged 9-10, in 1950. These tedious calculations pre-suppose the tabulation of deaths by individual ages, but these figures are not available in the report of the Director of Medical and Health Services, U. P. In order to obtain single year age deaths the method of taking the simple average in a quinquennial group of deaths has been adopted. Supposing that the deaths in age-group 1—5 are 100, the deaths in ages 1-2, 2-3, 3-4 and 4-5 are each taken to be 100/4, i.e., 25. By adopting this method the deaths of children during 1921—30 are approximately the same as calculated by Sri Turner in 1931 (who did not record the details of his calculations). The results of the calculation for 1941—50 are given below. The figures are in thousand :

Item	Persons
Births during decade (including estimated birth of non-registrative area 1941—50)	14,922
Deaths of children calculated as above (1941—50)	3,144
Survivors aged 0—9 in 1941—50	11,778
Children aged 0—9 enumerated at Census of 1951	16,476
Difference	+4,698

This shows that there were roughly 4.7 million more children aged 0—9 years alive in the State at the final enumeration than the vital statistics would allow for. It is also possible that there might have been heavy migration of children aged 0—9 which is only a remote theoretical probability not warranted by any known facts. One difference from 1931 procedure, however, may be borne in mind. In 1931 the figures of age returns were smoothed to eliminate the prevalent bias of returning particular digits in ages. In the census of 1941 the figures of age returns as shown in the sample tables were also smoothed. In 1951 census the figures of age returns are as returned by the people. On basis of the above calculation we come to the conclusion that births have been under-recorded and that a conservative estimate of the true number of births is that number which allowing for the usual proportion of mortality among children would have resulted in 11,778 thousand children alive under 10 years of age. In other words, the underlying assumption is that the proportional increase of actual births over recorded deaths should correspond with the proportional increase of children aged 0—9 in the census of 1951 over the survivors calculated by vital statistics under 10 during 1941—50. This can be expressed algebraically as—

Actual number of births	=	Children aged 0—9 in 1951 census
Recorded births	=	Survivors calculated by vital statistics during 1941—50
Or actual number of births	=	Recorded births × children aged 0—9 in 1951 census
Or actual number of births	=	Survivors calculated by vital statistics during 1941—50
		$14,922 \times 16,476$
		11,778
		= 20,374 (thousand) persons

It should be borne in mind that the above calculations have been made for the whole State and not for its area of registration only. The figures of balance of migration of registration area in 1951 are not available separately but are only available for the State as a whole. Therefore, the births and deaths of non-registration area (Rampur, Tehri-Garhwal and former Banaras state) have been estimated by adopting the birth-rate and death-rate of the most representative neighbouring district. For Rampur, the rates of Moradabad, for Tehri-Garhwal, the rates of Garhwal and for Banaras state, the rates of Banaras district have been applied. The figures for 1951 are given below for illustration:

District	Mean population 1941—50	Birth-rate	Estimated births	Death-rate	Estimated Deaths
Tehri-Garhwal	404,708	33.4	135,172	24.9	100,772
Rampur	510,183	35.2	179,584	20.8	106,118
Banaras state	485,395	26.3	127,659	20.6	99,991

The recorded births and deaths for the registration area of the State for the decade 1941—50 are 14,479,317 and 9,664,105 respectively. With the estimated births and deaths for the non-registration area the total estimated recorded births and deaths for the State as a whole will be 14,922 thousand and 9,971 thousand respectively.

3. The result of the above calculation is that the number of births is more nearly 20,874 thousand and the estimated recorded births are 14,922. This gives an omission of 28.5 per cent. of births. The correct estimated birth-rate for the State will, therefore, be 34.86 or say 34.9.

4. When we have known the actual number of births we deduct from it the natural increase to find out deaths. For calculating the natural increase, two assumptions have to be made due to lack of reliable figures of migration:

(1) The figures of migrants for the census of 1941 are not available and, therefore, the figures of immigrants and emigrants of 1941 census have been arrived at by taking the mean of immigrants (excluding displaced persons) and emigrants of 1951 and 1931 censuses (see paragraph 34, Section 4 of Chapter I).

(2) There has been an abnormal influx of about 480 thousand displaced persons in this State from Pakistan, while there has also been an efflux of Muslims from this State following the partition of India. The figures of Muslim exodus are not available. The inflow of displaced persons has been set off against the outflow of Muslim migrants as the best possible assumption for estimating migration rate, birth-rate and death-rate.

5. The increase in natural population of Uttar Pradesh between 1941 and 1951 is equal to the excess of births over deaths in that area plus the number of immigrants who died in that area between 1941 and 1951 minus the number born in the area who died elsewhere in the period. As we have no statistics for deaths among immigrants and emigrants, we must estimate them approximately. The proportion of both immigrants and emigrants to the natural population is very small, and so any reasonable mistake we may make in this estimate will not seriously affect our calculations. The number of immigrants to the State in 1941 was 734 thousand. In 1951 it was 908 thousand excluding displaced persons. The average present during the decade may be taken to be at 821 thousand. In the same way we may take the average number of emigrants at 1,542 thousand, the figures of emigrants being in 1941, 1,548 thousand and in 1951, 1,536 thousand. The death-rate per mille among those born in Uttar Pradesh based on the reported deaths of the decade and average population of 1941 and 1951 is 165. Immigrants to this State are largely women among whom the death-rate is likely to be somewhat higher than the average. On the other hand, many immigrants are better off than the resident population and have a lower death-rate. Considering all these things, 200 may be taken as a fair figure. Deaths among immigrants were thus roughly 164 thousand. Among emigrants males preponderate but this is set off by the fact that the emigrants probably are not so well off as a class as the immigrants who came to the State. They go to all the large States and the average death-rate among them is, therefore, likely to be normal. So the death-rate is reasonable and gives deaths among emigrants in the decade to be 308 thousand. The table given below shows the increase in natural population to be 6,498 thousand. The excess of births over deaths calculated thus has been 6,642 thousand (increase in population 6,498 plus deaths among emigrants, 308 minus deaths among immigrants 164). Therefore, a closer approximation to the actual

number of deaths during the decade would be 14,230 thousand (total estimated births according to correct birth-rate 34.9 come to 20,872 minus total natural increase 6,642). The recorded estimated deaths would come to 9,971 as given before. This shows that 4,259 deaths remained unrecorded and thus the minimum percentage in recording deaths in 1941—51 is 29.9. The correct death-rate, therefore, calculates to 23.77 or say 23.8 per cent.

	Item				Persons	
Enumerated population 1951	63,216
Immigrants 1951	908
Emigrants 1951	1,536
Natural population 1951	63,844
Natural population 1941	57,346
Increase in natural population 1941—50	6,498

6. On these very lines the registration error has been arrived at for 1931—40 as follows :

	Per cent.			
Births	11.6
Deaths	15.3

APPENDIX IV

REPORTING OF VITAL STATISTICS IN THE RURAL AREAS OF U. P.*

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Vital statistics constitute the foundation on which the preventive medicine is built. They form the yard-stick to measure the nation's health. They are indicators of the health conditions prevailing in the area to which they relate and their quantitative analysis helps to assess and define problems for health workers to solve. Vital statistics in their wider sense cover a wide range of human activities but they are usually applied to a narrower field covering births, deaths and prevalence of disease in the community. In this article it is proposed to make a few remarks on the problem of reporting of births and deaths, the two most vital happenings, in the rural areas of this State where 87.6 per cent. (by 1941 Census) of the population live. Correct maintenance of birth and death statistics is not only of immense use in the health and economic planning of the country but the records also form documentary evidence in property and insurance cases.

The extent of error—The unreliability of the figures of births and deaths reported, has been stressed from time to time by various authorities connected with this problem in India. The Royal Commission on Agriculture and the Royal Commission on Labour drew pointed attention to the defects in Indian vital statistics and laid considerable emphasis for effecting their early improvement. The Indian Economic Enquiry Committee and the Age of Consent Committee also dwelt on the lack of accurate statistics and the need for correct statistics. The matter was considered at some length at the second meeting of the Central Advisory Board of Health in 1939, which made various suggestions to reduce the large numbers of omissions in the records of births and deaths. The Health Survey and Development Committee (1946), has made detailed recommendations to improve the registration of births and deaths in India.

The Population Data Committee in their report in 1945, have calculated the range of under-estimation of birth-rate at 40 to 50 per cent. for one of the areas in India where better facilities for registration are available and in the case of death-rate the estimated range was even higher, viz., 35 to 55 per cent. (Sen, 1948). In the census report of 1931, the defect in vital statistics was estimated at about 20 per cent. (Chandrasekhar, 1950). The Annual Report of the Public Health Commissioner with the Government of India (1936) says, "For the country as a whole, the degree of error in birth statistics may be taken to be at least 20 to 25 per cent., whilst in some areas the error is almost certainly higher. In the case of deaths, on the other hand, omissions are by no means so frequent and the percentage of error in mortality statistics may be taken to be represented by a much smaller figure." Some workers maintain that this is an under-estimate and contend that it is more likely to be in the region of 33 per cent. in the case of birth-rates and 30 per cent. in the case of death-rates (Gyanchand, 1939, quoted by Chandrasekhar, *loc. cit.*; Gyanchand, 1938). This view is also borne out by actuarial calculations (Chandrasekhar, *loc. cit.*).

The question arises: what is the extent of error in the registration of births and deaths in the rural areas of this State? The following remarks of the Superintendent of Census Operations, U. P., regarding the percentage of omissions, show that since the decade 1921 to 1931, the omissions have been fairly large, mainly due to the reduction in the number of village chaukidars (watchmen):

	Births				Deaths
1891—1901	"Reporting of vital statistics has been fairly satisfactory."	
1901—1911	"As nearly as possible correct"	.. "Between 1-2 per cent."
1911—1921	"2½ per cent."	.. "8 per cent."
1921—1931	"15 per cent."	.. "22 per cent."

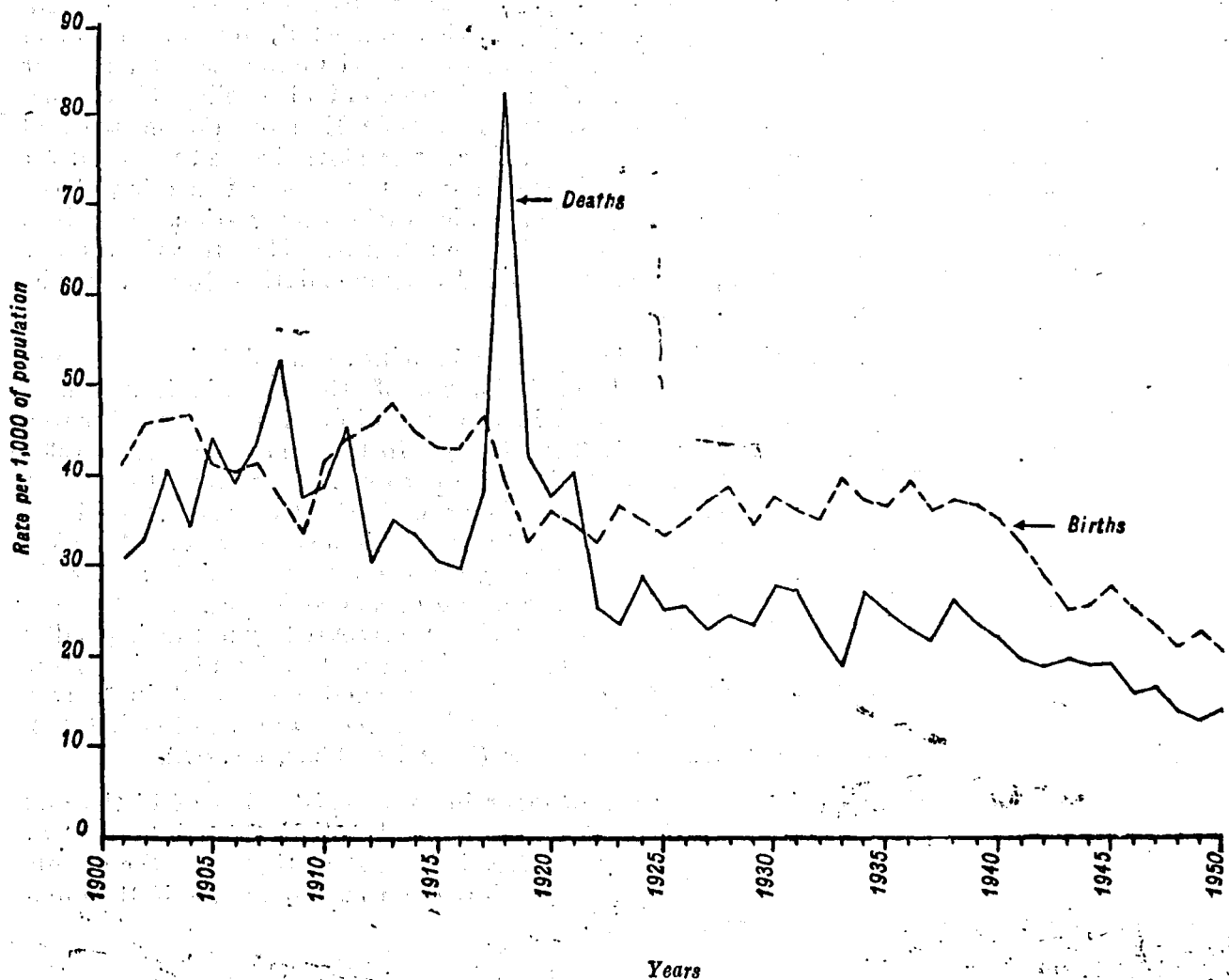
In 1922 the number of chaukidars was reduced by 35,974. Soon after this, the Director of Public Health, U. P., drawing attention to these omissions, submitted a scheme in 1932 to the Government suggesting the employment of a wholtime literate agency for registration of births and deaths, vaccination and assistance in anti-epidemic measures in public health circles of 25 square miles each. Due to financial involvement the scheme could not materialize.

* Indian Medical Gazette, April, 1952.

While compiling the annual birth and death returns for the year 1948, it was noticed that birth and death-rates which have been showing a downward tendency during the last decade had further declined to 20.6 and 13.7 respectively. Their trend during the present century is shown in the accompanying chart. The district-wise rates for 1948 were compared with the quinquennial average of 1943 to 1947 and in all those districts, forty-four in number, where birth-rate or death-rate or both showed marked variation, an enquiry* to find out whether the cause of the fall is real or due to neglect of registration was instituted through a sample survey. Five districts (Kanpur, Basti, Naini Tal, Almora and Garhwal), where the rates remained steady were excluded from the enquiry. The District Medical Officers of Health of the 44 districts were asked to get occurrences of births and deaths verified in about 200 villages in each district; 40 villages at least in each of the tehsils were to be covered by making a house-to-house enquiry between the period from Diwali 1947 (12th November, 1947) to Diwali 1948 (1st November, 1948), as the villager was likely to remember the period between the two festivals more conveniently. These were compared with the entries made in the books of chaukidars and the discrepancies

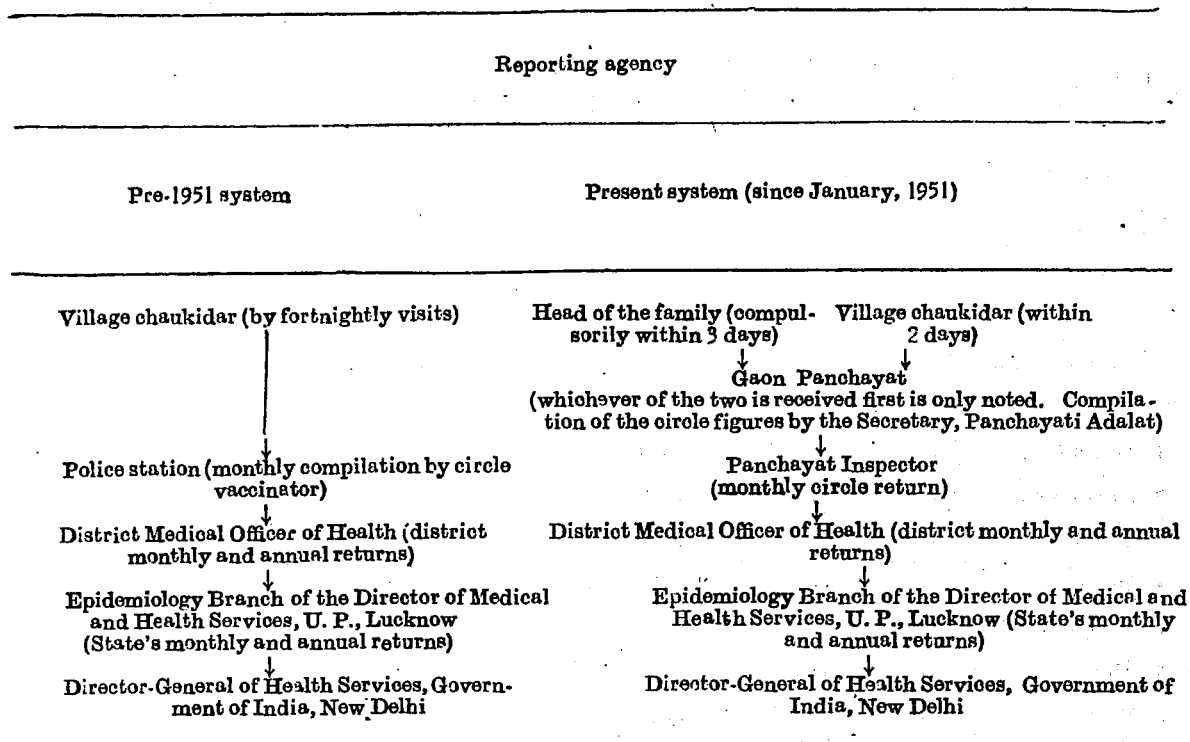
CHART

Showing birth and death rates per 1,000 of population in U. P.



during the same period were noted. District-wise result of this enquiry is shown in the table. Omissions in the case of births were 29.5 per cent. and in the case of deaths 24.3 per cent., the former being higher as is the usual experience. Out of 40 districts in which births were checked, 19 districts or 47.5 per cent. showed omissions of 30 per cent. or more. In 6 districts (Allahabad, Mirzapur, Jaunpur, Unnao, Kheri and Gonda), the omissions were more than 50 per cent. and Kheri showed as many as 71.2 per cent. Out of 36 districts in which deaths were checked, 18 districts or 50 per cent. showed omissions of 25 per cent. or more. In one district, Unnao, the omissions were about 50 per cent. and Kheri showed as many as 59.1 per cent. From the above it can be inferred that the cause of fall in the recorded birth and death-rates may not be wholly real but is partly due to negligence in registration. If the corrections on the above average omissions were to apply to the recorded births and deaths for 1948 in the State, the corrected rates work out to be 26.6 per mille in the case of births and 17.0 per mille in the case of deaths. The figures even after correction, as seen from the chart, are much below the pre-1940 figures, showing that there has been also a real fall in both the rates during the last decade as compared to the pre-War recorded rates.

* This enquiry had been undertaken by the writer in 1949 at the suggestion of Dr. A. N. Das, Director of Medical and Health Services, U. P., while working as Assistant Epidemiologist to U. P. Government.



Old system—Under the old system, reporting of births and deaths in rural area was not obligatory on house-holders. The village chaukidar (watchman) was required to make entries of births and deaths in the pocket register supplied to him as and when he came to know of these. This naturally resulted in many omissions. He reported these entries to the circle registration officer at the police station by making fortnightly visits on fixed dates. The preparation of the monthly circle's birth and death returns was done by the vaccinator of the circle who visited the police station on 15th of each month. The monthly statement prepared by the vaccinator was submitted by him to the District Medical Officer of Health by the 16th of the following month.

Further procedure was the same as is followed to-day. The District Medical Officer of Health prepares consolidated returns for the whole of his district, including the urban areas, and submits the same to the Director of Medical and Health Services, U. P., by the 21st of the following month. The State's returns as soon as they are ready are submitted by the Director to the Director-General of Health Services, New Delhi.

There were many disadvantages in the old system. Responsibility for reporting births and deaths was only that of village chaukidar, the lowest grade public servant, very poorly paid, invariably illiterate and overburdened with many other duties. This illiterate chaukidar was the foundation on which rested the primary responsibility of recording these vital events. Being illiterate he had to memorize the names of 36 various diseases of the death return and occurrences relating to them in his area. The average area of a police station is 140 square miles having some 100 to 150 villages and the average population covered by it is 64,000. So the chaukidars had to cover long distances for their fortnightly visits and had to be away for a number of days. It was, therefore, not surprising that many omissions occurred and many of the causes of deaths were wrongly diagnosed and wrongly entered in the thana (police station) register. A reference here may be made to a *kala azar* survey which the writer (Prasad, 1949) conducted in a village in Basti district. The village on investigation was found to be passing through an epidemic of *kala azar* and several deaths had occurred in the past 8 years. But the thana register and *chaukidars'* book did not show a single death from this disease. As a matter of fact the report received which led to this enquiry had stated that the village was in the grip of tuberculosis (Prasad, *loc. cit.*; Editorial, 1950). Under the circumstances it is not strange that in spite of the best efforts of the Public Health Staff and verification of these events, as far as possible, in the chaukidars' book and thana register, large scale omissions and errors in classification of the causes of deaths occurred.

New system—In order to improve matters, recording of vital statistics has now been entrusted to the village panchayats constituted under the U. P. Panchayat Raj Act, 1947, from January, 1951. Before dealing with the new change, the working of panchayats, units of local self-government in rural areas, may briefly be explained here. Villages with a population of 1,000 or more, and smaller villages situated within a radius of three miles having a total population of 1,000 to 2,000 grouped into one unit, have each a goan sabha (Village Assembly). The goan sabha elects from amongst its members a President, a Vice-President and an Executive Committee called the village or goan panchayat. The goan panchayat appoints a Secretary who should have the minimum prescribed educational qualification. The district is divided into

TABLE

Verification of births and deaths in some of the villages of the districts of Uttar Pradesh between the period from Diwali, 1947 (12th November, 1947) to Diwali, 1948 (1st November, 1948)

Name of district	Number of villages verified	Births				Deaths			
		Actual	Recorded	Omissions	Percentage of omissions	Actual	Recorded	Omissions	Percentage of omissions
1 Dehra Dun	80	557	483	74	13.3	286	240	46	16.1
2 Saharanpur	137	3,429	3,292	137	4.0	1,884	1,844	40	2.1
3 Muzaffarnagar	200	6,075	5,724	351	5.8	2,893	2,665	228	7.9
4 Meerut	240	7,216	6,461	755	10.5	3,378	2,975	403	11.9
5 Bulandshahr	144	..	..	..	..	1,551	1,128	423	27.3
6 Aligarh	319	8,432	5,212	3,220	38.2	3,658	2,698	960	26.2
7 Mathura	107	2,568	1,592	976	38.0	1,271	750	521	41.0
8 Agra	212	4,862	2,966	1,896	39.0	2,910	1,719	1,191	40.9
9 Mainpuri	200	2,537	1,931	606	23.9	1,970	1,419	551	28.0
10 Etah	200	3,830	3,027	803	21.0	2,490	1,953	537	21.6
11 Bareilly	139	..	..	..	..	2,650	2,245	405	15.3
12 Bijnor	200	..	..	..	..	1,514	1,091	423	27.9
13 Budaun	200	4,993	3,867	1,126	22.5	2,983	2,439	544	18.2
14 Moradabad	154	2,969	2,722	247	8.3	2,023	1,795	228	11.3
15 Shahjahanpur	129	2,142	1,296	846	39.5	1,395	770	625	44.8
16 Pilibhit	200	2,617	2,479	138	5.3	1,757	1,486	271	15.4
17 Farrukhabad	324	4,353	3,243	1,110	25.5	3,101	2,403	698	22.5
18 Etawah	78	1,197	781	416	34.7	664	427	237	35.7
19 Fatehpur	153	1,962	1,334	628	32.0	..	..	..	..
20 Allahabad	175	2,633	1,055	1,578	59.9	1,158	607	551	47.6
21 Jhansi	240	3,230	2,907	323	10.0	2,122	2,037	85	4.0
22 Jalaun	160	2,452	2,103	349	14.2	1,567	1,403	164	10.5
23 Hamirpur	200	3,219	2,680	539	16.7	2,768	2,362	406	14.7
24 Banda	65	843	731	112	13.3	619	569	50	8.1
25 Banaras	200	..	..	..	..	2,906	1,951	955	32.9
26 Mirzapur	205	2,773	1,369	1,404	50.6	1,600	872	728	45.5
27 Jaunpur	200	2,652	1,195	1,457	54.9	1,765	953	812	46.0
28 Ghazipur	99	1,276	1,025	251	19.7	678	599	79	11.6
29 Ballia	109	2,098	1,755	343	16.3	1,543	1,454	89	5.8
30 Gorakhpur	176	2,291	1,822	469	20.5	1,347	935	412	30.6
31 Deoria	114	1,789	1,285	504	28.2	1,269	1,026	243	19.1
32 Azamgarh	240	3,775	2,100	1,675	44.4	..	..	..	..
33 Lucknow	265	4,429	2,877	1,552	35.0	2,317	1,533	784	33.8
34 Unnao	146	2,046	822	1,224	59.8	1,219	607	612	50.2
35 Rae Bareilly	202	2,681	1,473	1,208	45.0	..	..	..	..
36 Sitapur	147	1,858	1,345	513	27.6	..	..	..	..
37 Hardoi	118	1,884	1,300	584	31.0	1,258	900	358	28.4
38 Kheri	82	2,304	664	1,640	71.2	1,589	649	940	59.1
39 Faizabad	186	2,459	1,610	849	34.5	..	..	..	..

*Verification of births and deaths in some of the villages of the districts of Uttar Pradesh
between the period from Diwali, 1947 (12th November, 1947) to Diwali, 1948
(1st November, 1948)—(conold.)*

Name of district	Number of villages verified	Births					Deaths			
		Actual	Recorded	Omissions	Percentage of omissions	Actual	Recorded	Omissions	Percentage of omissions	
40 Gonda	201	4,014	1,806	2,208	55.0	..	..	..	..
41 Bahraich	228	2,590	1,865	725	28.0	..	..	..	..
42 Sultanpur	205	2,735	1,536	1,199	43.8	..	..	..	..
43 Pratapgarh	204	2,398	1,334	1,064	44.4	1,505	1,027	478	31.8	
44 Bara Banki	193	3,257	2,512	745	22.9	2,716	2,191	525	19.3	
Total all districts	7,772	121,425	85,581	35,844	29.5	68,324	51,722	16,602	24.3	
Average of the middle two quartiles	..	..	..	..	28.9	..	..	..	23.8

circles so as to include usually 3 to 5 gaon sabhas in one circle for the purpose of establishing a panchayati adalat or court. Every gaon sabha in a circle elects five representatives to act as panches in the panchayati adalat of that circle, the panches so elected in a circle form a panel. All the panches so elected, elect among themselves a literate person to act as Sarpanch of the panchayati adalat. The sarpanch forms a bench of five panches from the panel for the trial of any case, suit or proceeding. There are 35,919 gaon panchayats and 8,414 panchayati adalats working in the State, covering about 120,000 villages. Their work is supervised by 439 panchayat inspectors appointed by the government. Each panchayat inspector has 15 to 20 panchayati adalats under him and a wholetime clerk. The work of panchayat inspectors is supervised by the District Panchayat Officer.

The following extracts from rules made under the U. P. Panchayat Raj Act, 1947, pertaining to reporting of births and deaths are reproduced :

142. (a) A panchayat shall undertake registration of births and deaths and the reporting of epidemic diseases and for that purpose shall comply with all orders of the Public Health Department, the District Board and Provincial Government.

(b) A panchayat shall maintain a register of births and deaths in Form D for every village situated in its jurisdiction and the President and the Secretary of the gaon sabha shall be responsible for its correct maintenance.

143. The head of the family or in his absence any other member thereof shall report birth or death occurring in his family within three days of the occurrence at the latest to the Secretary or President or Vice-President of the gaon sabha concerned and the officer receiving the report shall give a receipt of the same to the reporter. Any person who fails without sufficient cause to make a report under this rule shall be punishable by a panchayati adalat with a fine which may extend to rupee one only.

144. It shall be the duty of a chaukidar to report to the President or in his absence the Vice-President or the Secretary of the gaon sabha every birth or death occurring in the area assigned to him by the panchayat within two days of the said occurrence.

Under the new system reporting of births and deaths is obligatory on the member of the household within a specified time. The last rule (144) requires village chaukidars, as a double check, also to report these events within two days. Whichever of the two is received first is only noted in the register. The gaon panchayat and the panchayati adalat have an educated Secretary to look after this work. The President and the Secretary of gaon panchayat maintain the combined register of births and deaths for each village. To help Presidents as to what the actual cause of death may have been, notes on main symptoms of diseases have been supplied to each. The Secretary of panchayati adalat, who has on an average four gaon panchayats under him, each of which he visits once a week, compiles the monthly figures of his circle from the village registers kept by the President of gaon panchayats. He hands over the total of his circle in two forms, one for birth and other for death, to panchayat inspector whom he meets on the 10th of each month. The panchayat inspector with the help of the whole time clerk gets the consolidated monthly birth and death returns prepared for his circle, his circle replacing the thana registration circle under the old system. He posts the monthly consolidated circle return to District Medical Officer of Health by the 15th of the following month. The new system

fulfils two important recommendations of the Health Survey and Development Committee (*loc. cit.*): (1) A member of a village committee should concern himself with vital statistics and (2) the registration of vital statistics should be made compulsory and offenders should be prosecuted.

In certain backward areas of the State where panchayats have not been constituted, the new system could not be introduced.

Summary—1. Importance of correct vital statistics is stressed. The extent of error in the registration of births and deaths is discussed. Results of a sample survey carried out in 7,772 villages of 44 districts to find out the percentage of omissions in birth and death registrations are presented. Omissions in the case of births were 29.5 per cent. and in the case of deaths 24.3 per cent. one district showed nearly 70 per cent. omissions in births and 60 per cent. in deaths.

2. It is pointed out that the cause of fall in the recorded birth and death-rates during the last decade is partly due to negligence in registration and partly real.

3. Reporting agency, old and new, is described. Disadvantages of the old system and advantages of the new system of registration of births and deaths by panchayats, introduced since January, 1951, are shown. Working of the panchayats in the State is described briefly.

The writer thanks Dr. A. N. Das, Director of Medical and Health Services, Uttar Pradesh, and Dr. B. S. Yajnik, Assistant Director, Provincial Hygiene Institute, U. P. for their encouragement and for permission to communicate this paper. His thanks are also due to Dr. B. Gopal, Assistant Director, Epidemiology, for the help extended by him.

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APPENDIX V

NET CONSUMABLE GRAIN IN UTTAR PRADESH

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This note presents a statistical study of the important question as to whether the amount of net consumable foodgrains produced in the State has been keeping pace with the growth of the population from decade to decade. The main handicap in making a scientific study of the question has been the paucity of reliable data, particularly that relating to the outturn of crops. The conclusions reached in this note are, therefore, obviously subject to the limitations imposed by the quality of the available data.

2. For purposes of this study, the four quinquennia, viz., 1916-17 to 1920-21, 1926-27 to 1930-31, 1936-37 to 1940-41 and 1946-47 to 1950-51 have been considered and the average net consumable grain available during each of these quinquennia has been estimated. Instead of estimating the average net consumable grain over these 4 quinquennia, the net consumable grain for the individual census years, viz., 1920-21, 1930-31, 1940-41 and 1950-51 could have been utilized, but the former procedure of taking average over quinquennia is statistically sounder than the latter procedure in that by the former procedure, the seasonal differences are smoothed out.

3. For purposes of this study, only the seven principal food crops of this State, viz., wheat, barley, gram, rice, *juar*, *bajra* and maize have been considered. The total production for these seven food crops has been estimated, the figures of estimated production for each individual crop being taken either from the Crop Forecasts or the Season and Crop Reports for the years concerned. The estimates of average total production for the four quinquennia, inclusive of the conventional estimates of production for the hilly tracts of the Kumaon division, are shown in Table 1.

4. For estimating the average net consumable grain available for human beings during each of the four quinquennia, it is necessary to subtract from the average total production for each quinquennium the total quantity of foodgrains consumed on the following accounts :

(a) Seed ; (b) Loss in driage ; (c) Loss in storage, transit, wastage and weevilling ; and (d) Consumption by animals, e.g., cattle, dogs, fish, donkeys, monkeys, etc.

(a) *Seed*—For estimating the total quantity of foodgrains consumed for seed purposes, the average area under each of the seven food crops over each of the four quinquennia was calculated and multiplied by the normal seed-rate for the crop, as laid down by the Department of Agriculture. The total over all the crops for each quinquennium then gave the total quantity of foodgrains consumed for seed purposes during the quinquennium. In Table 2 are shown the seed-rates per acre, average area in thousands of acres and the average total consumption in thousands of tons for the four quinquennia for each of the individual crops as also the totals over all the crops. It was found that the total quantity of foodgrains consumed for purposes of seed was 6·9, 8·0, 7·8 and 8·7 per cent. of the estimated total production of foodgrains during the four quinquennia respectively ending with the years 1920-21, 1930-31, 1940-41 and 1950-51.

(b) *Loss in driage*—An allowance of 1 per cent. loss of grain due to driage has been made in the total production, although the estimated total production has been assumed to be for dry, dehusked and cleaned grain.

(c) *Loss in storage, transit, wastage and weevilling*—On the basis of the information supplied by the Provincial Marketing Officer (Foodgrains), Uttar Pradesh, Lucknow, loss of grain in storage, etc., has been taken to be 0·94 per cent. of the total production.

(d) *Animal consumption*—Owing to the absence of any reliable figures regarding cattle food or consumption by animals, the estimates of animal consumption of foodgrains made in this note are very rough and conjectural, and are based on the information supplied by the Director of Animal Husbandry, Uttar Pradesh, as modified by the information given in the note regarding the net consumable grain in Rajasthan. Animal consumption can be categorized under the following heads :

- (i) By bulls ;
- (ii) By bullocks ;
- (iii) By cows ;
- (iv) By she-buffaloes ; and
- (v) By horses, mares, ponies, etc.

It has been assumed that the consumption of foodgrains by the young stock of cattle, male-buffaloes, sheep, donkeys, camels and pigs is practically negligible. The consumption by goats, monkeys, pigeons, fish, etc., has also been taken to be quite negligible.

For consumption of foodgrains by animals listed from (i) to (v), the following assumptions have been made:

(i) *Bulls* are not at all fed in this State. They generally live on what they are able to pick up themselves from the standing crops and by grazing. Since this quantity is not included in the net production for the State, it can be ignored. However, bulls at the State and private farms, agricultural institutions and *Goshalas* do get concentrates. It has been assumed that the number of such bulls fed on concentrates is 1/22 of the total population of bulls. It has been further assumed that, on an average, about 4 lbs. of foodgrains per head per day are consumed by them throughout the year, or about 17.7 mds. per head per annum.

(ii) *Bullocks*—Generally the working bullocks are given foodgrains and other concentrates during the ploughing and harvesting seasons. Besides, the bullocks engaged in transport work also get cereals. It has been assumed that each bullock is given 3.6 lbs. of foodgrains per day and only for 75 days in a year. Thus, the *per capita* consumption comes to about 3.28 mds. per annum. It has been further assumed that only 50 per cent. of the total population is fed on these foodgrains.

(iii) *Cows*—Dry cows are not generally given foodgrains in most parts of the State and they live on grazing and fodders. It has been assumed that a cow in milk gets on an average about 2 lbs. of foodgrains per day during the average lactation period of about 200 days in a year. Consequently, the *per capita* consumption is estimated at about 4.9 mds. per annum. It has been further assumed that only about 10 per cent. of the cows are given these foodgrains.

(iv) *She-buffaloes*—She-buffaloes are not given concentrates in Tarai areas and at those places where there are good pasturages. However, they are better cared for than cows. It has been assumed that a she-buffalo gets on an average 3 lbs. of foodgrains daily during the average lactation period of about 225 days in a year. This gives a *per capita* consumption of about 8.2 mds. per annum. Here also it has been assumed that only 10 per cent. of the total population of she-buffaloes is fed on concentrates.

(v) *Horses, mares, etc.*—Cereals and foodgrains are important for horses, mares and ponies which are used for draught purposes. It has been assumed that, on an average, a horse above 3 years gets 3 lbs. of foodgrains daily and that below 3 years only 1 lb. of foodgrains daily throughout the year. The *per capita* consumption for horses above and below 3 years thus comes to 13.2 mds. and 4.4 mds. per annum respectively.

The consumption of foodgrains by animals in each of the four live-stock census years 1920, 1930, 1940 and 1951, roughly estimated on the basis of the above assumptions, is shown in Table 3.

5. In Table 1 referred to above are shown, besides the figures of average total production for each of the four quinquennia, the average consumption of foodgrains for purposes of seed, average loss of grain by driage and wastage, consumption by animals, average net consumable grain available for human beings and the excess (+) or deficit (—) of net consumable grain over total requirements for the human population in Uttar Pradesh. It would appear from this table that whilst in the first three quinquennia, the average net consumable grain has been in excess of the total requirements for the human population, there has been a continual decline in the amount of this excess till, in 1951, the net consumable grain has actually fallen short of the requirements for the human population in the State. This is because whilst the human population in the State is continually on the increase, the total production has remained more or less stationary.

TABLE 1—Average total production and consumption of foodgrains for the quinquennium ending 1921, 1931, 1941 and 1951 in Uttar Pradesh

Items	1921	1931	1941	1951
1 Average total production for each quinquennium (in thousand tons)	10,318	9,221	9,738	9,559
2 Average consumption of grain as seed for each quinquennium (in thousand tons) ..	710	734	759	833
3 Average loss of grain by drriage and storage for each quinquennium at 1.94 per cent. of average total production (in thousand tons)	200	179	189	186
4 Consumption by animals for each census year (in thousand tons)*	895	914	936	940
5 Average net consumable grain available for human beings (in thousand tons) ..	8,513	7,394	7,854	7,600
6 Human population in each census year (in thousands)	45,375	48,408	55,021	63,216
7 Total requirements of human population @ $\frac{1}{2}$ seer per head per day for each adult .. (or 6.8 <i>chhataks per capita</i>) for each census year (in thousand tons)	6,464	6,896	7,838	9,006
8 Excess (+) or deficit (—) of net consumable grain over total requirements for human population (in thousand tons)	+2,049	+498	+16	—1,406

*The live-stock census was actually taken in 1920, 1930, 1940 and 1951 and figures for these years are shown respectively against 1921, 1931, 1941 and 1951.

TABLE 2—Estimated average consumption of foodgrains for purposes of seed in Uttar Pradesh for the quinquennia ending 1920-21, 1930-31, 1940-41 and 1950-51

Foodgrains	Seed-rate per acre	1921		1931		1941		1951	
		Average area in thousand acres	Average total consumption in thousand tons	Average area in thousand acres	Average total consumption in thousand tons	Average area in thousand acres	Average total consumption in thousand tons	Average area in thousand acres	Average total consumption in thousand tons
1 Early paddy .. 30 seers		4,627	127.48	4,618	127.23	4,642	127.89	5,074	139.79
2 Late paddy .. 10 ,,		2,313	21.24	2,468	22.67	2,710	24.89	3,514	32.27
3 Wheat .. 40 ,,		6,661	244.69	7,281	267.47	8,031	295.02	8,172	300.20
4 Barley .. 40 ,,		4,485	164.76	4,269	156.82	3,932	144.44	4,816	176.91
5 Gram .. 25 ,,		4,899	112.48	5,335	122.49	5,647	129.65	6,285	144.30
6 Juar .. 5 ,,		2,176	9.99	2,398	11.01	2,226	10.22	2,294	10.53
7 Bajra .. 3 ,,		2,565	7.07	1,991	5.49	2,204	6.07	2,620	7.22
8 Maize .. 11 ,,		2,232	22.55	2,053	20.74	2,045	20.66	2,164	21.86
Total ..		29,958	710.26	30,413	733.92	31,437	758.84	34,939	833.08

TABLE 3—Statement showing the consumption of foodgrains by animals in Uttar Pradesh for the census years 1920, 1930, 1940 and 1951

	Consumption rate per head per annum	1920			1930			1940			1951		
		Total population in thousands	Active population in thousands	Total consumption in thousand tons	Total population in thousands	Active population in thousands	Total consumption in thousand tons	Total population in thousands	Active population in thousands	Total consumption in thousand tons	Total population in thousands	Active population in thousands	Total consumption in thousand tons
1 Bulls	17.7	28	1.3	0.85	24	1.1	0.72	19	0.9	0.59	11	0.5	0.33
2 Bullocks	3.28	9,874	4,937	594.86	10,071	5,035	606.67	10,134	5,067	610.52	11,455	5,727	690.05
3 Cows	4.9	2,580	258	46.44	2,590	259	46.62	2,495	250	45.00	2,442	244	43.92
4 She-Bufferoes	8.2	1,635	164	49.40	1,856	186	56.03	1,930	193	58.14	2,114	211	63.56
5 Horses and ponies above 3 years	13.2	396	396	192.02	397	397	192.50	432	432	209.48	269	269	130.44
6 Horses and ponies below 3 years	4.4	67	67	10.83	70	70	11.31	74	74	11.96	75	75	12.12
Total				894.40			913.85			935.69			940.42

APPENDIX VI

EXTRACTS FROM INSTRUCTIONS REGARDING LIVELIHOOD CLASSIFICATION AND OCCUPATIONAL CLASSIFICATION

(a) Livelihood classification

The main problem is to teach the sorter how to distinguish between the four Non-agricultural Livelihood Classes. A few essentials are noted below:

(i) Where 1, 2, 3 or 4 is written against Q. 10 there is no problem. The problem arises only when a narrative description of non-agricultural means of livelihood is given.

(ii) "V—Production" always means the making of movable property of some kind or other. There is no difference between making and repairing but in it the making or repairing of immovable property, e.g., houses, roads, bridges, etc., is not included. It is "construction", a service. The generation of electricity is "utilities", also a service.

(iii) "VI—Commerce" means mostly buying and selling of movable or immovable property. It also includes lending and borrowing money (Insurance, Banking, etc.). You will frequently come across people who produce things and also sell them. Their slips go into the pigeonhole for "Production", not "Commerce".

(iv) "VII—Transport" needs no explanation. It is movement from one place to another of people or goods.

(v) "VIII—Other services and miscellaneous sources". Remember, this is a residuary pigeonhole. (If you don't take care, you will put many slips into VIII which ought to go into V, VI or VII). Therefore, think twice before you put a slip into VIII. Follow these working rules:

Firstly—If the entry (against Q. 10) shows that the work which the person earning the livelihood does, is "Production", "Commerce" or "Transport" put the slips into V, VI or VII without further thought. (It does not matter whether he is an employer, employee or independent worker).

Secondly—Even where this is not so, if he is an employee and it is clear from the entry that the factory, company or person who employs him is engaged on "Production", "Commerce" or "Transport" put the slip into V, VI or VII as the case may be. (But this does not apply to persons employed as domestic servants).

Thirdly—All other cases go into VIII. This includes domestic servants without any exception, whatever they do.

(b) Occupational classification

I—General—1. When a means of livelihood falls within a prescribed sub-division but does not go into any of the prescribed groups, you are free to form a new group after due sanction. (You cannot alter the prescribed divisions or sub-divisions or groups).

2. Where vague description such as "Cultivation", "Mazdoor" or "Service" is recorded under Q. 10, act as follows:

(i) "Service" or "Mazdoor" goes under "9·0 Service Unclassified".

(ii) The treatment of "Cultivation" depends on whether the error is "exceptional" or "general".

(a) If exceptional proceed as follows:

Find out the two most numerous classes among 1, 2 and 3 in the tract. Distribute the slips containing the entry "Cultivation" equally between the two.

(b) If, however, the error is general (e.g., affecting the majority of the slips) we should accept the point that the attempt to classify the agriculturists has failed in that tract. All agricultural livelihood classes may, in that case, be lumped under a single head "Cultivation Unclassified". A special report should be sent at once, where this course is adopted.

II—Creation of new groups—(i) *Cow-dung collectors and cow-dung-cake makers*—They should be included in "Primary industries not elsewhere specified" and allotted a specific group 0·44. In consequence, the title of Sub-division 0·4 should be changed to "Forestry and collection of products not elsewhere specified".

(ii) *Construction of buildings with bamboo or other materials*—A new group 5·14 should be opened for such cases. (They are not strictly classifiable under 5·0 which does not cover works which are classifiable as buildings; and it has been suggested that they should not be lumped within 4·60).

(iii) *Locksmith*—The classification is 3·05. If specially important locally, a group may be given.

III—Doubtful cases—(i) Speculators are not distinguishable from other persons engaged in "Commerce". They should be classified according to the commodity in which they speculate.

(ii) The instructions regarding the classification of "General Labour" as 9·0 do not apply in cases where it is clear (in relation to local usage in particular tracts) that the labour is classifiable under any specific division or sub-division. It is *a fortiori* inapplicable to agricultural labour.

(iii) *District Electrical Engineer of Railway*—The classification is 7·4.

(iv) *Driver Electric Supply Company*—He should go in Class VIII under 5·51.

(v) *Cashier in Co-operative Society*—He should go in Class VI under 6·8.

(vi) *Chhappar Chhanewale*—These should be treated as agricultural labour.

(vii) *Glass manufacturer*—Should go in Class V under 4·02.

(viii) *Prosecuting Inspector Police*—Should be classed under 8·4.

(ix) *Constable G. R. P.*—Should be classed under 8·4.

(x) *School Dispensary servant*—Should be classed under 8·10.

IV—Unproductive classes—"Wagerers" should be classified as unproductive.

APPENDIX VII

COMPARABILITY OF OCCUPATIONAL SUB-DIVISIONS AND GROUPS OF 1901—31 AND 1951

(a) Occupational groups of 1901—31 falling in more than one sub-divisions of 1951 and which, for purposes of comparison, have been treated as belonging to the italicised sub-divisions

Year	Occupational groups	Sub-division 1951
1931	.. 57 Smelting, forging and rolling of iron and other metals	3·1 <i>Iron and steel (basic manufacture)</i> 3·2 Non-ferrous metals (basic manufacture)
"	.. 81 "Others"	2·0 <i>Food industries otherwise unclassified</i> 2·2 Vegetable oil and dairy products
"	.. 89 Upholsters, tent makers, etc.	2·7 <i>Wearing apparel (except footwear) and made-up textile goods</i> 4·7 Furniture and fixtures
"	.. 90 Lime burners, cement workers, excavators and well-sinkers; stone cutters and dressers; brick-layers and masons; builders (other than buildings made of bamboos or similar materials), painters, decorators of houses, tilers, plumbers, etc.	4·0 Manufacturing industries otherwise unclassified 4·3 Cement—Cement pipes and other cement products 5·1 <i>Construction and maintenance—buildings</i> 5·4 <i>Construction and maintenance operations—irrigation and other agricultural works</i>
"	.. 94 Heat, light, electricity, motive power, etc. (gas works and electric light and power)	3·4 Electrical machinery, apparatus, appliances and supplies 5·5 <i>Works and Services—electric power and gas supply</i>
"	.. 103 Persons (other than labourers) employed in harbours, docks, rivers and canals, including pilots	5·4 <i>Construction and maintenance operations—irrigation and other agricultural works</i> 7·2 <i>Transport by water</i>
"	.. 104 Labourers employed on harbours, docks, rivers and canals	5·4 <i>Construction and maintenance operations—irrigation and other agricultural works</i> 7·2 <i>Transport by water</i>
"	.. 113 Labourers employed on railway construction and maintenance and coolies and porters employed on railway premises	5·2 <i>Construction and maintenance—roads, bridges and other transport works</i> 7·4 <i>Railway transport</i>
"	.. 116 Brokers, commission agents, commercial travellers, warehouse owners and employees	6·6 <i>Real estate</i> 7·5 <i>Storage and warehousing</i>
"	.. 117 Trade in piece goods, wool, cotton, silk, hair and other textiles	6·3 <i>Retail trade in textile and leather goods</i>
"	.. 118 Trade in skins, leather, furs, feathers, horn, etc., and the articles made from these	6·5 <i>Wholesale trade in commodities other than foodstuffs</i>
"	.. 119 Trade in wood (not firewood)	
"	.. 120 Trade in barks	
"	.. 121 Trade in bamboos and canes	
"	.. 122 Trade in thatches and other forest produce	
"	.. 123 Trade in metals, machinery, knives, tool etc.	
"	.. 124 Trade in pottery, bricks and tiles	
"	.. 125 Drugs, dyes, paints, petroleum explosives, etc.	
"	.. 138 Trade in ready-made clothing and other articles of dress and the toilets (hats, umbrellas, socks, ready-made shoes, perfumes, etc.)	6·0 <i>Retail trade otherwise unclassified</i>
"	.. 139 Trade in furniture, carpets, curtains and bedding	6·5 <i>Wholesale trade in commodities other than foodstuffs</i>
"	.. 140 Hardware, cooking utensils, porcelain, crockery, glassware, bottles, articles for gardening, etc.	
"	.. 141 Trade in building materials other than bricks, tiles, and woody materials	
"	.. 142 Dealers and hirers in mechanical transport, motors, cycles, etc.	
"	.. 143 Dealers and hirers in other carriages, carts, boats, etc.	
"	.. 144 Dealers and hirers of elephants, camels, horses, cattle, asses, mules, etc.	

Year	Occupational groups	Sub-division 1951
1931	.. 145 Dealers in firewood, charcoal, coal, cow-dung, etc.	6.2 Retail trade in fuel (including petrol) 6.5 Wholesale trade in commodities other than foodstuffs
"	.. 146 Dealers in precious stones, jewellery (real and imitation), clocks, optical instruments, etc.	6.0 Retail trade otherwise unclassified 6.5 Wholesale trade in commodities other than foodstuffs
"	.. 147 Dealers in common bangles, beads, necklaces, fans, small articles, toys, hunting and fishing tackle, flower, etc.	
"	.. 148 Publishers, book-sellers, stationers, dealers in music, pictures, musical instruments and curiosities	
"	.. 149 Dealers in rags, stable-refuse, etc.	
"	.. 150 General store-keepers and shop-keepers otherwise unspecified	
"	.. 161 Municipal and other local (not village) service	5.6 Works and services—domestic and industrial water supply 5.7 Sanitary works and services including scavengers. 8.6 Employees of Municipalities and Local Boards
1921	.. 38 Lace, crepe, embroideries, frings, etc., and insufficiently described textile industries	2.7 Wearing apparel (except footwear) and made-up textile goods 2.8 Textile industries otherwise unclassified
"	.. 41 Furriers and persons occupied with feathers and bristles, brush makers	2.7 Wearing apparel (except footwear) and made-up textile goods 2.8 Textile industries otherwise unclassified 4.0 Manufacturing industries otherwise unclassified
"	.. 72 Sweetmeat makers, preparers of jams and condiment, etc.	2.0 Food industries otherwise unclassified 2.3 Sugar industries
"	.. 75 Manufacturers of tobacco, opium and ganja	2.0 Food industries otherwise unclassified 2.5 Tobacco
"	.. 83 Cabinet makers, carriage painters, etc.	3.3 Transport equipment 4.7 Furniture and fixtures
"	.. 119 Labourers employed on railway construction and maintenance and coolies and porters employed on rail way premises	As in group no. 113 of 1931
"	.. 122 Brokers, commission agents, commercial travellers, warehouse owners and employees	As in group no. 116 of 1931
1911	.. 16 Coal mines and petroleum wells	1.1 Coal mining 1.4 Crude petroleum and natural gas
"	.. 28 Hair, camel and horse hair, bristles work, brush makers, etc.	2.8 Textiles industries otherwise unclassified 4.0 Manufacturing industries otherwise unclassified
"	.. 31 Other (lace, crepe, embroideries, frings, etc.) insufficiently described textile industries	As in group 38 of 1921
"	.. 63 Sweetmeat makers, preparers of jam and condiments, etc.	As in group 72 of 1921
"	.. 66 Manufacture of tobacco, opium and ganja	As in group 75 of 1921
"	.. 74 Cabinet makers, carriage painters, etc.	As in group 83 of 1921
"	.. 77 Excavators, plinth builders and well-sinkers	5.1 Construction and maintenance—buildings 5.4 Construction and maintenance operations—irrigation and other agricultural works
1901	.. 78 Cow and buffalo keepers and milk and butter sellers	0.1 Stock raising 6.1 Retail trade in foodstuffs (including beverages and narcotics)
"	.. 82 Ghee preparers and sellers	2.2 Vegetable oil and dairy products 6.1 Retail trade in foodstuffs (including beverages and narcotics)
"	.. 174 Palki, dandi, rickshaw makers and sellers	3.3 Transport equipment 6.0 Retail trade otherwise unclassified
"	.. 222 Harness (not leather) makers and sellers	2.8 Textile industries otherwise unclassified 6.3 Retail trade in textile and leather goods
"	.. 223 Saddle cloth makers, embroiderers and sellers	2.7 Wearing apparel (except footwear) and made-up textiles goods 6.3 Retail trade in textile and leather goods
"	.. 302 Hat, cap and turban makers, binders and sellers	2.7 Wearing apparel (except footwear) and made-up textile goods 6.0 Retail trade otherwise unclassified

(b) Comparative list of occupational sub-divisions and groups 1901—31 and 1951

Means of livelihood : Divisions and sub-divisions	Occupational groups				
	1951	1931	1921	1911	1901
V—Production other than cultivation					
<i>0—Primary industries not elsewhere specified—</i>					
0·1 Stock raising	21, 22, 23	11, 12, 13, 14	9, 10, 11, 12	25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 78	
0·2 Rearing of small animals and insects ..	24, 25, 26	15, 16	13	83, 259	
0·3 Plantation industries	9, 10, 11, 12, 13, 14, 15, 16	6, 7	5, 6	41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 216	
0·4 Forestry and wood-cutting	17, 18, 19, 20	8, 9, 10	7, 8	58, 59, 350, 351, 352, 353, 354, 356, 358, 360, 492, 493	
0·5 Hunting (including trapping and game propagation)	28	18	15	492, 493	
0·6 Fishing	27	17	14	79, 319	
<i>1—Mining and Quarrying—</i>					
1·0 Non-metallic mining and quarrying not otherwise classified	39, 41	22	18	311, 503	
1·1 Coal mining	35	19	16	146, 147	
1·2 Iron ore mining	30	21	17	—	
1·3 Metal mining except iron ore mining ..	29, 31, 32, 33, 34	—	—	309, 310	
1·4 Crude petroleum and natural gas	36	20	—	—	
1·5 Stone-quarrying, clay and sand-pits ..	37	—	—	—	
1·6 Mica	38	—	—	200	
1·7 Salt, saltpetre and saline substances ..	40	23, 24	19, 20	117, 118, 127, 365	
<i>2—Processing and Manufacture—Food-stuffs, Textiles, Leather and Products thereof—</i>					
2·0 Food industries otherwise unclassified ..	73, 75, 79, 80, 81	66, 68, 69, 72	57, 59, 60, 63, 66 (a)	76, 84, 85, 86, 95, 103, 106, 113, 114, 125, 135	
2·1 Grains and pulses	71, 72	65, 67	56, 58	87, 88, 91, 92, 96, 98, 102	
2·2 Vegetable oil and dairy products	68	61, 70	53, 61	77, 82, 89, 90, 100, 143	
2·3 Sugar industries	74	71	62	93, 94, 99	
2·4 Beverages	67, 76, 77	59, 73, 74	51, 64, 65	107, 108, 109, 110, 111, 112, 115, 116, 131, 133	
2·5 Tobacco	78	75	66	119, 120, 129	
2·6 Cotton textiles	42, 43, 49	25, 26, 27, 37	21, 22, 30	263, 264, 265, 266, 267, 268, 271, 272, 275, 277, 278	
2·7 Wearing apparel (except footwear) and made-up textile goods	52, 83, 84, 89	41, 76, 77, 79, 84	34, 67, 68, 70, 75	223, 250, 269, 270, 279, 281, 296, 297, 298, 299, 301, 302, 303, 306	
2·8 Textile industries otherwise unclassified ..	44, 45, 46, 47, 48, 50	28, 29, 30, 31, 32, 33, 34, 35, 36, 38	23, 24, 25, 26, 27, 28, 29, 31	222, 248, 249, 251, 252, 253, 255, 256, 257, 258, 260, 262, 273, 283, 284, 285, 286, 287, 288, 290, 292	
2·9 Leather, leather products and footwear ..	51, 82	39, 40, 78	32, 33, 69, 81	305, 384, 385, 386, 387, 388, 391	
<i>3—Processing and Manufacture—Metals, Chemicals and Products thereof—</i>					
3·0 Manufacture of metal products otherwise unclassified	58, 59, 60, 61, 62	47, 48, 49, 50, 51	39, 40, 41, 42, 43, 44	198, 199, 227, 229, 230, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 246, 307, 308, 313, 320, 321, 322, 324, 328	
3·1 Iron and steel (basic manufacture)	57	46	38	326, 327	
3·2 Non-ferrous metals (basic manufacture) ..	—	—	—	—	

Means of livelihood : Divisions and sub-divisions	Occupational groups				
	1951	1931	1921	1911	1901
3·3 Transport equipment	91, 92, 93	90, 91, 92	80, 82	167, 168, 169, 170, 171, 173, 174, 175, 176, 178	
3·4 Electrical machinery, apparatus, appliances and supplies	—	—	—	—	
3·5 Machinery (other than electrical machinery) including engineering workshops	190	186	166	225, 226, 232, 314	
3·6 Basic industrial chemicals, fertilisers and power alcohol	—	—	—	367, 368, 370, 373, 374, 379	
3·7 Medical and pharmaceutical preparations ..	—	—	—	378	
3·8 Manufacture of chemical products otherwise unclassified	66, 70	58, 60, 64	50, 52, 55	138, 139, 145, 361, 362, 363, 364, 375, 376	
4—Processing and Manufacture—not elsewhere specified	—	—	—	—	
4·0 Manufacturing industries otherwise classified ..	53, 96, 97, 98, 99, 183	42, 96, 97, 98, 100, 184	35, 76, 87, 88, 89, 91, 164	153, 154, 157, 190, 193, 194, 195, 196, 201, 202, 203, 204, 206, 208, 212, 217, 231, 312, 316, 317, 338, 348, 380, 381, 382, 383	
4·1 Products of petroleum and coal	69	62	—	140, 141	
4·2 Bricks, tiles and other structural clay products ..	64	56	48	151, 152, 155	
4·3 Cement—cement pipes and other cement products	—	57	49	160, 161	
4·4 Non-metallic mineral products	63, 65-A, 65-B	52, 53, 54, 55, 99	45, 46, 47, 90	210, 214, 330, 331, 332, 334, 335, 336	
4·5 Rubber products	—	—	—	—	
4·6 Wood and wood products other than furniture and fixtures	54, 55, 56	43, 44, 45	36, 37	197, 224, 340, 341, 342, 343, 344, 346, 347, 349	
4·7 Furniture and fixtures	88	83	74	218, 219, 220	
4·8 Paper and paper products	—	63	54	179, 180, 181	
4·9 Printing and allied industries	95	94, 95	84, 86	183, 184, 185, 186	
VI—Commerce					
6—Commerce—					
6·0 Retail trade otherwise unclassified	119, 120, 121, 122, 123, 124, 125, 138, 139, 140, 141, 142, 143, 144, 146, 147, 148, 149, 150, 151, 152	125, 126, 127, 128, 132, 138, 140, 141, 142, 143, 144, 145, 146, 148, 149, 150, 151, 152, 153, 154, 155	110, 111, 112, 113, 117, 125, 126, 127, 128, 129, 131, 132, 133, 134, 135, 136, 138	124, 128, 144, 156, 158, 159, 172, 177, 182, 187, 189, 191, 192, 205, 207, 209, 211, 213, 215, 221, 228, 233, 245, 247, 300, 315, 318, 323, 325, 329, 333, 337, 339, 345, 355, 357, 359, 366, 369, 371, 372, 377, 390, 396, 397, 398, 399, 400, 401, 406, 407, 408	
6·1 Retail trade in foodstuff (including beverages and narcotics)	126, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137	129, 131, 133, 134, 135, 136, 137, 139	114, 116, 118, 119, 120, 121, 122, 123, 124	80, 81, 97, 101, 104, 105, 123, 126, 130, 132, 134, 149	
6·2 Retail trade in fuel (including petrol)	145	147	130	142, 148, 150	
6·3 Retail trade in textile and leather goods	117, 118	123, 124	108, 109	254, 261, 274, 276, 280, 282, 289, 291, 293, 304, 389	
6·4 Wholesale trade in foodstuffs	—	—	—	—	
6·5 Wholesale trade in commodities other than foodstuffs	—	—	—	294, 295	
6·6 Real estate	116	122	107	—	
6·7 Insurance	—	—	—	393	
6·8 Moneylending, banking and other financial business	115, 189	121, 185	106, 165	392, 394, 395, 402	
VII—Transport					
7—Transport—					
7·0 Transport and communication otherwise unclassified	—	—	—	—	
7·1 Transport by road	107, 108, 109, 110, 111	113, 114, 115, 116, 117	99, 100, 101, 102	416, 417, 418, 419, 420, 421, 422, 441	
7·2 Transport by water	102, 103	105, 107, 108, 110	94, 95, 97	423, 424, 425, 426, 428, 429, 430, 431, 432	
7·3 Transport by air	101	104	—	—	
7·4 Railway transport	112, 113	118, 119	103, 104	409, 410, 411, 412, 413, 414, 415	

Means of livelihood: Divisions and sub-divisions-	Occupational groups				
	1951	1931	1921	1911	1901
VIII—Other services and miscellaneous sources					
<i>5—Construction and Utilities—</i>					
5·0 Construction and maintenance of works—otherwise unclassified	—	—	—	—	—
5·1 Construction and maintenance—buildings	90	85, 87, 88, 89	78, 79	162, 163, 164, 165, 166	502
5·2 Construction and maintenance—roads	105, 106	111, 112	98	—	—
5·3 Construction and maintenance—Telegraph and Telephone lines	—	—	—	—	—
5·4 Construction and maintenance operations—irrigation and other agricultural works	104	86, 106, 109	77, 96	427, 500, 501	—
5·5 Works and services—electric power and gas supply	94	93	83	136, 137	—
5·6 Works and services—domestic and industrial water supply	—	—	—	—	—
5·7 Sanitary works and services—including scavengers	100	102, 103	93	72, 73, 74, 75	—
<i>Storage, warehousing and communication—</i>					
7·5 Storage and warehousing	—	—	—	—	439, 440, 442, 443
7·6 Postal services	114	120	105	433, 434	—
7·7 Telegraph services	—	—	—	435, 436	—
7·8 Telephone services	—	—	—	437, 438	—
7·9 Wireless services	—	—	—	—	—
<i>8—Health, Education and Public Administration—</i>					
8·1 Medical and other health services	169, 170, 171, 172, 173	171, 172	154, 155	466, 467, 468, 469, 470, 471, 472, 473	—
8·2 Educational services and Research	174, 175, 180	173, 174	156	451, 452, 453, 458	—
8·3 Army, Navy and Air Force	—	—	—	—	—
8·4 Police (other than village watchmen)	157	159	142	4	—
8·5 Village officers, servants including village watchmen	158, 162	160, 164	143, 147	8, 9, 10	—
8·6 Employees of the Municipalities and Local Boards	161	163	146	5, 6, 7, 121, 122, 404, 405	—
8·7 Employees of the State Governments	3, 153, 154, 155, 156, 159, 160	155, 156, 157, 158, 161, 162	139, 140, 141, 144, 145	1, 2, 3, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 54, 55, 479, 480, 481, 482	—
8·8 Employees of the Union Governments					—
8·9 Employees of the non-Indian Governments					—
<i>9—Services not elsewhere specified—</i>					
9·0 Services otherwise unclassified	181, 191	187	167	449, 504, 505	—
9·1 Domestic services	2, 4, 186, 187	3, 181, 182, 183	3, 162, 163	56, 57, 61, 62, 63, 64, 66, 68	—
9·2 Barbers and beauty shops	86, 87	81, 82	72, 73	60, 67, 486	—
9·3 Laundries and laundry services	85	80	71	65	—
9·4 Hotels, restaurants and eating houses	127	130	115	69	—
9·5 Recreation services	182, 183, 184	101, 178, 179	92, 160, 137	71, 487, 488, 489, 490, 491, 494, 495, 496, 497, 498, 499	—
9·6 Legal and business services	167, 168, 176, 177	169, 170, 175, 176	152, 153, 157, 158	403, 455, 456, 457, 459, 460, 461, 462, 463, 464, 465, 474, 475, 476, 477, 478	—
9·7 Arts, letters and journalism	178, 179	177	85, 159	188, 454, 483, 484, 485	—
9·8 Religious, charitable and welfare services	163, 164, 165, 166	165, 166, 167, 168	148, 149, 150, 151	70, 444, 445, 446, 447, 448, 450	—
<i>Non-productive Sources—</i>					
(i) Persons living principally on income from non-agricultural property	185	180	161	510, 511, 512, 514, 515, 516	—
(ii) Persons living principally on pensions, remittances, scholarships and funds					—
(iii) Inmates of alms-houses and recipients of doles					192
(iv) Beggars and vagrants	193	189	169	513	—
(v) All other persons living principally on income derived from non-productive activities; prostitutes	194, 195	190, 191	—	506, 507, 508, 509	—

APPENDIX VIII

FOUR PER CENT. SAMPLE STUDY OF HOUSEHOLDS (SIZE AND COMPOSITION)
UTTAR PRADESH

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In the 1951 Census, the table on household (size and composition) has been prepared for all States from the National Register of Citizens. The operation consisted of taking a 4 per cent. sample of households recorded in the National Register of Citizens relating to every village and every ward of a town. The sample of households was drawn in the following manner :

The total number of households in each register was divided by 25 and 1 added to the remainder. The number so obtained was marked in the register. This was the first sample household. Thereafter, every twenty-fifth household in the register was marked for the sample. At the end there remained in most cases households numbering less than 25 in all. In such cases invariably no household was marked.

2. The attempt had been to draw out a 4 per cent. sample but actually a size in the neighbourhood of 4 per cent. has been struck. The following table gives the sampling fraction actually drawn in four selected tracts :

Tracts	Number of households		
	Total count	Sample count	Sampling fraction
<i>Rural</i>			
Mohanlalganj	33,800	1,303	3.9
Mahoba	15,256	553	3.6
Pharenda	74,482	2,679	3.6
<i>Urban</i>			
Aligarh Municipal Board	26,941	1,128	4.2

Table I appended gives the sample size and also the sampling fraction for rural/urban areas of the districts. It is observed that in Dehra Dun, Hardoi, Saharanpur, Muzaffarnagar and Budaun districts, the sample has been over drawn and the actual sizes struck are 5.3, 4.2, 4.5, 4.3 and 4.4 respectively. In the case of other districts, a sample less than 4 per cent. has been drawn. This has been mainly due to the fact that while marking the household for the sample, there remained at the end households numbering less than 25. In such cases, no household was marked. In the case of districts where the sample was overdrawn, one household was included in the sample from the households which were left over after marking every twenty-fifth in the register.

3. The Government of India also decided to undertake a sample verification of the 1951 Census count for purposes of detecting the extent of under-enumeration or over-enumeration of persons in the count. The instructions first issued by the Registrar General were that for this purpose a sample of 1 in 1,000 of households be taken from the relevant sections of the National Register of Citizens relating to every village and every ward of a town. The Registrar General later decided that for operational convenience and economy of cost, it will not be feasible to draw two different samples from the National Register of Citizens (1 in 1,000 for verification of the Census count and 4 per cent. for constructing tables on households (size and composition). He, therefore, issued instructions to all Superintendents of Census Operations that they may draw out one sample 1 in 1,000 from the National Register of Citizens for constructing the table on household (size and composition) and verification of the Census count. In accordance with these instructions, most of the Superintendents of Census Operations operated on 1 in 1,000 sample on both topics. But, however, the Superintendent of Census Operations, Uttar Pradesh, constructed the table on household (size and composition) on 4 per cent. sample and did verification of the count on 1 in 1,000 sample. He is himself interested to find out the closeness of the sample count values with the total count values and for this purpose has undertaken the cent. per cent. sorting of three rural tracts, Mohanlalganj Rural, Mahoba Rural, Pharenda Rural and one urban tract—Aligarh Municipal Board. He is also interested to find out the territorial

level at which the sample count values will be a good enough approximation* to the total count values for any given characteristic.

4. For purpose of determining the yardsticks of the sample count values and the total count values, tables have been prepared which are appended to this note and are described below :

Table II gives the number of persons per 1,000 households (or average size of households) of districts and divisions of Uttar Pradesh for the total count (Col. 2) and the sample count (Col. 3). Column 4 of this table gives the magnitude of the percentage error. The percentage error for districts varies from 0.3 to 9.6 and in magnitude is greater in urban areas of the districts than in rural areas. The following table gives the distribution of districts by percentage error :

Range of percentage error	Frequency of districts		
	Total	Rural	Urban
Below 1	10	11	5
1 to 2	14	16	3
2 to 3	3	5	4
3 to 4	4	8	3
4 to 5	8	4	2
5 to 6	7	3	4
6 to 7	2	2	2
7 to 8	1	..	2
8 to 9	1	..	1
9 to 10	1	2	3
10 and above	..	..	22
Total	51	51	51

It is observed that there are 12 districts with a percentage error between 5 to 10 and 2 districts between 8 to 10. There are also 24 districts with percentage error below 2. Considering, therefore, the percentage error to be a measure of closeness, the 4 per cent. sample has given the sample count values close to the total count values for this characteristic. But in urban areas of the districts, it is observed that there are as many as 22 districts out of the total 51 districts with a percentage error above 10 and 12 districts which have percentage error between 5 to 10. In the rural areas, however, there are 27 districts with percentage error below 2 and 7 districts between 5 to 10.

It is also observed that the sample household is smaller in size than the total count household both in rural and urban areas. The obvious reason is that, in the absence of any stratification, the smaller and medium size households, which together constitute over 75 per cent. of the total households, got a proportionately greater chance of selection in the sample than other large and very large households. The larger difference in the size of sample household as compared with the total count household in the urban than in the rural areas has been caused by the larger proportion of small and medium size households in the urban than in the rural areas.

5. Another yardstick has also been worked out and this is co-efficient of variation. Table III appended gives the co-efficient of variation for all the characteristics of the households (size and composition) table for all the four tracts where cent. per cent. sorting has been done for these characteristics. It is observed that there are 26 characteristics in all. The frequency distribution of all these characteristics for each tract has been prepared by ranges of the co-efficient of variation and the following table gives the frequency distribution :

Range of co-efficient of variation	Frequency of characteristics in tracts			
	Mohanlanganj Rural	Mahoba Rural	Pharenda Rural	Aligarh Municipal Board
Below 1	..	..	1	..
1 to 2	1	..	12	1
2 to 3	10	1	7	12
3 to 4	8	10	1	6
4 to 5	1	6	2	1
5 to 6	1	3	..	..
6 to 7	2	1	..	2
7 to 8	..	..	1	1
8 to 9	..	..	2	..
9 to 10	..	..	..	..
10 and above	3	5	..	3
Total	26	26	26	26

* Dr. U. S. Nair, Superintendent of Census Operations, Travancore-Cochin, has undertaken the India sample study based on 10 per cent. of the sample slips extracted at the enumeration stage and of the sub-sample. He has developed a theory of Indices of Approximation as a yardstick for determining the agreement between the sample count values and the total count values. The results for all States have been published as a Census of India paper.

It is observed that in tracts Mohanlalganj Rural and Aligarh Municipal Board, there are 3 characteristics (very large households, infants, males and females) where the co-efficient of variation is between 10 to 12 and in tract Mahoba, 5 characteristics namely 'large and very large households, infants males and females and widowed males' for which the co-efficient of variation is between 10 to 20. The co-efficient of variation for 20 characteristics out of 26 is below 3 for Pharenda Rural tract.

6. The accuracy of the sample count values with the total count values can be judged by noting the number of sample count values in which the percentage error is less than 3 times the co-efficient of variation. The following table has been prepared and gives the number of the sample count values for all the four tracts:

Tracts	Number of sample count values
Mohanlalganj Rural	7
Mahoba Rural	25
Pharenda Rural	14
Aligarh Municipal Board	18
Total	64

It is easy to find out that there are 40 sample count values in which the percentage error exceeds 3 times the co-efficient of variation. The conclusion is that considering the results given by these four tracts, the 4 per cent. sample has not given a good enough approximation of these sample count values to the total count values. It is also observed from the above table that there are 64 sample count values in which the percentage error is less than 3 times the co-efficient of variation and the distribution is 25, 18, 14 and 7 in the tracts, Mahoba, Aligarh Municipal Board, Pharenda and Mohanlalganj respectively. Table IV appended gives actually the sample count values in which the percentage error is less than 3 times the co-efficient of variation.

7. The following summary table gives the frequency distribution of percentage error by broad ranges of the co-efficient of variation for all the four tracts taken together:

Co-efficient of variation	Percentage error											Total		
	Below 1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10 and over			
Below 1	1	..	..	..	1	..	..	..	..	..	2	
1-2	3	1	2	3	1	2	..	..	2	..	1	15
2-3	7	5	1	2	..	1	..	2	2	1	7	28
3-4	2	3	1	1	3	2	..	2	1	..	10	25
4-5	3	..	1	1	2	..	..	1	..	..	2	10
5-6	1	1	..	..	..	..	1	..	2	4
6-7	1	..	..	..	..	..	..	..	1	..	3	5
7-8	2	2
8-9	2	2
9-10
10 and over	1	1	..	..	..	1	2	..	..	6	11
Total	..	17	10	7	8	6	6	1	7	6	1	35	104	

The total sample count values are 104 (26 in each tract). The advantage of this table is that it is possible to locate a sample count value for a given percentage error and a co-efficient of variation. The percentage error may be large and the co-efficient of variation small for a characteristic which has been sampled. Thus there are as many as 10 sample count values with percentage error 10 and over and with co-efficient of variation between 3-4. Also it is observed that there are 5 sample count values with percentage error and co-efficient of variation below 2; and 32 sample count values with percentage error and co-efficient of variation below 4. The sample characteristics for tracts in which the percentage error and the co-efficient of variation are below 2 are:

- (1) Aligarh Municipal Board .. Persons residing in medium size households.
- (2) Pharenda .. Persons residing in medium size households; male non-adults; unmarried males.
- (3) Mohanlalganj .. Persons residing in medium size households.

Further it is seen that there are 42 sample count values with percentage error below 6 and co-efficient of variation below 4; 51 sample count values with percentage error below 6 and co-efficient of variation below 6. In other words, half the total number of sample count values of all the tracts are found in this section of the table. It is also interesting to read this table horizontally and vertically. It is thus observed that there are 35 sample count values with percentage error 10 and over for all ranges of co-efficient of variation. Similarly there are 28 and 25 sample count values with co-efficient of variation of ranges 2-3 and 3-4 respectively for all ranges of percentage error.

Age distribution—In the table on household (size and composition), all ages have been divided into three groups, infants (less than one year), non-adults (ages 1—20) and adults (ages 21 and over). For infants, it is seen that the percentage error is 44 for males and 40 for females with co-efficient of variation 10·1 and 10·3 respectively for Mohanlalganj rural tract. The percentage error for adults and non-adults is not so much, and is only 8·4 and 2·1 for males and 9·3 and 7·7 for females respectively. This is observed in all the four tracts, though not in the same magnitude in the Aligarh Municipal Board urban tract.

Civil condition—For widows and divorced persons also, the percentage error is large in all the three rural tracts both for males and females and for urban tract for males the percentage error is of greater magnitude and is 57·8.

TABLE I

Natural division and district	Sample size of households			Sampling fraction		
	Total	Rural	Urban	Total	Rural	Urban
	2	3	4	5	6	7
Uttar Pradesh	453,216	396,572	66,644	3.6	3.6	3.8
<i>Himalayan</i>	18,835	16,060	2,775	3.5	3.4	4.6
Garhwal	4,524	4,369	155	3.2	3.2	3.9
Tehri-Garhwal	2,621	2,578	43	3.1	3.1	2.7
Naini Tal	2,487	1,849	638	3.3	3.2	3.7
Almora	5,397	5,222	175	3.3	3.3	4.2
Dehra Dun	3,806	2,042	1,764	5.3	5.3	5.3
<i>East Plain</i>	115,118	105,355	9,763	3.5	3.5	3.8
Gorakhpur	14,976	13,658	1,318	3.6	3.6	4.3
Deoria	13,152	12,448	704	3.6	3.6	5.1
Basti	16,508	16,162	346	3.6	3.6	3.0
Gonda	12,938	12,167	771	3.4	3.4	3.6
Bahraich	9,929	9,353	576	3.5	3.5	3.7
Banaras	12,871	9,461	3,410	3.6	3.5	4.0
Jaunpur	9,204	8,756	448	3.4	3.3	3.4
Ghazipur	6,197	5,376	821	3.3	3.2	3.6
Ballia	6,726	6,039	687	3.4	3.4	3.6
Azamgarh	12,617	11,935	682	3.4	3.4	3.3
<i>Central Plain</i>	118,328	99,757	18,571	3.6	3.5	3.9
Kanpur	15,782	8,536	7,246	3.7	3.5	4.0
Fatehpur	6,504	6,153	351	3.7	3.6	3.8
Allahabad	13,495	11,553	1,942	3.4	3.4	3.4
Luoknow	8,849	4,742	4,107	3.9	3.7	4.0
Unnao	6,960	6,582	378	3.3	3.2	3.5
Rae Bareli	8,507	7,935	572	3.4	3.4	5.0
Sitapur	9,144	8,365	779	3.1	3.1	3.0
Hardoi	11,498	10,397	1,101	4.2	4.2	4.4
Faizabad	10,472	9,345	1,127	3.6	3.5	4.3
Sultanpur	9,541	9,397	144	3.6	3.6	3.9
Pratapgarh	7,694	7,500	194	3.4	3.3	4.0
Bara Banki	9,882	9,252	630	3.6	3.6	3.6
<i>West Plain</i>	172,180	140,056	32,124	3.8	3.8	3.8
Saharanpur	13,265	9,934	3,331	4.5	4.5	4.5
Barilly	9,926	7,608	2,318	3.8	3.6	4.3
Bijnor	7,156	5,487	1,669	3.4	3.4	3.4
Pilibhit	3,740	3,140	600	3.5	3.5	3.9
Rampur	3,976	2,797	1,179	3.6	3.5	3.6
Kheri	8,528	7,903	625	3.7	3.7	3.5
Muzaffarnagar	9,766	7,872	1,894	4.3	4.2	5.1
Meerut	15,855	12,987	2,868	3.7	3.9	2.9
Bulandshahr	10,427	8,839	1,588	3.6	3.7	3.2
Aligarh	11,092	8,880	2,212	3.7	3.6	4.0
Mathura	6,668	5,170	1,498	3.8	3.8	3.7
Agra	10,622	6,996	3,626	3.8	3.7	3.9
Mainpuri	7,279	6,641	638	3.7	3.7	4.0
Etah	7,592	6,884	708	3.5	3.7	2.5
Budaun	11,520	10,295	1,225	4.4	4.4	4.3
Moradabad	12,152	9,175	2,977	3.7	3.6	3.9
Shahjahanpur	7,962	6,675	1,287	3.8	3.6	4.6
Etawah	6,594	5,863	731	3.5	3.5	3.4
Farrukhabad	8,060	6,910	1,150	3.7	3.7	4.1
<i>Hills and Plateau</i>	28,755	25,344	3,411	3.6	3.7	3.1
Jhansi	6,947	5,246	1,701	3.7	3.7	3.8
Jalaun	4,129	3,850	279	3.8	4.2	1.6
Hamirpur	5,371	4,766	605	3.7	3.7	3.7
Banda	5,934	5,710	224	3.7	3.9	1.6
Mirzapur	6,374	5,772	602	3.3	3.3	3.2

TABLE II

Natural division and district				Persons per 1,000 households according to total count	Persons per 1,000 house- holds according to 4 per cent. sample count	Percentage error
1				2	3	4
Uttar Pradesh ..	..	..	Total	5,040	4,926	2.3
			Rural	5,068	4,996	1.4
			Urban	4,870	4,523	7.1
Himalayan ..	..	..	Total	4,646	4,506	3.0
			Rural	4,644	4,587	1.2
			Urban	4,668	4,032	13.6
Garhwal ..	..	..	Total	4,494	4,425	1.5
			Rural	4,499	4,447	1.2
			Urban	4,314	3,794	12.1
Tehri-Garhwal ..	..	..	Total	4,767	4,781	0.3
			Rural	4,778	4,806	0.6
			Urban	4,181	3,325	20.5
Naini Tal ..	..	..	Total	4,365	4,018	7.9
			Rural	4,440	4,022	9.4
			Urban	4,113	4,009	2.5
Almora ..	..	..	Total	4,724	4,607	2.5
			Rural	4,700	4,633	1.4
			Urban	5,635	3,829	32.0
Dehra Dun ..	..	..	Total	4,925	4,587	6.9
			Rural	4,943	5,009	1.3
			Urban	4,905	4,099	16.4
East Plain ..	..	..	Total	5,419	5,307	2.1
			Rural	5,453	5,361	1.7
			Urban	5,013	4,720	5.8
Gorakhpur ..	..	..	Total	5,394	5,163	4.3
			Rural	5,389	5,221	3.1
			Urban	5,450	4,565	16.2
Deoria ..	..	..	Total	5,769	5,218	9.6
			Rural	5,792	5,263	9.1
			Urban	5,196	4,416	15.0
Basti ..	..	..	Total	5,132	4,856	5.4
			Rural	5,160	4,859	5.8
			Urban	4,002	4,740	18.4
Gonda ..	..	..	Total	4,958	5,228	5.4
			Rural	5,002	5,281	5.6
			Urban	4,219	4,399	4.3
Bahraich ..	..	..	Total	4,728	5,035	6.5
			Rural	4,737	5,059	6.8
			Urban	4,574	4,634	1.3
Banaras ..	..	..	Total	5,506	5,289	3.9
			Rural	5,759	5,678	1.4
			Urban	4,711	4,209	10.7
Jaunpur ..	..	..	Total	5,523	5,443	1.4
			Rural	5,480	5,476	0.1
			Urban	6,378	4,804	24.7
Ghazipur ..	..	..	Total	6,027	6,045	0.3
			Rural	6,106	6,060	0.8
			Urban	5,456	5,945	9.0
Ballia ..	..	..	Total	6,033	6,120	1.4
			Rural	6,067	6,130	1.0
			Urban	5,722	6,038	5.5
Azamgarh ..	..	..	Total	5,660	5,580	1.4
			Rural	5,688	5,587	1.8
			Urban	5,186	5,455	5.2
Central Plain ..	..	..	Total	4,845	4,733	2.3
			Rural	4,872	4,834	0.8
			Urban	4,686	4,191	10.6
Kanpur ..	..	..	Total	4,576	4,495	1.8
			Rural	5,062	5,223	3.2
			Urban	3,929	3,638	7.4
Fatehpur ..	..	..	Total	5,091	5,061	0.6
			Rural	5,088	5,061	0.5
			Urban	5,135	5,068	1.3

TABLE II—(contd.)

Natural division and district	Persons per 1,000 households according to total count		Persons per 1,000 households according to 4 per cent. sample count	Percentage error
	2	3	4	
Allahabad	Total	5,090	4,863	4.5
	Rural	4,913	4,937	0.5
	Urban	6,143	4,420	28.0
Lucknow	Total	4,916	4,481	8.8
	Rural	4,748	4,521	4.8
	Urban	5,129	4,435	13.5
Unnao	Total	4,971	4,986	0.3
	Rural	4,960	4,993	0.7
	Urban	5,174	4,873	5.8
Rae Bareli	Total	4,659	4,551	2.3
	Rural	4,672	4,528	3.1
	Urban	4,385	4,876	11.2
Sitapur	Total	4,628	4,674	1.0
	Rural	4,683	4,677	0.1
	Urban	4,048	4,638	14.6
Hardoi	Total	4,942	4,728	4.3
	Rural	4,952	4,766	3.8
	Urban	4,840	4,360	9.9
Faizabad	Total	5,057	5,098	0.8
	Rural	5,053	5,140	1.7
	Urban	5,101	4,748	6.9
Sultanpur	Total	4,885	4,803	1.7
	Rural	4,888	4,807	1.7
	Urban	4,630	4,486	3.1
Pratapgarh	Total	4,834	4,619	4.4
	Rural	4,822	4,623	4.1
	Urban	5,407	4,459	17.5
Bara Banki	Total	4,640	4,615	0.5
	Rural	4,636	4,607	0.6
	Urban	4,710	4,725	0.3
West Plain	Total	4,982	4,862	2.4
	Rural	4,990	4,900	1.8
	Urban	4,944	4,695	5.0
Saharanpur	Total	4,588	4,615	0.6
	Rural	4,635	4,678	0.9
	Urban	4,449	4,426	0.5
Bareilly	Total	4,795	4,557	5.0
	Rural	4,722	4,561	3.4
	Urban	5,081	4,544	10.6
Bijnor	Total	4,691	4,644	1.0
	Rural	4,675	4,608	1.4
	Urban	4,741	4,764	0.5
Pilibhit	Total	4,745	4,487	5.4
	Rural	4,717	4,582	2.9
	Urban	4,910	3,995	18.6
Rampur	Total	4,862	4,823	0.8
	Rural	4,674	4,773	2.1
	Urban	5,316	4,942	7.0
Kheri	Total	4,317	4,465	3.4
	Rural	4,317	4,437	2.8
	Urban	4,311	4,818	11.8
Muzaffarnagar	Total	5,391	5,089	5.6
	Rural	5,366	5,186	3.4
	Urban	5,518	4,687	15.1
Meerut	Total	5,263	5,024	4.5
	Rural	5,362	5,081	5.2
	Urban	4,934	4,765	3.4
Bulandshahr	Total	5,178	5,255	1.5
	Rural	5,303	5,250	1.0
	Urban	4,582	5,279	15.2
Aligarh	Total	5,146	5,047	1.9
	Rural	5,136	5,080	1.1
	Urban	5,188	4,914	5.3
Mathura	Total	5,107	4,957	2.9
	Rural	5,290	5,125	3.1
	Urban	4,480	4,373	2.4

TABLE II—(concl'd.)

Natural division and district	Persons per 1,000 households according to total count	Persons per 1,000 households according to 4 per cent. sample count		Percentage error
		2	3		4
Agra	Total	5,272	5,038	4.4
	Rural	5,312	5,217	1.8
	Urban	5,193	4,694	9.6
Mainpuri	Total	5,044	4,962	1.6
	Rural	5,080	5,010	1.4
	Urban	4,641	4,467	3.7
Etah	Total	5,216	5,172	0.8
	Rural	5,256	5,191	1.2
	Urban	4,949	4,984	0.7
Budann	Total	4,730	4,722	0.2
	Rural	4,693	4,710	0.4
	Urban	5,035	4,829	4.1
Moradabad	Total	4,997	4,789	4.2
	Rural	4,946	4,768	3.6
	Urban	5,170	4,855	6.1
Shahjahanpur	Total	4,720	4,542	3.8
	Rural	4,632	4,619	0.3
	Urban	5,296	4,146	21.7
Etawah	Total	5,173	4,919	4.9
	Rural	5,237	5,000	4.5
	Urban	4,683	4,272	8.8
Farrukhabad	Total	5,051	4,972	1.6
	Rural	5,072	4,964	2.1
	Urban	4,921	5,022	2.1
<i>Hills and Plateau</i>	Total	4,886	4,860	0.5
	Rural	4,886	4,902	0.3
	Urban	4,884	4,543	7.0
Jhansi	Total	4,643	4,572	1.5
	Rural	4,627	4,557	1.5
	Urban	4,694	4,617	1.6
Jalaun	Total	5,094	5,292	3.9
	Rural	5,112	5,314	4.0
	Urban	4,997	4,993	0.1
Hamirpur	Total	4,600	4,835	5.1
	Rural	4,604	4,881	6.0
	Urban	4,568	4,469	2.2
Banda	Total	4,862	4,793	1.4
	Rural	4,925	4,792	2.7
	Urban	4,189	4,817	15.0
Mirzapur	Total	5,239	4,977	5.0
	Rural	5,155	5,068	1.7
	Urban	6,020	4,101	31.9

TABLE III

Tracts →		Mohanalganj Rural				Mahoba Rural				Pharenda Rural				Aligarh Municipal Board					
Characteristics →		Total count value	Sample value	Percentage error	Co-efficient of variation	Total count value	Sample value	Percentage error	Co-efficient of variation	Total count value	Sample value	Percentage error	Co-efficient of variation	Total count value	Sample value	Percentage error	Co-efficient of variation		
Household size and composition		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		
Size of households	Number of households according to size	Small ..	3,645	4,520	24.01	3.66	3,731	3,816	2.28	5.41	3,314	3,315	0.03	2.74	3,347	3,094	7.56	4.20	
		Medium ..	4,277	3,907	8.65	3.21	4,497	4,466	0.69	4.60	4,352	4,419	1.54	2.20	3,999	4,415	10.40	3.65	
		Large ..	1,550	1,220	21.29	6.47	1,329	1,302	2.03	10.86	1,669	1,676	0.42	4.31	1,964	1,542	21.49	6.02	
		Very large ..	528	353	33.14	11.75	443	416	6.09	19.75	665	590	11.28	7.24	690	949	37.54	10.94	
	Persons in the households of size	Small ..	1,673	2,209	32.04	3.03	1,782	1,857	4.21	4.20	1,526	1,550	1.57	2.05	1,415	1,613	13.99	3.37	
		Medium ..	4,506	4,551	1.00	1.50	4,820	4,914	1.95	2.03	4,418	4,375	0.97	0.32	3,984	3,998	0.35	1.68	
		Large ..	2,530	2,199	13.08	2.33	2,231	2,106	5.60	3.65	2,396	2,606	8.76	1.55	2,845	2,325	18.28	2.17	
		Very large ..	1,291	1,041	19.36	3.42	1,167	1,123	3.77	5.37	1,660	1,469	11.51	1.95	1,756	2,064	17.54	2.96	
Household description	Heads of households and their wives	Males ..	1,994	2,159	8.27	2.72	1,956	2,033	3.94	3.96	1,906	1,975	3.62	1.79	1,901	1,964	3.31	2.82	
		Females ..	1,589	1,770	11.39	3.12	1,709	1,628	4.74	4.31	1,291	1,450	12.32	2.26	1,502	1,497	0.33	3.25	
	Sons of heads of households	2,178	2,142	1.65	2.57	2,128	2,098	1.41	3.76	2,099	2,116	0.81	1.69	2,241	2,011	10.26	2.54		
	Daughters of heads of households	1,477	1,411	4.47	3.26	1,520	1,528	0.53	4.52	1,490	1,482	0.54	2.08	1,544	1,624	5.18	3.20		
	Other male relations of heads of households	998	656	34.27	4.07	996	875	12.15	5.88	1,175	1,169	0.51	2.38	1,131	1,217	7.60	3.83		
	Other female relations of heads of households	1,612	1,193	25.99	3.09	1,578	1,613	2.22	4.52	1,889	1,803	4.55	1.80	1,454	1,260	13.34	3.31		
Composition of households	Infants, non-adults, and adults in households	Infants (less than one year)	Males ..	176	98	44.32	10.14	194	180	7.22	13.90	105	58	44.76	8.44	151	140	7.28	11.04
			Females ..	172	103	40.12	10.26	190	137	27.89	13.90	99	70	29.29	8.70	153	155	1.31	10.97
	Non-adults (Ages 1—20 years)	Males ..	2,364	2,562	8.38	2.44	2,383	2,274	4.57	3.50	2,539	2,515	0.95	1.40	2,656	2,694	1.43	2.27	
		Females ..	2,108	2,304	9.30	2.63	2,198	2,228	1.36	3.68	2,029	2,196	8.23	1.72	2,406	2,323	3.45	2.43	
	Adults (Ages 21 years and over)	Males ..	2,710	2,654	2.07	2.23	2,542	2,663	4.76	3.35	2,610	2,692	3.14	1.46	2,611	2,682	2.72	2.30	
		Females ..	2,470	2,279	7.73	2.37	2,493	2,518	1.00	3.39	2,618	2,469	5.69	1.46	2,023	2,006	0.84	2.72	
	Civil condition	Unmarried	Males ..	2,154	2,155	0.05	2.59	2,240	2,067	7.72	3.64	2,116	2,125	0.43	1.68	2,771	2,680	3.28	2.21
			Females ..	1,515	1,718	13.40	3.21	1,539	1,483	3.64	4.58	1,273	1,563	22.78	2.28	1,954	1,839	5.89	2.77
		Married	Males ..	2,715	2,507	7.66	2.22	2,564	2,587	0.90	3.33	2,816	2,733	2.95	1.39	2,290	2,271	0.83	2.51
			Females ..	2,463	2,199	11.99	2.25	2,578	2,637	2.29	3.32	2,760	2,613	5.33	1.41	2,187	2,166	0.96	2.58
Widowed/Divorced		Males ..	381	652	71.13	6.83	315	462	46.67	10.84	322	407	26.40	4.78	358	565	57.82	7.09	
		Females ..	570	809	41.93	5.51	764	764	0.00	6.70	713	559	21.60	3.14	440	479	8.86	6.37	

TABLE IV

Sample count values in which the percentage error is less than 3 times the co-efficient of variation

		Tracts				
		Mahoba Rural	Aligarh Municipal Board	Pharenda Rural	Mohanlalganj Rural	
Size of households	Size of households	Small	Small	Small	..	
		Medium	Medium	Medium	Medium	
		Large	..	Large	..	
		Very large	..	Very large	Very large	
	Persons in households of size	Small	..	Small	..	
		Medium	Medium	..	Medium	
		Large	..	..	..
		Very large	..	..	..
	Heads of households and their wives	Males	Males	Males	..	
		Females	Females	..	..
Composition of households	..	Sons of heads of households	..	Sons of heads of households	Sons of heads of households	
		Daughters of heads of households	Daughters of heads of households	Daughters of heads of households	Daughters of heads of households	
		Other male relatives of heads of households	Other male relatives of heads of households	Other male relatives of heads of households	..	
		Other female relatives of heads of households	..	Other female relatives of heads of households	..	
		Infants	Males	Males
			Females	Females
		Non-adults	Males	Males	Males	..
Females	Females		..	..
Adults	Males	Males	Males	Males		
	Females	Females	..	..
Civil condition	Unmarried	Males	Males	Males	Males	
		Females	Females	..	..
	Married	Males	Males	Males	..	
		Females	Females	
	Widowed/Divorced	Females	Females	

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