

Census of India
1901

Vol. I. Part I.

V 45. 25n

DL. I. 1A

15093

INDIA

DENSITY OF POPULATION BY NATURAL DIVISIONS.

Scale 1 Inch = 100 Miles or 160,934,400 Feet



REFERENCE.

The figures show the Normal Rainfall of each Division.
Irrigated areas are shown green.

- 0-100 per square mile.
- 100-200 "
- 200-300 "
- 300-400 "
- 400 and above "

INDIAN OCEAN

Contents and numbering of the Reports and Tables of the Census of India, 1901

Province, State, etc.	Report (bound in red.)	Imperial Tables (bound in blue.)	Provincial Table (bound in blue.)
	Volume I (Two parts)	Volume I-A	.....
Merwara	" II	" II-A	.....
Mans	" III	(Bound with Vol. III)	.....
n	" IV	Volume IV-A	(Bound with Vol. IV)
Christian	" V	" V-A (Bound with Vol. V)	Volume VI
al	" VI	Volume VI-A	" VI
Alta City	" VII (Three parts)	" VII	.....
	" VIII	" VIII-A	Volume VIII
ay	" IX	" IX-A	" IX
ay City—(History)	" X	.....	.....
" (Statistics)	" XI	Volume XI-A	.....
na	" XII	" XII-A	.....
tral Provinces	" XIII	" XIII-A	Volume XIII
	" XIV	(Bound with Vol. XIV)	.....
	" XV	Volume XV-A	Volume XV
Western Provinces and Oudh (and Provinces of Agra and Oudh)	" XVI	" XVI-A	" XVI
Uttar	" XVII	" XVII-A	.....
ods State	" XVIII	" XVIII-A	Volume XVIII
tral India Agency	" XIX	" XIX-A	.....
in State	" XX	" XX-A	.....
lor State	" XXI	" XXI-A	.....
erabad State	" XXII	" XXII-A	.....
hair State	" XXIII	" XXIII-A	.....
ore State	" XXIV	" XXIV-A	Volume and
utana Agency	" XXV	" XXV-A	Vol.
ncore State	" XXVI	" XXVI-A	.....

A 2000

INTRODUCTION.

IN certain provinces such as Mádras and the Punjab the custom of making ^{Earlier Enumera-} periodic estimates of the population, founded on more or less accurate data, ^{tions.} is of very old standing, but the first systematic attempt to obtain information regarding the population of the whole of India, based on an actual counting of heads, was made between the years 1867 and 1872. But even then, many of the Native States, including Hyderabad, Kashmir, the States of the Central India and Rajputana Agencies and those attached to the Punjab, were left out of the count. This Census, moreover, was non-synchronous; the arrangements were seldom very elaborate, and in some of the more remote tracts it was admittedly carried out in a very rough and imperfect manner. The experience gained, however, was very valuable and it paved the way for the first regular Census on the modern system, which was carried out on the 17th February 1881. On this occasion the operations were extended to all the provinces and states in India, as the term was then understood, except Kashmir and various small remote tracts. The count was a synchronous one, taken in the manner to be presently described, except in certain forest and desert tracts where counting by night was impracticable and the regular procedure was modified to a varying extent; in some places a simplified schedule was employed and the final count was carried out by day, while in others this process was dispensed with altogether and the Census officers recorded the ordinary resident population on the system followed until recently in some European countries. On the 26th February 1891 the second general Census was taken on lines very similar to those of the previous one, but more elaborate arrangements were made to ensure completeness, the non-synchronous area was smaller, and Upper Burma, which had meanwhile been acquired, was included in the operations, as well as the Native States of Kashmir and Sikkim.

The third general Census of India, which is dealt with in these volumes, was ^{The Census of 1901.} taken on the night of the 1st March 1901, or ten years and three days after the previous enumeration. This date was chosen partly with reference to the age of the moon, which was at the full on the 5th March, and partly with the object of avoiding, as far as possible, the anniversaries of great religious festivals and fairs and the nights regarded as auspicious for marriage ceremonies or for bathing in the sacred rivers. The operations of this Census embraced for the first time the Baluchistan Agency, the Bhil country in Rajputana, the scattered island settlements of the wild Nicobarese and Andamanese and certain outlying tracts on the confines of Burma, the Punjab and Kashmir; they extended in fact to the whole of the Indian Empire, with the exception of a small disturbed tract in Burma and of a part of Baluchistan where tribal disputes and the possibility of disturbances rendered it inexpedient to attempt an enumeration. The non-synchronous area was again reduced, and even where it was not found practicable to effect a final revision, the enumeration was ordinarily carried out on the standard schedule. The arrangements for the operations were still further elaborated and a "Code of Census Procedure" was drawn up by the Census Commissioner for India, on the basis of which the Census Superintendents of the different provinces and states prepared their local codes with such

modifications in matters of detail as were needed in order to meet local requirements.*

Outline of
Procedure.

The general scheme provided for the division of the whole of India into blocks, each of which (except in the non-synchronous tracts where they were larger) contained from 30 to 50 houses and was in charge of an Enumerator. Above the block came the circle, a compact group of from 10 to 15 blocks, or about 500 houses, under a Supervisor, who was responsible for the work of all the Enumerators in his circle. Circles were grouped according to thanas, taluks, or other recognized administrative divisions, into charges under Charge Superintendents, who exercised general supervision over the Census operations and tested a large proportion of the work of their subordinates. Excluding Kashmir and two Districts in the Punjab, for which returns have not been received, the total staff of Census officers employed in the whole Empire included in round numbers 9,800 Charge Superintendents, 122,000 Supervisors, and 1,325,000 Enumerators.

During January and February—the precise period varied according to local conditions—the Enumerator wrote up the Census schedules for all the persons in his block; and this record was checked and corrected by the Supervisors and Superintendents and by officers of the district staff. On the 1st March, between 7 P.M. and midnight, the Enumerator went round his block and brought the entries up to date by striking out the names of people who had died or left the block, and filling up the papers for fresh arrivals and newly-born infants.

On the morning of the 2nd March the Enumerators of the various blocks met the circle Supervisor at a place previously arranged, and prepared the first totals of their blocks so as to show the number of occupied houses, males, females, and total population for each block. The Supervisor combined the block totals into a summary for the circle and sent this on to the Charge Superintendent, who did the same for his charge and reported the result to the District Officer. The charge Summaries were then combined into the district total, which was telegraphed to the Provincial Superintendent and the Census Commissioner for India. Careful arrangements were made for checking the additions at each stage and for preventing the omission of the figures for any block or circle.

The First
Totals.

The arrangements for the preparation of these first totals were so complete that the results were received in time to be published by the Government of India on the 15th March, or exactly a fortnight after the date of the Census, and the figure then given (294,266,701) differed by only 94,355 or .03 per cent. from that subsequently arrived at after detailed compilation. The figures for the Central Provinces were received complete on the 7th March; for the Punjab and United Provinces on the 9th; for Bengal and Madras on the 10th; and for Bombay and Assam on the 12th idem. The nearest approximation to the final results was obtained in Madras, where, in a population exceeding 38 millions the net difference was only 827.

* It may be mentioned as an interesting, though very extreme, instance of the efforts which were made to secure as complete a Census as possible, that in the wild and sparsely inhabited Lushai hills which were incorporated in British territory as recently as 1890, a synchronous Census was taken by the officer in charge, Major J. Shakespear, C.I.E., but in order to do so it was found necessary in about ten circles to begin by teaching the men selected as Enumerators how to read and write.

At previous enumerations, the information contained in the schedules was extracted on "abstraction sheets" (one for each final table), which were divided by rules into spaces corresponding to the headings of the table concerned. A separate sheet was used for each Enumerator's book of schedules and a tick was made in the appropriate column corresponding to each entry therein. When the whole book had been abstracted the ticks were counted. The figures thus obtained were added up for the thana or other administrative unit (this was called tabulation), and the figures for the latter were compiled into a total for the district.

On the present occasion, under Mr. Risley's orders, this method was abandoned in favour of what is known as the slip, or card, system, which was invented by Herr Von Mayr in connection with the Bavarian Census of 1871 and has since been adopted in many European countries. A slip containing all the necessary particulars (in some provinces two slips were used) was prepared for each person enumerated, and these slips were sorted for all the final tables in turn into pigeon holes or other receptacles, e.g., for the religion table there was one pigeon hole for Hindu males, another for Hindu females, another for Muhammadan males, and so on. When the sorting for a table had been completed, the slips in each hole were counted and the result was entered on a form prescribed for the purpose. The figures in these forms were posted in tabulation registers and totals were then struck for the district. This system has many obvious advantages. It is much less complicated than the old method; the work is more easily tested, and by putting together and sorting at one time the slips for a large number of persons the operation previously known as tabulation was almost entirely dispensed with. In order to reduce the labour of filling in the slips various devices were resorted to; slips of different colours were used for the different religions; sex and civil condition were indicated by the shape of, or symbols printed on, the slips, and abbreviations or conventional marks were prescribed for a certain number of the other entries most commonly met with.

The copying of the slips was taken in hand immediately after the Census and within the next ten weeks the great bulk of the work had been completed over the whole of India.

Sorting followed immediately and was, for the most part, completed by the end of September 1901. As soon as the sorting for a table was over it was compiled for the district and province, and, generally speaking, all but the tedious caste and occupation tables had been finished before the close of the year. The first of the more important provincial reports to be received in print complete was that for the Bombay Presidency, which reached the Census Commissioner's Office on the 3rd June 1902. Then followed Assam and the Central Provinces (in July) and Madras (in August) and then (in the first week of October) Bengal, the United Provinces, the Punjab, and Burma. The only reports which had not by this time come to hand were those for Hyderabad, Mysore, Cochin, and Travancore.

The total actual cost of the operations was Rs 20,65,105, or Rs 21,93,984 if we include charges which were not debited against the Census budget in the public accounts. In 1891 the actual cost was Rs 26,09,587 exclusive of certain tracts which have contributed about a lakh and a half towards the total

outlay on the present occasion. Practically the whole of this great reduction in the expenditure may be attributed to the savings effected in the three large provinces, Bengal, Madras and the United Provinces, and it is due to a very large extent to the introduction of the slip system. In Bengal (excluding Calcutta) and in the United Provinces the total cost of operations was only R5 per thousand; and in Madras R6.4.

Comparison
with the
Hollerith
machine.

In America and a few other countries the Census results are now tabulated with the aid of the Hollerith machine, a very ingenious contrivance, by means of which the totals for the various tables are obtained mechanically. All possible answers to the questions in the enumeration schedule are printed on cards; one such card is taken for each person, and holes to indicate his age, sex, civil condition, etc., are punched in the appropriate places with the aid of a punching machine; these cards are then passed through the tabulating machine and, an electric current being established through the different holes, the necessary additions are made automatically. The initial cost of these machines, which I believe is about £400, would in any case render it impossible to use them in India, and they could not be employed for the more complicated tables such as caste and language, which involve many more entries than it would be feasible to provide for on the cards and punching machines; but apart from this, in a country where the lower class of clerical labour is as cheap and plentiful as it is here, it is clear that the machine could never compete successfully with hand labour. The tabulation of the results in Cuba with the aid of this machine was done by contract at the rate of 3½ cents per head or about R105 per thousand of the population, which is about fifteen times as great as the rate of expenditure in India on the whole of the Census Operations taken together. In point of speed also the Indian system has the advantage, and in one country where twelve of these machines were employed the tabulation of 24 millions of the people took over two years to complete.

The control
of the opera-
tions.

The Officers in charge of the Census Operations in the different Provinces

Province or State.	Name of Superintendent of Census.
Ajmer-Merwara	Mr. R. C. Bramley.
Andamans	Colonel Sir R. Temple, Bart. C.I.E.
Assam	Mr. B. C. Allen, I.C.S.
Baluchistan	Mr. R. Hughes-Buller, I.C.S.
Bengal	Mr. E. A. Gait, I.C.S.
Berar	Mr. A. D. Chinoy.
Bombay	Mr. R. E. Enthoven, I.C.S.
Bombay City	Mr. S. M. Edwardes, I.C.S.
Burma	Mr. C. C. Lewis, I.C.S.
Calcutta City	Mr. J. R. Blackwood, I.C.S.
Central Provinces	Mr. R. V. Russell, I.C.S.
Madras and Coorg	Mr. W. Francis, I.C.S.
Punjab	Mr. H. A. Rose, I.C.S.
United Provinces	Mr. R. Burn, I.C.S.
Baroda State	Mr. J. A. Dalal.
Central India Agency	Captain C. E. Luard, I.A.
Cochin State	Mr. M. Sankara Menon.
Gwalior State	Mr. J. W. D. Johnstone.
Hyderabad State	Mirza Medhi Khan.
Kashmir State	Khan Bahadur Manshi Ghulam Ahmed Khan.
Mysore State	Mr. T. Ananda Row.
Rajputana Agency	Captain A. D. Bannerman, C.I.E., I.A.
Travancore State	Mr. N. Subramhanya Aiyar.

and States who were immediately responsible for the conduct of the work in their respective charges and who wrote the Provincial Reports on the results were, for the most part, appointed early in April 1900 or about ten months before the date of the census. The intervening period was occupied in making the various arrangements required, such as the partition of the country into blocks, circles and charges, the elaboration of the necessary instructions,

the preparation, translation and supply of forms, tours undertaken to supervise the local arrangements and the training of the Census staff, and the elaboration of the procedure for the subsequent stages of the work. The Office of Census Commissioner for India was held by Mr. H. H. Risley, C.I.E.,

from its creation in October 1899 until September 1902, when, unfortunately for the Census, his services were required for a higher appointment and his immediate connection with the operations came to an end. At that time the reports for a number of Provinces and States still remained to be received, and it had thus been impossible to make much progress with the General Report for the whole of India. Mr. W. S. Meyer, C.I.E., took charge of the office temporarily, in addition to his duties as Editor of the Imperial Gazetteer, and I succeeded him as Census Commissioner on the 23rd January 1903. In spite of the pressure of other work, Mr. Risley has

Chapter I, paras. 1 to 72.
Chapter II, paras. 98 to 103 and
121 to 129.
Chapter VIII, paras. 614 to 633.
Chapter IX, paras. 692 to 718.

himself completed the Chapter on Caste and the portions of four other Chapters, as noted in the margin, are also from his pen. The Chapter on Language has been contributed by Dr. G. A. Grierson, C.I.E., Ph.D., D. Litt., who is in charge of the Linguistic Survey which is now being conducted under the orders of the Government of India and who, as is well known, possesses very special qualifications for dealing with this subject. For the rest of the Report I am responsible, and also for the tables dealing with Caste and Occupation, and, in part, for the Language table, which was carefully revised in consultation with Dr. Grierson. So far as my share of the Report is concerned, I am painfully conscious of the difficulties under which it has been prepared, owing to the want of time for adequate preparation and to my ignorance of actual local conditions beyond the borders of Bengal and Assam. At the stage when I took up the work, it had become imperative that the Report should be completed without any avoidable delay, and there was no time to travel or to discuss matters locally with the late Provincial Superintendents. I sent them for examination my drafts on the "Movement of Population" in their respective charges and I am indebted to several of them, especially to Mr. Burn, for valuable hints and criticism. In other respects I have had to rely solely on the published reports of the present and previous Censuses and on such publications, official and otherwise, bearing on the subjects dealt with, as I have been able to obtain and peruse in the limited time at my disposal and, although all must regret that Mr. Risley was unable to complete the work which he so ably began, I can only hope that my own disqualifications for the task have not made themselves too apparent and that I have not too often fallen into the error of thinking that the conclusions drawn from personal experience in the Provinces where I have served are necessarily applicable to other parts of India.

In conclusion I have to express my obligations to Mr. Ross, the Superintendent of Government Printing, for the expedition with which he has carried through the printing of the Report and Tables, to Babu Srinath Chakravarti, my Personal Assistant, who successfully controlled the Calcutta Office for the last few months of the operations, and to Babu Pramatha Nath Sen who was in charge of the compilation of the tables from the very beginning and performed his duties most efficiently.

E. A. GAIT.

Co-operation
of the people.

I welcome the opportunity afforded me by Mr. Gait's courtesy of adding a few words to his concise and lucid account of the administration of the last Census of India, and of making some of the acknowledgments that are due, for work faithfully done, to my colleagues the Provincial Superintendents, to the district and departmental officers both Civil and Military, and more than all perhaps to the people themselves, to all sorts and conditions of men from one end of the Empire to another, who gave their unpaid services for an object which most of them understood but imperfectly and many must have regarded with positive suspicion. An Indian Census is pre-eminently the work of the people of India. If they held aloof, or even demanded the most trifling remuneration for their trouble the whole undertaking would be financially impracticable. As it is, the greater part of the enumeration is done for nothing by an army of private individuals, numbering on this occasion more than a million and a quarter, who bring to their troublesome task a spirit of painstaking and occasionally grotesque accuracy which is unequalled anywhere in the world. Mr. Burn, the Superintendent of Census in the United Provinces, tells us how the zeal of one volunteer enumerator impelled him to turn into verse the Census instructions and to suggest that the weaker brethren should be required to learn his production by heart. Other Census officials, with the subtle ingenuity characteristic of the Oriental mind, were insistent in demanding a solution of the problem how the sixteen columns of the schedule were to be filled up for a deaf and dumb lunatic found wandering about by himself on the Census night. With equally Oriental incapacity to appreciate questions of fact, they met the suggestion that the case was an unlikely one with the rejoinder that such unfortunates were extremely numerous. Curiously enough, in the same Province an assemblage of ascetics under vows of silence gave rise to a very similar difficulty, for which special arrangements had to be made. But perhaps the most remarkable instance of voluntary exertion in the public interest occurred in Bombay City where the teaching staff and the senior students of the Elphinstone High School came forward spontaneously and offered to conduct the entire operations of the Census for the quarter in which the school is situated. There was plague in Bombay at the time, the Census enumerators were especially exposed to infection, and several of them fell victims to the disease.

Extension of
operations.

Each successive Census represents an advance on the methods of its predecessor and the Census of 1901 was no exception to this rule. It covered for the first time the whole of the Indian Empire with the exception of the Wa country in Burma and certain tracts in Baluchistan where there was a risk of kindling tribal disputes. The magnitude of the operations may be gathered from the fact that the area dealt with on this occasion extends from the Persian frontier to the confines of China, and from the snow-passes which look down upon Tibet to the tropical forests where Burma touches Siam. Within these wide limits, subject to a few exceptions of minor numerical importance, a uniform schedule of particulars was employed, and a synchronous Census was taken on the night of the 1st March 1901. The exceptions include the greater portion of Baluchistan, the Shan States, the Chin Hills, and other outlying tracts in Burma, the Bhil country of Rajputana, and the scattered villages of the Andamanese and Nicobarese. All of these areas were enumerated for the first time in 1901 and all demanded the application of special methods adapted to the character of the country and the temper of the people. We owe the Census of Baluchistan, with the remarkably interesting results that it has

disclosed, to the unrivalled knowledge of the Agency and its races which enabled Sir Hugh Barnes to devise a new and original mode of procedure based upon the organization of the principal tribes and employing the machinery for collecting the grazing tax levied in the pastoral tracts as a means of carrying out and testing the enumeration of the large body of nomadic herdsmen. In Rajputana the Bhils' experience of the liberal help given to them during the famine combined with Captain Bannerman's tact and energy to allay their suspicions, and they were induced to abandon their ancient claims to be exempt from Census and to submit to enumeration by a special system which recognised their prejudice against outsiders entering their villages and required the headmen to muster their people and have them counted at convenient places in the neighbourhood. They were, I believe, duly impressed by the practical argument that for people who were not enumerated there would be no food at the next famine, and there appears to have been no desire on their part to evade the operation. The proceedings in the non-synchronous areas of Burma were of interest by reason of the use made in a portion of them of a system of estimating population by means of typical areas which had been suggested to me by Mr. Scott Keltie's paper on 'The Population of Uncivilized Countries.' In the Andaman and Nicobar islands the admirable arrangements made by the Chief Commissioner, Sir Richard Temple, rendered it possible to effect the first enumeration of the aborigines. The Census was conducted by special parties of the Settlement officials, at some risk to themselves, in a series of tours by steamer and boat in imperfectly charted waters. At Port Campbell they were attacked by the implacably hostile Jarawas of South Andaman and were obliged to fire on their assailants, one Jarawa being killed. The enumeration brought to light a tribe hitherto unknown, the Tãbõ of North Andaman, concerning whom it is stated, in explanation of their small numbers, that when a contagious disease appeared recently among them they proceeded to kill off all those who were attacked until very few of the tribe were left. Sir Richard Temple's report on the Census contains a mass of interesting information regarding the history and ethnography of the Islands.

• The attempt to accelerate the publication of the first totals of the census and to bring these figures into closer relation with the final statistics imposed upon the Provincial Superintendents and upon all ranks of district and census officials an amount of labour that can be realised only by those who are familiar with the administrative machinery employed and have seen portions of the voluminous correspondence involved. In order to secure the concerted action which resulted in the publication, within a fortnight from the census, of provincial and district totals for nearly three hundred millions of people differing by only .03 per cent. from the final figures, the most careful and minute instructions had to be issued to 9,872 Charge Superintendents, 122,053 Supervisors, and 1,325,478 Enumerators. For every one of these persons special meeting places had to be arranged for working out the totals, first of the Enumerators' blocks, then of the Supervisors' circles, and finally of the Superintendents' charges. This last set of figures had in their turn to be conveyed to the head-quarters of the district and combined into the district total which was telegraphed to the Provincial Superintendent and to the Census Commissioner for India. On paper it all looks simple enough, but in practice the execution of the scheme involved a series of problems in transport and the mobilization of an army of volunteers, most of whom had been recruited some six weeks

The first totals.

before, while none had been exercised in this particular evolution. The idea of breaking the record (already held by India) for rapid publication was taken up with much enthusiasm, especially in the Native States, and the distinction of being first in the field belongs to Sheikh Abdul Ghafur, Minister of the small State of Rampur in the United Provinces, who despatched his totals to me at 9-20 on the morning of the 2nd March. The Rampur Census staff worked all night while the Imperial Service Cavalry rode round and collected the summaries. In British territory Mr. R. V. Russell, Superintendent of the Central Provinces, where communications are difficult and the area of jungle is large, was the first to send in his totals on the 7th March. The labour of compilation in the Census Commissioner's Office was considerable and involved the calculation against time of a large number of percentages of variation. For the benefit of statisticians who may have to do the same sort of thing in a hurry, I may mention that every percentage was first worked with a Thomas arithmometer and then checked by Crelle's *Rechen-Tafeln*. If the results differed the operation was repeated. On this system the machine and the tables exercise a reciprocal control which effectually guards against the liability to set up wrong figures on the one and to read the wrong line in the other. The combination of the two is practically infallible.

Tabulation of statistics.

But the most distinctive feature of Census administration in 1901 was the introduction of the 'slip system' of compilation briefly described above. This process has never been applied on so large a scale before, and it resulted in a reduction of cost which Mr. Gait elsewhere estimates at over £45,000. As the special literature of the subject is mostly in French or German, and is not readily accessible, it seems worth while to give a somewhat fuller account of it here.

The books of schedules containing the various particulars recorded by the enumerators for each individual may be described as the raw material of the Census, and the final tables as the manufactured product. The transformation of the one into the other involves three processes,—abstraction, tabulation, and compilation,—of which the first is by far the most difficult and complicated. Abstraction is the process which groups individual entries by classes, such as sex, religion, occupation and the like, and gives totals of these classes for small territorial units, such as blocks or villages. Tabulation brings together the abstraction-totals by larger units, such as towns, thanas or tahsils. Compilation arranges the tabulation-totals by districts or provinces.

old 'tick' am.

Abstraction had hitherto been conducted in India by means of abstraction-sheets, which practically reproduced the final tables on a greatly enlarged scale. If, for example, one of the final tables was to show the population grouped according to sex, age, religion, and civil condition, the abstraction-sheet, in which the requisite data were entered, would contain, assuming three religions to be dealt with, 836 distinct compartments, each representing a separate combination of the factors exhibited in the table, or a total relating to such combination. The entries in the sheet consisted of strokes or 'ticks,' each representing an individual. Thus, if a male Hindu, who was married and was 35 years old, had to be recorded, the abstractor looked first to the general heading "Males," and under that to the division "Hindus," which was sub-divided into "Married, Single and Widowed." He then ran his eye down the side-column till he found the age-period 35—39. In the compartment thus marked off he made a tick.

Further ticks were added for other persons falling into the same category, every fifth tick being made diagonally through the four preceding it, so as to enable the ticks to be totalled by fives. The unit of abstraction was the block, and for each block there were as many abstraction-sheets as there were final tables. The totals and cross-totals of the ticks on the abstraction-sheet gave the block-totals for religion, sex, civil condition, and age-periods. These, after undergoing certain tests, and in a certain proportion of cases being re-abstracted *ab initio*, were entered in the tabulation registers, where the block-totals were combined into village-totals, and the village-totals into totals for towns, taluks, thanas or tahsils—whichever was adopted as the unit of tabulation in any particular case.

This method of abstraction is open to the following objections:—

- (1) However careful the abstractor may be, the difficulty of picking out the right compartment in a large sheet is very great, and even with expert abstractors, such as are employed on this work in Europe, mistakes are frequent. For some tables the sheets were enormous and one used in 1891 in the United Provinces is reported to have been thirteen feet long.
- (2) With the class of abstractors available in India, carelessness and wilful fudging have also to be reckoned with, especially when the abstractor is paid by the month and has to do a certain task in order to earn his pay.
- (3) No test of the correctness of any sheet can be applied while abstraction is proceeding; even when a sheet has been totalled, the accuracy of its totals can only be gauged by comparison with the corresponding totals as worked out on other sheets; and, when these totals do not correspond, as is usually the case, the only method of determining which of the discrepant totals is correct is re-abstraction; in other words, doing the work again from the beginning. In Bengal, in 1891, the cost of abstraction alone, apart from supervision and checking, was estimated at Rs. 3,200 per million, of which Rs. 800 was for re-abstraction; and the Superintendent, after remarking that the test slip prescribed for the purpose of comparing the different abstraction-sheets "became the cause of much fudging," went on to say that in practice "re-abstraction was permitted free of fines on the abstractors up to a sum equal to 33 per cent. of original abstraction." Mr. Stuart, in Madras, gave 33.04 as the percentage of re-abstraction, and observed that only 14.32 per cent. of the books were correctly abstracted at the first working.
- (4) As it is usually impossible to abstract on a single working sheet more than one book of schedules, and there may be several books for a single block, the number of small totals to be entered in the tabulation registers is unduly multiplied, and the possibility of error very greatly increased.

In the Census of 1901, therefore, I substituted for the system of abstraction by strokes or ticks the method of abstraction by slips which had been successfully

The
slip

used by Dr. Georg von Mayr, now Professor of Statistics at the University of Munich, in the Bavarian Census of 1871, and which appeared to be admirably adapted for use in India. The Professor was good enough to send me a copy of his report, which gave a brief account of the working of his system.

For every person enumerated in Bavaria all the particulars recorded in the schedule were extracted on a separate slip. The slips were of eight different colours indicating sex and civil condition—as single, married, widowed, or divorced, and were filled up in the following manner:—

<i>Specimen slip.</i>	<i>Explanation of entries.</i>
6. I. 1	Serial number of village, block, and schedule.
V	Symbol for head of family.
✓	Symbol for born in the place where enumerated.
29	Age.
K	Roman Catholic.
Badereibesitzer. S.	Proprietor of bathing establishment: independent.
B	Bavarian subject.
M $\left\{ \begin{array}{l} 2 \\ 4 \\ \hline 6 \end{array} \right.$	} Symbol denoting that the person enumerated is the head of a household of 6 persons—2 males and 4 females.

The slips were arranged in the order of the schedules and tied into bundles by villages. They were then sorted (also by villages) into heaps corresponding to the columns of the final tables which were to be filled up.

the Indian
slip system.

The Bavarian system, while employing colour to denote sex combined with civil condition, did not vary the shape of the slip so as to express any other general attribute, such as religion, literacy, or illiteracy. In India the system was modified in three particulars—

- (1) by using colour to indicate religion;
- (2) by varying the shape or size of the slip or by printing on it special symbols, to express sex and civil condition;
- (3) by filling up for each individual two slips instead of one, so as to expedite the completion of the heavier tables.

The selection of colour was of course determined by the price of the paper; the cheapest paper of a suitable kind being used for Hindus, as the most numerous religion; the next cheapest for Muhammadans; and so on. The number of colours that could be employed depended on the number that the average abstractor could be got to manipulate with accuracy. In Mysore the artistic instincts of the Superintendent, Mr. T. Ananda Row, led him to print on the slips pictorial busts indicating for each sex the states of celibacy, marriage, and widowhood. I quote his own description of this quaint device:—"The busts represent male faces and female faces, and are designed to picture their respective civil conditions. They are self-explanatory to persons familiar with South Indian life. To others the following notes may be interesting:—

Male; Bachelor is represented by the face of a male youth with a caste "*Bottu*" (dot) on his forehead, and a cap and a buttoned jacket indicative of student life.

Male, Married is represented by an elderly face with moustaches, caste dot on the forehead, turban on the head, a coat and upper cloth in Indian style—all characteristic of what is known by the term "*Grihasthāsrama*."

Male, Widower is represented by an elderly face with moustaches, head bare indicating grief or mourning, and body also bare but for its being partially covered with a loose upper garment commonly called "*Angavasthra*." The absence of any caste mark on the forehead is an additional sign of grief or mourning.

Female, Unmarried.—A young face with combed hair on the head and "*Bottu*" (caste mark) on the forehead, a simple close fitting necklet and earring.

NOTE.—The "*Bottu*" is a small circular mark placed in the centre of the forehead by most Indian females. It is practically an ornamental non-sectarian mark.

Female, Married.—A face of mature age with caste mark on the forehead and ornaments on the ears, nose and neck, such as are given at wedding to a bride by the bridegroom, and particularly a gold band (called "*Bandi*") sitting loose and low round the neck with a medallion (called "*Tāli*") indicative of married life with husband living.

Female, Widow.—Face indicating advanced age, no caste mark on the forehead, no ornaments, head periodically shaved and the face with short or no hair, and covered by one end of the cloth worn round the person—all illustrating widowhood as it is manifested mostly among Brahmans."

It will be seen that each slip denoted religion by its colour, and sex and civil condition by its shape, size, symbol, or picture. These data, therefore, had not to be written down. In copying the remaining particulars certain standard abbreviations were made use of in order to economise time. When the slips had been written up for the unit-area—village, police-station or *tahsil*—of a given table, they were sorted according to the headings of the table, counted, and the results entered in the prescribed form. The system is in fact an adaptation to Census purposes of the familiar 'card catalogue,' and its principle is so simple that there is really nothing to describe. When applied to the production of statistics relating to 294 millions of people in the form of eighteen major and several minor tables the mere *modus operandi* required a considerable organization. As the system was a new one and the procedure for sorting the slips admitted of indefinite variation, I contented myself with suggesting two alternative methods by which this might be done, and left it to Superintendents to adopt one or other of my schemes, or to devise improvements of their own, as they thought fit. Into these details it is the less necessary for me to enter as the subject has recently been examined by Professor Von Mayr* himself with Teutonic industry and parental interest in the application of his own methods to the largest Census in the world. The results attained speak for themselves in the large saving effected and in the reduction of the time spent on compilation of the statistics. In Madras, for example, Mr. Francis completed in 7 months tables, which on the system in force in 1891 had taken 21 m.

* Die Verwendung des Zählblättchens bei der Volkszählung in Britisch-Indien vom 1. J. Allgemeines Statistisches Archiv.

to compile, and a similar acceleration of processes took place in almost every Province of India.

Provin-
Reports.

Among the Provincial Superintendents Mr. Gait stands in a class by himself. His charge was the largest and the most populous and embraced the most varied physical conditions and the most heterogeneous races. To carry out successfully the census of more than seventy-eight millions of people comprising the quick-witted and adaptive Bengali of the deltaic rice swamps, the sluggish and depressed peasantry of Bihar, the conservative priest-ridden Oriya, and the primitive but excitable tribes of the Chota Nagpur plateau and the Orissa hills, is a task demanding in itself no mean administrative capacity. To describe effectively the results of the operations requires a grasp of statistics, philology, history, and ethnography which few officials possess. Mr. Gait's report is of permanent value for the light which it throws on these subjects and for the comprehensive account which it gives not only of the Bengal of to-day but of the changes which have passed over the Province since the first Census of 1872. It forms a worthy companion to Mr. Beverley's well-known report of thirty years ago.

The United Provinces of Agra and Oudh present fewer difficulties than Bengal. Their population, though ~~large~~ ^{present} is fairly homogeneous, and the Superintendent has at his disposal the invaluable village agency which the Permanent Settlement ~~has~~ ^{was} denied to Bengal. Mr. Burn has done ample justice to his charge and his report is of special interest for its account of linguistic developments in the Province and its study of the working religion of the ordinary Hindu and of the curious quasi-Vedic revival known as the Ārya Samāj.

Census work in Bombay was greatly impeded by administrative difficulties connected with famine and plague. The effects of these calamities on the population are vividly depicted in Mr. Enthoven's report which has the further merit of being eminently readable and of bringing out both the pathetic and the humorous aspects of an Indian Census.

In the Central Provinces the succession of bad seasons which preceded the two great famines and the successful efforts made by the administration to combat the second and more widespread calamity have been carefully recorded by Mr. Russell, who himself took part in the famine campaign.

For Madras Mr. Francis has produced a concise and business-like report, illustrated by admirable maps and diagrams, and containing an instructive notice of the causes which have promoted the spread of Christianity in the South of India, and a useful glossary of the obscure and intricate caste system which has developed there.

The Burma report treats of a fascinating people concerning whom much has been written. Mr. Lewis has given us an interesting sketch of the animism, thinly veneered with Buddhism, that makes up the religion of the Burman, and has entered upon a lucid exposition of the obscure question of tonic images.

In the Assam Report Mr. Allen has made a careful study of an obscure and interesting subject—the decline of the indigenous population of the Brahmaputra valley.

He shows by means of certain caste statistics that the decrease among the Assamese coincides with the prevalence of the severe form of malaria known as *Kālā āzār* or the black sickness, and is not due to any lack of vitality on the part of the people themselves.

The first Census of Baluchistan offered Mr. Hughes-Buller an opportunity of which he has made admirable use. His report discloses remarkable insight into the origin and mutual relations of the characteristic races of the Agency; it is full of local colour and it gives a vivid picture of a strange un-Indian country, of parts of which a native proverb says "Oh, God! when thou hadst created Sibi and Dādhar, what object was there in conceiving hell?" Central India and Rajputana were also completely enumerated for the first time. Both Agencies present exceptional difficulties and my thanks are due to Captain Luard and Captain Bannerman for the excellent results attained.

In all Provinces much attention was paid to religion and ethnography, and the reports contain a considerable amount of material which has not been published before; Mr. Gait's treatment of these subjects is perhaps the most complete and systematic, but Mr. Russell has dealt very fully with the interesting tribes and castes of the Central Provinces; Mr. Enthoven has done much to elucidate the complicated structure of native society in Bombay; Mr. Rose gave much attention to religious development in the Punjab and to the multifarious considerations which affect intermarriage between different groups within the same caste or tribe; and the Superintendents of Census in the Native States have brought out a variety of details which add substantially to our knowledge. I may mention in particular Mr. M. Sankara Menon's careful account of the rise and spread of Christianity in Cochin; Mr. Dalal's analysis of the caste system in Baroda; Mr. Ananda Row's examination of the marriage systems of Mysore; and Mr. Subrahmanya Aiyar's chapter on religion and description of the castes of Travancore. Students who wander in the by-paths of ethnography will find much curious information in the notes on tattooing and diagrams of standard designs which are given in the Baroda and Mysore reports. Finally, I commend to all who are interested in the rise and growth of our Empire in the East Mr. Edwardes' picturesque sketch of the various stages of development by which an obscure fishing village has been transformed into the stately City of Bombay.

H. H. RISLEY.

REPORT

ON THE

CENSUS OF INDIA, 1901.

CHAPTER I.

Distribution of the Population.

Introductory Remarks.

1. In respect of those decisive physical features which determine the course of the national movements of mankind, India may be described as an irregularly triangular or pear-shaped fortress, protected on two sides by the sea and shut in on the third by the great bulwark of mountain ranges of which the Himalaya forms the central and most impregnable portion.* As these ranges curve southward and westward towards the Arabian Sea, they are pierced by a number of passes, practicable enough for the march of unopposed armies, but offering small encouragement to the halting advance of family or tribal migration. On the east, though the conformation of the barrier is different, its secluding influence is equally strong. The ridges which take off from the eastern end of the Himalaya run for the most part north and south, and tend to direct the main stream of Mongolian colonization towards the river basins of Indo-China rather than towards India itself. On either frontier, where the mountains become less formidable, other obstacles intervene to bar the way. On the western or Iranian march, the gap between the Suleiman range and the Arabian Sea is closed by the arid plateaux and thirsty deserts of Makran; to the east, the hills of the Turanian march rise in a succession of waves from a sea of trackless forest. On either side, again, at any rate within historic times, the belt of debatable land which veiled a dubious and shifting frontier has been occupied by races of masterless men knowing, in the west, no law except that of plunder and vendetta; and in the east, owning no obligation but the primitive rule that a man must prove his manhood by taking the stranger's head. Along the coast line a different set of conditions tended equally to preclude immigration on a large scale. The succession of militant traders who landed on the narrow strip of fertile but malarious country which fringes Western India, found themselves cut off from the interior by the forest-clad barrier of the Western Ghats; while on the eastern side of the peninsula, the low coast, harbourless from Cape Comorin to Balasore, is guarded by dangerous shallows backed by a line of pitiless surf.

Ethnic
isolatic
India

2. The country thus isolated by physical and historical causes comprises three main regions, the Himalaya or abode of snow; the Middle Land, or Madhyadesa, as the river plains of Northern India are called in popular speech; and the Southern table-land or the Deccan with its irregular hill ranges rising out of undulating plains. Each region possesses an ethnic character of its own, and has contributed a distinct element to the making of the Indian people. The Deccan, itself one of the most ancient geological formations in the world, has since the dawn of history, been the home of the Dravidians, the oldest Indian races. The most recent of the three regions, the alluvial plains of

Five
region

* Professor Huxley's comparison of the shape of India to "the diamond on a pack of cards, having a north angle at Ladakh, a south angle at Cape Comorin, a west angle near the mouth of the Indus, and an east angle near that of the Ganges," is possibly more accurate than that adopted in the text. It brings out the great projection of the Punjab and Kashmir towards the north and the long straight line of frontier which forms the north-western side of the diamond. On the whole, however, the triangular aspect seems to catch the eye more as one looks at a map and is thus better suited for descriptive purposes. Huxley's description is to be found in the first volume of the Journal of the Ethnological Society of London. It is curiously parallel to the 'rhomboid' of Eratosthenes and other Greek geographers.

north, formed in pre-historic times the highway of the Aryan advance into India, and a large section of its inhabitants still cherishes the tradition of remote Aryan descent. The influence of the Himalaya has been mainly negative. It has served as a barrier against incursions from the north; but all along the line of the hills, even among people whose speech is of Rájput origin, distinct traces may be observed of an intermixture of Mongolian blood.

3. The Empire of to-day has out-grown its ancient limits, and now embraces the Indo-Iranian region of Baluchistan and the Indo-Chinese region of Burma. If we speak of India as a fortress, these are the out-works which guard its flanks. Nor is it pressing our metaphor too far if we go on to describe Baluchistan as a great natural glacis stretching westward from the crest of the ramparts of India till it loses itself in the plains of Kandahar. Its surface is a medley of rocky peaks, narrow passes, intricate ravines, and broken ranges of barren hills, which bristle at every point with defensive positions. The people show no trace of Indian culture, and are as rugged as the land in which they dwell. Arab or Afghan by tradition, Scythian or Turki by type, but probably a blend of several stocks, they are fitting guardians of the inhospitable wastes which separate India and Iran.

4. The Eastern out-post, Burma, presents the sharpest of contrasts to Baluchistan. Broad stretches of alluvial rice-land fringe the coast strip and run up into the interior, gradually thinning out as they approach the highlands of earlier formation through which the great rivers have forced their way. Cut off from India by a series of forest-clad ranges, which restricted the interchange of population by land, Burma lay open on the north, east and south to the invasions of a succession of Mongolian races who bore rule in turn and combined to form the type which we know as Burmese. In the hands of a maritime power Burma commands the Eastern Gate of the Empire, and the growing Indian element in the population owes its existence to the English control of the sea.

5. For statistical description and analysis, in which it is essential to compare like with like and to avoid unduly wide generalization, none of the five regions which have been mentioned, with the possible exception of Baluchistan, is compact or homogeneous enough to be handled with advantage. General statements regarding the population of such large areas as the Himalaya, the alluvial plains of the north, Southern India, or Burma, would have little more value than if they were made about India itself. Further sub-division must therefore be resorted to before any meaning can be extracted from the masses of figures heaped up in the Census Tables. On what principle should such sub-division proceed? Should our examination of the Census figures base itself merely on the administrative divisions of the country—Provinces, States, Agencies and the like—or should it follow what may be called the Natural Divisions of India—the areas distinguished by those essential characteristics of physical conformation, climate and rainfall, which influence, if they do not absolutely determine, the character and distribution of the population, and their standard of living? Or should a compromise be adopted and both methods of treatment combined?

6. In the first place it must be remembered that our object is not purely scientific. The costly and laborious operations of an Indian Census can only be justified by their direct bearing on the actual government of the country. The Census presents a series of pictures of the national history of the past ten years; it sums up the effects of the vicissitudes of the seasons,—of religious and social movements, of educational effort, of commercial and industrial progress. It enables the rulers of India to take stock of their position and to see how it compares with the people committed to their charge. For the current needs of the governing body what manner of men they have to deal with; how they will suffer from a failure of the rains or will benefit by a well-conceived system of irrigation; what are the prospects of a new line of railway; what proportion of the population will be reached by a reduction of taxation; to what extent an over-worked government can be relieved by a transfer of jurisdiction, and what interests will be affected by the change.

7. Accordingly the entire series of statistics contained in the Census Tables is cast in a form determined by the practical uses to which they will be put. For the whole of India, Tables are framed on the largest scale. They deal with British Provinces, Political Agencies, the more important Native States and (a

new feature on this occasion) the chief cities of the Empire. For each Province, again, two sets of Tables are compiled, Imperial Tables with the District as their unit, and Provincial Tables which descend to more minute particulars and show the distribution of population by police stations or revenue circles, the smallest administrative units for which figures can conveniently be given. Below these in most Provinces voluminous Village Tables have been prepared, and in some instances printed, which deal with the smallest units of rural life and show for every village particulars for sex and religion, the chief languages spoken, and the main classes of occupations pursued, the latter being grouped with reference to the contingencies of famine, when special thought has to be taken for the increasing number of landless day-labourers and for those who still struggle to earn a precarious living from the moribund industry of hand-loom weaving.

Natural and Administrative Divisions.

8. To ignore these administrative units and to base the discussion of statistics on areas determined by conditions of rainfall and soil, would render the report to be useless for the chief purposes which justify its existence. What the governor of a Province or the head of a district wants to know is the distribution of the people in the tract of country for which he is responsible. It avails him nothing to be told how they are grouped in some climatic unit which does not correspond with his own executive charge. Famine is fought, revenue collected, justice administered by Provinces and districts, not by zones of rainfall. For the most part, therefore, we must follow the divisions which regulate the actual work of Government. But within these are wide differences dependent for the most part on the aggregate of physical conditions commonly called environment. By grouping the provincial figures under the chief natural divisions some light may be thrown on the physical causes which affect the distribution of the people within the Province. Both methods, therefore, must be followed. The facts must be stated by units of administration, and the theory expounded by units of environment. The former units are ready to our hand in the shape which history, accident, convenience have in course of time given them. It is less easy to say on what principle the latter should be defined.

9. At first sight the meteorological aspects of the subject are those which arrest our attention. In a country where from 50 to 84 per cent. of the population depend for their living on the land and prudential restrictions on the birth-rate are unusual; where a short or untimely monsoon means famine, and seasonable rain conjures up immediate prosperity; one is tempted to assume that a classification by zones of rainfall and humidity will comprise all the conditions which affect the distribution of population. The most densely peopled tract in India, a taluk in the Cochin State with 1,920 persons to the square mile, has the heaviest and most regular rainfall, and, conversely, the scantiest population is found in the almost rainless regions of Jaisalmer. The proverbs of the people confirm what appears to be the teaching of statistics. They say in Marwar, where emigration and the breaking up of families under the stress of famine have left a deep impression upon popular speech,—

“August’s here, no-sound of thunder,
Sky is clear, and weather fine:
Wife! ’tis time for us to sunder,
You to your folk, I to mine.”

And this is only one instance, no doubt a specially intimate and pathetic one, of countless apothegms on a subject which touches the very life of the Indian peasant. It is true that the relation between rainfall and population is not always so direct and tangible as in the thirsty steppes of Western Rajputana. In Burma the maximum density does not correspond with the most copious rainfall, and some of the wettest tracts are conspicuous for their scanty population. Mergui, with a rainfall of nearly 170 inches, has only nine persons to the square mile, while Saganing, in the dry zone of Upper Burma, gets less than 10 inches of rain, and has a mean density of 152. Here, as Mr. Lewis pointed out, the information of the surface plays the chief part. The low...

They support, therefore, a greater number of people than the more remote lands where a larger rainfall finds less cultivable land to fertilise, and the crops are less easily brought to market.

10. Other instances may be cited of the fallibility of a purely meteorological standard. To take an extreme case, the irrigation canals of the Punjab, drawing a perennial supply of water from rivers fed by the snows, have rendered large tracts independent of the local rainfall and have transformed a desert into a fertile and populous cornfield. Conversely, a country covered with dense forest, whatever may be its rainfall, must wait for its population until the jungle has been cleared. In hilly districts the proportion of cultivable land is smaller than in level tracts, and the area cannot support so large a number of people. In the undulating country of the Vindhya tract, where rice is grown on terraces cut out of the hill side, the relation between the higher and lower levels is such that the harvest does not vary directly with the rainfall. Excessive rain swamps the rich lowlands while, as often as not, the loss from deficient rainfall affects only the poorest lands. In some parts of the country, such as the Himalayan Terai and those Assam Districts which have suffered from *kalá ázar*, conditions may be so unhealthy as to restrict the birth-rate and to allow only selected individuals to survive. Elsewhere, again, the character of the people may play a part in counteracting the influence of their surroundings. The recent famine has proved the sturdy Maratha of the Deccan to have far greater power of resistance than the softer people of Gujarat. And it may plausibly be argued that the dense population of certain parts of Bihar is only rendered possible by the readiness of the people to go on reducing their standard of living rather than tempt fortune by emigrating in search of spare land. Finally, it is obvious that the meteorological statistics, at any rate in the condensed form which alone can be used for classification, throw, at the best, but an uncertain light on the two main factors of agricultural prosperity, the variability of the rainfall and its distribution at the times when it is most required. The latter condition is often the more important. Let the rainfall of the year be never so abundant in the aggregate, it may commence too late to soften the baked soil for early ploughing and timely sowing; an unlucky break may allow the land to dry when the seed is about to germinate; storms may destroy the plants as they are breaking into flower; and finally, if the rain stops too soon, the grain will shrivel and turn to husk in the ear. Of these critical periods statistics can give no complete account. They stand out in the proverbs of rural life, which divide the year into 27 lunar asterisms of about a fortnight in length. Each asterism corresponds to some agricultural operation, and each has its appropriate sayings. Thus for the fortnight or so at the end of October and November, when the rice in Bihar is reaching maturity and the right amount of rain will give a bumper crop, we have the couplet:—

“One shower in Swāti—friend, behold
The Kurmi's carriages turned to gold!”

It would be hard to give a more vivid picture of the nice issues on which the peasant's luck may turn, and of the manner in which he spends the proceeds of a good harvest.

11. Subject to these qualifying remarks, which indicate some obvious limitations of the principle, meteorology seems to be on the whole our safest guide through the complications presented by external conditions in India. Two schemes of natural divisions, both based chiefly on meteorological characters, have the sanction of high scientific authority. One was drawn up in 1901 under Lord Curzon's orders by Sir John Eliot, K.C.I.E., F.R.S., Meteorological Reporter to the Government of India. The other was published a few months later by Mr. W. T. Blanford, F.R.S., as part of a paper, in the Transactions of the Royal Society, on the Distribution of the Vertebrate Animals in India, Burma and Ceylon.* Excluding the Andamans and the country beyond the main snowy range of the Himalayas, each of them divides the Empire into a manageable number of tracts or sub-regions: Sir John Eliot's scheme has twenty; Mr. Blanford's fifteen, a number which admits of being reduced to fourteen by certain changes which the author has kindly mentioned to me. From the point of view of population both are perhaps capable of improvement, by the process of recasting

them would multiply the number of divisions to a bewildering extent, and would result in a grouping which would at many points overlap the meteorological classification. Moreover, Sir John Eliot's scheme is in possession of the field. It has been adopted by the Government of India for the purposes of the daily reports and maps showing rainfall and temperature, which give the first warning of the approach of famine. It is, therefore, familiar to the large public, both official and non-official, which watches over the countless interests dependent on the vagaries of the monsoon. For administrative reasons, again, it is obviously desirable that the Census Statistics should, at any rate in the Imperial Report, be brought into relation with these authorized divisions of India, and that figures should be given showing what population will be affected by unfavourable conditions in a given meteorological tract. Subsidiary Table I accordingly sets out the population, density and staple crops of each of these standard divisions, together with statistics of the normal rainfall, its distribution by locality and its seasonal variability, which were specially prepared for me in the office of the Meteorological Reporter on the basis of observations extending in most cases over a period of twenty-five years. The rainfall of each division and the mean density of its population are also shown on the accompanying map. The information here given is, I believe, nowhere available in a connected form, and this must be the excuse for the space devoted to the subject in the following pages. At the close of a period marked by the occurrence of famine on a scale hitherto unknown, it seems desirable to present with some fulness of statement the facts which illustrate the extreme dependence of the Indian people on climatic conditions, the variety of those conditions in different parts of the Empire, and the great vicissitudes to which they are liable at periods which tend to recur but the law of whose recurrence is as yet unknown.

12. In the Provincial Reports the question of grouping is approached from a different point of view. The area dealt with is smaller, the necessity for reducing the number of divisions is less. The object, in fact, is rather to accentuate climatic distinctions than to sink them in groups arrived at by large generalizations. Accordingly, although I invited Provincial Superintendents to conform as closely as possible to the Imperial scheme of divisions, I did not insist on their adopting it as it stands and I have admitted a number of departures from it which are explained in the Provincial Reports.

13. The principal source from which India derives its rainfall is the moisture-laden current of the south-east trade winds, which blow steadily in the zone of the Indian Ocean extending from Australia to Madagascar. If these winds maintained their original course they would pass India by altogether, and would break upon the coasts of North-East Africa and Arabia. But in early summer, when they reach the region of the Chagos and Seychelles islands, they begin to come under the influence of the great land mass of India which by that time has become very much hotter than the surrounding ocean. From the heated surface of the Indian Continent the air rises upwards and outwards and a gigantic vortex is formed within which the pressure of the atmosphere, as indicated by the barometer, is relatively low. The damp air of the south equatorial seas, until then travelling in a north-westerly direction, is drawn due north by the influence of this depression and after passing the equator is further diverted towards the east by the rotation of the earth. By these combined forces the south-east trades are converted into the south-west monsoon which breaks with its greatest strength on the West Coast of India and traverses the whole Continent until it strikes the great barrier of the Himalaya. Here its course is arrested and turned westward and north-westward towards the Punjab, where it gradually dies away during September. With the approach of autumn a different set of conditions comes into play. As the sun turns southward towards the Equator, the temperature of the land surface falls in comparison with that of the sea, and an area of relatively low barometric pressure is established in the Indian Ocean to the south of the Bay of Bengal. The south-west monsoon, recurving from the Burma coast towards this depression, is merged in the weaker current of the north-east monsoon which gives fairly copious and regular rain in Madras. In point of fact both monsoons of seasons form part of one vast atmospheric movement depending ultimately on the relative intensity of two areas of high pressure or anticyclonic action.

one in Central Asia and the other in the south of the Indian Ocean. These may be compared to the two ends of a spirit level, and the area of low pressure between them to the bubble of air in the middle of the instrument. Changes in the relations between the ends of the atmospheric level shift the centre of low pressure northward or southward at different times of the year. These movements determine the direction of the monsoon winds which bring the rain.

14. The setting in of each monsoon is preceded or accompanied by cyclonic storms due to the formation of a trough of low pressure between winds blowing in different directions. Such storms are generated in two main centres, one near the Audamans in the Bay of Bengal and another in the region of the Laccadive and Maldivé islands in the Arabian Sea. Some of them penetrate far inland and on occasion give useful rain to areas which may have been but lightly touched by the monsoons.

15. Two other influences, the Himalaya and the plateau of Afghanistan and Persia, contribute to the meteorology of India. The great wall of the Himalaya shields Upper India from the cold air currents of the Tibetan plateau, and the extension of its snow-clad surface during the winter brings about a constant interchange of humidity between the hills and the sub-montane country, which occasionally re-acts upon the distribution of the monsoon rains. The plateau of Iran, on the other hand, is visited by storms from South-Eastern Europe, which produce snow in Afghanistan and Baluchistan, followed by a wave of dry cold air which, as it advances to the eastward, reduces temperature and humidity all over Northern India and brings about the cold weather rains.

16. The combined effect of the influence of the Himalaya and the Iranian plateau is to give India during the period of the north-east monsoon a Continental climate with dry air, land winds, very little rainfall, and a high range of daily temperature. During the rest of the year the Indian Ocean, with its branches the Bay of Bengal and the Arabian Sea, exercises a predominant influence and produces an oceanic climate characterised by frequent rain, very damp air, and a low range of daily temperature.

17. The following brief description of the natural divisions is based upon notes kindly furnished me by Sir John Eliot and Mr. Holland of the Geological Survey, and upon Mr. Blanford's paper mentioned above, which he has been good enough to permit me to use. The description follows the order of the five Regions of India—the Himalaya, the River-plains, the Deccan, Baluchistan and Burma.

Himalaya and Sub-Himalaya West.—This tract includes the forest-clad ranges of the Western Himalayas from the confines of Kohistan to the eastern border of Garhwal; a narrow belt of country at the foot of the hills from Rawalpindi to Roorkee at an average elevation of 1,000 feet; and the low valley of Dehra Dun, 2,200 feet above the sea. Slates, schists, quartzites and dolomitic limestones form, with granites and gneisses, the higher ranges of the inner or north-eastern margin. A band of younger tertiary strata occurs in the centre, bounded on the south-western margin by geologically recent alluvium.

The average rainfall in the hills is 50·4 inches, but the actual fall varies from nearly 26 inches in Kashmir to 99 inches at Mussourie. It increases gradually towards the east, and is more copious on the southern aspect of the ranges than on the northern. In the semi-montane area of Dehra Dun the rainfall is 85·73 inches, while in the plains districts it is heaviest at Roorkee (42·39) and lightest at Ludhiana (29·44), the annual mean being 34·25. The variability ranges from 88 at Umballa to 128 at Sialkot and 141 at Ludhiana. The wet season proper sets in in June, but is very uncertain in its approach, depending apparently not entirely upon the intensity of the hot weather conditions in Northern India, but largely also upon the initial strength of the south-west monsoon currents passing up the Arabian Sea and the Bay of Bengal.

18. *Himalaya and Sub-Himalaya East.*—This tract embraces the Himalayas and a wide belt of country at the foot of the hills from Garhwal and Dehra Dun to Bhutan and Kuch Bihar. The climate is moister than in the western tract, the forests denser and more extensive, and the growth of vegetation more luxuriant. Geologically it is an extension of the formations exposed in the western division.

The meteorology of the plains districts differs little from that of the Central Indo-Gangetic Plain. Proximity to the hills affects temperatures and rainfall

to a slight or moderate extent, reducing temperature and increasing humidity, cloud and rainfall. The rainfall varies very largely in amount, decreasing with distance westwards along the Himalayas and also with distance from the Himalayas. The annual amount ranges from 125 inches at Jalpaiguri to 45 inches at Bahraich and Bareilly, the average being 71.9 inches. The variability is 143 per cent. at Purnea, 71 per cent. at Darbhanga and 78 per cent. at Bahraich.

19. *The Indo-Gangetic Plain West* comprises the central plain districts of the Punjab and the United Provinces from Lahore to Allahabad. Its geological formation consists of tertiary rocks in the north-west corner, with a narrow band of older rocks forming the Salt Range to the north-west of the Jhelum. The rest of the division is covered by recent alluvium.

The wet season extends from about the middle of June to the middle or end of September. The monsoon influence commences very irregularly, and the rains are in some years a fortnight to a month later at Delhi and Lahore than at Allahabad. The mean rainfall decreases from 38 inches in Allahabad to 20 inches at Lahore, the average for the division being 31 inches. The variability ranges from about 100 per cent. at Delhi and Meerut to about 160 per cent. at Rawnpore and Lahore, and averages 130 per cent. for the division.

20. *The Indo-Gangetic Plain East* takes in West Bengal, Central and South Bihar and the adjacent districts of the United Provinces—Mirzapur, Benares, Munpur, Ballia, Azamgarh and Ghazipur. Recent alluvium covers both ends of the tract, with a considerable area of ancient gneisses forming highlands in the centre. The division includes large mica-mining and slate-quarrying areas, as well as several important coal-fields in small basins of Gondwana rocks.

The average rainfall of the division is 47.46 inches, varying from nearly 40 inches at Benares to 56.38 in Burdwan. During the dry season it is small, but it increases very rapidly in June, with the setting in of the south-west monsoon, and is greatest in July, averaging 12.19 inches. It is practically the same in amount in August and decreases rapidly in September and October. Fifty per cent. of the total rainfall of the year occurs in July and August. The rainfall is least variable at Burdwan where it is 70 per cent., and the variability increases westwards to 94 per cent. at Gaya.

21. *The Delta of Bengal* includes the southern and eastern districts of West Bengal and the Surma Valley districts of Assam. It consists of a flat open plain elevated from 13 feet to 104 feet above the level of the sea and exposed to cyclonic influence. Gneisses and schists, forming the Shillong highlands, mark the extreme northern fringe of the division below Cherra Punji, where cretaceous and tertiary beds with occasional coal-fields begin; these are limited on the southern side by the alluvium of lower levels, which covers most of the division up to the folded tertiary strata of Hill Tippera on the east.

The average rainfall is 79.38, varying from 56.49 at Murshidabad to 125.89 at Silchar. Owing to storms generated by the meeting of moist winds from the Bay of Bengal with the dry westerly winds of the Gangetic plain, nearly 20 per cent. of the total annual rainfall is received during March, April and May, a fact which has an important bearing on the agriculture of the area. The rest of the supply is derived from the current of the south-west monsoon which sets in during June and continues till October, when it is frequently followed by cyclonic storms of great violence accompanied by destructive tidal waves.

22. *The Brahmaputra Valley* is an unusually well-defined meteorological area. It lies between the Himalayas and the Garo, Khasi and Jaintia and Naga Hills, commonly known as the Assam range, which have a mean elevation of about 3,500 feet. It is about 300 miles in length by 50 miles in breadth, and varies in elevation from 115 feet at Dhubri to about 350 feet at Dibrugarh. The river Brahmaputra and its feeders take up a considerable portion of the area. The meteorology differs very considerably from that of Northern India, due to the relatively large proportion of water and of forest clad surface and to its being enclosed by walls of hills on all sides except the west, where it joins the Indo-Gangetic Plain. For the Assam hills the meteorological data are scanty, but the rainfall is known to be very heavy in places. Strictly speaking, perhaps, the range should be treated as a separate division, but the population is too small to warrant this course. On the north of the division the older rocks of the Tertiary system are fringed with sub-montane tertiary deposits. These in

give place to recent alluvium above which, in the south of the division, gneisses and schists rise to form the Shillong plateau.

The average rainfall of the valley is 92.36, varying from 70.17 at Tezpur to 110.57 at Dibrugarh. From November to February it is small in amount and increases eastwards. The spring rainfall begins in March and increases up to May, in which month it gives an average of nearly 13 inches to the valley. During this period hailstorms are frequent, and destructive tornadoes or whirlwinds occur occasionally. The south-west monsoon rainfall commences in June and continues until October. Its distribution is apparently determined chiefly by the elevation of the hills to the south. It is largest at the eastern end of the valley and at the western entrance at Dhubri, and diminishes from north-east and west towards the centre, being smallest in Tezpur and the neighbouring districts in some parts of which it is below 50 inches. The variability of rainfall is moderate. It is greatest at Dhubri and diminishes eastwards to Sibsagar where it is about 50 per cent. The chief features of the area are great humidity, moderate temperature and a prolonged period of moderate to heavy rainfall extending from March to October. These conditions are peculiarly favourable to tea cultivation.

23. *The North-West Dry Area* includes the Southern and South-Western Punjab, Sind, and the States of Rajputana situated north-west of the Arava Hills. A great part of its surface is covered with recent blown sands and alluvium through which small exposures of older rocks protrude. Vegetation has been destroyed over large areas by alkaline salt efflorescence.

The average rainfall of the division is 11.4 inches, the highest being 25.1 at Cherat and the lowest 3.9 at Jacobabad. The variability of the rainfall is the highest in India (195 per cent.), and ranges between 80 at Cherat and 362 at Pachpadra. The winter rain falls between December and March. It is small in amount, averaging about two inches, but is fairly general and uniformly distributed. The main current of the summer or south-west monsoon in July and August is diverted towards the east, and such rain as the division receives is derived from cyclonic storms and is very variable and irregularly distributed. It is moreover so small in amount that cultivation depends over large areas on irrigation from the Indus, and fluctuates from year to year with the height of the floods. The whole area is extremely dry and is believed to be one of the hottest in the world. A temperature of 126° was recorded at Jacobabad on the 12th June 1897.

24. *The Central India Plateau* lies between the Aravalli and Vindhya Hill and the Gangetic Plain. It is about 2,000 feet in elevation near the Vindhya and Aravallis, but slopes north-eastwards and eastwards to the level of the Gangetic Plain. The north-west section consists of gneisses and granites with old schists and slates of the Aravalli range, and palæozoic strata. The south-west portion is covered by basaltic lava-flows.

The dry season commences in the latter part of September in the northern and the central districts of this area and about the middle of October in the southern districts. The tract comes within the influence of the cold weather storms of Northern India, and thus receives light occasional rain between December and February. These storms are accompanied, in Rajputana and Central India, by thunderstorms and hailstorms of considerable intensity which cause much damage to the poppy and other crops. The total rainfall from November to May averages 2.23 inches in amount, and is barely 7 per cent. of the total rainfall of the year. The wet season usually commences about the middle of June and continues until October. The rainfall is irregular and intermittent, especially in Rajputana, and a considerable proportion is due to cyclonic storms formed in the Bay of Bengal which advance across the Central Provinces and Central India and have sufficient vitality to continue their course through Rajputana. The rainfall decreases northwards from the Vindhyas and westwards from the Gangetic Plain to the interior of Rajputana. It averages 34.58 inches for the whole area, but is less than 30 inches in amount over the whole of Rajputana and in parts of Central India. It is absolutely least at Ajmer and Sambhar, where it very slightly exceeds 20 inches, while at Jaipur it rises to 47.83. The fall of 60 inches at Abu is dependent on special conditions. The variability of the rainfall is about 100 per cent. at Sutra, Kota, and Indore,—all stations near the Vindhyas. It increases rapidly

northwards, and exceeds 150 per cent. in the driest area represented by Jaipur and Sambhar. The combination of small annual rainfall (between 20 and 30 inches) and great variability (of about 150 per cent.) renders a large part of Rajputana liable to recurring drought.

25. *The West Satpuras Division* includes Berar, Khandesh and Nasik in Bombay, and the Nagpur, Nimar and Wardha districts of the Central Provinces. Nearly the whole of the tract is covered with the basaltic lava-flows of the Deccan plateau. Small areas of alluvium appear in the Tapti and Nerbudda valleys. The dry season lasts from November to May, during which period the average total rainfall is only 2·6 inches or 7 per cent. of the year's supply. In April and May the temperature is very high and has been known to exceed 115° at Nagpur.

The annual rainfall averages 39·1 inches. It varies considerably, being largest in the eastern district of Nagpur (49·25 inches) and smallest in the western district of Khandesh represented by Malegaon (23·08 inches). It is derived partly from strong bursts of rain on the Konkan Coast and partly from cyclonic storms advancing from the Bay of Bengal across the Central Provinces or Central India. The latter action appears to be the more powerful as the rainfall decreases in amount westwards from Nagpur to Malegaon. The variability of the rainfall varies, on the whole, inversely with the actual amount. It is least at Nagpur (98 per cent.) and greatest at Akola (164 per cent.) and Malegaon (130 per cent.). It follows from these conditions that the western districts of the division, including Khandesh and Nimar, are liable to drought and famine.

26. *The East Satpuras Division* comprises the greater part of the Central Provinces and the Chota Nagpur division of Bengal. The principal geological formations are old gneisses, granites, and schists covered for a considerable area by basaltic lava-flows (Deccan trap) on the north-west, with a fringe of Gondwana rocks and recent alluvium in the Nerbudda valley. The meteorology of this division differs only slightly from that of the West Satpuras. In the hot weather the heat is not so extreme, nor is the air so dry. In the wet season cyclonic storms give much more frequent and abundant rain, and the annual total rainfall is hence larger in amount and less variable in its distribution.

The annual rainfall averages 57·7 inches. It tends to decrease westward and depends chiefly upon the position of the hill ranges in relation to the monsoon current. It increases slightly with elevation but is very uniform in amount over the greater part of the area, owing to the fact that a large portion of the fall occurs during cyclonic storms passing at a great height. The variability in the amount of the rainfall from year to year, is usually small over the larger portion of the area represented by the meteorological stations of Sambalpur, Chaibassa and Ranchi, in which it is only 65 per cent. It increases westwards and northwards from that area, and slightly exceeds 101 per cent. in the north-western districts, represented by Hoshangabad, Jubbulpore and Seoni.

27. *Deccan.*—This includes the large area enclosed by the Ghats on the east and west, Mysore on the south, and the Central Provinces and Berar on the north. It is a plateau of moderate elevation, sloping gradually from west to east. The north-west portion, forming nearly half of the division, is covered with basaltic lava-flows (Deccan trap); the remainder is composed of granites, gneisses and schists with a basin of palæozoic lime-stones, quartzites and igneous rocks in the Cuddapah area.

The dry season extends from December to May. The rainfall during this period averages 2·86 inches or 10 per cent. of the total of the year, mostly occurring during thunderstorms in April and May. The rainfall of the wet season is chiefly due to the West Coast humid current from June to August, but occasionally in September and almost entirely in October and November, it accompanies the course of storms coming up from the Bay of Bengal. The wet season is hence considerably longer than in the Konkan and usually lasts until the middle of November. The average rainfall is 29·68 inches, but it varies from 19·33 at Bellary to 51·16 at Belgaum, and in the greater part of the Deccan is from 20 to 30 inches. Its variability is everywhere high (average 138) and ranges from 84 per cent. at Belgaum to 152 at Hanamconda and 190 at Shapur. As the rainfall in the large area of the West Deccan is less than 20 inches, the dry zone of the division is very liable to drought and famine.

28. *Gujarat*.—This tract includes the British districts and State territory of Gujarat, Kathiawar and Cutch. Geologically it consists of flows of basaltic rock surrounded by a fringe of alluvium. Although by its position it forms part of the west coast of India, it is not cut off from the influence of the interior by the wall of the Ghats. Its climate, therefore, differs from that of the coast strip between the Western Ghats and the sea, and resembles that of Northern India in respect of the contrast between the dry and wet seasons, the great variability of the rainfall in the wet season and the almost entire absence of rain during the whole of the dry season.

The dry season, lasting from November to May, includes seven months. The normal rainfall of this period for the division is only 0·7 inch or about 2 per cent. of the total fall of the year. The rainy season sets in suddenly and lasts for four months, from June to September. The average annual rainfall for the whole division is 27·6 inches, decreasing from 43 inches at Surat to 14·3 inches at Cutch. It varies greatly from year to year. The mean variability is 162 per cent., and the local figures range from 157 per cent. in Ahmedabad and Rajkot, to 204 per cent. in Deesa and 250 per cent. in Cutch. The air is comparatively dry except in the rains when the humidity is almost as great as on the west coast.

29. *The West Coast Division* comprises the area between the West Ghats and the Arabian Sea from the south of Surat to Cape Comorin and may be divided into two portions, *viz.*, the Konkan Coast between Bombay and Mangalore and the Malabar Coast between Mangalore and Trivandrum. Basaltic flows cover the northern end as far south as Vingorla; the rest of the division is made up of ancient crystalline rocks with a fringe of more recent formations on the Travancore Coast.

The dry season at Bombay extends from November to May, when it is brought to an abrupt termination by the sudden invasion of the south-west monsoon humid currents, usually in the first week of June. The total normal rainfall of Bombay during the period from November to May is only 1·33 inches, or less than 2 per cent. of the average total annual fall (74 inches). At Calicut, on the other hand, the dry season lasts only four months, from December to March, and is followed by a transitional period of heavy thunder-showers, apparently due to local sea winds and not to the influence of the south-east trades. The true monsoon commences in June with a wave of very squally weather and heavy rain from the Equator northward and eastward up the Arabian Sea. The mean rainfall for the division is 104·34 inches. It increases southwards from Bombay, with an average of 74 inches, to Karwar and Mangalore, where it slightly exceeds 120 inches, and thence decreases southwards to 114·5 inches at Cochin. It is always large in amount, but when a weak monsoon current causes drought in the Deccan, the rains cease prematurely on the west coast and the rice crop suffers. The variability ranges from 80 per cent. in Malabar to 102 per cent. in the Konkan Coast districts.

30. *South India* includes Mysore and the southern districts of the Madras Presidency, Salem, Coimbatore, Trichinopoly, Madura and Tinnevely. Its geological formation consists of ancient crystalline rocks with gold-bearing schists at its north-eastern corner.

The meteorology of the tract is related to that of the Malabar Coast in the same manner as the meteorology of the Deccan is related to that of the Konkan Coast. But the wet season begins much earlier than in the Deccan and lasts longer, January, February and March being the only dry months in the year. It is ushered in by humid winds and thunder-storms arising on the west coast during May which forms a transition period of showery, rainy weather preliminary to the full burst of the monsoon. Like the Deccan, again, South India receives rain from the retreating monsoon current of the Bay of Bengal and from storms formed in the Bay which advance to the Coromandel Coast in November and December. The total annual rainfall averages 33·2 inches for the whole area, and varies considerably with position and elevation. The monsoon winds blow through the Pal Ghat gap, but bring little rain with

m. Owing to the fact that the division receives rain from both branches of monsoon current, the variability in the annual rainfall is less than might be expected. The average is 94 per cent., and is slightly less than that of the

Malabar Coast districts (102). It is least at Trichinopoly and Coimbatore (about 70 per cent.) and greatest at Chitaldroog and Tinnevely (about 124 per cent).

31. *The East Coast South Division* includes the districts of the Coromandel Coast southward from Nellore. The western and larger portion consists of ancient crystalline rocks, while the coast is fringed by recent sandstones and a few patches of cretaceous and Gondwana rocks.

The meteorology is in some respects peculiar. The dry season may be said to last from January to July but during this period the damp winds from the Bay give rise to frequent thunder-storms, accompanied by a rainfall of 9.64 inches, or 18 per cent. of the total rainfall of the year. The wet season begins in August and is fully established in October, when the monsoon recedes in the Bay of Bengal and is diverted towards the Coromandel Coast, where it produces frequent cyclonic storms. The rainfall of this and the two following months averages 33 inches or 64 per cent. of the year's supply. The total rainfall of the year averages 48 inches for the division. It increases considerably from Nellore 35 inches to Cuddalore 53 inches, and decreases rather rapidly towards the interior so that at 100 miles from the sea there is from 25 to 40 per cent. less rain than on the coast. As might be expected from the cyclonic conditions which accompany and determine it, it is very irregular in its incidence. The average variability is 128 per cent., ranging from 146 per cent. at Nellore, where the rainfall is only 35 inches, to 115 at Negapatam.

32. *The East Coast North Division* includes the districts between the Eastern Ghats and the sea, from Balasore to the mouth of the Kistna. Geologically it is made up of ancient crystalline rocks (gneisses and schists) with small areas at the southern end of the division, and near the mouth of the Mahanadi covered by Gondwana coal-bearing rocks and alluvium.

The dry season in this area is similar in its characteristics to that of Bengal. The rainfall is very light from December to February and occurs chiefly in connection with the advance of cold weather storms across Northern India. As temperature rises in the interior the winds shift to south or south-west and thunder-storms give moderate rain in Orissa and Ganjam. The average rainfall from December to May is 6.64 inches or 13 per cent. of the year's supply. The south-west monsoon affects the northern and southern halves of the area very differently. The former is situated in the main tract of the current, and its rainfall is regular in proportion. The coast of the southern half, lying almost parallel to the direction of the south-west monsoon winds, is missed by the main current, and depends for its rainfall on cyclonic storms in the Bay of Bengal which turn further south and give more rain as the season advances.

The annual rainfall of the whole division averages 51.5 inches. It is largest in Orissa, where it averages about 65 inches, and decreases rapidly southwards to 44 inches at Gopalpur and to 40 inches from Vizagapatam to the mouths of the Kistna and Godavari. The variability of the rainfall increases from north to south. It ranges from 75 per cent. in Orissa to 140 per cent. in Vizagapatam and Cocanada.

33. *Baluchistan* extends from the Suleiman range on the east to the Persian frontier on the west, and from the southern limits of Afghanistan to the Arabian Sea. The hills are composed mainly of tertiary and cretaceous rocks; the lower levels are covered by wind-blown deposits. The meteorological conditions are similar to those of Persia and Afghanistan and the south-west monsoon exercises very slight influence. The mean yearly rainfall recorded at the three stations of Quetta, Chaman and Kalat is 8.7 inches. It ranges from 10 inches at Quetta to 7.5 inches at Chaman, and is very irregular in its occurrence, the measure of its variability being 161 per cent. No less than 86 per cent. of it falls during the winter months, the hot weather being very dry and almost rainless.

34. *The Burma Coast Division* is a narrow strip of low land fringing the coast with a background of hills rising to 3,000 or 4,000 feet, the height at which the damp monsoon winds yield the heaviest rainfall. The north-western portion consists of mesozoic and lower tertiary strata, which give place in the south and south-east to recent alluvial formations. The chief features of the meteorology of this area are the shortness and great humidity of the dry season, the length of the wet season, the accompanying heavy downpour of rain and the

excessive humidity of the air, which during the rains approaches continuous saturation.

The mean annual rainfall is nearly 153 inches, varying from 98 inches in Rangoon to 204 inches in Tavoy. It is unusually steady and regular. The mean variability of the division is only 45, ranging from 37 at Rangoon to 50 at Bassein. Cyclonic storms rarely occur in the south and there is no record of a storm wave having visited the delta of the Irrawaddy. The Arakan coast however, is liable to cyclones of considerable intensity, and the low coast and islands have on several occasions suffered severely from storm waves.

35. *The Burma Wet Division* includes two areas, one to the north of Central Burma in which the meteorological conditions much resemble those of Assam and the other to the south of Central Burma in which the rainfall, temperature, etc., are intermediate in amount and intensity between the corresponding elements in the Burma coast and the Burma dry divisions. The north-western corner is covered principally by tertiary strata, which are bounded on the south-east by the southerly continuation of the older rock formation of Mandalay.

The southern half of the area is very dry from January to March, receiving only an average rainfall of a quarter of an inch. The northern districts obtain occasional rain, chiefly in connection with the cold weather storms of Northern India. The average total amount for the period, November to March, is about three inches. The rainfall increases rapidly in amount in May and June, and is heaviest in July and August during which period 43 per cent. of the rainfall of the year occurs. The annual average is 67 inches in the northern part and 59 in the southern. The rainfall is, on the whole, more variable in the southern than in the northern half, but the variability averages only 53 per cent. for the whole area.

36. *The Burma Dry Area* comprises the central districts of Upper Burma between the Chin Hills and the highlands of the Shan States. It is distinguished from the rest of Burma by its high temperature and great dryness in March and April, and by a comparatively scanty and uncertain rainfall. It bears the same relation to the Arakan coast districts, from which it is separated by the Arakan Yoma, that the dry zone of the Deccan does to the Konkan or west coast districts. The eastern surface of the division consists of palæozoic shale lime-stones and sandstones, associated with the gneisses and schists of the Mandalay and Ruby Mines area: to the west these are covered by tertiary deposits and recent alluvium in the neighbourhood of the Chindwin and Irrawaddy rivers.

The distribution of the rainfall presents some peculiar features. From December to March the division is virtually rainless. Thunder-showers occur frequently in May, and the average rainfall due to this cause is then actually heavier than in July, the month of least and most uncertain rain in the division. Long breaks in the rains occur during July and August when the rainfall is steadiest and most copious in Northern India. On the other hand, there is a well-marked increase in September, when the rains are withdrawing from North-Western India, and September is in fact the month of heaviest and least variable rain in this area.

The annual rainfall in this dry area ranges between 29 and 36 inches and averages 32.65 inches. It is absolutely least in a small area of which Pagan is the centre. The variability of the rainfall is moderately large, averaging nearly 88 per cent. for the three representative stations, as contrasted with 53 per cent. for the Burma wet division and 45 for the Burma coast division. On rare occasions an unusually prolonged break in the rains or their premature conclusion may cause a partial failure of the crops.

Area, Population and Density.

of India
main
vinces.

37. According to the revised areas adopted in the Census of 1901* the Indian Empire contains 1,766,597 square miles of country, and is therefore greater by 12,100 square miles than the whole of Europe, excluding Russia Proper, Poland and Finland. The provinces under British administration comprise 1,087,204 square miles or 61.5 per cent. of the whole, the aggregate area of the Native States being 679,393 square miles or 38.5 per cent. The largest British Provinces are

* For an explanation of the methods by which these areas have been determined, see Note (2) at the end of this chapter.

46. In the Imperial scheme of natural divisions the Bombay Presidency is distributed between the North-West Dry Area, Gujarat, the West Satpuras, the Konkan and the West Coast. From the Provincial point of view this arrangement is open to certain patent objections. Sind and Gujarat indeed fall into proper places in the first two groups, but as we travel southward difficulties of classification arise which could only be got over by the inconvenience of breaking up districts and putting parts of the same district into different natural divisions. From Gujarat to the borders of Madras the great barrier the Ghats running nearly parallel to the coast cuts through a series of districts and gives rise in each to widely different climatic conditions. The western talukas situated on the west of the hills have a rainfall of over 100 inches; the Deccan tracts to the east receive the bare 30 inches which escapes the influence of the Ghats. In view of these anomalies Mr. Enthoven has departed largely from the system of grouping adopted on former occasions. He gives, however, an effective description of the five natural divisions then recognized. "In its northern province, Sind, the lower valley of the Indus, the Presidency possesses a tract of country entirely dependent on irrigation. Where the soil is not fertilised by the life-giving waters of the river, its aspect is that of a sandy desert, a dreary plain broken only by an occasional line of sand hills. Much of this province, therefore, is at present unfit for human habitation, and the population that it supports is only 68 to the square mile. South of Sind, between the feudatory States bordering on Rajputana and the sea, the fertile and well-watered plains of Gujarat stretch southwards to the Konkan. This is the heart of the Presidency yielding a succession of abundant crops, and producing out of its plenty a population of 267 to the square mile. The rest of the Presidency falls into three other natural divisions. Below the wall of the Ghats, and in a continuous line extending to the borders of Baluchistan,

59. The rural population of Baluchistan is nearly the same in proportion as in Assam. Pastoral nomadism in the one leads to the same results as settled agriculture in the other. Forty-four per cent. of the people enumerated in the Census are returned as nomadic, the proportion varying from 14 per cent. in British and Administered territory to 63 per cent. in the Agency Tracts. Other causes come in to complete the parallel or contrast with Assam. The Baluch and Bráhui are as slothful as the timid Assamese; commerce they despise; industrial activity is uncongenial to them; and they have the strongest aversion to the crowded and expensive life of a town. Hence the urban population is mainly composed of traders from India or Afghanistan, and clerks, menials and followers dependent on the British garrison. The nomadic tendencies of the people, vividly depicted by Mr. Hughes-Buller in the first chapter of his report, are also reflected in the statistics of villages. Not only are these few in number (2,054 in the whole of Baluchistan or one for every 87 square miles) but their size is small and 91 per cent. of them contain less than 500 inhabitants. We have seen that 44 per cent. of the total population is nomadic; of the balance, 29 per cent. live in the smallest class of villages; and 11 per cent. in villages of less than a thousand persons; leaving some 10 per cent. for the larger places with from a thousand to five thousand residents. Throughout Baluchistan cultivation depends entirely upon water that rain-crop cultivation (Khusk-aba) is deemed too uncertain to be assessed. Water can only be obtained by underground channels (Karez) fed from the springs in the hills which again depend largely on the winter snowfall. A short snowfall in the winter means dry Karezes in the summer. In a case a village cannot outgrow its water-supply, nor can the supply be easily increased. The excess population must wander off to seek irrigable land and fresh pastures elsewhere. The nomadic instinct impressed upon the people by the climate and conformation of Baluchistan is subject, however, to certain marked exceptions: where extremes of climate make it impossible to live in tents, permanent mud huts are built; where regular irrigation is possible, the nomad is ready enough to settle down and cultivate, as the Baluch did under General Jacob some seventy years ago and the Marri and Bugti tribes are anxious to do now, if only irrigable land could be found for them. A third motive, the need of protection, which led people in old days to congregating behind walls and in the neighbourhood of towers of refuge has lost its force since

Chin Hills (5), Northern Arakan (4) and Myitkyina (6). These variations tire any out-and-dried formula. In Burma, as Mr. Lewis observes, "the conditions vary so largely that a rough-and-ready classification of areas according to rainfall is exceedingly difficult. The dry districts are, as a rule, open, level, and accessible; the wet are frequently the same; as often as not, however, they are hilly, remote and ill-adapted for cultivation. Mergui has a rainfall of 150 inches and a density of nine inhabitants per square mile, Sagaing a rainfall of less than 50 inches and a density of 152 per square mile. No one would, in the case of a tropical or sub-tropical region; venture to lay down as an axiom that a light monsoon meant a dense, and heavy rains, a sparse, population, yet, as will be seen below, this is precisely the inference that would be drawn from a comparison in Upper Burma of the rainfall figures with the density of the population. The fact is that in Burma the one universal rule is for the uplands to be thinly peopled, and the plains, whether wet or dry, thickly, and the most satisfactory division of the country for our purpose would be into high and low land. It would, however, be impossible to embody this distinction in any formal scheme of district classification, and, as it is indubitable that, *ceteris paribus*, the more abundant the rains in a country like Burma, the richer the produce, crops and the larger the host of husbandmen, there seems on the whole to be a better system of classification than one which gives the first place to meteorological considerations." An examination of Subsidiary Table I A in the Provincial Report shows that during the last ten years the increase in density has been greatest in the coast and sub-deltaic districts where the rainfall is highest, and it may be expected that this tendency will continue as the country is opened up, so that the gradations of density in Burma will come to correspond more closely with the gradations of rainfall.

Many of the ~~places~~ ^{density of the population} ~~now stands at~~ ^{special reasons.} towns are in reality nothing more than overgrown villages, but it would be impossible to frame any definition, with the object of excluding such places, without destroying the prospect of uniformity in its application in different parts of India, and even in different parts of the same Province. Most, if not all, Indian Municipal enactments contain a provision that a certain proportion of the inhabitants of any area which it may be proposed to bring under their operation must earn a livelihood by non-agricultural occupations, and it was clearly better to take the circumstance that this condition has been found to exist as the main test of what constitutes a town, rather than to attempt to introduce a new standard that could not be applied correctly without far more elaborate enquiries than it would have been possible to carry out. In the following notes on the distribution of the population between ~~towns and~~ ^{villages} it must therefore be borne in mind that the classification is only a rough one, and that in all cases the true urban population is considerably below that indicated by the proportions calculated on the results of the Census. The characteristics of the true urban population and its tendency to grow or decline will be more clearly seen from a consideration of the statistics for cities to which attention will be invited further on.

57. Nearly three-fourths of the people of Ajmer-Merwara (73·7) live in villages and 26 per cent. are collected in the ancient and prosperous city of Ajmer, cantonment of Nasirabad, the small municipality of Kekri, and the important town mart of Beawar in Merwara founded by Colonel Dixon in 1835. Of the villages 32 per cent. have less than 500 inhabitants; 44 per cent. between 500 and 2,000; 22·5 per cent. from two to five thousand, and 2 per cent. over five thousand. In Ajmer the villages are large and contain on an average 621 persons against 278 in Merwara, where more than half of the rural population lives in villages with less than 500 inhabitants. The difference is probably due to historical reasons. The comparatively open country of Ajmer was swept by the march of armies struggling to win the commanding position of Ajmer city and the fort of Taragarh, and the people were driven to congregate in large villages, while the tide of battle left the hills of Merwara undisturbed.

58. Assam is the type of a rural Province. Ninety-seven per cent. of the people live in villages, and only three per cent. in towns, and even this latter proportion falls to two per cent. if Imphal the capital of Manipur is excluded from the calculation. Imphal, indeed, in spite of its population of 67,000, is nothing but

culturable area is necessarily limited. Under these circumstances 122 persons per square mile is perhaps as much as can be expected.

We have seen that the maximum densities occur in the alluvial plains of northern India, and that, as a general rule, the higher the rainfall the more people there are to the square mile. Where the rainfall dwindles a high rate of density can only be maintained by the help of canal irrigation. Where the rainfall is uncertain and the cultivable area small, population is bound to be sparse.

41. The areas of minimum density lie at the extreme ends of the Empire,—Baluchistan, Sind and Rajputana on the west, Burma and the Brahmaputra valley on the east. In the western tracts the influence of rainfall is predominant. Baluchistan, with a mean rainfall of 9 inches, has eleven persons to the square mile or little more than one person for every inch of rain; in the North-west Dry Area 11 inches of rain support a population of 67 per square mile. In such cases not only is the amount of rain small but it varies very greatly from year to year. Here, again, wherever irrigation comes in, the conditions are at once transformed, and one may almost surmise that were it not for the Indus rivers and the canals which store the precious overflow, the mean density of Sind would hardly exceed that of the cultivable portion of Baluchistan. Take for example the five districts of Sind and the State of Khairpur. Shikarpur, with a million acres under irrigation, has a density of 125 to the square mile. Hyderabad with an irrigated area of 846,000 acres supports 112 persons per square mile. On the other hand, Karachi, Thar and Parkar and the Upper Sind Frontier where non-irrigated tracts are much smaller show densities of 35, 27 and 89 respectively; while in Khairpur, where there is no irrigation at all, the density is only 33. The dependence of population on water, whether supplied by the monsoon or by the Irrigation Department, could hardly be more clearly brought out.

Area of low
density,
Western
Frontier.

42. The Province of Assam, occupying the north-eastern corner of the Empire, has on an average 109 persons to the square mile. In the three natural divisions the density varies from 353 in the Surma Valley to 108 in the Brahmaputra Valley, and 27 in the hill districts, while of particular districts Sylhet has 412 persons to the square mile, and the Lushai Hills only 11. The causes of these variations are partly natural and partly historical. The fertile rice-plain of Sylhet, with a damp but not unhealthy climate and a steady and copious rainfall, forms part of the delta of Bengal,—one of the most populous tracts in India. The hills, on the other hand, are covered with thick forest, cultivation is laborious and the growth of population slow. The indigenous tribes, such as Nagas and Khasias, cling, for the most part, to the higher levels and shun the malarious jungles of the lower hills, where only acclimatised races of Bodo origin like the Garo and Mech, can venture to settle with impunity. The causes of the scanty population of the Brahmaputra Valley are, as Mr. Gait pointed out in 1891, mainly historical. The fanatical Moamaria insurrection in the 18th century, and the ruthless methods by which it was suppressed; the Burmese invasion of less than a hundred years ago, which left the country at the time of our occupation almost denuded of inhabitants; ceaseless minor raids of which no complete record survives: all these misfortunes have left their mark on the Assam Valley and have contributed to that decline of the Assamese population to which the statistics bear witness. That the vacuum thus created has not been filled by the natural inflow of immigrant cultivators may be due in part to the conformation of the surface, which does not lend itself to rice cultivation on the same scale as Bengal; to the comparative poverty of the soil; to imperfect means of communication; to the prevalence of the virulent and infectious form of malarial fever known as *Kala-azar*; and to the vague dread of Assam which prevails generally in Bengal and manifests itself in the fact that the only people who go to Assam are either residents of the adjacent districts of Rangpur, Mymensingh and Hill Tippera, or tea coolies imported under the Labour Act. The former are more or less acclimatized; the latter are too poor and too ignorant to have much choice in the first instance, though they prosper greatly in their new home and many of them settle there for good.

Density by
Administra-
tive Divi-
sions.
Assam.

43. The network of rugged hills, stony plateaux, and wastes of wind-blown Baluchistan interlaced here and there with narrow stretches of cultivable soil, which forms the Baluchistan Agency, has, as its physical conditions imply, the scantiest population of any portion of the Indian Empire.

estimate of one million and fifty thousand persons for the Agency, the mean density works out to eight persons per square mile, while the area actually enumerated by various methods in the census the corresponding figure is 11.

"The incidence of population per square mile in the different areas of the Agency varies very largely. The heaviest population per square mile to be found in Quetta-Pishin with its large urban population and well irrigated tracts. Here we have 22 persons per square mile, whilst in Chagai and Bolan there are only two persons per square mile. In the 'Agency' figures vary from 15 persons per square mile in Kalat to five persons in the Marri and Bugti country."

Bengal.

44. The great Province of Bengal contains portions of five of the main natural divisions of India—the Delta of Bengal, the Himalaya and Sub-Himalaya East, the Indo-Gangetic Plain East, the East Satpuras and the East Coast North. In the Provincial Report the following scheme of Natural Divisions has been adopted:—

- (1) West Bengal.—The Burdwan Division.
- (2) Central Bengal.—The Presidency Division excluding Khulna.
- (3) North Bengal.—The Rajshahi Division, Malda, Kuch Bihar and Sikkim.
- (4) East Bengal.—The Dacca and Chittagong Divisions, Khulna Hill Tippera.
- (5) North Bihar.—Muzaffarpur, Darbhanga, Champaran, Saran, Purnea.
- (6) South Bihar.—Patna, Gaya, Shahabad, Monghyr.
- (7) Orissa.—The Orissa Division, excluding Angul.
- (8) Chota Nagpur plateau.—The Chota Nagpur Division, the Sonthal Parganas, Angul and the Tributary States of Orissa and Chota Nagpur.

Mr. Gait's arrangement brings out some local distinctions which are too minute to be noticed in the Imperial scheme.*

Bengal as a whole has on an average 413 persons to the square mile. The highest density (636) is found in the alluvial plains of North Bihar, and the lowest (152) among the gneiss hills and undulating sandstones of the Chota Nagpur Plateau. Between these extremes the other natural divisions follow an order dependent in the main on their comparative fertility. Central Bengal has 608 persons to the square mile; West Bengal, which contains the populous districts of Hooghly and Howrah, 591; East Bengal 514; South Bihar 511; and the coast strip of Orissa 508; while North Bengal, which is traversed by the sparsely populated semi-laterite formation known as the Barind, drops to 483, the lowest density in the plains of the delta. The most thickly peopled district is Howrah, where the attraction of lucrative employment in the jute mills has raised the mean density of the entire area to 1,668 persons per square mile, and that in rural areas, excluding the city of Howrah and the municipality of Bally, to 1,351. Jute cultivation does for Dacca what jute manufacture does for Howrah; a soil enriched by perennial silt and watered by an unfailing rainfall supports 923 persons per square mile, or, if Dacca city is taken into account, 952. Muzaffarpur, the country of the petty proprietor who clings to the soil at the cost of endless sub-division of property, has a density of 917, and Saran of 907. "The scantiest population is found on the outskirts of the Province in Changbhakar and Korea to the west, Sikkim to the north, and the Chittagong Hill Tracts to the east; in none of these does the density exceed 23 to the square mile."

45. The average density per square mile in Berar is 155, ranging from 114 in Ellichpur to 228 in Amraoti. The figure for Ellichpur is, however, reduced by the inclusion of the Melghat taluk, a forest tract in the Gawilgarh Hills with only 22 persons to the square mile. For the rest of the district the mean density is 268. The southern districts of the Province which are traversed by the Ajanta or Indhyadri range have the lowest density, but Berar as a whole is fairly homogeneous, and the local variations hardly call for remark.

* East, Central and part of West, Bengal lie in the Imperial Natural Division described above as the "Delta of Bengal"; North Bengal and North Bihar are included in the "Himalaya and sub-Himalaya East". So also are included the Sonthal Parganas, and part of West Bengal in the "Indo-Gangetic Plain East" and the

TOWNS AND VILLAGES.

the country was pacified, and Mr. Hughes-Budger describes how these streets are now being deserted in favour of temporary huts which can be moved if a folder has been exhausted or a site has become inconveniently polluted.

60. "In the province as a whole," says Mr. Gait, "out of every 100 persons, 95 live in villages and only 5 in towns. Bengal is a distinctly a rural country, and many even of the so-called towns are merely over-villages. The urban population is considerable only in Central Bengal, the inclusion of Calcutta and its environs brings the proportion in question up to 19 per cent. If they be excluded, it is only a little more than 7 per cent. The second place is shared by West Bengal with its flourishing industrial centres at Howrah, Bally, Serampore and Raniganj, and South Bihar with ancient towns of Patna, Gaya and Bihar; in both these tracts 7 per cent. of inhabitants live in urban areas. Orissa follows with an urban population of 4 per cent., then North Bihar and North Bengal with three per cent. and East Bengal and the Chota Nagpur Plateau with only two per cent. The difference in which the different tracts stand is sufficient to show the want of any connection between the prosperity of the people and the growth of towns. The general standard of comfort is highest in Eastern Bengal although with the smallest proportion of persons living in towns. South Bihar ranks comparatively high in this respect, and yet it includes the poorest part of the province. The older towns, which usually owed their origin to the presence of a native court and its entourage, have few industries, and such as they possess for the most part decadent, while in the newer towns the industries are introduced by foreign capital, and even the employes come from other parts of the country. The mills of Howrah and the coal mines of the United Provinces are worked with British capital by coolies from Bihar and the United Provinces. The shop-keepers who are enriched by the trade they bring are also largely foreigners. The district-born, as a class, have so far benefited but little by the growth of new industries." It may be added that the middle classes in Bihar have suffered appreciably from the general rise of prices which has taken place during the last few years. They do not share in the enhanced profits of the culture; from trade they hold aloof; they have to pay more for the necessities of life; wages and salaries have not kept pace with the rise in prices; in some cases, been forced down by competition; the standard of social culture is higher and social obligations no less stringent than they were a generation ago, and life is in many ways harder for respectable families who have to see their salaries or pensions and struggle to keep up appearances in the most prosperous times.

...out, the statistics of the district register, ... rate buildings in no way compare with each other. Even in America the structure or the building is the criterion, in Scotland the nature of its occupation, and in France its site. In India each family has several buildings. Owing to the great diversity of structures in different parts of the country it was impossible to lay down any general principle as to what should be held to represent a house, and Provincial Superintendents were allowed, as in 1891, to adopt whatever definition might seem best suited to their own conditions. Except in the larger towns, the population of which is relatively very dense, the question of overcrowding does not arise, and the statistics showing the mean number of persons per house or of houses per acre, do not possess the importance which is rightly attached to them in Europe. It was accordingly pointed out that in framing the definition the main point to be considered was the facilitating of the actual census operations. In the various provinces adopted in different provinces in 1881, the point usually looked

* An interesting description of the various types of buildings found in different parts of India is given in the last Census Report, pages 68 to 53.

... THE DISTRIBUTION OF THE POPULATION.

of the people of satisfying a grudge against a neighbour by setting
 s... some inducement to congregate in large villages.
 only half of the rural population (46 per cent.) live in villages with less
 than 500 inhabitants, 42 per cent. in villages with 500 to 2,000 residents and only
 12 per cent. in the larger villages which have more than 2,000 inhabitants. The
 per cent. of persons living in the smallest villages rises to 71 per cent. in Chota
 Nagpur to 75 per cent. in North Bihar for the reason mentioned above.
 Eighty-five per cent. of the people of Berar live in villages and fifteen
 per cent. in towns. Since the last Census there has been an appreciable set-
 tle in the towns and the urban population has increased by 58,740 or 16
 per cent. This is due partly to an addition of five places to the category of
 towns and partly to the expansion of the cotton trade and the erection of
 factories for pressing and ginning cotton which have attracted
 people into the towns. The number of cotton presses has nearly doubled, and
 ginning mills has increased by more than 50 per cent. since 1891. The
 success of towns in Berar depends on their status as cotton marts.
 Solapur (24,216), and Akola (29,289) both have branches of the Bank of
 India and do a large business in cotton; Ellichpur, once the capital, is
 famous for want of facts; Khangaon, Akot, Karanja and Shegaon attract
 a large population of immigrants by their commercial activity. The
 mean population of the village population being 409. Of the
 rural population 46 per cent. live in villages with less than 500 inhabitants,
 42 per cent. in villages containing from 500 to 2,000 persons, the remain-
 ing 12 per cent. in villages of from 2,000 to 5,000 inhabitants. Seventy-six
 per cent. of the village population and 89 per cent. of the rural population are
 in villages of less than 500 inhabitants. The urban population forms 21 per cent. of the town population and
 15 per cent. of the village population.

In Bombay a decline in the general population has been
 noted by an increase in the number of persons living in towns who now
 form 49 per cent. of the total population as compared with 17 per cent.
 in 1871. Sixty-two places with a population of 66,521 have been treated
 as towns. Of these 27,000 population in 1891 aggregated 109,521 have been
 down to 73,000 having fallen below the standard of 5,000 inhabitants.
 The influence of the towns which the Presidency has passed during the decade have
 tended to drive the people to big centres of trade in search of work,
 and the influence of the towns has been more than counterbalanced by the direct and
 indirect plague epidemics which few of the Bombay towns have been
 able to escape altogether, while some, including Bombay, have suffered

... 1,000 males was ...
 ... 586, and it has now again risen to 617. Amongst the
 ... population it is 543, while amongst those born in the city it is 903.
 ... Capital of the Madras Presidency, though ranking next to Calcutta
 ... point of population, differs from them in many respects.
 ... 509,346 inhabitants it is of comparatively small
 ... it thus attracts far fewer immigrants and the foreign-
 ... less than one-third of the total population. These again come
 ... other parts of the Presidency and especially from Chingleput
 ... which between them supply nearly 94,000, or between one-
 ... of the total number of immigrants. Those contributed by
 ... and states are in the aggregate less than 12,000. Owing partly
 ... small proportion of immigrants, and partly to the fact that
 ... bring their wives with them (amongst the foreign-born there are
 ... to every 10 males) the two sexes are almost on a par, whereas in Cal-
 ... Bombay, there is a marked defect. In spite of its smaller popu-
 ... area of Madras differs but little from that of the other Presidency

The districts of the Deccan Division with a rainfall always under 30, and sometimes under 25 are mostly infertile and seldom irrigable, the population is mainly agricultural and increases but slowly.

The East Coast Division possesses two large irrigated areas by the deltas of Godavari and Kistna rivers, and has a rainfall which averages between 30 and 40 inches. It is essentially the land of the Telugus.

The Southern Division is the country of the Tamils, of the Hindus and of Native Christians. Its rainfall averages on the whole nearer 40 than 30 annually, it includes the fertile irrigated delta of the Cauvery river and area commanded by the Periyar irrigation scheme, and it contains three of the richest districts in the Presidency.

The West Coast Division differs as much from the rest of the Agencies as it does from the other divisions in entirely different respects. The Western Ghats block the north-west monsoon and bring down on the whole division the moisture which the current carries. The rainfall is consequently over 100 inches everywhere. In places it is five and six times as heavy as on the other coast. Thus three crops a year on unirrigated land are a common occurrence, the division is very rich, and it has a denser population and a larger proportion of literate persons than any other. Cut off as it is by these hills from the rest of the Presidency, immigrants to it are rare, and its people are stay-at-home folk. They are, however, different from those of the other divisions in language (Malayalam, Kannada and Canarese being their principal vernaculars), in appearance, in dress, in customs, and even in their laws of inheritance.

For the Presidency as a whole the average number of persons per square mile is 270. The sparsest population is found in the Agency tract (69 per square mile) and the Deccan (139), and the densest on the West Coast (363).

50. In districts the density varies from 606 in Tanjore to 112 in Anantapur. These differences are readily accounted for by the climatic and physical conditions described above.

50. Taking the Punjab and the North-West Frontier Provinces together, and excluding the population enumerated in the Malakand, Dir, Swat and Chitral, in the Baluch trans-frontier area, and in the Shirani country, the average number of persons to the square mile is 180.7. British territory in the Punjab has a density of 208.9; the Frontier Province by itself 140.7; the States of 121.1. Of the natural divisions the Indo-Gangetic Plain West has 315.5 persons to the square mile; the Sub-Himalayan tract 300.2; the North-West Dry Area 97; and the Himalayan area only 76.7. In British territory the density ranges from 641 in Jullundur and 639 in Amritsar to 54 in Mianwali and 42 in the Kurram valley. The Chenab Colony, a desert transformed by irrigation into a garden, has already 213.6 persons to the square mile, a denser population than 12 out of the 27 districts in the Punjab as now constituted. Speaking generally, we may say that in the plain the density is dependent on rainfall and irrigation, in the hills on the amount of land that admits of cultivation.

51. The average number of persons to the square mile in the United Provinces is 432, viz., 445 in British territory and 158 in the two Native States. Mr. Burn divides the total area into eight natural divisions. The Himachal West, i.e., the mountainous tract in the north, only supports 87 persons to the square mile. In the south the Central India plateau, or British Bundelkhand, and the East Satpuras, or the Mirzapur district, have a density of 201 and 267 respectively. The other natural divisions exhibit a continuous increase in density from west to east. The Western Sub-Himalayan districts support 41 persons to the square mile and the Eastern 566; in the Gangetic plain 516 are found in the western portion, 577 in the central, and 751 in the eastern. Coming to individual districts, and excluding cities, "we have 12 with a density of less than 400, 14 between 400 and 500, and 22 with a higher density. The most densely populated district is Ballia in the extreme east, which supports 791 persons to each square mile of area."

52. Excluding Baroda City, the mean density of Baroda State is 228 persons per square mile, ranging from 288 on the fertile black soil of the Valsad district to 139 in Ameli where the rainfall is scanty, the land poor, and part of the area is occupied by low hills.

53. The scheme of natural divisions, Central India's

between the Central India Plateau, the East Satpuras and the Indo-Gangetic Plain West. The Provincial Superintendent of Census has adopted a group by three divisions:—“the Highlands of the Malwa Plateau, with a mean elevation of some 1,000 feet above sea-level; the low-lying country some 600 above sea-level, comprising the greater part of the eastern section of Agency and the hilly tracts which lie mostly to the south.” The last of these includes the portions of the Vindhya, Satpura and Kaimur ranges which form the south of the Agency, a forest country with scanty patches of comparatively infertile soil. In the Agency as a whole there are 109.5 persons to a square mile. The low country, where the cultivable area is largest and irrigation is more freely resorted to, supports the largest population—172.5 to a square mile; the plateau, with a fertile soil growing opium, cotton and wheat but much cut up by hills and ravines, has a density of 102, while in the forests there are only 74 persons to the square mile.

Kashmir and Mysore.

53. The Kashmir State is one of the most sparsely populated tracts in India. Its area is 81,000 square miles or fourteen times as great as that of Travancore, but the population is slightly less than that of the latter State, the density per square mile is only 36. The areas are too uncertain for it to be possible to compare one part with another but the most populous tracts appear to be in Jansan Khas and Bhimbar on the Punjab frontier.

The State naturally divides itself into the *Malnad*, or hilly country sloping down from the Western Ghats, and the *Maidan*, or open country to the north. The former, though it enjoys a temperate climate and a heavy rainfall, its physical configuration which makes it unfit in many parts for ordinary cultivation. In the *Maidan* on the other hand the soil is fertile, and in the some of the most large areas are irrigated from tanks and streams. For administrative purposes the State is divided into two divisions—Eastern and Western—not wholly corresponded to the natural line of cleavage. The Western division, which contains not only the *Malnad* but also a portion of the *Maidan*, has a mean density of 143 persons to the square mile, but in the *Malnad* portion, in spite of numerous coffee plantations, it is only 124 against 188 in the *Maidan*. The Eastern division, which is wholly *Maidan*, has a density of 200, or 150 if the cities which it contains be excluded.

54. The present density of the State of Hyderabad is 135 persons to the square mile or, if the city itself be excluded, 129. The eastern and southern divisions of the State with a higher rainfall and a more fertile soil have the highest mean density and show the least decrease in this respect during the last ten years. Amongst its districts Bidar (184) is the most populous, while Sirpur Khandra has only 51 persons to the square mile.

More than half of Rajputana is situated in the North-West Dry Area on the north-western side of the Aravalli hills. The remainder is included in the Central India Plateau, with the exception of the States of Alwar, Bharatpur (Bharatpore) and Dholpur, which form part of the Indo-Gangetic Plain West. For the purposes of his own report Captain Bannerman has grouped the States of the Agency into three divisions—Western, Eastern and Southern. The entire Agency has, on an average, 76 persons to the square mile; 35 in the sandy plains of the western division, 79 in the more fertile but broken and forest-clad country of the south, and 105 in the eastern division which is watered by several rivers and has a fair rainfall and a good soil. The most densely peopled State is Bharatpur, bordering on the Jumna, with 316 persons to the square mile; and the lowest density, five to the square mile, is recorded in the almost rainless deserts of Jaisalmer. Throughout Rajputana the relation between rainfall and population seems to be singularly close.

55. The little State of Cochin, with an area of 1,362 square miles, or less than most British districts, is enabled by its fertile soil and its copious and regular rainfall to support 696 persons per square mile, while one of the taluks on the coast has the phenomenal density of 1,920. The lowest density (314) is found in Chittur, which contains a large area of forest and has a rainfall of only 65 inches. The bulk of the population is massed in the coast taluks which have a mean density of 1,628 persons to the square mile, while in the forest taluks, the corresponding figure is 457. If the area occupied by lagoons is deducted, the density of the coast taluks of Cochin rises to 1,828 persons per square mile. See Mr. Sankara Menon's description of Cochin.

densely peopled tracts in the world, maintaining its population in a fair degree of competence, and having some margin still for a further growth of population."

Travancore, which, like, Cochin, lies in the West Coast Division, has a population of nearly three millions and a density of 416 persons to the square mile. It is divided in the Provincial Report into two parts, the Western, which is littoral and deltaic, with 944 persons to the square mile, or 886 if the urban population be excluded, and the Eastern, which is mountainous and sub-montane and has only 233.

Towns and Villages.

56. The definition of a town given in the Imperial Census Code was as follows:—

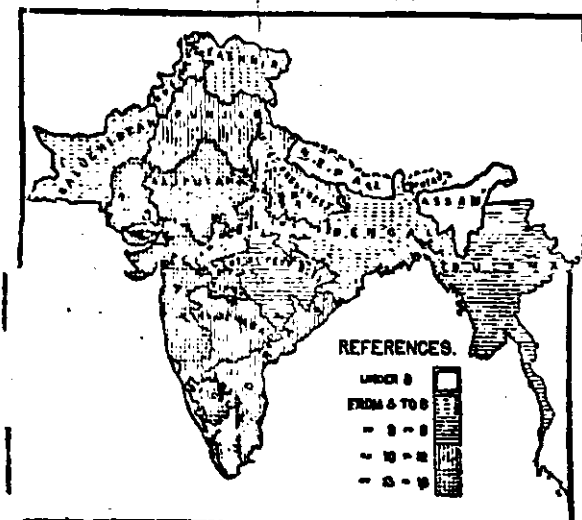
Town includes—

- (1) Every municipality of whatever size.
- (2) All civil lines not included within municipal limits.
- (3) Every cantonment.
- (4) Every other continuous collection of houses, permanently inhabited by not less than 5,000 persons, which the Provincial Superintendent may decide to treat as a town for census purposes.

The definition was practically the same as that adopted in 1891, but there have been some differences in its application owing to the latitude allowed to the Provincial Superintendents in respect of places with a population exceeding 5,000 persons but not under the operation of the law relating to municipalities. In some provinces, *e.g.*, in Burma, all such places have been treated as towns, while in others, *e.g.*, in Madras, this has not been done unless they are found to possess a truly urban character. Sometimes, again, as in Baluchistan and in a few instances, in Bengal, places which are not municipalities and which have less than 5,000 inhabitants have been classed as towns. In some of these cases, they have thus been treated as towns in the census returns.

73. In India as a whole one-tenth of the population live in places classed as urban and the remaining nine-tenths in villages. Of the denizens of towns more than half are found in places with at least 20,000 inhabitants; about one-fifth in those with from 10 to 20 thousand, and the same proportion in those with from 5 to 10 thousand, while about one-sixteenth dwell in smaller towns. Excluding Ajmer and Baroda, the tendency to live in towns is most marked in Bombay, Berar, and Rajputana, and least so in Bengal and in

Map showing the percentage of the urban population in each province and state.



Note.—The proportions in Ajmer-Merwara and Baroda (26 and 24 per cent., respectively) are not shown in this map.

the remote tracts on the borders of the Empire, *viz.*, Baluchistan and Kashmir in the north-west and Assam in the north-east; elsewhere the proportions of the town dwellers are generally very uniform and, except in the Central Provinces, they range between 9.4 in Burma and 11.4 in the Punjab, including the North-West Frontier Province. The intensely rural character of remote outlying tracts, where the means of communication are inferior and there is but little trade, is easily understood, but it is not so clear why the urban population of Bengal should be so much below the general average and that of Bombay so much above it. The result, so far as Bombay is concerned, may be due in part to its extensive sea-board, which has given it a relatively large number of important trading centres and has encouraged industrial development. In Bengal, on the other hand, foreign trade is of comparatively recent origin; Calcutta is the only important seaport, and although its trade is, of course, very great, so is the population behind it. Moreover Bengal has been for many centuries under foreign domination, and court influence, which has had such a powerful effect on the growth of towns elsewhere, has done little, since the Muhammadan conquest, to encourage people to settle in large towns. Race also is possibly

General distribution of urban population.

an overgrown village which has sprung up round the palace of the Raja. More than half of the working males are cultivators, and the place has none of the characteristics of urban life. The same may be said of the decaying towns of Sylhet (13,893), and Gauhati (11,661) once the capital of the Kochh Kings and of the Viceroy of the Ahom Rajas, and now the terminus of the Assam branch of the Assam-Bengal Railway. Dibrugarh (11,227) and Silchar (9,256) owe such petty business as they possess to the demands of the neighbouring tea gardens; Shillong (8,384) is the headquarters of the Local Administration; Barpeta (8,747), the sacred place of the Mahapurushia sect of Vaishnavas, has been liable to periodical inundation ever since the earthquake of 1897, and its population is declining. The Province has no manufactures worth mentioning; Assamese sloth leaves trade and handicrafts to the foreigner, and, as Mr. Allen effectively points out, "tea which is the one industry in which capital has been invested, tends to prevent the growth of towns, each large garden forming a centre in itself with its own Kayah who acts as general merchant and money-lender, and, if possible, its own market, where the coolies can obtain their supplies from the neighbouring villages." Subsidiary Table IV shows that 57 per cent. of the rural population live in villages containing less than 500 persons; 38 per cent. in villages of from 500 to 2,000 inhabitants, and less than 5 per cent. in larger villages of from two to five thousand residents. Little interest attaches to these figures. The only villages in the structural sense of the word in Assam are to be found in the Lushai and Naga Hills and in North Cachar where raiding for heads or women has driven the clans to seek safety each in its stockade. In the plains what is called a village is a number of isolated clumps with huts nestling inside them, which were grouped together on a cadastral survey or happened somehow to have acquired a separate name. The connexion between the clump of bamboos and another is thus either

poore statistics are practically meaningless. The growth of towns, but not of large industries, such as cotton and jute mills, railway workshops and the like, and the development of new trading centres which has been stimulated by the great improvement in communications that has taken place in recent years.

Religious
distribution
in towns.

75. The extent to which towns attract persons of different religions is shown in subsidiary table V. It will be seen that while less than 10 per cent. of the inhabitants of India, of all classes taken together, live in towns, more than 85 per cent. of the Parsis do so, and also 30 per cent. of the Jains and 22 per cent. of the Christians. In the case of Hindus and Muhammadans the proportions fluctuate in different parts of the country. In Bengal, Baluchistan, Assam, and the Punjab, the Musalman takes less readily to a town life than the Hindu, but in most other parts of India the rule is reversed, and the Muhammadans are relatively much more numerous in urban areas than they are in the villages; this is specially the case in Berar, the Central Provinces, Madras, the United Provinces, Central India, Hyderabad, Mysore and Rajputana, where the proportion of Muhammadans in towns is more than double that in the general population.

Cities.

Definition of
city and
number in
India.

76. According to general statistical usage a city is regarded as a place with at least 100,000 inhabitants.* If we judge by this standard, there are only 2 cities in the whole of India, with an aggregate population of 6,605,837, or very little more than 2 per cent. of the total population of the Empire. The main statistics relating to these places will be found in subsidiary table VI at the end of this chapter. In England nearly a third of the population is massed in cities, in Germany a sixth, and in France more than a seventh. It must be remembered, however, that, even in Europe,

Country.	Number of cities.	Aggregate population.
England	39	13,522,000
Germany	33	9,129,000
France	15	5,466,000
Rest of Europe	62	19,563,000

the growth of cities is comparatively recent, and that a hundred years ago the three countries mentioned above, had between them only 7 cities with a combined population less than a third as great as that of the Indian cities at the present time. The concentration in big towns which has since taken place

* In the Provincial Reports a wider meaning has been given to the term "city" and many places have been treated as such on account of their local importance which do not fulfil the above condition as to numerical strength.

TOWNS AND VILLAGES.

district in Burma, and one of the most densely peopled, contains no all. On the other hand in Mandalay, a district thickly sown with the talis of the Burmese Kings, rather more than half of the people dwell in towns, and in Amherst the urban population comes to nearly 21 per cent. The inhabitants of towns have increased by 4.5 per cent. since 1891, but the proportion which they bear to the total population has fallen considerably, owing to the inclusion in the scope of the present Census of a considerable tract of country entirely devoid of towns, and partly to the more rapid growth of the rural population throughout the Province. Mandalay is decadent, and although Rangoon is growing rapidly it depends for its increase on immigrants from outside the Province. The Burman, though fond of gaiety, does not readily turn to a town life and the competition which it involves with the Indian Chinaman and the native of Madras, Bombay or Upper India, who puts a far lower standard of comfort. He prefers the peace and quiet of the country, and will doubtless continue to do so, so long as the supply of labour for cultivation exceeds the demand.

The number of villages has risen since the previous Census, from 28,603,995, and the average number of inhabitants has fallen from 232 to 14. These changes are the outcome, not so much of the extension of the operations to new areas, as to the wider interpretation given to the term village which has now been taken to mean "the smallest collection of buildings by a separate name." Each hamlet, however small, is treated as a village, and it is thus small wonder that nearly four-fifths of the population are shown as dwelling in villages with less than 500 inhabitants, all but a fourteenth of the remainder, in villages with less than 100 inhabitants.

65. The denizens of the towns of the Central Province, amount to 10.5 per cent. of the total population, compared with 6.0 in 1891, having risen from 778,248 to 897,082, - an increase of more than 15 per cent. This, however, is due in part to the inclusion of new places not treated as towns in 1891, and if these be excluded and a deduction of 15,000 made from the population of Sambalpur in 1891 on account of areas since excluded from the town, the rate of increase falls to 9.5 per cent. Even this is considerable, it is remembered that there has been a fall of 8.3 per cent. in the population of the Province. This growth of the town population is due mainly to the improvements that have been made in railway communication which have caused a rapid development of trade at the main centres, and have encouraged the growth of new industries. The number of factories and mills in the Province has increased in the decade from 16 to 59. The number of all 71 towns in the Province has increased by 30 per cent. to 71, and the population of all 71 towns has increased by 30 per cent. to 1,000,000.

PTER I.—DISTRIBUTION OF THE POPULATION.

of the population live in villages of less than 500 persons, while on the Coast only 10 per cent. live in small villages. This proportion falls to 10 per cent. in the Deccan, where walled and fortified villages recall the times of the Maratha rule when people gathered together for protection and it was not safe to live in the open country.

In the Punjab and Frontier Province combined 88·6 per cent. of the population live in villages and 11·4 per cent. in towns. The proportion of rural population rises to 96 per cent. in the Himalayan tract and falls to 85·2 in the Gangetic Plain. The town population is strongest in the districts of Delhi (22 per cent.), Lahore (22 per cent.), and Peshawar and Amritsar (18 per cent.). The three cities of Lahore, Delhi and Amritsar have between them a population of 10·68 or 22 per cent. of the town population of the Province; more than 80 per cent. (34·5 per cent.) is found in large towns with from 20,000 to 100,000 inhabitants, and the remainder (45·5 per cent.) in towns with less than 20,000 inhabitants.

Of the rural population 28 per cent. live in villages with less than 500 inhabitants; 52 per cent. in villages containing from 500 to 2,000 persons, and the remainder in villages with a population over 2,000. The proportion of population living in the smallest class of villages rises to 36 per cent. in the North-Western Frontier Province where tribal blood feuds and a general sense of insecurity have driven nearly 31 per cent. of the population to congregate in large villages protected by walls and surrounded by a zone of refuge.

The proportional distribution of the population of the United Provinces and Oudh between towns and villages (11·1 and 88·9 per cent.) is almost identical with that in the Punjab and Frontier Province. The omission of certain places with a population of less than 5,000 inhabitants from the operation of the Claukidari Act XX of 1856 and to the omission of certain principal areas with a larger population which were included in the Act, but are really only overgrown villages, the number of towns has increased from 490 to 457. The total urban population has declined from 5,377,453 mainly for the same reason; the number of towns with 10,000 inhabitants has increased. There have been fluctuations in the number of towns due chiefly to changes in the course of trade caused by the opening of the canal, and, in a few cases, to industrial development, but generally speaking there is a marked tendency either for the countryman to betake himself to the towns or for the towns to decay. Nearly half the urban population dwell in towns with over 20,000 inhabitants, and a fifth in those with from 10,000 to 20,000 inhabitants, with 5,000 to 10,000 inhabitants furnish a fifth, and the smallest class of towns furnish a fifth.

The total number of villages is 108,644, which is a decrease of 10,000 since 1881. The population of the villages is 108,644,000, which is a decrease of 10,000,000 since 1881.

Burma (236,738 square miles), somewhat smaller than Prussia (189,837) and Bombay (188,825), both a good deal smaller than Madras (151,695), about the same size as Prussia and the smallest are Coorg (1,582), a little bigger than Brunswick, and the Baluchistan (2,711), rather larger than Oldenburg. The Baluchistan is 132,315 square miles, or more than the Transvaal and Natal; Rajputana is nearly as extensive; Hyderabad (82,698) is rather larger than Great Britain and Kashmir (80,900) rather smaller. The little State of Cochin (1,362 square miles) has almost exactly the same area as Saxe Weimar, but contains than twice as many people.

38. The population recorded on the night of 1st March 1901 was 294,361,056 persons of whom 231,899,507 were enumerated in British territory and 62,461,549 in the Native States. Native India, therefore, while embracing more than one-third of the area of the Empire, supports considerably less than a quarter of the population. By far the most populous Province is Bengal which contains nearly seventy-eight and a half millions of people. Next in order come the United Provinces of Agra and Oudh with forty-eight millions and a half, and Madras with nearly forty-two millions and a half. Bombay, now reduced by famine and disease to twenty-five and a half millions, and the Punjab, which has lost over two millions by the formation of the North-West Frontier Province, and now stands at much the same figure as the Western Provinces, rank lowest among the large provinces and each have less than one-third of the population of Bengal. The above figures include the people of the States in political relations with the various Governments. If these were deducted, Bombay would show only eighteen millions of people, or less than a quarter of the population of British territory in Bengal. Of the Native States, Hyderabad comes first with a population somewhat exceeding eleven millions; the Rajputana group has nearly ten millions and the Central India Agency nearly nine. The Bombay States, a large and miscellaneous group, comprise nearly seven millions of people while Mysore has five millions and a half.

It is tedious to recite figures which are shown more clearly in tabular form. The brief description given above of the leading features of Table I, will give a general idea of the extensive areas and the great masses of population with which a census of India is concerned. The principal facts are presented in a graphic form in the first diagram annexed to this Chapter which shows the area and population of each province and state, expressed as a percentage on the total area and population of the Empire. A glance at this diagram will show the varying relations which prevail between the size of a province or state and the number of persons who inhabit it and will lead up to the discussion of the density of the population and the causes upon which it depends.

39. If we distribute the population of India over the whole of the area included in the Empire, we find that on an average there are 167 persons to every square mile of surface. But a calculation of this kind tells us virtually nothing. The mean density of India is a mere arithmetical expression which covers an infinite variety of different conditions, and is of use mainly as an arbitrary standard or line of division in relation to which a large body of figures may be grouped and arranged. The following statement places the twenty Natural Divisions described above in the order of their density and shows the proportion of the total area which each comprises, the population which it supports and the meteorological conditions by which it is characterised. An attempt will be made to show that among the various factors which contribute to the complex problem of the distribution of the rural population in India, the amount of the rainfall and the regularity of the supply are, on the whole, the most important, and that where the influence of rainfall ceases that of irrigation begins:—

NATURAL DIVISION.	Area in square miles.	Per cent. of total area.	Population.	Per cent. of total population.	Mean annual rainfall.	Density per square mile.	Mean annual variability.	REMARKS.
(About mean 167.)								
Delta of Bengal	64,855	3.8	35,831,824	12.2	79.4	552.3	71.3	
de-Gargotic Plain, East.	40,184	2.4	19,676,126	6.7	47.5	489.6	84.7	

India as main Provinces

Density by Natural Divisions.

OF THE POPULATION.

	Population.	Per cent. of total population.	Mean annual rainfall.	Density per square mile.	Mean annual variability.	REMARKS.
(Above mean 167)—contd.						
Sub-Himalaya, East.	75,810	4.4	26,193,928	12.3	71.9	477.4 108.3
Indo-Gangetic Plain.	73,459	4.3	30,069,771	10.2	30.9	409.3 130.3
Coast, South	28,180	1.6	10,121,090	3.4	48.0	359.1 128.0
East Coast	36,265	2.1	12,125,619	4.1	104.3	334.4 94.2
South India	64,613	3.8	16,773,659	5.7	33.2	259.6 94.2
East Coast, North	70,037	4.1	16,041,949	5.5	51.5	229.0 105.4
TOTAL OR MEAN	453,403	28.5	176,823,966	60.1	58.3	389.0 102.0
(Below mean 167.)						
Deccan	155,177	9.1	23,441,579	8.0	29.7	151.1 138.0
West Satpuras	43,798	2.6	6,461,384	2.2	39.1	147.5 127.3
Gujarat	68,926	3.8	10,938,835	3.7	27.2	136.1 181.8
Central India Plateau	130,789	7.7	16,053,539	5.5	34.6	122.7 127.5
Himalaya and Sub-Himalaya, West.	142,739	8.4	17,339,782	5.9	50.4	121.5 101.0
East Satpuras	152,455	8.9	16,759,028	5.7	57.7	109.9 91.0
Brahmaputra Valley	36,520	2.1	3,062,003	1.0	92.3	83.8 64.2
Burma, Dry Area	88,617	2.3	3,054,036	1.0	32.6	79.1 88.0
North-West Dry Area	201,972	11.8	13,563,310	4.6	11.4	67.1 194.8
Burma, Coast	61,097	3.6	3,860,038	1.3	152.0	63.2 45.1
Burma, Wet	147,535	8.6	3,942,549	1.3	64.3	26.7 53.3
Baluchistan	76,977	4.5	810,746	.3	8.7	11.0 161.0
TOTAL OR MEAN	1,254,612	73.5	117,458,193	39.9	50.1	93.6 114.4

Note.—The area (1,709,015) and population (1,04,23,159) according to the above statement are less than those shown in Table I owing to the omission of the unenumerated portion of Baluchistan and also of Aden, the Andamans and the Laccadives which are not included in the scheme of natural divisions.

Areas of high density.

40. We may take the map of the natural divisions of India, on which density is shown by an arrangement of lines, irrigated areas being marked in green, and the mean rainfall of each division entered in figures. The first feature to catch the eye is the great tract of thickly peopled country, including four natural divisions, which stretches from the Bay of Bengal almost to the valley of the Indus. In the three eastern divisions the correspondence between density and rainfall is complete. The Delta of Bengal has a rainfall of nearly 80 inches and a population of 552 persons to the square mile; in the Indo-Gangetic Plain, East, the rainfall is 48 inches and the mean density 490 per square mile; while in the Eastern Himalaya and Sub-Himalaya, the fact that a higher rainfall is accompanied by a slightly lower density (477 per square mile) is amply accounted for by the inclusion of the hills where the culturable area is comparatively small and the population more scattered. But in the western portion of the Indo-Gangetic Plain the two sets of facts, rainfall and density, do not vary in unison. The former drops to 31 inches while the latter is maintained at 409 per square mile. How comes it that a supply of rain, which in the Deccan suffices for only 150 persons to the square mile, can support more than double that number in Hindustan and the Punjab? The apparent miracle is wrought by irrigation. The Indo-Gangetic Plain, West, is the chief irrigation area in India, where a network of deftly aligned canals, supplied by snow-fed rivers independent of the monsoon, has secured some twelve million acres of land from the risk of a failure of the crops. A glance at the next division will serve to mark the contrast. In the Western Himalaya and Sub-Himalaya the rainfall is heavier by nearly 20 inches than in the Indo-Gangetic Plain, but it is uncertain in its incidence; only a small portion of the tract is susceptible of irrigation; and the

to their neighbours and streets or compact groups of houses are found only in the villages inhabited by Christians or by immigrants from beyond the Western Ghats. The *desam*, containing on an average two square miles of country and 1,111 inhabitants, is, however, not only an administrative but a social unit, with an organized staff of village servants and a Council of elders, presided over by a headman, which adjudicates on petty disputes and administers customary law.

72. The dwellers in the country form 85.5 per cent. of the population of the Rajputana Agency, the proportion rising to 89.5 in the southern division, where there are comparatively few towns, and 64.8 per cent. of the rural population live in villages of less than 500 inhabitants. The average size of a village is 278 persons, varying from 335 in the western division, where scarcity of water and insecurity of life have compelled people to gather together in certain localities, to 153 in the southern division, which contains a large Bhil population living in small hamlets scattered over a large area of wild country. The mean density of all these units has been reduced by famine, the effects of which will be discussed in the next chapter. "There are ten towns with a population of over 20,000, of which eight have been classed as cities, although among them Jaipur alone contains a population of over 100,000. All but Sikar, which is the home of rich bankers and merchants who have an extensive business in many parts of India, are the capital towns of States, and, with the exception of the present city of Jaipur, were originally permanent camps established round the forts of the Chiefs. Their rapid growth was due to the wealth of the surrounding districts being drawn into these permanent camps and attracting to them artisans and merchants—whose principal trade in those days was in arms, ornaments, cloths, and other articles of unproductive expenditure, who now form the bulk of their population. These ten cities and towns connect a between

the Ghat which runs from the mountains of the south of the Deccan where Bombay touches Mysore and Madras, a coast line of rice-bearing areas, sure of a regular rainfall in the first contact with the south-west monsoon, entertain a well distributed population of 221 to the square mile. The Deccan table-land, protected by the hills from the onset of the monsoon, which often surmounts their crest only to hurl its heavy clouds across the continent, and to leave the plains unwatered and untilled, with difficulty maintains 159 where Gujarat provides for nearly twice that number. In the extreme south of the Presidency, above the Ghat line, a favoured tract known as the Karnatak, more fortunate than the arid plains of the Deccan, finds support for an average population of 190 to the square mile with little risk of crop failure in the greater part of its well watered valleys."

Having sketched the natural aspects of the country as fully as the circumstances admit, he points out the objections to ignoring administrative units, and groups districts in all his tables by the four Commissionerships of which they form part for executive purposes. In both classes of units the density of population shows great variations. Sind has only 68 persons to the square mile, while the Northern Division has 256, and the Central Division 159. Kaira in Gujarat, though much reduced by famine, is still the most populous district in Bombay, with 449 persons to the square mile, while at the other end of the scale the district of Thar and Parkar in Sind has only 27. In native territory the most thickly peopled State is Kolhapur, which is favourably situated as regards rainfall and has 319 persons to the square mile, while population is scantiest in the jungle covered hills of the Khandesh Agency where there are only 20. Cutch has only 64 people to the square mile, even fewer than Sind, and Kathiawar with 112 is considerably below the standard of the British districts of Gujarat.

47. Burma in its largest sense, including the Shan States and Chin Hills, has a mean density of 44 persons per square mile, which rises to 55 if these sparsely peopled areas are left out of account. Of the four divisions adopted in the Provincial report the sub-deltaic tract of Lower Burma lying round Prome has 90 persons to the square mile. The dry zone of Upper Burma, with its centre about Mandalay, comes next with density of 79. Then follows the coast strip, from the Mandalay Peninsula to the borders of Chittagong, with 55; and last of all comes the wet tract of Upper Burma which shows only 15 persons to the square mile. Among districts the highest density is found in Henzada (69), Hanthawaddy (160) and Sagaing (152), and the lowest in the Pakô

an important factor, and the Mongoloid element in the population of Bengal may be less inclined to congregate in towns than the Dravidian and Aryo-Dravidian inhabitants of other parts. Assam, which is even more markedly Mongoloid, has the smallest urban population of any part of India. That of Burma is comparatively high, but this is due to the figures for two towns, Rangoon and Mandalay. The latter owes its position to its having been the capital of the Kings of Ava, while the former is a creation of British trade and 55 per cent. of its inhabitants are immigrants from outside Burma. The Burman, like the Bengali and Assamese, has not a commercial mind, and, in all three provinces, trade is to a great extent in the hands of foreigners, amongst whom the enterprising Marwāris are everywhere conspicuous.

Variation
since 1891.

74. The growth of the urban population since 1891 is obscured by changes in the list of places dealt with; some of those included in the tables for that Census have been omitted on the present occasion, while others, not previously treated as towns, have been included. So far as they go, the figures show that while the total population of India has increased by only 2·4 per cent., that of towns has risen by 7·3 per cent.; in British territory the urban increase is 8·5 per cent., compared with 4·8 in the general population, and in Native States it is 3·5 against a decrease of 5·4 in their population as a whole. The general result is common to all the larger units except the Punjab and the United Provinces, which show about the same rate of progress in urban and rural areas, and Burma, Kashmir, and Mysore, where the growth in the latter is much greater than in the former. The general drift towards towns may possibly have been accentuated at the present Census by the famine of 1901, which, in the areas afflicted, may have driven some of the rural population to seek a livelihood in some neighbouring

Central
Provinces.

sections. The main cause of the urban increase seems to lie in the growth of the rural population in the Central Provinces, which has increased 100 persons per square mile. This figure covers variations ranging from 23 in the forest-clad hills of Bastar to 170 in the rice-growing plains of Chhattisgarh. The Nagpur country has 161 persons to the square mile, the Nerbudda valley 145, the Vindhya plateau 114 and the districts of the Satpura range 78. If we exclude Bastar and some of the jungle tracts, the range of variation is not very great, and corresponds fairly well to the distribution of the Province for the purposes of this report between the East Satpuras, the West Satpuras and the Central India Plateau. For the Provincial Report a series of 13 smaller divisions has been adopted which brings out differences of physical conformation, history and ethnical constitution which are of interest from the local point of view. In connection with the statistics of density Mr. Russell observes: "Rice districts generally support a higher specific population than spring crop districts, the cultivated area per head of population being about an acre and a half in the south and east of the Provinces as against two acres in the northern districts. The average outturn of rice per acre is taken as 1,080 lbs. uncleaned, 650 lbs. cleaned, while that of wheat is 570 lbs. and of juaari 570 lbs. But it is believed that rice-eaters require a larger quantity of the uncooked grain than consumers of wheat. There is a proverb, 'Wheat will take you there and back; kichri will take you there; if you have only got rice don't start on a journey.'" It may be added that the possibility of growing rice is mainly dependent on rainfall. Given sufficient rain, backed up by the industry requisite to carve a hill-side into a series of terraces which will hold water, and it is difficult to say where rice cannot be grown. On the whole, then, we may say that the determining factor of density in the Central Provinces is the rainfall, modified by the effect of the various ranges of hills which reduce the area available for cultivation and divert the rain-bearing winds.

Madras.

49. The Madras Presidency contains portions of five of the natural divisions described above. For provincial purposes these have been modified, so as to bring them into agreement with the linguistic distinctions characteristic of the south of India. The following five divisions have thus been formed:—

The Agency Division, consisting of forest-clad ranges which form the background of the districts of Ganjam, Vizagapatam and Godavari, is described by Mr. Francis "as a sparsely peopled tract inhabited largely by Animistic tribes, which speak languages peculiar to themselves, live mainly in very small villages, scarcely ever leave their own country, depend almost entirely upon agriculture and are almost wholly illiterate. It contains no railways and hardly any roads."

due entirely to the development of trade and large industries, for which the nineteenth century was remarkable in Europe, and it is possible that the industrial and commercial awakening of India, of which the first signs are already apparent, may result in a marked increase in its city population at no very distant date.

77. Table IV shows a rise in the population of cities since 1872 of 51 per cent., but this is due largely to the addition to the list of Hyderabad, Jaipur, Mandalay, and Srinagar, the two former of which were enumerated for the first time in 1881 and the two latter in 1891. Excluding this artificial cause of increment the rate of increase of the city population shown by each successive census is as noted in the margin. The slow growth disclosed by these figures seems inconsistent with the suggestion that an era of rapid progress has commenced, but it must be remembered that the majority of the cities, as they now stand, owe their position to the fact that they are, or have been, political capitals, or are reputed to be of a sacred character, or are old-established commercial centres under conditions which are rapidly passing away. The recent changes in the course

Variations in population of cities.

Period	Rate of increase per cent.
1872-81	+ 9.7
1881-91	+10.9
1891-1901	+ 6.7
TOTAL 1872-1901	+30.3

of trade brought about by the railways and the growth of new industrial undertakings have not yet had time, save in a few special cases, to raise to the rank of cities the places which they have brought into existence or rendered important. In some cases, the new conditions have attached themselves to old centres such as Delhi, Cawnpore, Agra, Ahmedabad, and Nagpur. These have received

City	Variation per cent. since 1872.
Delhi	+35
Cawnpore	+61
Agra	+26
Ahmedabad	+55
Nagpur	+51

a fresh lease of life and are again growing rapidly, but many of the old cities are stationary or decadent. Mandalay, the former capital of the Kings of Ava, is declining, and so also is the capital of the Baroda State. Patna, which once thrived on the traffic along the Ganges, is steadily decaying, now that the trade is being diverted from the river to the railway. Benares and Allahabad have grown since 1872, but both have lost ground during the last-decennium. Amongst the cities which owe their rank as such entirely to

recent conditions of trade and industry, the most remarkable instance of rapid development is afforded by Rangoon, which, in thirty years, has increased in population from less than a hundred thousand to very nearly a quarter of a million. The growth of Howrah, though less extraordinary than that of Rangoon, is also very considerable. Its population has risen from 84,000 in 1872 to more than 157,000, a gain of 87 per cent., which is due almost entirely to the development of its jute and cotton spinning industries, iron foundries, engineering works, &c. Madura, which now appears for the first time as a city, has more than twice the population it contained in 1872, and so has Karachi, which attained this rank in 1891. Many of the rising towns still have less than 100,000 inhabitants. To this category belong Peshawar, the door of the important trade

Town	Present population.	Variation per cent. since 1872.
Peshawar	95,147	+ 23
Jubbulpore	90,523	+ 31
Multan	90,316	+ 64
Jaipur	87,394	+ 60
Hyderabad (Sind)	75,288	+ 41
Hubli	60,378	+ 01
Coimbatore	60,214	+ 59
Madura	48,096	+170

from beyond the North-West Frontier. Jubbulpore, with its cotton and mills and pottery works; Dacca, the quarters of the jute trade in East Bengal; Multan, with its manufactures of pets, silk fabrics, and pottery; Srinagar, the centre of the grain trade in the Deccan and a rising industrial centre; Hyderabad in Sind; Hubli, Coimbatore, and many others. It is interesting to discuss in detail the growth of other places

from the Provincial Reports show that with here are the

The Presi-
dency towns.
Calcutta.

78. The growth of Calcutta dates from its occupation by Job Charnock on behalf of the East India Company in 1696 and an interesting account of its development by Mr. A. K. Roy will be found in the historical section of the Calcutta Census Report. The population of the Settlement in 1710 was only 10 or 12 thousand, but it rapidly grew, and by the middle of the century, it is estimated to have exceeded 100,000 in the area owned by the company, or double that figure, if the area owned by private zamindars be included. The subsequent estimates of the population vary greatly, but it seems probable that by 1850 it was at least 400,000. The Census of 1872 showed a population (on the present area) of 683,009, and this has now, after a slight fall in 1881, risen to 847,796 which represents an increase of 84 per cent. since 1872 and of 24 per cent. as compared with 1891. This is the population of the area administered by the Calcutta Corporation and of the cantonment of Fort William, and excludes 101,348 persons in the suburbs of Cossipore-Ohitpur, Manicktola and Garden Reach, which are connected with Calcutta by a continuous stretch of buildings and are structurally an integral part of it, and 157,594 in Howrah, which lies along the opposite bank of the Hooghly, and is really as much a part of Calcutta as Southwark is of London. With these additions the capital of the Empire contains a population of 1,106,738, and takes a place amongst the twelve largest cities in the world. A hundred years ago the population of London was only 959,310 or considerably less than that of Greater Calcutta at the present time.

79. The arrangements for the Census were more complete than those of 1891 and the true rate of increase during the last decade is not so great as the figures quoted above would indicate. There is, however, no doubt that Calcutta is at present growing rapidly owing to the expansion of its industries and trade. Plague has been present more or less, for some years past, but although at certain seasons, it has caused a high mortality, it has never yet assumed the frightful proportions familiar to the inhabitants of Bombay, and it does not appear to have had so much influence, hitherto, in keeping down the population, although it has probably deterred many persons, who would otherwise have done so, from immigrating.

Including Fort William and the extensive maidan which belongs to it, the average number of persons per acre is only 41, but in the area administered by the Municipal Corporation it is 68, as compared with 54 in 1891 and 46 in 1881. The density varies in different wards, but nowhere does it approach that of the more congested parts of the capital of the Western Presidency; it is greatest in the Colootola, Jorasanko and Jorabagan wards, in the heart of the old town, where there are respectively 281, 202 and 201 persons per acre. The question as to how far these figures indicate a prejudicial degree of overcrowding depends on the style of buildings in which the people live and on the amount of sleeping space per head which they provide. This subject will be discussed in subsequent paragraph.*

A remarkable feature of the demographic statistics of the Metropolis is the extent to which it draws its population from places beyond its limits. Barely one third of the inhabitants of the area administered by the Calcutta Corporation own it as their birth-place. The rest are immigrants, of whom more than 123,000 come from South Bihar, Saran and Muzaffarpur, and about 90,000 from the United Provinces, 83,000 from the 24-Parganas, 47,000 from Hooghly, 26,000 from Benares, 78,000 from Cuttack, Burdwan, Dacca, Nadia and Howrah, and smaller numbers from other parts. In the suburbs and in Howrah the proportion of the foreign-born population is as great as, or greater than, in Calcutta itself.

Owing to the steady growth of the immigrant population, of which only one quarter consists of females, the proportion of females to males has fallen from 1000 per mille in 1881, to 507 at the present Census.

80. The Census statistics of Bombay have also been dealt with in the present report (by Mr. S. M. Edwardes), which, like the report on the Census of Calcutta, contains a most interesting *resumé* of the gradual development of the city. Mr. Edwardes traces its progress from 1661, when its possession passed to England by the marriage treaty between Charles (the Second) and Catherine of Portugal, down to the present day. Under the Portuguese the population was about 10,000, but with the advent of the British it grew to a population of 140,000 in 1760, and to 1,100,000 in 1881.

towns and there is thus far less overcrowding. In the city, as a whole, there are only 29 persons per acre against an average of 68 in Calcutta (excluding the Fort) and 51 in Bombay. The density is greatest in Division No. II; there are here 139 persons to the acre and in several of the adjoining divisions the number ranges from 64 to 93. In the west and south of the city, on the other hand, it is only 8 and 12, respectively.

The population of the city has grown by 28 per cent. since 1871, when it stood at 397,552. Between 1871 and 1881 the rate of increase was small, being barely 2 per cent., but in the decades ending in 1891 and 1901 it has amounted to 11·5 and 12·6 per cent., respectively, compared with 15·7 and 7·2 per cent. in the Presidency as a whole. The increment during the past ten years is due mainly to immigration, and the rate of increase amongst persons born in the city is only 7·2 per cent., or exactly the same as the general rate for the Presidency. The most rapid growth is shown by Division No. IV, in the north-west corner, which now contains nearly two-and-a-half times the number of inhabitants that were found there 30 years ago. The earlier estimates of the population of Madras were curiously wide of the mark. In 1763 it was calculated at nearly a million, and a rough count in 1822 resulted in an estimate of 470,000, or more by 73,000 than that ascertained at the first regular census in 1871.

Hyderabad.

83. In the local Census Report the population of Hyderabad is shown as 418,466 but this includes not only the City Municipality, which lies surrounded by a wall on the right bank of the Musa, but also that of Chadarghat, the site of the British Residency, on the opposite side of the river, which occupies in relation to the city itself much the same position that Howrah does

City Municipality	: .	209,805
Chadarghat "	: .	125,919
Secunderabad "	: .	83,550
Bolarum	: .	12,888
The Residency Bazaar	: .	16,904
TOTAL	: .	418,466

in regard to Calcutta, as well as the Cantonments of Secunderabad and Bolarum. The former of these cantonments extends from 4 to 10 miles north of the city and the latter lies still further away, and it is very doubtful if either should be treated as part of Hyderabad. If we exclude them, but retain Chadarghat and the Residency Bazaar the population falls to 352,028 which is still more than that of any city in India other than the three great Presidency towns. Since 1891 the City Municipality has added 28,848 to its population, an increase of more than 15 per cent. The Chadarghat Municipality has lost to the extent of 1,305 persons while the other three areas have gained between them 5,884, and the net result for the whole city, in the extended sense in which the term is used in the Hyderabad Census Report is an increase of 33,427 persons or 8 per cent. The average population per house is 4·4 and the density, 27 persons per acre.

Houses and House Room.

Definition of house.

84. In England the space within the external and party walls of a building is taken as the house. In America it is "a place having a separate entrance," but an apartment house is treated as a single entity, even though it has separate front doors leading to the different apartments. In Scotland the quarters or flat has usually been taken. In France the holding, or area having a separate number in the street, constitutes one house, even though it may consist of several buildings connected by a passage.

existence or otherwise of a separate entrance from the public way ; all buildings within the same enclosure which had a common entrance were treated as constituting, for census purposes, a single house. At the last two enumerations, however, the tendency has been growing to take the commensal family rather than the enclosure as the criterion, and in Bengal, Burma and Assam the definitions laid down in 1891, though varying in their precise terms, were framed on this basis, while in the United Provinces, though the enclosure was still retained as the main general diagnostic, permission was given to treat the residence of each family as a separate house in cases where the enclosure was inhabited by more than four families. At the present Census the commensal family has been adopted as the sole test in the United Provinces as well as in the Provinces where it had already been taken as such in 1891. Elsewhere the older standard was generally adhered to, and separate families inhabiting the same enclosure were treated as belonging to the same census 'house.'

85. It might be thought that under these circumstances the average number of inhabitants per house would vary greatly in different parts of India, but as a matter of fact, except in the Punjab and parts of the United Provinces, where the practice of congregating a number of buildings occupied by different families within the same mud-wall enclosure is unusually prevalent, it is only in the case of the comparatively well-to-do that the differences arising from the two definitions have any marked effect on the house numbering. Amongst the lower classes, who form an overwhelming majority of the population, the dwelling place with a separate entrance usually corresponds to the residence of a commensal family, and the average population per house is in consequence fairly uniform in most parts of India. In Burma and Madras it is 5, in Bengal 5.2, and in Bombay, Central India and Rajputana 5.1. It falls to 4.8 in Berar, 4.6 in Assam and 4.4 in Ajmer ; and rises to 5.5 in the United Provinces, 6 in Kashmir and 6.2 in the Punjab. The high figure for the Punjab is due, as already explained, to the frequent collection of several families in the same enclosure. That for the United Provinces is attributable to the same cause, coupled with the circumstance that, although the old definition of house was abandoned on the present occasion, the enclosure was still in practice often taken as the census house ; the absence of uniformity in applying the new definition is shown in some cases by great variations in the figures for adjoining districts, e.g., for Bareilly and Pilibhit, where the averages are 7.7 and 4.6 respectively.

Number of inhabitants per house.

In view of the want of uniformity attaching to the meaning of the term house there is nothing to be gained in lingering longer over the figures connected with it. The following observations are, however, extracted from the report for Bengal, where the instruction, that a house should be taken to mean the residence of a commensal family is said to have been very generally followed :—

“ If it were not for the joint family system, i.e., if every man living with his wife had a home of his own, the varying size of the house, which would then represent the family in the ordinary acceptance of the term, would afford a good index to the progressiveness or decadence of the population. As matters stand, however, these differences may equally well be due to the varying extent to

Natural Division.	Number of houses per 100 married females aged 15 and over.
Province	96
West Bengal	119
Central "	109
North "	101
East "	97
South Bihar	84
North "	85
" "	91
Nagpur plateau	96

which, in different districts or at different times, married sons remain in, or leave, the parental roof. Some idea of the practice prevailing in different localities may be gathered by comparing the number of houses in a district with the number of married females over 15 years of age, but here too the comparison is obscured by the fact that in some places, the proportion of married females only slightly over 15 years of age is higher than in others. This is especially the case in parts of Bihar, but even if this be allowed for, it is clear that in this part of the province, sons do not so readily leave their parents' home for a new one of

own as they do elsewhere. The setting up of a separate house is a less matter in the crowded village sites of Bihar than it is in Bengal proper ; people, moreover, are poorer, and many of the men who go to Bengal for leave their wives in the charge of relatives who will look after them.”

Houses in towns.

86. (The diversity in respect of the system of numbering houses in towns was far greater than in rural areas, and it would be impossible to review the subject for India as a whole.) The following remarks will, therefore, be confined to the question of house accommodation in the Presidency towns for which the information is more complete than elsewhere and where the question of overcrowding is most important.

Calcutta.

87. (In Calcutta the definition of a house in 1891 was "a place bearing a separate Municipal assessment number." On the present occasion it was the same as in the rest of Bengal, *viz.*, the residence of a commensal family. The change of definition has caused a material alteration in the average population per house which is now 6·7 against 10·1 at the previous census. Much depends on the character of the building and the number of rooms it contains, and on these points the information contained in Mr. Blackwood's report is very complete. Of the total number of houses, excluding shops, warehouses, etc., 68,929 are *kacha* and 28,195 are *pakka*; each of the former contains on an average, rather less than 3 rooms and 6·5 persons, and each of the latter, 6 rooms and 10·4 persons. Three-fifths of the inhabitants live in *kacha*, and two-fifths in *pakka*, houses. One-eighth of the total number live in a single room shared with at least three other persons, and one-half share a room with at least one other person; only 3 per cent. have one or more rooms to themselves.)

(The minimum sleeping air space allowed in barracks and common lodging houses in England is 300 cubic feet per head, but special enquiries made by Mr. Blackwood in some typical congested areas in Calcutta show that there the space generally ranges between 200 and 300 cubic feet; in a few instances it is greater, but it is also often less, and in two exceptional cases it is only 109 and 129 cubic feet respectively. The local conditions in England differ greatly from those in India, and in this country, owing to the style of buildings and to the fact that doors and windows are more often kept open, the same amount of air space is not necessary, but even so, it is clear that in areas such as those just referred to, the people are terribly overcrowded.)

Bombay.

88. In Bombay there is no record as to the system followed in 1891, but at the present Census a house was treated as "a building under one undivided roof." According to this definition a row of rooms under a common roof constituted a single house, although each apartment might be inhabited by a separate family; the rooms or suites of rooms occupied by each separate rent-payer were regarded as tenements, and were counted accordingly. The total number of houses is 38,843, of which 8,718 were unoccupied on the night of the Census owing chiefly, it is said, to the plague exodus. The average number of persons per occupied house in the city as a whole is 23·8 as compared with 14·4 in 1891, but it varies in the different wards from 35 to 15. In some of the big *chauls* or lodging houses the number of inhabitants is very great, and in exceptional cases it ranges from 500 to nearly 700 persons.

Mr. Edwardes gives a great deal of interesting information regarding tenements, of which a summary will be found in the

Tenements with.	Number per cent. of population inhabiting them.	Average per room of each tenement.
1 room . . .	80·86	4·20
2 " . . .	7·82	2·54
3 " . . .	3·21	2·06
4 " . . .	2·31	1·76
5 " . . .	1·32	1·58
6 or more rooms . . .	4·98	2·34

marginal table. The total number of tenements was 220,686, excluding 62,487 that were unoccupied when the census was taken; each tenement was inhabited on the average by 4·54 persons. Four-fifths of the population are found in tenements with one room and only one in a hundred in tenements containing six or more rooms. The proportions vary a great deal according to the religion professed. Of the Parsis only a quarter live in a single room,

and of the Christians only two-fifths, while of the Hindus no less than nine-tenths are thus domiciled.

Madras.

89. For Madras details similar to the above are not available. The separate entrance seems to have been the basis of the definition of house in the city well as in the rural areas, both in 1891 and at the present Census, but on this occasion more care was taken to exclude the "long rows of bazars or small rooms facing the street with no cooking or sleeping apartments attached to them and in which no one ever sleeps at night." The average population per house rose in consequence from 7·5 to 9·1.

Note (1)—Showing Mr. Blanford's scheme of Natural Divisions.**A.—INDO-GANGETIC PLAIN.**

NOTE 1.—1. Punjab Tract.—The Indo-Gangetic Plain west of Delhi, including the Punjab and Sind. The desert tract of Western Rajputana is included as far as the base of the Arravalli range, as is also the peninsula of Cutch, and to the westward, the hills of Sind and the Western Punjab. Baluchistan is also added; it might perhaps equally well have been kept separate, but the only difference in the fauna that is of any importance is that certain Indian species, such as the common antelope, the nilgai, the bharasinga and the hog-deer, which are found locally in parts of the tract, do not range west of the immediate neighbourhood of the Indus. To the northward also the lower spurs of the Himalayas must be regarded as part of the present subdivision. The eastern boundary of the Punjab tract coincides with the limit, to the eastward, of the area with an average yearly rainfall of 20 inches or less. The rainfall diminishes to the westward, and parts of Sind are almost rainless.

The whole area is desert or semi-desert, except near the rivers, and cultivation, as in Egypt, is dependent upon irrigation. The hills west of Sind and the Punjab rise to a considerable elevation, and the interior of Baluchistan is from 3,000 to 6,000 feet above the sea.

2. North-Western Provinces Tract.—The Indo-Gangetic Plain from Delhi to Rajmahal (or from nearly 77° E. long. to about 88°). This is for the most part cleared and cultivated, and is the most thickly populated area in India; when not cleared the land is covered with long grass 6 to 20 feet high. The average rainfall is about 85 inches, varying from 25 in the western part to 50 inches in the eastern.

3. Bengal Tract.—Indo-Gangetic Plain and Ganges delta from the meridian of Rajmahal to the Assam Hills, together with the plain of the Brahmaputra as far as Goalpara, and also Cachar, Sylhet, the plains of Tipperah, and all Lower Bengal. This is a much damper area than the last, with a heavier rainfall and with much more extensive tracts of uncleared grounds, chiefly covered with high grass, except near the sea (Sundarbans), where trees of peculiar kinds form forests. Rainfall 50 to 100 inches, annual average 65.

B.—THE PENINSULA.

4. Rajputana or Central Indian Tract.—Rajputana and Central India with Kathiawar and the Surat district and all the country south and south-east of the Indo-Gangetic Plain as far south as the Nerbudda River, and a line running in an E.N.E. direction from Jabalpur to Shorghati, near Gaya, so as to include the Kaimur Hills and Bone Valley. An undulating and hilly tract cleared and cultivated in parts, elsewhere covered with brushwood or thin forest of small trees. Rainfall 14 to 55 inches, average about 35.

5. Deccan tract from the Nerbudda to the southern edge of the Mysore plateau and from the neighbourhood of the Western Ghats to long. 80° E. This comprises the greater part of the Bombay Presidency east of the Sahyadri or Western Ghats range, together with the western part of the Central Provinces, the whole of Berar, nearly the whole of the Nizam's territory and Mysore. The greater part of the area has been cleared of forest, and a large part is cultivated, though there are still extensive tracts of rather thin forest, brushwood and grass remaining in the more hilly parts, especially to the northward in the Nerbudda and Tapti country, and in parts of the Nizam's territory. The average rainfall is about 80 inches.

This Deccan sub-division almost corresponds to the area covered by the Deccan traps, horizontal or nearly horizontal basaltic lava flows of Upper Cretaceous age.

6. Chota Nagpur-Orissa Tract.—Western and south-western Bengal with Chota Nagpur, Orissa, the Northern Circars, and the eastern portion of the Central Provinces. This tract lies between the Indo-Gangetic Plain to the north and the Kistna River to the south, and extends from the Bay of Bengal to long. 80° E. It is a hill country covered for the most part with forest, and, except in a few areas, sparsely populated. The rainfall averages about 50 inches, being higher near the coast, and lower inland.

7. Carnatic or Madras Tract.—The Peninsula south of 12° N. lat., and east of the Western Ghats comprising the Carnatic but excluding the Mysore plateau. The plains of the Carnatic are much like those of the Deccan and are for the most part cleared, but there are scattered hill groups generally covered with forest and with a much higher rainfall than the plains. The average temperature is slightly higher than that of the Deccan, but more equable, the average annual range of the thermometer being considerably smaller. Average rainfall is about 85 inches.

8. Malabar Coast Tract.—The Western or Sahyadri Ghats and the western coastlands of the Peninsula from the south of the Surat district to Cape Comorin. The northern portion included in the Bombay Presidency is known as the Konkan; the southern part, in the Madras Presidency, as the Malabar Coast. Though in many places near the coast cleared and cultivated, this area is largely covered with high tropical forest. Parts of the Western Ghats rise to a considerable elevation, the Nilgiris and Anaimalais forming small plateaux about 7,000 feet above the sea, the highest summit on the former, Dodabetta, being 8,640 feet high, and that on the latter, Anamudi, 5,840. These are the highest elevations in the Peninsula. The fauna and flora are rich. The rainfall varies greatly being 74 inches at Bombay, 116 at Cochin, and no less than 261 at Mableshwar on the edge of the Sahyadri scarp, but throughout the greater part of the area it exceeds 100 inches annually.

C.—HIMALAYAS.

9. Western Himalayan Tract.—Forests of the Western Himalayas from Hazara to the western frontier of Nepal. The lower hills to the westward have the same fauna as the plains, but to the eastward Himalayan types are found in the dense forest down to the base of the hills. The western zoological limit of the Himalayas cannot be exactly determined; Oriental forms disappear gradually to the westward, but a good number are found in Kashmir and even in Hazara. The slopes from the base of the hills to between 10,000 and 14,000 feet, the upper limit of forest, might be divided into two or three zones, but it is rarely possible to obtain accurate information as to the range of different animals, and this range in birds and mammals often changes with the season. The average rainfall varies from 80 to nearly 100 inches annually (and locally even more than 100), being higher to the eastward than to the westward, and more copious on the southern face of a ridge than on the northern.

10. Eastern Himalayan Tract.—Forest area of the Eastern Himalayas from the western frontier of Nepal to the head of the Assam Valley (Mishmi Hills). This is more tropical, and far more extensively forest-clad than the Western Himalayas; the rainfall is much heavier, the population scantier, and the clearances for cultivation general. Average rainfall 50 to 180 inches.

D.—ASSAM, BURMA, ETC., EAST OF THE BAY OF BENGAL.

11. Assam Tract.—Assam, with the hills to the southward (Garo, Khasi, Naga), Manipur, and Chittagong is an area of hills and dense forest, closely resembling in physical features, as in the fauna and flora, the Western Himalayas. The plain of the Upper Brahmaputra in Assam really belongs to the great Indo-Gangetic system, but the fauna appears to be of the Burmese type. Rainfall very heavy, the average probably 100 inches.

12. *Upper Burmese Tract.*—Burma, north of the Proms and Toungoo, or of about 18° N. lat. This consists principally of the Irrawaddy drainage area, and extends north to the ranges that form an eastern continuation of the Himalaya. The zoology of the northern and eastern portions is imperfectly known. A great part of the country, including all the hilly tracts, is covered with forest, but the undulating ground in the southern part of the area is chiefly occupied by brushwood. The rainfall is not accurately known, but the Thayetmye average of 45 inches is probably a fair approximation.

13. *Pegu Tract.*—Pegu, south of Proms to the hill ranges east of the Sittang and the whole of Arakan. The hills of this country are forest-clad; the plains of the Irrawaddy and its delta, except where cultivated, are chiefly covered with high grass. The population is almost confined to these plains. Rainfall about 73 inches.

14. *Tenasserim Tract.*—Including Karenni to the northward and the hill ranges east of the Sittang, and extending south to the Malay Peninsula. A hilly country of dense forest with a rainfall of about 170 inches.

Note (2)—Areas shown in Table I.

In most cases the areas shown in Table I differ from those in the previous Census Report. The minor changes are due to the incorporation of the results of recent surveys, and occasionally to interprovincial transfers of territory, but in several provinces, new areas have been taken into account, *viz.*, in Assam, Manipur, and part of Lushai; in Bengal, Sikkim; in Burma, the Chin Hills, and in Baluchistan, almost the whole country. In the Punjab, the difference is due to the Census Superintendent having adopted the areas shown in the Provincial Land Revenue Statistics, which differ greatly from the figures used in previous Census Reports.

SUBSIDIARY TABLE I.

Population and Density by Natural Divisions.

NATURAL DIVISIONS.	Normal rainfall, Mean and Extremes.	Variability, Mean and Extremes.	Area in Square Miles.	Population.	Density.	Percentage in acres of cropped area under character- istic crops.
1.	2.	3.	4.	5.	6.	7.
Himalaya and Sub- Himalaya, West	Mean 50·4 . . .	Mean 101 . . .	142,730	17,330,782	121·6	Wheat . . . 39
	Mussorie 99·2 . . .	Ludhiana 141 . . .				Pulses . . . 14
	Kailang 25·5 . . .	Muree 78 . . .				Other millets . . . 13
Himalaya and Sub- Himalaya, East	Mean 71·0 . . .	Mean 108·3 . . .	75,810	30,193,928	477·4	Maize . . . 12
	Jalpaiguri 125·4 . . .	Purnea 143 . . .				Rice . . . 11
	Bahraich 44·5 . . .	Darjeeling 55 . . .				Oilseeds . . . 2
West Plain,	Mean 30·9 . . .	Mean 130·3 . . .	53,459	30,069,771	409·3	Sugar and Drugs 6
	Allahabad 37·9 . . .	Cawnpore 159 . . .				Rice . . . 53
	Lahore 20·3 . . .	Meerut 97 . . .				Pulses . . . 25
Indo-Gangetic East Plain,	Mean 47·5 . . .	Mean 84·7 . . .	40,184	10,676,126	480·6	Other millets . . . 17
	Burdwan 56·4 . . .	Gaya 94 . . .				Wheat . . . 11
	Benares 39·9 . . .	Burdwan 70 . . .				Oilseeds . . . 8
Delta of Bengal	Mean 79·4 . . .	Mean 71·3 . . .	64,855	35,821,824	552·3	Sugar and Drugs 4
	Silchar 125·9 . . .	Narayanganj 85 . . .				Wheat . . . 24
	Borhampore 56·5 . . .	Jessore 56 . . .				Other millets . . . 5
Brahmaputra Valley	Mean 92·3 . . .	Mean 64·2 . . .	36,520	3,062,003	83·8	Pulses . . . 27
	Dibrugarh 110·0 . . .	Dhubri 94 . . .				Rice . . . 10
	Tezpur 70·2 . . .	Sibsagar 47 . . .				Oilseeds . . . 2
North-West Dry Area	Mean 11·4 . . .	Mean 194·8 . . .	201,972	13,568,310	67·1	Sugar and Drugs 4
	Cherat 25·1 . . .	Pachpadra 362 . . .				Rice . . . 80
	Jacobabad 3·9 . . .	Cherat 80 . . .				Pulses . . . 8
North-West Plateau	Mean 84·6 . . .	Mean 127·5 . . .	130,789	10,053,589	122·7	Other millets . . . 3
	Mount Abu 60·4 . . .	Mount Abu 200 . . .				Oilseeds . . . 4
	Sambhar 20·8 . . .	Indore 94 . . .				Sugar and . . . 3

SUBSIDIARY TABLE I.

Population and Density by Natural Divisions.—concl'd.

NATURAL DIVISIONS.	Normal rainfall, Mean and Extremes.	Variability, Mean and Extremes.	Area in Square Miles.	Population.	Density.	Percentage in acres of cropped areas under character- istic crops.
L	2.	3.	4	5.	6.	7.
West Satpuras . .	Mean 30.1 . . .	Mean 127.3 . . .	43,798	6,461,884	147.5	Cholum . . . 36
	Chikalda 67.7 . . .	Akola 164 . . .				Other millets . . . 17
	Malgaon 23.0 . . .	Nagpur 98 . . .				Pulses . . . 9
East Satpuras . .	Mean 57.7 . . .	Mean 91 . . .	152,455	16,759,028	100.0	Wheat . . . 3
	Pachmarhi 76.5 . . .	Raipur 116 . . .				Oilseeds . . . 9
	Baipur 50.8 . . .	Chaubassa 61 . . .				Rice . . . 62
Deccan . . .	Mean 29.7 . . .	Mean 138 . . .	155,177	23,441,579	151.1	Pulses . . . 18
	Belgaum 51.2 . . .	Sholapur 190 . . .				Other millets . . . 8
	Bellary 19.3 . . .	Belgaum 84 . . .				Wheat . . . 7
Gujarat . . .	Mean 27.6 . . .	Mean 181.8 . . .	66,936	9,108,799	136.1	Oilseeds . . . 7
	Surat 42.0 . . .	Dhuj 250 . . .				Sugar . . . 1
	Bhuj 14.3 . . .	Ahmedabad } Rajkot } 157				Cholum . . . 46
West C . . .	Mean 104.3 . . .	Mean 94.2 . . .	30,265	12,125,619	394.4	Pulses . . . 17
	Morcara 131.0 . . .	Goa 120 . . .				Other millets . . . 11
	Trivandrum 58.4 . . .	Cochin 72 . . .				Wheat . . . 4
South India . . .	Mean 33.2 . . .	Mean 94.2 . . .	64,613	16,773,659	259.6	Rice . . . 3
	Wellington 49.0 . . .	Tinnevely 124 . . .				Oilseeds . . . 6
	Coimbatore 21.5 . . .	Trichinopoly 67 . . .				Sugar and Cotton 2
East Coast, South . .	Mean 48.0 . . .	Mean 128 . . .	28,180	10,121,090	350.1	Rice . . . 75
	Negapatam 54.6 . . .	Nellore 146 . . .				Ragi . . . 6
	Nellore 35.4 . . .	Negapatam 115 . . .				Pulses . . . 9
East Coast, North . .	Mean 51.5 . . .	Mean 105.4 . . .	76,937	10,121,090	229.0	Oil . . . 2
	Balasore 67.3 . . .	Waltair } Cocanada } 140				Coffee . . . 3
	Cocanada 39.8 . . .	Cuttack 71 . . .				Rice . . . 65
Baluchistan . . .	Mean 8.7 . . .	Mean 161 . . .	76,977	810,746	11	Pulses . . . 11
	Quetta 10.0 . . .	Chaman 171 . . .				Other millets . . . 8
	Chaman 7.5 . . .	Kalat 144 . . .				Oilseeds . . . 6
Curma Coast . . .	Mean 152.9 . . .	Mean 45.1 . . .	61,097	3,860,038	63.2	Sugar and tobacco 1
	Tavoy 204.0 . . .	Basscin } Diamond Island } 50				Wheat, jowar, rice.
	Rangoon 98.0 . . .	Rangoon 37 . . .				Statistics not known.
Burma, We . . .	Mean 64.3 . . .	Mean 53.3 . . .	147,535	3,942,549	26.7	Rice . . . 9
	Toungoo 78.7 . . .	Thayetmyo 100 . . .				
	Thayetmyo 38.3 . . .	Tounggye 30 . . .				
Burma, Dr. Area . .	Mean 32.6 . . .	Mean 88 . . .				
	Yamethin 36.4 . . .	Mandalay 100 . . .				
	Minbu 28.7 . . .	Yamethin 78 . . .				

1 Jaurd or cholun.—The
2 Bai.—The

SUBSIDIARY TABLE II.

Density of the Population by Provinces, States and Agencies.

PROVINCE, STATE OR AGENCY.	MEAN DENSITY PER SQUARE MILE.				VARIATION, INCREASE (+) OR DECREASE (-)			NET VARIATION 1872 to 1901 + OR -.
	1901.	1891.	1881.	1872.	1861 to 1901.	1881 to 1891.	1872 to 1881.	
L.	2.	3.	4.	5.	6.	7.	8.	9.
INDIA.	167	163	144	117	+4	+19	+27	+50
Provinces.	218	208	183	170	+10	+20	+18	+43
Ajmer-Merwara	176	200	170	146	-24	+30	+24	+30
Andamans and Nicobars	8	5	5	...	+3	...	...	...
Assam	109	103	105	91	+6	-2	+14	+18
Baluchistan (including Agency Tract)	11	..	...	...	...	...	...	...
Bengal (including States)	418	393	366	328	+20	+27	+38	+85
Berar	155	168	151	126	-8	+12	+25	+29
Bombay (including States)	135	143	124	122	-8	+19	+2	+13
Burma	44	44	43	31	...	+1	+12	+13
Central Provinces (including States)	102	111	99	79	-9	+12	+20	+23
Coorg	114	100	113	106	+5	-4	+7	+8
Madras (including States)	270	253	221	227	+17	+32	-6	+43
North-West Frontier Province	180	167	151	117	+13	+16	+31	+63
Punjab (including States)	180	167	151	117	+13	+16	+31	+63
United Provinces of Agra and Oudh (including States)	432	435	400	360	+7	+25	+20	+52
States and Agencies.		97	81	31	-5	+16	350	+81
Baroda State	241	298	269	247	-57	+29	+22	-6
Central India Agency	110	131	118	...	-21	+13	...	...
Hyderabad State	135	140	119	...	-5	+21	...	...
State	36	31	...	...	+5	..	...	...
	596	531	441	441*	+65	+90	...	+155
		361	339	326	+55	+22	+13	+90
		269	143	172	+20	+26	-30	+16
		78	...	...	-18	+16	...	...

* In Burma, those for 1891 include Upper Burma with the exception of the States which will be found on the title page of Imperial Table II.

SUBSIDIARY TABLE III.

Distribution of the Population classified according to Density.

LOCALITY.	AREAS WITH A POPULATION PER SQUARE MILE OF							
	less than 200		200-400.		400-600.		600 and over.	
	Area.	Population.	Area.	Population.	Area.	Population.	Area.	Population.
1. INDIA.	1,332,348	101,759,801	205,972	58,046,119	145,325	71,334,861	82,952	63,170,020
	75.4	34.6	11.7	19.7	8.2	24.2	4.7	21.5
Provinces.	708,148	56,423,859	162,364	46,924,537	183,817	66,056,703	82,880	62,462,193
	66.2	24.4	14.9	20.2	12.8	29.5	7.6	26.9
Ajmer-Merwara	2,711	476,912	...	...	...	...	...	...
	100	100	...	...	...	...	...	...
Andamans	48	24,649	...	...	...	...	...	...
	100	100	...	...	...	...	...	...
Assam . . . . .	...	3,469,714	2,063	414,781	5,443	2,241,843	...	...
	...	56.6	3.7	6.8	9.6	36.6	...	...
Baluchistan . . . . .	...	708,246	...	...	...	...	...	...
	...	100	...	...	...	...	...	...
Bengal . . . . .	...	...	22,663	7,589,472	50,949	25,829,546	47,918	37,417
	...	...	15.0	10.2	33.7	34.5	31.7	...
Bihar	13,273	...	5,437	1,212,658	...	...	...	...
	69.3	...	30.7	44.0	...	...	...	...
Bombay	92,120	9,751,506	29,247	7,271,743	1,676	790,306	...	...
	74.8	52.5	23.8	39.2	1.4	4.1	...	...
Bihar	286,719	10,255,743	...	...	...	...	19	...
	100	97.8	...	...	...	...	...	...
Central Provinces	86,459	9,876,048	...	...	...	...	...	...
	100	100	...	...	...	...	...	...
Coorg	1,582	180,607	...	...	...	...	...	...
	100	100	...	...	...	...	...	...
Madras	56,535	6,839,158	57,910	17,928,758	23,544	10,887,150	3,737	...
	89.9	17.9	40.9	46.9	16.6	28.0	2.6	...
West Frontier and Lahore	73,942	7,781,598	25,981	7,508,550	10,720	5,192,041	8,032	...
	65.0	34.7	22.9	33.5	9.4	23.1	2.7	...
United Provinces	18,488	2,001,984	19,043	4,998,580	41,486	21,345,312	28,152	1
	17.3	4.2	17.8	10.5	38.7	44.7	26.3	...
Chief Commissioner and Agencies.	624,205	45,235,942	43,608	11,121,582	11,508	5,278,158	72	...
	91.9	72.6	6.4	17.8	1.7	8.6	...	...
Chandernagore Agency	86,511	502,500	...	...	...	...	...	...
	100	100	...	...	...	...	...	...
Chennai . . . . .	...	...	8,099	1,952,692	...	...	...	...
	...	...	100	100	...	...	...	...
Coastal States	37,345	3,181,570	...	...	1,307	566,974	...	...
	96.6	84.9	...	...	3.4	15.1	...	...
Central India States	61,236	5,001,830	4,525	1,908,828	...	...	...	...
	93.1	81.1	6.9	18.9	...	...	...	...
Central India Agency	77,415	8,342,876	1,357	285,905	...	...	...	...
	98.9	96.7	1.7	3.3	...	...	...	...
Central Provinces States	29,485	1,996,388	...	...	...	...	...	...
	100	100	...	...	...	...	...	...
Hyderabad State	82,672	10,680,836	...	...	...	...	26	...
	100	96.0	...	...	...	...	...	...
Kashmir State	80,900	2,905,578	...	...	...	...	...	...
	100	100	...	...	...	...	...	...
Madras States (including Coastal and Travancore)	416	43,464	1,100	380,440	8,453	3,764,182	...	...
	4.2	1	11	9.1	84.8	89.0	...	...
Madras State	15,016	2,072,445	14,382	3,201,598	...	...	...	...
	51.0	37.4	48.8	57.8	...	...	...	...
Punjab	27,816	1,742,609	7,867	2,267,000	399	533,212	...	...
	76.2	39.4	21.5	...	17.7	66.6	...	...
Rajputana	121,263	7,997,176	...	...	...	...	...	...
	95.1	...	...	...	...	...	...	...
United Provinces States . . . . .	...	...	...	...	...	...	...	...

of which is not known and 12,040 persons (Railway population) and population of each density group bear to the total area and population.

Not have been The

SUBSIDIARY TABLE IV.

Distribution of the Population between Towns and Villages.

PROVINCE, STATE OR AGENCY.	AVERAGE POPULATION.		PERCENTAGE OF POPULATION LIVING IN		PERCENTAGE OF URBAN POPULATION IN TOWNS OF				PERCENTAGE OF RURAL POPULATION IN VILLAGES OF			
	Per Town.	Per Village.	Towns.	Villages.	20,000 and over.	10,000 to 20,000.	5,000 to 10,000.	Under 5,000.	5,000 and over.	2,000 to 5,000.	500 to 2,000.	Under 500.
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
INDIA.	13,615	364	9.9	90.1	51.2	22.1	20.3	6.4	1.7	13.1	45.7	39.5
Ajmer-Merwara	31,328	475	26.3	73.7	94.4	...	5.6	...	1.0	22.5	43.9	32.0
Assam	9,514	266	2.9	97.1	37.1	20.8	30.1	12.5	...	4.6	38.2	57.1
Baluchistan (including Agency Tract)	6,672	375	4.9	95.1	61.4	...	...	38.6	...	9.8	33.0	57.2
Bengal (including States)	20,504	335	5.0	95.0	62.4	24.1	11.5	2.2	...	10.3	42.4	45.8
Bihar	9,533	409	15.2	84.8	21.4	32.7	44.9	...	...	13.6	43.8	37.6
Bombay (including States)	14,466	508	18.8	81.2	51.0	23.6	19.2	...	...	17.4	51.3	29.1
Burma	19,037	137	9.4	90.6	63.6	17.9	17.2	...	...	1.4	19.4	79.1
Central Provinces (including States)	11,961	238	7.5	92.5	40.6	25.3	27.2	...	...	4.5	33.1	62.4
Coorg	3,050	345	8.4	91.6	...	...	...	...	...	4.1	55.3	40.6
Madras (including States)	18,279	623	11.1	88.9	51.5	32.8	...	...	...	26.8	51.2	17.1
North-West Frontier Province	12,336	507	11.4	88.6	50.5	16.7	...	...	...	17.0	52.3	28.3
Punjab (including States)	11,716	397	11.1	88.9	49.4	...	...	...	0.5	10.5	51.2	...
Rajasthan (including States)	8,975	489	24	76	32.7	...	27.2	15.2	...	17.2	54.3	2
United Provinces	12,266	230	12.4	87.6	46.8	20.5	25.2	7.5	...	7.1	33.2	5
Agency	14,482	509	10.1	89.9	49.4	17.4	33.2	...	...	14.2	55.1	3
Assam	79,374	307	5.5	94.5	10.0	...	...	...	1.6	6.6	39.0	5
State	12,497	1,111	10.8	89.2	48.0	17.3	34.2	...	13.2	31.6	46.7	...
Andhra State	20,426	712	6.2	93.8	59.1	32.9	8.0	...	1.9	22.3	59.9	18
Free State	5,641	285	13.0	87.0	36.7	7.6	22.1	38.6	2	2.9	40.1	56
Madhya Pradesh Agency	11,017	278	14.5	85.5	38.1	23.8	30.3	8.3	1	12.2	40.1	47

SUBSIDIARY TABLE V.

Number per 1,000 of the total population and of each main religion who live in towns.

PROVINCE, STATE OR AGENCY.	No. per 1,000 of population who live in towns.				
	Total.	Hindu.	Musliman.	Christian.	Jain.
1.	2.	3.	4.	5.	6.
INDIA.	99	92	128	220	300
Provinces.	91	91	118	268	316
Bihar	203	207	524	786	266
Bombay	29	40	22	56	287
Burma	49	332	25	978	...
Central Provinces	50	55	48	245	545
Coorg	152	133	409	789	349
Madras	188	167	236	518	316
Madhya Pradesh	94	516	341	220	583
United Provinces	76	74	439	629	260
Assam	84	65	272	269	...
North-West Frontier Province	111	102	231	196	...
Punjab	114	124	110	532	43
Rajasthan Agency	111	80	232	307	271
Andhra State	108	102	231	129	278
Free State	62	...	...	...	...
Madhya Pradesh	130	...	445	313	446
Agency	145	124	...	895	302
				739	229
				...	991
				1,000	...
				...	250

SUBSIDIARY TABLE VI.

Main Statistics for Cities.

CITY.	Population in 1901.	PERCENTAGE OF VARIATION.		Number of persons per square mile in 1901.	Number of females to 1,000 males in 1901.	Proportion of Foreign-born per 1,000 in 1901.
		1891-1901.	1875-1901.			
1.	2.	3.	4.	5.	6.	7.
1. Calcutta and Fort	847,798	+24.3	+33.9	42,390	507	657
2. Bombay and Cantonment	770,006	-5.5	+20.4	35,273	617	766
3. Madras and Cantonment	509,846	+12.6	+28.1	18,865	984	815
4. Agra and Cantonment	188,022	+11.4	+28.1	6,639	882	188
5. Ahmedabad and Cantonment	185,889	+25.2	+55.3	30,296	910	290
6. Allahabad and Cantonment	172,032	-1.8	+19.7	3,517	875	189
7. Amritsar and Cantonment	162,429	+18.7	+19.6	18,048	743	264
8. Bangalore City (C. and M. Station)	160,046	-11.8	+11.6	6,627	961	...
9. Barilly and Cantonment	131,208	+8.4	+27.4	15,244	878	99
10. Baroda City and Cantonment	103,790	-10.8	-10.7	11,532	853	267
11. Benares and Cantonment	209,331	-4.6	+19.6	21,742	924	234
12. Cawnpore and Cantonment	197,170	+4.5	+60.6	37,538	772	381
13. Delhi and Cantonment	208,575	+8.3	+35.1	12,475	817	284
14. Howrah	157,594	+35.1	+87.4	17,510	577	659
15. Hyderabad and Cantonment	445,466	+8.0	...	17,249	931	26
16. Jaipur	160,167	+9	...	...	910	...
17. Karachi and Cantonment	116,663	+10.9	+105.7	1,643	706	4
18. Lahore and Cantonment	202,964	+14.8	+61.8	8,119	691	3
19. Lucknow and Cantonment	264,049	-3.2	-7.2	12,278	876	1
20. Madras	105,934	+21.2	+108.8	17,664	1,012	...
21. Mandalay and Cantonment	188,816	-2.6	...	7,353	964	25
22. Meerut and Cantonment	118,129	-1.0	+45.1	27,152	802	...
23. Nagpur	127,734	+9.1	+51.2	...	928	...
24. Patna	134,785	-18.5	-15.1	16,964	1,011	...
25. Poona and Cantonment	163,320	-5.0	+28.9	27,845	915	...
26. Rangoon and Cantonment	234,881	+30.2	+137.8	12,363	419	...
27. Srinagar	122,818	+3.0	...	15,327	871	...
28. Surat	119,306	+9.2	+10.6	39,769	935	...
29. Trichinopoly and Cantonment	104,721	+15.6	+36.8	13,090	1,045	...

NOTE.—The proportions in column 4 in the case of the Punjab cities refer to the period 1908-1901.

SUBSIDIARY TABLE VII.

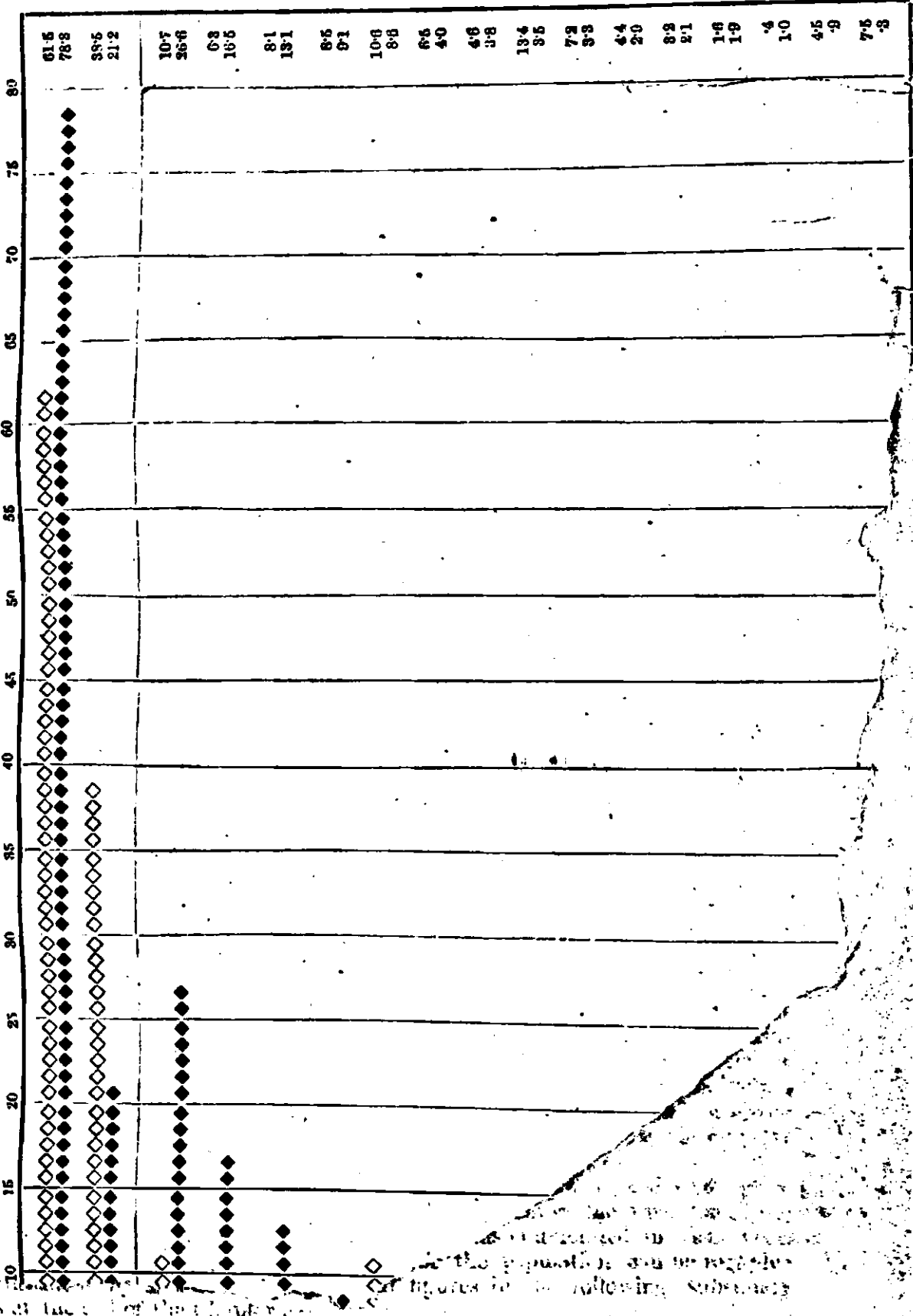
House-room.

PROVINCE, STATE OR AGENCY.	AVERAGE NUMBER OF PERSONS PER HOUSE.		AVERAGE NUMBER OF HOUSES PER PERSON.	
	1901.	1901.	1901.	1901.
INDIA.				
Ajmer-Merwara
Assam
Baluchistan (Districts and Territories)
Bengal (including States)
Berar
Bombay (including States)
Burma
Central Province
Coorg
Madras (including North-West Frontier)
Punjab (including United Provinces including St.
Baroda State
Central India Agency
Hyderabad State
Kashmir State
Cochin State
Travancore State
Mysore State
Rajputana Agency

DIAGRAM No. 1.

Relation of Area and Population.

Each white diamond represents 1 per cent. of the total AREA of India.
 Each black diamond represents 1 per cent. of the total POPULATION of India.



of the population, and the respective figures in the following subsidiary tables at the end of the chapter.

- Subsidiary Table I.—Variation in relation to density since 1872.
- “ “ II.—No variation since 1891.
- “ “ III.—Variation in natural increase.
- “ “ IV.—Variation in districts classified according to density.
- “ “ V.—Variation according to area of increase and decrease.

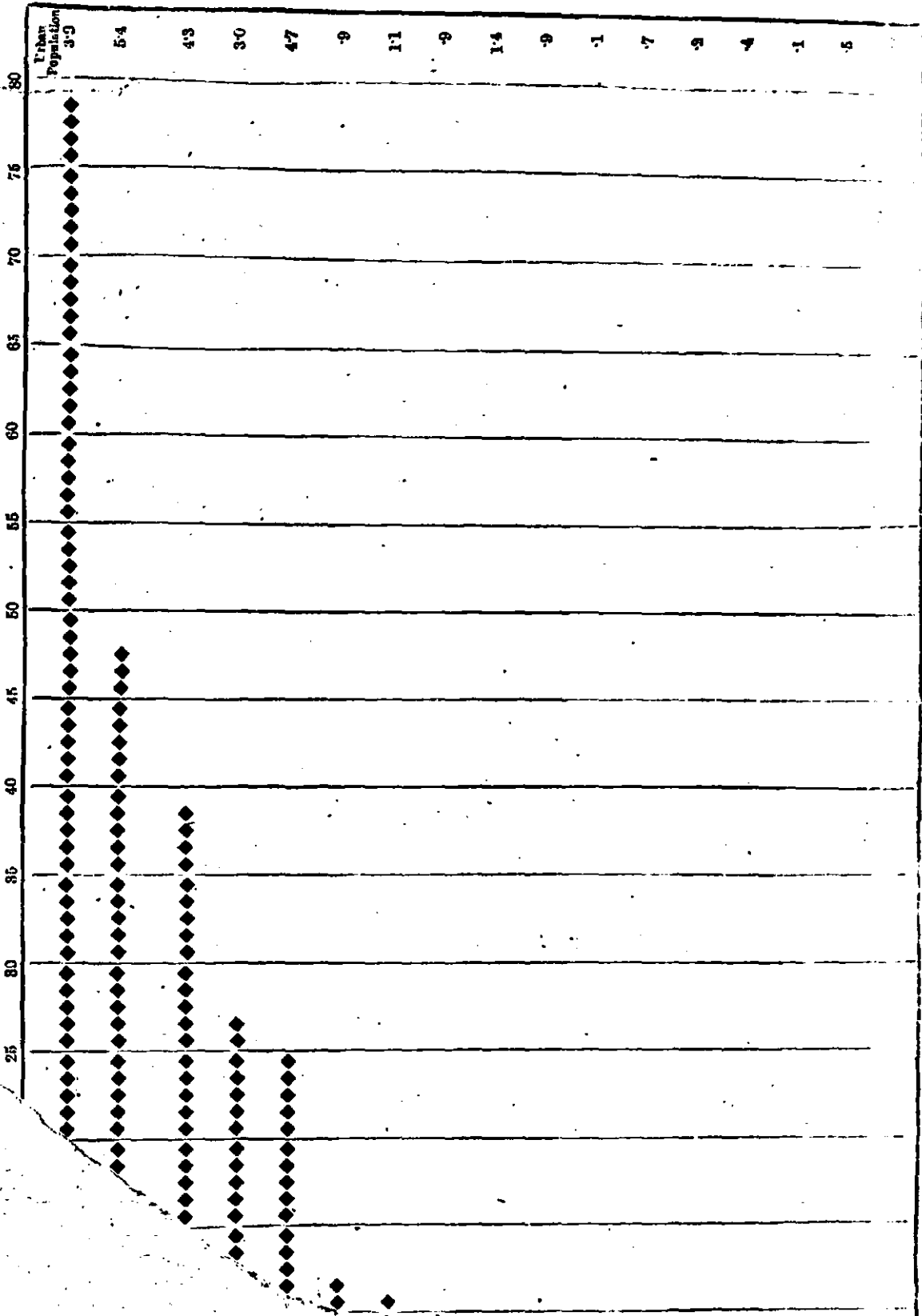
01. Districts for administrative purposes in the United Provinces known as Ajmer-Merwara and the territories under the direct control of the Government of India.

CHAPTER I.—DISTRIBUTION OF THE POPULATION.

Urban and Rural Population.

million persons.

▲ for URBAN population and the black diamonds for RURAL population.
 for the actual strength of the Urban population in millions and decimals.



CHAPTER II.

Movement of the Population.

Individual Provinces and States.

90. In the last Chapter the results of the census have been discussed with reference to the population as it stood on the 1st March, 1901. The present Chapter will be devoted to the consideration of the changes which have taken place since the time of the first general census, which was effected over the greater part of India in 1872. The variations during the periods ending in 1881 and 1891 have already been dealt with in previous Census Reports; they will, therefore, be referred to very briefly here, and the discussion will be

Object of discussion.

Census of	Population.	Variation Per cent. since previous census.
1872	206,162,360	
1881	263,596,330	+ 23.1
1891	287,314,671	+ 18.1
1901	294,361,056	+ 2.4

directed mainly to an examination of those which have taken place since 1891, and of the causes which have produced them. The census returns show a steady increase of population from 206,162,360 in 1872 to 294,361,056 at the present census, but the true rate of progress has been far smaller than would appear from these figures. The earlier enumeration left out of account the population of the Andamans and the Native States of Baluchistan, Central India, Hyderabad, Kashmir,

Rajputana, Sikkim, Manipur, and the Punjab, with a population, at the present time, of some thirty-eight millions, and it also, of course, failed to deal with areas not then included in British territory such as Upper Burma, British Baluchistan and certain outlying parts of Assam. Moreover, apart from the addition of tracts not previously counted, the first census was necessarily in many respects tentative and incomplete, and numerous omissions occurred, especially amongst travellers and in out-of-the-way places; even whole villages were sometimes lost sight of. In 1881, more elaborate precautions were taken, and the omissions were fewer in number, but the count was still not as thorough as it was in 1891, when, except in tracts newly added and in a few of the more backward Native States, a high standard of accuracy was reached which could not easily be surpassed. It follows that while part of the apparent increase on that occasion, and still more in 1891, was due to a more exhaustive enumeration, this disturbing influence had almost disappeared at the present census. But the conditions in different parts of India are far from uniform, and before attempting to disentangle from these artificial influences the true variations which have taken place and to examine the causes which underlie them for the Empire as a whole, it is necessary to deal with the results in the individual provinces and states of which it is composed. When these have been considered in detail, and only then, will it be possible to arrive at correct conclusions for the whole country.

91. The actual changes in the population of each province and state since 1872 are shown in Imperial Table II, and Table II-A shows the variation at the present census as compared with 1891 on the areas enumerated in that year. The different aspects from which the growth of the population can be regarded are illustrated by means of proportional figures in the following subsidiary tables at the end of the Chapter:—

Reference to statistics.

- Subsidiary Table I.—Variation in relation to density since 1872.
- " " II.—Net variation since 1891.
- " " III.—Variation in natural divisions.
- " " IV.—Variation in districts classified according to density.
- " " V.—Variation distributed by areas of increase and decrease.

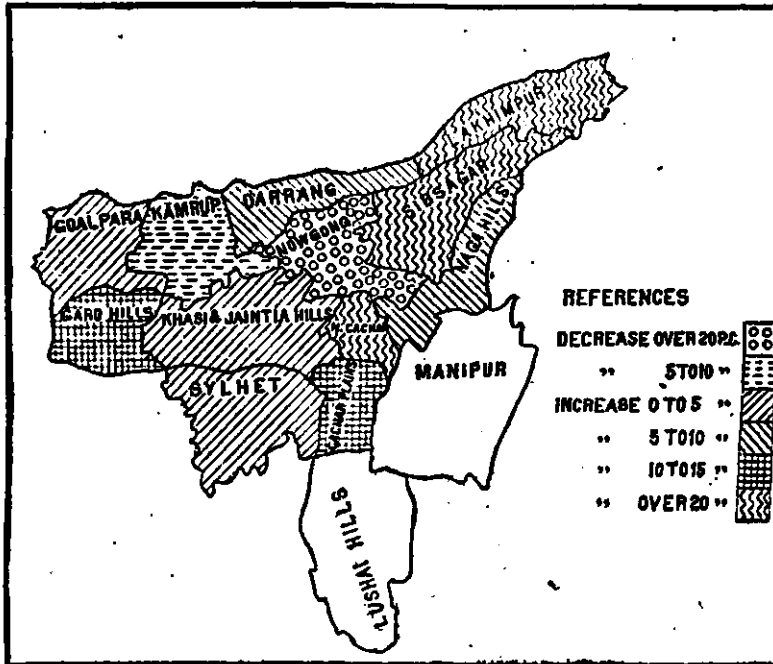
92. **Ajmer-Merwara.**—The small tract of British territory known as Ajmer-Merwara is administered by the Agent to the Governor General in

Rajputana, who is its Chief Commissioner. It lies in the middle of the Native States of the Rajputana Agency, and its circumstances are very similar to those which prevail there. Like them it suffered severely from famine in 1899-1900, but the measures taken to combat the calamity were more efficient. The consequence is, that while the loss of population in these States in the decade preceding the present census varied from 23 to 42 per cent., that in Ajmer-Merwara was only 12 per cent. The decrease took place entirely in rural areas, where it amounted to 18·6 in Ajmer and 11·6 in Merwara; the population of Ajmer City and other urban areas is greater by 5·6 per cent. than it was in 1891.

Summary of results.

93. ASSAM.—According to the statistics of Table II the population of Assam

Map of Assam showing the variations in the population since 1891.



Note.—Manipur and Lushai Hills were not enumerated in 1891.

increased during the ten years preceding the census by 649,041 or nearly 12 per cent. But half of this increase comes from the Lushai Hills and Manipur. In South Lushai there was no census in 1891; in Manipur a census was taken, but the papers were destroyed in the insurrection. If we deduct the population of these areas, which have only a remote bearing on the general progress of the Province, the true increase will be seen to be 327,240, or just under 6 per cent. The figures must be qualified by

the remark that the number of persons born in Assam has increased by only 68,197, or 1·36 per cent.; while the foreign-born population shows the large increase of 250,448 or 25 per cent. The highest rate of increase, 11 per cent. found in the hill districts, but this is due to the accident that the scanty population of the North Cachar Hills was more than doubled by the presence of over 20,000 persons employed on the construction of the Assam-Bengal Railway. The real increase in the hills was thus only 6·5 per cent., some of which may perhaps, in some tracts, be ascribed to improved enumeration. The Brahmaputra Valley shows an increase of 5·7 and the Surma Valley of 5·3 per cent. Taking the figures for individual districts we find in Lakhimpur, at the extreme north-east of the Province, the large increase of 117,343 persons or 46·1 per cent., 16 per cent. from natural growth and 30 per cent. from immigration. Although 41 per cent. of the population are foreigners the indigenous castes have shared in the prosperity which the district owes to its tea gardens and coal mines and have increased in number considerably. The growth of this district has been continuous and the population has trebled since 1872. The neighbouring district of Sibsagar shows an increase of 117,810 persons or 24·4 per cent. due in equal proportion to immigration and natural increase and traceable in either case to the influence of "a number of well-managed tea-gardens." Since 1872 Sibsagar has added 280,000 to its population or 88 per cent.

94. There are, unhappily, two marked exceptions to the example of progress set by Lakhimpur and Sibsagar and followed in a less degree by the other districts of Assam. A glance at the map will show that in the centre of the Brahmaputra Valley two districts are conspicuous for a decrease in their population. Nowgong has lost 86,147 people, or nearly 25 per cent. of the population recorded in 1891, while Kamrup has declined by 45,062, or 7 per cent. In both cases the chief cause of the decrease is the virulent and communicable

Assam.

form of malaria known from the darkening of the skin, which is one of its symptoms, as *kald-ázár* or the black sickness. This disease, which is probably identical with the Rangpur and Burdwan fevers and the *káld-ákh* or *káld-jwar* of Purnea and the Darjeeling terai, was first observed in the Garo Hills in 1869, when the Garos were so impressed with its infectious character that they "are said to have not only abandoned their sick, but to have stupefied them with drink and then set light to the houses in which they were lying in a state of helpless intoxication." By 1883 it had spread to the Goalpara sub-division which showed a decrease of 29,699 persons at the census of 1891. Five years later *kald-ázár* entered Kamrup and reduced the population of the southern part of the district by nearly 12 per cent. Having spent its force there it passed on, in 1892, to Nowgong where its track is marked by deserted villages, untilled fields, a land revenue reduced by 23 per cent. and a disheartened population which, after 19 years of steady increase, has now receded to the figure at which it stood nearly 30 years ago. Mr. Allen thinks that the disease is dying out in Nowgong and that its advance up the Assam Valley seems to have been checked by the sparsely populated hills and forests which separate Nowgong from Sibsagar. This view is in accordance with the results of modern researches which go to show that a population decimated by malaria tends to acquire some degree of immunity and that the disease can only be transmitted through certain species of mosquitoes which flourish only under special conditions of soil and humidity and can in no case travel far from their original habitat. There can be little doubt that *kald-ázár* has done much to retard the natural development of Assam. The tale of its extraordinary fatality has travelled far and has strengthened the traditional dread with which the people of Bengal and Bihar have always regarded a country where, if a man falls ill, he is likely to die in strange surroundings without any means of getting away. The isolation of Assam has had a great deal to say to its unpopularity. Independent cultivators have been deterred from settling on the spare land which awaits the plough and immigration has been restricted to the classes who are brought in under the Labour Acts and do not move on their own initiative. If effective railway communication were opened up with the congested districts of Bihar, advantage might be taken of the movement of the population eastward which seems to have set in and settlers might be found to occupy the holdings which *kald-ázár* has left vacant.

95. Special interest attaches to those portions of the Provincial Report in which Mr. Allen discusses the decline of the indigenous population of Assam. That the Assamese are decreasing in number has long been surmised, but the extent of their losses could not be accurately stated owing to the difficulty of determining exactly what number of persons should be regarded as Assamese. Here the obvious tests of birth-place and language cannot be applied. A large proportion of the persons born in Assam are the children of coolie immigrants, and many of these habitually speak the Assamese language. In order therefore to distinguish the indigenous from the foreign population Mr. Allen has taken for the Brahmaputra Valley the statistics of 49 castes and tribes peculiar to Assam and has shown in a subsidiary table the variation in their numbers during the last ten years. The broad facts are that in the five upper districts of the Valley the Assamese have decreased from 1,608,257 to 1,504,847 or by 6.4 per cent. In Nowgong the loss is 31 per cent., in Kamrup 9 per cent. and in Darrang 6 per cent., while Lakhimpur shows an increase of 20 per cent. and Sibsagar of 9 per cent. Some part of the increase in the latter districts is no doubt due to the immigration from the former, but most of it is the outcome of natural growth and, bearing in mind that the area of decrease is also the area which has been swept by fever and injuriously affected by the earthquake of 1897, we need feel no hesitation in accepting Mr. Allen's conclusion that "if the Assamese can increase rapidly, at the upper end of the Valley, it is only reasonable to suppose that when *kald-ázár* has finally disappeared, they will at any rate stop decreasing in Kamrup, Darrang and Nowgong."

Decline of indigenous population.

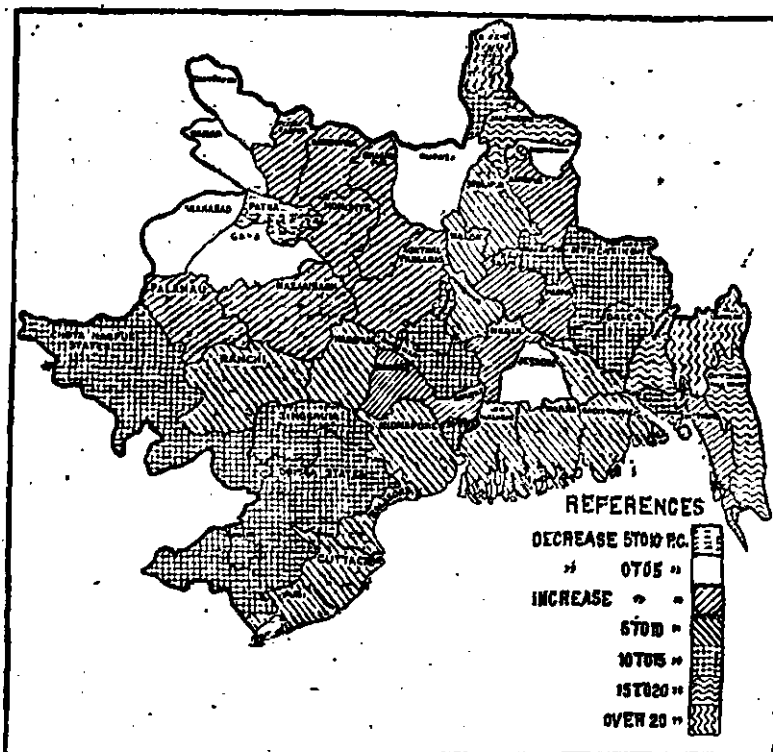
96. Bengal.—The second chapter of Mr. Gait's report contains an exhaustive and interesting discussion of the variations of the population in every district of Bengal to which I must refer those who wish to make a detailed

Early estimates of population.

study of the development of the Province during the last thirty years. Here I can only deal with the larger movements of the people and the more general causes which appear to have determined them.

The earlier estimates of the population of Bengal were mainly guess work

Map of Bengal showing the variations in the population since 1891.



and with one exception fell greatly short of the truth. In 1765 it was supposed to be 10 millions. Twenty years or so later Sir William Jones put the population of Bengal, Bihar and Orissa with Ghazipur, Benares, Jaunpur and part of Mirzapur at 24 millions. In 1792 Colebrooke assumed 30 millions. Mr. Adam, when writing on vernacular education in 1835, placed the population at 35 millions on the basis of some very imperfect official returns called for by Lord Wellesley in 1801. Thornton's Gazetteer of 1858

gives an estimate of 40 millions for British territory without the Native States, Darjeeling and Duars, and 42½ millions was the figure officially accepted up to 1872. Where the margin of error is so large it would be waste of time to enquire how the estimates were framed. Mention should however be made of the curious fact that in the course of the statistical survey of parts of Bengal, which he conducted between 1807 and 1814, Dr. Francis Buchanan made a laborious attempt to calculate the population of six districts of Bihar and Northern Bengal and arrived at results exceeding by about half a million the figure ascertained for the same area in 1872. Dr. Buchanan seems to have argued from the cultivated area to the number of ploughs, and to have assumed that each plough represented five persons. To the number of cultivators thus arrived at, he added varying proportions for the other classes of society locally recognised. In some cases he also estimated the gross agricultural produce and the amount exported and calculated the number of persons required to consume the quantity that remained in the district. He relied, however, mainly on the number of ploughs. The account of the Survey published in 1838 by Mr. Montgomery Martin under the title *Eastern India* throws no light on the methods by which the initial data were procured, nor does any one seem to have attempted to calculate the population of the entire Province from Dr. Buchanan's estimate of the tract surveyed by him. With a fair knowledge of the relative density of different parts of Bengal it ought to have been possible to improve greatly on the official estimate of 42 millions.

Summary of
movements
from 1872 to
1901.

97. The census of 1872 came as a surprise to everyone. It disclosed a population of over 62 millions or about 24 millions more than the population of the United States as it then stood. Between 1872 and 1901 the statistics of the four censuses show an increment of 16 millions or nearly 26 per cent. In the first nine years of the period the rate of increase recorded was 11·5 per cent.; between 1881 and 1891 it dropped to 7·3; while in the last ten years it has been only 5·1 per cent. This progressive decline is traceable in some degree to the inevitable defects of the first and second enumerations, which were especially imperfect in the outlying parts of the Province. As each successive census supplies the omissions of its predecessor, the ratio of increase necessarily tends to fall off. In 1872 the census of the British districts of

Chota Nagpur was carried out gradually during the cold weather months by a body of clerks who were supposed to travel from village to village and record the resident population. But no effective check could be kept on their proceedings, and it can hardly be doubted that the returns for the less accessible places were too often based upon no more solid foundation than the treacherous memory of the village watchman. The Tributary States of Chota Nagpur and Orissa were enumerated under the supervision of their own chiefs. (In parts of the Sonthal Parganas the census was carried out by means of seeds or small stones or by tying knots in coloured strings. The first synchronous census of these tracts was taken in 1881, and the increase of 32 per cent. then brought out is due rather to improved enumeration than to a rate of natural growth hardly credible in a poor country which was then the chief recruiting ground for the tea gardens of Assam. Though the Chota Nagpur plateau furnishes the most striking instance of the inaccuracy of the census of 1872, the returns of that year were also imperfect in Jessore, Jalpaiguri, Darjeeling, Mymensingh, Hill Tippera and Darbhanga, in all of which the increase shown in 1881 is to a great extent fictitious. There were probably also some omissions in the British districts of Orissa, but a large proportion of the increase of 17·6 per cent. which was recorded in 1881 may fairly be ascribed to the recovery of the population after the severe famine of 1866. The decline of nearly 3 per cent. in West Bengal during these years was caused by the epidemic of Burdwan fever which ravaged the alluvial tracts of the division and was estimated at the time to have caused about two million deaths besides materially impairing the reproductive capacity of the population.

Of the ten years 1881-91 there is little to be said. The population of the Province increased by 7·3 per cent. Eastern Bengal shows a growth of 14 per cent., due for the most part to natural causes connected with its great advantages of soil and climate. The increase of 13·5 per cent. recorded for the Chota Nagpur plateau probably represents some substantial omissions in the census of 1881, when disturbances took place in the Sonthal Parganas and a widespread sense of alarm and uneasiness was caused by rumours as to the object of the enumeration which were traced to a wandering ascetic.

98. The population recorded in Bengal on the present occasion was 78,493,410; 74,744,866 in British territory and 3,748,544 in the Native States. The increase since 1891 comes to 3,819,612 or to 5·1 per cent. made up of 3,397,906 or 4·7 per cent. in British districts and 421,707 or 12·6 per cent. in the States. Among the natural divisions of the Province, Eastern Bengal comes first with an increase of 10·4 per cent.; Chota Nagpur has 7·8; West Bengal and Orissa 7; North Bengal 5·9 and Central Bengal 5·1 per cent. In North Bihar the population is virtually stationary and in South Bihar it has declined 8·6 per cent.

Before reviewing the fluctuations in the natural divisions we may glance briefly at the movement of population in the entire Province during the last twenty years. Taking 1881 as a starting-point we arrive at the following results:—

Census Increase 1881-1891	:	:	:	:	:	5,136,858
Census Increase 1891-1901	:	:	:	:	:	3,819,612
						1,317,246

But it may be said that a substantial share of the increase in the first period is fictitious, being due merely to improved enumeration. Mr. Gait deducts half a million on this account, but would leave the second figure as it stands, holding that there is nothing to choose in point of accuracy between the last two enumerations. In the last decade he allows for the operation of two exceptional causes. He takes plague mortality at 150,000 or more than twice the recorded number of deaths (65,884) up to the date of the census; and estimates the loss of life from the cyclone of 1897 at 50,000. This gives us the following figures:—

Probable true increase 1881-1891	:	:	:	:	:	4,636,858
" " " 1891-1901	:	:	:	:	:	3,819,612
Difference	:	:	:	:	:	817,246
Deduct for plague and cyclone	:	:	:	:	:	200,000
Probable natural difference	:	:	:	:	:	617,246

It would be hopeless to attempt to disentangle the causes to which this difference is due. Increased emigration, enhanced mortality, reduced birth-rate,

all may have had their share in the result. As to emigration Mr. Gait observes that there has been "a considerable net increase, chiefly in the direction of Assam, but it does not appear that it has been greater during the last decade than it was in the preceding ten years." But the exclusion of this factor does not help us materially to determine the relative influence exercised by the other factors. The evidence of the vital statistics is discounted by the uncertainty as to the degree of improvement that may have taken place in registration, to which much attention has been paid of late years in Bengal. Our figures are not accurate enough to enable us to say how much of a given result can be put down to variations of births or deaths in either direction. I think it, however, extremely probable that the reduction in the rate of increase of the population is very largely due to a decline in the birth-rate induced by the general rise in the prices of staple food grains. Mr. O'Connor's statistics of prices and wages show that the average price of common rice in Bengal has risen by 35 per cent. since the year 1890. In South Bihar common rice is dearer by 26 per cent., maize by 32 per cent., and wheat by 29 per cent., while during the same period the wages of agricultural labourers have fallen by 3 per cent. Conditions such as these can hardly fail to affect the reproductive energy of the large class of unskilled labourers who own no land and have not participated in the profits arising from the enhanced prices of agricultural produce. Nor are they confined to South Bihar. They extend in varying degrees to all parts of Bengal and although their influence on the birth-rate may not always be traceable we may be sure that it is there.

Movement in relation to density.

99. Subsidiary table III appended to Chapter II of the Provincial Report gives an interesting view of the actual and proportional variation of population in relation to density in different parts of Bengal. For the province as a whole the absolute and proportional increase of population is greatest in tracts where the density is below 300 persons to the square mile. These show an increase of 1,003,219 persons or 8.6 per square mile. Next in order come tracts with a density of from 500 to 600 which have increased by 440,263, but in these the relative increase is only 4.6 per cent. while the areas with a density of from 900 to 1,000 have gained nearly 7 per cent. On analysing the figures by natural divisions it appears that the sparsely peopled territory owes its growth to the filling up of spare land in Chota Nagpur and the Sub-Himalayan tracts and the reclamation of the Barind in Northern Bengal. "If Chota Nagpur and North Bengal be left out of account, the greatest absolute addition to the population during the last decade has occurred in *thanas* with a density of 500 to 600 persons per square mile. In East Bengal the greatest absolute increment has taken place in *thanas* with 800 to 900 persons per square mile, and the greatest proportional growth in those with from 400 to 500, and then in those with from 900 to 1,000." On the whole it seems to be clear that the pressure of population on the land in Bengal has not generally reached the point at which immigration begins to be checked and the struggle for existence re-acts on and diminishes the reproductive instinct. The densely peopled tracts of Bihar may perhaps form an exception. Here we have extensive emigration combined, in South Bihar, with a decline, both absolute and relative, in the population of the most crowded tracts. In North Bihar the statistics are more ambiguous and there is a substantial increase in the *thanas* with a population of from 800 to 1,000. But in both divisions the conditions were abnormal, especially at the close of the decade, and it is doubtful whether any probable inference can be drawn from the results of the census.

Movement by natural divisions—East Bengal.

100. The causes of the growth of population in Eastern Bengal are not far to seek. The rainfall is copious and regular; the soil is naturally fertile and is renewed year after year by the action of the great rivers which overflow their banks at regular intervals and cover the country with a rich deposit of silt. The climate is on the whole a healthy one. The people are sturdy and prolific specimens of the Mongolo-Dravidian type; they have profited enormously by the rise in general prices and the introduction of jute; their standard of living is high and prosperity has engendered in them a spirit of independence which finds its expression in various forms of violent crime. Throughout the division the proportion of increase is remarkably uniform. In Hill Tippera it is raised by immigration to 26 per cent.; while in Chittagong it has been reduced to 4.8 by the cyclone of 1897 and the outbreak of cholera which followed in its track.

No signs of pressure on the means of subsistence can be discerned, and it is shown in the table already quoted that the population has grown most rapidly in the areas which are most densely peopled.

101. On the Chota Nagpur plateau and more especially in the districts of Chota Nagpur Ranchi and the Sonthal Parganas emigration was very active during the decade and the census shows a net increase of only 7·8 per cent. The collieries and tea gardens attract the labouring classes in increasing numbers. The Native States in the south and west of the division show an increase of 13 to 14 per cent., which is probably due in some measure to improved enumeration.

102. In Western Bengal the increase is 7 per cent., varying from 13 per cent. West Bengal of natural growth in Birbhum, which is recovering from a cycle of malaria, to 1·4 in Hooghly, where fever is rife and the population would have been stationary but for the influence of the mills and factories of Serampur. Howrah owes its increase of 11·3 to the influx of mill-hands, who form something like 17 per cent. of the population, while the growth of the western portion of Burdwan, where one-third of the inhabitants are foreigners, is due to the attraction of the coal mines.

103. Central Bengal gains 5 per cent. on the whole. Mills and reclamation of Central Bengal Sundarban jungle add nearly 10 per cent. to the 24-Parganas; rivers blocked by silt and lines of stagnant swamps explain the decline of 4 per cent. in Jessore and the small increase of 1·4 per cent. in Nadia. The addition of 24·2 per cent. to the population of Calcutta has been dealt with in the last chapter.

104. Northern Bengal has an increase of nearly 6 per cent. It is largest in North Bengal Jalpaiguri (15·6) where ordinary cultivation has expanded and the tea gardens of the *thanas* in the Duars attract a foreign-born population of from 28 to 55 per cent. The increase of 11·5 per cent. in Darjeeling is due to the influx of cultivators from Nepal, while Bogra owes a similar increment to the industrious Santals, who are reclaiming the laterite ridges of the once fertile Barind from the jungle which had been allowed to overrun it.

105. There remain two divisions in which population has remained stationary or has actually declined. In North Bihar, where one person per thousand has been added to the population during the decade, famine prevailed in five out of six districts during 1896-97. Yet no correspondence can be traced between the prevalence of famine and the fluctuations of population. "The stress of famine," says Mr. Gait, "was greatest in Darbhanga, but this district shows the largest gain of population (3·9 per cent.). Purnea escaped the famine altogether, but it has sustained a loss of 3·5 per cent. or exactly the same as Champaran, where the decline is greatest in the very tract that suffered least from famine. Saran, which has a decrease of 2·2 per cent., was far less severely affected than Muzaffarpur, which has gained 1·5 per cent. and its loss of population is amply accounted for by the plague epidemic which was more virulent there than in any other district except Patna; the Gopalganj subdivision where the famine was worst has added slightly to its population of 1891. In Muzaffarpur and Darbhanga, the great rice-growing tracts under the Nepal frontier, which suffered most in the famine year, show the greatest growth of population. The decadent tracts in Muzaffarpur and Bhagalpur either escaped the famine altogether, or suffered from it only in a minor degree. The true causes of the decay in parts of North Bihar must, therefore, be sought elsewhere. Champaran and Purnea are well known to be unhealthy and have suffered since 1891, not only from malarial affections, but also from severe epidemics of cholera. The outbreak of this disease in Purnea in 1900 was of unparalleled severity and no fewer than 46,240 deaths were laid to its account in the annual returns of mortality. The part of Bhagalpur that has lost population borders on Purnea and shares the unhealthiness of which that district is the victim. In Saran, as already noted, plague fully accounts for the decrease which is greatest where that disease was most fatal."

"South Bihar includes all the plague districts except Saran, and its decrease of 3·6 per cent. is mainly attributable to the direct and indirect losses caused by the epidemic, *viz.*, a very heavy mortality, the flight of a great part of the immigrant population and, in some parts, the failure of the census staff to effect an exhaustive enumeration. Except in the west of Shahabad, the areas of greatest decadence exactly coincide with the areas that have suffered most from plague, and tracts that have been free from the disease have, as a rule,

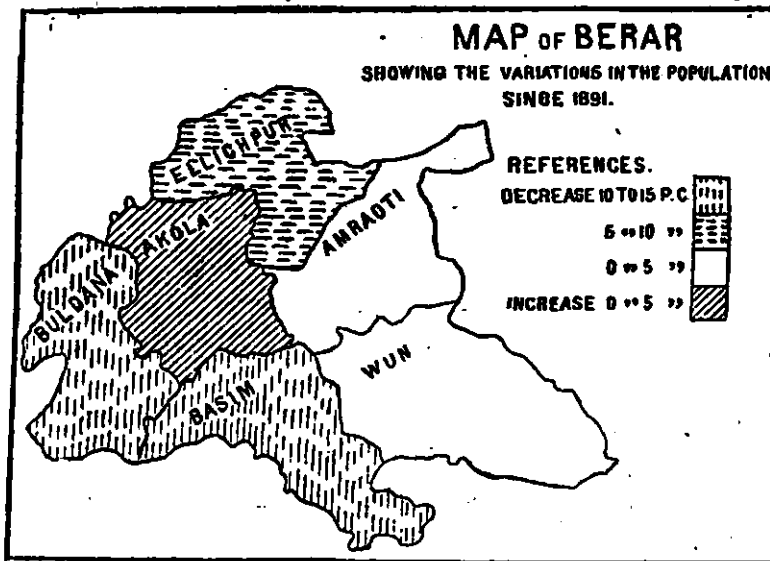
added to their population. Prior to the census the epidemic had been most virulent and most widespread in Patna, where the population has declined by 8·3 per cent. as compared with 1891. The loss is greatest in the thickly populated urban and semi-urban country on the bank of the Ganges where the mortality due to plague was greatest. The southern part of the district which suffered least from plague has almost held its ground."

Summary of movements.

106. **Berar.**—After fifty years of almost unbroken prosperity Berar was visited during the ten years preceding the last census by two famines, which followed each other in close succession and reduced the population by 143,475 persons or 4·9 per cent. In 1867 when the first census was taken the people numbered 2,227,654; by 1881 they had increased to 2,672,673 and by 1891 to 2,897,491. In 1901 the population had fallen to 2,754,016.

The famine of 1896-97.

Everywhere, except in the hilly tract of the Satpura range known as the Melghat taluk, the famine of 1896-97 was due rather to an inordinate rise of prices than to actual scarcity of food. It was felt most severely by the large class of field labourers for whom there was no work and by the half starved immigrants who flocked in from the Central Provinces and helped to swell the death roll. Although the death-rate of Berar rose in this year from 37·6 to 52·6 per thousand, there were few deaths from starvation among the natives of the Province, except in the Melghat. Here the failure of crops was



complete; there were no stores of grain to fall back upon; the jungle tribes—Bhils, Korkus and Gonds—were too shy, too inert, and too unused to regular labour to come on to the relief works, and a considerable number of them admittedly died of want. The famine of 1899-1900 was a calamity of a more formidable type, brought about by the great atmospheric movements which determine the variations of the monsoons. Not only did both the autumn and spring crops fail completely; there was also a dearth of fodder; the stores of grain which are still habitually maintained had been exhausted in 1897 and not replenished in the following year, and, to complete the disaster, the sources of water-supply dried up and a large number of cattle perished from thirst. The death-rate rose from 40 to nearly 83 per thousand; the birth-rate fell from 50 to 31. The number of deaths returned was 236,022, being nearly 126,000 in excess of the decennial average, and nearly four times as many as occurred in 1898. Some of these people no doubt were immigrants from the neighbouring parts of Hyderabad, but no estimate of their number can be made, and it is impossible to doubt that there was considerable mortality among the inhabitants of the Province. The daily average number of persons relieved was 265,744 or 9·2 per cent. of the population, while in July 1900 the figure rose to 601,424 or nearly 21 per cent.

complete; there were no stores of grain to fall back upon; the jungle tribes—Bhils, Korkus and Gonds—were too shy, too inert, and too unused to regular labour to come on to the relief works, and a considerable number of them admittedly died of want. The famine of 1899-1900 was a calamity of a more formidable type, brought about by the great atmospheric movements which determine the variations of the monsoons. Not only did both the autumn and spring crops fail completely; there was also a dearth of fodder; the stores of grain which are still habitually maintained had been exhausted in 1897 and not replenished in the following year, and, to complete the disaster, the sources of water-supply dried up and a large number of cattle perished from thirst. The death-rate rose from 40 to nearly 83 per thousand; the birth-rate fell from 50 to 31. The number of deaths returned was 236,022, being nearly 126,000 in excess of the decennial average, and nearly four times as many as occurred in 1898. Some of these people no doubt were immigrants from the neighbouring parts of Hyderabad, but no estimate of their number can be made, and it is impossible to doubt that there was considerable mortality among the inhabitants of the Province. The daily average number of persons relieved was 265,744 or 9·2 per cent. of the population, while in July 1900 the figure rose to 601,424 or nearly 21 per cent.

Comparison of census figures with vital statistics.

107. In respect of the accuracy of its vital statistics Berar ranks higher than almost any Province in India and a comparison of the census figures with the returns of births and deaths fully bears out this reputation. The recorded excess of deaths over births during the ten years 1891-1900 comes to 150,803 persons, while the census shows a loss of 143,475. And a calculation made by Mr. Chinoy, in paragraph 80 of his report, from the vital statistics combined with the birth-place returns, brings out a total population of 2,750,542 persons or only 3,474 less than that ascertained in the census. Another form of calculation, set out in subsidiary table VI, compares the population actually found in the census with that which would have been in existence if the rate

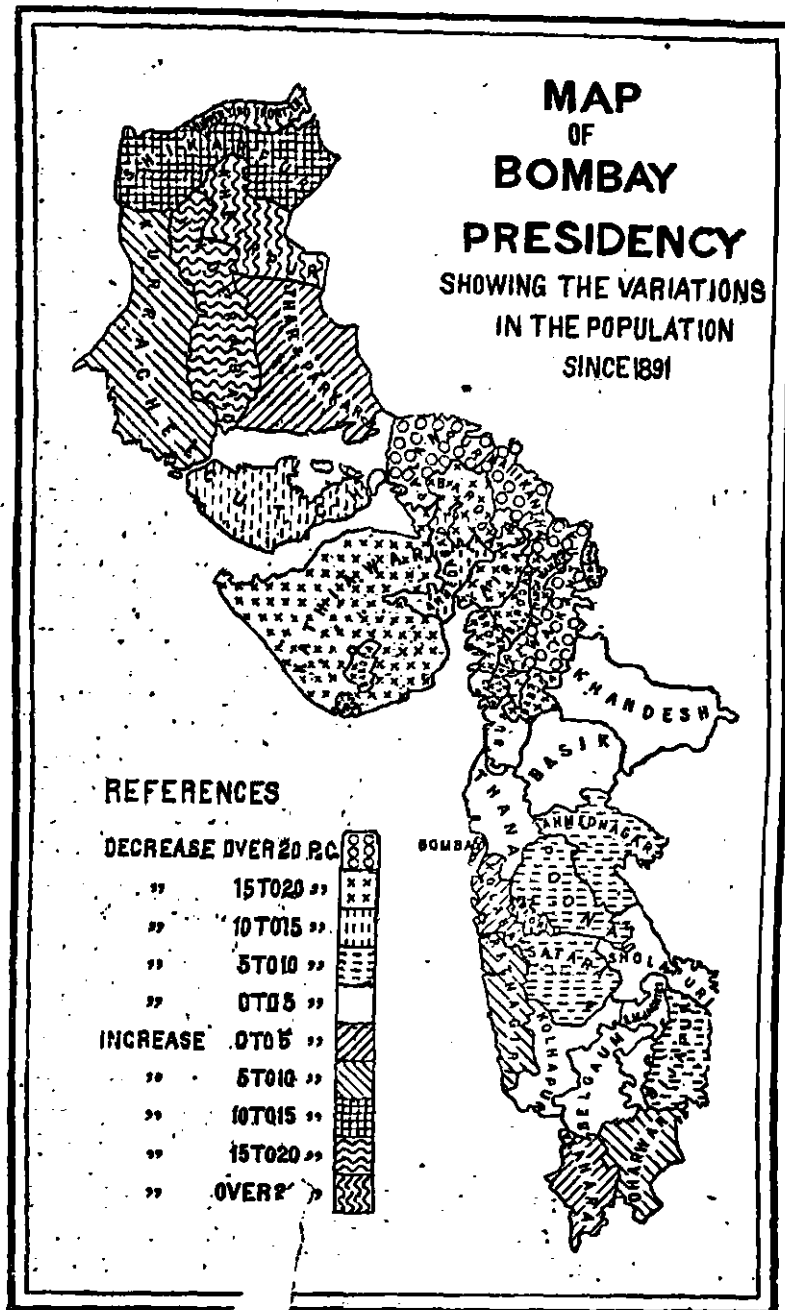
of increase which prevailed from 1881 to 1891 had gone on for the next ten years. On this hypothesis, which takes for granted the continuance of unbroken agricultural prosperity, "we find that Berar has, during the decade, suffered a loss of 387,224 persons, or 12·3 per cent. But the vital statistics and the nature of the seasons during the decade show that in only five years, *i.e.*, from 1891 to 1893 and 1898 and 1899 the population was progressive, as there was a large excess of births over deaths in each of those years, while in the remaining five years deaths outnumbered births excessively. Taking the normal annual rate of increase in Berar for the five years in which the population was progressive and adding the net gain of 14,215 by migration, the population of Berar in 1901 should have been 3,031,120, or 277,104 more than it was actually found. This difference amounts to 10 per cent., and is probably the nearest we can get to the loss inflicted by the two famines and unhealthy years."

108. It is impossible to determine with any approach to certainty to what extent the two factors—reduction of births and increase of deaths—contributed to the decrease of population. Nor can we say how many people were actually living in Berar at the time when famine declared itself. But the age statistics contained in Imperial Table VII show very clearly that excess mortality arising from famine, and from the diseases which accompany famine, must have played a very large part in producing the results which the census tables record. Proceeding on broad lines, so as to neutralise the characteristic defects of the statistics, we find that in 1901 the number of children under ten in Berar was less by 154,208, or 38·2 per cent., than it was in 1891. It will also be seen that the number of persons between 50 and 60 declined by 11,703 or 14·2 per cent., while in the period "60 and over," the reduction amounted to 47,673 or 27·2 per cent. For the ages under 5 the vital statistics show that 545,127 births were registered in Berar during the five years 1896—1900. Of these children, only 287,986 were surviving in March 1901 and 257,141 or 47 per cent. had died. Bearing in mind the untrustworthy character of the data, I refrain from pursuing the comparison for individual years. The broad facts speak for themselves. Excessive mortality among the very young and a high, though less striking, death-rate among the old are the inevitable consequences of famine on a large scale. Even if there are no deaths from actual starvation, the weaker members of the population are bound to succumb in large numbers to the fever, which is always present, and to the special diseases, cholera, dysentery and diarrhoea, which the abnormal conditions tend to produce. But if the Berar age tables bring out these necessary limitations of famine relief, they equally illustrate the great improvement in famine administration which we owe in the main to the Commission of 1860. The chief feature which distinguishes a modern famine, not only from the earlier famines vaguely noticed in history, but also from such disasters as attacked Orissa in 1866 and Madras in 1877, is the fact that in the earlier famines starvation assailed all classes and all ages of the community. The weakest doubtless suffered most, but the strong did not escape, and the deaths among adults of both sexes were numerous enough to leave their traces on the birth-rate for years to come. A glance at the Berar figures show how great an advance has been made on the earlier state of things. For the two sexes taken together, the reproductive ages generally show an increase, and the great decline of population is limited to the very young and the very old. The birth returns confirm this view. The people recovered rapidly from the famine of 1897 and the number of births, which fell in 1898 to 89,414, rose in the next year to 144,034, the highest figure ever recorded in Berar.

109. **Bombay.**—At the time of the first census in 1872 the population of the Bombay Presidency, including Aden, was 23,099,332, *vis.*, 16,301,280 in British territory and 6,798,052 in the Native States.* In 1876-78, the whole of the Deccan and South Maráthá country was severely affected by a famine which is estimated to have caused 800,000 deaths in excess of the usual number. As a consequence, in spite of better enumeration, the growth of the population registered in 1881 was barely a third of a million. In the next decade the

* The Native State of Baroda lies wholly within Gujardt and is much intermixed with the Bombay districts in that tract, but its population has been dealt with separately as it is in direct political relation with the Government of India.

conditions were far more favourable. There was no famine, and not even a



particularly bad harvest, and there were no specially severe epidemics. The population, therefore, grew rapidly and by 1891 it had risen to 26,960,421, to which British territory contributed 18,878,314 and the Native States 8,082,107. The proportional variation was 14.4 per cent. in British territory and 16.5 per cent. in the Native States, or 15 per cent. in the Presidency as a whole.

110. During the last decade there has been a considerable growth of industrial activity. The number of cotton mills has risen from 87 to 138 and the number of employes from 81,000 to 108,000. There has also been a considerable extension of the system of railways. But these conditions have only a small influence compared with the state of agriculture and the public health. For some years after 1891 the seasons were normal and, with the

exception of occasional visitations of cholera, there was no unusual mortality; but then followed "a succession of famines, bad seasons and plague epidemics unrivalled in the recent history of any other part of India."

Conditions affecting movement between 1891 and 1901.

Plague first appeared in Bombay City in September 1896, and gradually spread all over the Province, especially in the Deccan and the South Maráthá country, and in Thána, Cutch and the larger towns in Sind—Karáchi, Hyderabad, and Sukkur. The total registered mortality from plague up to the 1st March 1901, the date of the census, was nearly a third of a million. The Superintendent has not given his opinion as to the extent to which these figures indicate the actual mortality, but it is well known that in the case of all serious outbreaks of epidemic disease the machinery for reporting vital occurrences becomes disorganized. The Plague Commissioners were of opinion that the true death-rate from plague was greater by at least 35 per cent. than that actually reported, and in Bengal it has been estimated that the deaths from the disease were more than twice as numerous as those shown in the returns; it would thus probably be safe to say that in Bombay the plague was responsible for a reduction in the population of from half to two-thirds of a million persons.

At the time when the census was taken plague was raging in the Bombay City and in the Belgaum and Thána districts; in the plague districts of Bengal it was found that the consequent alarm and confusion affected the accuracy

of the enumeration, but in Bombay Mr. Enthoven thinks that the plague was a help rather than an obstacle, as the days of scare were over and the people were accustomed to constant censuses for plague purposes. However that may be, it is probable that the Bhils and other wild tribes, who rubbed off much of their shyness on the famine relief works, were more completely accounted for on the present occasion than at any previous enumeration.

The famine of 1896-97 fell most heavily on the Deccan districts and Bijapur. In the rest of the Presidency the scarcity did not amount to famine, and relief works were not necessary, but there was widespread suffering from the high prices which prevailed. During the next two years the crops seem to have been fair, except in the Deccan, but then came the famine of 1899-1900. This calamity, following as it did on a succession of lean years, caused even greater distress in the Deccan than its predecessor of 1896-97, but the brunt of it fell on the well cultivated and usually fertile plains of Gujarát, "the garden of Western India," which until then had been regarded as outside the famine zone.* Sind, owing to its dependence upon irrigation, again escaped, and so did the Konkan and South Maráthá Country. The area affected on this occasion was nearly twice as great as in the famine of 1876-78 and the maximum daily average number of persons relieved was three times as great. When the census was taken over 100,000 persons were still in the relief camps.

Excluding Aden the number of immigrants of all kinds has fallen from 988,080 in 1891 to 804,014 at the present census, and that of emigrants to other parts of India from 706,542 to 626,799.

The result of the adverse conditions of the decade is that the census of 1901 shows a decrease of a million and a half, or 5 per cent., as compared with that taken ten years previously; the population of British territory has fallen to 18,559,561, a drop of 2 per cent., while that of the Native States is now only 6,908,643, or 14 per cent. less than in 1891. The returns of the Sanitary Department show an excess of births over deaths to the extent of 645,000 in the first six years of the decade, and of 47,000 in the years 1898 and 1899, while in the two famine years, 1897 and 1900, there was an excess of deaths amounting to 120,000 in the former, and 813,000 in the latter year.†

111. Mr. Enthoven has discarded in his report the arrangement of the

Natural Division.	Variation in population per cent.		
	1891-1901.	1891-1891.	1872-1881.
Bombay City	-5.5	+8.3	+20.0
Gujarát	-13.0	+8.4	+1.5
Konkan	+2.4	+9.5	+8.6
Deccan	-4.3	+17.0	+1.3
Karnátak	-0.6	+19.9	-13.3
TOTAL PRESIDENCY PROPER	-4.1	+13.7	-0.2
Sind	+11.7	+19.0	+9.5
TOTAL BRITISH TERRITORY	-1.7	+14.5	+1.1

statistics by natural divisions adopted by Mr. Drew in 1891, but in dealing with the variations in the population that have occurred it seems convenient to take them as the basis of the discussion. The changes which have taken place in each of these divisions during the last two decades, are noted in the margin. The figures refer

to British territory only. Those for the Native States will be discussed separately.

112. It will be seen that while all other parts of Bombay have suffered a loss of population, Sind has progressed satisfactorily. Shikarpur has grown by 12, Hyderabad by 15, and the Upper Sind Frontier by no less than 33 per cent. In the last mentioned district the phenomenal development is attributed to the extension of irrigation, and the same explanation applies also to Shikarpur, though to a more limited extent. The number of immigrants to this fertile province, whose chief complaint is the want of agricultural labour, is now 294,272, or more by 25 per cent. than in 1891. The construction of railways from Hyderabad to Rohri and Jodhpur has doubtless been

* That is to say at the present day. The terrible famine which devastated Gujarát in 1630 was probably one of the most severe of these scourges that ever visited India.

† In the Memorandum on the Material Condition of the people of Bombay Presidency 1892-1900, it is said that plague and famine by increased mortality and reduced birth-rate caused a loss of two and-a-half millions in British territory and of two millions in the Bombay States.

a great factor in encouraging this movement. Many of the new settlers have come from Rajputana. The number of emigrants from this part of the Presidency is very small.

113. With the exception of Surat where there is a decline of only 2 per cent., all the districts in Gujarát show a serious loss of population, varying from 14 to 18 per cent. The results are equally bad for the Native States of Cutch and Káthiáwár and they are even worse in the case of Baroda, which, however, will be dealt with separately. The density of population, though greater than that of other parts of Bombay, is not remarkable for a fertile alluvial tract, and the number of persons to the square mile is less than a third as great as in some of the more highly cultivated districts of Bengal. This tract suffered comparatively little from plague and it was not seriously touched by famine until 1899-1900.

There can be but little doubt that the famine of this disastrous year, falling as it did on a population heavily in debt to the money-lenders, is the main cause of the startling loss of population disclosed by the census. From the

District.	Immigrants.		Emigrants.	
	1901.	1891.	1901.	1891.
Ahmedabad	128,548	155,124	60,641	99,861
Broach	26,978	31,097	15,289	23,481
Kaira	55,051	79,109	48,002	74,417
Panch Mahals	26,864	48,211	8,605	20,935
Surat	44,595	40,770	82,335	119,098
TOTAL	282,031	354,311	214,872	337,782

Note.—Migration from one district of Gujarát to another has been left out of account in this statement. The figures for emigrants refer only to other parts of the Bombay Presidency and Baroda. Information regarding emigration to other parts of India is available only for the Bombay Presidency as a whole.

summary of the birth-place statistics given in the margin it will be seen that there has been a decrease in the number both of immigrants and of emigrants, but especially of the latter; if anything, there has been a net gain rather than a loss on account of migration, and in any case it is certain that no appreciable part of the diminution in the

population which the census has brought to light can be attributed to these movements of the people. On the other hand, the vital statistics tell a terrible tale. Mr. Enthoven is of opinion that "the record of deaths in a famine year is very incomplete," but even as they stand the figures are sufficiently appalling. In the Panch Mahals in 1900 the recorded deaths numbered 88,079, or considerably more than in the preceding nine years taken together, and very nearly a third of the total population of the district according to the census of 1891.* In Ahmedabad the mortality of the single year 1900 was 20, in Broach 19, and in Kaira 18, per cent. At the same time the birth-rate fell to half, or less than half, the average of the decade. It has been said that part of the mortality was due to the extensive immigration of famine refugees from the neighbouring Native States. The Famine Commission of 1901 observed that Gujarát is interlocked with native states and that there was overwhelming evidence to show that immense numbers of refugees came across the border in extreme destitution to seek relief in British territory. Many crawled over the border only to die. The effect of this immigration upon the death-rate was "very great," but, judging from the loss of population disclosed by the census, it would seem that the artificial inflation of the returns, due to the inclusion of deaths amongst foreigners, must have been more than counterbalanced by defective reporting of deaths in the local population in a season of unprecedented suffering and general administrative derangement.

114. Compared with the terrible ravages wrought in Gujarát by a single year of famine, the districts of the Deccan, which in the quinquennium between 1896 and 1900 endured two famines and suffered from short crops in the other

* It may be explained for the benefit of readers in Europe that only a very small fraction of the mortality in a famine is attributable to actual starvation. A great part of it is due to epidemics of cholera occasioned by the collection of large numbers of persons on relief works and the pollution of the sources of water supply. A great part is also due to dysentery and diarrhoea caused by the eating of improper food or by general debility. Moreover the better classes, everywhere, and almost all classes, in tracts where famine is infrequent, avoid the Government relief works so long as they possibly can, and it often happens that by the time they seek relief they are in such a condition that recovery is impossible, however well they may thenceforth be fed.

three years, and which have also been smitten hard by the plague, show a wonderfully small loss of population. In Poona, Ahmednagar, and Satara, the decrement is from 6 to 7 per cent., but in the other districts it is considerably less. If it be conceded that the mortality from plague is double that actually reported, this alone would account for nearly the whole of the falling off in Poona and Satara. The vital statistics indicate a rapid growth of population up to 1896, and in some cases even after that year, and this is perhaps the reason why the loss appears so small when comparison is made with the population as it stood in 1891.

115. In the Konkan, or coast districts, Bombay City and Thana alone show a decrease, which is more than accounted for by the reported mortality from plague; there has been a growth of 2 per cent. in Kolába and Kánara and of 6 per cent. in Ratnagiri, which, next to Surat, is the most thickly populated district in the Presidency, and supplies Bombay City with more than a seventh of its total population.

116. In the Karnátak, Dharwar has a gain of 6 per cent., and Belgaum and Bijapur a loss of 2 and 8 per cent. respectively. The decrease in Belgaum is fully explained by the virulence of the plague epidemic, and in Bijapur it is probably due to losses on account of famine, especially in 1896-97, when the number of persons on the relief works was greater than in any other district. The returns of the Sanitation Department do not indicate a mortality sufficiently high to account for such a marked diminution in the population, but there can be no doubt of the severity of the famine. There had been some distress in 1891 also, but the relief works which were then opened did not attract many persons and the reported death-rate was not specially high. The losses of cattle from failure of fodder were, however, very great, and this may have led to emigration. The population of this district has shown great fluctuations at successive enumerations.

Year of Census.	Variation.
1881	-178,945
1891	+169,450
1901	- 60,904

117. The variations in the Native States show the same general direction as those in the British districts which they adjoin, but where famine conditions prevailed, the loss of population has usually been far more terrible. In Gujarát the two western States of Cutch and Káthiáwár have lost ground in about the same ratio as the British districts, but in the east, Rewakantha and Mahikantha have lost more than a third, and Palanpur more than a quarter, of the population recorded at the census of 1891. Further south, the States attached to the districts of Surat, Khandesh, Nasik, and Satára have suffered a far greater loss than the districts themselves, and in the Khándesh Agency two-fifths of the population recorded in 1891 has disappeared. On the other hand, the Khairpur State in Sind, after remaining stationary for twenty years, has added no less than 5½ per cent. to its population in the course of the last decade, and Sávantvádi, south of Ratnagiri, has added 12 per cent., or more than any British district. Mr. Enthoven considers that the rapid growth of Khairpur is attributable largely "to the improvement in the administration of the State which the last ten years have witnessed."

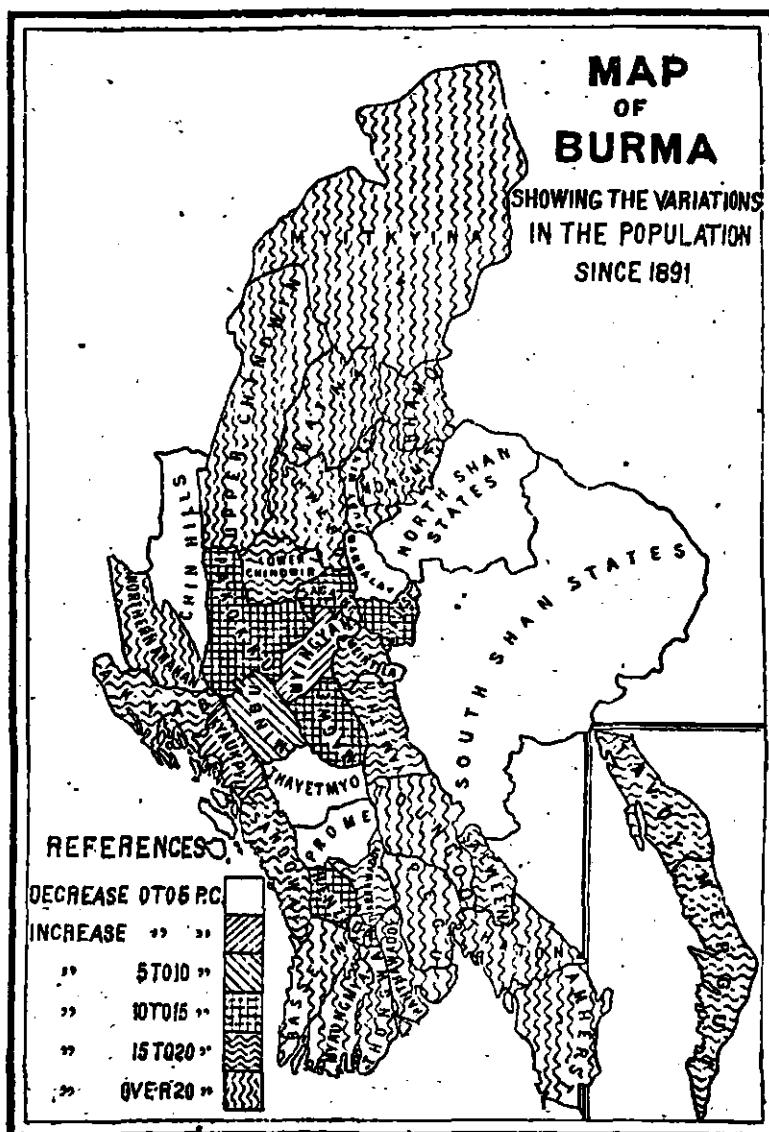
118. Burma.—The figures in Table II, so far as they relate to Burma, are obscured by the great additions which have been made since 1872 to the population of that province and also, it would seem, by the inaccuracy of the enumeration of Lower Burma in 1872 and of part of Upper Burma in 1891. The rise of the recorded population from 2,747,148 in 1872 to 10,490,624 at the present census requires therefore to be analysed in some detail. The figures for 1872 and 1881, during which period the recorded increase amounted to 36 per cent., refer only to Lower Burma. The census of the former year was taken in August when the temporary immigrants from other parts of India were very few in number, and it was also relatively inaccurate. The omissions were estimated at about 80,000 in the Census Report for 1881, but ten years later Mr. Eales concluded that, as there was no reason why the natural growth of the population should have been greater between 1872 and 1881 than it was in the next decade, they must have amounted to about ten times the above

Konka

Moveme-
in Nativ.
States.

Summary of
movements
from 1872
1901.

figure. In the course of the decade ending in 1891 the population of Lower



Burma rose to 4,658,627 or by 24½ per cent., of which about 2½ per cent. was attributed to immigration and 22 per cent. to natural growth. Upper Burma was annexed in 1886 and was enumerated for the first time in 1891, when its population was returned as 2,946,933. This brought the total up to 7,605,560 for the province as now constituted excluding the Shan States. The present population of the same area is 9,136,382, an increase of rather more than a million and a half, or 20 per cent.* The rate of growth is 21 per cent. in Lower, and 17.7 in Upper, Burma. The latter tract, however, includes five districts where the enumeration of 1891 was very incomplete, and if these be left out of account, the rate of increase there falls to 11.2 per cent.

Note.—The Chin Hills and the North and South Shan States were not enumerated in 1891.

119. There is no province (except Assam) where migration exercises so great an influence on the population as in Burma, which draws largely on Madras and

Area.	NUMBER OF IMMIGRANTS FROM OTHER PROVINCES, ETC.	
	1001.	1891.
Province	475,328	323,176
Lower Burma	398,726	268,772
Upper Burma	76,602	54,404

Bengal, not only for coolies, field labourers, and domestic servants, but also in some parts for its cultivators. Lower Burma has gained in this way 130,000 during the decade and Upper Burma 22,000, while the corresponding loss by emigration is trifling. There is also a considerable, though gradually diminishing, volume of migration from Upper to Lower Burma,

the net result of the movements between the two tracts at the present census being a loss to Upper Burma of nearly a third of a million. Allowing for deaths amongst emigrants, it may be assumed roughly that while Lower Burma has gained by migration during the decade to the extent of a quarter of a million, Upper Burma has lost some 60,000.† If the effect of migration, as thus esti-

* The figures showing the population of Burma as enumerated both in 1891 and 1901 differ from those given in the Provincial report owing to the inclusion in the latter of 116,493 persons in Upper Burma, whose enumeration schedules were destroyed in the disturbances which originated in the Shan State of Wuntho shortly after the census of 1891, and who were thus not dealt with in the final tables.

† It must, however, be remembered that a very large proportion of the immigration is purely temporary. Many of the immigrants come for the paddy harvest and the milling season and then return home. The number of these temporary immigrants is highest in the cold weather, i. e., at the time of year when the census is taken.

ated, be discounted, the gain comes to about 15·8 per cent. in Lower, and 19·7 per cent. in Upper, Burma. In the latter tract, however, as already noticed, allowance has also to be made for better enumeration. The progress which these figures show is remarkable, but it is not more than is to be expected in a country of great natural fertility with an easy revenue assessment and a scanty population. Except in the neighbourhood of Mandalay very few townships of Upper Burma have a density of more than 100 persons to the square mile, and even in the rich rice tracts of the Irrawaddy Delta, there is no district with 170 persons to the square mile, whereas the joint delta of the Ganges and the Brahmaputra supports from 600 to 850, that of the Mahanadi, 568, and that of the Godaverī, 413. The country generally is healthy and there have been no specially destructive epidemics in recent years.

Communications have been greatly improved by the construction of roads and railways, and the total length of the latter is now about 1,200 miles of which more than a third has been added since 1891. The area under irrigated crops is nearly three-quarters of a million acres, which represents an increase of nearly 50 per cent. during the decade; the total cropped area is reported to be nearly half as great again as it was in 1891, but this is due in part to more accurate surveys. The amount of rice exported has risen from less than 1½ to nearly 2 million tons a year. The value of rubies extracted in 1900 was over 14 lakhs of rupees or nearly five times as great as in 1895. The Burmese, in towns at least, seldom work as coolies, and large crowds of Madrasis and other immigrants from India are attracted by the high wages offered, amounting to Rs. 14 a month at the season when labour is in most demand, while harvesters can earn even more than this. The famine of 1896-97 made itself felt in a few districts of Upper Burma, but it did no permanent harm. The inhabitants of the affected tract had no difficulty in finding employment, either on the local relief works or in Lower Burma, where the usual demand for labour had not slackened, and whither they were given every encouragement to go. Lower Burma was, throughout the famine, one of the principal granaries of India and the high prices that prevailed were a source of additional prosperity to the cultivating classes. There has thus been nothing to check the growth of the population. Marriage is just as common as in India, but as girls do not marry before puberty and widows can easily find second husbands, the reproductive power of the Burmese is greater than that of most other Indian races, and the rate at which they are multiplying need therefore occasion no surprise, especially when we remember that in one of the districts of East Bengal, which in 1891 already contained 713 persons to the square mile, the population has increased during the decade by nearly 19 per cent.

120. The greatest progress in Lower Burma is found in three of the great rice-growing districts in the delta and in North Arakan. Each of these has grown

Movement in different localities.

District.	NUMBER OF IMMIGRANTS PER MILE.	
	Total.	From outside Burma.
Myaungmya	621	20
Thongwa	402	37
Pegu	326	62
Hanthawaddy	284	97

by more than 40 per cent. in the course of the last ten years. The rapid development of the deltaic districts appears even more extraordinary when compared with the results of the first census in 1872. At that time Myaungmya had only 24 inhabitants to the square mile; it has now 102. Thongwa had only 43, but now has 139. In Pegu the population is three times, and in Hanthawaddy it is 2½ times, as great

as it then was. This remarkable progress is of course due largely to immigration, mainly from other parts of Burma.

In Upper Burma, the greatest apparent growth is found in the 'Wet' districts, but Mr. Lewis is of opinion that a large part of the increase in this tract is attributable to omissions in 1891. Of the 'Dry' districts Shwebo with 24 per cent. shows the most rapid progress, while Mandalay which adjoins it has sustained a decline of 2 per cent., due probably to the disappearance of the centripetal influence exercised before the annexation by the Court of the Kings of Ava. With the exception of Myingyan, which is stationary, the famine districts in the dry zone of Upper Burma, which has been characterised as "one of the most precarious tracts in the Empire," show an increase varying from 13 to 18 per cent.

121. **Central Provinces.**—The first census of the Central Provinces was taken in 1866 and disclosed a population of 9,036,983. Three years later came the famine of 1869, which touched with severity only the northern and eastern borders and caused an excess mortality estimated at about 250,000. Notwithstanding this disaster, the census of 1872 showed a small increase of 186,551 persons, the population then recorded being 9,223,534. In their forecast of the liability of the Province to scarcity, the Famine Commission of 1880, while admitting that the harvests as a general rule depended on the natural rainfall, went on to say that in the greater part of the country the rainfall had never been known to fail "and no part of India is free from any apprehension of the calamity of drought than are the Central Provinces and Berar." By 1881 the population had risen to 11,548,511, or by 25·2 per cent., a considerable proportion of which may be ascribed to improved enumeration, especially in the Native States, which showed an increase of 63 per cent. The census of 1891 enumerated 12,944,805 persons, being 12·1 per cent. more than in 1881. Here again some allowance must be made for more accurate methods in the Native States, where the increase was 26·4 per cent. as compared with the more probable figure of 9·6 in British districts.

Decrease in the past decade.

122. The events of the ten years preceding the last census have signally falsified the optimistic views of the first Famine Commission. A succession of bad seasons culminated in the first great famine of 1896-97, which was followed, after a single year's respite, by the widespread calamity of 1899-1900. Epidemics of cholera prevailed in seven years out of the period and malarial fever was on several occasions unusually frequent and severe. These disasters, coming upon a weakened and impoverished people, reduced their number to 11,873,029 persons, a decline of 1,071,776 or 8·3 per cent.

Its probable causes.

123. We have no means of determining with any approach to precision to what extent this loss of population is due (1) to emigration exceeding immigration, (2) to a reduced birth-rate, (3) to an enhanced death-rate. All these causes have no doubt contributed in varying degrees to the result, but it is impossible to separate them with certainty and to state definitely what effect each has produced. Let us first consider emigration and immigration. The returns of birth-place show that 482,228 persons born in the Central Provinces were enumerated in other parts of India, and conversely, that 460,694 persons born elsewhere were enumerated in the Central Provinces. The former figure represents an increase of 1,663 and the latter a decrease of 71,672 on the corresponding statistics of 1891. But neither the one nor the other is a true measure of the real movement of the period. Each merely shows the net result of migration and reduction by death on the total number of emigrants and immigrants respectively. The number of people that actually migrated can only be estimated approximately. The method I adopt for this purpose has the sanction of the high authority of Mr. Noel Humphreys and has been used by my friend Dr. Longstaff* in estimating the movement of population within the United Kingdom. On this system it is assumed that the average number of Central Provinces people in other parts of India during the decade was the arithmetical mean between the number at its beginning and end, thus:—

(i) Emigration.

$$\frac{482,228 + 460,694}{2} = 481,396$$

A death-rate of 40 per 1,000, which is a fair ratio to take, would in ten years carry off two-fifths of the average population

$$\frac{481,396 \times 2}{5} = 192,558$$

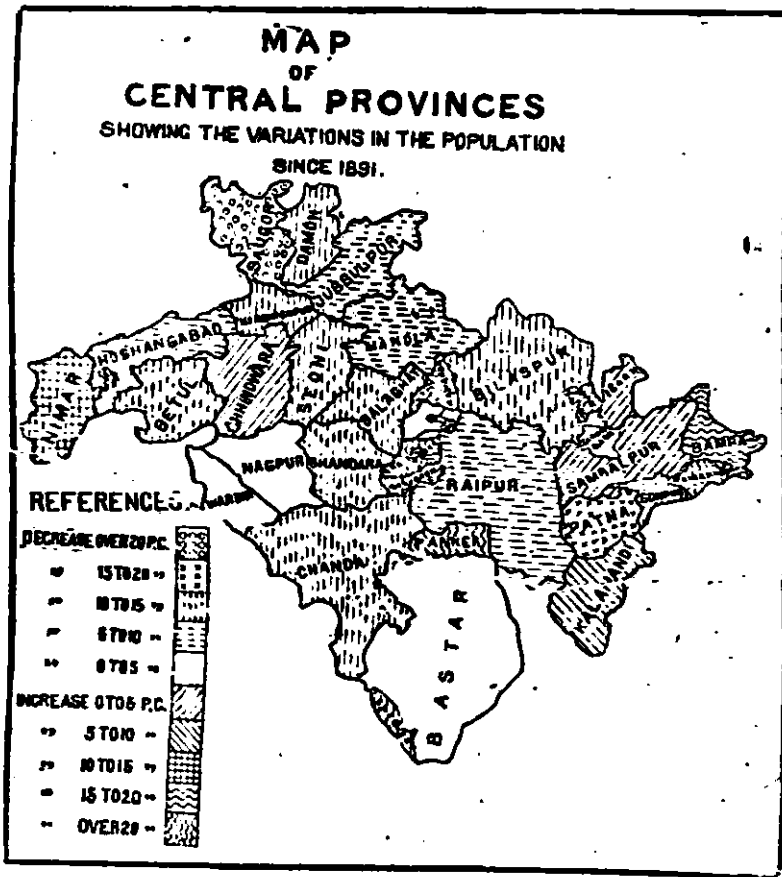
Adding to this the census increase of 1,663 we get 194,221, as the probable number of emigrants during the ten years. By the same process, only deducting the census decrease in immigrants of 71,672, the immigrant population is calculated at 126,940. The difference of 67,281 represents the extent to which the balance of emigration and immigration has contributed to the decline of population in the Central Provinces. So far as emigration is concerned, the figure assumed above does not differ very materially from Mr. Russell's estimate of between one and-a-half and two lakhs. But he omits to take immigration into

* Longstaff, *Studies in Statistics*, page 40.

account and assumes that the whole number of emigrants can be deducted from the decline in population brought out by the census. This of course is not the case. I think it possible, however, that the number of emigrants to Assam may have been understated owing to many of the tea coolies recruited in the Central Provinces being collected at Purulia and returned as natives of Bengal. People of the coolie class do not distinguish very clearly between Chota Nagpur and the Central Provinces and are apt to speak of both indifferently as 'Nagpur'. On the whole then the net loss to the Province by migration during the ten years may be estimated at 70,000.

124. The general conclusion is that emigration accounts for only an insignificant proportion of the census decrease of population. This is in the main what the circumstances lead us to expect. That there should have been a large increase in the number of persons who were conveyed to Assam under the Labour Act is natural enough; a famine is the recruiter's opportunity, and assisted emigration is a most effective form of relief. It takes the ruined cultivator or landless labourer to a new country where his labour is wanted, and in a large number of cases he and his family settle down and prosper in Assam. But while assisted emigration increased, ordinary or spontaneous emigration to neighbouring provinces declined, doubtless for the sufficient reason that people had nothing to gain by wandering into adjacent tracts where the famine was as severe as in the Central Provinces, and the relief arrangements, at any rate in the second famine, less complete and liberal.

125. For the first four years of the decade the birth-rate was not very markedly below the average rate (40.8) of the decennial period 1881-91. In 1895 it dropped suddenly from 39 per thousand to 33; in the next year there was a fall to 32 and in 1897 it fell to 27. In 1898 the rate rose to 30 and in 1899 it reached the very high figure of 47 per thousand, declining again to 32 in the following year. It is not contended that these statistics are absolutely accurate, still less that they can be made the basis of any precise calculation. Their fluctuations, however, show a close correspondence with the comparative severity of distress in different districts and we may credit them with a fair degree of relative accuracy.



(ii) Reduced birth-rate.

markedly below the average rate (40.8) of the decennial period 1881-91. In 1895 it dropped suddenly from 39 per thousand to 33; in the next year there was a fall to 32 and in 1897 it fell to 27. In 1898 the rate rose to 30 and in 1899 it reached the very high figure of 47 per thousand, declining again to 32 in the following year. It is not contended that these statistics are absolutely accurate, still less that they can be made the basis of any precise calculation. Their fluctuations, however, show a close correspondence with the comparative severity of distress in different districts and we may credit them with a fair degree of relative accuracy.

In 1895, for example, the drop in the birth-rate was peculiarly conspicuous in the districts of Saugor, Damoh and Jubbulpore regarding which the Famine Commission of 1898 observed that the whole machinery of famine relief ought to have been brought into play at the beginning of 1896. At this critical time, indeed, the birth-rate appears to have given a clearer note of warning than the death-rate. The former declined in Saugor by 50 per cent., in Damoh by 39 per cent. and in Jubbulpore by 31 per cent.; while the rise in the death-rate was only 18 per cent. in Saugor, 11 per cent. in Damoh and 8 per cent. in Jubbulpore. The point seems to deserve some attention. The relation between the rise and fall of

prices and the fluctuations of the birth-rate is known to be very regular and intimate, and there are physiological reasons for believing that the reproductive functions are the first to be affected by any marked reduction or deterioration of diet. It follows that in a country where scarcity and famine recur at uncertain intervals special attention should be paid to the registration of births and their variations should be recognized as giving a trustworthy indication of any continued decline in the material condition of the people. They are of course nine or ten months in arrear of the causes which give rise to them, but where these causes themselves have been overlooked or misinterpreted the fall in the birth-rate tells a decisive tale. Our sources of information as to the prosperity of the masses are not so infallible that we can afford to neglect even a tardy warning.

(iii)
Enhanced
death-rate.

126. Turning now to the death-rate we find that in six years out of ten it was substantially in excess of the average ratio (82.4) for the period 1881—1891, that in 1896 it rose to 49 per thousand and in 1897 to 69, the rate for 1900, the year of the second famine, being 58.7. For the first famine the returns of deaths are probably a good deal below the mark. In many districts the reporting officers, mostly illiterate village watchmen of the lowest castes, were greatly overworked, rural society was disorganized by famine and cholera, and large numbers of people, especially members of the wilder tribes, had left their homes and wandered away into the jungles in search of food. Accurate registration is difficult enough to attain in ordinary years: when panic has set in on a large scale it becomes impossible. In 1900 the elaborate organization of famine kitchens kept the natives of the province in their villages, special work of a congenial nature was provided for the jungle tribes, and aimless roaming about the country seems to have been reduced to a minimum. It may therefore be assumed that the mortality statistics of 1900 are approximately correct. For the purpose of estimating the deaths directly and indirectly traceable to the second famine, the Famine Commission of 1901 take the decennial average of recorded deaths at 351,548 and deduct this from 539,234, the number of deaths registered in 1900. They thus arrive at 187,686 as the excess mortality of that year in British districts. If we follow their method and deduct the same decennial average from the number of deaths registered in 1896 and 1897 we get 424,195 as the excess mortality of the first famine, and 611,881 as the excess mortality of both famines in British districts alone. Adding 123,680 for Native States the abnormal mortality of the Province may be stated in round numbers at 735,000.

It does not follow, however, that the whole of this mortality can be set off against the census decrease of population. On the one hand it includes the numerous deaths which occurred among the poverty-stricken wanderers from the adjacent Native States, who suffered acutely both from privation and disease. On the other hand the actual loss must have exceeded the diminution shown by the census, which compares the population of 1901 with the population of 1891, and takes no account of the natural increase which occurred during the first four years of the decade when the birth-rate was only slightly below its normal standard. If during this period the population had increased at the rate of 6 per thousand, or 2 per thousand less than the mean rate of increase of the preceding ten years, the number of people actually living at the end of 1894 would have been 13,258,287, and the decrease of population within the decade would have amounted to 1,385,258 or half as much again as the diminution disclosed by the census.

Deaths from
starvation
rare.

127. It need hardly be explained that the phrase famine mortality does not imply death by starvation. A certain number of such deaths must of course occur in every great famine especially in one which, as was the case in 1896-97, finds the administration comparatively unprepared for the emergency which has to be met. But in practice it is found impossible to distinguish between deaths caused by actual want of food and deaths due to disease accelerated by insufficient or unsuitable food. No record therefore is available of deaths from starvation properly so called. Nor is it possible, with any approach to accuracy, to distribute the recorded mortality among the various forms of disease. As the Famine Commission of 1901 point out, "the data rest upon the erratic diagnosis of the village watchman, who is in the habit of attributing to fever all deaths as to the cause of which he is in doubt." All that can be said is

that scanty and unwholesome food and a short and polluted water-supply more than trebled the mortality from cholera and bowel complaints, and that in the autumn months of both famine periods virulent epidemics of malaria affected all classes of the people.

The weakest of course suffered most acutely and both famines were marked by very high infant mortality and a disproportionate increase of deaths among people of advanced age. The following statistics of deaths by certain age periods in the two famines illustrate these remarks :—

	DEATHS				
	Under 5 years.	5-15.	15-40.	50-60.	60 and over.
1896 and 1897	350,013	130,999	274,327	215,930	147,145
1899 and 1900	355,696	79,963	153,522	117,268	99,770
Difference per cent. in latter period	+1.6	-33.9	-44.0	-45.7	-32.2

The figures bear striking testimony to the great advance in the organization of relief and the higher degree of success in saving life which distinguish the famine of 1899-1900 from that of 1896-97. In the second famine indeed the infant mortality was conspicuously high, but if allowance is made for defective reporting in the first famine there is little to choose between the two. It must further be remembered that in 1899 the birth-rate rose by nearly 60 per cent. and that half of the births took place in the last six months of the year, so that when famine conditions set in an abnormally large number of children were exposed to exceptional risks. The precise causes of the enormous mortality that occurred seem to be rather obscure. It is not alleged that the parents were specially reduced. Gratuitous relief was liberally given to nursing mothers and to women advanced in pregnancy, but most of them preferred to follow their husbands to the relief works and "it was a common sight to see a healthy strong woman, with a miserable pining infant wasted to a skeleton, unable apparently to nourish it." One is tempted to conjecture that some congenital influence must have been at work. It is conceivable that the outburst of fecundity which follows upon a period of scarcity may contain, within itself the elements of imperfect vitality and that a crop which has sprung up so quickly may be fore-doomed to perish prematurely. However this may be, the figures for all the later age periods bring out a remarkable contrast between the first famine and the second. Putting aside the financial aspects of the problem, and the rather over-rated danger of demoralizing the people by indiscreet liberality, there can be no question that in 1899-1900 the administration of the Central Provinces was signally successful in keeping alive the large section of the population whose only want was a sufficiency of ordinary food. Children at the breast alone could not be saved; their needs were, and always will be, of too special and delicate a character to be met by the rough machinery of famine relief.

128. To complete the picture of the trials through which the Province has passed two other sets of facts must be referred to. The first is the age table, the second is the variation in castes. If we compare for British districts the age distribution of 1891 and 1901, we find that among ten thousand of the population there were living on each of these occasions :—

	1901	1891.	Variation.
Persons under 10	2,632	3,063	-436
10 to 15	1,225	1,102	+123
15 to 40	4,102	3,745	+357
40 to 60	1,612	1,525	+87
60 and over	429	560	-131

The decline in the number of children and old people reflects the characteristic inroads of disease and scarcity upon the weakest members of the community. The increase in the proportion of persons between the ages of ten and sixty is mainly a consequence of the great diminution which has taken place at the two ends of the series. It does not follow, for example, that because the proportion of persons in the reproductive period from fifteen to forty is greater by $4\frac{1}{2}$ per cent. than in 1891, there is a similar preponderance in the actual number of people capable of bearing or begetting children. And recovery of the population from the wastage caused by famine is clearly dependent upon the absolute number of possible parents and not merely on their relative strength as compared with the proportion in the earlier and later age periods.

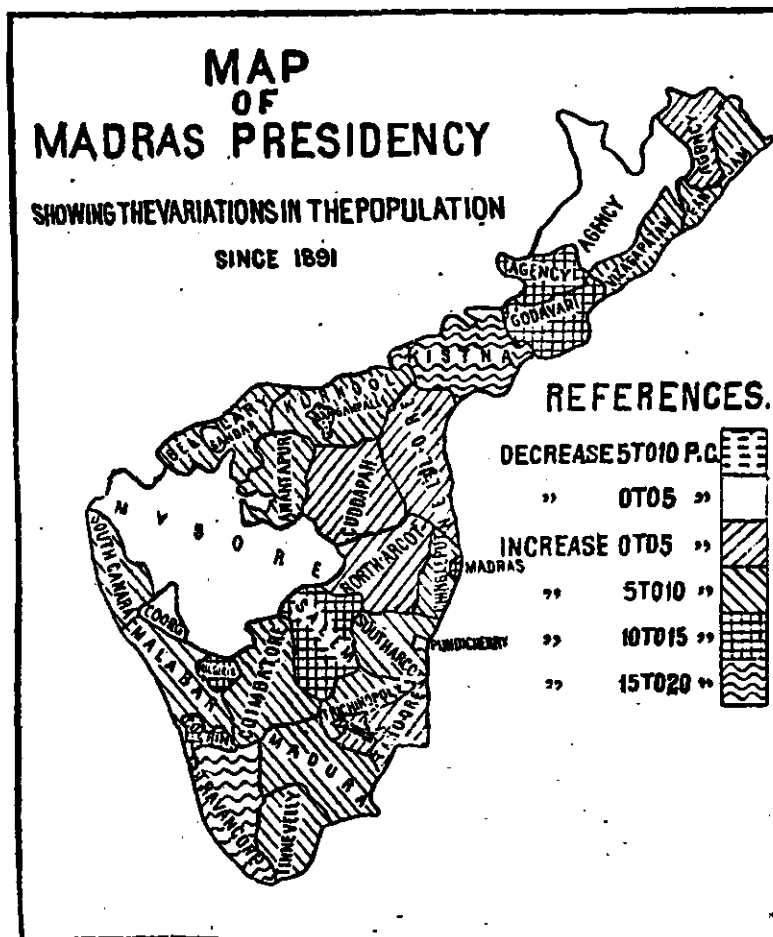
Variations
in different
castes.

129. The variations in the number of different castes set out in subsidiary table V of the Provincial Report are in one respect curiously parallel to the variations in the age periods. Here also the weakest have suffered most. The Dravidian tribes, resourceless, suspicious, living a hand-to-mouth life in the jungle and unwilling to change their ways, have lost 384,000 or nearly 12 per cent. of their number. Of the larger tribes the Kols have been reduced by 15 per cent., the Kandhs by 14, the Gonds by 13, the Halbas by 11 and the Sawaras by 8. The low castes, mostly of Dravidian descent, who live by field labour and weaving and whose touch conveys ceremonial pollution show an aggregate decline of 298,000 or 11 per cent., the Chamars losing 17 per cent.; the Panka and Ganda, both weavers, 15 and 13 respectively; and the Katia and Kori over 20 per cent. As we ascend the social scale the proportionate decrease steadily diminishes. The lower artizans show a falling off of 6 per cent., the higher cultivators of 5, the higher artizans and traders of 4, while in the highest group of all including Bráhmans, Rájputs, Káyasths and Banias the decrease is only 159 or '01 per cent. The diminution in the lower groups is doubtless due to the excessive mortality of 1897 when the administration had to face, and admittedly failed to solve, the difficult problem of forcing relief upon people who were reluctant to accept it until they had been reduced to a state of debility which could only end in death.

130. Coorg.—The little Province of Coorg, the smallest in India, is a mountainous tract lying on the top of the Western Ghats with a heavy rainfall and a temperate climate. The indigenous cultivation is confined to the narrow valleys, but coffee and cardamoms are grown on the uplands. Its present population is 180,607 or about that of an average taluk in the Madras Presidency. It has gained 4·4 per cent. since 1891 and 7·3 per cent. since 1871 when the first census was taken. The progress since 1891 would have been greater but for the adverse times which have befallen the coffee planters during the last few years, i.e. the recent heavy fall in prices which has led during the latter half of the decade to a decrease of more than a quarter in the area under cultivation. The province was practically untouched by the famine.

Summary of
movements
from 1871 to
1901.

131. Madras.—Inclusive of 4,188,086 persons in its Native States, the



population of the Madras Presidency is 42,397,522, an increase of 7·8 since 1891, compared with a gain of 15·1 per cent. in the previous, and a loss of 0·9 per cent. in the penultimate, decade. The net gain since 1871 is 22·8 per cent., and to this the Native States and British territory have contributed in almost equal proportions. Prior to 1871 frequent estimates of the population had been made through the agency of the subordinate staff of the Revenue Department. The first of these was framed as far back as 1821-22, and for twenty years previous to 1871

quinquennial returns of population were compiled. "All of them, however," says Mr. Francis, "were rough estimates rather than actual computations, and the figures in them are worthless."

The decline of population between 1871 and 1881 was due to the calamitous famine of 1876-78, and was far greater than would appear from a comparison of the census figures, which are estimated to have been deficient in 1871 to the extent of nearly 850,000. The growth of 15·1 per cent. during the next decade was the usual accompaniment of a period of good seasons and recovery from famine losses. In his report on the Madras Census of 1891, Mr. Stuart gives an interesting table showing that in the nine districts which had suffered most from the famine of 1877-78, a loss of 12·9 per cent. between 1871 and 1881 was followed in the next decade by an increase of 20·1 per cent., while in the rest of the province, where famine had not seriously affected the population, there was a growth of only 12·8 per cent. At the same time it is probable that in 1881-91, as in the previous decade, the recorded rate of increase was inflated, to some extent, by the relative incompleteness of the earlier of the two enumerations.*

132. Since 1891 the conditions in Madras have not been favourable to a rapid increase of the population. According to Mr. Francis, "Plague checked trade and enterprise, and there were three scarcities—in 1891-1892, in 1897, and in 1900. The first of these was most severely felt in the Deccan districts, especially in the Cumbum and Markapur taluks of Kurnool, and in the adjoining western taluks of Nellore. The second affected the Deccan Division again, and the Ganjam, Vizagapatam and Godavari districts of the East Coast Division. The third was again worst in the Deccan (especially in Cuddapah) and the western part of Nellore, and also attacked the west part of Kistna adjoining. What the precise effect of each of these visitations was it is not easy to say. The Sanitary Commissioner concluded from the vital statistics that though no actual deaths from starvation were reported during the scarcity of 1897, the total diminution of population due to the famine conditions which then prevailed, such as a reduced birth-rate, increased susceptibility to ordinary disease among ill-nourished persons, and so on, was over 20,000 persons. Most of this loss was estimated to have occurred in the Deccan districts." It may be added that the above famines were less severe in Madras than in many other parts of India. The worst was that of 1896-97, but thanks to the prompt measures of relief undertaken by the Madras Government and, in the case of the East Coast districts, to the fact that the previous four years had been years of plenty, the sufferings of the people were far less than they would otherwise have been.

Conditions
affecting
movement
between
1891 and
1901.

The volume of emigration has grown remarkably since 1891, especially to Ceylon and Burma. In Ceylon there are now at least 403,000 natives of Madras compared with 235,000, and in Burma 189,810 compared with 129,345; in the Straits Settlements the present number is 51,800 against 48,064 in 1891. There is also an adverse balance of migration in the case of movements between Madras and other parts of India, excluding Burma, aggregating 214,000, as against some 138,000 in 1891.† So far as the information available goes, it may be concluded that the net loss on account of migration has risen from 550,000 in 1891 to 858,000. There are moreover many emigrants from Madras in Natal, Mauritius and other colonies, but exact figures are not forthcoming.

On the other hand the productiveness of the land has been increased during the decade by the Kishikulya and Periyar irrigation schemes in Ganjam and Madura respectively, and by greater attention to irrigation from tanks and wells. Communications have been greatly improved, and there are now more than 3,000 miles of railway compared with about 2,000 in 1891. There has also been a considerable development of industrial enterprise, especially in respect of cotton mills which in 1901 employed an average of 16,000 persons daily compared with 6,000 in 1891. At the same time a rate of progress equal to that which obtained during the ten years preceding the census of 1891 was clearly not to be

* It is not stated in the local report that the census of 1881 was generally less accurate than the one taken ten years later, but this was the case in other provinces and it may be assumed to have been so in Madras also. In the case of the Ganjam district it was admitted that the population had been "much understated in 1881," and it is probable that in other districts also the standard of accuracy was less high than that attained, with the aid of growing experience, at the census of 1891.

† It is impossible to ascertain the exact figure now.

expected in the decade under review, and the fact that the population has increased by as much as 7·8 per cent. affords unmistakeable evidence of the general well-being of the people and of their growing capacity to resist the evil effects of crop failure.

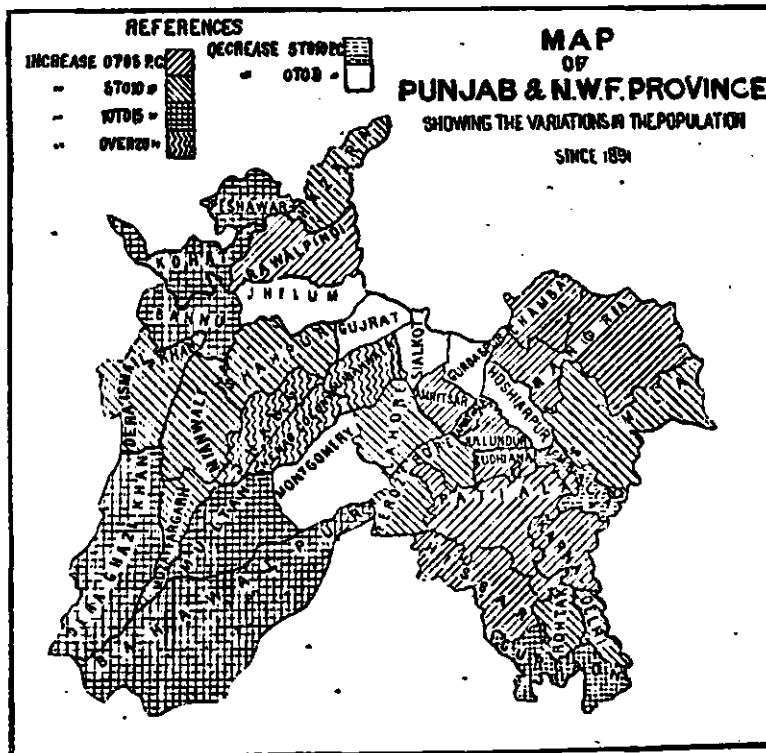
Movement in different localities.

133. The rate of increase is smallest in the Agency tracts which adjoin a decadent area in the Central Provinces. Two of the three tracts included in this division have given a satisfactory increase, but the third, the Vizagapatam Agency, shows a small loss of population. The causes of the decline are hard to trace, but it is probably due mainly to migration to Assam and to the unhealthiness of the climate; the tract is, moreover, very inaccessible, and supervision of the enumeration is difficult, so that the same confidence cannot be reposed in the results of a single census as in more settled tracts.

The East Coast districts, in spite of the famine, have grown at a slightly more rapid rate than the Presidency as a whole. This tract contains the most progressive district in the whole Presidency, *viz.*, Kistna, which has grown by 16 per cent. owing to the development of the system of irrigation from the river of the same name and the consequent extension of cultivation in its delta. The smallest advance is shown by Nellore, which has sent out numerous emigrants to the Kistna district from the western taluks, where there has been a succession of bad harvests. The southern districts taken together show much the same rate of increase as the general mean, and the only noticeable variations are furnished, on the one hand by Madras and Salem, which have added more than 12 per cent. to their population, and on the other by Tanjore and Pudukkottai, where the growth is very slight. In the case of Tanjore which, with 605 inhabitants to the square mile, is the most densely-peopled district in the Presidency, the result is due to extensive emigration to the Straits, Ceylon and Burma. The West Coast districts, though they enjoy a heavy rainfall and a fertile soil which sometimes yields three crops a year, have added only 6 per cent. to their population. The sparsely inhabited Nilgiris have an increase of 11·7 per cent., but Malabar shows only 5·6 per cent. The latter district has a density of 481 persons to the square mile, but it is in its more sparsely populated taluks that the want of progress is most marked.

Summary of movements from 1855 to 1901.

134. Punjab.—A few months after the census the Punjab was shorn of a



considerable tract of country, lying chiefly west of the Indus, which has been formed into a separate administration known as the North-West Frontier Province. It will be convenient, however, in the present discussion to treat the whole as a single entity and to review the progress of the Province as it was constituted on the 1st March 1901. The first census, taken at the beginning of 1855, disclosed a population, on the area as it then stood (British territory

only), of 15,161,321 persons. On the 10th January 1868, when the second enumeration was effected, it had risen to 17,609,518. The corresponding population in 1881 was 18,850,437 and in 1891, 20,866,847. These figures represent a growth of 16·1 per cent. between 1855 and 1868, of 7·1 per cent. between 1868 and 1881 and of 10·7 per cent. between 1881 and 1891; the

annual rate of growth in the three periods was respectively 11, 5, and 10, per mille. The Native States attached to the Punjab were enumerated for the first time in 1881 and during the next ten years their population, which, in 1891, was 4,263,280, grew at the same rate as that of British territory. During the last decade the population of the Punjab, including the North-West Frontier Province and the Native States, has risen to 26,880,217* or by 7 per cent.; the corresponding increase per annum is about $6\frac{1}{2}$ per mille. The North-West Frontier

Total Punjab	26,880,217
Punjab proper (British Territory)	20,380,339
North-West Frontier Province	2,125,480
Native States	4,424,398

Province has added 14.4 per cent. to its population, the Punjab proper (British territory) 6.9 and the Native States, 3.8 per cent. The varying rates of growth at different periods are partly genuine and partly due to the circumstance, more than once alluded to, that, up to the year 1891 (and even up to 1901 in the case of the Native States) each fresh census was more complete than the one which had gone before. There is no means now of gauging the extent to which omissions were responsible for swelling the increases obtained at the earlier enumerations. In Bengal half the increase between 1872 and 1881 and a tenth of that between 1881 and 1891 has been held to be accounted for in this way. In the Punjab, however, with its stronger revenue establishments and fewer remote areas where enumeration is unusually difficult, the margin of error must have been much smaller, especially in the case of the first census, and the gain on this account at each succeeding enumeration up to 1891 was probably fairly constant. If so, some other cause must be sought for the variations in the rate of increase, and this is to be found, as shown by Sir Denzil Ibbetson in 1881, in the relations which the different enumerations bear to the dates of the recurring famines with which the province has been visited. There was a famine three years before the census of 1855, and another eight years before that of 1868; the census of 1881 was taken twelve years after one famine and three years after another, but between 1881 and 1891 there was no such visitation. The rapid growth of population after a famine is well known, and it is thus easy to understand why the rate of progress disclosed at the censuses of 1868 and 1891, which followed periods of recovery from famine, should have been more rapid than in the thirteen years preceding 1881 when famine twice ravaged the country.

135. The conditions during the last decade are comparable to those of the interval between 1868 and 1881; there were two famines in both periods but those of the last decade followed each other with greater rapidity and there was thus less time for recuperation. The area affected by the failure of the monsoon of 1896 was very extensive, but the situation was improved by opportune rain in December, which facilitated the cold weather sowings, and there was severe famine only in a few districts in the south-east; *viz.*, in Hissar, where it was most acute, and in those portions of the districts to the east of it, *i.e.*, the districts round Delhi, which were not protected by the irrigation system of the Western Jumna Canal.† The relief afforded was ample and, except in Hissar, the death-rate in the affected tracts was little, if at all, above the average of the previous five years. There was a sudden rise in the mortality in Hissar and several other tracts at the close of the monsoon of 1897 but the Famine Commissioners of 1898 held that it was due mainly to fever "of the ordinary malarial type . . . which always occurs when a year of heavy monsoon rainfall succeeds a year of drought." The number of deaths, however, "was increased by the enfeeblement of health which a prolonged period of privation had produced." There was also a very heavy mortality among cattle owing to the drying up of fodder supplies.

Conditions affecting movement between 1891 and 1901.

The area which was affected by the weak monsoon of 1899 was much the same as in the previous famine, and Hissar again suffered most. The death-rate of 1900 in all the famine districts was high, being more than double the decennial average, and in Hissar it rose to 96 per mille compared with an average of only 28 in the previous nine years. Cholera, dysentery and diarrhoea, the characteristic diseases of famine years, were not specially prevalent and the great bulk of the deaths were attributed to fever. The Famine Commissioners

* Includes about 75,000 persons in areas enumerated for the first time in the North-West Frontier Province. If these be excluded the increase comes to 6.6 per cent. in the two provinces combined, and to 10.5 per cent. in the North-West Frontier Province.

† The districts between the Jumna and the Sutlej have always suffered more from famine than other parts of the Punjab.

of 1901 found that "much of the mortality was due to an unusually unhealthy autumn acting upon a population predisposed to disease by privation." The general death-rate in this year was 47·7 per 1,000 which was higher than in any other year of the decade except 1892 when it was 49·5.

136. But if famine has exercised a prejudicial effect on the growth of the population, another factor has operated in the opposite direction. The decade has witnessed a very great development of State irrigation by means of canals, and the area so irrigated rose from about 2½ million acres in 1890 to 4½ million in 1900. There was a slight decline in the amount of irrigation from tanks, wells and private canals, but the total area receiving an artificial supply of water (about 9½ million acres) was greater by 25 per cent. than it was ten years previously. The most remarkable feature of the decade was the completion in 1892 of the Khanki Weir which, with the concomitant development of the Chenab canal system, has transformed an area of more than 3,000 square miles from a barren waste into one of the most fertile wheat-producing tracts of Northern India. Settlers are pouring in from the adjacent country, especially from Sialkot, Amritsar, Jullundur, Gurdaspur and Hoshiarpur, and "a scanty aggregation of pastoral nomads has been replaced by a population exceeding three quarters of a million."* There has also been a considerable extension of the Jumna canal system in the south-eastern districts which suffered most from the famine, and much has been done to rectify the defects in the alignment of some of the earlier canals which had blocked up many of the natural drainage channels and not only caused severe outbreaks of malarial fever but also led to the occurrence of the saline efflorescence, known as *reh*, which renders the land where it appears unfit for cultivation. The great utility of the Punjab canals is clearly shown by their financial results. In 1901-02 they gave a return of 11 per cent., on the 6½ millions invested in them; the Chenab canal, which cost £1,770,361, gave a return of 19 per cent. and enabled crops to be grown on 1½ million acres of land, the estimated value of which in a single year is nearly double the total cost of the canal.

Another feature of the decade is the rapid growth of mill industries, which has been assisted by the cheaper fuel now obtainable from the Bengal coal mines. During the ten years following the census of 1891 the number of steam mills for ginning and pressing cotton rose from 12 to 93, and the total number of factories using steam power from 84 to 134.

The immigrants to the Punjab from other parts of India and elsewhere now number 795,267 as against 740,750 in 1891. The corresponding figures for emigrants to other parts of India are respectively 435,351 and 425,257. There is no means of gauging the volume of emigration from the Punjab to places outside India, but it is known to be very considerable, and it has grown immensely during the last decade. Uganda, Hongkong, the Straits, Borneo, etc., all attract large numbers of Punjabis for military and other service, and Mr. Rose mentions, as an indication of the large scale on which emigration to such places takes place, that on the night of the census there were in one serai of Lahore no less than 1,000 labourers collected for railway work in Uganda.† If all these are taken into account the apparent gain from migration will be largely reduced.

137. The main factors which have affected the growth of the population are, therefore, the famine on the one hand and irrigation on the other. The latter has been more potent than the former, and wherever the system of canals has been extended, there the population has grown, even in spite of famine. This is the case in the tract described by Mr. Rose as the "Indo-Gangetic Plain, West," which lies in the south-east of the Province and includes all the districts where famine was acute in 1897 and 1900. The gain is here 5·8 per cent., which, though considerably less than the 9·9 per cent. of the previous decade, is not so very much below the rate of progress shown on the present occasion by the Province at large. The improvement in Hissar, where the famine was

Movement
in different
localities.

* This tract, which was formerly divided between Gujranwala, Montgomery and Jhang has now been formed into a separate district called the Chenab Colony. A graphic account of its colonization will be found in the Punjab General Administration Report, for 1901-02. The scheme originated with a suggestion made by the Famine Commission of 1880. A similar colony is in process of formation on land irrigated from the Jhelum, and a third scheme for irrigating two million acres of land in the Sind-Sagar Doab, now lying barren, is contemplated.

† About 26,000 natives of the Punjab are believed to have been resident in Uganda at the time of the census.

exceptionally severe, is nominal, and it is only 2½ per cent. in Karnal, but in Rohtak, Delhi and Gurgaon it ranges from nearly 7 to 11½ per cent. The only tracts in this area which are decadent are two small Native States.

The Himalayan area, which includes Simla, Kangra and a few Native States, has grown by 3·2 per cent. This tract is mountainous and infertile, and it seems probable that there is very little room for the extension of cultivation, which is possible only in the narrow valleys and on terraces laboriously constructed in the dips between the hills.

139. The results in the sub-Himalayan area are at first sight very discouraging. Rawalpindi and Hazara alone show an increase, and in the tract as a whole, a loss of 0·7 per cent. takes the places of the gain of 10·4 per cent. recorded at the previous census. The decade ending in 1891 was, however, specially prosperous and the growth was unusual, being more than twice as great as in the preceding thirteen years. Since 1891 there has been extensive emigration to the Chenáb Colony, and but for this, there would have been a gain of about 2·5 per cent. instead of the slight loss which has actually occurred; this would have given an annual rate of increase very similar to that which took place between 1868 and 1881. If there had been no emigration, Sialkot would have shown a gain of 6, instead of a loss of 3, per cent. and the only districts in the natural division which would have lost population are Ambala and Jhelum, which have long been very unhealthy. The general slow progress in this tract, even if emigration be allowed for, is due to its position at the foot of the Himalayas. With very few exceptions, the climate of the whole of the sub-Himalayan country from the Punjab to Assam has for many years past been highly insalubrious and, in the greater part of it, the population is decadent.

The figures for the "North-West Dry Area", which includes the North-West Frontier Province and the south-west of the Punjab, afford a pleasing contrast to those just discussed, and the net result of the present census is a gain of 19·7 per cent., against 13·9 per cent. in 1891. East of the Indus, the rapid increase is due mainly to the development of the Chenáb Canal system which has led to extensive immigration from other parts of the Province. West of that river, part of the apparent growth is accounted for by the addition of an area containing 75,000 persons which was not enumerated in 1891. The rest is the natural result of growing material prosperity and the gradual extension of law and order, which has led to the settlement of tribesmen from across the frontier.* With the exception of Peshawar, where there has been a considerable extension of the irrigated area, the trans-Indus districts are very sparsely inhabited and a rapid growth of population may be expected for many years to come.

139. United Provinces of Agra and Oudh.—The earliest attempt to ascertain the population of the Province of Agra as then constituted, excluding the ceded districts on the Nerbudda and in Berar, was made in 1826 on the basis of a complete enumeration of the villages and a partial count of the houses. The total number of inhabitants was placed at 32 millions. Fresh computations were made in 1848, 1853 and 1865, but it is unnecessary to dwell at length on the results then obtained. It will suffice to say that the enumeration of 1853, which was based on a return, prepared for each village and hamlet, showing the number of persons, male and female, in each house, and is believed to have been the most accurate of these earlier efforts, showed a population less than that of 1891 by only 12 per cent., and led the Superintendent of Census in the latter year to the conclusion that "in the Western and Allahabad districts there has been only a trifling increase since the mutiny, and that the general increase is almost entirely due to the steady growth of the sub-Himalayan districts."

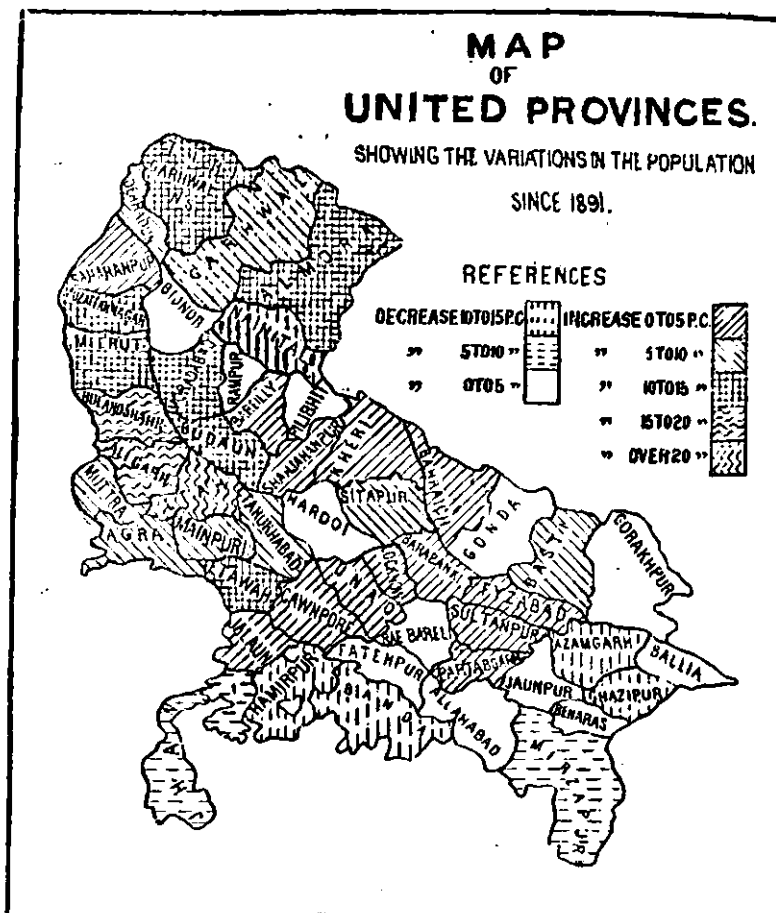
140. Oudh was annexed in 1856 and a census was taken there in 1869. The first census of the Province of Agra, based on a detailed enumeration of the people, was effected in 1872, and the result combined with that

Early estimates of the population.

Summary of movements from 1872 to 1901.

* The number of these immigrants is less than in 1891, but this is due to the fact that the earlier settlers are gradually dying and are being succeeded by their children born in British territory, rather than to their return to their original homes. The decrease in question merely shows that the stream of immigration is gradually getting weaker, and not that it has ceased to flow.

of the Oudh census just referred to was to show a population of 42,641,180



which has now risen to 43,493,879, being an increase of 14 per cent. This includes the population of the Native States attached to the United Provinces which now amounts to 802,097 as compared with 638,720 in 1872. Between 1872 and 1881 the registered growth of population was 5·3 per cent. During the next decade it was 6·2 per cent. and in the course of the ten years ending in March 1901 it was 1·7 per cent. The true increase in the two earlier decades was, as elsewhere, obscured by the circumstance that each fresh count was more accurate than its predecessor. The

famine of 1877-79 intervened between the census of 1872 and that of 1881; the mortality from it and its attendant diseases, and from fever, was very high, and the Superintendent of Census Operations in 1881 demonstrated conclusively that the apparent growth of population then recorded was purely fictitious, and was due solely to omissions on the previous occasion. But even in 1881 the success attained was not complete, and at the next enumeration Mr. Baillie was of opinion that the population had been understated to the extent of more than a third of a million; if so, the true rate of increase between 1881 and 1891 was only 5½ per cent. The harvests of that period were not specially good, but there was no serious crop failure, nor did the Provinces suffer from any unusual amount of sickness. There was therefore nothing to check the natural tendency of the population to multiply at a more rapid rate than usual after the losses it had sustained in the famine of 1877-79.

Conditions
affecting
movement
between 1891
and 1901.

141. Since 1891 the Provinces have suffered from a succession of calamities. In the earlier part of the decade the rainfall was excessive and badly distributed, and not only caused serious damage, in many parts, to the crops, but also led to a severe outbreak of malarial fever, which, in 1894, raised the death-rate to an exceptional height and sapped the vitality of the people to such an extent that the birth-rate in 1895 was unusually low. Then followed several years of deficient rainfall. In 1895 the monsoon ceased early in September and in the ensuing cold weather there was scarcely any rain. The autumn harvest was in consequence 20 per cent. below the average and that of the following spring yielded barely three-fifths of the normal outturn. The eastern districts and those in the Central India plateau, or British Bundelkhand, where the loss of successive spring harvests had weakened the staying powers of the people, suffered most, and in the latter tract famine supervened. The monsoon of 1896 was even more unsatisfactory than that of 1895. Up to the third week in August the general prospects were fairly good, but the monsoon gradually became weaker, and September and October were practically rainless. The rains of the ensuing cold weather, moreover, were not sufficient to replenish the moisture in the soil. The autumn and spring harvests were thus both very short and the two combined are estimated to have yielded barely half the normal outturn.

This led to severe distress in almost all districts, while in many there was actual famine. The suffering was greatest in the Central India plateau and the Central Plain, in the south-west of the Western Plain, and in Jaunpur and Mirzapur. In February 1897 no less than 1½ million persons were attending the relief works. The number fell in March but rose again in April, and then rapidly declined until July, when the advent of the next monsoon rendered further relief operations unnecessary. The efforts made to alleviate the distress were successful in preventing serious loss of life, and the death-rate of 1897, though high, was lower than in 1894, when there was no famine and the unhealthiness of the season was alone to blame.* The reported birth-rate in 1897 was the lowest of any year in the decade, but in 1898 it was normal, while in 1899 it was the highest on record (48 per 1,000).

142. With the exception of the Bundelkhand districts, it does not appear

Year.	NUMBER OF		EXCESS OF EMIGRANTS.
	Immigrants.	Emigrants.	
1891	799,137	1,370,144	571,007
1901	650,691	1,510,285	829,604

Note.—The number of emigrants here shown refers only to those found in other parts of India.

that the famine has had any general effect on the growth of the population and the explanation of the diminished rate of increase must be sought in other directions. The previous decade was one of recuperation after heavy famine losses, while the present one commenced with a normal population; the unhealthiness of its earlier years caused a high death-rate and reduced the reproductive power of the people; and, lastly, high prices and the attractions of remunerative employment elsewhere led to extensive emigration, especially to Bengal, Assam, and Burma. These tracts contained 200,000 more natives of the United Provinces at the time of the present census than they had done ten years earlier. The number of emigrants to Bombay has declined, but this is probably due to a higher rate of mortality in the industrial centres of that Presidency rather than to a diminished amount of emigration. There was an exodus of nearly 150,000 persons to the West Indies, Fiji, and Natal during the decade, while the return flow from these places amounted to less than a third of the above figure. There was also a considerable movement from the Sub-Himalayan districts across the Nepal frontier, especially during the famine of 1896-97, but of its volume no precise information is available.

On the other hand, there were various circumstances which tended to mitigate the misfortunes due to adverse climatic conditions. The main system of canals had been completed prior to 1891, but numerous minor channels and drainage cuts were made during the decade and the area irrigated in 1896-97 was far greater than it had ever been before. The length of railways in the Provinces rose from 2,699 miles in 1891 to 3,569 in 1901 and the high prices of 1899 and 1900 benefited the cultivators in the tracts that escaped crop failure, who were able in those years to export 1½ million tons of grain to other parts of India. There was also a great development of various industrial undertakings, chiefly at Cawnpore and Agra, and nearly 30,000 hands were employed in cotton, woollen and jute mills, leather factories, brass and iron works, and the like, compared with barely half that number at the commencement of the decade.

143. We have so far been considering the growth of the population as a whole. Turning to natural divisions, we find a considerable increase, as compared with 1891, in the Western Gangetic plain, a very slight one in the Central plain, Himalaya-West and Sub-Himalaya West, practically no change in the Sub-Himalaya East, and a considerable decline in the Eastern plain, the Central India plateau and Mirzapur. The growth of the population in the Western plain is noteworthy, following as it does on a long period of stagnation. It is most marked in the Doab, or tract of country lying between the Jumna and the Ganges, which is largely protected from drought by canals, and which benefited during the period under review by the high prices induced by famine elsewhere. It had suffered in the previous decade from waterlogging, but this has to a great extent disappeared, thanks partly to the lighter rainfall of recent years, and partly to the cutting of numerous drainag-

* The reported death-rate in 1897, moreover, was as high in several districts where the distress was slight as it was in those where famine conditions prevailed.

channels to carry off the surface water.* The Etah district which has gained 23 per cent. in the course of ten years shows the most remarkable rate of growth of any tract in these Provinces, but it is mainly a process of recovery from previous losses, and the population is still only 4 per cent. greater than it was in 1872; its progress during the last decade may perhaps be ascribed, in part at least, to the extensive reductions of land revenue granted in the tracts which had suffered from waterlogging, or where experience showed that the original assessment had been pitched too high.† In the Himalayan and Sub-Himalayan area to the west, the chief point to be noticed is the great unhealthiness of the terai which has caused a loss of population in the districts which chiefly contain it.

The eastern part of the Sub-Himalayan area discloses curious variations. Basti and Bahraich show steady progress but Gorakhpur, on the confines of Bihar, has lost ground, and so too has Gonda, owing partly to famine, partly to unhealthiness and partly to floods in 1894. In the Central Plain (excluding Hardoi) the general tendency of the population has been to increase in the north and west and to decline in the east and south, where it adjoins the decadent tracts in the Central India plateau and the Eastern plain.

144. The districts in the Central India plateau or British Bundelkhand have long suffered from adverse conditions and special measures have recently been taken by the local Government to relieve the indebtedness of the landowners. Prior to the commencement of the decade the crops, especially those of the spring harvest, had been damaged for some years by excessive moisture and the growth of a peculiarly persistent weed. Then came three virulent epidemics of cholera and the famine of 1896-97, when, in one district, more than two-fifths of the population were fain to seek a livelihood on the relief works. That this last calamity was the main factor in causing a loss of population seems clear from the circumstance that the only district which has escaped with only a nominal decrease is Jalau, where the indebtedness of the landowners is just as serious as it is in other parts of Bundelkhand but where the crops are largely protected by irrigation. The vital statistics show an exceptionally high death-rate in 1896 and 1897 combined with a very low birth-rate in this latter year and 1898. In Mirzapur, also, famine is probably to blame for the decadent condition of the population.

The Eastern plain, which is for the most part permanently settled, has sustained a general decline. It suffered in the famine year, and also from the fever epidemic and from loss of crops caused by the excessive rains of 1894, but Mr. Burn considers that the main cause of its decadence is not so much an actual decrease in the population as a more extended emigration to other parts of India and to the Colonies. It is this tract which chiefly supplies agricultural, mining and factory labourers to Bengal and Assam,

* More than 400 miles of these channels were cut in the Bulandshahr district alone.

† It is impossible to gauge the general effect of revenue assessments on the prosperity of the people and consequently on the growth of population. The productiveness of the land and the security of the crop vary greatly, and what may be a high assessment in one place would be a very low one in another. Moreover, although a low assessment in one tract, adjoining others where it is high, is likely to result in an influx of cultivators from the latter, it is by no means certain that a general low assessment is an unmixed benefit, and it is held by some authorities that, within limits, a high assessment acts as a spur and improves cultivation, and that the cultivators are better off with high rents than with low rents. As a general rule it may be said that all revenue settlements are so light that they are of small importance compared with other circumstances affecting population, such as famine, disease, irrigation and the like; and it is only in exceptional cases, where a high and inelastic assessment is accompanied by long continued bad seasons or other adverse conditions, that they lead to relinquishments and loss of population. In most provinces there have been too few settlements in recent years for it to be possible to correlate the results with those of successive censuses, and in any case the subject would be far too complicated for it to be possible to deal with it satisfactorily in a census report. The following extract from a note which I have received from Mr. Burn may, however, be quoted in support of the view that, under ordinary circumstances, assessments have but little to do with the movement of the population:—

"The most striking figures to my mind are those for Saharanpur, Muzaffarnagar, Meerut, Bulandshahr, Aligarh, Basti, and Gorakhpur. All of these except Meerut and Aligarh were settled between 1886 and 1891, under the same rules; Meerut and Aligarh have just been resettled. Between 1881 and 1891 (the last decade of the old settlement) Gorakhpur and Basti increased by 14 and 9 per cent. while Saharanpur, Muzaffarnagar and Bulandshahr only increased by 2, 2 and 3 per cent. Between 1891 and 1901, however, Gorakhpur decreased by 1·2 per cent., while Basti rose by 8 per cent., Saharanpur by 4 per cent., Muzaffarnagar by 13 per cent. and Bulandshahr by 20 per cent. The variations between east (Gorakhpur and Basti) and west (Saharanpur, Muzaffarnagar, and Bulandshahr) in 1881-1891 and 1891-1901 are in exactly opposite directions, though there is absolutely nothing either in the old or new settlements to explain such variations. Similarly, if we take adjacent and similar districts, Meerut and Bulandshahr, in Meerut 1891-1901 was the closing decade of a settlement and the population only rose by 11 per cent., while in Bulandshahr, in the first decade of a settlement that substantially increased its revenue, the population increased by 20 per cent. Or take Budnun which was settled between 1880 and 1896 (a year later) and Moradabad settled 25 years ago. The increase is almost exactly equal."

and probably also to Burma and Bombay, though for the latter Provinces detailed figures showing the actual districts of the United Provinces from which their immigrants were received are not forthcoming; nor are any such statistics available for Bengal and Assam in 1891. It is impossible therefore to show by actual figures the extent to which these districts have lost since 1891 by a greater amount of emigration.

145. **Baroda.**—After gaining between 10 and 11 per cent. in each of the periods 1872-81 and 1881-91 the Baroda State has lost more than 19 per cent. of the population recorded in the latter year and its inhabitants now number 1,952,692 or 44,906 less than they did in 1872.

It is unnecessary to discuss at length the causes of these variations as they are identical with those already described in the case of the British territory in Gujarát. It will suffice to say that the State enjoyed a full measure of prosperity up to 1899-1900 and that the shocking depopulation which has since taken place is due entirely to the ravages of the famine of that year. The number of emigrants from Baroda has declined from 252,000 to 202,000 and the immigrants to the State now number only 173,000 compared with 312,000 in 1891. It appears, therefore, that the survivors from among the persons born in Baroda who sought support on British relief works during the famine had all returned before the census, and that the only way in which emigration can have affected the result is by the disappearance of some of the foreigners enumerated in the State in 1891. Even this can be held responsible for only a small fraction of the decrease which, in the main, is due to deaths from famine and its attendant ailments. The decrease though less than in the smaller Native States in the neighbourhood, is greater than in the adjacent British territory. Mr. Dalal says in his report that "a much heavier reduction would have taken place, but for the flow of charity from Government, and from the people in some cases. The State expended nearly a crore of rupees for the relief of the famine-stricken in various ways. The effect of the affording of relief to such a large extent has been that the people have now learnt that the State is not represented only by the Tax-Collector and the Village School-master, but by those whose hearts go in sympathy with them in times of calamity, or in other words, that the *Sirkar* is their real *Ma-bap* and not simply an idle pageant." The Famine Commissioners of 1901, however, came to the conclusion that "the relief measures adopted in the Baroda State were so inadequate as to force Baroda subjects to resort in large numbers to British territory for relief."

146. **Cochin and Travancore.**—The Cochin and Travancore States are attached to the Madras Government, and in paragraph 131 above their population has been included in that of the Madras States, but their census was taken independently, and separate reports on the results have been prepared locally. The small State of Cochin is in a flourishing condition, and its present population of 812,025 is greater by 12½ per cent. than it was in 1891 and by 35 per cent. than in 1875, the year of the first census. Although it has a density of nearly 600 persons to the square mile, it gains considerably by the movements of the people between it and contiguous territories, *viz.*, the Travancore State and the Malabar and Coimbatore districts of Madras. The excess of immigrants over emigrants has risen during the decade from 15,000 to 35,000, and this accounts for nearly a quarter of the net increase. The remainder is due to natural development. The State escaped the horrors of famine; the rise of prices consequent on scarcity elsewhere has been beneficial to the cultivators, but has caused suffering to the poorer classes, especially as the local food supplies are insufficient and grain has to be imported from outside.

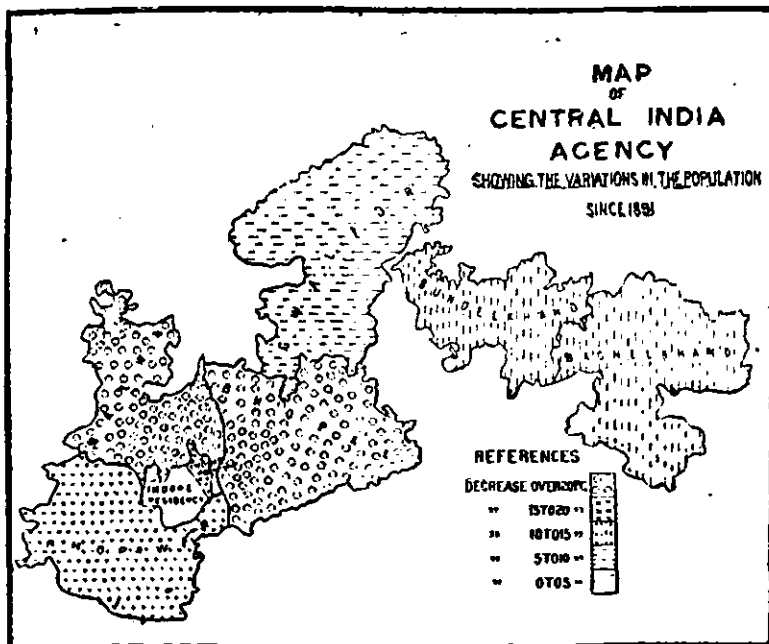
147. Travancore, the ancient Kerala, is credited with an even greater increase, *viz.*, from 2,557,736 to 2,952,157, or at the rate of 15·4 per cent. During the previous decade, however, an increment of only 6·5 per cent. was returned, as compared with 20·4 in Cochin, and Mr. Stuart was of opinion that the low rate was attributable, in part at least, to omissions from the enumeration. This view is shared by the present Travancore Census Superintendent who gives reasons for believing that the population was understated in 1891 to the extent of some 83,000 persons, and if so, the true rate of increase since that year is only

11.8 per cent. The decade has been fairly prosperous and healthy, and free from famine, though there was some scarcity in the southern tracts which it is now proposed to irrigate from the Kothayar river. The number of immigrants has risen from 17 to 55 thousand, and the emigrants from 14 to 24 thousand, and the net gain by migration represents about 1 per cent. on the population of 1891.

The increase is greatest in the eastern half of the State, which is hilly and sparsely populated, and especially in the Cardamom Hills, the home of the plant from which it gets its name, where it amounts to 46.8 per cent. Only a quarter of the denizens of this thinly inhabited tract, which occupies the north-eastern corner of the State, on the confines of the Coimbatore and Madura districts of Madras, were born within its borders; one-eighth come from other parts of Travancore, and three-fifths are immigrants from outside the State, attracted by the growing plantations of tea and cardamoms; the number of these incomers was greater than usual at the time when the census was taken, as the harvesting of the cardamom crop was then in full swing. The number of Europeans, who are found chiefly on the plantations, has risen from 360 to 534 in the course of the decade. This district now contains seven times the population enumerated in 1875, but there is ample room for further expansion and the density is still only 22 to the square mile.

Summary of movements from 1891 to 1901.

148. **Central India.**—The first systematic attempt to ascertain the population of the Central India Agency was made in 1881, but it was beset with the



usual difficulties attending a pioneer census, and the population of 9,261,907 shown by the returns was probably considerably less than the actual number. The rise of 11.4 per cent. brought out by the census of 1891, which showed a population of 10,318,812, was therefore due largely to greater accuracy. The returns of the present census give a population of 8,628,781 or less by 16.4 per cent. than that of the previous enumeration. Cap-

tain Luard thinks that the population was overstated in 1891, and this may possibly have been the case amongst the comparative small communities of Bhils and Gonds for whom an estimate only was made, but it is doubtful if any serious over-statement was possible where a regular census was carried out. A defective census may lead to omissions but it cannot well result in double enumeration to any appreciable extent. The tabulation of the results is believed to have been imperfectly supervised, but though this might lead to errors of detail, it would not be likely to increase the figures showing the total population dealt with.

Conditions affecting movement between 1891 and 1901.

The loss of population is greatest in the western States, i.e., in the elevated tract lying along the Arravalli, Satpura and Vindhya ranges. In several years the rainfall was deficient and the crops were poor. This tract did not suffer from scarcity in 1897, but in 1899, an almost complete failure of the monsoon, following close on a deficient rainfall in the previous year, brought on a very severe famine, which was accompanied, as usual, by cholera and bowel complaints and a sort of paralysis attributed to the eating of a kind of wild pulse. The mortality was very high, and resulted at the present census in a decrease of more than two-fifths in the population of the Malwa Agency, and of nearly the same proportion in that of Bhopal. In the Indore Agency nearly a third, and in Bhopawar a sixth, of the population of

1891 has disappeared. These figures, appalling as they are, have their counterpart in the adjoining States of Rajputana. The least unsatisfactory figures in this tract are those for the Indore Residency, where the decrement is only 5 per cent., an amount sufficiently large in itself, but small in comparison with the enormous losses in the neighbouring States. During the famine there was a great deal of emigration to the Central Provinces and Indore, from Bhopal and other States, but by the time of the census the great majority of the survivors from amongst these refugees had returned to their homes, and, in the case of the Central Provinces, the number of persons who owned Central India as their birth-place, was considerably less than in 1891. It seems clear, therefore, that the decrease recorded in the population of these States is due in the main to the heavy mortality of the famine year. The States of Bundelkhand and Baghelkhand escaped the famine of 1899-1900 but were hit very hard by that of 1896-97. They had, moreover, suffered from excessive rainfall, which saturated the heavy black-cotton soil, in the earlier years of the decade. The public health was bad in several years, especially in 1897. The result of these adverse conditions is a decline of 10·2 per cent. in Bundelkhand and of 13·0 per cent. in Baghelkhand.

149. **Gwalior.**—In the northern part of Gwalior the conditions are similar to those of the States just mentioned, but in the south-west, in the Malwa and Isagarh Prants, a considerable area shares the conditions already described in the case of the western States, and here, while there was very little distress in 1896-97, there was a severe famine in 1899-1900. The net loss of population during the decade was 13·2 per cent. It occurred mainly in the elevated country in the south-west; in the Gwalior Prant to the north, three districts show an increase, and three a decrease, of population, which, however, in no case exceeds 10 per cent.

150. **Hyderabad.**—The first census of the Hyderabad State was effected in 1881 when the population was returned at 9,845,594 as compared with 11,141,142 at the present census. There was a growth of 17·1 per cent. during the decade 1881-91, which has now been followed by a decrease of 3·4 per cent. The method of enumeration in 1881 seems to have been in many ways defective and no report on the operations was issued. In the report on the census of 1891 it is stated that much of the increase then ascertained was attributable to greater accuracy. Much of it was also due to the recovery of the people from the famine of 1876-78, and the six southern districts which had suffered most showed a rate of growth twice as great as the other portions of the State.

Since 1891 the State has suffered from a succession of bad seasons and in only two years was the rainfall favourable to the crops. The western districts, which adjoin the Bombay Deccan, shared in the famine of 1896-97, the distress being greatest in the south-western tract which had suffered most severely in 1876-78. The evil effects of this famine were, however, slight compared with those of its successor of 1899-1900, which was most severely felt in the north-western districts, Aurangabad, Bih, Parbhani and Naldurg or Oosmanabad. Plague appeared in 1897 in the tract adjoining Bombay and, by the time of the census, 7,811 deaths from the disease had been reported, of which considerably more than a third occurred in the district of Oosmanabad. The immigrants from outside fell from 883,713 in 1891 to 325,197 at the present census and the emigrants from 387,983 to 317,790. Migration therefore had only a minor share in producing the decrease disclosed by the present census, which is attributable mainly to a succession of bad seasons and especially to the famine of 1899-1900.

That this famine is chiefly to blame is shown by the fact that practically the whole of the decrement has occurred in the tract where its ravages were mainly felt, which has lost nearly a fifth of the population that it contained in 1891. The districts which bore the brunt of the scarcity in 1896-97, with only one exception, show a substantial increase, amounting in the case of Gulbargah and Lingsugur to 14 and 9 per cent., respectively. The other southern districts, except Raichur, also show a fair general improvement, and so does Sirpur-Tandur in the north-east. The only district outside the zone of the famine of 1899-1900 which has sustained more than a nominal loss of population is Elgandal which lies between the progressive districts of Sirpur-Tandur and

Summary of movements from 1881 to 1901.

Conditions affecting movement between 1891 and 1901.

Movement in different districts.

Warangal, and, in the absence of any other explanation, it would seem that there must have been some changes, intentional or accidental, in the boundary line followed in 1891.*

Summary of
movements
from 1873 to
1901.

151. Kashmir.—A rough count of the population of Kashmir was effected in 1873, but the result was quite unreliable and we must look to the enumeration of 1891 as giving, for the first time, fairly accurate demographic data. Since then the population has risen from 2,543,952 to 2,905,578 or by 14·2 per cent. The Jammu Province in the south, with a present population of 1,521,307, has grown by 5·7 per cent., while in Kashmir proper (1,157,894 inhabitants) the gain is close on 22 per cent., and in the frontier districts (226,877 inhabitants) it is 46 per cent. The rapid growth in the latter is due to the development of Gilgit which now contains more than two and-a-half times the population recorded at the last census.

Conditions
affecting
movement
between 1891
and 1901.

152. The period since 1891 has on the whole been prosperous. The greater part of Jammu suffered from famine in 1899-1900; Kashmir proper escaped but prices have risen, owing to improved communications and better facilities for trade. The people have profited greatly by the extension of settlement operations, amongst the beneficial results of which may be mentioned a greater fixity of tenure, the substitution of cash for revenue in kind, the abolition of middlemen and of various vexatious imposts, the regulation of the system of forced labour and the remission of outstanding arrears of revenue. There have been two severe epidemics of cholera, but otherwise the public health has been fairly good. Steady progress in vaccination has checked one of the chief causes of mortality and the Srinagar water-works and improved city sanitation have mitigated the ravages of cholera. The number of emigrants from Kashmir to the Punjab has fallen from 111,775 in 1881 to 87,545 in 1891 and 83,240 at the present census. The Census Superintendent attributes this to the improvements which have been made of late years in the administration of the State. The immigrants of all kinds number 85,597 compared with 69,257 in 1891; they come chiefly from the districts on the Punjab frontier—Sialkot, Gurdaspur, Gujrat and Hazara. Amongst both emigrants and immigrants females are slightly more numerous than males. The causes of the varying rate of progress disclosed by different parts of the State have not been very clearly stated in the local report. The general increase is assigned in the main to the advantages which the cultivators have derived from the settlement operations, but in one of the Jammu districts, Bhimbar, the portion which has been settled has lost population and the net increase in the district at large comes from two tahsils which have not yet been brought under settlement. It is understood that the latter escaped the famine while those which had been settled did not. There seem to have been some alterations of boundaries since 1891.

Summary of
movements
from 1871 to
1901.

153. Mysore.—In 1871 the inhabitants of Mysore numbered 5,055,402, but in 1876-78 the people were overwhelmed by the most disastrous famine known in Southern India for many years, which wrought more havoc in Mysore than anywhere else. Four successive monsoons failed to bring their normal supply of rain. Immense sums were expended to help the starving people, and at one time nearly three-fifths of the inhabitants were on relief works. The mortality was terrible, and it has been estimated that one-quarter of the population was swept away by starvation or disease. When the next census was taken in 1881, the number of inhabitants had fallen to 4,186,188, a loss of 17·2 per cent. Since then the recovery has been rapid, and an increase of 18·1 per cent. in 1891 has now been followed by a further gain of 12 per cent. The population now stands at 5,539,399, or more by 9·6 per cent. than it was in 1872. The rapid progress between 1881 and 1891 was the usual sequel of a bad famine, which carries off the very old and very young and leaves an exceptionally large proportion of the population at the reproductive ages.

Conditions
affecting
movement
between —
1891 and
1901.

154. Since 1891 the agricultural conditions have on the whole been good. The crops failed to some extent in the *Maidán*, or eastern portion of the State, in 1891-92 and again in 1896-97, but the distress was local and did not amount to famine. The public health was fairly satisfactory until plague appeared in

* The only known alterations have merely resulted in a reduction of the area of the district by about 4 square miles, which would be quite insufficient to account for the diminution in the population.

August 1898 and did great mischief. The total registered mortality from this cause up to the time of the census exceeded 35,000, of which more than half occurred in the cities of Mysore and Bangalore, including the Civil and Military Station. The epidemic had also serious indirect consequences in the dislocation of trade and the return to their old homes of many settlers from other tracts. On the other hand, the rapid development of the Kolar Gold Mines and the consequent general expansion of trade and industrial activity, including the construction of the Cauvery Power Works, where electricity is generated for working the machinery in the Gold Fields a hundred miles away, coupled with the extension of the State system of railways and irrigation works, have not only provided the labouring classes within the State with remunerative employment and greatly augmented the general prosperity of the people, but have also stimulated immigration in a remarkable degree. As stated above, the plague which was raging when the census was taken, must have driven away many of the temporary settlers, but in spite of this the number of immigrants has risen from 195,798 at the previous, to 306,253 at the present, census. The number of emigrants has fallen from 143,533 to 131,682. The net gain from these movements of the people accounts for about a sixth of the total growth of the population.

155. Of the eight districts into which the State is divided, the greatest increase is in Kolar, where it amounts to no less than 22·4 per cent., of which nearly three-fifths is due to immigration from outside the limits of the State. The sparsely inhabited districts of Chitaldrug and Tumkur, also in the *Maidán*, show an exceptionally rapid growth, but the latter has still not quite recovered from the losses it sustained by famine more than twenty years ago. In Mysore and Bangalore the increases of 9·5 and 12·3 per cent., respectively, would have been greater but for the set back which the urban population in these tracts has received, owing to direct and indirect losses from plague. The *Malnad*, or hilly tract in the west of the State, is less progressive. A fair gain has been registered in the coffee-growing districts of Kadur and Hasan, but Shimoga, on the Bombay border, has only a nominal increase. Very little coffee is grown here; the climate is unhealthy, and the population has long been nearly stationary.

Movement in different localities.

156. Rajputana.—The States composing the Rajputana Agency, after gaining just over 2 millions between 1881, when the first census was taken, and 1891, have lost in the last decade no less than 2,257,203 or 18·9 per cent. The population at the present census stands at 9,723,301, which is less by 210,898 than it was twenty years earlier. The decade preceding the census of 1891 was one of prosperity and steady growth, and the apparent increase was possibly exaggerated by omissions from the pioneer count of 1881 in a tract where an operation of the kind is beset with special difficulties.

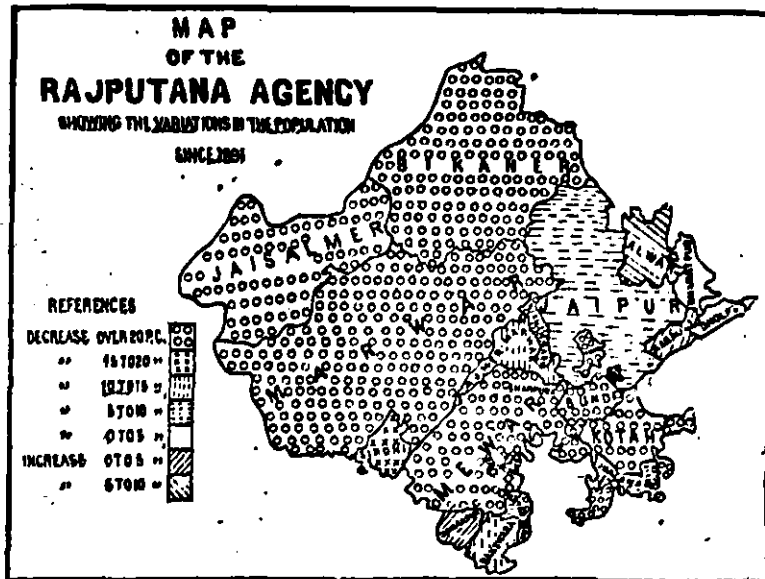
Summary of movements between 1881 and 1901.

157. Since 1891 the country has suffered from a succession of seasons of deficient or ill-distributed rainfall. In the first year of the decade severe scarcity was felt in Marwar, Bikaner and Jaisalmer, the three States lying west of the Aravalli range, in the region of sandy desert and scanty-rainfall which forms the "North-West Dry Area," described in the last Chapter. In 1895 the same tract obtained barely two-thirds of its ordinary rainfall and relief operations were started in Jaisalmer. The next season was also unfavourable and famine conditions spread into Bikaner; Marwar was affected by scarcity and there was also some distress east of the Aravallis, in Dholpur and Bharatpur, which lie in the "Indo-Gangetic plain, west." The rainfall was again deficient in 1898, while in 1899 the monsoon practically ceased towards the end of July, and the abnormal heat withered the grass and standing crops, dried up many of the irrigation tanks and wells, and brought on a famine more severe even than that of 1868-69. Everything that the supreme Government could do to cope with the calamity was done. Loans were made to the various durbars on favourable terms; a Famine Commissioner was appointed, and Engineers and Staff Corps officers were deputed to assist in supervising the administration of relief. The durbars were, however, unprepared, and valuable time was lost in making the necessary arrangements and collecting the required establishments. The distress continued to grow until June 1900, when 5 per cent. of the population was in receipt of relief.* During the next

Conditions affecting movement between 1891 and 1901.

* For a severe famine the proportion of persons receiving relief was very small. In some parts of British territory, in the course of the same famine, over 20 per cent. of the population were at one time in receipt of State aid.

three months, however, heavy rain fell and the numbers on the relief works rapidly dwindled away. Fever epidemics broke out in 1892, 1899 and 1900, the most virulent of all being that which followed the heavy rainfall of August and September 1900,



which was aided in its ravages by the impaired vitality of the people. Vital statistics scarcely exist in Rajputana, but the general consensus of opinion is that the mortality from fever, from August 1900 to February 1901, exceeded that caused by want of food in the period during which famine conditions prevailed. However that may be, it is probable that the population at the

beginning of 1899 was at least as great as in 1891, and that the whole of the decrease which has taken place is attributable to famine and disease during the two years immediately preceding the present census. It has been said that much of the loss is due to emigration, and it is well known that during the famine the relief works in the adjoining British territory were crowded with half-starved wanderers from Rajputana. In the Rajputana Famine Report the number of famine emigrants is placed at nearly three-quarters of a million. The traditional custom of the inhabitants of the vast desert tracts forming the western States is to emigrate with their flocks and herds on the first sign of scarcity, before the grass withers and the scanty sources of water supply dry up, and a well-known proverb indicative of this practice has already been quoted.* At the same time the number of persons born in Rajputana who were found in other parts of India on the night of the census was almost the same as it was ten years earlier, and it would seem, therefore, that the famine refugees must either have died or returned home before that date, so that emigration of natives of the Rajputana States cannot be held responsible for any appreciable part of the falling off. The number of immigrants from outside, however, has decreased during the decade by about 173,000 and this may possibly be due mainly to the return to their old homes of persons born elsewhere. But even so, the losses owing to famine and its sequelæ must exceed two millions or, say, 17½ per cent.

Movements
in individual
states.

158. The loss of population in the three States west of the Aravallis is about a quarter of the total recorded in 1891, and in Jaisalmer, where there are now only 5 persons to the square mile, it exceeds a third. The figures for some of the southern States on the east side of the Aravallis are even more appalling, and Mewar, Bundi, Partabgarh and Jhalawar have all lost more than two-fifths of their inhabitants.† Further north, in Jaipur, the famine was severe almost

* *Ibid.*, paragraph 9.

† In one or two States in this part of the Agency where the loss is less, or where there is an apparent gain of population, the comparison is unreliable, as it leaves out of the account the Bhil and Grassia population at the time of the census of 1891. The present Census Superintendent, being of opinion that the estimates of the strength of these tribes made in 1881 and 1891, for certain states or parts of states where they were not regularly enumerated, were pitched too high, excluded them altogether, thus reducing the population of Rajputana, as shown in the census Tables of 1881 and 1891, by 166,848 and 229,839 respectively. The question whether, and if so, to what extent, these figures were in excess of the truth is a very complicated one, and is obscured not only by the circumstance that there may have been migration from enumerated to unenumerated tracts, but also by the want of definite information as to the precise areas to which some of the estimates apply, and by the undoubted fact that the Bhils must have suffered in the famine to a greater extent than other sections of the community, so that the results for the latter cannot be taken as indicative of the losses sustained by these wild and timid people. On the whole, however, the evidence that their number was seriously over-estimated at previous enumerations is, to my mind, not very convincing, and in any case, the error due to the inclusion of these figures, even if they are somewhat high, cannot be so great as that resulting from their total omission. If they be added to the population for 1881 and 1891 shown in Table II of the present Census the decrease in Rajputana as a whole comes to 3·7 per cent. as compared with 1881, and 30·4 per cent. as compared with 1891. The corresponding variations per cent. since 1891 for the individual States affected by the exclusion of the estimated Bhil and Grassia population are as follows:—

Mewar —44·7, Dungapur —30·5, Khusalgarh —48·8, Sirahi —19·0.

everywhere, but thanks to the excellence of the relief operations, and to their timely inauguration, the decrease in population is only 5·8 per cent. In the north-west, where the population is more dense and the country merges into the Indo-Gangetic plain, the full force of the famine was not felt, but malarial fever was very prevalent. Bharatpur and Dholpur show a loss of 2 and 3 per cent. respectively; Karauli is stationary, and Alwar, which has benefited for some years by careful and wise administration, has an increase of nearly 8 per cent.

General Summary.

159. The movement of the population in each of the provinces and states which make up this great Empire having now been briefly reviewed, an attempt will be made to focus the main results and to present them from a wider and more general aspect. The proportionate growth of the population disclosed by the returns for successive enumerations is shown in subsidiary table No. I. The gross increase of the population during the decade preceding the census of 1901 was 2·4 per cent., compared with 13·1 and 23·1 per cent. in the periods 1881-91 and 1872-81 respectively, but, as already explained, the real progress is obscured by the gradual extension of the area included within the scope of the census operations. Of the increase of nearly 48 millions recorded in 1881, no less than 33 millions was derived from the counting of new areas,* and of the increases of 34 millions and 7 millions registered in 1891 and 1901, 5½ millions and 2½ millions respectively were obtained in the same way. The exclusion of these fictitious gains reduces the rate of increase in the three periods 1872-1881, 1881-1891, and 1891-1901 to 6·8, 10·9 and 1·5 per cent. respectively.

160. It is less easy to estimate the effect of the gradual improvement which has taken place in the accuracy of each fresh enumeration. There can be no doubt whatever that serious omissions occurred in 1872,† and in the report on the results of the present census in Bengal, where some striking instances of the incompleteness of that pioneer count are quoted, the conclusion is arrived at that, of the increase of 11½ per cent. recorded in 1881, half, at the very least, was due to this cause. In the United Provinces, which endured the horrors of famine in 1877-78, the Census Superintendent of 1881 was of opinion that the gain of 5·3 per cent. then disclosed was wholly fictitious, being due solely to faulty enumeration in 1872. It is not likely that the census of that year in these two provinces which, with their states, contained between them more than half the total population then enumerated, was below the general standard of accuracy attained elsewhere, and if this assumption be granted, the increase of population between 1872 and 1881, which has been reduced to 6·8 per cent. by the exclusion of areas dealt with for the first time in 1881, almost or wholly disappears.‡ In any case it may fairly be concluded that the true rate of progress during this period was certainly not greater than that during the decade preceding the Census of 1901.

Between 1881 and 1891 the gain due to the greater completeness of the enumeration was much smaller, but it was nevertheless considerable. In Bengal it has been estimated, on fairly reasonable grounds, to amount to half a million, and in the United Provinces, to more than a third of a million. It must have been proportionately greater in the tracts of which the first census was taken in 1891, and it seems probable that in India as a whole the gain on this account may have been more, but was certainly not less, than 1 per cent. In

* The new areas are as follows:—

In 1881—

Convict Settlement in Andamans, Central India Agency, Hyderabad, Punjab States, Rajputana, Manipur.

In 1891—

North Lushai, Upper Burma (excluding Shan States), Quetta, Kashmir, Sikkim.

In 1901—

Native tribes in Andamans, Manipur (schedules destroyed in 1891), part of Lushai Hills, Shan States, part of Upper Burma, Malakand, Dir, Swat, Chitral, Kurram and Shirani Country in North-West Frontier Province, Baluchistan and Baluchistan Agency.

† In some Provinces the first enumeration was effected in other years, viz., in 1871 in Madras and Mysore, in 1875 in Cochin and Travancore, and in 1868 in the Punjab.

‡ The deficiency in Madras in 1871 was subsequently estimated to be about 850,000. If so, the degree of error there was less than in Bengal and the United Provinces, but owing to the famine which intervened before the next enumeration, it was more difficult there than elsewhere to form an opinion as to the extent to which the Census of 1871 was defective.

1891 the general standard of accuracy was so high that there was little room for further improvement.*

Estimated true variation in population since 1872.

161. It may therefore be concluded that the true growth of the population since 1872 has been as follows :—

From 1872 to 1881—possibly nil, and certainly not more than 1.5 per cent.

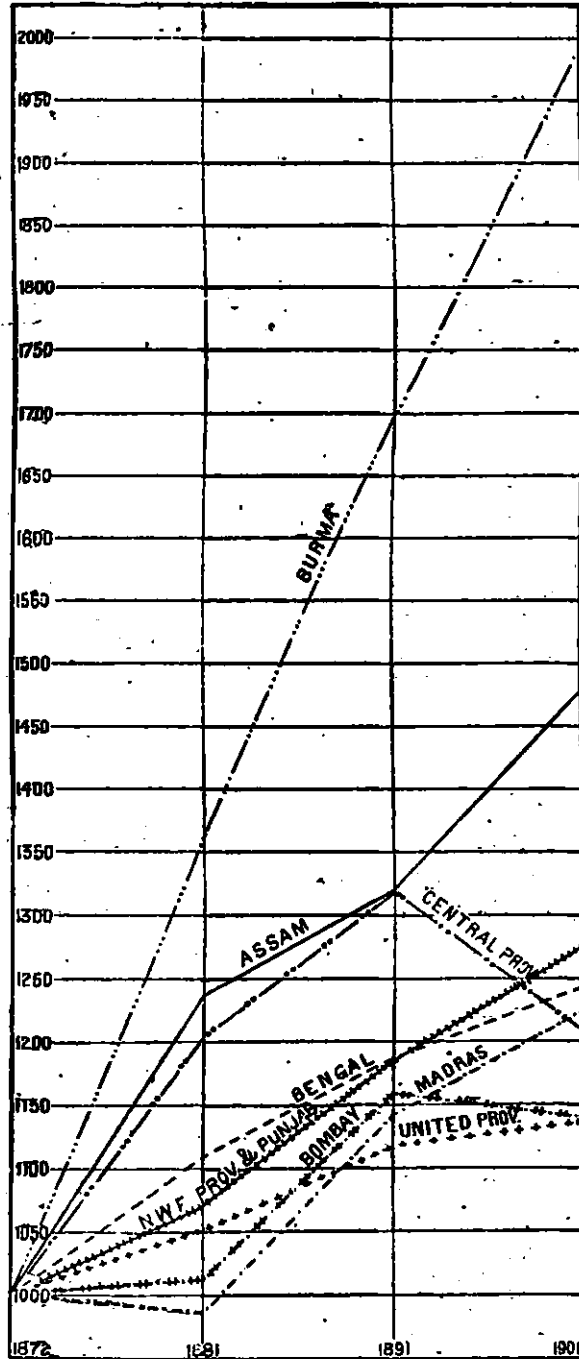
From 1881 to 1891—about 9.8 per cent.

From 1891 to 1901—about 1.5 per cent.

Brief analysis of variations, 1891—1901.

162. The net increase disclosed by successive enumerations is the resultant of very divergent figures for individual provinces and states. The changes that have taken place in the population of each political unit since 1872 have already been discussed, and the results for some of the main provinces are shown in graphic form in the accompanying diagram.

Diagram showing the variation since 1872 per 1,000 of the population in certain Provinces.



In spite of the exclusion, in the case of Burma, of the gain due to the enumeration of fresh areas, this province shows a far more rapid rate of progress than any other part of India, and its population has almost doubled in the short space of 29 years. Assam also is growing fast, but its true increase, since 1891, is obscured by the addition of new tracts not dealt with in that year. The Central Provinces, which rivalled Assam in its progress during the first two periods dealt with, has experienced a severe set-back and its population is now almost the same as it was 20 years ago. Bombay also has lost ground but, thanks to the steady growth of Sind, where the physical and climatic conditions resemble those of the Punjab rather than Bombay proper, the famine has produced a comparatively small decrease in the population taken as a whole. The only other remark suggested by an examination of this diagram is the general irregularity of the curves. In Burma the rate of growth is both rapid and uniform, but elsewhere periods of decadence have been followed by periods of rapid growth, and these again have been marked by a slackened rate of increase in the ensuing decade. This would seem to suggest a specially rapid development during the next 10 years in Bombay proper and the Central Provinces, but it is always unsafe to prophesy and is especially so at the present time, when the grim shadow of the plague is still growing broader and blacker.

163. Taking the district or corresponding division of Native States as the unit, I have distinguished in subsidiary table No. V the areas in each province

* There was a considerable increase owing to better enumeration in Upper Burma and a few remote tracts, chiefly in Native States, but the total population of these areas is so small compared with that of the whole country, that the consequent gain is inappreciable, and is certainly not greater than the loss due to new omissions in places where plague was prevalent at the time when the census of 1901 was taken.

or state which have added to their population from those which have lost ground during the last decade. It thus appears that the increase of 1.5 per cent. in India as a whole (excluding the gain due to the enumeration of new areas) is the combination of a growth of 8.6 per cent. in an area of 943,016 square miles, with a population at the present census of 193,790,645 persons and a density of 205 persons per square mile, with a decline of 10.1 per cent. in an area of 606,973 square miles with a present population of 97,886,087 and a density of 161 persons to the square mile. In British territory there has been a gain of 8.2 per cent. over about three-quarters of the total area and population, and a loss of 5.7 per cent. in the remaining one-quarter. In the States and Agencies the area showing a gain is considerably less than that where there has been a decline; the population of the former has risen from 25 to nearly 28 millions, or at the rate of 11.1 per cent., while that of the latter has fallen from 41 to 34 millions, a decrease of 17.3 per cent. The net result of these variations is a gain of 3.9 per cent. in the population of British territory and a decline of 6.6 per cent. in that of the Native States.

164. It is impossible in the space available to deal at any length with the returns of births and deaths collected in various parts of India. These statistics are based on information received periodically from village watchmen and other similar subordinates, who possess little or no education and over whom it is impossible to exercise very close supervision. In the larger provinces considerable attention has been paid, of recent years, to the improvement of the returns and, in some cases, so far as the total number of vital occurrences is concerned, the degree of error has been greatly reduced, so that even if a certain number of births and deaths are still left unreported, the consequent inaccuracy is believed to be small and fairly constant. In subsidiary table No. VI, a comparison will be found between the actual population of the main tracts where vital statistics are recorded, as shown by the census of 1901, with the results obtained by adding to the corresponding population of 1891 the births reported during the decade and deducting the deaths. The figures are in some cases obscured by migration, especially in Assam and the United Provinces, but elsewhere the estimated population indicated by the vital statistics corresponds to a remarkable degree with that ascertained at the census. It appears, therefore, that these returns now afford a fairly correct indication, not only of the variations that take place from time to time in the public health, but also of the actual growth or decadence of the population, and reference has accordingly been made to them repeatedly in the notes on the movement of the population of different provinces as affording a measure of the comparative healthiness or unhealthiness of different seasons and of the effects of famine on the mortality.*

Comparison of census results with those indicated by the returns of births and deaths.

In other directions very little reliance can be placed on these returns. The error in respect of age at death is just as great as it is in the case of the age return of the census. The diagnosis of diseases is also very imperfect. Cholera, dysentery and small-pox are known, but most other complaints are indiscriminately classed as fever.

165. The movement of the population depends on various factors, falling broadly into two distinct groups. On the one hand, there are the social practices of the people; amongst which may be enumerated the age at, and universality of, marriage, the extent to which widowers and widows remarry, the prevalence of abortion and infanticide, and the degree of care and intelligence with which children are ushered into life, and brought up, especially during the critical first few months after birth. On the other, there are the physical, material or external factors which affect their longevity and fecundity, such as famine, changes in their general material condition, disease, and migration. The former group of factors, which change but slowly and whose influence is fairly constant for long periods of time, will be dealt with when the age and marriage statistics are brought under examination, and the discussion in this Chapter will be confined to the second group, *i.e.*, to the external factors, which are those that chiefly affect the fluctuations in the rate of growth in successive decades. It may, however, be noted in respect of the social factors that marriage is almost universal and that,

Factors on which movement depends.

* It seems probable that the deaths of small children are not so fully reported as those of adults and that the standard of accuracy falls off whenever epidemic disease is specially prevalent. This certainly happens with plague and it is probably also the case with cholera. At the same time it would appear, from the general result described above, that the omissions from both sides of the account more or less balance one another.

although the prohibition of widow marriage amongst large sections of the community renders sterile a considerable number of women capable of bearing children, the birth-rate in India is far higher than in any country of Western Europe. Owing partly to a heavy mortality amongst small children, the death-rate is also high, but the resultant tendency of the social factors is to produce a fairly rapid growth of the population. The extent to which this growth is fostered or checked depends upon the external factors which will now be passed in review.*

Migration.

166. In the case of some individual provinces and states, such as Assam, Burma and Mysore, we have seen that immigration plays an important part in determining the variation in the population, but in India, as a whole, it is an item of very small account. The total number of immigrants from foreign countries at the present census was only 642,000, or 2 per 1,000 of the population, compared with 600,000 in 1891 and 409,000 in 1881. Of the corresponding

Number of emigrants.		
To	1901.	1891.
Ceylon	436,622	264,580
Straits Settlements	57,150	58,927

emigration complete information is not available. The number of persons born in India who were enumerated in Ceylon and the Straits Settlements at the last two censuses of those Colonies is noted in the margin. We have no means of gauging the number of emigrants to Nepal, Afghanistan, Tibet and Bhotan, but in the case of Nepal,

at least, the number is believed to be considerable. Neither are the census returns available for European Countries or British Colonies other than the two already mentioned. The number of natives of India residing in Europe is inconsiderable, while for the Colonies etc., we may, in the absence of the census figures, refer to those obtained by the Protector of Emigrants. According to the returns published by him there were no less than 611,464 natives of India residing in the places shown in the margin during the year 1900.† There was also, up to the 31st March 1901, a total emigration of 34,147 natives of India recruited for work in Uganda, of whom 9,864 had again returned to India on the termination of their agreements and 710 had died. There were in addition 2,430 free emigrants regarding whose subsequent movements details are not available. It may be assumed that about 26,000 natives of India were

British Guiana	125,875
Trinidad	85,815
Mauritius	265,163
Natal	65,925
Fiji	15,368
Jamaica	15,278
Surinam	18,000
St. Lucia	1,200
Martinique	3,764
Guadeloupe	15,276
TOTAL	611,464

actually in Uganda at the time of the census. It was estimated in 1898 that there were at that time 5,000 natives of India in the Transvaal, and a year later the number in Cape Colony, Basutoland and South Rhodesia was reported to be 3,913; there are believed to be about 10,000 in Zanzibar and the census of 1891 showed about 15,000 in Australia and New Zealand; for all these places combined we may place the total at 35,000. If we assume that Nepal contains the same number of emigrants from India as are received from that State by the British districts which adjoin it, or about 158,000, and, making a rough guess, take 50,000, as the number who are resident in Afghanistan, Bhotan and other countries for which no definite information is forthcoming, the aggregate number of emigrants amounts to 1,374,000, or more by 732,000 than the number of immigrants counted in India on the 1st March 1901. The adverse balance, though considerable by itself, forms a very small fraction of the total population and migration may, therefore, be neglected when dealing with the movement of the population in India as a whole.

167. We have seen that the main influence causing fluctuations in the rate of growth of a community at different periods is its material condition, and in

Adverse conditions of decade.
(1) Famine.

* The rapid rate at which the population is capable of growing when all conditions are favourable will be seen from the results already described in the case of Lower Burma and Eastern Bengal.

† The statistics of emigration to the Colonies show that in all 198,585 persons left India during the decade of whom 120,550 were natives of the United Provinces, 30,775 of the Punjab, 28,314 of Madras, and 11,357 of Bengal, the balance being made up of smaller contributions by the other provinces and various native states. (Financial and Commercial Statistics of British India, Ninth issue, page 436.) Having regard to the number of natives of India actually resident in the Colonies it seems doubtful if the returns of emigration are complete. About one-quarter of the emigrants eventually return home, bringing with them savings which, in the decade preceding the present census, were estimated at 70 lakhs of rupees.

a country like India, where two-thirds of the people are dependent on agriculture, this varies with the state of the harvests. When the crops are good the people are prosperous, but when they fail the pinch of scarcity is at once felt. It has been repeatedly shown, in discussing the movement of population in the different provinces and states, how intimately the variations which have been revealed at succeeding enumerations are connected with the occurrence of famine. When there has been a famine in the period between two censuses, the population is stationary or decadent, but when there has been no famine, it is progressive. The rate of growth is greatest during a period of good crops following close on the heels of a famine. The reason for this is partly that a calamity of the sort causes a high mortality, chiefly amongst the very old and the very young and other persons already of a feeble constitution, so that when it is over, the population contains an unusually high proportion of healthy persons at the reproductive ages, and partly because, by reducing the number of dependents to be supported, its ultimate effect is to improve the resources of the poorer classes and so encourage them to have larger families.* Thus Orissa, which lost a quarter of its population in the famine of 1865-67, gained nearly 18 per cent. in the period between the censuses of 1872 and 1881. Madras having suffered severely in the famine of 1876-78, added 15·1 per cent. to its population between 1881 and 1891, and Bombay, which shared in the same calamity, had an almost identical increment.

169. In India, as a whole, the decade ending in 1891 was remarkably free from serious crop failure, while the preceding period witnessed several widespread famines. It is thus easy to see why the population was very nearly stationary between 1872 and 1881 and grew rapidly in the next ten years. But it was not likely that such rapid progress would be maintained. Even with a continuance of good seasons a period of rapid increase would naturally be succeeded by one of slower growth owing to the diminished number of persons at the reproductive ages about 15 years after a famine and the exceptionally large number of young children. Moreover good seasons and bad go in cycles and a succession of fat years is invariably followed by a series of lean ones. This sequence of events was noticed by Mr. Baines who, in dealing with the results of the census of 1891, wrote :—

“The rate of increase thus implied is not likely to be maintained, and after so many years of average seasons, previous experience in India warrants the expectation of a check to the growth of population, such as that which occurred between 1861 and 1871 and 1871 and 1881. The measures to prevent the loss of life that have been briefly touched upon in Chapter III will, no doubt, mitigate the severity with which this check is applied, so far as its direct action is in question, but, nevertheless, it will not be surprising to those who have even glanced at these statistics, if there be in 1911, if not 10 years sooner, a considerable readjustment of the age distribution at the beginning and end of the tables.”

The anticipated has happened and the period from 1891 to 1901 was even more disastrous to the cultivators than that from 1872 to 1881. The adverse conditions of the decade have been repeatedly mentioned in the notes on movement in individual provinces and states, but it will be convenient to give a brief summary of their leading features in India as a whole. In 1891-92 there was scarcity over a considerable area in Madras and Bombay, and in parts of Bihar. In 1895 a weak monsoon led to extensive crop-failure in the southern districts of the United Provinces, and a sudden cessation of the rains of 1896 resulted in famine in the United Provinces, the Central Provinces, and Berar, and parts of Madras, Bombay, Bengal, the Punjab, Upper Burma, Rajputana, Central India and Hyderabad. Altogether an area of about 300,000 square miles with a population of nearly 70 millions was affected and, on the average, two million persons were relieved daily during the twelve months from October 1896 to September 1897; the number rose to more than 4 millions at the time of greatest distress. The loss of food crops was placed at 18 or 19

* It has more than once been pointed out by Settlement Officers that the size of the family varies with the material condition of the people; that a landless labourer's family is on the average smaller than that of a small cultivator, and the family of the latter than that of one with a large holding, *vide* Muzaffarpur Settlement Report, page 364, and Report on Material Condition of small Agriculturists and Labourers in the Gaya District, pages 17 and 23.

A rapid rise in the birth-rate after any unusual catastrophe is a well known phenomenon. M. Bertillon says :— “la natalité s'abaisse, à la suite de la nuptialité, lorsque la population subit quelque désastre (guerre, disette, chômage, etc.). La période de crise, une fois passée, la natalité devient plus forte qu'elle n'était avant la crise, comme si la population éprouvait le besoin de réparer le temps perdu.” (Cours Élémentaire de Statistique Administrative, page 477.)

million tons. The Commission appointed to review the system on which relief was administered in this famine and to gather up its lessons came to the conclusion that "while the areas over which intense or severe distress prevailed were greater than in any previous famine, the degree of success attained in the relief of distress and the saving of human life was, if not complete, far greater than any that has yet been recorded in famines that are at all comparable with it."

In 1899 the monsoon again failed, and the results were even more disastrous, for though the population affected was slightly less than in 1896-97, famine conditions prevailed over an area half as great again and with less easy means of communication, the drought was much more severe, the people had not yet recovered from the previous visitation, the mortality amongst cattle from want of fodder and water was far heavier, and the tracts which suffered most lay for the greater part in Native States, where the relief organization was necessarily less perfect than in British territory. In the height of this famine there were for weeks together over six million persons in receipt of relief, and the value of the agricultural production of the year was estimated by the Viceroy to have been 60 millions sterling below the average; there was also a loss of some millions of cattle.

170. It is impossible to say with any pretence to accuracy what was the actual mortality caused by these calamities. The Commission of 1901 thought that about a million deaths were attributable to the famine of 1899-1900 in British territory, and it would probably be safe to assume that another three millions must have occurred in the Native States, which contained more than three-fifths of the population afflicted and where the relief operations were generally far less successful. No estimate has been made of the excess mortality in 1896-97 but it cannot have been much less than a million. The total mortality due to the two famines may therefore be taken roughly at five millions. The diminished vitality of the people resulted also in a heavy fall in the birth-rate, but this was to some extent counterbalanced by an unusually high rate of reproduction when the people had recovered their normal condition.

(ii) Plague.

171. Excluding a small tract in the Himalayas where it has long been endemic, bubonic plague made its first appearance in India in modern times in Bombay City in September 1896 and, after spreading over the Western Presidency, notwithstanding the measures taken to prevent its dissemination, gradually extended its ravages to other parts of India. By the date of the census the recorded mortality was nearly half a million, to which Bombay contributed seven-tenths and Bengal two-thirds of the remainder; Mysore with 35,731 reported deaths had suffered heavily in proportion to its population and so too had Baroda and Hyderabad. The extent to which the actual number of deaths exceeded that reported is uncertain, but it is known that the difference was very considerable and it may be assumed that the true mortality from plague was not less than three-quarters of a million and may possibly have been a million.

Their effect smaller than might have been expected.

172. In a period which has witnessed the two greatest famines of the century and the appearance of a new and deadly disease, the wonder is, not that the pace at which the population has grown is less than it was during the previous ten years, when the rate of progress was more rapid than usual, but that there should have been any increment at all. In ancient times the occurrence of a severe famine was marked by the disappearance of a third or a fourth of the population of the area afflicted, and the fact that in British India the famines of 1896-97 and 1899-1900 should have resulted in an excess mortality in those years of only 15 and 30 per mille respectively is a remarkable proof of the efficiency of the relief operations.*

Conditions making for Progress.

(i) Railways.

173. In other respects the past decade has been one of great progress. The railways open in 1890-91 had an aggregate length of 17,000 miles, which in 1900-01 had grown to 25,000, an increase of more than 50 per cent. The advantages of these improved communications and of the facilities which they afford to trade and migration are most marked in times of scarcity. It has been proved by recent experience that, even in years of severe famine, India has

* In a few of the smaller and more backward Native States the famine of 1899-1900 caused a terrible loss of population but, as a general rule, even in Native States, the administration of relief was far more efficient and effectual than it had ever been before. A brief account of some of the famines which occurred before the advent of the British and of their disastrous consequences will be found in Chapter III of Mr. C. W. McMillan's little book on "Famine Truths, Half Truths, Untruths."

ample supplies of food, in areas beyond the afflicted zone, to support the whole population, and the extension of railway communication has now made it possible to carry it to the tracts where the crops have failed. During the twelve months ending 30th September 1900 food grains and pulses to the extent of nearly 72 million maunds were imported by the affected provinces (other than the Punjab), which in ordinary years export about 7 million maunds, and prices never rose to the extreme height common in former periods of scarcity. But for the railways it would have been impossible to effect these vast movements of grain, which, be it observed, were brought about entirely by the ordinary business agency of the country without any special assistance from Government.*

174. Great strides have been made of late years in the development of the State system of canals for irrigation purposes, and in 1901, 43,000 miles of canals were in operation, compared with only 9,000 ten years previously. The total irrigated area in British India now averages 30 million acres, of which about one-half is watered by irrigation works owned or controlled by the State. The great benefit conferred by these works was clearly shown in the famine years, especially in the Punjab, where the crops raised from the irrigated fields of the Chenáb Colony were of the greatest use in meeting the demand for food in other parts of that Province.†

175. The persons mainly affected by famine are the landless labourers; the actual cultivators usually have sufficient food stocks or savings to enable them to tide over bad times, but the labouring classes live from hand to mouth and, on the advent of famine, are deprived at once of the means of employment on which they chiefly depend. Not only is there less field work to be done, but what little there is, is done by the land occupants themselves. The most effective remedy, therefore, lies in the opening out of other means of livelihood, and great strides have been made in this direction during the past ten years. The expansion of the railway system above described has caused an increase in the number of natives employed in connection with it from 248 to 357 thousand. The coal mines of Bengal have shown a remarkable development, and in 1901 the output of coal was 5½ million tons, or more than three times the quantity won in 1891; the production in other parts of India, which now exceeds a million tons, has nearly doubled during the same period. The average number of labourers employed daily in the coal mines has risen from 35,000 to 95,000. The quantity of petroleum extracted (almost wholly in Burma) exceeded 50 million gallons in 1901 compared with barely one-eighth of that quantity ten years previously. The value of gold taken from the Mysore mines has risen from one to three crores of rupees. The production of manganese ore in Madras, of tin in Burma, and of mica in Bengal and Madras has also increased considerably.

176. The development of the coal mines has provided the country with an abundant supply of cheap fuel and has greatly encouraged all kinds of industrial activity. The jute mills of Bengal number 34 against 25 in 1891 and the number of their employés has grown from 61 to 110 thousand; there are also 168 jute presses employing 21,000 persons compared with 33 employing 8,000 persons in 1891. The number of cotton mills in Bombay has risen from 89 to 138 and that of the labourers engaged in them from 78 to 107 thousand. The jute industry is still a monopoly of Bengal, but rivals to the cotton mills of Bombay are springing into existence in many places. In respect of other industries the development, though less marked, has been very considerable, and cotton ginning and pressing mills, iron and brass foundries, paper mills, oil mills, potteries, sugar factories and tanneries are rapidly growing in numbers and importance in different parts of the country. During the decennium the foreign trade of India by sea has risen in value from 1,956 to 2,547 millions of rupees, the coasting trade from 778 to 948 millions, and the foreign trade by land from 83 to 136 millions. Joint stock companies have risen in number from 950

* The importance of good communications as a means of mitigating the suffering caused by famine is well illustrated by the history of the Orissa Famine of 1865-66 when ships laden with grain were prevented by the winds of the south-west monsoon from leaving the port of Calcutta, and it was impossible to supply food to the starving people until hundreds of thousands had died.

† An account of the advantages derived from irrigation in the famine of 1896-97 and of the progress made in developing the State system of irrigation during the previous 20 years will be found in the "Narrative of the Famine in India" by Mr. T. W. Holderness, paragraphs 103 to 111.

to 1,866, and their paid up capital has increased from 266 to 370 millions of rupees. Everything seems to point to the fact that India has entered upon an era of great industrial development, and if so, not only may a marked improvement in the material condition of the poorer classes be looked for, but the danger of loss of life, in the event of crop failure, will in future be very greatly diminished. The demand for labour in Calcutta and other great industrial centres already far exceeds the supply and one of the problems of the immediate future is the devising of means whereby the employers may be brought into touch with the classes who would benefit most by taking to the new means of livelihood created by British capital.

(v) Cultiva-
tion of
Special Pro-
ducts.

177. The cultivation of coffee and indigo has received a check and the area under these crops is less than it was ten years ago. The area under tea, on the other hand, has risen from 345 to 525 thousand acres and the number of tea-garden coolies in a still greater proportion; the total number employed in 1900 was 719,000. In Bengal the profitable jute plant is replacing other less remunerative crops and the area devoted to its cultivation in 1900 was reported to be 2½ million acres, or more by 50 per cent. than it was ten years previously. The crop statistics of Bengal, especially those of earlier years, are very unreliable, but it is a matter of general observation that the cultivation of jute is spreading in all directions.

(vi) Pro-
bable im-
provement
in Public
health.

178. It is impossible in the present state of the vital statistics, which have only recently attained a fair degree of accuracy, to draw from them any conclusions as to variations in the death-rate, and whatever opinion may be formed on this subject must be based solely on *a priori* grounds. In all the larger towns the water-supply and sanitary arrangements have been greatly improved. Much has been done in the smaller towns also, and even in the villages. Great care is taken to guard against epidemic disease at the fairs and festivals where the people assemble in large numbers, and in most cases they can now reach them by rail and thus escape the horrors which attended the old journey by road, while they no longer disseminate disease in the villages along their line of march. When cholera breaks out, efforts are made to eradicate it by the disinfection of wells and other sources of water-supply. The protection of the people from small-pox by means of vaccination is making steady progress. Where the public health is found to be suffering from obstructed drainage, efforts are made to remove the defect, and numerous artificial drainage channels have been cut during the last few years, chiefly in Upper India. Lastly the number of dispensaries established by Government and local bodies is rapidly increasing and medical aid is thus being brought nearer to the people. It would seem that these and other measures cannot fail to have a marked effect, and that, apart from plague and the obscure fever epidemics, such as the "Burdwan fever" or the "*Kald-azár*" of Assam, which break out from time to time, the general health of the people must be steadily improving.*

The Outlook
for the
Future.

179. With all these causes making for progress, the present outlook is a hopeful one, and unless famine should again supervene, there is every prospect of a steady growth of prosperity which is likely to bear fruit in an accelerated rate of increase of the population during the next few years.

It may be said that India has already more inhabitants than it can support, but this is not really the case. It will be seen from subsidiary table III of the last Chapter, in which the unit is the district or state,† that a fifth of the total population of the country is congregated on less than a twentieth of the area, where there are more than 600 persons to the square mile, a quarter more on a twelfth of the area, carrying from 400 to 600 per square mile, and nearly a fifth on an eighth of the area with a density between 200 and 400. Taking these figures together we find that nearly two-thirds of the total population of India occupy only a quarter of the whole area, while the remaining one-third is scattered over three-quarters of the area, which is still very sparsely inhabited and nowhere contains as many as 200 persons to the square mile.

There are no doubt certain localities, chiefly in parts of Bihar and in the east of the United Provinces, where the pressure on the soil is already felt, but

* Although not specially liable to epidemic disease, the whole of the Sub-Himalayan region from the Punjab to Assam is, and has long been, very unhealthy and the population is generally decadent in spite of the existence of large areas of waste land fit for cultivation. Climate is still a more important factor than density in determining the growth or decay of the population.

† In Hyderabad, Kashmir, and Mysore the divisions corresponding to British districts have been taken.

it is believed that with more scientific farming the present produce of the soil might be greatly increased, in which case not only would the dearth of land now felt disappear, but room would be made for an even greater population. There are, moreover, many tracts where, even under present conditions, there is ample room for expansion. There seems to be no reason why Burma as a whole should not support a population at least half as dense as that of Bengal, with its extensive areas of hill and ravine in the Chota Nagpur plateau and elsewhere, in which case its inhabitants would number nearly 60 millions in the place of the 10½ millions it now contains. The waste lands of Assam are crying aloud for colonists and even in densely populated Bengal there are extensive areas still awaiting reclamation.* Lastly, many tracts which are now barren and inhospitable and support only a scanty population can be made productive by means of an artificial supply of water. Part of South Bihar that were very sparsely inhabited only twenty-five years ago now carry a fairly dense population, owing to the construction, by the people themselves, of reservoirs and water channels which have enabled them to substitute rice for scantier and more precarious crops. We have already seen how the sandy desert between the Sutlej and the Chenáb has been transformed in a few short years into valuable corn fields. But what has yet been done is perhaps only a small instalment of that which the future has in store. There is enough water in the rivers of India, now running useless to the sea, to render fit for the plough many millions of acres at present barren and uncultivable. The great desert in the west of Rajputana has barely five inhabitants to the square mile, but there is evidence that it was well-peopled in ancient times, before the rivers that once flowed through it took another course, and it seems not impossible that some scheme of irrigation, bolder than any yet devised, may restore its lost fertility.

180. Overcrowding, moreover, is a purely relative term, and mere density of population means but little unless it is correlated with the degree of productiveness of the soil. There is probably no part of India where the people are more prosperous than they are in Eastern Bengal, but although more than three-quarters of the inhabitants of this tract are dependent on agriculture, the density is unusually great, rising to 952 persons per square mile in the Dacca district and to 848 in Tippera; the population moreover is still growing very rapidly, the increase since 1872 in the two districts named being 45 and 51 per cent. respectively.†

It has been shown in the case of Bengal that, with a few exceptions for which there are special reasons, the absolute growth of the population is greater in the thickly populated tracts than it is in those which are more sparsely inhabited ‡ and it will be seen from subsidiary table No. IV at the end of this chapter that the same appears to be the case generally. The figures in this table are less conclusive than those in the Bengal Report, which are based upon the statistics for police circles, as the district has been taken as the unit, and a district covers so large an area that the mean density is often the outcome of very divergent proportions in the smaller administrative units of which it is composed. The main result, however, remains the same, and the greatest growth of the population has occurred in districts which in 1891 had already a density of from 500 to 600 persons per square mile; the next greatest increment is recorded for districts with from 600 to 700; then follow in order the districts with a population in 1891 of less than 100, 200 to 300, 300 to 400, 400 to 500, and 700 and over, while at the bottom of the list are those with a population of 100 to 200. § The advantage held by tracts with a comparatively dense population would be even more marked if we excluded Burma, the circumstances of which are exceptional, and the Punjab, where the growth of the Chenáb colony has disturbed the figures. Elsewhere the more

* Such as the Barind, the Madhupur jungle, the Sundarbans, the Western Duars, etc.

† It is curious to notice that Dr. Voelcker, in his book on the Improvement of Indian Agriculture, mentions Dacca as a place where native agricultural methods are indifferent and susceptible of improvement, while he instances Gujarat as a tract where existing methods cannot well be ameliorated. Both Dacca and Gujarat have an alluvial soil, but while the former supports with ease nearly a thousand persons to the square mile, Gujarat with barely a quarter of that number is impoverished.

‡ *Ibid.*, paragraph 89.

§ This result differs from that arrived at in 1891 but on that occasion the true rates of increase were obscured by the gains derived from the greater accuracy of the enumeration; these were largest in the more sparsely inhabited tracts where the deficiencies in the Census of 1881 were most marked.

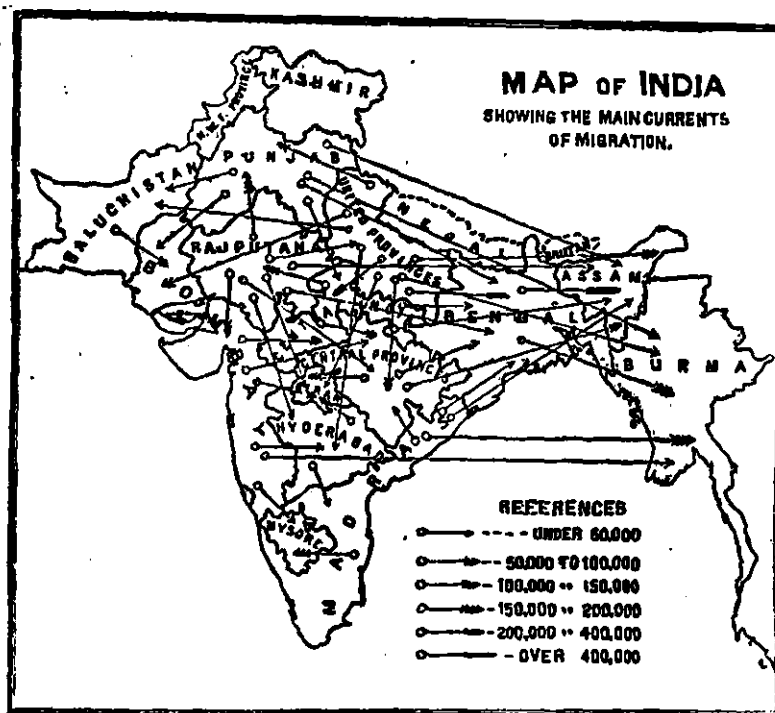
thinly inhabited tracts show a net decrease since 1891. It must, however, be remembered that these are the areas that suffered most from the famine, and at the next census a relatively rapid rate of growth may be looked for in the areas in this category.

The population of India has been kept down in the past by war, famine and pestilence. The fear of war has been removed by the establishment of the *Pax Britannica*. Famine also is no longer the terrible scourge that it was in days gone by, and reasons have been given for hoping that its visitations will have a constantly diminishing effect. It is only in the case of pestilence that the prospect is gloomy. Plague is still spreading over the land and is taking a yearly increasing toll. How long it will continue to gain ground, or when it will disappear, it is impossible to predict, but this much seems certain, that it will be a factor to be taken serious count of when the time comes for reviewing the results of the next census.

Migration.

181. In the preceding pages the question of birth-place has been considered only in so far as it causes an increase or decrease of population. It is now proposed to examine the figures from another point of view and to note the direction and character of the various streams of migration, the reasons that induce them and the extent to which they have grown in volume or declined since the date of the previous census. A brief summary of the results to be gleaned from Table XI—

Object of discussion.



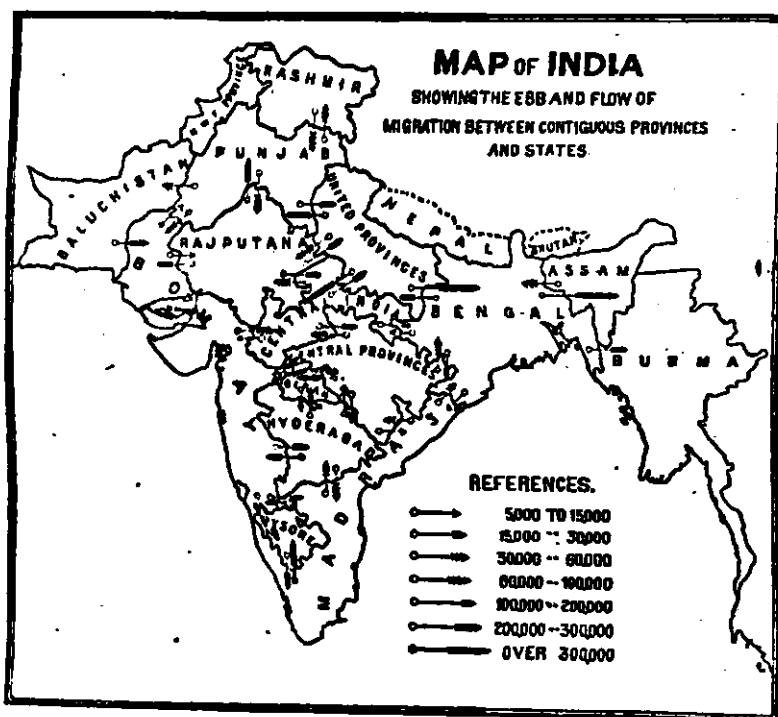
Note.—The arrows show the net result after deducting migration in the opposite direction.

Birth-place will be found in subsidiary tables VII to X at the end of this Chapter, and a graphic representation of the main features of the same is given in the annexed map, on which all net movements of the population across the boundaries of provinces and states are indicated by means of arrows the heads of which indicate the net number of persons who have crossed from the one tract to the other. A similar map showing the actual ebb and flow of population across the boundaries of contiguous administrations will be found on the opposite page. Movements within a province or state are not shown in these maps; in some cases, where they are very considerable, they will be referred to further on, but for full details on this aspect of the question the provincial reports should be referred to.

The most striking feature in connection with this subject is the exceedingly small amount of migration in India. The natives of this country are an intensely home-loving people. The Hindu, in particular, when he leaves his permanent home, suffers from many disadvantages; he is cut off from his old social group, with the members of which he could eat, smoke and intermarry, and he finds it very difficult to enter a new one. It is therefore very seldom that he permanently severs his connection with his birth-place, and although he may go abroad in search of a better livelihood than he can get in his own country, his exile is, as a rule, only temporary; he endeavours to return home from time to time and he cherishes the hope of eventually resuming his residence there. The Muhammadan is not so circumscribed by caste prejudices, but in practice he is found to be almost equally reluctant to go very far from his ancestral home.

182. The census shows that of every 10,000 persons only 927 were enumerated outside their district of birth. It appears, moreover, if one may generalize from the statistics for Bengal, that about two-thirds of those who were so enumerated had gone no further than some contiguous district, and such movements are not usually indicative of migration properly so called. In northern India at least, the marriage customs of the Hindus lead them to seek their brides outside the limits of their own village. The wife again often goes to her parents' home to be confined, especially in the case of her first pregnancy, and the amenities between relations residing in different villages lead to a good deal of visiting. Labourers from one village, again, often obtain temporary employment in a neighbouring one. Where the villages in question happen to lie on opposite sides of the boundary line between one political division and another, these minor movements find expression in the statistics of migration. There may be, and often is, a genuine movement from one district to another, as in the case of persons taking up land in the Sunderbans or in the Kistna delta. It was impossible at the census to make the enquiries necessary to distinguish true migration from petty movements of a casual or reciprocal nature, but, generally speaking, it may be said that in the case of contiguous areas most of the inter-district movements disclosed by the census belong to this latter type. When larger units, such as provinces and states, are considered the significance of the figures depends on the relation which exists between the length of the common boundary line and the population behind it. Baroda is shown by the returns to have given 196,000 persons or 10 per cent. of

General
character of
migration.



Note.—The arrows here show the total volume of migration in each direction, when it exceeds 5,000.

its population to Bombay and to have received in exchange 161,000 or 8 per cent., but almost the whole of this interchange is due to the fact that the Baroda State consists largely of small detached blocks surrounded by British territory, so that the casual movements from one village to another in the neighbourhood have obtained a prominence which they have not received in the case of more compact areas. Of the same character is a great part of the migration between the United Provinces and the States of the Central India Agency. The former gives to the latter 320,000 and receives 199,000; three-quarters of the emigrants from the United Provinces were enumerated in the adjacent territory of Baghelkhand, Bundelkhand and Gwalior, and nearly nine-tenths of its immigrants were found in the eight districts which lie along the boundary. Of the 133,000 persons born in the Punjab who were residing in the United Provinces at the time of the census, three-quarters were found in districts contiguous to the Punjab and of the corresponding immigrants to the Punjab, numbering 233,000, nearly two-thirds were in districts along the border of the United Provinces. It is impossible within the limits of this report to discuss all the movements of this nature, or to endeavour to trace the causes which have led to changes since the previous census. It must suffice to enumerate some of the more important features of migration properly so called, i.e., of movements to a distant place, whether permanent or temporary, in search of employment.

its population to
Bombay and to have
received in exchange
161,000 or 8 per
cent., but almost the
whole of this inter-
change is due to the
fact that the Baroda
State consists largely
of small detached
blocks surrounded by
British territory, so
that the casual move-
ments from one
village to another in
the neighbourhood
have obtained a pro-
minence which they
have not received in
the case of more
compact areas. Of
the same character is
a great part of the
migration between
the United Pro-

Migration
to the tea
gardens of
Assam.

183. The most notable instance of migration to a distance is perhaps that to the tea gardens of Assam. This backward province is the great centre of the tea industry, but as is natural where land is plentiful, the indigenes prefer the independence and ease of a cultivator's life to the regular work and discipline of the tea gardens. The local supply of labour is thus wholly inadequate and the planters, being forced to seek for coolies at a distance, have brought into existence the great recruiting business of whose attendant abuses so much has been heard in recent years, and the suppression of which was the main object of the new Labour Act passed in 1901. The chief recruiting grounds are the Chota Nagpur plateau in Bengal, the United Provinces, the Central Provinces, Madras and the Native States of Rajputana and Central India. Owing to the extension of tea cultivation there has of late been a great increase in the volume of recruitment, especially in 1897 when famine acted as a powerful stimulant

Year.	Number of adult immigrants according to labour returns.
1891	49,908
1892	56,050
1893	50,675
1894	46,530
1895	72,837
1896	81,115
1897	95,981
1898	49,169
1899	31,908
1900	62,783
TOTAL	596,856

to emigration. The consequence is that the foreign-born denizens of Assam have risen from half to three-quarters of a million, and now form no less than an eighth of the population of the province. To the total number Bengal contributes 503,880 as compared with 418,344 in 1891, or if we exclude emigrants from contiguous districts, 457,037 as compared with 368,071. Most of these emigrants belong to the hardy aboriginal tribes of the Chota Nagpur plateau, who are in especial demand, because they are not only more able to withstand the climate, but are capable of harder work than the softer people of the plains. The emigrants

from the United Provinces to Assam have increased from 57,851 to 108,900 and the emigrants from the Central Provinces from less than 4,000 to more than 84,000; those from Madras and Rajputana who now number more than 21,000 and 9,000, respectively, have doubled in number during the decade and the recruitment from the Central India Agency, which was practically non-existent ten years ago, has now resulted in the residence in Assam of more than 12,000 natives of that tract of country. Under the terms of the labour-contracts which they usually execute on recruitment, the coolies are bound to remain on the gardens to which they go for a period of from one to four years, and on the expiry of their agreements, large numbers either stay on as garden coolies or settle down as cultivators, or become carters, herdsmen or petty traders; even of those who return to their country, many eventually find their way back to Assam. The land held direct from Government by *ex-tea* garden coolies has risen from 32,000 acres in 1890 to 90,000 acres in 1900 and, in addition to this, a large area is occupied by them as sub-tenants. They are thus helping to colonize this fertile province, but the progress is very slow compared with the large amount of cultivable land still lying waste. The late Chief Commissioner, Sir Henry Cotton, drew up, and obtained sanction to, an elaborate scheme of colonization, in which highly favourable terms were offered to capitalists who would come forward to take up large holdings and settle upon them cultivators imported from Bengal, but the proposals have so far been infructuous. Possibly better results may follow on the opening of the line between Dhubri and Gauhati, which forms the only remaining link in the railway system connecting Assam Proper with Bengal and Bihar.

Migration
from Bengal
and Madras
to Burma.

184. Burma is famous for its fertile rice fields but, like Assam, it is very sparsely peopled; the natives of the Province are far too well off to serve as coolies and it depends almost entirely on Madras and Bengal for the labourers in its towns and also, to a great extent, for its harvesters. The total immigrant population at the present census was 475,328, an increase of .47 per cent. as compared with 1891. Madras contributed about 190,000 towards the total and Bengal 157,000; the only other noticeable items were 34,000 from the United Provinces, 21,000 from the Punjab and rather less than 7,000 from Bombay. There were also nearly 60,000 settlers from places outside India, of whom the majority were Chinese (43,328); the British Islands supply 5,439, Nepal, 3,910 and Siam, 3,327. The migration from other parts of India to Burma, unlike that to Assam, is mainly temporary. Labourers go in large numbers for the harvest and the milling season and then return to their homes, with

their pockets full of money saved from the high wages obtainable in this prosperous province. More than two-thirds of the immigrants from Bengal were attracted by the rice harvest in Akyab and half those of the United Provinces were coolies in Rangoon town. Some few Madrasis settle down as cultivators in the districts of the Irrawaddy delta and a certain number of Maghs from Chittagong become permanent residents in Arakan, but the fact that among the natives of Bengal there are only 19 females to 100 males, and only 18 among the natives of Madras, clearly shows that the great majority are merely temporary visitors.* The Chinese, on the other hand, often seem to make a permanent home in the Province and Table XIII shows that the number of Chinese by race exceeds by nearly 50 per cent. the number born in China. Many of these are in reality half-breeds, the offspring of Chinese husbands and Burmese wives. Similar mixed unions often take place between Punjabis and other Indian immigrants and Burmese women but in such cases the caste system stands in the way; and the husband often ends by breaking off the connection and returning to his own country.

185. The enormous volume of emigration from the Chota Nagpur plateau in Bengal to the tea gardens of Assam, which has been mentioned above, is almost counterbalanced by the influx into Bengal of nearly half a million natives of the United Provinces. Of these less than one-fifth are accounted for by migration between the contiguous districts of the two provinces. The great majority are found in Bengal proper, especially in Central and West Bengal, where they find employment in the mills and coal mines, and as earth workers and field labourers, on better wages than are obtainable nearer home. Their number is steadily increasing to meet the growing demand for labour in the factories on the banks of the Hooghly and in the Bengal coal mines, and the total at the present census exceeded by more than a third that recorded in 1891; as already pointed out, however, the supply is far from being commensurate with the demand. Most of these immigrants stay only for a time and return periodically to their old homes, but a few, who are influenced by some special attraction, such as remunerative employment or a *liaison* with a woman of the country, settle permanently in Bengal. The emigration of natives of the United Provinces to Central India and the Punjab has already been adverted to; it is here to a great extent of a casual nature, but the balance against the United Provinces is in both cases somewhat heavy. The fact seems to be that, having regard to the capacity of the soil, the United Provinces is more densely peopled than any other part of India, and a larger proportion of its inhabitants find it necessary to seek a livelihood beyond its limits. The total number of emigrants is 1,510,295 or 3.1 per cent. of the population while the corresponding inflow yields only 690,691 or 1.4 per cent. In 1891, the emigrants numbered 1,370,144 and the immigrants 799,137. Of the tracts to which emigrants go, other than those already mentioned, the most important is Bombay, many of whose mill hands are recruited in the United Provinces. Owing probably to plague, the number of these emigrants to Bombay (69,000) is less than it was in 1891.

186. Although separately administered by the Colonial Office, Ceylon is to all intents and purposes, an integral part of India, and the narrow strip of sea that intervenes is powerless to impede the strong current of migration which sets towards the island from the Indian peninsula. Unfortunately, in spite of a suggestion made by Mr. Risley before the census, the Ceylon birth-place table shows all natives of this country under the one head "India," and does not distinguish between the different provinces and states, but it is known that the vast majority of these emigrants go from Madras. The number has increased greatly since 1891, in consequence of the remarkable expansion of the tea industry, which depends on Indian coolies for its labour force, and which sprang into existence in the previous decade when coffee planting became

Year.	Number of persons born in India who were enumerated in Ceylon.
1891 . . .	276,788
1891 . . .	264,580
1901 . . .	436,622

* Favourable rules for the grant of large areas of waste land to capitalists who will undertake to settle on them colonists from other parts of India were drawn up some years ago, but the results have not hitherto been very remarkable. The immigrants who take to cultivation usually do so on land which they have themselves acquired along the main lines of railway.

unprofitable owing to the blight which attacked the bushes. There is no system of recruitment such as exists in connection with the Assam tea gardens. The coolies come in gangs, each under its own headman, with whom, as in Darjeeling, the planter deals exclusively, leaving him to make his own arrangements with the individual coolies. The ports where these coolies mostly embark are in the Madura and Tanjore districts, and they nearly always make the journey in small sailing vessels which are not dealt with in the "statistics of free emigration by sea" collected under the orders of the Madras Government. The number who remain permanently in Ceylon is apparently not very great and the emigrants comprise only 63 women to every 100 men. The number of locally born 'Tamils' considerably exceeds the number born in India, but most of the former are the descendants of very ancient settlers, reputed to have been invited to the island by a king who came from Northern India some centuries before the Christian era, and comparatively few of them are the offspring of those of recent times.

Migration
between
British
territory
and Native
States.

187. The net result of migration between British and native territories is noted below so far as the states and agencies in direct relation with the Government of India are concerned. It is impossible to give trustworthy figures for states in political relation with provincial Governments as the necessary distinction between the Native States and the British districts was not always observed by the Provincial Superintendents in the course of tabulating their statistics.

State or Agency	Gives to British territory.		Receives from British territory.		Net Result, gain + and loss —	
	1901.	1891.	1901.	1891.	1901.	1891.
Baroda State	130,760	166,838	107,623	181,765	— 23,187	+ 15,427
Central India Agency	386,937	456,158	478,388	497,659	+ 91,451	+ 41,501
Hyderabad State	302,031	368,771	291,480	319,569	— 10,541	— 49,202
Kashmir State	81,312	85,729	81,197	66,647	— 115	— 19,082
Mysore State	129,468	138,118	296,601	187,061	+167,193	+ 48,948
Rajputana Agency	606,139	529,847	160,615	259,310	—445,324	—270,537
TOTAL	1,686,647	1,744,956	1,416,114	1,512,011	—220,588	—332,045

The net outcome of the above interchange of population is a loss to the Native States of 220,000; this is much the same as in 1891, but the figures for individual states have changed a great deal. The Central India Agency has gained by a considerable influx of settlers from British Bundelkhand, where the agricultural conditions have been deteriorating in recent years, and Mysore has attracted numerous labourers for its gold mines and other industrial undertakings. The ebb and flow between Kashmir and the Punjab which resulted in a considerable net loss to the former in 1891 have now reached an equilibrium. On the other hand the famine of 1900 seems to have driven from Baroda and Rajputana many of the settlers from British territory who formerly found a livelihood there.

Migration,
within
Provincial
boundaries.

188. In addition to the movements from one province or state to another, there are occasional instances deserving notice of migration within the limits of a province. Thus in Bengal, more than half a million natives of Bihar were enumerated in Bengal proper whither they had gone in search of labour like the immigrants from the United Provinces already referred to. The aboriginal tribes of the Chota Nagpur plateau are spreading to the north-east, and are bringing under cultivation the desolate uplands of the Barind, while large numbers of them have gone to the tea gardens of Jalpaiguri, whither they find their way without the help of the elaborate recruiting agency employed by the Assam tea gardens. In Burma between a third and two-fifths of a million persons born in Upper, were counted at the census in Lower, Burma. Irrigation is a constant cause of migration, and we have already seen how the barren waste of the Rechna Doab in the Punjab has received in the short space of ten years, a population of three-quarters of a million. A generation earlier the opening of canals in the old Sirsa district, now amalgamated with Hissar, caused the population to be doubled in less than thirty years. Similarly the protective works at the mouth of the Kistna river in Madras have attracted many settlers from the surrounding districts.

The marriage customs of the people do not usually affect the population, as the movements are reciprocal and so balance each other, but this is not always the case, and in some parts there is a trend in some particular direction. In the United Provinces it generally happens that the social status of a given caste decreases from west to east and as a woman is usually expected to marry a person equal or superior to herself, it follows that females are most commonly given in marriage to the west. The same rule extends into Bihar, and the Bábhans and Rájputs of Darbhanga are in the habit of marrying their daughters to their better bred caste fellows of Ballia. So also in the Punjab, the Rájputs of Gurgaon have a rule that a daughter must always be given in marriage to the west and a wife taken from the east.

Lastly, there is the centripetal influence of great cities, *e. g.*, of Bombay which draws 146,000 immigrants from the Ratnagiri district and 170,000 from Satara, Poona and Kathiawar combined. This aspect of the subject has been more fully dealt with in the last chapter in connection with the statistics relating to cities.

189. The principal features of the immigration to India from foreign countries are given in subsidiary tables IX and X; the former shows for 1891 and the present census the main items for each province and state, and the latter, the detailed figures for India as a whole at each of the last three censuses. The influx of foreigners shows a steady increase and they now aggregate 641,854 against only 408,572 twenty years ago. As compared with 1891 the number of males born in the British Islands has fallen from 86,146 to 81,990, while that of females has risen from 12,358 to 14,663. The decrease in the case of males is, due to the absence in South Africa, at the time of the present census, of a portion of the European troops ordinarily stationed in India; if

Immigrants
from foreign
countries.

Year.	Number of British troops in India including officers.
1891 . . .	87,077
1901 . . .	60,965

these be excluded, the number of males born in the British Islands but enumerated in India shows an increase during the decade of about 2,000.* There are more persons born in Germany, France and Australia than there were ten years ago, and fewer natives of America and Africa; the decline in the case of the latter is due mainly to the figures for Aden, where seven-ninths of the total number of Africans are found, but there is also a noticeable diminution in the number enumerated in Karachi

and the Nizam's dominions. The increase in the German-born population occurs mainly in Bombay where the number now stands at 658 against 333 in 1891; it is perhaps due to the enumeration of sailors on German vessels anchored on the day of the census in the ports of Bombay and Aden, in the latter of which places alone nearly half the total number was found.

190. The immigrants from Nepal, who aggregate nearly a quarter of a million, are found chiefly in Bengal and the United Provinces which adjoin that State and contain respectively two-thirds and one-fifth of the total. The great majority (about 158,000), are merely settlers from the other side of the common boundary, who have married or taken up land in the contiguous districts in British territory, and who have been replaced in Nepal by an equal or greater number of emigrants from our side of the frontier. They are identical in physical type with the inhabitants of our border districts, and are quite distinct from the hardy and warlike races of the Nepal hills, the Khas, Mangar, Gurung and other tribes, collectively known as Gorkhas,† who are in such demand for certain native regiments and for the various Military Police battalions. The total number of 'Gorkhas' serving in the native army as soldiers on the 1st January 1901 was 12,797, and the number employed in the Military Police, and as porters and the like may be estimated at about 6,000 more.‡ The total thus comes to about 19,000, but this does not indicate the full extent to which recruitment for these services has augmented the number found in British territory. On the expiry of their period of service many of them settle permanently, especially in Assam, where they often

* The exact number cannot be given, as it is impossible to say how many of the military garrison were born within the limits of Great Britain and Ireland.

† An explanation of the signification of this and other terms used in connection with the inhabitants of Nepal will be found in the Bengal report, page 452.

‡ The number of Nepalese, including Limbus and Rais, in the Burma and Assam Military Police Battalions on the 1st January 1901, was 2,919 and 3,160 respectively.

become herdsmen, wood-cutters, or cultivators. The total number of the Nepal-born is slightly greater than in 1891; they are nearly twice as numerous in Assam and Burma as they were then, and there is a fair increase in the United Provinces; but on the other hand there is a decline of about 12,000 in Bengal. The immigrants from Afghanistan and the adjacent trans-frontier tracts number only 115,908 at the present census compared with 159,634 in 1891. The diminution is caused by a decrease from 137,214 to 89,128 in the figures for the Punjab, where the movement to Peshawar, Hazara and several other frontier districts from across the border is weaker than it was ten years ago. Many of the older immigrants have died, and have been replaced, not by fresh immigrants, but by their children born in British territory. Elsewhere, the number of Afghans is steadily growing, but this is not altogether a matter for congratulation. They are in many cases itinerant traders whose methods are not very peaceable, and where the villagers are timid, as in most parts of Bengal, they are addicted to leaving articles with them, or more often with their wives, on approval, and subsequently returning and insisting on payment at their own valuation.

Causes inducing migration to a distance.

191. In conclusion we may glance at a few of the more general aspects of migration to a distance. In Burma and Bengal proper, especially in the former province, the people are prosperous and there is no class of landless labourers. The demand for such labourers is met, in the latter case, by immigration from Bihar and the United Provinces and, in the former, by a similar influx from Madras.* Elsewhere movement to a distance is encouraged mainly by undertakings founded with European capital. The tea gardens of Assam, Jalpaiguri and the Darjeeling terai depend for their labour supply chiefly on the aborigines of Chota Nagpur and the neighbouring hilly tracts, and those of Ceylon on the Tamils of the southern part of the Madras Presidency, which also furnishes the bulk of the miners required for the Mysore gold fields and for the rice mills of Rangoon. The cotton mills of Bombay are manned to a great extent by local labour from the adjoining districts, but considerable numbers find their way thither from the United Provinces, which, with Bihar, is also the main source of supply for the jute mills and other industrial undertakings in Calcutta and its environs. The coal mines of West Bengal compete with the tea gardens for the 'jungly' coolies of Chota Nagpur but, the supply being insufficient, they are fain to eke it out with plains people from Upper India.

It will have been noticed that, except in the case of the tea gardens of Assam and North Bengal, for which a special class of labour is required, the direction of these movements depends primarily on the means of communication, and the people go most readily to the industrial centres which are easiest of access. This tendency is more fully brought out in the Bengal report, where it is shown that the labourers of South Bihar go mainly to West and Central Bengal while those of North Bihar, except Saran which enjoys better means of communication with the tracts just mentioned, find their way more freely to North Bengal. The recent opening of railway communication has encouraged a considerable flow of population from Rajputana to the irrigated districts of Sind, and it may be anticipated that the completion of the hill section of the Assam Bengal Railway and of the line between Gauhati and Dhubri, which will link up that railway with the Bengal-Bihar system, will in time lead to the exploitation of the waste lands of the Assam Valley by immigrants from Sylhet and the Bihar districts. The Bengal Nagpur and East Coast Railways should similarly open the Central Provinces, Orissa and Madras labour markets to the employers of labour in the mills and mines of Bengal proper.

The insufficiency of the existing labour supply.

192. In spite of the great and growing volume of migration, and of the marked improvement in communications which has taken place in recent years, the complaint is universal that the existing supply of labour is wholly insufficient, and that its growing scarcity and dearness † constitute a serious drag on

* There is also an extensive movement from the south of Chittagong to Akyab at the time of the rice harvest, but this scarcely falls within the scope of the present discussion, which deals with emigration to a distance.

† At certain seasons an unskilled labourer in Calcutta can earn a rupee a day by carrying coal, and the ordinary rate is from 8 to 10 annas a day for men and 5 to 6 annas for women. It is said that labour is becoming scarcer every year and quite recently good unskilled labourers in the Calcutta docks were earning Re. 1-8-0 a day. This rate was of course only paid during a time of special pressure but it shows how slowly under existing conditions does the supply of labour adapt itself to the demand for it. Good weavers in the jute mills are paid as much as Rs. 6 a week and ordinary ones get Rs. 3-8. Further particulars regarding wages will be found at pages 8 and 50 of the Report of the Labour Enquiry Commission, 1896.

the wheels of industrial progress. This is due partly to the rate at which the demand is growing. The supply is steadily increasing but the demand is doing so at an even more rapid pace. In the case of Calcutta and Bombay, moreover, it is probable that the presence of plague deters many, who would otherwise do so, from coming to these great centres of industry. The main reason, however, seems to be partly that the existing areas of supply are inadequate to the demands which are made on them and partly that, except for the tea gardens, no steps are taken by employers to exploit new areas or to assist intending immigrants. In respect of the tea industry the difficulty is that the class of labour suitable for the work and climate is limited, but this is not so in the case of other industries, for which it is probable that an ample supply would be readily obtainable if proper steps were taken to obtain it.* As stated above, there is in their case no organized system for encouraging immigration and without such an organization the growth of new currents of migration must necessarily be slow and tedious, while there must be many of the poorer class, even in the existing areas of supply, who do not seek employment elsewhere simply because they have not the means of defraying the cost of the journey. There is also no combination amongst the employers, and the result is that if any individual were to expend money in importing labour from a distance, he would have no guarantee that it would not at once drift elsewhere.

193. If the difficulties now experienced are to be overcome, the first step needed seems to be the conclusion of some arrangement amongst employers whereby each may be guaranteed against the employment by the others of coolies imported by him for a period sufficiently long to enable him to recoup the costs of importation,† coupled with the establishment at their joint cost of local agencies, where information may be disseminated amongst the labouring classes as to the employment and rates of wages offered in the different industrial undertakings, and railway tickets supplied to those willing to execute an agreement to labour for a given period.‡ The only classes who would emigrate, at least until the practice had become well established in any locality, are those who are unable to earn a sufficient livelihood in their own village, and the transfer of such persons to a place where ample wages are obtainable would be a benefit alike to themselves and to the industrial community. If, therefore, such an organization were established there would seem to be no reason why it should not be supplied by the local officers of Government with full information as to the places where the pressure of the population is severe.

Suggestions
for
meeting the
difficulty.

* The labourers who now come from the United Provinces have their homes almost exclusively in a few of the eastern districts. The rest of this densely populated tract at present supplies very few emigrants to Calcutta. The Central Provinces and the Native States of Central India and Rajputana, though the population is sparse, have a large proportion of landless labourers who would benefit greatly by going to Calcutta, and the Madras labour supply is also in all probability considerable.

† The practical working of such an arrangement would no doubt present difficulties, owing to the enormous number of coolies employed, but they do not seem to be insuperable. If there were a genuine desire for co-operation (and there is such co-operation in most districts amongst tea planters) they could apparently be met by the registration of the thumb impressions of all newly-imported labourers at a central bureau, coupled with the taking of the thumb impressions of all labourers locally engaged, which would also be sent to the bureau. It could thus be ascertained if any labourer registered as imported from a distance had been given employment elsewhere within the period for which it might be arranged that other employers should not engage him.

‡ Such agreements would be enforceable under section 492 of the Indian Penal Code.

SUBSIDIARY TABLE I.

Variation in relation to density since 1872.

PROVINCE, STATE OR AGENCY.	Percentage of variation, Increase (+) or Decrease (-).			Net variation in period 1872-1901 Increase (+) Decrease (-)	Mean density of population per square mile			
	1891-1901.	1881-1891.	1872-1881.		1872.	1881.	1891.	1901.
	2.	3.	4.	5.	6.	7.	8.	9.
INDIA.	+2'4	+13'1	+23'1	+42'7	167	163	144	117
<i>Excluding new areas.</i>	+1'5	+10'9	+6'8	+21'7	...	...	...	...
Provinces.	+4'8	+11'1	+7'5	+25'2	213	203	183	175
<i>Excluding new areas.</i>	+3'9	+9'7	+7'3	+21'1	...	...	...	...
Ajmer-Merwara	-12'0	+17'7	+16'2	+20'3	176	200	170	145
Assam	+5'9	+10'7	+18'2	+38'7	109	103	106	81
Bengal	+4'7	+6'8	+10'9	+24'2	494	472	441	388
Bihar	-4'9	+8'4	+20'0	+23'6	155	164	161	126
Bombay	-1'0	+14'4	+1'1	+13'8	151	153	134	132
Burma	+35'8	+106'6	+36'0	+281'8	44	33	16	12
Central Provinces	-8'4	+9'6	+20'4	+20'8	114	124	114	94
Coorg	+4'4	-2'9	+5'9	+7'3	114	109	113	106
Madras	+7'2	+15'5	-1'2	+22'3	270	251	217	211
North-West Frontier Province and Punjab .	+7'6	+10'7	+7'0	+27'5	198	184	166	165
United Provinces of Agra and Oudh	+1'7	+6'2	+5'1	+13'5	445	438	412	392
States and Agencies.	-5'4	+20'5	+160'9	+107'4	92	97	81	71
<i>Excluding new areas.</i>	-6'6	+20'1	+1'6	+27'6	...	...	...	...
Baroda State	-19'1	+10'7	+9'2	-2'2	241	298	269	247
Bengal States	+12'6	+19'4	+28'1	+72'7	97	86	72	56
Bombay States	-14	+16'5	+2	+1'6	105	123	106	103
Central India Agency	-16'4	+11'4	...	...	110	131	118	...
Central Provinces States	-7'6	+26'4	+62'9	+90'2	68	73	58	36
Hyderabad State	-3'4	+17'1	...	...	135	140	119	...
Kashmir State	+14'2	...	...	...	36	31	...	...
Madras States	+13'1	+10'6	+1'6	+27'3	420	371	336	295
Cochin State	+12'3	+20'4	-1	+35'0	598	631	441	41
Travancore State	+15'4	+6'5	+3'8	+27'7	416	361	339	295
Mysore State	+12'0	+18'1	-17'2	+9'6	188	168	142	122
Punjab States	+3'8	+10'4	...	...	121	117	106	...
Rajputana Agency	-18'9	+20'7	...	...	76	94	78	...
United Provinces States	+1'2	+6'8	+16'1	+25'5	158	156	146	126

NOTE.—The figures against Burma in cols. 3 and 4 include the population of Upper Burma, which was annexed in 1886. For Lower Burma the reports are:—in 1891-1901, +22'6; in 1881-1891, +23'6; in 1872-81, +37'7; in 1872-1901, +106'6.

SUBSIDIARY TABLES.

SUBSIDIARY TABLE II.

Net variation since 1891.

PROVINCE, STATE OR AGENCY.	Population in		Gross variation — Increase (+) Decrease (-).	Excess of Immigrants (+) or Emigrants (-) in 1901.	Excess of Immigrants (+) or Emigrants (-) in 1901.	Net variation after allowing for migration.	Percentage of net variation.
	1891.	1901.					
1.	2.	3.	4.	5.	6.	7.	8.
Ajmer-Merwara	542,358	476,912	-65,446	+66,686	+51,598	-80,539	-15
Andamans	16,609	24,649	+8,040	+13,569	+13,289	+8,729	+52
Assam	5,477,308	6,126,343	+649,041	+699,182	+446,009	+395,868	+7
Bengal (including States)	74,673,798	78,493,410	+3,819,612	-143,563	-269,791	+3,693,384	+5
Berar	2,897,491	2,754,016	-143,475	+349,443	+335,040	-157,878	+5
Bombay (including States)	26,860,421	25,468,209	-1,492,212	+91,396	+184,815	-1,398,793	+5
Burma	7,722,058	10,490,624	+2,768,571	+405,176	+272,424	+2,635,819	+34
Central Provinces (including States).	12,944,805	11,873,029	-1,071,776	-26,761	+47,821	-997,194	-8
Coorg	173,055	180,607	+7,552	+51,745	+50,068	+5,875	+3
Madras (including States)	89,331,062	42,367,522	+3,066,460	-402,174	-265,016	+3,203,618	+8
North-West Frontier Province and Punjab (including States)	23,180,127	26,880,217	+1,750,090	+181,435	+144,409	+1,713,064	+7
United Provinces (including States).	47,697,282	48,493,879	+796,597	-894,957	-634,748	+1,056,806	+2
Baroda State	2,415,398	1,952,692	-462,704	-30,546	+58,780	-373,378	-15
Central India Agency	10,318,912	8,628,781	-1,690,031	+202,638	+166,347	-1,726,322	-17
Hyderabad State	11,537,040	11,141,142	-395,898	-6,578	-14,600	-403,920	-4
Kashmir State	2,543,952	2,905,578	+361,626	-3,547	-23,777	+341,396	+13
Mysore State	4,943,604	5,539,399	+595,795	+171,116	+48,827	+473,506	+9
Rajputana Agency	11,990,504	9,723,301	-2,267,203	-666,635	-493,684	-2,094,252	-18

SUBSIDIARY TABLE III.

Variation since 1891 in the main natural divisions of India.

NATURAL DIVISIONS.	POPULATION.		VARIATION.	
	1891.	1901.	Actual.	Per cent.
1.	2.	3.	4.	5.
Himalaya and Sub-Himalaya West	17,839,782	16,784,728	+555,054	+3.3
Himalaya and Sub-Himalaya East	36,193,928	33,590,990	+602,938	+1.7
Indo-Gangetic Plain West	30,009,771	28,488,921	+1,580,850	+5.5
Indo-Gangetic Plain East	19,676,126	20,119,028	-442,897	-2.2
Delta of Bengal	35,821,824	33,243,726	+2,578,098	+7.8
Brahmaputra Valley	3,062,003	2,892,592	+169,411	+5.9
North-West Dry Area	13,563,310	12,898,510	+664,800	+5.1
Central India Plateau	16,053,539	19,168,483	-3,134,944	-19.3
West Satpuras Division	6,461,884	6,620,449	-158,565	-2.4
East Satpuras Division	16,759,028	17,556,977	-797,949	-4.5
Deccan	23,441,579	23,932,993	-491,414	-2.1
Gujarat	9,108,799	11,180,226	-2,071,427	-18.5
West Coast Division	12,125,619	11,391,335	+744,284	+6.5
South India	16,773,659	15,381,143	+1,492,516	+9.5
East Coast South Division	10,121,090	9,624,631	+496,458	+5.2
East Coast North Division	16,041,949	14,701,566	+1,337,383	+9.1
Baluchistan	810,746	...	+810,746	...
Burma Coast Division	3,860,088	3,036,217	+828,821	+27.1
Burma Wet Division	3,942,549	1,995,147	+1,947,402	+97.6
Burma Dry Area	3,054,936	2,734,323	+320,613	+11.7
Total	294,232,159	287,254,963	+7,027,176	+2.4

NOTE.—The Andamans and Laccadive Islands and Aden which do not fall within the scheme of Natural Divisions given in the last chapter have been left out of account in this table. The unenumerated portion of Baluchistan has also been omitted.

SUBSIDIARY TABLE V.

Variation distributed by areas of increase and decrease.

PROVINCE, STATE OR AGENCY.	AREAS SHOWING AN INCREASE.				AREAS SHOWING A DECREASE.			
	Area.	Population.		Increase per cent.	Area.	Population.		Decrease per cent.
		1901.	1901.			1901.	1901.	
1.	2.	3.	4.	5.	6.	7.	8.	9.
INDIA.	943,016	103,700,645	178,408,740	+8.6	606,973	67,886,087	108,945,185	-10.1
Provinces.	686,850	166,054,010	153,463,117	+8.2	273,075	63,722,687	108,945,185	-5.7
Ajmer-Merwara . . .	...	...	...	...	2,711	...	...	-12.0
Andamans	3,143	16,256	15,609	+4.1	...	...	...	...
Assam	38,031	4,909,097	4,452,112	+10.2	7,701	850,347	981,556	-13.3
Bengal	125,919	61,204,331	57,216,684	+6.9	25,266	13,535,535	14,120,277	-4.2
Bihar	2,678	582,540	574,964	+1.3	15,032	2,171,476	2,322,527	-6.5
Bombay	61,742	6,552,191	6,073,563	+7.8	61,322	12,007,370	12,604,751	-6.2
Burma	158,791	8,164,865	6,611,867	+23.4	9,783	972,017	994,193	-2.3
Central Provinces	13,503	1,564,880	1,489,851	+5.0	72,951	8,311,986	9,294,443	-10.5
Coorg	1,582	180,607	173,056	+4.3	...	...	...	...
Madras	129,038	37,343,174	34,770,659	+7.4	12,622	850,988	859,781	-1.0
North-West Frontier and Punjab.	89,589	16,384,311	14,667,709	+11.5	22,358	6,016,752	6,199,138	-2.9
United Provinces	63,831	29,162,478	27,417,544	+6.3	48,330	18,529,304	19,487,247	-4.9
States and Agencies	256,166	27,726,665	24,945,623	+11.1	333,898	34,163,400	41,328,914	-17.3
Beroda State . . . . .	...	...	...	...	8,099	1,952,692	2,415,396	-19.1
Bengal States	34,527	3,122,556	2,317,511	+14.9	1,307	566,974	578,868	-2.0
Bombay States	7,868	602,952	496,089	+21.5	57,893	6,305,636	7,586,018	-16.8
Central India Agency . . . . .	...	...	...	...	76,772	8,623,781	10,318,812	-16.4
Central Provinces States.	9,481	779,260	701,901	+11.0	19,954	1,217,123	1,458,610	-16.5
Hyderabad State	39,819	5,297,453	4,829,569	+9.7	42,879	5,843,639	6,707,471	-12.3
Kashmir State	60,900	2,905,578	2,543,952	+14.2	...	...	...	...
Madras States	9,553	4,144,622	3,653,738	+13.4	416	43,464	46,884	-7.3
Mysore State	29,413	5,312,242	4,639,190	+13.2	31	227,157	254,414	-10.7
Punjab States	36,042	4,317,914	4,148,058	+4.0	490	106,584	115,232	-7.5
Rajputana Agency	4,383	985,273	924,373	+6.5	123,158	8,738,028	11,295,970	-23.6
United Provinces States.	4,180	268,855	241,242	+11.4	899	533,212	651,249	-3.2

* Includes Cochin and Travancore.

Note.—In this Table the areas enumerated for the first time in 1901 have been left out of account.

SUBSIDIARY TABLE IV.

Variation in districts classified according to density

Province.	VARIATIONS IN DISTRICTS WITH A POPULATION PER S.															
	Under 100.		100-200.		200-300.		300-400.		400-500.		500-600.		600-700.		700 and over.	
	Actual.	Percentage.	Actual.	Percentage.	Actual.	Percentage.	Actual.	Percentage.	Actual.	Percentage.	Actual.	Percentage.	Actual.	Percentage.	Actual.	Percentage.
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.
Assam	+ 149,555	+ 10·7	+ 81,527	+ 5·2	+ 47,239	+ 12·8	.....	.....	+ 87,255	+ 4·0	.....	.....	.....	.....	.....	.....
Bengal	+ 17,476	+ 18·3	+ 185,454	+ 5·1	+ 192,447	+ 14·6	+ 178,644	+ 2·9	+ 68,116	+ 0·7	+ 676,898	+ 4·2	+ 973,450	+ 7·0	+ 1,165,420	+ 5·4
Bombay	+ 99,087	+ 3·9	- 231,442	- 2·4	+ 27,919	+ 0·4	- 12,972	- 1·9	- 165,462	- 17·8	.....	.....	.....	.....	- 43,755	- 5·5
Burma	+ 959,876	+ 23·1	+ 516,389	+ 15·2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	+ 54,557	+ 30·2
Centra. Provinces	- 114,477	- 5·0	- 793,171	- 9·0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Madras	+ 25,495	+ 1·9	+ 245,123	+ 4·6	+ 910,374	+ 10·1	+ 538,108	+ 7·1	+ 775,881	+ 7·8	.....	.....	+ 16,915	+ 0·7	+ 66,828	+ 12·5
Punjab	+ 117,888	+ 5·8	+ 803,454	+ 14·3	+ 293,889	+ 13·6	+ 270,791	+ 7·1	- 44,351	- 1·2	+ 14,412	+ 0·8	+ 41,135	+ 3·1	.....	.....
<i>Punjab excluding the three districts which contributed to the Chenab Colony</i>	+ 117,888	+ 5·8	+ 167,305	+ 3·5	+ 230,443	+ 9·6	+ 270,791	+ 7·1	- 44,351	- 1·2	+ 14,412	+ 0·8	+ 41,135	+ 3·1	.....	.....
United Provinces	+ 71,107	+ 5·6	- 102,444	- 3·4	- 205,665	- 7·4	+ 37,669	+ 1·5	+ 249,286	+ 3·4	+ 691,433	+ 5·2	+ 326,349	+ 2·7	- 290,794	- 4·0
TOTAL	+ 1,325,007	+ 10·2	+ 704,890	+ 1·8	+ 1,206,183	+ 5·6	+ 1,012,238	+ 4·8	+ 980,725	+ 2·9	+ 1,382,793	4·4	+ 1,357,849	+ 4·4	+ 950,353	+ 3·1

SUBSIDIARY TABLE.

SUBSIDIARY TABLE VI.

Comparison of actual and estimated population in certain tracts.

PROVINCE OR STATE.	Actual population by census of 1901.	Population estimated from increase 1881-91.	Population in 1901 estimated from vital statistics.	Actual population by census 1901.
1.	2.	3.	4.	5.
Assam	4,971,917	5,503,913	4,846,572	5,275,706
Bengal	71,069,617	75,973,417	74,228,517	74,423,193
Berar	2,852,825	3,092,462	2,702,022	2,717,846
Bombay	18,820,346	21,530,474	18,578,799	18,481,862
Central Provinces	9,501,401	10,413,536	9,121	8,689,371
Madras	33,693,179	38,949,502	35,070,000	37,315,611
North-West Frontier Province and Punjab	20,553,847	22,752,000	21,940,255	22,088,908
United Provinces	46,904,791	49,812,880	49,287,074	47,691,782
Baroda State	2,415,396	2,678,644	2,136,234	1,952,692
Total	210,782,319	230,701,835	218,919,476	218,620,971

NOTE.—The figures in columns 3 and 5 show the population of the areas for which vital statistics were recorded in 1891 and 1901.

SUBSIDIARY TABLE VII.

Showing for each Province and State the number per 10,000 of the population who were born in the district or state where enumerated and who were immigrants.

PROVINCE, STATE OR AGENCY.	NUMBER PER 10,000 OF POPULATION.	
	Born in district where enumerated.	Immigrants.
1.	2.	3.
INDIA.	9,050	950
Ajmer-Morwarh	7,926	2,074
Assam	8,520	1,480
Bengal	9,423	577
Berar	7,649	2,351
Bombay*	8,916	1,084
Burma	8,661	1,339
Central Provinces	8,819	1,181
Coorg	6,949	3,051
Madras†	9,575	425
United Provinces	9,058	942
Punjab and N.-W. Frontier Province	8,183	1,817
Baroda State	9,054	940
Central India Agency	7,245	2,755
Cochin State	9,384	616
Hyderabad State	9,068	932
Kashmir State	9,493	507
Mysore State	8,979	1,021
Rajputana Agency	9,417	583
Travancore State	9,814	186

* Excluding Aden.
† " Laccadives

Migration between Provinces

PROVINCE OR STATE IN WHICH BORN.	PROVINCE OR STATE								
	BRITISH TERRITORY.								
	Bengal.	United Provinces of Agra and Oudh.	Bombay.	Madras.	Punjab and North-West Frontier Province.	Burma.	Central Provinces.	Assam.	Other Provinces.
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
TOTAL { 1901	916,158	680,691	840,781	261,983	790,000	475,328	480,694	775,842	642,806
{ 1891	7,360	709,137	1,017,814	269,030	740,000	13,176	533,306	510,673	659,350
Merwara { 1901	464	2,898	406	35	754	33	740	194	193
{ 1891	60	...	1,961	61	659	4	732	...	20
Chandernagore { 1901	84	21	...	38	130	86	21	...	3
{ 1891	46	78	36	72	130	12	28	2	6
Madras { 1901	48,296	940	55	164	103	1,654	191	...	158
{ 1891	53,623	1,790	109	80	125	752	16	...	79
Bhuchistan { 1901	36	148	66,684	31	4,059	8	64	655	196
{ 1891	8	47	59,599	55	994	4	57	...	63
Bengal { 1901 . . . . .	...	128,991	6,471	10,376	7,074	167,084	44,866	509,380	3,306
{ 1891 . . . . .	...	206,026	12,407	10,934	7,780	112,084	55,741	418,344	4,634
Coorg { 1901	89	388	4,144	61	85	5	59,888	54	109
{ 1891	123	892	18,162	69	61	...	52,110	...	3
Bombay { 1901	6,708	6,102	...	29,396	11,959	6,669	31,322	1,415	62,725
{ 1891	6,476	7,148	...	37,534	8,692	3,494	24,571	314	66,695
Madras { 1901	1,664	794	302	1,535	802	...	315	1,686	2,029
{ 1891	2,362	1,626	534	2,054	126	...	374	67	723
Central Provinces { 1901	62,181	10,857	12,532	14,127	1,356	2,123	...	84,170	209,096
{ 1891	90,997	12,179	10,615	16,253	1,228	527	...	3,844	217,969
Coorg { 1901	5	1	...	632	1	...	...	...	...
{ 1891	152	7	21	655	34	...	6	...	...
Madras { 1901	27,649	1,608	32,362	...	937	189,810	21,763	21,571	31,728
{ 1891	24,544	1,724	39,938	...	1,009	129,345	26,795	10,654	30,020
Punjab and N. W. F. { 1901	17,442	132,740	41,070	1,355	...	21,585	6,215	6,265	28,842
{ 1891	15,914	143,326	43,602	1,426	...	13,838	6,541	836	18,052
United Provinces { 1901	496,940	...	69,080	3,926	232,724	33,780	94,983	108,900	46,226
{ 1891	365,248	...	87,356	4,174	248,708	18,233	123,009	67,851	54,126
Madras State { 1901	134	830	195,675	304	105	1	63	...	83
{ 1891	96	...	246,911	224	...	...	131	...	3
Central India Agency { 1901	23,116	199,868	11,588	670	3,892	240	148,618	12,168	5,716
{ 1891	3,557	225,512	24,968	852	3,221	78	192,593	1	7,368
Hyderabad State { 1901	662	2,283	123,577	62,430	849	600	19,408	151	93,329
{ 1891	680	1,933	166,949	57,992	1,104	140	21,885	23	111,549
Cashmir State { 1901	325	1,100	666	33	83,240	68	57	68	476
{ 1891	123	2,218	536	14	87,545	17	29	28	300
Mysore State { 1901	621	167	13,173	89,743	206	452	755	170	24,93
{ 1891	165	162	18,186	94,231	126	6	632	...	26,21
Madras Agency { 1901	40,572	126,739	132,405	1,546	268,761	553	26,608	9,386	101,31
{ 1891	16,962	138,232	143,377	1,168	208,652	742	22,042	4,677	109,5
Madras Unspecified { 1901 . . . . .	...	99	7,390	309	3,928	799	43	146	1,271
{ 1891	1,970	...	4,144	1,604	516	1,322	569	6	28
French and Portuguese Possessions { 1901	1,702	98	44,484	20,611	161	500	641	2	45
{ 1891	109	53	51,548	23,733	...	122	394	20	...
Madras India { 1901	186,468	65,156	70,712	24,642	174,392	59,393	4,563	25,081	6
{ 1891	194,155	63,694	67,858	16,850	170,100	42,456	3,926	13,505	...

SUBSIDIARY TABLES.

TABLE VIII.

and States in 1891 and 1901.

WHICH ENUMERATED.

Total.	NATIVE STATES AND AGENCIES.							GRAND TOTAL.	PROVINCE OR STATE IN WHICH BORN.
	Baroda.	Central India Agency.	Hyderabad.	Kashmir.	Mysore.	Rajputana.	Total.		
11.	12.	13.	14.	15.	16.	17.	18.	19.	20.
8,848,224	172,914	672,288	828,187	88,597	386,723	234,407	1,796,841	7,844,865	1891 } TOTAL
5,977,092	66,722	708,618	888,718	69,867	108,798	407,388	3,180,366	7,743,127	1891 }
5,277	60	1,266	88	10	11	18,586	20,016	25,293	1891 } Ajmer-Merwara.
3,497	334	2,767	...	...	6	49,963	53,060	56,557	1891 }
343	...	...	...	1	14	1	16	349	1891 } Andamans.
398	...	...	3	...	9	...	12	410	1891 }
51,461	6	...	...	2	4	8	20	51,481	1891 } Assam.
56,873	4	89	8	...	8	60	114	56,687	1891 }
70,880	12	...	18	16	8	57	106	70,986	1891 } Baluchistan.
59,817	14	21	81	9	2	1	78	59,896	1891 }
861,497	916	5,089	1,602	198	416	884	9,054	870,551	1891 } Bengal.
827,900	613	18,476	1,221	111	552	4,105	25,088	852,968	1891 }
64,768	17	10	28,084	...	9	9	28,129	87,897	1891 } Berar.
70,920	90	...	48,814	...	...	...	48,934	114,854	1891 }
176,206	161,153	75,898	167,619	202	37,117	9,019	169,503	626,799	1891 } Bombay.
154,924	290,384	60,908	159,728	34	21,159	20,105	55,618	706,542	1891 }
9,107	25	...	114	3	184	27	853	9,460	1891 } Burma.
7,856	39	88	134	4	226	3	439	8,296	1891 }
396,447	124	66,968	16,787	8	1,532	362	85,781	462,228	1891 } Central Provinces.
362,912	459	117,869	6,782	1	2,015	527	127,653	460,565	1891 }
639	...	...	...	...	2,553	...	2,553	3,192	1891 } Coorg.
875	4	...	12	...	1,771	...	1,767	2,662	1891 }
327,426	208	1,026	55,369	9	255,278	179	312,069	639,495	1891 } Madras.
264,029	335	1,460	91,192	16	160,936	535	264,494	518,623	1891 }
258,514	618	14,674	2,429	81,158	265	77,463	176,837	435,951	1891 } Punjab and N. W. F.
243,535	1,192	12,876	3,944	66,106	126	97,778	181,722	435,257	1891 }
1,086,489	3,200	320,169	24,840	751	723	74,683	423,806	1,510,295	1891 } United Provinces.
958,605	7,620	289,513	12,667	875	440	99,924	411,239	1,370,144	1891 }
197,195	...	4,452	156	6	168	325	5,107	202,302	1891 } Baroda.
247,365	...	4,367	72	...	92	510	5,031	252,396	1891 }
405,191	619	...	4,347	29	51	51,873	57,119	462,310	1891 } Central India Agency.
461,140	1,730	...	1,064	1	70	117,851	120,716	581,856	1891 }
311,339	223	2,027	...	18	3,552	131	6,551	317,790	1891 } Hyderabad State.
382,254	289	1,028	...	...	3,963	449	5,729	387,983	1891 }
80,033	15	8	1	...	11	89	124	86,157	1891 } Kashmir State.
90,805	...	65	58	...	4	5	122	90,927	1891 }
130,247	22	...	1,360	...	...	53	1,435	131,682	1891 } Mysore State.
188,919	47	12	4,555	...	...	...	4,614	143,533	1891 }
707,890	4,139	173,336	13,858	199	803	...	192,134	900,224	1891 } Rajputana Agency.
635,659	7,157	237,581	19,044	2	244	...	264,028	899,617	1891 }
13,993	554	3,259	1,084	3	216	30	5,146	19,136	1891 } India Unspecified.
10,413	...	2,194	28,944	...	129	14,118	45,385	55,798	1891 }
68,637	288	318	18	10	661	99	1,384	70,031	1891 } French and Possessions.
75,026	679	26	106	...	610	...	1,420	77,446	1891 }
166	316	3,738	12,863	2,974	2,588	728	23,188	641,854	1891 } Outside.
79	533	4,359	10,399	2,098	3,436	1,448	22,203	600,192	1891 }

Variation compared with 1891 in the number of immigrants

PROVINCE OR STATE.	CONTIGUOUS COUNTRIES.				DISTA.					
	NEPAL.		AFGHANISTAN AND YAKHISTAN.		BRITISH ISLANDS.					
					1901.			1891.		
	1901.	1891.	1901.	1891.	Total.	Males.	Females.	Total.	Males.	Females.
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
INDIA.	243,037	236,527	115,908	160,580	96,653	81,090	14,603	100,775	86,146	12,358
Provinces.	241,452	235,025	112,977	155,261	84,933	72,322	12,711	99,900	84,463	11,173
Bihar-Merwara	9	12	120	74	576	474	102	401	303	98
Bengal	9	...	32	...	190	177	13	76	(a)	(a)
Bombay	21,347	11,877	1,101	819	1,287	1,080	207	831	681	150
Madhya Pradesh	6	14	3,525	1,648	2,820	2,636	184	2,195	(a)	(a)
Madras	161,495	173,228	4,363	3,455	11,886	9,290	2,596	9,792	7,703	2,083
North-West Frontier Province	18	14	424	808	93	54	39	94	65	29
Punjab	213	360	12,513	9,525	15,753	13,275	2,478	20,723	18,226	2,502
Rajasthan	8,910	2,146	253	92	5,690	5,057	633	7,086	6,332	754
United Provinces	74	207	415	524	3,444	2,332	1,212	2,861	2,563	298
West Bengal	3	...	2	19	99	62	37	110	82	28
Assam	77	55	100	236	5,994	4,874	1,120	5,461	4,347	1,114
Jammu and Kashmir	7,711	6,476	89,128	137,214	21,690	19,471	2,219	23,629	21,329	2,200
Provinces	46,595	41,197	1,001	1,852	15,411	13,540	1,871	17,745	15,828	1,917
Chief Commissioner's Provinces and Agencies	1,585	1,441	2,931	5,319	11,720	9,768	1,952	9,866	8,681	1,185
Baluchistan	14	53	165	177	22	12	10	52	36	16
India Agency	73	140	186	798	3,255	2,767	488	3,051	2,778	273
North-West Frontier Province	25	56	886	1,442	5,728	4,929	799	3,432	3,128	304
Punjab	1,334	1,001	1,347	1,928	92	45	47	59	31	...
Rajasthan	10	13	2	...	26	16	10	11	8	...
United Provinces	15	2	26	9	242	168	74	104	63	...
West Bengal	8	9	31	53	2,100	1,661	439	2,912	2,477	...
Assam	56	173	308	912	255	170	85	245	160	...

SUBSIDIARY TABLES.

TABLE IX.

from certain foreign countries to each Province and State.

COUNTRIES.											
GERMANY.		FRANCE.		OTHER EUROPEAN COUNTRIES.		AMERICA.		AFRICA.		AUSTRALIA.	
1901.	1901.	1901.	1901.	1901.	1901.	1901.	1901.	1901.	1901.	1901.	1901.
12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.
1,096	1,453	1,351	1,258	4,838	4,416	2,000	2,307	8,293	11,569	646	50
1,096	1,453	1,351	1,258	4,570	3,925	1,992	2,232	8,193	11,351	...	...
2	4	6	10	7	9	5	5	3	6	7	...
1	...	...	...	1	...	3	3	1	...	...	...
22	18	5	5	26	12	49	30	15	4	20	...
2	6	23	12	11	23	9	27	15	3	5	14
359	839	253	298	837	1,012	370	819	170	156	195	132
9	4	22	13	13	5	24	7	...	3	2	...
658	393	240	151	2,172	1,269	340	341	7,007	9,663	10	...
149	307	127	127	363	515	211	266	58	46	46	3
10	16	70	54	113	49	69	48	17	16	14	21
10	5	2	7	2	3	2	...	2	2	...	...
230	217	395	421	363	383	212	192	672	954	92	...
7	66	43	48	419	377	273	227	87	142	92	...
71	91	45	37	243	263	425	767	146	355	125	...
28	48	128	75	313	491	77	135	100	218	36	...
1	4	5	...	5	17	2	10	23	81	...	...
2	...	16	...	95	170	12	24	13	14	8	...
23	22	12	12	66	52	19	54	16	99	...	...
...	3	6	3	12	6	2	...	8	2	2	...
2	...	3	6	3	6	2	...	2	...	...	...
11	3	11	2	28	41	4	9	4	2	4	...
14	12	72	48	90	189	27	23	18	17	16	...
...	4	6	4	14	10	9	15	16	3	...	...

SUBSIDIARY TABLE X.

Total number of immigrants from outside India at each of the last three censuses.

BIRTH PLACE.	NUMBER RETURNED IN		
	1901.	1901.	1901.
1. GRAND TOTAL	2. 641,854	3. 600,192	4. 408,572
Asia.	526,144	477,730	307,198
Afghanistan and Yaghistan	116,908	159,634	125,106
Turkistan	816	816	259
Tibet	3,020	1,641	2,758
Bhotan	2,660	4,353	4,964
Nepal	248,087	236,398	134,342
Ceylon	5,273	5,612	2,770
Further India, etc.	16,371	8,857	4,697
Arabia, etc.	33,089	28,092	18,875
Persia	11,660	4,411	3,501
China and Japan	47,184	25,688	12,760
Other Asiatic countries	47,190	2,228	2,168
Europe.	104,583	107,772	95,415
United Kingdom	96,653	100,551	89,015
Gibraltar, etc.	227	304	131
Germany	1,696	1,458	1,170
France	1,351	1,258	1,013
Italy	1,010	881	788
Austria	631	418	296
Sweden, Norway, Denmark, and Iceland	423	542	829
Holland and Belgium	711	337	259
Spain and Portugal	384	378	234
Greece	226	236	195
Russia	525	262	204
Turkey	201	256	355
Europe unspecified	460	683	773
Other European countries	185	258	153
Africa	8,293	11,568	3,861
America and Canada	2,069	2,368	1,555
Australia	646	506	367
At sea	114	248	176

CHAPTER III.

Sex.

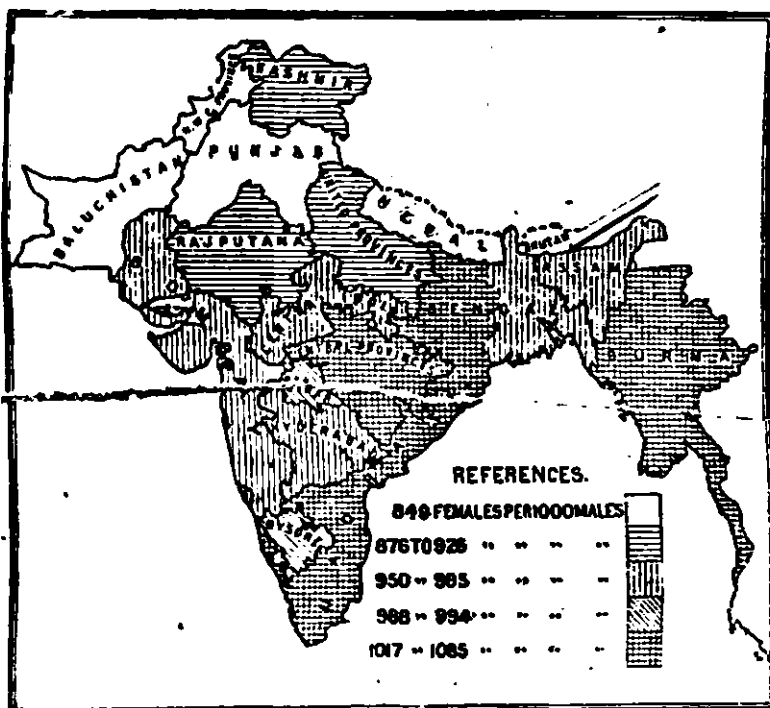
194. With very few exceptions, the females outnumber the males in all European countries, but in India the reverse is the case, and in the whole country taken together there are only 963 females to 1,000 males. The general result is shared by all provinces and states except the Central Provinces and Madras, where there is a marked excess of females, and Bengal where the two sexes are almost on a par. In the last-mentioned province females are in marked defect in the greater part of Bengal proper, and in excess throughout Bihar, Orissa and Chota Nagpur. The deficiency of females is extraordinarily great in Coorg, Baluchistan, the Punjab and Kashmir, where it exceeds 1 in 9, and is almost as marked in Ajmer and the Rajputana Agency. Then follow the Baroda State, the United Provinces, Bombay and Central India; then Assam, Burma and Hyderabad. It will be noticed that the dearth of women is greatest in the north-west of India, and gradually becomes less noticeable towards the east and south, where it is eventually replaced by a deficiency of males. Women are also in a clear minority in the extreme east—in North Bengal, Assam and Burma.

General proportion of the sexes in actual population.

195. The above observations refer to the actual population, or the persons

In natural population.

Map showing the proportions of the sexes in the natural population of each Province and State.



enumerated in each tract, irrespective of the place where they were born. In order to ascertain the proportions amongst the natural population, i.e., the persons born in each tract, we must discount the effect of migration by deducting the persons who have come in from outside and adding those, born in it, who have gone elsewhere. In India, as a whole, migration does not greatly disturb the sex proportions, but it is a factor of considerable importance when we descend to the figures for individual provinces and states.

NOTE.—For the purpose of this map, Bengal proper has been separated from the rest of the Lower Provinces. The lowest proportion refers only to the Punjab and N.-W. P. Province. The return for Baluchistan is incomplete, and it has therefore been left out of account.

Its influence is most marked in the case of Burma, where the proportion of females to males amongst persons born in the province is 1,027 per mille, compared with only 962 in the actual population, which includes numerous immigrants, chiefly males, from Bengal and Madras. Similarly in Assam the proportion in the natural population rises from 949 to 973, in Coorg from 801 to 963, and in Mysore from 980 to 994. In the United Provinces, on the other hand, it falls from 937 to 926, in the Punjab from 852 to 849, and in Madras from 1,025 to 1,017.

* This is exclusive of Ceylon. The statistics for that island do not distinguish persons born in Madras from those born in other parts of India, but the great majority of the natives of India enumerated there must have come from Madras. The total of the Indian-born includes 402,793 Tamils (males 239,553, females 162,905) and 27,475 'Moors' or Muslims. If all those shown as Tamils are treated as natives of Madras, the proportion of females to 1,000 males in that Presidency falls to 1,014. Similarly there were 37,900 male and 13,900 female Tamils in the Straits Settlements, and if these also are assumed to be Madras-born, together with 19,474 males and 9,076 females who have emigrated from Madras to Mauritius, the proportion in question is further reduced to 1,011.

The general distribution, however, is much the same as before, save that the area in Eastern India where females are in marked defect is limited to parts of Bengal proper and Assam, and Burma is transferred to the category of areas where their number exceeds that of the other sex.

Proportion
in Bengal.

196. Migration has a still more disturbing effect on the proportions when the figures come to be considered for smaller units, such as districts. In the actual population of Howrah (Bengal), for example, there are only 935 females per 1,000 males, while in the natural population the proportion rises to 1,050. It is necessary to bear this in mind when dealing with the variations in different parts of a province. In Bengal practically the whole country west of the Bhágirathi, where the Dravidian element is strongest, shows an excess of females, while to the east of that river, males preponderate almost everywhere. It appears at first sight that there are fewer women amongst the Muhammadans than amongst the Hindus, but this is due to the fact that the bulk of the Muhammadans are found in the tract where women generally are in a minority, and if the comparison be made for each natural division separately, it will be seen that the followers of the Prophet have a slightly larger proportion of females than the Hindus. The higher castes of Hindus have usually fewer women than those of lower status, but the lowest proportion of all is found amongst the Mongoloid castes and tribes. In the case of Bihar castes, the Ahirs and Pásis are noticeable for the paucity of their women.

197. In the United Provinces, excluding the Himalayan district of Garhwal, Mr. Burn notices a regular rise in the proportion of females from the north-west to the south-east, until, in the districts which adjoin Bihar, the females outnumber the males, but as the tracts from which emigration to Bengal and Assam is most common are those in the east of the province, some part of the difference noticed is factitious, and two or three districts, which show an excess of females in the actual population, are found to have a slight deficiency when the emigrant males are allowed for. This, however, only modifies the result and does not affect the general proposition that females are in excess in the east, and males in the west. Mr. Burn points out, moreover, that in the former tract females are more numerous than males amongst castes that do not emigrate as well as amongst those that do, and also that the excess is greater amongst Muhammadans than amongst Hindus, although, as a class, the former are far less prone to emigration. The proportion of females is lowest in the high castes, and gradually increases as one descends the ladder of social respectability; it reaches a maximum amongst the aboriginal races in the south-east.

198. Although Madras, as a whole, has a considerable excess of females, this is not shared by all districts, and it is ~~only in the north and south~~ that they outnumber the other sex. The excess of males is found in a compact block of country, stretching from Madras northwards almost as far as Cocanada, and in the Agency tracts.* It is difficult to say how far these variations are due to migration. There is an extensive exodus to Burma and Ceylon, in which males exceed females to the extent of about 260,000, but the census returns for those countries furnish no details as to the particular districts which have supplied these emigrants. So far as can be judged from the imperfect statistics of emigration by sea collected under executive orders, it would seem that they come mainly from Tinnevely, Madura, Ganjam, Vizagapatam, Godavari, Tanjore and Madras, all of which, except Madras, are tracts where females are in excess. The same statistics show an extensive emigration to the Straits Settlements from Tanjore, and it may be concluded that these movements account for a great part, though not for the whole, of the difference in the proportions. Mr. Francis finds that there is no special tendency for the proportion of females to vary according to the social status of a caste, but it is unusually small in the case of the Malayálam-speaking Bráhmans, the majority of whom allow only the eldest son of each family to marry within the caste, and leave the others to contract alliances with Náyar women.

Bay and
Ab.

199. The general deficiency of women in the Bombay Presidency is most marked in Sind, which adjoins the Punjab, where an illicit traffic in women was

* The Nilgiris lie outside this block, but the excess of males is here due to the importation of labourers for the coffee estates.

It is possible that there may be some racial peculiarity in the districts where males are in excess. Mr. Thurston has found a marked divergence in the head measurements taken by him in the Bellary district from those commonly regarded as typical of the Dravidian race.

formerly carried on extensively, along the Indus, by men who enticed them away from their homes in the Punjab. Only four districts in the whole Presidency contain more women than men, and even here the result is due mainly to migration; when this is allowed for, the excess of females in two of these districts disappears altogether, and in the other two, Ratnagiri and Satara, the proportion falls from 1,133 and 1,015 per 1,000 males to 1,030 and 1,005 respectively. The Superintendent finds that, as in Northern India, the castes with most women are those at the bottom of the social ladder.

In the Punjab the proportion of females is highest in the Himalayan states and districts and lowest in the west and south-west. In spite of the fact that Muhammadans are most numerous in the tracts where females generally are in most marked defect, they have a slightly larger proportion of this sex than the Hindus, while the Sikhs have by far the smallest. Amongst Hindus the higher the caste, the lower the proportion of women in it.

200. The sex proportions in Burma are much disturbed by the large number of immigrants, but the general result seems to be that the females outnumber the males in Upper, and are in a minority in Lower, Burma. The proportions for the principal indigenous races show an excess of females amongst the Burmans, Shans, Chins and Kachins, and a dearth amongst the Talings. Burma,
Central
Provinces
and Assam.

In the Central Provinces the balance is in favour of women everywhere, save in a few scattered areas on the border, but in spite of their general numerical superiority, they are in a minority amongst the higher castes.

By discounting the effect of migration, the general proportion of women in Assam rises from 949 to 973 per 1,000 males. Women are most numerous in the hill districts, where their position is most assured and they marry as adults, and least so in the plains, especially in the two districts at the eastern extremity of the Brahmaputra Valley. The largest number of women is found amongst the Lushais, Lálungs and Khásis where they number respectively 1,191, 1,119 and 1,118 per 1,000 males. It is low amongst the various Bodo tribes and the Chandáls and Kaibartas, and also amongst certain high castes, in whose case, however, the true proportions are obscured by immigration from Bengal.

201. The proportion of females is steadily rising, and there are now 963 females per 1,000 males, compared with 958 and 954 in 1891 and 1881, respectively. There has been practically no change since 1891 in the Punjab and Bengal, and one or two of the smaller provinces and states show a slight decrease in the proportion in question, but otherwise the general result is shared by all parts of India. Variation in
sex-proportions at
successive
enumerations.

The decline in Bengal has been continuous since 1881, and appears to be due partly to varying rates of growth in different parts of the province; some of the tracts where females are in a minority have increased rapidly, while some of those where they preponderate are stationary or decadent. In the two tracts where the pinch of famine was mainly felt, *i.e.*, North Bihar and Chota Nagpur, females are relatively more numerous than they were in 1891; while in Central and Northern Bengal and in Orissa their numerical position is distinctly worse than it then was.

The rise in ratio of females is greatest in the Central Provinces, where it is attributed, not to better enumeration, but to the fact that females are constitutionally stronger and are less liable than males to succumb to the effects of insufficient food and the diseases consequent thereon. Dr. Russell states that "the number of women has tended to increase according to the severity which different areas have been affected by famine," and says that the fact that women succumb to want of food less easily than men, was observed by officers of the Central Provinces Administration who assisted in the superintending of famine relief operations. He also cites Dr. Cornish's report on the Famine Census quoted in the Madras Census Report for 1881, where it was stated that the male mortality was one-fifth higher than the female, and the conclusion was arrived at that the famine affected most severely the bread-winners among the adults. The same circumstance was noticed in the report on the famine of 1897 in the United Provinces, and it was mentioned by Mr. Baines in the India Census Report for 1891. The average reported mortality in the decade in the Central Provinces gave 844 female deaths per 1,000 male, but the three famine years, 1896, 1897, and 1900, the corresponding proportion of female deaths was only 838, 801, and 833, respectively. A comparison of sex proportions at each age with those of 1891 shows that in the

under 30 years of age there has been practically no change since 1891, but that at all ages from 30 upwards there is a marked rise in the proportion.

202. Mr. Burn in the United Provinces, and Captain Bannerman in Rajputana, are also of opinion that the deficiency of the food supply is the main cause of the relatively more rapid growth of the female population in these tracts. Mr. Burn ascribes it, not only to their inherently greater capacity for resisting the effects of famine, but also to the decline in the birth-rate which occurs in a famine year, and the consequent reduction in the number of deaths at parturition. There has been a steady rise in the proportion of female births reported in the United Provinces during the decade, from 905 per 1,000 males in 1891 to 931 in 1900. The age statistics show an increase in the relative strength of the female population at all ages except 0-5, 25-30, 50-55 and 60 and over.

The circumstances attending the greater relative growth of the female population in Bombay are not discussed in the Provincial Report, but it is worthy of note that the general result is not shared by Sind which escaped the stress of famine. Moreover, the census of 1891, which followed a decade in which there had been no famine, disclosed a smaller proportion of females than the previous enumeration, which was effected shortly after the disastrous years 1876 to 1878. In the Bombay Census Report for 1891 it was observed that where districts are progressive, the proportion of females tends to fall, and that the reverse is the case where they are decadent. The same phenomenon is noticed at the present census by Mr. Chinoy in Berar. In Assam, where the proportion of females in the natural population is considerably higher than in 1891, the Superintendent is confident that the result is not due to greater accuracy in the enumeration. It proceeds mainly from the figures for two districts, Kamrup and Nowgong, which have been exceedingly unhealthy during the decade, and he concludes that women must be better able than men to withstand the bad effects of an unhealthy climate. The rise in the proportion of females is specially noticeable in the case of the Lalungs whose home is in the tract where *Kalá ázá*r has been most prevalent.

Reasons for
excess of
males.

203. The difference in the proportion of the sexes shown by the Census statistics may be due to three causes, *viz.*, (1) a more complete enumeration of the male population, (2) a larger number of male births, or (3) a heavier mortality amongst females. It is conceivable that females may be omitted from the return, either because their male relatives regard them as of no importance in connection with an enquiry, such as the census, instituted by the Government; or because they have some special reason for not mentioning them, as in the case of girls who have reached the age of puberty while still unmarried; or because they connect the census with some imaginary ulterior motive on the part of Government, such as the desire to provide wives for its sepoy. But before endeavouring to trace the reasons for the excess it will be convenient to quote the general conclusions arrived at in 1891 by Mr. Baines. He held that there was in most parts of India proper "a tendency, in a greater or less degree, to omit from the census record girls of from 9 to 15, and wives of from 15 to 20, or thereabouts, but that in every part of the country, except the north, girls below 5 years old were returned as more numerous than boys of that age. After that period, apart from wilful or ignorant omission, there is probably a real deficiency in the number of females, extending to about the twentieth year, and due to neglect, functional excitement, premature cohabitation and unskilful midwifery. At a later period, hard work, as well as the effects of the above influences, and, amongst some classes, excessive fecundity, operate on the female constitution, producing greater relative mortality than prevails in the other sex, though towards the end of life, the latter succumb to old age sooner than the survivors from amongst their mates. It is also probable that, either from difference or inferiority in nutrition, or from climatic influences, female life is, on the whole, better in India on the coast and hills than on the hot and dry plains."

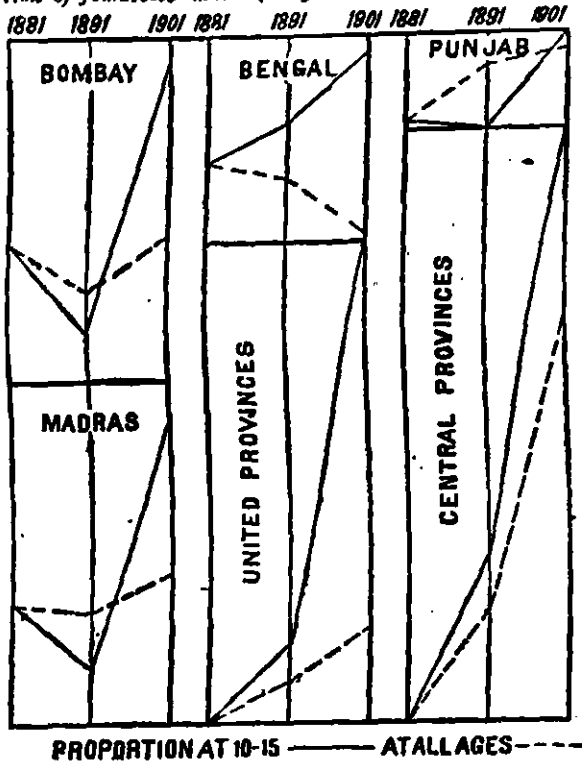
204. The theory that females have not been fully enumerated rests mainly on two grounds, firstly, that it is *a priori* not improbable, and that it affords a ready explanation of the disproportion indicated by the returns, and secondly, that the deficiency occurs mainly at particular age periods, and especially at the age 15 when, if at all, it is likely that females would be concealed. The phenomenon will be more fully discussed further on,* but it may be stated that it seems to be due partly to the greater inaccuracy of the ages

* Paragraph 220.

returned for females and partly to a higher mortality amongst them at the time when puberty is reached, owing to general functional derangement at this age and the evil effects of premature child-bearing.

205. It will be seen from the diagram given in the margin, which shows for

Diagram showing the variation since 1891 in the proportion of females to males (a) aged 10—15 (b) at all ages.



several of the larger provinces the variations since 1891 in the proportion of females to males (a) at the age period '10—15' and (b) at all ages, that there is no general correspondence between the two curves, while in Bengal a steady rise in the proportion of females at '10—15' has been accompanied by an equally steady fall in the proportion at all ages; this would seem to show that the main reason for the former must be a progressive improvement in the accuracy of the age return rather than greater success in securing a complete enumeration of females at the time of life under consideration.

In no other province is the divergence between the two curves so marked as it is in Bengal, but on the other hand the United Provinces is the only tract where the increase in the proportion at '10—15', as compared with 1891, is sufficiently great to account for a

material part of the increase in the proportion at all ages.

206. As regards the assumption that because females generally are in defect, therefore they have not been fully enumerated, it may be noted that save in a few exceptional tracts the tendency to conceal would be a fairly constant factor, but the deficiency of females is not at all universal, and there are large areas where their number exceeds that of the males, and where the phenomenon cannot be explained by any difference in the state of feeling regarding women. There is, for example, no reason why women should be suppressed in North Bengal, where they are in a minority according to the census, any more than in North Bihar where they are more numerous than males. So also in Madras; there is no difference in the state of feeling in regard to women between the districts where they outnumber the males and those where they are in defect. Moreover, if there is any concealment, it is more likely to occur amongst Muhammadans than amongst Hindus, but in most provinces Muhammadans have a larger proportion of women than their Hindu neighbours. The wilder hill tribes might omit to mention their women through fear, but the deficiency in their case is by no means universal, and in some instances it is these very tribes who return the highest proportion of all. In Bengal the paucity of females is most noticeable amongst certain race castes of North and East Bengal, whose women move about freely and many of whom suffer no loss of esteem or status if they fail to marry their girls before the age of puberty. It is true that the dearth is generally more marked amongst the higher castes, but this is not the case in Orissa or Madras and, where it exists, it can be explained, as will be seen further on, on other grounds, such as difference of race and social practices.

207. There is again no direct evidence of the concealment of women, and it does not appear that, in the course of testing the work of enumerators, any general tendency to leave women out of the reckoning was detected. In the Punjab, where, in spite of the fact that the census agency is composed more largely than elsewhere of officials and is therefore presumably more efficient, the deficiency of females is most marked, special enquiries were made in order to ascertain if they had been less completely enumerated than males, and the conclusion arrived at was that this was not the case.

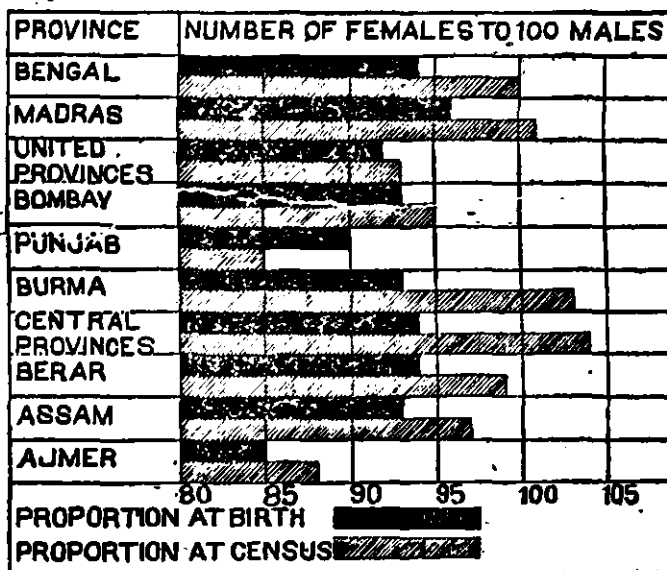
The fact that at each succeeding census the proportion of women has risen has been accounted for on the supposition of a progressive improvement in their

enumeration, but the changes recorded may equally well represent actual facts and may be due either to changes in the relative mortality of the two sexes or to an alteration in the proportions at birth. There may have been omissions at the earlier censuses, though not by any means on the large scale that has occasionally been suggested, but the general trend of opinion amongst the Superintendents of the present census is that, on this occasion at least, concealment, intentional or otherwise, has had but a very small influence on the figures,* and one of them, Mr. Rose, has pointed out that the greater accuracy which characterizes each successive enumeration bears most fruit at the final revision on the census night, by the discovery of persons absent at the preliminary enumeration, such as travellers, boatmen, visitors, traders and the like, who are mostly males.† Moreover, the influence of improved methods operates everywhere, but some localities and social groups show a smaller proportion of women than in 1891. Lastly, all the world over, there is an excess of males at birth, but in Europe this is more than counterbalanced by their relatively higher rate of mortality. If it can be shown, either that the ratio of male births in India is even greater than in Europe, or that there are reasons why females at the earlier ages have not in this country the same advantage over males that they have in Europe, the excess of the latter will be amply accounted for without assuming that the census figures for females are incomplete.

(2) Excess of males at birth.

208. The number of females born to every 100 males according to the birth returns of some of the larger units is shown in Subsidiary Table III. In all cases these statistics show a considerable deficiency of females at birth, the proportion per 100 males ranging from 90 in the Punjab to 96 in Madras. It may be said that this general deficiency of females is due to the incomplete reporting of female births, but this does not seem to be the case,‡ and the general result has

Diagram comparing the proportion of the sexes at the Census (Natural population) with that according to the birth returns for the decade 1891-1900.



its counterpart in Europe where the proportion of females at birth varies from about 92 to 97 per 100 males. In Europe, however, as mentioned above, this numerical disadvantage is quickly remedied by a relatively lower mortality amongst female children. In the annexed diagram the proportion of females to males according to the birth returns is compared with that ascertained at the census. It will be seen that where females are fewest at birth, there also they are in most marked defect at the census, and that where at the census they are more numerous than males, there also the proportion at birth is relatively high.

At the same time there is no fixed relation between the two sets of statistics. As a general rule the proportion of females at the census is higher than that according to the birth returns, but the excess is much greater in Burma and the Central Provinces than it is in Bengal and Berar. In Bombay and the United Provinces the two proportions approach equality, while in the Punjab the census shows relatively fewer females than the birth-returns. The conclusion seems to be that although the local variations in the sex proportions at the census depend to a considerable extent on the corresponding proportions at birth, there are other influences at work which affect the relative longevity of the two sexes, and which operate to a varying extent in different parts of India. But before considering them we may advert briefly to some of the theories which have from time to time been put forward regarding the causes which determine sex at

* Mr. Lewis suggests that there may have been some concealment in the wilder parts of Burma and Mr. Buthoven is inclined to suspect some omissions, due to carelessness, in Bombay.

† In the case of pilgrims females are usually more numerous than males.

‡ The returns showing omissions from the birth and death returns detected by inspecting officers make no distinction of sex, and it is therefore impossible to speak positively on this point.

birth and see how far, if at all, they appear to be confirmed or otherwise by our experience in India.

209. It is possible that the proportion of the sexes at birth may be influenced to some extent by race, and it will be noticed that fewer females are born in the north-west of India, where the Aryan* element in the population predominates, than in the south and south-east, which is mainly Dravidian. Except in Madras, where there is probably far less racial difference between the high and low castes than exists in Northern India, it is a matter of general observation that the higher castes, who claim a larger infusion of Aryan blood than the lower castes of the same area, have also fewer females. The proportion amongst Mongoloid races seems variable. In the Western Himalayan region and in Burma, and amongst many of the tribes of Assam, females preponderate, but in North and East Bengal they are in a minority, and this is also the case amongst the Gáros, Koches, Kacháris, Chandáls and Kaibarttas of Assam, who are believed to be closely connected with the Mongoloid element in the population of Bengal proper; they are also in a minority amongst the Lepchas and other Himalayan tribes on the northern frontier of Bengal. Unless this branch of the Mongolian stock has, as is quite possible, an admixture of some element, not shared by the other tribes, the variations noticed would appear to conflict with the theory that race is of importance in connection with the proportion of the sexes. In any case it cannot be the sole factor, as the proportion of females to males at birth varies from time to time; in the Punjab for example it was 91 per cent in 1896, compared with 88 only four years earlier.

Cause affecting proportions of births:
(i) Race.

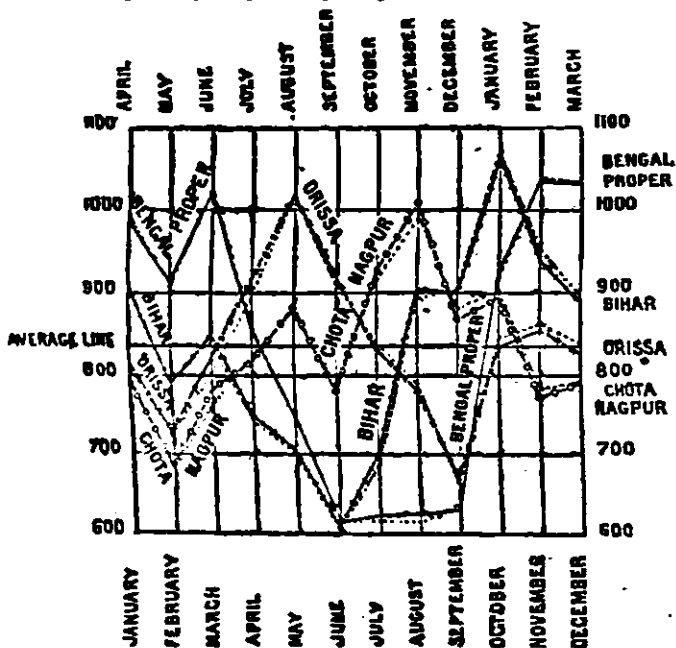
210. Climate is sometimes said to influence sex, but here too, the fact that the proportion of females in the same locality varies from time to time, shows that, even if it is a factor, it is not the only one. It is true that the ratio of female births is often higher along the coast, or within the influence of sea air, and in the hills, than it is in hot and dry plains, but there are so many exceptions as to suggest that the correspondence, where it exists, is accidental. Bihar, though hotter, drier and further from the sea than Bengal proper, has a higher ratio of females. In Madras Mr. Francis finds it impossible to connect the variations in any way with the climate, and in Burma females are relatively more numerous in Upper Burma, which is hot and dry, than they are in the damp districts of Lower Burma along the sea coast.

(ii) Climate.

211. The season of gestation has been held to affect the sex of the child. Statistics have been compiled in Bengal† showing for each sub-province the proportion of female to male births in each month during the last decade and although it is difficult to establish any general co-ordination, it is clear that there are seasonal variations. In Bengal proper the proportion of male births is least in December and January and greatest in August and September; in Bihar it is least in October, November and December and greatest in July; in Orissa the minimum excess is found in August, October and December and the maximum in March; and in Chota Nagpur the corresponding extremes are in June, September, October and November on the one side and March, July and August on the other. It will be seen from the diagram in the margin, which is reproduced

(iii) Season of gestation

Diagram showing the average monthly number of births per 10,000 reported yearly during the period 1892—1900.



REFERENCES

- MALES BENGAL PROPER ———
- BIHAR - - - - -
- ORISSA
- CHOTA NAGPUR - · - · -
- FEMALES IN ALL CASES - · - · -

Note.—The month in which the births occurred is shown at the bottom, and the probable month of conception at the top, of the diagram.

* By Aryan I mean the people that brought the Sanskrit languages to India.
† Bengal Census Report for 1901. Appendix IV, page xxiii.

from the Bengal Report, that there is no general relationship between these variations and the seasons when the reproductive principle is strongest or weakest. In the Punjab also no correspondence can be traced between sex and the season of gestation.

(iv) Food.

212. The dietary of the people is another item which has been held to be of importance in this connection. So far as the properties of the food are concerned it is difficult to draw any inference, except perhaps a negative one, from the state of things in India; the same sex proportions are often found to exist amongst people subsisting on different kinds of grain, while it is not at all uncommon to find different proportions in the case of people whose staple food is the same. More stress has been laid by certain enquirers on the sufficiency or otherwise of the food, but they are not agreed as to the result to be expected from it. According to some, women who have been enfeebled by insufficient sustenance are more likely to produce female children, while Düsing, whose opinion is quoted with approval by Westermarck, holds that "where nourishment is abundant, strengthened reproduction is an advantage to the species, whereas the reverse is the case where nourishment is scarce. Hence the power of multiplying, depending chiefly on the number of females, organisms, when well nourished, produce comparatively more female children, in the opposite case more male." It is alleged, in support of this theory, that an excess of male births is found where vitality is low, as amongst the poorer classes, or where polyandry is practised, or where intermarriage between cousins is common. There seems to be very little in the statistics which have been collected to confirm either hypothesis. The sex proportions at birth have scarcely varied a single point in Bombay during the last decade. In the Central Provinces male births were slightly above the average rate of the decade in one famine year, 1897, but in another, 1900, they were below it. In the famine districts of Bengal the ratio was normal throughout the period affected by the short crops of 1896. The balance of probability, if any, seems rather in favour of the view that mal-nutrition on the part of the female tends to the production of female children. In the whole of Northern India females are more numerous amongst the lowest classes, who are also the poorest, than amongst those at the top of the social structure, and in Bengal, the tract where women are fewest is also the tract where the people are most prosperous. These, however, may be mere coincidences, and may be due to other circumstances such as race or social practices. Sometimes, as in Orissa and South Bihar, we find very different degrees of material well-being coupled with almost uniform proportions of the sexes at birth.

(v) Consanguineous marriages.

213. The marriage of cousins, which is said by Düsing to lead to male offspring, is common among Musalmans, but they usually have a larger proportion of females than their Hindu neighbours. It is also common amongst the Dravidian races whose females are generally in excess.

(vi) Polyandry.

214. As regards polyandry, the tendency to male offspring, if it exists, might be due to causes other than its injurious influence (if any) on the female parent, but it is not clear that the practice is in fact accompanied by the more frequent birth of males. In the Western Himalayas the polyandrous tribes have generally more females than males. The Náyars of Southern India have also an excess of females. There are clear traces of polyandry amongst the Khásis, whose females are specially numerous, as well as amongst certain Kodo tribes where they are in a minority.

(vii) Other theories.

215. There are some theories which the statistics cannot be invoked to verify or disprove, such as the view that sex is inherent in the germ itself or depends on the degree of ovular maturity at the time when conception takes place. To the same category belong the theories of ancient Hindu writers, who held that the female principle is weaker on certain days than on others, and that conception on even days following the commencement of the menses tends to result in male, and on odd days, in female, children. This general tendency, however, may, it is said, be counteracted, if one sex or the other is specially vigorous, and a strong and healthy woman, if she wishes to be blessed with male offspring, is advised to fast or reduce her diet at the time when she expects to conceive. For the same reason it has been ordained in the *Shástras* that the husband should be older than his wife, as he would then ordinarily be more vigorous and have a greater chance of influencing the sex of the offspring. These views are allied to the theory hazarded in the English Census Report for

1861, where it is said that "there are some reasons for believing that one, at any rate, of the causes that determine the sex of an infant, is the relative ages of the father and mother, the offspring having a tendency to be of the same sex as its elder parent." This is a definite statement which there would be specially good opportunities of verifying in India if the vital statistics for the main castes could be tabulated separately, as, in any given locality, the practice of a caste in respect of the age at which marriage is effected is fairly uniform. In Bengal the theory seems to receive some confirmation from the circumstance that in Bengal proper where males are generally married as adults to girls who have not reached the age of puberty, the ratio of male births is higher than in Bihar or Chota Nagpur, where the ages of bride and bridegroom are more nearly equal. Sufficient information is not available to enable the subject to be examined in any detail, but it may be noted that the higher ratio of females usually noticeable amongst Muhammadans, who are less prone than the Hindus to marry their daughters at a very early age, is consonant with the theory alluded to.

It is sometimes supposed that intense desire for a child of a particular sex might have some effect, but this seems very unlikely. The Hindus earnestly desire male children and in some parts a special religious ceremony is performed, before cohabitation commences, with the object of procuring male offspring. This feeling, however, prevails all over India, but the ratio of male births varies greatly and in some parts is lower than in Europe.

It has been said again that female infanticide long continued leads to a larger proportion of male births, and it is certainly the case that the ratio is highest in those parts of India where this practice was formerly common. It would be necessary, however, to collect much more evidence than this before it could be said that it is anything more than an accidental coincidence.* And even then it might be that the high proportion of males is due to the custom, mentioned by Mr. Rose, of causing abortion where the native midwife reports that the pregnancy is probably that of a girl.

216. We have seen that the number of males at birth generally exceeds that of females to a relatively greater extent than it does in the case of the persons enumerated at the census. If, therefore, the Indian statistics stood by themselves, it would be needless to seek any further explanation of the surplus of males, but when it is found that in spite of a similar state of affairs in Europe, so far as the proportions at birth are concerned, the mortality in the early months of life is so much greater in the case of males that they very soon lose their numerical advantage, it becomes necessary to enquire why the same phenomenon does not occur in India, and whether there are any conditions existing in India but not in Europe, which are adverse to female life. The possible causes of higher female mortality in India (*a*) female infanticide, (*b*) a comparatively greater neglect of females, especially at the earlier ages, (*c*) premature cohabitation and child-bearing coupled with unskilful midwifery, (*d*) hard work in the case of the lower classes, and (*e*) general adverse conditions of climate, nutrition, house accommodation and the like.

217. And first comes the question of female infanticide. It is significant that where the proportion of females is lowest, i.e., in the Punjab and the adjoining tracts in Sind, Rajputana and the United Provinces, large sections of the population are, or were formerly, suspected of this practice. Mr. Rose, who has gone into the question with some fulness, shows that the proportion of female children is lowest amongst most of the Rájput and Ját tribes; that it is far higher, on the average, amongst those who are Muhammadans and are thus troubled with fewer artificial restrictions on marriage, than amongst Hindus and Sikhs; and that, in the case of the Játs, the Sikhs have a lower proportion of females than the Hindus. There are, however, exceptions and amongst certain tribes the Muhammadans have also a very low proportion of females. Mr. Rose quotes numerous instances of folklore and superstitious belief connected with infant life which familiarize the people with the practice of infanticide, and mentions that, alike among Muhammadans, Hindus and Sikhs, there are no rejoicings on the birth of a girl. His final conclusion is that, except possibly amongst the Játs, who, be it remembered, form more than a fifth of the total population, actual infanticide is rare, and occurs only when the prospective difficulty of finding a husband is combined

* This is another instance where the separate tabulation of the birth and death returns of each caste might furnish useful information. It would then be possible to compare the sex proportions at birth for different castes, some of which practise infanticide while others do not.

with a superstitious belief that the child is likely to cause misfortune, but that ignorance and an unconscious ill-treatment of females result in a relatively high rate of mortality at all ages. In the case of the Jâts, with whom the practice is thought to be more common, it is due, not to the laws of hypergamy, which would affect only the higher sections, but to a desire to avoid the difficulty and expense of rearing children of the female sex.

The Superintendent of Census in Bombay says that female infanticide was formerly in vogue amongst certain tribes in Sind and the Jadeja Rájputa in Cutch. The common method of destruction was to drown the children in vessels of milk, or in holes made in the ground and filled with the same liquid. The signal "*dudh pilao*," given at the birth of a female infant, was sufficient to secure its destruction. In other cases, female infants were either given opium or left uncared-for until they expired. At the present day, says Mr. Enthoven, the practice may be assumed to be of rare occurrence. The same view is held by Mr. Burn in respect of the United Provinces, where, however, a special law is still in force for the supervision of certain clans, resident chiefly in the tracts adjoining the Punjab, who were undoubtedly at one time greatly addicted to the practice. In Baroda the Census Superintendent asserts that amongst the Lewa Patidars of certain Kulin villages there are clear signs of female infanticide, and the figures which he gives certainly show an extraordinarily low proportion of females.

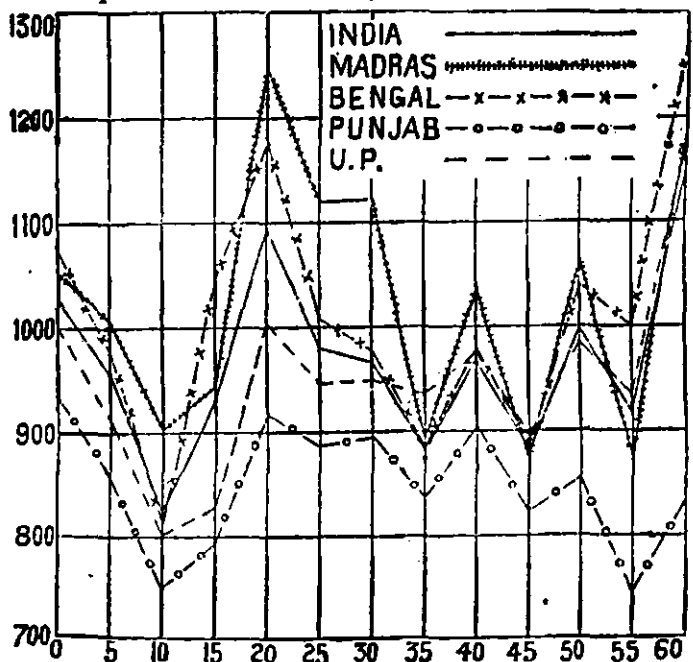
Neglect of female infant life.

218. But if the practice of deliberately doing away with female infants is now confined to a limited area, and even there is perhaps somewhat rare, there is little reason to doubt that in most parts of India female infants receive far less attention than males. It is almost universally the case that, whereas male offspring are ardently desired, the birth of a female child is unwelcome. It is especially so where the provision of a husband is a matter of difficulty and expense and where there are already several female children in the family. Consequently, even if there is no deliberate design of hastening a girl's death, there is no doubt that, as a rule, she receives less attention than would be bestowed on a son. She is less warmly clad, and less carefully rubbed with mustard oil as a prophylactic against the colds and chills to which the greater part of the mortality amongst young children in India is due; she also probably is not so well fed as a boy would be, and, when ill, her parents are not likely to make the same strenuous efforts to ensure her recovery. It seems clear, therefore, that, even if they are constitutionally stronger than boys, girls in this country, especially amongst Hindus, are less likely than in Europe to reverse the birth proportion of the sexes by a relatively low mortality during the early years of life.

Reference to age statistics.

219. The inaccuracy of the age return generally, and especially of that portion of it which relates to females, renders it impossible to place much reliance on the ratio of females to males at each age period, as exhibited for India and some of the larger Provinces in subsidiary table No. II. It will be seen from the diagram in the margin that the curves drawn to indicate this proportion jump about in a most remarkable manner. From the age of 25 onwards, the fluctuations are clearly attributable to the greater inaccuracy in respect of females and to the consequent piling up of their ages at all multiples of 10, coupled with a special tendency to exaggeration when the latter years of life are reached.

Diagram showing the number of females to 1,000 males at each age period in India and some of the main Provinces.



NOTE.—The numbers at the foot of this diagram refer to the initial figure of each age period, e.g., '0' means the period '0-5', '5' refers to '5-10' and so forth. The last number '60' includes all returned at the ages of 60 upwards.

tion of it which relates to females, renders it impossible to place much reliance on the ratio of females to males at each age period, as exhibited for India and some of the larger Provinces in subsidiary table No. II. It will be seen from the diagram in the margin that the curves drawn to indicate this proportion jump about in a most remarkable manner. From the age of 25 onwards, the fluctuations are clearly attributable to the greater inaccuracy in respect of females and to the consequent piling up of their ages at all multiples of 10, coupled with a special tendency to exaggeration when the latter years of life are reached.

If we take the total population living below 30 years of age, the proportion of females to males in India as a whole is as 960 to 1,000 which is very little less than the proportion at all ages. It would thus appear that in India as a whole the span of life enjoyed by females does not much exceed that of males. The only noticeable exception in respect of locality is afforded by the Central Provinces, where the proportion of females to a thousand males at the age of 30 and upwards is 1,087 compared with only 1,034 in the total population of all ages. This result is peculiar to the present census, and in 1891 the corresponding figures were 986 and 998 respectively. This seems to show that it is due to some condition peculiar to the decade and, therefore, it may perhaps be assumed,

Province.	Variation per cent. in proportion of women to men compared with 1891.	
	At all ages.	Aged 30 and over.
Bengal	— .7	— 1.5
Madras	+ .5	+ .3
United Provinces	+ .8	+ .7
Bombay	+ .8	+ 1.6
Punjab	+ .2	— 2.7
Burma	nil	— 1.2
Central Provinces	+ 3.6	+ 10.2
Assam	+ .7	— .3

to famine; if so, this confirms the view put forward by Mr. Russell that women are better able than men to withstand the effects of a calamity of this kind. In this connection the marginal statement is instructive. It shows that the growth in the proportion of females in the provinces where it is most noticeable has taken place at the higher ages and is, therefore, due to an improvement in their relative longevity rather than to a rise

in the proportions at birth or to a more complete enumeration of young women. So far as the mere figures go it would appear from subsidiary table II that females enjoy a greater longevity than males in the United Provinces also, but the true proportions are here obscured by the large number of emigrants, amongst whom adult males greatly preponderate, and the real advantage on the side of the fair sex is much smaller than the figures would seem to indicate.

Turning to the proportions by religion we find that, at all ages from 0 to 30 taken together, the proportions of the sexes for both religions are much the same, but whereas amongst the Hindus the ratio of women to men after the age of 30 improves slightly, in the case of the Muhammadan section of the community it tends to fall off. The reason for this seems to lie in the fact that, owing to various causes, and especially to the practice of widow marriage, the Muhammadan female is more prolific and pays for this by a shorter span of life, and that the enforced widowhood to which her Hindu sister is condemned, however wearisome and monotonous, tends to greater longevity.

220. We have still to seek some explanation of the fact that while the general proportion of females to males under 30 years of age is about the same as in the total population, there is an extraordinary deficit at '10—15,' which is compensated for by an excess at the two extremities '0—5' on the one side and '20—25' on the other. It seems scarcely possible that it can be due to concealment, as if so, the true proportion of females under 30 would be greatly in excess of the proportion at the higher ages, and this too, in spite of the fact that at birth males are the more numerous. The proportion, moreover, is even lower in the case of Muhammadans, who have no special reasons for concealing unmarried females at this particular age, than it is amongst Hindus. It is therefore, it would seem, more likely that the deficiency, with its concomitant excess on either side, is due mainly to the greater inaccuracy of the age return in the case of females. We have seen that at the higher ages there are marked fluctuations which can be accounted for in this way and no other, and if, at the age 10—15, the inequality is still greater, it may well be due to the fact that, at this age, the general inaccuracy of the return for females is further exaggerated, not only by intentional misstatement, but also by an unconscious tendency to minimise the ages of unmarried girls and to overstate those of the married. Having regard to the figures on either side, it is impossible that there can be more females than males at the age-period 20—25, and the main cause of the excess is, probably, the exaggeration of the age of married girls with children. Similarly, at the earlier ages, the figures for females seem

Explanation of apparent deficiency of females aged 10—15.

to be swollen by the inclusion of unmarried girls who are really older than their parents were willing to admit. A fall in the proportion of females to males at the age period '10—15' is also found in the death returns where there can be no special motive for concealment of nubile females.* The proportion of female deaths at this critical age is, in all probability, above the mean for all ages, but the number actually reported is far below it. The only possible explanation is that many of the deaths which properly belong to this age period have been wrongly assigned to those above and below it.

221. There is also, in all probability, a genuine decline in the proportion of females at the age when puberty is reached. Even in England, the proportion falls slightly below par at this critical time of life, and if this is the case in a European country, a much heavier fall is naturally to be expected in India, where the maladies due to functional derangement, consequent on the attainment of puberty, are greatly intensified by premature cohabitation and parturition. The evil effects of early marriage on female life are clearly shown by a

Province.	Number per 100 females aged 10—15 who are married.	Order in respect of proportion of females to males at 10—15 as compared with that at all ages.
Bengal	57	8
Madras	23	2
United Provinces	54	6
Punjab	27	2
Bombay	46	4
Burma	1	1
Central Provinces	37	5
Assam	29	7

comparison of the proportion of females to males who are living at the age '10—15' in each province with the proportion of females of that age who are married. In Burma practically no girls of the age in question are married and this is the part of India where the proportion of females at this age is highest as compared with the proportion at all ages. The second place in this respect is shared by Madras and the Punjab, where girls of this age

are less frequently married than in any other part of India outside Burma, while Bengal, where child marriage is most common, stands at the bottom of the list. It may therefore be said that the proportion of females at the age '10—15' varies inversely with the number who are married at this period of life. The only exceptions to this generalization are afforded by the Central Provinces and Assam. The latter province has a very small population and the results are disturbed by migration, while in the Central Provinces the divergence is not great and may be accounted for by the effect of the famine on the sex proportions at the higher ages. It is of course not alleged that the ill effects of early marriage are the sole, or even the main, cause of the variations here noticed. To a great extent they are fictitious and attributable to the intentional misstatement of the ages of females at this period of life, which has already been alluded to, and which would naturally affect the results to a greater extent in tracts where the prejudices against allowing a girl to grow to maturity while still unmarried are strongest.

General conclusions indicated by age statistics.

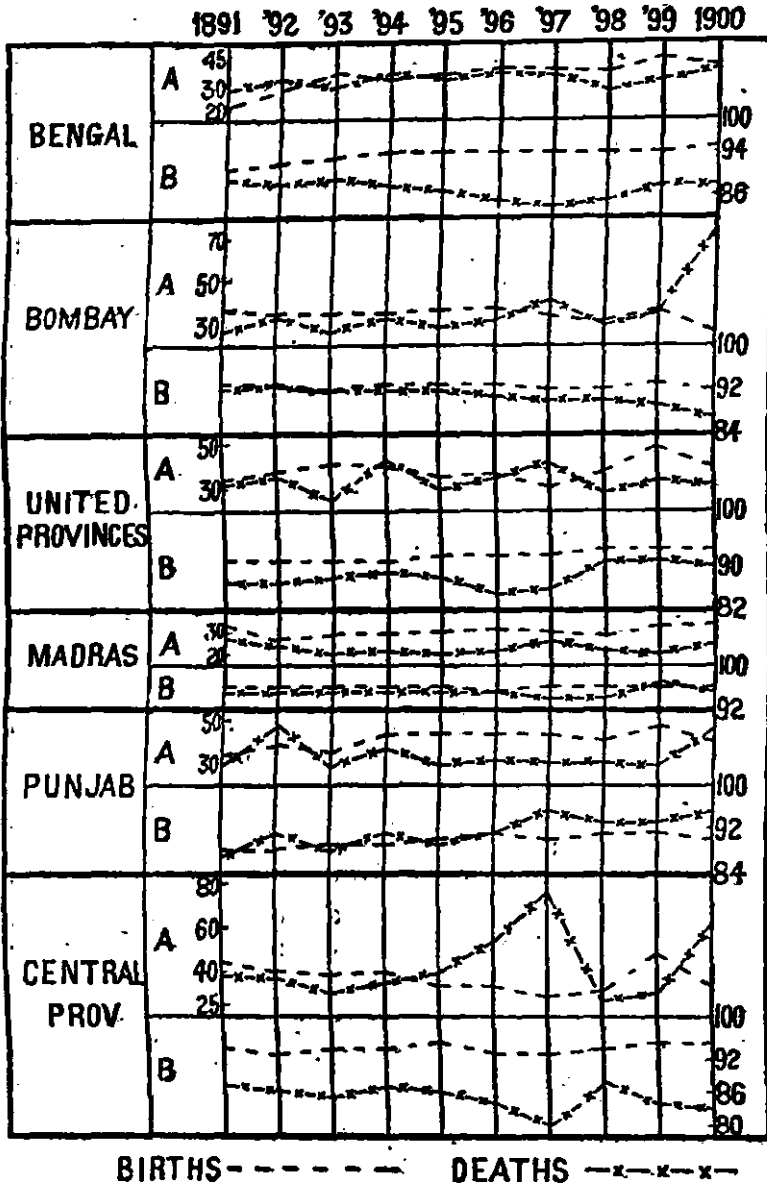
222. The general conclusions to be drawn from the age statistics seem therefore to be as follows. There is everywhere an excess of males at birth. For a few years after birth the two sexes have about the same expectation of life, but about the time of puberty there is a relatively higher mortality amongst females. Those who survive this trying period seem for some years to have a stronger hold on life than males of the same age; while from about 30 onwards the two sexes have again much the same general rate of mortality, but if the figures are separated according to religion, it appears that while the Hindu female at 30 has the prospect of a somewhat longer life than a male of the same age and religion, in the case of Muhammadans the males have a slight advantage over the females. After the age of 60 the balance seems to turn in favour of females, but this is possibly due merely to a greater tendency to exaggerate age on the part of old women †

* This will be seen from the statement in the margin of paragraph 224.

† It must be borne in mind that it is only 30 years since measures were adopted to put a stop to female infanticide amongst certain Rajput clans of Upper India. It is not likely that these measures, which affected a population of only a third of a million, have much affected the general sex proportions. So far as they have done so, however, the resulting increase in the number of females is confined at present to the ages under 30.

223. We may now revert briefly to the variations shown in the sex proportions since 1891, and in doing so it will be profitable to notice the main results disclosed by the birth and death returns. The general collection of these statistics has been undertaken only in recent years and the moderate degree of accuracy which they now possess dates in most provinces only from the early part of the last decade. It is impossible therefore to utilise them as fully as might be desired, but even as they stand they present several interesting features. These are portrayed in the annexed diagram, which shows for each of the main provinces, other than Burma and Assam where the returns are still very incomplete, (a) the variations from year to year in the number of male births and deaths per thousand of that sex and (b) the number of female to 100 male vital occurrences of each kind. The first feature to be noticed is that already alluded to, viz., the failure of the female

Diagram showing the number of male births and deaths per 1,000 of population, and female births and deaths per 100 males for each year 1891 to 1900.



Note.—The curves opposite the letter A, indicate the number of male births and deaths per 1,000 of the male population, and those opposite the letter B, the number of female births and deaths per 100 male births and deaths. The figures on the left of the curve refer to A, and those on the right of it to B.

death-rate to rise with that of males in famine years. This is clearly shown by the curves for Bombay in 1900 and for the Central Provinces in the same year and also in 1897, as well as, though in a less degree, by the curves for Bengal, Bombay and the United Provinces in 1897, and by that for the latter province in 1896. The regularity of this phenomenon is so marked and it agrees so fully with the observations independently arrived at by competent observers that it cannot be ascribed to accident or omissions on the part of the reporting staff. It seems, therefore, clear that females are better able than males to resist the ill effects of famine, and as the Census statistics show that the improvement in the ratio of women has occurred mainly at the age of 30 and upwards, it may be concluded that it is amongst adults that their constitutional superiority in this respect is most marked. There has been slight decline in the proportion of females at the age '60 and over' but this is due probably to a smaller degree of inaccuracy in the reporting of female ages at the present Census.

224. Further light is thrown on this subject by the death returns distributed according to age. The number of female, to 100 male, deaths reported at each age

Further examination of change in sex proportions since 1891.

Reference to birth and death returns.

period in 1891, when the conditions were normal, is compared in the margin with

Age.	NUMBERS OF FEMALE DEATHS PER 100 MALE.					
	Central Provinces.		Bombay.		United Provinces.	
	1891.	1897.	1891.	1900.	1891.	1897.
Under 1 year .	86	89	85	92	90	95
1—5 .	89	87	96	97	99	102
5—10 .	80	77	92	88	70	79
10—15 .	79	69	91	80	71	70
15—20 .	91	73	115	88	114	103
20—30 .	101	78	118	89	101	90
30—40 .	81	70	91	80	78	72
40—50 .	71	65	69	67	75	72
50—60 .	79	77	76	70	74	73
60 and over .	101	100	107	104	81	80

the number reported in a famine year for the three main provinces which suffered most during the decade. It will be seen that under the age of 5 the proportion of female deaths in the famine year taken for comparison was slightly higher than in 1891; at '5—10' it was about the same, but then quickly declined, reaching a minimum at the age '20—30' after

which it again rose slowly, but at no subsequent age reached the proportion returned in 1891.

Various reasons have been assigned for the greater power of resistance to famine which females undoubtedly enjoy. According to some, men wander more than women during a famine and, when away by themselves, often have to eat carelessly prepared food, while the women, who do their own cooking, are less likely to suffer in this way. The women again, as a class, are more often given gratuitous relief, and when they attend relief works, their tasks are comparatively easy. When scarcity begins to be felt, conception takes place less freely, and this means fewer deaths from diseases of pregnancy and parturition. But the most potent reason seems to be that, after reaching maturity, women are constitutionally stronger than men, and have, besides, more fat and less muscle in their composition, so that they not only need a smaller quantity of food to support their frames but are also better able to endure the wasting process. It is a physiological fact that women require less food to support life than men do, but the differentiation of famine relief according to sex was abolished before the famine of 1900, and even in 1897, it was not always observed, so that in the past, women have probably received better treatment than men in proportion to their physical need.*

In all provinces the reported vital occurrences for females are proportionally less numerous than those for males, but in Burma, the Central Provinces, and Bengal the deficiency is far greater in the case of deaths than it is in that of births. This should indicate a relatively greater increase in the female population than in the male, and such an increase has actually taken place in the Central Provinces. In Burma the disproportion is due in a great measure to the large immigrant population, which consists chiefly of males, and helps to swell the mortality returns for that sex; in Bengal also the presence of immigrants from up-country has to some extent affected the figures. It is, moreover, possible that the deaths of neglected female children and also of Hindu widows, who live a retired and secluded life, are not so completely reported as those of the rest of the population. The net result of the vital statistics collected in India during the decade 1891—1900 is that there are 89 female, to 100 male, deaths. In European countries the corresponding proportion ranges between 86 in Saxony and 100·6 in Ireland, but in Europe the number of females in existence is generally greater than that of males, and a higher relative death rate is therefore only natural. As compared with the proportion of females to males amongst the living the proportion at death is higher in India than in Europe.

225. The last point to be noticed is that the returns indicate a slightly higher proportion of female, as compared with male, births towards the close of the decade in the Punjab, the United Provinces, Bengal and the Central Provinces. Variations in the sex proportions at birth are not unknown in Europe, and in England the proportion of male, to 1,000 female, births declined from 1,050 in 1838-47 to 1,036 in 1891-95.† In Hamburg, on the other hand, it rose from 1,032 in

* The Famine Commissioners of 1901 recommended that the sex distinction should again be adopted.

† The proportion of male, to 1,000 female, births during 1901 was—in England 1,039, in Scotland 1,052, and in Ireland 1,061.

1885 to 1,075 in 1895. There is therefore no *a priori* reason why similar variations should not take place in India. At first sight the birth returns appear to be contradicted in this respect by the results of the census which shows a smaller proportion of females to males at the ages '0—5' than that which existed in 1891. The contradiction, however, is probably not real. The proportion of females of all ages from 0 to 30 taken together has risen during the decade, and the diminution which has taken place at the period '0—5' and also at '25—30' seems therefore to be due to a more accurate return of female ages than to any real deficiency at these two age periods. The irregularities in the proportion of females to males at the different ages from 0 to 30 as shown in the diagram in the margin of paragraph 219, though still considerable, are less noticeable at the present census than in 1891, and it would seem that this can only be due to the more successful elimination of mistakes regarding the ages of females.

The final conclusion as to the growth of the female population is therefore that it is due mainly to a relatively smaller mortality, especially in the famine years, but that there has also been a slight rise in the proportion of females to males at birth. Final conclusions.

As regards the causes which influence sex at birth, the findings, if such they can be called, which we have arrived at, are all of a negative character. In a work quoted by Mr. Baines in 1891* the authors say:—

"The number of speculations as to the nature of sex has well nigh doubled since Drelincourt in the last century brought together 262 'groundless hypotheses' and since Blumenbach quaintly remarked that nothing was more certain than that Drelincourt's own theory formed the 263rd. Subsequent writers have, of course, long ago added Blumenbach's Bildungstrieb to the list; nor is it claimed that the generalization we have in our turn offered has yet received 'final form' if that phrase, indeed, be ever permissible in an evolving science, except when applied to what is altogether extinct."

In spite of all that has been written on the subject the only possible conclusion is that of Professor D. J. Conrad who says:—†

"Die Frage ist bis jetzt als noch ungelöst und in völliges Dunkel gehüllt anzusehen."

226. We have hitherto been considering the proportions of the sexes in the general population. It will be interesting to glance briefly at the corresponding figures in towns. Except in Madras, females are generally much less numerous in urban than in rural tracts, and in Burma, Assam and Bengal the deficiency is very noticeable. It is also more marked in large towns than in small ones, and the only exception to the rule that as the town increases in size the proportion of females falls, is in the case of those with a population of less than 5,000 persons, where it is explained by the fact that such places did not fall within the general census definition of 'town', but were specially treated as such on account of their distinctly urban character. Proportion of females in towns.

Towns in	Number of females per 1,000 males.
Assam	728
Bengal	700
Bombay	854
Burma	713
Central Provinces	966
Madras	1,038
Punjab	812
United Provinces	916

The paucity of females is specially noticeable in the case of Calcutta, where they are only half as numerous as the males. The inhabitants of urban areas are to a great extent merely temporary residents, whose permanent homes are elsewhere, and they frequently leave their female relatives behind when they come to seek a livelihood in towns. This circumstance explains why in certain towns the reported birth-rate is very low when calculated on the crude population. The number of births depends almost entirely on the number of married women of child-bearing age, and where these are relatively few in number, the births are necessarily below the normal. The Bengal Report contains a table showing the extent to which the proportion of married women in each town in that province differs from the Provincial average.

227. Where females are in marked defect a relaxation of the restrictions on marriage inevitably follows. Sometimes it takes the form of expressly permitting Effect of paucity of females on marriage.

* Geddes' and Thompson's "Evolution of Sex."

† Grundriss zum Studium der politischen Oekonomie; Jena, 1900.

males of a higher caste to marry females of a lower one. Thus in the Punjab, Khatriis will marry Arora women and the Aroras in their turn take as their wives women of lower castes. But, more often, it leads to laxity in enquiring into the status and antecedents of the proposed bride, and to a willingness to accept the statements that may be made regarding her by her guardians or vendors. In this way there is in some parts a regular traffic in young females. Girls are often enticed from their homes in the Punjab and sold either in some other part of that province or in Sind. The purchasers of women in the Punjab are mainly Jâts, Aroras and Kirars, but the practice is also known amongst Kambohs and Khatriis. According to Mr. Rose "the women so purchased, are not infrequently married, either by the regular ceremonies or by the *Karewa* rite, and though a wife so married is looked down upon by her regularly betrothed and married neighbours, there is, as a rule, no dispute as to the legality of the relationship. A faint pretence is kept up that the girl is of the purchaser's caste, but he usually allows himself to be very easily deceived, and thus women of the lowest castes or Muhammadans are frequently sold and become the wives of Hindu Jâts and Aroras."

LIST OF SUBSIDIARY TABLES.

SUBSIDIARY TABLE I.—General proportion of the sexes by Provinces, States and Agencies.

SUBSIDIARY TABLE II.—Number of females to 1,000 males at each age period, by religions and main Provinces.

SUBSIDIARY TABLE III.—Number of female, per 100 male, births, by Provinces.

SUBSIDIARY TABLE IV.—Number of female, per 100 male, deaths, by Provinces.

SUBSIDIARY TABLE V.—Number of females per 1,000 males in certain castes.

SUBSIDIARY TABLE I.

General proportion of the sexes by Provinces, States and Agencies.

PROVINCE, STATE OR AGENCY.	NUMBER OF FEMALES TO 1,000 MALES.					
	1901.		1891.		1881.	
	Actual Population.	Natural Population.	Actual Population.	Natural Population.	Actual Population.	Natural Population.
1.	2.	3.	4.	5.	6.	7.
India	963	964	958	959	954	956
Ajmer-Merwara	900	876	881	893	851	773
Assam	949	973	943	966	950	965
Bengal	998	1,003	1,005	1,009	1,008	1,014
Berar	975	988	942	971	936	958
Bombay	945	950	938	946	938	947
Burma	982	1,027	962	1,017	877	980
Central Provinces	1,081	1,035	996	1,008	982	959
Coorg	801	963	804	954	775	939
Madras	1,025	1,017	1,020	1,014	1,020	1,019
N.-W. F. Province and Punjab	852	849	851	848	843	844
United Provinces	937	926	930	917	925	914
Baroda State	936	970	928	929	917	890
Central India Agency	948	954	912	921	897	903
Hyderabad State	964	970	964	971	968	974
Kashmir State	884	887	880	887	...	...
Mysore State	980	994	991	1,000	1,007	1,008
Rajputana Agency	905	901	891	883	852	843

Note.—The proportions for Provinces include the Native States attached to them. In calculating the proportion of females in the natural population, emigrants from India to the Straits Settlements, Ceylon and other places have not been taken into account. The effect of doing so, so far as information is available, would be to reduce the proportion of females per 1,000 males in India as a whole to 963 in 1901, and to 968 in 1891.

SUBSIDIARY TABLE II.

Number of females to 1,000 males at each age period in India as a whole and in certain provinces at the last two Censuses.

All Religions.

Age.	NUMBER OF FEMALES TO 1,000 MALES IN									
	India.		Bengal.		United Provinces of Agra and Oudh.		Madras.		Bombay.	
	1901.	1891.	1901.	1891.	1901.	1891.	1901.	1891.	1901.	1891.
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
0-1	998	1,020	1,018	1,055	967	976	1,041	1,048	974	1,002
1-2	1,035	1,038	1,093	1,079	1,025	1,036	1,051	1,065	1,035	1,064
2-3	1,042	1,063	1,102	1,110	1,014	1,057	1,058	1,063	1,037	1,070
3-4	1,059	1,068	1,114	1,120	1,023	1,058	1,067	1,061	1,034	1,066
4-5	1,010	1,001	1,036	1,039	987	994	1,040	1,029	989	987
Total 0-5	1,028	1,058	1,071	1,081	1,000	1,020	1,051	1,052	1,013	1,033
5-10	955	936	977	951	912	904	1,009	990	957	919
10-15	824	795	812	808	801	750	902	871	810	773
15-20	929	930	1,046	1,031	829	812	944	967	892	894
20-25	1,092	1,071	1,176	1,187	1,001	975	1,248	1,214	1,038	1,032
25-30	980	989	1,009	1,079	948	962	1,120	1,077	913	911
Total 0-30	960	957	1,001	1,002	913	905	1,027	1,021	933	931
30-35	967	962	979	1,021	950	948	1,121	1,093	925	916
35-40	882	867	883	882	838	896	892	874	845	822
40-45	969	940	980	982	977	956	1,034	1,010	961	931
45-50	882	845	888	878	809	874	874	858	880	835
50-55	997	993	1,040	1,049	984	995	1,061	1,100	993	971
55-60	919	908	1,000	1,013	986	917	876	907	802	850
60 and over	1,149	1,137	1,266	1,307	1,165	1,194	1,175	1,217	1,167	1,167
Total	963	958	1,000	1,007	937	930	1,028	1,023	937	930

Age.	NUMBER OF FEMALES TO 1,000 MALES IN							
	Panjab.		Burma.		Central Provinces.		Assam.	
	1901.	1891.	1901.	1891.	1901.	1891.	1901.	1891.
1.	2.	3.	4.	5.	6.	7.	8.	9.
0-1	931	971	1,065	1,063	983	1,014	1,016	1,022
1-2	946	929	1,032	1,034	1,034	1,032	1,039	1,050
2-3	916	951	1,036	1,022	1,023	1,100	1,062	1,065
3-4	954	907	1,018	1,018	1,007	1,087	1,131	1,063
4-5	915	864	1,014	1,016	1,047	1,049	1,030	1,093
Total 0-5	931	926	1,030	1,028	1,036	1,077	1,041	1,046
5-10	859	845	1,001	997	1,007	978	978	978
10-15	750	738	921	926	883	830	811	801
15-20	792	887	1,053	1,076	951	948	1,113	1,074
20-25	918	869	1,006	962	1,151	1,176	1,222	1,155
25-30	889	906	907	882	1,060	1,033	986	990
Total 0-30	854	866	988	981	1,006	1,005	1,008	996
30-35	895	791	840	823	1,016	977	883	909
35-40	837	921	818	810	1,007	943	707	709
40-45	904	789	889	894	1,044	891	885	842
45-50	823	855	875	888	1,039	843	739	705
50-55	854	705	992	1,036	1,129	958	893	850
55-60	749	830	982	1,004	1,159	1,049	804	755
60 and over	834	774	1,131	1,161	1,470	1,239	1,008	1,012
Total	856	854	962	962	1,034	998	949	942

NOTE.—In this Table Native States have been left out of account.

SUBSIDIARY TABLE II—*contd.*

Number of females to 1,000 males at each age period in India as a whole and in certain provinces at the last two Censuses.

Hindu.

Age.	NUMBER OF FEMALES TO 1,000 MALES IN							
	India.		Bengal.		United Provinces of Agra and Oudh.		Madras.	
	1901.	1891.	1901.	1891.	1901.	1891.	1901.	1891.
1.	2.	3.	4.	5.	6.	7.	8.	9.
0-1	999	1,019	1,028	1,050	981	978	1,043	1,049
1-2	1,039	1,047	1,097	1,079	1,029	1,037	1,054	1,069
2-3	1,016	1,071	1,105	1,124	1,014	1,057	1,063	1,068
3-4	1,067	1,079	1,118	1,133	1,021	1,057	1,070	1,064
4-5	1,015	1,006	1,034	1,041	984	990	1,043	1,032
Total 0-5	1,033	1,044	1,073	1,066	999	1,019	1,055	1,055
5-10	958	942	980	959	910	900	1,011	991
10-15	826	795	820	813	798	748	902	870
15-20	906	906	1,006	985	820	803	934	960
20-25	1,086	1,066	1,123	1,127	995	968	1,245	1,214
25-30	981	986	999	1,062	945	954	1,120	1,077
Total 0-30	958	955	991	994	909	901	1,027	1,021
30-35	979	971	991	1,029	946	945	1,122	1,094
35-40	902	879	934	935	887	898	893	875
40-45	983	948	1,004	997	973	951	1,039	1,009
45-50	897	855	931	924	898	873	875	854
50-55	1,014	1,004	1,060	1,062	983	990	1,064	1,104
55-60	932	924	1,052	1,051	938	917	880	909
60 and over	1,207	1,229	1,360	1,382	1,166	1,208	1,182	1,222
Total	969	962	1,007	1,013	935	927	1,029	1,024

Age.	NUMBER OF FEMALES TO 1,000 MALES IN							
	Bombay.		Punjab.		Central Provinces.		Assam.	
	1901.	1891.	1901.	1891.	1901.	1891.	1901.	1891.
1.	2.	3.	4.	5.	6.	7.	8.	9.
0-1	1,003	1,012	927	979	979	1,015	1,005	1,021
1-2	1,049	1,069	932	921	1,031	1,078	1,032	1,056
2-3	1,044	1,078	892	957	1,021	1,096	1,060	1,058
3-4	1,076	1,035	951	902	1,086	1,180	1,063	1,069
4-5	1,025	1,003	905	851	1,044	1,042	1,032	1,033
Total 0-5	1,040	1,046	921	925	1,033	1,073	1,037	1,046
5-10	970	938	865	849	1,005	975	977	981
10-15	828	794	747	725	878	827	799	775
15-20	920	923	784	854	942	937	1,040	993
20-25	1,086	1,066	859	848	1,149	1,174	1,171	1,086
25-30	939	928	847	889	1,058	1,076	968	968
Total 0-30	957	951	837	854	1,002	1,000	989	972
30-35	952	940	868	766	1,017	974	860	899
35-40	872	851	823	902	1,007	945	685	714
40-45	1,001	952	881	758	1,047	897	801	825
45-50	899	855	793	853	1,037	845	735	705
50-55	1,029	1,000	857	679	1,117	963	894	843
55-60	871	876	712	870	1,142	1,044	804	757
60 and over	1,227	1,225	879	797	1,457	1,298	1,046	1,026
Total	955	952	841	843	1,031	996	929	923

SUBSIDIARY TABLE II—*contd.*

Number of females to 1,000 males at each age period in India as a whole and in certain provinces at the last two Censuses.

Musalman.

AGE.	NUMBER OF FEMALES TO 1,000 MALES IN							
	India.		Bengal.		United Provinces of Agra and Oudh.		Madras.	
	1901.	1891.	1901.	1891.	1901.	1891.	1901.	1891.
1.	2.	3.	4.	5.	6.	7.	8.	9.
0-1	987	1,020	1,010	1,005	993	997	1,013	1,036
1-2	1,027	1,022	1,085	1,082	1,003	1,028	1,009	1,080
2-3	1,086	1,045	1,097	1,090	1,011	1,059	1,004	1,012
3-4	1,046	1,040	1,106	1,099	1,031	1,070	1,024	1,011
4-5	991	989	1,037	1,034	998	1,026	996	995
Total 0-5	1,016	1,022	1,057	1,073	1,007	1,034	1,007	1,016
5-10	938	912	970	937	928	924	987	974
10-15	794	768	791	777	818	787	802	870
15-20	970	988	1,126	1,119	886	868	1,014	1,024
20-25	1,115	1,099	1,282	1,313	1,037	1,049	1,270	1,232
25-30	974	996	1,023	1,089	994	1,014	1,155	1,104
Total 0-30	956	955	1,015	1,016	941	939	1,028	1,020
30-35	928	932	950	999	977	977	1,129	1,103
35-40	809	817	781	770	945	893	877	861
40-45	926	922	981	951	1,007	988	1,092	1,008
45-50	813	808	788	772	906	891	877	867
50-55	939	957	1,007	1,029	987	1,000	1,108	1,117
55-60	848	844	872	913	922	927	826	826
60 and over	991	1,053	1,104	1,167	1,068	1,124	1,151	1,207
Total	937	940	984	993	937	955	1,031	1,025

AGE.	NUMBER OF FEMALES TO 1,000 MALES IN							
	Bombay.		Punjab.		Central Provinces.		Assam.	
	1901.	1891.	1901.	1891.	1901.	1891.	1901.	1891.
1.	2.	3.	4.	5.	6.	7.	8.	9.
0-1	899	957	954	982	963	1,001	1,023	1,013
1-2	970	1,042	979	959	916	1,022	1,043	1,038
2-3	1,010	1,034	947	968	987	1,040	1,047	1,081
3-4	918	996	975	926	986	1,077	1,073	1,074
4-5	581	929	935	889	1,055	1,070	1,019	1,025
Total 0-5	929	981	956	946	984	1,044	1,040	1,048
5-10	906	845	870	854	973	1,001	987	987
10-15	731	690	704	754	867	793	763	777
15-20	801	795	831	923	896	854	1,184	1,155
20-25	893	974	973	903	1,013	1,004	1,250	1,225
25-30	862	890	937	925	940	953	935	971
Total 0-30	858	970	883	888	945	947	1,001	1,004
30-35	857	838	916	809	903	912	847	873
35-40	767	721	848	938	843	792	645	633
40-45	844	879	919	821	1,021	933	816	827
45-50	829	773	843	872	942	710	675	634
50-55	880	881	858	745	1,129	992	903	879
55-60	848	743	798	815	1,014	809	680	690
60 and over	994	996	825	775	1,261	1,273	895	1,000
Total	857	863	877	874	982	944	936	943

SUBSIDIARY TABLE II—*contd.*

Number of females to 1,000 males at each age period in India as a whole and in certain provinces at the last two Censuses.

Christian.

Age.	NUMBER OF FEMALES TO 1,000 MALES IN							
	India.		Bengal.		United Provinces of Agra and Oudh.		Madras.	
	1901.	1891.	1901.	1891.	1901.	1891.	1901.	1891.
1.	2.	3.	4.	5.	6.	7.	8.	9.
0-1	1,056	1,059	1,021	1,039	1,069	1,036	1,036	1,038
1-3	1,059	1,076	1,065	995	925	1,149	1,059	1,050
2-3	1,051	1,048	1,056	994	1,077	998	1,018	1,039
3-4	1,081	1,051	1,098	1,053	1,025	984	1,050	1,034
4-5	1,027	1,035	1,031	1,083	1,099	1,009	1,027	1,009
Total 0-5	1,650	1,651	1,655	1,031	1,045	1,013	1,036	1,033
5-10	999	992	1,015	972	892	906	1,012	1,004
10-15	907	905	865	808	786	868	937	918
15-20	979	969	997	922	877	808	1,017	1,035
20-25	940	799	995	936	428	240	1,262	1,199
25-30	831	816	843	912	400	298	1,139	1,098
Total 0-30	958	929	965	947	677	528	1,043	1,035
30-35	918	901	889	899	741	579	1,124	1,092
35-40	817	799	841	822	850	661	934	894
40-45	900	869	838	852	882	793	1,081	1,006
45-50	823	788	885	768	717	690	892	859
50-55	922	929	868	908	819	714	1,030	1,061
55-60	849	881	910	949	929	797	845	939
60 and over	1,013	1,045	1,115	1,182	915	746	1,066	1,125
Total	935	913	946	930	721	567	1,033	1,026

Age.	NUMBER OF FEMALES TO 1,000 MALES IN									
	Bombay.		Panjab.		Birma.		Central Provinces.		Assam.	
	1901.	1891.	1901.	1891.	1901.	1891.	1901.	1891.	1901.	1891.
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
0-1	985	1,053	946	897	1,057	1,009	909	808	1,000	1,117
1-3	1,066	1,046	854	975	1,076	1,061	922	1,041	1,067	970
2-3	1,039	1,027	999	928	1,036	978	936	1,073	1,017	1,145
3-4	1,081	1,061	991	975	961	1,013	1,172	994	1,184	918
4-5	991	1,037	967	998	1,045	1,016	962	932	1,037	1,157
Total 0-5	1,030	1,045	955	950	1,032	1,012	980	960	1,056	1,061
5-10	986	978	904	890	985	942	1,098	1,044	931	1,019
10-15	896	800	794	854	898	864	913	880	877	918
15-20	788	686	814	608	1,021	1,058	933	1,004	1,240	1,181
20-25	570	416	243	131	888	759	586	317	1,142	950
25-30	517	437	223	240	772	674	470	381	933	652
Total 0-30	774	677	498	388	934	878	813	647	1,011	991
30-35	673	613	560	479	753	652	793	611	845	655
35-40	636	591	708	608	674	637	658	577	679	644
40-45	740	584	667	551	765	744	828	732	842	787
45-50	661	548	688	571	727	753	749	601	699	580
50-55	742	628	693	505	861	904	895	761	881	683
55-60	685	704	828	708	896	752	916	742	688	753
60 and over	845	920	787	778	870	867	977	942	1,143	1,110
Total	748	660	538	420	878	830	803	654	948	890

SUBSIDIARY TABLE II—*concl'd.*

Number of females to 1,000 males at each age period in India as a whole and in certain provinces at the last two Censuses.

Animist.

Age.	NUMBER OF FEMALES TO 1,000 MALES IN							
	India.		Bengal.		Madras.		Bombay.	
	1901.	1891.	1901.	1891.	1901.	1891.	1901.	1891.
1.	2.	3.	4.	5.	6.	7.	8.	9.
0-1	1,035	1,044	1,031	1,056	1,064	1,059	997	1,020
1-2	1,061	1,076	1,065	1,067	1,062	988	1,048	1,093
2-3	1,033	1,107	1,114	1,110	1,088	1,060	1,057	1,120
3-4	1,115	1,120	1,150	1,129	1,098	1,121	1,120	1,067
4-5	1,060	1,058	1,056	1,062	1,084	1,042	1,311	1,024
Total 0-5	1,074	1,083	1,092	1,089	1,082	1,042	1,138	1,053
5-10	984	947	993	953	959	926	1,034	927
10-15	884	836	856	879	857	852	851	958
15-20	1,048	1,017	1,075	1,074	1,089	992	1,110	938
20-25	1,209	1,205	1,277	1,245	1,284	1,153	1,292	1,138
25-30	1,050	1,082	1,077	1,121	1,005	903	1,016	997
Total 0-30	1,025	1,008	1,039	1,028	1,023	968	1,046	965
30-35	999	996	1,056	1,102	1,082	1,002	1,080	906
35-40	939	909	1,013	994	847	826	860	830
40-45	930	880	997	980	727	778	897	865
45-50	957	858	1,019	937	796	711	905	823
50-55	894	916	989	965	794	780	1,299	927
55-60	1,089	1,025	1,062	1,122	883	863	931	777
60 and over	1,233	1,157	1,233	1,190	1,002	892	1,335	980
Total	1,016	991	1,041	1,031	969	927	1,031	839

Age.	NUMBER OF FEMALES TO 1,000 MALES IN					
	Burma.		Central Provinces.		Assam.	
	1901.	1891.	1901.	1891.	1901.	1891.
1.	2.	3.	4.	5.	6.	7.
0-1	1,089	976	1,023	1,016	1,038	1,032
1-2	1,009	1,023	1,091	1,093	1,051	1,051
2-3	1,009	1,000	1,040	1,130	1,087	1,057
3-4	958	918	1,114	1,144	1,042	1,040
4-5	1,017	968	1,065	1,086	1,040	1,044
Total 0-5	1,014	971	1,067	1,161	1,053	1,045
5-10	951	945	1,024	989	969	952
10-15	882	848	917	859	948	935
15-20	945	1,009	1,027	1,038	1,264	1,241
20-25	936	1,018	1,221	1,268	1,397	1,324
25-30	899	875	1,124	1,173	1,173	1,134
Total 0-30	942	941	1,047	1,047	1,087	1,044
30-35	815	678	1,042	1,015	1,036	1,018
35-40	741	658	1,063	993	887	806
40-45	801	743	1,032	854	946	828
45-50	746	696	1,099	870	848	807
50-55	885	808	1,168	927	915	843
55-60	859	758	1,345	1,167	958	821
60 and over	1,027	830	1,861	1,270	1,057	990
Total	899	858	1,074	1,028	1,041	1,008

SUBSIDIARY TABLE III.

Number of female, per 100 male, births.

PROVINCE.	NUMBER OF FEMALES BORN TO 100 MALES IN -										
	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1900.	Total 1901-1900.
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
Assam	92	93	92	93	93	93	92	93	94	94	93
Bombay	93	93	92	93	93	93	92	92	93	92	93
Bengal	91	92	93	94	94	94	94	94	94	95	94
<i>Bengal Proper</i>	90	92	93	94	94	94	93	94	94	94	94
<i>Bihar</i>	90	91	93	94	94	94	94	94	95	95	94
<i>Orissa</i>	96	91	93	94	94	94	95	94	95	96	94
<i>Chota Nagpur</i>	93	94	95	95	95	95	95	94	97	96	95
United Provinces	91	91	91	91	92	92	92	93	93	93	92
Madras	96	96	96	96	96	95	96	96	96	96	96
Central Provinces	94	93	94	94	95	93	93	94	95	95	94
Punjab	88	88	89	89	90	91	90	91	91	90	90
Burma	94	93	93	94	93	94	93	92	92	93	93
India	92	92	93	93	93	93	93	93	94	94	93

SUBSIDIARY TABLE IV.

Number of female, per 100 male, deaths.

PROVINCE.	NUMBER OF FEMALE DEATHS PER 100 MALES IN										
	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1900.	Total 1901-1900.
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
Assam	89	90	86	88	88	88	91	86	85	89	88
Bombay	92	93	92	92	92	91	90	90	89	87	90
Bengal	89	88	89	88	87	85	84	85	88	88	87
<i>Bengal Proper</i>	90	88	89	89	88	86	85	86	89	87	88
<i>Bihar</i>	87	87	86	87	83	84	82	83	87	90	86
<i>Orissa</i>	94	95	94	96	93	89	91	92	93	94	93
<i>Chota Nagpur</i>	88	90	89	91	89	87	83	87	87	85	87
United Provinces	87	87	88	89	88	85	86	91	91	90	88
Madras	95	95	95	95	95	95	94	94	97	95	95
Central Provinces	87	86	85	87	86	84	80	88	84	83	84
Punjab	87	91	88	91	89	91	95	98	93	95	91
Burma	81	79	81	82	83	83	79	77	78	78	80
India	89	89	89	90	88	87	87	89	90	89	89

SUBSIDIARY TABLE V.

Number of females per 1,000 males in certain selected castes in the main Provinces.

Caste.	Number of females to 1,000 males.	Caste.	Number of females to 1,000 males.	Caste.	Number of females to 1,000 males.	Caste.	Number of females to 1,000 males.
UNION OF INDIA.		UNITED PROVINCES.		MADRAS.		BOMBAY.	
Provincial average.	998	Provincial average.	937	Provincial average.	1,025	Provincial average.	945
Goals	979	Ahir	937	Baliya	1,007	Agri	950
	999	Bania	924 ✓	Brahman	1,022 ✓	Baluobi	828
	1,024	Brahman	928 ✓	Chakkiliyan	1,014	Bhil	980
	987 ✓	Chamar	936	Golla	1,000	Brahman	916 ✓
	1,024	Dhobi	945	Idaiyan	1,042	Chambhar or Moobi	959
	1,016	Gadaria	897	Kamma	994	Dhangar	974
	1,089	Jat	852	Kammalan	1,022	Lingayat	985
and Napit	1,005	Jolaha	982	Kapu	1,009	Koli	950
	1,074	Kachhi	897	Madiga	987	Kumbhar	990
ta (Chasi)	1,008	Kahar	952	Mala	1,024	Kunbi	990
ba	1,003 ✓	Kori	910	Mappilla	997	Mahar, Holis or Dhed	1,006
ait	1,042	Kumbar	931	Native Christian	1,049	Mali	998
	1,027	Kurmi	970	Odde	994	Mang or Mading	1,010
	1,013	Lodha	899	Pallan	1,077	Maratha	983
Sudra	989	Murao	938	Palli	1,034	Rajput	919
ansi (Koch)	936	Nai	926	Paraiyan	1,066	Sama	831
	971	Passi	973	Shan	1,022	Shekh	949
	1,008	Pathan	956	Shekh	1,023	Soni	953
el and Tetwa	1,000	Rajput	987 ✓	Tayan	1,025	Sunar	956
li	1,017	Shekh	962	Vellala	1,030	Vani	903
PUNJAB AND NORTH-WEST FRONTIER PROVINCE.		CENTRAL PROVINCES.		BURMA.		ASSAM.	
Provincial average.	852	Provincial average.	1,031	Provincial average.	962	Provincial average.	949
Ardu	877	Ahir	1,106	Akha	913	Ahom	961
Arora	842	Brahman	925 ✓	Arakanese	1,004	Brahman	812
Awán	873	Chamar	1,048	Burmese	1,039	Chutiya	957
Biloch	849	Dhimar	1,052	Chin	1,014	Das *	907
Brahman	838 ✓	Ganda	1,040	Chinese	324	Garo	98
Bhamar	870	Gond	1,073	Danu	1,009	Jugi	98
Bhúhra	860	Kalar	1,034	Hkún	1,032	Kachari	95
Fakir	736	Kandh	1,036	Iutha	1,058	Kaibartta	94
Gújar	839	Kewat	1,084	Kachin	1,032	Kalita	91
Jat	804	Kohti	991	Kada	1,094	Kayastha	863
Jhúwar	859	Kunbi	1,013	Kami	886	Khasi	1,17
Juláha	865	Kurmi	1,035	Karen	977	Khatri	1,0
Kaet	924	Lodhi	1,028	Palaung	976	Kotch	9
Khatri	797 ✓	Lohar	1,031	Shan	1,037	Meoh	1,0
Kumhar	879	Mali	994	Siamese	856	Mikie	
Mochi	883	Mehra	1,038	Talaing	961	Nadiyal	
Nái	862	Nai	1,024	Taungthu	1,048	Naga	1,
Pathán	875	Rajput	1,034 ✓			Namasudra	
	861 ✓	Savara	1,063			Rajbansi	
			1,044			Shekh	

CHAPTER IV.

Infirmities.

General Remarks.

228. The infirmities regarding which information was collected at the census were the same as on previous occasions, *viz.*, unsoundness of mind, deaf-mutism, blindness, and leprosy.* The instructions issued to the enumerators were practically identical with those of previous censuses, and were as follows :—

If any person be blind of both eyes, or deaf and dumb from birth, or insane, or suffering from corrosive leprosy, enter the name of the infirmity in this column. Do not enter those who are blind of one eye only, or who have become deaf and dumb after birth, or who are suffering from white leprosy only.

229. In considering the statistics thus collected, it must be borne in mind that they were recorded, not by experts, but by the villagers who served as enumerators, whose education was, as a rule, of a very low order, and that in the case of each infirmity there is a considerable risk of error in the diagnosis. As regards unsoundness of mind, the main difficulty is in regard to cretins and persons who are merely weak-headed, or whose mental derangement is of a purely temporary character. The tendency at each succeeding census is to be more and more rigid in excluding such persons from the category of the insane, but this tendency is not universal, and in Mysore, at the present census, no less than 12 per cent. of the persons returned as insane were also shown as working at some occupation and earning their own livelihood. Unless special care is taken to prevent it the figures for congenital deaf-mutism are in danger of being vitiated by the inclusion of persons who are merely deaf on account of old age, or who have acquired their infirmity by illness or accident after birth. In the return of the blind, there is the possibility of persons being thus returned merely because their vision has grown dim on account of old age, or because they have lost the sight of one eye only. In the case of leprosy there is a danger of the entry as lepers of persons who are suffering from some syphilitic taint or from leucoderma, *i.e.*, what is commonly called white leprosy, an affection which, though sufficiently striking on the dark skin of a native of India, does not, of course, partake in any way of the nature of true leprosy. The Leprosy Commission found that of the persons produced before them as lepers by Police Inspectors and other non-medical men, about ten per cent. were suffering from diseases other than true leprosy. The error must be still greater when the diagnosis is made by the simple villagers from whose ranks most of our enumerators were drawn. It is thus apparent that in the case of all infirmities there is a tendency to make entries which are not contemplated by the instructions, and these can only be eliminated by careful instruction and supervision. The accuracy of the return, therefore, depends in a great measure on the extent to which the work of the enumerators is checked by the higher classes of census officers.

Apart from errors of diagnosis or compilation there may be omissions due to wilful concealment. In this country, however, the existence of blindness, insanity or deaf-dumbness inspires pity rather than contempt, and there would, as a rule, be no desire to conceal these infirmities except perhaps in the case of young women or of children whose defects the parents themselves are unwilling to recognise so long as there is any possibility of their proving to be only temporary. Moreover, the census returns are for the most part prepared, not by the head of the family, but by enumerators who are ordinarily residents of the villages in which they are employed. Females of child-bearing age are kept in comparative seclusion, but the other villagers mix freely together, and the enumerator would generally be personally cognizant of the existence of infirmities even if the persons concerned were not disposed to mention them. It is only in the case of leprosy that any shame is held to attach to the sufferer, and concealment may, perhaps, have been attempted on a larger scale, especially in the case of females and persons belonging to the more respectable castes. The latter, however, suffer less frequently from the disease than their low-caste neighbours. In any case they form but a small proportion of the total population.

* In Travancore statistics were also collected regarding elephant

230. The total number of persons suffering from each infirmity, as recorded

Infirmity.	Total afflicted.		
	1901.	1891.	1891.
Insane	66,205	74,279	81,182
Deaf-mute	153,168	196,861	197,215
Blind	854,104	458,868	526,748
Lepor	97,340	126,244	131,968
Total	670,817	856,252	987,068

at each of the last three enumerations, is noted in the margin. The most striking feature of the figures is the progressive diminution in the number of the afflicted, which is common to all parts of India. The decline in 1891 was attributed at the time by general consent to a more accurate enumeration, *i.e.*, to the exclusion from the returns of persons whose infirmities, whatever

they might be, did not fall within the scope of the definition laid down in the instructions to the enumerators. On the present occasion also there can be little doubt that the result is due, in part, to the same cause. Thanks to the experience gained in the past, the arrangements for the training of the enumerators were more elaborate in 1901 than they had ever been before and the scrutiny of the schedules was far more thorough. It is thus only natural that the elimination of erroneous entries should have been more complete than it was even ten years earlier. At the same time, the difference due to greater accuracy cannot have affected the comparative result at the present census to the same extent as on the previous occasion, and the decrease due to this cause must, it would seem, be less than it was then. The actual decrement, however, is more than 185,000 or 21 per cent. compared with 81,000 or 8.6 per cent. in 1891. It would seem therefore that at least 13 per cent. of the registered decline represents a genuine diminution in the number of afflicted persons.

The reasons for this will be discussed in detail for each infirmity separately, but it will be convenient to summarise here such of the main causes as appear to be of general application. It seems obvious that the long period of peace and growing material prosperity which the country has enjoyed under British rule, coupled with the spread of education, the greater attention paid to sanitation and, above all, the larger amount of medical relief afforded at the public hospitals and dispensaries, the number of which is constantly growing, must have combined to bring about an improvement in the general health of the people and to reduce the number of the afflicted.

231. There is, however, another and less pleasing reason for the unusually great reduction recorded on the present occasion. The majority of the persons suffering from the infirmities dealt with at the census belong to the lowest grades of society, and many of them subsist by begging. When the stress of famine comes, the springs of private benevolence dry up. Every effort is made by Government to supply food to all who, like most of those whose infirmities are recorded at the census, are incapable of earning their living, but these are of all people the most difficult to find and relieve. Even in ordinary years the alms they receive are often barely sufficient to keep body and soul together, and they are at the best of times of inferior physique, so that they are less fitted than their neighbours to resist the strain which famine throws upon them. It is to be feared, therefore, that the mortality amongst these unfortunate people has, in many parts, been exceptionally high during the last ten years, but it is impossible to gauge, with any pretence to accuracy, the extent to which this has influenced the figures. The Superintendent of the Bombay Census, who records a phenomenal all-round decrease, attributes it mainly to the effects of the famine, but the Central Provinces, though famine wrought greater havoc there, shows a far less noticeable diminution in the proportion of afflicted persons. Moreover, the general decline in the Bombay Presidency was shared by Sind which did not suffer from famine.

232. It may be asked how far the result is due to the change in the system of abstracting and compiling the results of the census described in the Introduction. The answer is that, generally speaking, there is no reason for supposing that this has affected the figures to any appreciable extent. In two of the largest provinces, both of which contribute to the general falling off, the tabulation was carried out on the old system, but with greater care than in several others, where the decline was very marked, the work was

checked without any material change in the figures. But in the Rajputana Agency and the Hyderabad State the results now obtained differ so greatly from those of the last enumeration and also from the corresponding figures for adjoining tracts at the present census that it would be unsafe at present to draw any inferences from them; for these tracts the figures for 1911 must be awaited.

233. Of the total number of persons afflicted about half are blind and a quarter are deaf-mutes, one in seven is a leper and one in ten a lunatic. The proportions vary in different parts; in the Punjab three-quarters of the total are blind, while in Assam the lepers, and in Burma the insane, account for a considerably larger proportion than they do elsewhere.

The statistics collected regarding infirmities are embodied in Imperial Tables XII and XIII. At the end of this chapter subsidiary tables will be found showing—

- (I) the proportion borne by the persons suffering from each infirmity to the total afflicted, and the number of females to 100 males in each province and state;
- (II) the number of persons afflicted in each province and state per 100,000 of the population at each of the last three censuses;
- (III) the number of persons afflicted per 100,000 of the population at each age-period, and the number of females afflicted to 1,000 males;
- (IV) the census statistics of the insane compared with those of the lunatic asylums in certain provinces;
- (V) the distribution of 10,000 persons of each infirmity by age;
- (VI) the distribution of the insane by main age-periods in each province and state;
- (VII) the actual variation in the number of the blind at each age-period in some of the main provinces;
- (VIII) the proportion of the deaf-mute population returned at the higher ages in each province and state.

Insanity.

234. The discussion of the return of the insane is complicated by the difficulty of gauging the extent to which cretins, i.e., the congenitally weak-minded, have been included. The vernacular terms used in the instructions to the enumerators had not always the same signification; in some provinces they may have been wide enough to include all cases of mental affliction, corresponding fairly well to the English phrase "of unsound mind," but ordinarily, in their strict sense, they referred more especially to the insane, and although they might be used loosely to include imbeciles also, the tendency would be to exclude the latter from the account; and as the checking of the schedules becomes more and more comprehensive, cretins enter into the total to a constantly diminishing extent. Deaf-muteness and cretinism are closely associated, but the number of persons returned as 'insane' who were also entered as deaf-mute was very small. In several provinces where statistics for combined infirmities were compiled, the proportion of the 'insane' who were returned as deaf-mute ranged from 1.5 to 2.9 per cent., which is far less than it would have been if cretins had been included to any great extent.* The same conclusion is indicated by the age distribution of the insane as shown in the diagram in the margin of paragraph 241. Cretinism is from birth, but the proportion of persons returned as insane at the lower ages is relatively small. The general conclusion is therefore that in the figures for India as a whole cretinism does not enter very largely into the return. In some provinces and states it does so to a greater extent than in others, but this point will be reverted to when discussing the distribution of the persons thus afflicted according to locality.

235. In comparison with European countries mental disease would appear to be comparatively rare in India. In England there are about 13 persons of unsound

* It is possible that where a person was of unsound mind and also deaf-mute, in the absence of special instructions, the enumerators often contented themselves with entering him under only one of the two heads. It is also possible that sufficient care may not always have been taken in the course of tabulation to provide for a complete record of dual infirmities. These matters are deserving of consideration when the time comes for making arrangements for the Census of 1911. It would then also be desirable to enquire whether imbeciles could not be distinguished from the insane properly so called. The attempt was made without success in 1872, but at that time census taking in India was in its infancy. In some places, at least, there are special names for cretin, such as *wamda* or *idhpagal* in Bengal and *boh* in the United Provinces. In any case the precise local meaning of the words used to designate mental unsoundness should be carefully enquired into.

mind to one in India. That is due partly to the fact that in Europe many persons who suffer from imbecility or from other harmless manifestations of mental disease, or whose attacks are periodical, are included, whereas in India we have seen that they are not usually taken into consideration; but the main reason is doubtless to be found in the very different conditions of life in the East. In Europe the competition between man and man is severe, and is yearly becoming more so. The mental wear and tear is very great, and the strain on the nervous system deranges many feeble intellects which in the calm and placid East would escape the storms to which they succumb.

Comparison with 1891.

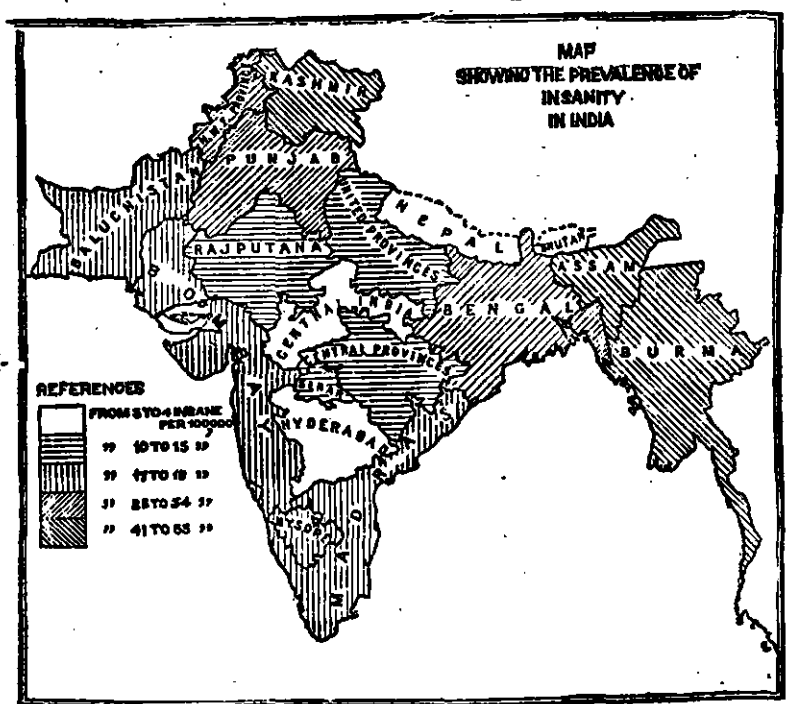
236. The total number of the insane is less by nearly 11 per cent. than it was in 1891, when a decrease of more than 8 per cent. was registered as compared with 1881. The age distribution shows that whereas in 1891 a considerable part of the decrease was due to a diminution at the earlier ages, *i.e.*, to the omission of cretins, on the present occasion this accounts for only a small part of the difference, and the general age distribution is much the same now as it was ten years ago. In these circumstances the greater accuracy of the more recent enumeration, so far as it is due to the omission of cretins, does not carry us very far towards accounting for the falling off. It is possible, however, that cases of temporary aberration may have been more sparingly entered than was the case at the previous census, and in Sind Mr. Enthoven is disposed to account for the high reported ratio of insanity in 1891 on the supposition that the delirium due to malarial fever, then very prevalent, was not unfrequently mistaken by the enumerators for insanity.

The decline now noticed is common to practically the whole of India; the only noteworthy exceptions are (a) the United Provinces, where the figure in 1891 was extraordinarily low, and where, even now, the proportion of the afflicted is only half what it is in Bengal, and (b) the Punjab, which now shows a considerably higher prevalence of insanity than Bengal. No reason seems to be forthcoming for the increase in the Punjab, but it does not appear to be due in any way to confusion with deaf-mutism, and the variations are not marked by corresponding changes in the figures for that infirmity. The greatest decline is in Bombay, where the proportion of the insane in 1891 was greater by 50 per cent. than that at the present enumeration. To some extent this result may be due to better diagnosis, but the main reason seems to be that the insane suffered far more than the general population in the years of scarcity of food. Mr. Enthoven holds that this explanation is confirmed by the fact that the decrease is even greater in the native states than it is in British territory. In Bengal, the Central Provinces and Berar, the decline is also ascribed in part to the privations of famine; in Madras, it is suggested that it is due partly to the treatment of

pre-disposing diseases in hospitals and to the cure of lunatics in Asylums, and in Assam the general unhealthiness of the decade is said to have caused an unusually heavy rate of mortality amongst persons mentally afflicted.

237. The amount of insanity varies greatly in different parts of India. According to the returns it is most prevalent in Burma; then follow in order (omitting the smaller units) Kashmir, Assam, the Punjab, Bengal, the North-West Frontier Province, Bombay

Local Distribution.



Note.—For the purpose of this map Native States in political relation with local Governments have been amalgamated with them. Baroda has been treated as part of Bombay, as its territory is mixed with it.

Madras, the United Provinces and the Central Provinces. The people of Bengal, as a whole, suffer less than half as much from this affliction as do those of Burma, but they are twice as liable to it as are the inhabitants of the United Provinces. In Bengal, however, we are dealing with a quarter of the total population of India, and the incidence of the infirmity varies in different parts of the Province. Amongst the ten million inhabitants of North Bengal, *i.e.*, the portion of Bengal Proper which lies to the north of the Padma river, insanity is very nearly as prevalent as it is in Burma, while the twenty-two millions in Bihar are more free from it than their neighbours in the United Provinces, and the incidence in Orissa is very similar to that reported from the Madras Presidency.

In other provinces also there are marked local variations. In Burma the affliction is most common in the Chin Hills; and in Assam, in the Lushai Hills which adjoin this tract, and in the west of the Brahmaputra valley, which borders on the area of greatest prevalence in Bengal. In the United Provinces the western Sub-Himalayan districts suffer most; in Bombay, Sind, and in the Punjab, the south-western districts bordering on Sind. To some extent these variations may be due to the greater or less extent to which cretinism figures in the return. The Burma Superintendent suggests that its inclusion accounts for the very high proportion in the Chin Hills. But if this were so, as cretinism is a congenital defect, and cretins are relatively short-lived, we should expect to find an exceptionally large proportion of the insane population returned at the lower ages, whereas the proportion of the insane under ten years of age in Burma is much smaller, and that over 60 years is much higher, than in India taken as a whole. In Kashmir, on the other hand, 18 per cent. of the persons returned as insane are under 10 years of age, compared with an average of 7 per cent. in the whole of India, and its high position on the list is thus clearly due to the more general inclusion of cretinism. In Bombay, the Central Provinces, the Punjab and the North-West Frontier Province the proportion under 10 is above the general mean, and in Bengal, Madras, the United Provinces, and Assam it is below it, but the age distribution of the insane given in subsidiary table V indicates that, as a rule, the variations in the returns for different provinces are not due, to any appreciable extent, to difference of practice in respect of cretins, and some other explanation must therefore be sought for.

238. The conditions which may conceivably cause or predispose to insanity must fall under one or other of three heads, *viz.*, locality (including climate), social practices, physical ailments and race. The close connection between cretinism, goitre and deaf-dumbness has already been adverted to, and it will be seen, when examining the statistics relating to the last mentioned affliction, that its prevalence is markedly influenced by the water-supply, and that it is most common along the course of certain rivers, and more especially of some which have their source in the Himalayas.

It will be observed from the figures in the margin that, with the notable exception of Burma, the relative incidence of insanity and deaf-mutism follows very closely the same general direction. This would seem to support the view that the figures for mental unsoundness have been greatly affected by the inclusion of cretins, but reasons have already been adduced for concluding that such is not the case. Moreover, an examination of the distribution within certain provinces shows that although their position, as a whole, is much the same in both cases, there are great local variations. In Bengal insanity is most prevalent in

Province.	ORDER IN RESPECT OF	
	Insanity.	Deaf-mutism.
Burma	1	3
Assam	2	2
Punjab	3	1
Bengal	4	3
Madras	5	4
Bombay	6	6
United Provinces	7	7
Central Provinces	8	5

certain districts in North Bengal, while deaf-mutism is most rife in the north-west of Bihar, where comparatively few persons have been returned as insane. Similarly in the United Provinces the greatest amount of insanity is found in the "Sub-Himalaya, West," and the "Indo-Gangetic Plain, East," where the occurrence of deaf-dumbness is below the provincial mean, and the latter infirmity is exceptionally frequent in the "Himalaya, West," where there is less than the average proportion of insane persons. In Madras the Natural Divisions all show the same proportion of 'insane,' but there are marked irregularities

Causes of
insanity —
(1) Locality.

in the distribution of the deaf-mute. The conclusion seems, therefore, to be, either that the general correspondence noticed is accidental, or else that the fluvial or telluric conditions, which in some parts conduce to deaf-dumbness and cretinism, may in other parts, where they are found in a somewhat modified form, have a tendency to promote insanity.

It is, however, very difficult to trace any connection between insanity and local conditions. The areas of greatest prevalence include damp countries like Burma and dry ones like the Punjab; it is excessive in the hilly country occupied by the Chins, but not in the Vindhya and Satpura ranges; in the terai of North Bengal and West Assam, but not in that of Bihar and East Assam; in the delta of the Ganges and the Brahmaputra, but not in those of the Mahanadi, Kistna and Godavari.

(2) Social practices.

239. The principal social practices which have at different times been accused of tending to insanity include (1) the consumption of ganja or spirits and sexual excesses, (2) consanguineous marriages, (3) enforced widowhood among Hindus, and the *Zenana* system of the Muhammadans. The finding of the majority of the Hemp Drugs Commission was that the moderate use of ganja does no appreciable harm to the brain, although, when taken in excess, which is very rarely the case, it may induce insanity, especially when there is any weakness or hereditary predisposition. The opposite view, however, is still widely held, and the enquiries made regarding the causes of insanity in cases sent to asylums in Bengal in 1901 resulted in the conclusion that in three-quarters of the total number the causes were physical, and that of these the habitual use of ganja was the chief. In Madras, on the other hand, the finding of the Commission has led to much greater caution, and the number of cases declared to be due to this drug fell from 27 in 1895 to 4 in 1900. However this may be, there appears to be no general correspondence between the consumption of ganja and the prevalence of insanity. The Bengal Superintendent writes:—

Excluding Calcutta the consumption is greatest in Purnea and Shahabad, where insanity is rare. Then come the 24-Parganas, Jalpaiguri, Mymensingh, Patna, and Monghyr. Jalpaiguri is one of the districts where the disease is most common, but it is less so than in Rangpur, where the average consumption of the drug is barely half of that in the districts mentioned above. It may, however, be mentioned that concurrently with a decrease in the prevalence of insanity, the consumption of ganja has fallen off in this province.

Mr. Francis in Madras and Mr. Allen in Assam are also unable to trace any connection between the consumption of drugs or spirits and insanity. So far as the use of alcohol is concerned, it may be noted that it is the lowest classes of the population who are chiefly addicted to it, and it is precisely amongst these classes that the proportion of mental aberration is lowest.

The theory that consanguineous marriages have a tendency to produce mental unsoundness receives little support from the census figures. There seems to be no special tendency to such marriages in the tracts where insanity is most rife, and although Muhammadans, who as a class are more prone than the Hindus to marriages with near relations, seem to suffer from it in some parts more than do the Hindus, this is not universally the case. There are, moreover, other circumstances, such as the consumption of ganja in its most deleterious form, *i.e.*, by smoking, which may possibly account for the greater prevalence among Muhammadans, where it exists. In the case of Hindus it is found mainly amongst the higher castes whose rules proscribe most rigidly the marriage of blood relations. In Madras, the Central Provinces and Bombay the Brahmins suffer most of all, and next to them other castes of good social status.

The allegation that enforced widowhood and the *Zenana* system, however much suffering or weariness they may entail, are prejudicial to the mental equilibrium seems wholly opposed to the facts, and it is precisely during the period when these conditions are in operation, *i.e.*, between the ages of 10 and 50, that the deficiency of females amongst the insane population is most marked. At the same time it must be remembered that this is the time of life when women are kept in seclusion, and when the defects from which they may suffer are most likely to be concealed.

(3) Race.

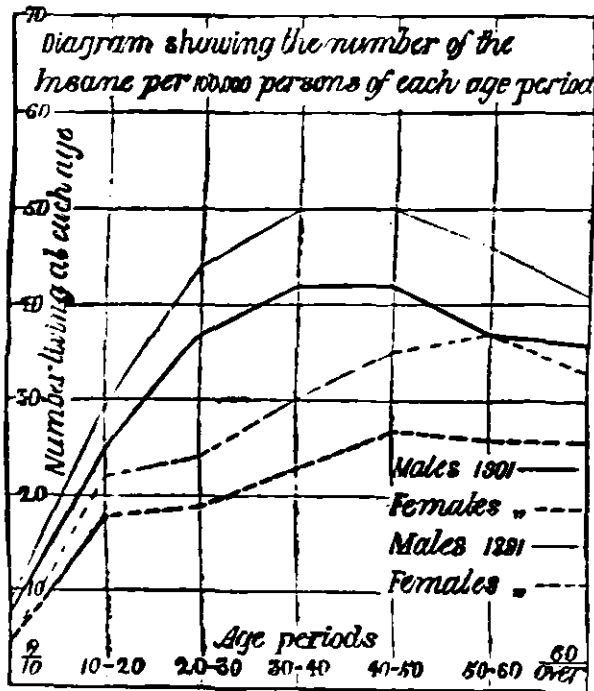
240. It seems probable that race affects the relative prevalence of this infirmity more than any of the causes yet noted. The following observations on this subject are extracted from the Bengal Census Report:—

There is perhaps more to be said for Mr. O'Donnell's view that the result is due to differences of race rather than locality, and that the Mongoloid tribes, who form the main ingredient

in the population of Northern and Eastern Bengal, are more prone to mental disease than the inhabitants of Bihar and Chota Nagpur, whose origin is, in the main, Dravidian. But here, too, the facts do not altogether fit in. The Mongoloid population, though great in North Bengal and Goalpara, is still greater higher up the Assam Valley. It would seem, therefore, that insanity should increase steadily as one proceeds eastwards across the Assam border. As a matter of fact, however, its incidence in the Brahmaputra Valley is greatest in Goalpara, which adjoins the great centre of the disease in Bengal, and rapidly decreases towards the east. The fact seems to be that while the Mongoloid races, as a whole, are far more prone to insanity than the Dravidian, the Koch is the tribe that suffers from it more than any other. The main habitat of this tribe is in the tract where insanity is most prevalent, *i. e.*, in North Bengal and in Goalpara in Assam; east of Goalpara the true Koch element forms a smaller proportion of the population. The proposed explanation does not account for the high ratio of insanity in the Chittagong Hill Tracts, but here also it is doubtless a matter of race, as this district adjoins Burma, and insanity is very prevalent amongst the Burmese.

It may be added that, as already mentioned, mental unsoundness, both in Burma and Assam, is specially prevalent in the hills inhabited by the Chins and Lushais, who are very closely related to the tribes of the Chittagong Hill Tracts. In Madras, in 1891, Mr. Stuart noticed traces of a racial tendency, but it is not clear how far this view is borne out by the results of the present Census of that Presidency.

241. The number of insane persons of both sexes per 100,000 of the population is shown in the annexed diagram. Insanity by age.



The proportion is small in early youth, when there is a natural reluctance on the part of parents to recognise the existence of mental disease, and the increase during the first few years of life is probably only apparent. In the case of males there is a rapid rise in the number of the insane between the ages of 20 and 30, the season of the passions, and a further, but less noticeable, increase continues up to the age of 40. After this age the number of new cases at first just suffices to replace death vacancies, due to the relatively high mortality among persons thus afflicted, but from 50 onwards so few persons became insane that the proportion of the afflicted to the general population declines steadily. In the case of females, once the period of puberty and early child-bearing is passed, the liability to serious disturbance of the mental equilibrium is far less marked than it is in the case of males. Between the ages of 20 and 30 the proportion of the afflicted is almost constant, and it then gradually rises to a maximum at '40-50', *i. e.*, at the 'change of life.'

242. Except in England, where the female lunatics die or are cured less readily than the male and so accumulate more quickly, the number of insane males in all countries greatly exceeds that of females. This is specially the case in India, where the women lead a quiet, secluded and monotonous life, and are to a great extent restrained from the excesses in which men often indulge, where their work is lighter, and they suffer less from hardship, exposure and anxiety. The proportion of females to males amongst the insane is highest in Burma and the hill tracts of Assam, where the women live much the same sort of life as the men. The proportion is also fairly high in Bengal and Madras, but in Bombay, the United Provinces and the Punjab those who suffer from the infirmity are only half as numerous as the males. Generally speaking, it may be said that where insanity is most common the proportion of females is high, and *vice versa*. In India as a whole there are three females afflicted to every five of the stronger sex. The excess of males is least in early childhood and old age, and greatest in middle life, between the ages of 25 and 40, but as noted above, it is just at these ages that concealment is most likely to affect the figures.

The proportion of the sexes.

• •

243. The return of infirmities by caste was an optional one and it has not been prepared for several of the larger provinces. Moreover, even where prepared, the principle generally followed has been to work out the figures for each caste only in one or two districts where it was numerous, and there is thus no means of knowing whether the varying prevalence of the disease is due to circumstances peculiar to individual castes or to the localities in which they were dealt with. The only way to eliminate the disturbing influence of locality would be by comparing the prevalence of the affliction in particular castes with the general rates in the districts where the figures for them were worked out. At the same time several general facts stand out clearly. The Eurasians are of all classes in India the most liable to insanity and next to them come the Parsis. Generally, though not always, the Muhammadans suffer more than the Hindus, and among the latter the liability to insanity varies roughly with social position—the highest castes suffer most and the lowest castes least of all.

Deaf-mutism.

Meaning of the figures.

244. The object aimed at was to obtain a return of the persons suffering from congenital deaf-mutism and the enumerators were told to enter only those who were deaf and dumb from birth. In the absence of close supervision, however, such instructions are apt to be overlooked and persons are liable to be entered as deaf and dumb, who were not so from birth, or who have merely lost their hearing on account of old age.* At each succeeding census, mistakes of this nature have been gradually reduced, and it is believed that in some provinces the return is now fairly accurate, but in others there is still room for improvement, especially in tracts which have for the first time been brought within the scope of the census, where the arrangements for instruction and supervision were necessarily less complete than elsewhere. Where a person was afflicted with this infirmity the enumerators were directed to enter him as 'deaf and dumb', but sometimes the words 'deaf' or 'dumb' alone were entered. In the course of tabulation, the entries of 'deaf' were neglected altogether, but persons shown as dumb were assumed to be congenital deaf-mutes. This may possibly have added to the returns some who had lost their speech by accident or illness, or the excessive growth of goitre, but probably not more than the number of genuine deaf-mutes omitted because shown only as 'deaf' by the enumerators.

In India as a whole there are now 6 males and 4 females who are deaf and dumb in every 10,000 persons of each sex, compared with 6 males and 5 females, in England and Wales.

Comparison with 1891.

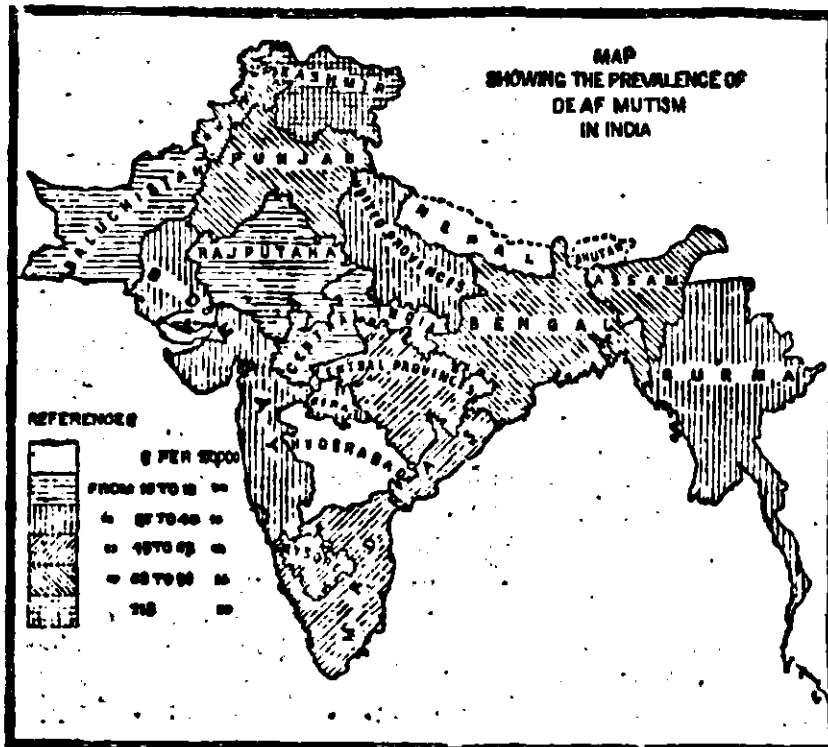
245. The proportional number of deaf-mutes has declined steadily since 1881. With one or two minor exceptions, the general result, as compared with the last census, is shared by all parts of India, and it will be seen from the diagram in the margin of paragraph 249 that it is due to a great decrease in the number of persons shown as deaf and dumb at the higher ages. The defect is a congenital one and the persons who suffer from it are relatively short-lived. Consequently the proportion of such persons to the total number living at each age-period should show a steady decline. The return for young children is incomplete, as parents are unwilling to admit the existence of the malady so long as there is any, even the remotest, chance of its proving only temporary, but from the age of 10 onwards, the proportion at the present census undergoes a progressive diminution, whereas in 1891 it rose rapidly at the higher ages, and the same phenomenon was even more noticeable in 1881. This shows that on both those occasions many persons must have been included who had merely lost the sense of hearing in their old age, and that to a great extent the diminution in the number of deaf-mutes is due to greater accuracy of diagnosis.† At the same time, owing to famine, the decade must in many parts have been one of exceptionally high mortality amongst this class of persons especially in the case of those who were also idiots.

* The extent to which deaf-dumbness may be acquired after birth is uncertain. In Iceland, where accurate statistics are collected, the recent census shows that there were 767 cases of acquired, as compared with 2,179 cases of congenital, deaf-mutism, but these figures cannot be relied on, owing to the well-known reluctance of parents to admit that the defect is from birth, and to their tendency to ascribe it to some post-natal accident or illness. The general belief is that cases of acquired deaf-mutism are comparatively rare.

† There is still room for improvement, and it will be seen further on that in only four tracts is the proportion of deaf-mutes at the age '60 and over' less than that in the population as a whole.

246. The general average of 6 males and 4 females who are afflicted per 10,000 of each sex is the resultant of very divergent proportions in different parts of the country. Kashmir enjoys the unenviable reputation of harbouring more deaf-mutes in proportion to its population than any other province or state in India; then follow, in order, the Punjab, including the North-West Frontier Province, Assam and Bengal. In other words the infirmity is most common in the provinces and states at the foot of the Himalayas, with the exception only of the United Provinces, where the mean prevalence of the affliction is barely half

Local distribution.



Note.—Native States in political relation with Local Governments have been amalgamated with them. Baroda has been treated as part of Bombay.

that obtaining in the Punjab. The general low average, however, is here due to the freedom from the disease of the western plain and other tracts remote from the Himalayas; in the Himalayan districts it is even more rife than in Kashmir. In the Punjab it is three times as common in the Himalayan tract in the north-east as it is in any other part of that province, and in Bengal also, the areas of maximum prevalence impinge on the Himalayas.

Away from Northern India the infirmity is

most widely diffused in Madras, the figures for which province approach those for Bengal, and it is comparatively rare in Bombay, the Central Provinces and Burma.

247. The connection of deaf-mutism with cretinism and goitre has already been noticed,* and all these maladies have been assigned, with apparent reason, to the injurious properties of the water of certain rivers, especially those which flow from the Himalayas, such as the Chenab, the Gandak and the Mahana. This aspect of the subject has been investigated with some fulness in the Bengal Census Report and it has been shown that, in the districts where deaf-dumbness is most prevalent, it haunts the banks of the Burhi Gandak, the Dhanauti and the Bagmati, and that it rapidly diminishes as the distance from these rivers increases. Mr. Burn in the United Provinces points out that the infirmity is chiefly found on the new alluvium deposited by the Ghagra, Gandak and Rapti, i.e., presumably in the tracts where the water-supply is obtained from these rivers. In Burma and Assam the hilly country has a higher ratio of deaf-dumbness than the open lowlands, but the reports do not show whether it is diffused evenly throughout the hills or is confined mainly to the river valleys that intersect them. In Madras it is said that no connection is apparent between mountainous tracts and this infirmity and that no correlation can be traced between it and locality. It is possible that the failure may be due to the district having been taken as the unit of comparison, and that, if the ratios for smaller areas were examined, the influence of certain localities or sources of water-supply might be established.

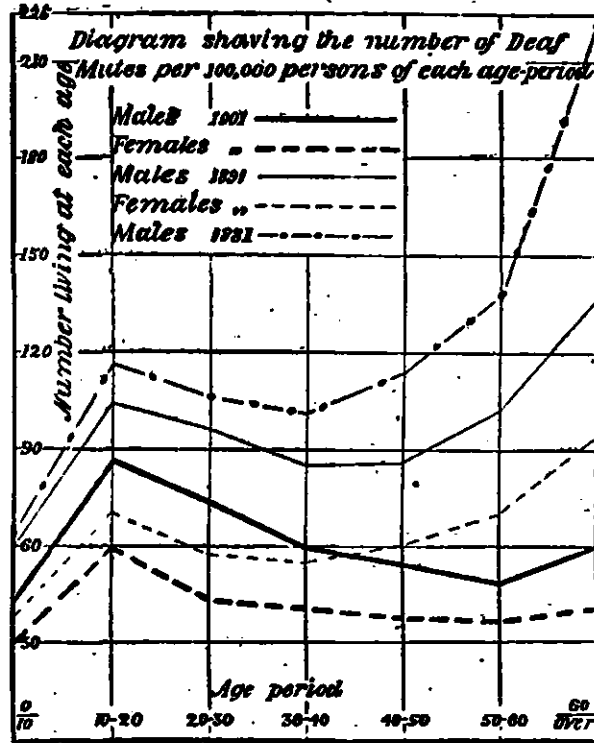
248. In view of the fact that the distribution seems to depend mainly on locality, the figures showing the liability of particular classes of the population, even where they are forthcoming, are not of much interest. As noted by Mr. Francois, deaf-mutism has no special predilection for any individual religion or caste. The Muhammadans, in spite of their consanguineous marriages, are not more prone to the affliction than the Hindus who eschew such connections.

Deaf-mutism by religion and caste.

* Enquiries made after the census in Bengal showed that of 327 persons who were deaf-mutes 148 were also insane, 106 were half witted (of these all but 16 were able to do light work such as herding cattle) and 76 were suffering from goitre. It would seem desirable, at the next census, to add goitre to the list of infirmities recorded and to tabulate separately all cases where goitre is returned as combined with deaf-mutism, insanity or idiocy.

Proportion of the sexes and age distribution.

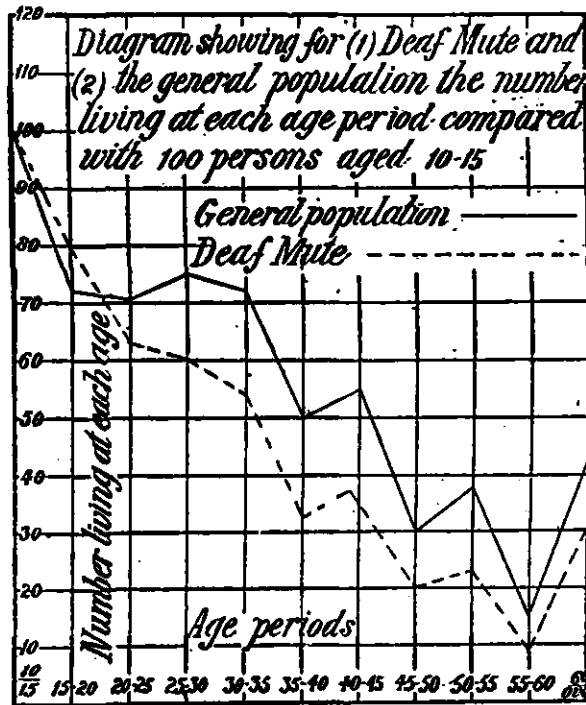
249. As in the case of other forms of congenital malformation, so also with



deaf-mutes, males in all countries suffer more than females, and in India they outnumber them in the ratio of 3 to 2. The proportion of the persons returned as deaf-mutes at each age is compared in the annexed diagram with the total population of the same age. So long as there is any possibility of a child eventually acquiring the power of speech and hearing, its parents will not admit that it is deaf and dumb and the number returned at ages under 10 is, therefore, much below the truth. From the age of 10 onwards, the proportion of deaf-mutes steadily declines, thus showing, on the one hand, that they have a shorter span of life than persons not so afflicted, and on the other, that at the present census the figures have not been swollen at the higher ages by the inclusion of persons who have merely become deaf in their

old age, to the same extent as on previous occasions. The return is, however, still not altogether free from errors of this nature; Madras, Berar, and Bengal are the only provinces, and Mysore the only native state, where the proportion of deaf-mutes over 60 years of age is smaller in relation to the general population than it is at all ages taken together.

250. The relative duration of life of the deaf-mutes is, however, more clearly



seen by a comparison of their age distribution with that of the general population, and the accompanying diagram has been prepared for this purpose. The figures for persons under 10 have been omitted, as in the case of deaf-mutes they are, as already stated, unreliable. For the purpose of this diagram, moreover, the uncorrected ages have been taken, as the point under consideration is the proportion borne by the deaf-mutes to the total number of persons returned at each age-period, and it may be assumed that whatever error attaches to the age-return equally affects that of the general population and of the deaf-mute. It appears that the number of deaf-mutes aged 10 who live to the age of '25-30' is barely three-quarters as great as that of persons not so afflicted, while at '50-55' the survivors amongst the deaf-mutes are only half as numerous as those amongst the general population.

In Mysore a special table has been prepared which shows that of the deaf-mute population, 17 per cent. of the males and 16 per cent. of the females are married. It may be doubted whether such persons have been properly entered under this head, but the Superintendent reports that in the course of testing the schedules deaf-mute children were found with parents suffering from the same infirmity.

Blindness.

251. Blindness is, of all the infirmities recorded at the census, the most easy to diagnose and the least likely to be concealed. But even here error is possible, and the enumerators, if left to themselves, are apt to describe as blind, persons who are suffering merely from dimness of vision due to old age, or who have lost the sight of one eye only. There is in most languages of India a special word to indicate the latter condition, and where this was found in the schedules it was neglected in the course of tabulation. This may have led in a few cases to the omission of persons really blind, but the margin of error is probably very small. At the earlier enumerations a good deal of senile glaucoma was wrongly entered, but it is believed the stress laid upon the subject in the instructions, and the increased efficiency of the supervising agency have now reduced this source of error to very small dimensions.

Meaning of the figures.

In the whole of India 12 males and 12 females are blind out of every 10,000 of each sex, as compared with 9 males and 8 females in England and Wales according to the census of 1891. It is a matter of common observation that blindness is far more common in tropical countries than in those with temperate climate.

252. The number of the blind has decreased since 1891 in a greater proportion than that of any other infirmity, and in their case there is more room for satisfaction, as although the greater care taken to exclude mere dimness of vision and the relatively high mortality amongst blind persons in the famine years have had some share in the diminution recorded, a considerable part of it is due to the greater activity of the medical establishments. Mr. Burn notices that the number of cases of eye disease relieved or cured in the United Provinces during the last decade was nearly

Comparison with 1891.

Province.	1891-1900.	1901-1900.
Assam	25	123
Bengal	3,584	20,513
Bombay	2,035	3,062
Burma	47	135
Central Provinces	607	6,699
Madras	4,344	3,728
Punjab	14,238	42,942
United Provinces	43,361	70,093
TOTAL	68,236	146,295

73,000 compared with 47,000 in the course of the previous ten years. The main form, however, in which medical relief results in the restoration of sight is by means of operations for cataract. The total number of successful operations during the last two decades in the main provinces of India, is shown in the margin. It will be observed that the number of such operations in the decade preceding the present census, exceeds by 78,000, the number during the previous ten years, and that in Bengal and the Punjab the diminution in the number of the blind is far less than the larger number of cataract operations would have led one to anticipate. The persons who benefit by these operations are generally advanced in life and a very large proportion of those relieved in the earlier years of the decade must have been dead before the census was taken.

Some light is thrown on the extent to which the diminution in the number of the blind may be attributed to cataract extraction by an examination of the age statistics. The average age of patients thus operated on would appear to be from 51 to 54,* and the beneficial results of these operations would, therefore, be most noticeable at the higher ages. In Bengal the decrease in the number of the blind over 55 years of age exceeds the total decrease; in Madras and Burma it accounts for more than two-thirds, and in the Central Provinces for half. In the United Provinces and Bombay, on the other hand, only a quarter of the total is thus accounted for, and in the Punjab, in spite of a net decrease there are actually more blind persons at these ages than there were in 1891.† It would seem that in these three provinces other causes must have been more potent than the efforts of the doctors in diminishing the number of blind persons. In Bombay the famine may be to blame, and the same cause is probably the chief one in Rajputana and Central India if the figures now returned are to be relied on. The net result for India, as a whole, excluding the Punjab, is that, of an aggregate reduction of 100,000 blind persons, about 41,000 consists of persons aged 55 and upwards.

* An analysis of one thousand consecutive cataract extractions by F. P. Maynard, M.B., F.R.C.S. (Eng.), D.P.H. (Camb.)—*Indian Medical Gazette*, February 1903, page 41.

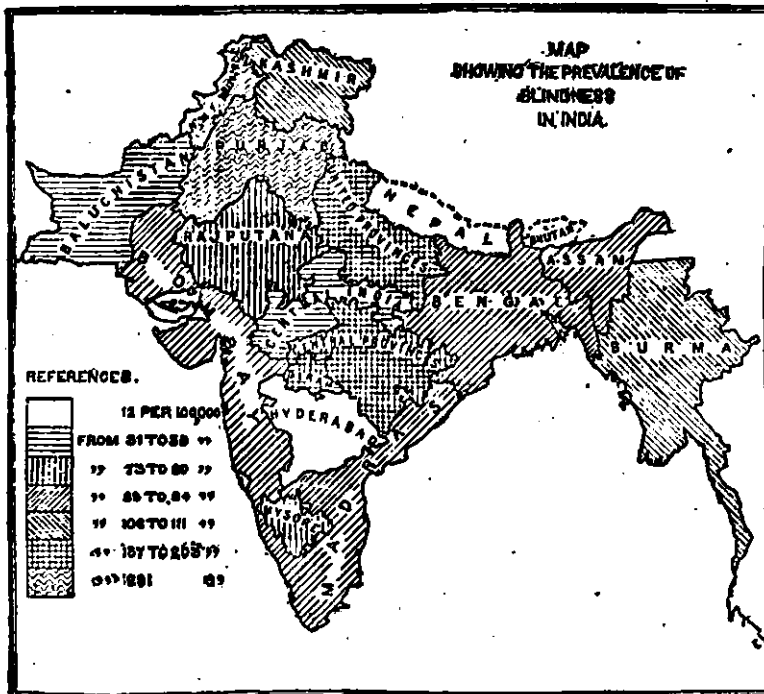
† The age distribution of the blind in the Punjab in 1891, was vitiated by the system then adopted in that province of entering in the schedules the current year of each person's age, and of allowing for this in the course of tabulation by deducting a year from the ages actually returned. The result, as will be explained in the Chapter on Age, was to set back by a quinquennium the round numbers (such as 20, 25, 30, etc.) at which the ages of the great majority of the population were entered.

* An analysis of one thousand consecutive cataract extractions by F. P. Maynard, M.B., F.R.C.S. (Eng.), D.P.H. (Camb.)—*Indian Medical Gazette*, February 1903, page 41.

† The age distribution of the blind in the Punjab in 1891, was vitiated by the system then adopted in that province of entering in the schedules the current year of each person's age, and of allowing for this in the course of tabulation by deducting a year from the ages actually returned. The result, as will be explained in the Chapter on Age, was to set back by a quinquennium the round numbers (such as 20, 25, 30, etc.) at which the ages of the great majority of the population were entered.

Local
distribution

253. The people of the Punjab suffer far more from blindness than those of any other part of India, and next to them, the inhabitants of the United Provinces and the Central Provinces.* In Bengal, Bombay, Madras and Assam the proportion of the blind is comparatively small. Within the Province of Bengal there are great local variations, and whereas in the more arid parts of Bihar the affliction is nearly as common as in the United Provinces, Eastern Bengal enjoys a



NOTE.—Native States in political relation with Local Governments have been amalgamated with them. Baroda has been treated as part of Bombay.

There are many causes of blindness, such as small-pox and other diseases, accident, ophthalmia and cataract, but in India it would probably be safe to say that the last two, and especially the last, are by far the most potent, and glare and dust conduce to both of them. The pungent smoke of the fires at which the people cook their food must also be most injurious to the sight. In hot and dry climates where vegetation is scanty, the houses are made with mud walls, and are smaller and worse ventilated than where the bamboo grows freely and is the principal material used in building. The smaller the hut and the worse its ventilation, the greater would be the effect of the smoke. In small huts, moreover, ophthalmia would spread more readily. In the hills also the houses are generally small and ill-ventilated, and this may account for the prevalence of blindness in some parts where it cannot be attributed to heat and glare.

There is no correspondence between the order in which the different provinces and states stand in respect of their mortality from small-pox and the extent to which blindness occurs. The same conclusion has been arrived at in several of the larger provinces after a detailed examination of the figures for individual districts, and in the Punjab there has been an apparent increase in the number of deaths from small-pox coupled with a reduction in the number of the blind. It may therefore be concluded that the cases where loss of sight is due to this disease form but a small proportion of the total number.

In provinces where the statistics for infirmities have been combined with those for caste it appears that the literate classes, far from being greater sufferers, have a smaller proportion of blind persons than the illiterate. In Bombay, for example, Europeans and Parsis stand at the bottom of the list and Mahars and Maráthá Kunbis at the top.

Proportion
of the sexes.

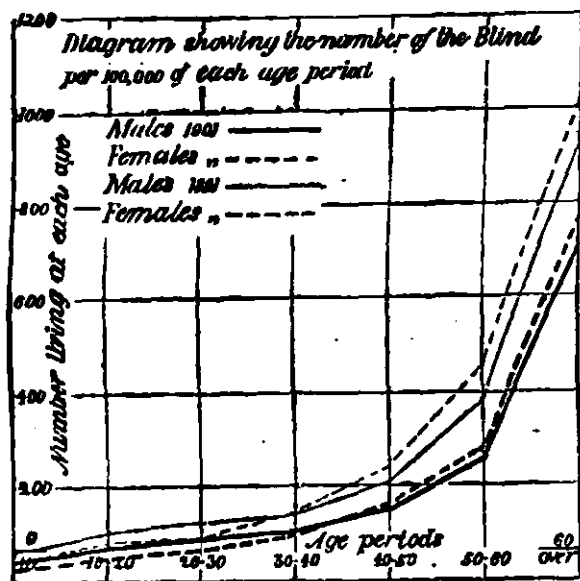
254. Unlike the other infirmities dealt with, in the case of blindness, females suffer equally with males. The proportions, however, are not uniform. Where the affliction is most common, females are in marked excess, and the reverse is the case in places where it is less prevalent. When the affliction is congenital, men, as usual, suffer most, and they are also more liable than women to loss of sight by accident, but in the tracts where blindness is most prevalent, it is due chiefly to other causes, and as, in these tracts, the proportion of the female blind is always high, it seems clear that there is something in the adverse conditions

* In 1891 Rajputana held the second place but the proportion of the blind now recorded there is less than quarter of the number ten years ago.

greater degree of immunity than almost any other part of India. In Upper Burma also the districts with a dry climate have twice as much blindness as those where it is humid. In Madras and the United Provinces the Census Superintendents have failed to trace any connection between this infirmity and the degree of heat or dryness of the climate, but in spite of this, it seems clear that, on the whole, the tracts where blindness is most common are hot and dry, whereas those where it is least so are damp and well-wooded.

that prevail which specially affects the sight of women. It may be that women are less able than men to bear the glare and dust, or else that they resort less freely to the hospitals where medical relief is afforded; or it may be that the dark, smoky and ill-ventilated houses, where they cook and in which they spend a great part of their time, are responsible for affections of the eye even more than the dust and glare met with out of doors.

255. The age distribution of the blind differs greatly from that of persons Age distribution.



partly to the fact already mentioned that females are less ready to seek medical aid* and partly to the circumstance that with them congenital blindness is more rare, and there is thus a larger proportion of cases where it is due to external conditions, such as glare, dust and smoke which operate gradually and do not finally destroy the sight until people are well advanced in life. It is also just possible that a certain amount of blindness amongst young girls may have escaped registration.

Leprosy.

256. The census of 1881 showed a considerable increase in the number of lepers in India, and some years later, when public attention was attracted to the subject by the death of Father Damien, who for sixteen years had devoted himself to the relief of the Hawaiian lepers, these figures were taken as indicating a rapid spread of the disease, and a Leprosy Commission was appointed to visit India and enquire into the etiology and dissemination of the disease, and the means by which it might be stamped out. This was in 1890. The census of 1891, which was taken while the Commission was still in India, showed a marked general decline in the number of lepers, and the Commission had no difficulty in disposing of the cry that had been raised that leprosy was an imperial danger. The findings of the Commission on other points may be summarized as follows:—The disease has no marked tendency to spread either by hereditary transmission or by contagion, but in the great majority of cases it originates *de novo*.† No race is exempt from the disease, but the poor and destitute are attacked much more frequently than the rich and prosperous. No article of diet, *e.g.*, fish, can be held to cause the disease, but it is possible that some kinds of food may render the system more ready to contract it. The same conclusion applies to insanitary surroundings and syphilis. No geological formation and no locality can claim to be free from the disease, and no correspondence can be traced between its occurrence and variations in the temperature; but its diffusion seems to vary inversely with the dryness of the climate, and the tracts which suffer most are generally those where endemic cholera is

* In certain districts of Bengal where enquiry was made it was found that the men operated on for cataract outnumbered the women in the ratio of 8 to 2.

† The expediency of segregating pauper lepers under suitable safeguards and of forbidding lepers generally from following certain trades and callings connected with the bodily requirements of human beings was urged by the Leprosy Commission, and in 1898 an Act was passed to provide for the arrest, examination and segregation in properly appointed asylums of lepers having no ostensible means of subsistence beyond begging for alms; for enabling local bodies to assist in furnishing funds for the maintenance and medical treatment of pauper lepers so secluded; and for restraining lepers from engaging in certain occupations of the kind already referred to. This enactment, which does not operate until it has been specially extended, has been put in force in the United Provinces and in Burma, and a similar Act of the local Legislature has been applied in Madras, Bombay, the Punjab and other provinces.

most prevalent. The Berlin International Conference of 1897 held that the disease is caused by a bacillus whose life history is unknown, but that it probably enters the system by the nose and mucous membrane; it also held that the disease is contagious but not hereditary.

Jonathan
Hutchinson's
conclusions.

257. The most recent investigations into the causation of leprosy are those carried out by Mr. Jonathan Hutchinson, F. R. C. S., first in South Africa and then in India. The conclusions arrived at by him are briefly as follows:—

- (1) That leprosy is caused by a bacillus which gains access to the body through the stomach and not by the breath or by the skin.
- (2) That there is great danger in eating food directly from the hands of a leper, but that this danger is rarely encountered except by young children.
- (3) That in the great majority of cases in which grown up persons become lepers, the bacillus enters the stomach in connection with badly cured fish, eaten in a state of partial decomposition and not sufficiently cooked.
- (4) That the bacillus is not present in any other form of fish food than that just referred to, which is indeed usually taken as a condiment (with rice, etc.,) rather than an article of diet.
- (5) That it is but very seldom that the bacillus is present even in such fish, and that it is especially likely to be found in fish which has been imported from a distance.
- (6) That a very small quantity of tainted fish may suffice to introduce the bacillus, and that a long period is necessary before its results will be observed.
- (7) That it is, consequently, not surprising that in India leprosy is often found in regions at a distance from rivers or seas, and where comparatively little fish is consumed.
- (8) That in cases in which individual lepers state that they have never eaten fish, the disease has either been acquired by commensal communication or the question has been misunderstood or, perhaps, in a few instances, that the statement is not a truthful one.

These conclusions have not yet been generally accepted by other authorities, and no one has hitherto succeeded in finding the typical bacillus, which very closely resembles that of tuberculosis, in fish, or indeed anywhere except in the human body. So far as the practical question of contagion is concerned, Mr. Hutchinson's theory agrees with that of the Indian Leprosy Commission and differs from that arrived at by the Berlin International Conference.*

Local dis-
tribution.

258. In the whole country there are, according to the present census, 48 male and 17 female lepers in every

Provinces and locality.	Population.	NUMBER OF LEPPERS PER 1,000 OF EACH SEX.	
		Males.	Females.
<i>Bengal.</i>			
Bankura district	1,116,411	37	17
Birbhum "	902,380	32	11
Burdwan "	1,532,475	24	9
Manbhum "	1,301,364	19	12
<i>Assam.</i>			
Goalpara district	462,052	21	6
<i>Berar.</i>			
Akola district	582,540	18	8
Buldana "	423,616	19	7
Ellichpur "	297,403	19	5
<i>United Provinces.</i>			
Himalaya, West	1,385,225	17	8
<i>Punjab.</i>			
Himalayan area	1,090,066	16	7
<i>Bengal.</i>			
Orissa division	4,343,150	17	5

100,000 of the population of each sex, but the prevalence of the disease varies greatly in different parts. Of all the provinces and states in India Berar has the largest proportion of lepers and then Assam. Bengal, with about half the proportion found in Berar, comes next and then, in order, the Central Provinces, Burma, Madras, and Bombay.† In the United Provinces leprosy is barely half as prevalent as in Bengal and in the Punjab it is

* It has been suggested that the Berlin Conference in its conclusion that leprosy is contagious, was influenced by the circumstance that it is caused by a bacillus, rather than by direct evidence on the point.

† Much stress is laid by Mr. Hutchinson on the excessive prevalence of leprosy in the small island of Minicoy, one of the Laccadive Islands. The total population of the Laccadives is 10,274 and there are in all 11 lepers. The abstraction papers having been destroyed I have been unable to ascertain how many of them were on the island of Minicoy, but even if it be assumed that they were all found there, although the ratio to the total population of the island (3,097; all Muhammadans but 2) is high, the absolute number is so small that the ratio seems to be of relatively small importance. It is interesting to notice that the islanders rigorously segregate their lepers in a special settlement. It may be mentioned that according to various official reports the number of lepers in this settlement has varied between 9 in 1877 and 17 in 1889.

barely one-third. The affliction, however, is extraordinarily local and, in order to ascertain the areas where it is mostly found, it is necessary to dip further into the statistics and to examine the proportions for individual districts. These are indicated in the map facing this page, which corresponds to the maps in the report of the Indian Leprosy Commission showing the local distribution of the disease at the three previous censuses. It thus appears that the blackest spot in the whole of India is found in a small group of districts in West Bengal* in the worst of which, Bankura, leprosy would seem to be twice as prevalent as it is in any other part of India. Then comes the Goalpara district of Assam, then the western part of Berar, and then a tract on the lower spurs of the Himalayas lying partly in the Punjab and partly in the United Provinces. The disease is here slightly more widespread than in the Orissa Division of Bengal.

259. The physical and climatic characteristics of these tracts differ greatly. The affected area in West Bengal has a slightly elevated and undulating surface and rests mainly on the laterite; the climate is, on the whole, dry, and the rainfall light. Goalpara is a level, alluvial formation lying between the Bhotan hills and the Brahmaputra river, with a damp climate and a heavy rainfall. West Berar is in the main a broad elevated river valley, with a deep black soil, but it merges into hilly country on the north and south; the heat is great before the rains set in, but afterwards the air is moist and cool. The Himalayan region in the Punjab and United Provinces is mountainous, and the climate is a temperate one. The Orissa division of Bengal is a narrow alluvial deposit lying between the hills of the Satpura range and the sea, with a damp climate, numerous rivers and a fairly copious rainfall.

Main characteristics of areas of greatest prevalence.

The variations are equally marked in respect of the races of the inhabitants and of their normal food supply. In most parts rice is the staple food, but in Berar millet takes its place, and in the Himalayan area wheat and maize are also eaten. In some parts fish is plentiful while in others it is scarce, but Mr. Hutchinson's theory that fish is the cause depends on the quality rather than on the quantity of fish eaten; and before it can be concluded that the local distribution of the disease in India is opposed to it, it is necessary to enquire whether, and to what extent, cured fish is used as a condiment or an article of diet in the tracts where leprosy is worst.†

The following extract from the Bengal report deals with the local distribution of the disease in that province:—

There is little in the findings of the Leprosy Commission that will help us to explain the varying prevalence of the disease in this province. In East Bengal the people are prosperous and well nourished, and, so far as these factors affect the question, their relative freedom from leprosy is intelligible. But its diffusion is said to vary also with the degree of moisture in the atmosphere, and East Bengal has a far more humid climate than the districts where leprosy is most rife. North Bihar is probably not less damp than these districts, and its population is on the whole less prosperous, and yet it is comparatively free from the disease. As regards cholera also, no connection can be traced. The ravages of this disease during the last ten years have been worst in Orissa, Central and East Bengal, and North Bihar. Orissa also stands high amongst the localities where leprosy is prevalent, but East Bengal and North Bihar are the two parts of the province where that disease is least common. On the other hand, West Bengal with the greatest prevalence of leprosy, has suffered less from cholera than any part of the province except Chota Nagpur; and the two districts of West Bengal, where leprosy is worst, have the smallest cholera mortality. Birbhum has thus lost only 14 and Bankura only 13 persons per 1,000 of its population during the decade, while no other district in the division has lost less than 19 per 1,000. Neither does the hypothesis that it is due to the use of badly-cured fish find any corroboration in the excessive prevalence of the disease in Birbhum, Bankura and Manbhum.

Natural Division.	Number of deaths from cholera per 1,000 in 1901—1904.	Number of leprosy per 10,000 of the population.
West Bengal . . .	20	116
Central " . . .	31	91
North " . . .	20	42
East " . . .	30	22
North Bihar . . .	29	28
South " . . .	30	44
Orissa " . . .	40	109
Chota Nagpur Plateau . . .	15	58

* The proportion in North Arakan in Burma is even higher, but the total population of this tract is only 20,000 and the figures have, perhaps, no special significance in the absence of a high ratio of leprosy in the surrounding country. It is, however, worthy of notice that the district has returned a relatively large number of lepers continuously since 1881.

† In the *Encyclopædia Britannica* it is said that leprosy is now endemic (chiefly but not exclusively) among people who inhabit the sea coast or the estuaries of rivers, who live much on fish, often putrid, and who intermarry closely. Orissa is the only one of the badly affected tracts in India which answers to this description, so far as locality is concerned, but intermarriage is not specially prevalent there or in any of the tracts where the disease is most common.

Very little fish is imported to these districts, and it enters but very slightly into the diet of the people. Mr. De, the Magistrate of Bankura, thinks that the people of that part of the country must in some way be specially liable to the disease, and he mentions that in Khulna he found leprosy more common amongst the Bunas, who had gone thither from Bankura and the neighbouring districts, than amongst the indigenous inhabitants. The Deputy Commissioner of Manbhum says that many of the lower castes eat the carcases of cattle that have died of disease, and think that this may predispose to leprosy, although, as he points out, the disease is not confined to these castes.

It may be added that further enquiries since made with special reference to the eating of cured fish tend to show that its consumption in this form also is extremely rare in Bankura.

Comparison
with 1891.

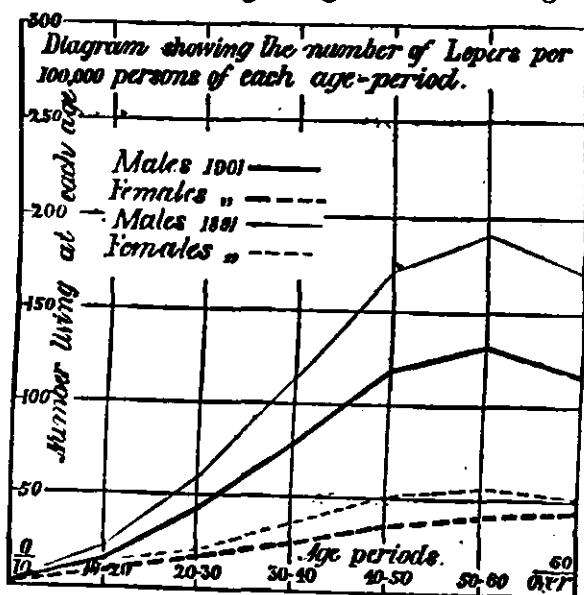
260. The number of lepers according to the census of 1891 was less by more than 4 per cent. than that at the preceding enumeration, and there is now a further falling off of no less than 23 per cent., which is shared by all parts of India except Madras and Travancore, but is especially noticeable in Bombay, Burma, the United Provinces and Assam. As mentioned already, leprosy is a disease which it is especially difficult for any one but a medical man to diagnose with certainty, and there are various other affections, such as leucoderma, syphilis and certain skin diseases, which may easily be mistaken for it. It is possible, therefore, that the greater care taken at the present census to secure a complete examination of the schedules by the higher grades of census officers may have led to a more complete elimination of erroneous entries than on previous occasions. In Assam it is suggested that Naga sores were often mistaken for leprosy in 1891, and that possibly on the present occasion the enumerators have gone to the other extreme and failed to enter genuine cases of the disease. The lepers, like other afflicted persons,* suffered more in the famine years than the general population, and it is stated in Bengal that many were carried off by the plague, to which their mode of living and the sores engendered by their disease, render them specially liable. If this be so, and it seems very probable, it would help to account for the great falling off in Bombay. One peculiarity of the variations deserves mention, namely, the fact that where leprosy is worst the decline is generally less marked than in places where it is comparatively rare. In Bengal, for example, the only districts where a greater amount of leprosy has been returned than in 1891 are Manbhum and the Sonthal Parganas which border on the area of maximum prevalence. Similarly in the Punjab, Nahan, which contains more lepers in proportion to its population than any other tract, is almost unique in its failure to record any diminution in the number. In Madras, the fifteen districts which show an increase in their leper population have a larger proportion of lepers than the ten which show a decrease. This would seem to support the view that a considerable part of the diminution recorded is due to the more complete exclusion of persons who are not really lepers, as wrong entries would be most likely to occur in tracts where true leprosy is not very well known.

It is possible, however, that the census figures, as they now stand, fail to represent the full prevalence of leprosy in India. The disease is regarded with horror and disgust and those who suffer from it conceal the fact whenever they are able to do so. It is commonly supposed that Europeans in India are practically exempt, but Mr. Hutchinson, with whom I have had an opportunity of discussing the subject, tells me that this is by no means the case, and that he has had under treatment in England Europeans who contracted the malady in this country. The fact is not generally known because of the reticence of persons who suffer from it. In the case of natives of the country the same dislike to publicity is felt, but it is overcome amongst the very poor, who cannot otherwise support themselves, by the necessity of begging and of using their unfortunate plight as a means of exciting the compassion of the charitably disposed. In the case of those who do not beg, concealment is less easy amongst the poor than amongst the rich, and amongst males, who mix freely with their fellow villagers and wear but scanty clothing, than amongst women, whose dress more completely covers them and who live a more secluded life; the prejudice against publicity is also much stronger in the case of women. There seems to be no reason why the age distribution of male and female lepers should differ very widely, but it will be seen on referring to the diagram in the next paragraph that whereas the number of afflicted males rises rapidly after the

* They probably suffered in a very special degree as leprosy is emphatically a disease that attacks the lowest classes of society.

age of 20, that of females does so very gradually. The difference in the direction of the two curves clearly indicates that there has been a relatively greater concealment in case of female lepers. This subject will be reverted to in paragraph 262. Apart from wilful suppression it is probable that the efforts made in 1891 and at the present census to exclude cases of mere skin discoloration from the return have resulted in the omission of a certain amount of the true corrosive disease. Mr. Hutchinson informs me that in the earlier stages of real leprosy it is very difficult to distinguish it from leucoderma, and that even a trained medical man has to make a very careful examination before he can satisfy himself as to the diagnosis. The enumerators, who had been specially warned against the entry of white leprosy, would thus be very likely to omit persons suffering from the initial stage of the disease. Mr. Hutchinson thinks, therefore, that after making allowance for the havoc wrought by famine and possibly plague, the census figures afford very little evidence to show that this loathsome disease is really on the wane.

261. The diagram given in the margin shows the number of lepers per 100,000 persons of each age-period. Age distribution.



persons of each age-period. The return for females during the period when they are capable of child-bearing is so incomplete that in their case it is impossible to draw any inference from the recorded age distribution, and it is best to confine our attention to the figures for males. Under the age of 10 the proportion of lepers is exceedingly small, but it soon begins to grow. There is a considerable increase between 10 and 20, and from that age until 50 the rise is uniform and rapid. Between 50 and 60 the number still continues to increase, though less quickly, and it then again declines. A leper's life is a comparatively short one. Accord-

ing to one of the most reliable estimates (that of Danielsen and Boeck) the average duration of life from the date of attack is only nine and-a-half years for tuberculated and eighteen and-a-half years in the case of anæsthetic leprosy. It follows that the steady increase in the proportion of lepers between the ages of 20 and 60 indicates a marked rise in the liability to infection at this period of life.

If absolute numbers be taken, the increment in the leper population is greatest

Age-period.	Variation in number of lepers.
0-10	+1,877
10-20	+5,891
20-30	+7,285
30-40	+7,338
40-50	+757
50-60	-7,315
60 and over	-4,598

between the ages of 20 and 40. During the next 10 years the increase is very slight and from 50 onwards the number rapidly falls. After allowing for cases of new infection necessary to fill death vacancies, it would seem that the greatest number of persons must become lepers between the ages of 20 and 40. This confirms the conclusion arrived at by Mr. Baines in 1891 that leprosy "seems to pass by the young and to begin its attacks about 25 years of age." The Leprosy Com-

missioners found that of the comparatively small number of lepers that came under their observation, the greatest number became lepers when between 25 years of age and 30.*

262. In the case of all infirmities, except blindness, males greatly exceed females, but in none do they do so to the same extent as among lepers, where they outnumber them in the ratio of 3 to 1. It has already been suggested that

* It must be borne in mind that a person may have imbibed the seeds of the disease long before any signs of suffering from it, and the bacillus may remain quite latent for an almost indefinite period. It is known in which patients did not develop the disease until many years had passed since their departure from the country where it had been acquired.

great difference is due, in part at least, to the omission of females from the return. The proportion approaches equality in the early years of life when there are 3 females to every 4 males, but it steadily falls until, at the age of 40, it is very little more than one in four; at the higher ages, where the motive for concealment has become less strong, it again rises slightly, and at the age-period '60 and over' there is one female leper to every three males. These results are very similar to those reported by the Leprosy Commission who found that in the case of small children under 5 years of age, both sexes were attacked in nearly equal proportions, while of the cases that came under their observation between 5 and 10, 95 were males and 56 females. The Leprosy Commissioners, however, dealt only with cases produced before them, and the proportion of the sexes must have been influenced, even more than in the case of the census figures, by the reluctance of the people to bring their female sufferers to notice, and their experience cannot, therefore, be invoked to confirm the accuracy of the latter. It is possible that the greater disproportion during the active years of life may be due in part to the fact that, at this period, men are more prone to expose themselves to the infection, however it may be conveyed, and the comparatively low proportion of females, even at the age '60 and over' when there would no longer be the same motive for concealment, tends to show that there is a real excess of male lepers, but at the same time it seems most improbable that this should be so to anything like the extent that would be necessary to account for the differences noted above.

The proportion of the sexes in different parts of India is generally fairly uniform, but in the Punjab, the Central Provinces, Burma and Kashmir, the females are about half as numerous as the males. The same ratio obtains in several of the worst districts in Bengal, where it is attributed, partly to the tendency of the males to travel further from home in search of alms, and partly to the fact that these districts are largely inhabited by semi-Hinduized people who are less inclined to be reticent about their women.

Distribution
by caste.

263. There is very little to be gained by an examination of the statistics prepared in certain provinces showing the distribution of lepers by caste. The general conclusion which they indicate is that the lower castes suffer most, but this is vitiated by the fact that the amount of concealment practised varies, and is probably greatest in the case of the higher castes. In Burma the Chins suffer most, but this may be because they inhabit a part of the country where perhaps all classes suffer in a special degree. The same explanation may account for the special prevalence of the disease, noticed in Bombay, amongst the Mahars, Maráthá Kunbis and Maráthás.

SUBSIDIARY TABLE I.

Number per 100 afflicted (all infirmities) who are suffering from each infirmity, and number of females afflicted per 100 males.

PROVINCE, STATE OR AGENCY.	NUMBER PER 100 AFFLICTED WHO ARE				NUMBER OF FEMALES AFFLICTED PER 100 MALES.			
	Insane.	Blind.	Deaf-mute.	Lepor.	Insane.	Blind.	Deaf-mute.	Lepor.
1.	1.	2.	3.	4.	5.	7.	8.	9.
INDIA,	10	53	23	14	60	96	65	34
Provinces.	10	53	22	15	60	97	65	33
Ajmer-Merwara	9	74	14	8	17	94	51	32
Assam	14	32	26	28	70	39	68	29
Bengal	12	39	29	20	66	89	63	31
Berar	8	57	11	29	69	108	80	45
Bombay	12	50	21	17	49	94	64	39
Burma	28	43	12	17	72	107	64	43
Central Provinces	6	62	17	16	49	143	74	53
Coorg	12	40	43	4	100	113	76	50
Madras	9	43	31	17	70	99	76	32
North-West Frontier Province	11	50	34	5	47	87	63	42
Punjab	8	72	17	3	51	92	67	36
United Provinces	6	70	15	9	48	99	56	28
States and Agencies.	9	51	26	14	59	87	67	42
Baroda State	8	58	24	10	54	118	64	52
Bengal States	12	39	24	24	60	97	66	43
Bombay States	8	57	23	12	63	112	65	35
Central India Agency	6	61	26	7	44	82	62	37
Central Provinces States	6	49	21	24	44	120	74	48
Hyderabad State	12	51	24	12	40	56	54	40
Kashmir State	16	33	36	17	54	74	59	44
Madras States	11	36	26	28	76	34	79	40
Cochin State	10	45	28	17	85	96	79	45
Travancore State	12	23	21	38	72	68	73	40
Mysore State	12	46	35	7	72	82	76	4
Punjab States	5	59	25	11	50	74	68	35
Rajputana Agency	9	70	17	4	64	92	63	53
United Provinces States	4	56	21	19	74	87	75	28

SUBSIDIARY

Number of persons afflicted per 100,000 of

PROVINCE, STATE OR AGENCY.	Males.						Females.		
	1901.			1901.			1901.		
	1901.	1901.	1901.	1901.	1901.	1901.	1901.	1901.	1901.
INDIA.	28	33	43	17	21	23	62	86	103
Provinces.	31	34	44	19	22	23	68	95	106
Ajmer-Merwara	24	22	69	4	9	43	39	39	80
Assam	47	62	37	35	49	25	37	96	65
Bengal	35	40	53	23	27	36	34	116	153
Bihar	14	19	36	10	14	26	44	21	104
Bombay	27	42	60	14	24	33	45	73	84
Burma	61	98	114	45	83	34	38	55	72
Central Provinces	18	21	31	9	12	17	54	59	78
Coorg	16	26	23	20	25	18	59	80	109
Madras	23	25	37	15	18	23	74	87	69
North-West Frontier Province	26			20			96		
Punjab	47	38	60	23	22	36	90	115	135
United Provinces	19	16	19	10	8	9	46	88	77
States and Agencies.	18	27	34	10	17	20	41	51	73
Baroda State	15	43	51	9	27	34	41	45	93
Bengal States	33	40	...	21	24	...	59	94	...
Bombay States	14	30	33	9	20	24	37	68	79
Central India Agency	5	...	...	2	...	...	19	...	...
Central Provinces States	18	15	...	6	10	...	41	52	...
Hyderabad State	4	18	30	2	10	16	7	46	49
Jammu and Kashmir State	60	...	...	37	...	...	136	...	...
Madras States	21	22	...	16	15	...	46	47	...
Cochin State	27	32	21	23	27	13	77	66	41
Travancore State	20	19	...	14	11	...	31	34	...
Mysore State	21	25	22	16	19	14	62	77	68
Punjab States	23	31	55	14	19	36	96	111	172
Rajputana Agency	12	32	...	8	19	...	22	...	...
United Provinces States	10	27	18	8	12	10	57	60	136

In 1901 and 1901 infirmities were not recorded

SUBSIDIARY TABLES.

TABLE II.

the population at each of the last three Censuses.

Muz.			Dist.						Luzan.					
Female.			Male.			Female.			Male.			Female.		
1901.	1901.	1901.	1901.	1901.	1901.	1901.	1901.	1901.	1901.	1901.	1901.	1901.	1901.	1901.
11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.
42	57	67	121	164	216	120	171	240	48	68	84	17	23	29
45	62	69	134	164	216	135	168	243	55	74	89	18	25	30
16	24	61	120	181	355	125	209	598	8	7	9	3	3	3
62	78	39	97	108	74	91	106	57	125	183	96	39	61	38
68	71	94	96	100	136	85	96	144	72	93	122	23	31	41
36	15	81	193	227	331	218	241	402	133	193	215	63	58	60
30	49	59	88	149	240	68	148	294	43	78	67	18	27	34
22	47	48	106	173	162	117	229	162	56	117	101	25	52	33
39	43	59	144	156	218	199	188	296	63	66	89	30	33	41
54	64	85	45	49	92	63	51	90	6	13	25	4	14	23
55	65	48	91	101	150	88	104	167	54	54	67	17	18	25
72	76	89	123	338	480	128	368	541	17	30	52	10	11	11
64		816	340		21	9								
28	53	47	168	231	269	178	243	323	26	58	63	11	13	
29	38	81	78	164	204	67	183	221	25	42	47	11	16	12
28	30	62	75	161	243	95	235	351	18	32	39	10	15	17
40	56	...	78	87	...	79	91	...	69	88	...	30	36	...
25	48	57	72	149	323	84	176	313	25	47	47	9	16	18
18	...	...	41	...	...	35	...	...	6	...	...	4	...	...
29	38	...	75	85	...	88	91	...	52	73	...	25	43	...
4	30	29	15	100	128	9	84	110	4	38	43	2	13	18
92	...	...	115	...	...	96	...	...	72	...	...	36	...	...
37	37	...	62	69	...	62	56	...	64	55	...	26	23	...
60	49	37	113	133	50	107	105	43	57	66	27	25	31	23
23	24	...	42	45	...	29	33	...	68	53	...	23	22	...
48	61	58	79	107	89	67	61	98	17	22	16	8	11	9
77	80	107	216	238	526	190	264	525	49	63	106	21	24	35
15	...	...	78	272	...	79	372	...	6	21	...	3	7	...
46	39	82	144	133	318	133	123	377	70	71	88	21	17	26

for the whole of Central India.

SUBSIDIARY TABLE III.

Showing (i) the number afflicted at each age period per 100,000 persons of that age and (ii) the number of females afflicted to 1,000 males.

Age.	NUMBERS AFFLICTED PER 100,000.								NUMBERS OF FEMALES AFFLICTED TO 1,000 MALES.			
	Insane.		Deaf-mute.		Blind.		Lepor.		Insane.	Deaf-mute.	Blind.	Lepor.
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.				
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
All ages	28	17	62	42	121	120	48	17	602	658	959	344
0-5	8	2	20	15	29	19	2	1	788	775	670	744
5-10	12	8	66	47	51	34	4	3	656	681	631	657
10-15	20	15	80	59	66	50	10	7	624	614	620	580
15-20	30	21	91	61	80	59	23	14	657	623	684	546
20-25	36	20	79	46	92	62	36	15	594	636	731	463
25-30	38	19	69	42	91	70	50	18	480	590	750	350
30-35	40	22	68	43	99	91	69	23	539	662	864	324
35-40	45	25	55	38	108	109	92	29	486	600	895	276
40-45	41	27	55	38	141	152	113	34	627	664	1,046	294
45-50	41	27	53	39	169	185	123	38	565	643	964	264
50-55	36	25	49	37	240	273	131	41	695	747	1,136	314
55-60	38	23	43	37	310	347	132	43	670	699	1,030	299
60 and over	36	26	60	41	714	773	117	39	852	790	1,243	383

SUBSIDIARY TABLE IV.

Comparing the Census Statistics of the Insane with those of the Lunatic Asylums in certain Provinces.

Province.	Number of Lunatics at Census of 1901.	Variation per cent. since 1891.	NUMBER OF LUNATICS IN ASYLUMS IN 1901.				Number per 1,000 Lunatics who are in an Asylum.	
			Total.	Criminal.	Variation per cent. since 1891.		1901.	1891.
					Total.	Criminal.		
1.	2.	3.	4.	5.	6.	7.	8.	9.
Bengal	22,941	-5	943	489	-11	+4	41	44
Madras	7,216	-6	559	149	-6	+9	77	78
Bombay	3,895	-38	759	100	+10	-2	195	110
United Provinces	6,849	+21	1,112	252	+11	+66	162	177
Punjab	7,774	+23	482	101	+52	+98	62	50
Burma	5,517	-20	390	194	+52	+109	71	87
Central Provinces	1,333	-24	161	36	-38	-52	121	147
Assam	2,510	-17	114	34	-3	+13	45	39
TOTAL	58,038	-6	4,520	1,356	+5	+22	78	70

SUBSIDIARY TABLE V.

Distribution of the infirm by age per 10,000 of each sex at each of the last three Censuses.

Sex.	INFIRM.						DEAF-BLIND.					
	Males.			Females.			Males.			Females.		
	1901.	1911.	1921.	1901.	1911.	1921.	1901.	1911.	1921.	1901.	1911.	1921.
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
Total	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
0-5	150	170	181	196	183	218	410	453	421	486	532	513
5-10	562	583	669	683	567	652	1,454	1,420	1,269	1,548	1,439	1,274
10-15	931	820	838	954	820	893	1,621	1,310	1,235	1,525	1,162	1,183
15-20	928	945	900	1,013	967	1,007	1,370	1,078	963	1,211	1,029	884
20-25	1,037	1,054	2,904	1,012	1,011	1,867	999	939	1,733	978	953	1,560
25-30	1,217	1,232		968	990		962	899		858	862	
30-35	1,232	1,263	2,065	1,103	1,103	1,788	858	824	1,427	870	873	1,288
35-40	999	963		798	863		545	605		501	548	
40-45	942	986	1,433	1,001	971	1,500	580	623	1,079	690	630	1,069
45-50	673	660		537	592		317	379		313	366	
50-55	576	563	833	665	719	1,031	347	456	795	397	455	893
55-60	246	278		374	317		139	246		149	250	
60 and over	595	568	737	816	827	1,954	448	738	1,015	546	951	1,316

Age.	Males.						Females.											
	1901.			1911.			1921.			1901.			1911.			1921.		
	1901.	1911.	1921.	1901.	1911.	1921.	1901.	1911.	1921.	1901.	1911.	1921.	1901.	1911.	1921.	1901.	1911.	1921.
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.						
Total	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000						
0-5	303	411	207	211	277	276	46	45	47	100	93	98						
5-10	585	648	618	355	415	394	108	89	129	206	196	247						
10-15	672	649	654	449	411	394	271	240	273	456	421	432						
15-20	375	568	552	410	409	374	418	406	451	663	625	647						
20-25	601	607	1,156	458	449	589	581	586	1,445	781	735	1,620						
25-30	665	633		530	517		911	877		926	926							
30-35	686	662	1,142	641	620	1,040	1,220	1,202	2,379	1,146	1,188	2,012						
35-40	541	560		506	535		1,159	1,209		930	998							
40-45	754	696	1,184	622	713	1,252	1,514	1,522	2,334	1,291	1,296	1,937						
45-50	519	564		523	584		980	998		752	776							
50-55	865	749	1,375	1,027	889	1,569	1,187	1,163	1,630	1,081	991	1,456						
55-60	453	623		487	698		483	493		420	457							
60 and over	2,750	2,610	3,011	3,568	3,445	3,982	1,122	1,170	1,252	1,219	1,299	1,509						

SUBSIDIARY TABLE VI.

Distribution of the Insane by age in each province and state.

PROVINCE, STATE OR AGENCY.	NUMBERS PER 100 INSANE WHO ARE AGED									
	0-10.		10-20.		20-40.		40-60.		60 and over.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
1. INDIA	7	8	18	20	45	39	24	25	6	8
Provinces.	7	8	18	20	45	39	24	25	6	8
Ajmer-Merwara	8	...	30	20	32	40	25	30	5	10
Assam	5	8	17	19	49	44	24	22	5	7
Bengal	6	8	18	19	46	39	24	25	6	9
Berar	10	10	29	24	49	41	16	23	2	2
Bombay	8	10	19	23	44	37	23	23	6	7
Burma	4	4	15	16	47	39	26	29	8	12
Central Provinces	9	10	22	27	42	36	23	22	4	5
Madras	6	6	15	16	47	41	27	29	5	8
W. P. Province and Punjab	10	11	24	25	41	37	18	19	7	8
United Provinces	7	9	17	18	44	38	26	27	6	8
States and Agencies.	9	11	20	20	42	38	23	23	6	8
Baroda State	6	4	13	26	52	38	26	23	3	9
Bengal States	13	11	24	26	43	40	16	18	4	5
Bombay States	11	11	24	28	41	39	21	20	3	2
Central India Agency	8	8	16	21	43	42	25	24	8	5
Central Provinces States	15	20	23	22	43	32	16	21	3	5
Hyderabad State	6	11	12	18	44	48	32	19	6	4
Jashmir State	17	20	25	24	37	32	13	15	8	9
Madras States	1	3	9	7	48	44	34	39	8	7
Mysore State	5	8	16	19	44	40	30	27	5	6
Punjab States	9	11	25	21	39	39	21	19	6	10
Rajputana Agency	8	19	16	18	41	35	26	26	9	13
United Provinces States . . . . .	...	7	2	20	49	33	39	30	10	10

SUBSIDIARY TABLE VII.

Actual Variation in the number of the blind at each age-period in some of the main provinces.

Age.	INDIA.			BENGAL.			UNITED PROVINCES.			MADRAS.		
	1891.	1901.	Variation + or -	1891.	1901.	Variation + or -	1891.	1901.	Variation + or -	1891.	1901.	Variation + or -
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
0-5	16,794	9,129	-8,665	9,418	2,211	-207	4,674	2,238	-2,446	1,312	936	-376
5-10	24,357	17,241	-7,116	3,870	3,803	-67	6,733	3,947	-2,786	2,002	1,795	-207
10-15	24,279	20,258	-4,021	3,791	4,037	+246	7,077	5,208	-1,869	1,767	2,134	+367
15-20	22,846	17,498	-5,358	3,363	3,641	+278	6,080	4,658	-1,422	1,834	1,650	-184
20-25	24,203	18,799	-5,404	3,141	3,477	+336	6,971	5,095	-1,876	2,183	1,907	-276
25-30	26,332	21,014	-5,318	3,599	3,963	+364	7,109	5,624	-1,485	1,866	1,869	+3
30-35	29,273	23,677	-5,596	4,149	4,124	-25	8,644	6,263	-2,381	2,384	2,396	+12
35-40	26,092	18,543	-7,549	3,588	3,522	-66	5,831	4,551	-1,270	1,715	1,744	+29
40-45	33,259	27,864	-5,395	5,000	4,698	-302	9,290	7,068	-2,222	2,702	2,634	-68
45-50	26,308	18,414	-7,894	3,613	3,564	-49	4,969	4,396	-573	1,650	1,596	-54
50-55	37,541	33,429	-4,112	5,819	5,721	-98	10,335	8,209	-2,176	2,933	3,184	+253
55-60	30,272	16,621	-13,651	3,334	3,414	+80	4,136	3,565	-571	1,607	1,448	-161
60 and over	138,771	111,400	-27,371	23,707	21,740	-1,967	29,150	21,538	-7,612	12,393	10,726	-1,667
Unspecified	441	222	-219	164	...	-164	...	201	+201	77	...	-
Total	458,368	334,104	-124,264	70,956	67,915	-3,041	111,039	82,551	-28,488	36,424	34,017	-2,407

Age.	BOMBAY.			PUNJAB.			BURENA.			CENTRAL PROVINCES.			ASSAM.		
	1891.	1901.	Variation + or -	1891.	1901.	Variation + or -	1891.	1901.	Variation + or -	1891.	1901.	Variation + or -	1891.	1901.	Variation + or -
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.
0-5	1,062	453	-609	2,006	1,025	-981	294	241	-53	655	305	-350	192	195	+3
5-10	1,432	874	-558	3,025	2,587	-438	396	345	-51	960	693	-267	284	311	+27
10-15	1,396	1,032	-364	3,166	3,342	+224	539	411	-128	1,070	1,011	-59	276	300	+24
15-20	1,313	832	-481	4,008	2,653	-1,355	537	425	-112	816	734	-82	237	231	-6
20-25	1,602	894	-708	3,446	2,738	-708	531	579	+48	934	904	-30	256	254	-2
25-30	1,763	1,059	-704	4,347	3,247	-1,100	511	486	-25	1,149	1,100	-49	249	299	+50
30-35	1,931	1,181	-750	3,390	3,860	+470	682	605	-77	1,463	1,280	-183	295	329	+34
35-40	1,554	1,068	-486	5,302	2,990	-2,312	654	584	-70	903	1,013	+110	252	288	+36
40-45	2,264	1,361	-903	3,248	5,154	+1,906	576	726	+150	1,734	1,573	-161	457	460	+3
45-50	1,434	1,004	-430	7,401	3,356	-4,045	806	662	-144	800	967	+167	258	331	+73
50-55	2,518	1,540	-978	3,425	6,849	+3,424	1,228	963	-265	1,757	1,807	+50	528	577	+49
55-60	1,286	841	-445	11,492	3,495	-7,997	1,091	769	-322	512	594	+82	239	237	-2
60 and over	8,544	4,148	-4,396	19,129	23,421	+4,292	7,089	4,726	-2,363	5,785	5,026	-759	2,309	1,947	-362
Unspecified . . . . .	...	17	+17	...	1	+1	...	...	...	...	...	...	...	...	...
Total	28,099	16,304	-11,795	73,335	69,218	-4,117	15,234	11,522	-3,712	18,567	17,007	-1,560	5,832	5,759	-73

SUBSIDIARY TABLE VIII.

Proportion of deaf-mutes at the higher ages in each province and state.

PROVINCE, STATE OR AGENCY.	NUMBER OF DEAF-MUTES PER 100,000 (BOTH SEXES).								
	Total population.			Aged 50-60.			Aged 60 and over.		
	1901.	1901.	1901.	1901.	1901.	1901.	1901.	1901.	1901.
1. INDIA.	52	75	85	43	91	110	49	119	183
Province.	57	79	88	45	94	118	49	122	166
Ajmer-Merwara	28	32	71	28	48	144	40	68	221
Andamans	37	6	...	...	...	...	...	...	...
Assam	75	86	53	75	...	101	99	63	171
Baluchistan	18	33	...	...	240	...	...	...	...
Bengal	69	94	123	51	139	173	52	173	289
Bihar	40	18	93	24	17	158	18	86	310
Bombay	38	61	72	37	61	94	45	74	149
Burma	27	61	61	36	68	88	47	108	114
Central Provinces	47	51	68	36	67	121	58	86	216
Coorg	58	73	98	...	78	119	59	22	117
Madrās	64	76	54	36	89	84	27	62	41
N.-W. F. Province and Punjab	78	97	114	67	107	129	92	147	183
United Provinces	37	71	62	40	79	69	39	104	122
State and Agency.	35	56	68	35	71	119	52	93	162
Baroda State	35	38	78	56	53	172	78	84	279
Bengal States	49	75	...	33	139	...	39	178	...
Bombay States	31	58	68	31	76	108	35	93	158
Central India Agency	16	...	...	28	...	...	34	...	...
Central Provinces States	35	45	...	23	53	...	25	71	...
Hyderabad State	6	38	39	4	47	108	10	64	73
Kashmir State	115	...	...	120	...	...	167	...	...
Madrās States	41	42	...	45	42	...	60	71	...
Opehin State	69	55	39	73	76	...	115	129	...
Travancore State	27	29	...	36	36	...	47	56	...
Mysore State	55	69	62	38	79	72	21	154	104
Punjab States	37	97	142	95	118	188	142	177	340
Rajputana Agency	18	...	...	29	...	...	52	...	...
United Provinces States	52	60	110	40	57	132	51	83	240

CHAPTER V.

Education.

Introductory Remarks.

264. At previous enumerations the population was, in respect of education, divided into three categories—literate, learning and illiterate. The instructions then issued were as follows:—

Enter against each person, whether grown-up, child or infant, either learning, literate or illiterate. Enter all those as "learning" who are under instruction, either at home or at school or college. Enter as "literate" those who are able both to read and write any language, but who are not under instruction as above. Enter as "illiterate" those who are not under instruction, and who do not know how to both read and write, or who can read but not write, or who can sign their own name, but not read.

It was found that the return of the learning was vitiated by the omission at the one end of boys in the rudimentary stages of instruction, and at the other, of many of the more advanced students, who thought it derogatory to their dignity to call themselves "learning" when people of far lower attainments were recorded as "literate", and accordingly caused themselves to be entered under the latter-head. There was a considerable discrepancy between the census figures for "learning" and those of the Education Department, due partly to the causes noted above, and partly, it was alleged, to an exaggeration in the departmental returns of the number of children under instruction in elementary village schools. For these reasons it was thought better to leave the compilation of statistics regarding persons under instruction to the educational authorities, and to confine the information collected at the census to the broad question whether a person can or cannot both read and write.* The rule for the guidance of the enumerators was accordingly modified on the present occasion as follows:—

Enter against all persons, of whatever age, whether they can or cannot both read and write any language.

At the present census, therefore, the population has been divided into two broad classes, the literate and the illiterate. Literacy has been defined to mean the ability to both read and write; it thus excludes two fairly numerous groups, viz., on the one hand, those who, though unable to write, can spell out the words of a book, usually of a semi-religious nature, with whose contents they are already fairly familiar and, on the other, those whose caligraphic attainments extend only to the scrawling of their own name; these are chiefly messengers and other menials, but there is also a fair sprinkling of such persons in a higher station of life. In cases where a person was shown as literate, the main language which he was able to read and write was entered and it was also stated if he was literate in English.

265. The information thus recorded has been embodied in Imperial Tables VIII and IX. In the former the literate are distributed by age and religion, and in the latter, according to caste. In both, the statistics of literacy in English are given. In the provincial series of tables details will also be found of the number literate in each of the main provincial vernaculars, e.g., Bengali, Hindi † and Oriya in Bengal, Urdu and Hindi in the United Provinces, ‡ Urdu, Hindi, Gurmukhi, Tibetan, Tankri and Mahajani in the Punjab, and Tamil, Telugu, Malayalam and Canarese in Madras. In the general tables for the whole of India the only distinction made is between "main provincial vernaculars" and "other languages." It was impossible in these tables to reproduce the full details, partly on account of considerations of space and partly because the figures would not be complete, as languages, which in some provinces have been treated separately, have been grouped under the head "other languages" in tracts where they are of little local importance. This branch of the subject will, therefore, be omitted from the

* In his Report on the Census of India in 1891, Mr. Baines recommended the abandonment of the 'distinction between those under instruction and those able to read and write, but no longer in a state of pupilage.'

† Hindi is here used in its broad popular sense and not in the narrower meaning assigned to the term by philologists.

‡ The question was here of special importance in connection with the rival claims of each language, or rather character, to be recognised in the courts, and the Superintendent therefore tabulated not only the number of persons literate in each separately, and in both, but he distinguished the latter according to which of the two characters was the better known.

general review of the statistics, but it will be referred to in the discussion, in the latter part of this chapter, of the results in individual provinces and states.

Proportional figures illustrating the more important features of the return are, as usual, embodied in subsidiary tables, which will be found at the end of the chapter, *viz.* :—

- I.—Education by age, sex and religion.
- II.—Education by age, sex and locality.
- III.—Education by religion, sex and locality.
- IV.—English Education by age, sex and locality.
- V.—Progress of Education since 1881 by locality.
- VI.—Education by selected castes.
- VII.—Results of the University Examinations in 1891 and 1901.
- VIII.—Number of institutions and pupils in 1891 and 1901, according to the returns of the Education Department.

General Review.

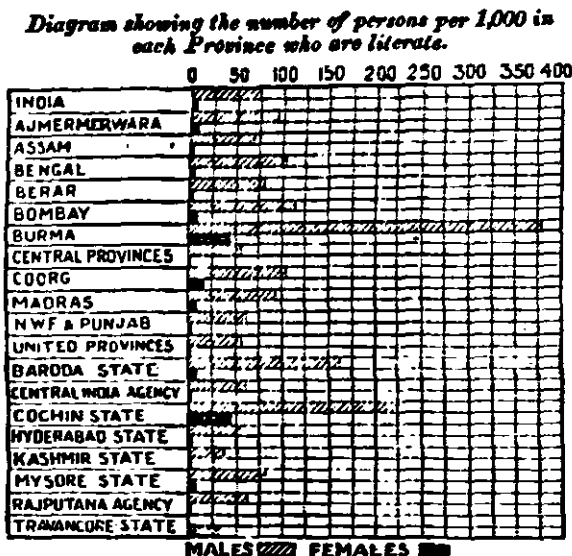
Extent of
literacy.

266. Of the total population of India only 53 persons per mille are literate in the limited sense in which this term was used at the census. One male in every 10 can read and write and one female in 144. There would thus appear to be 14 literate males to 1 literate female, but it is possible that there has been some understatement in respect of the latter sex, as amongst some classes of the population there is a prejudice against admitting that women are thus qualified. Taking males only we find that under the age of 10 only 13 per mille have been returned as literate; the proportion rises to 85 per mille between the ages 10 and 15, to 132 between 15 and 20, and to 139 at '20 and over.' This steady increase at successive age-periods seems to show that, in spite of the instructions, the general tendency of the enumerators was to omit from the category of the literate persons who were still under instruction, even though they had passed beyond the preliminary stage of their education. The number of persons who first learn to read and write after attaining the age of 15 is infinitesimal, and unless (which is very unlikely) the persons enumerated at the age-period '15 to 20' have enjoyed fewer educational opportunities than did those enumerated at all the higher ages when they passed through this period of life, the proportion of the literate amongst the former would be greater than, or at least equal to, the corresponding proportion at the higher ages. In 1891, when the learning were shown separately, special care was taken to prevent persons properly falling under the latter head from being entered as literate, and those of our census staff who had already been employed on that occasion may, in some cases, have been influenced by the rules which were then laid down for their guidance. The total number of literate males under 15 years of age, is 2,129,439 compared with 675,357 literate and 2,518,240 learning at the same age-period in 1891, a decrease of 33 per cent. The only tract where a general standard of what should be held to constitute literacy was laid down, was the Central Provinces where it was ruled that only those persons who had passed the Upper Primary Examination or possessed equivalent educational qualifications should be treated as literate. In spite of this, the proportion of persons returned as literate shows a better result there than in most places, in comparison with 1891, and this helps to confirm the view that the general standard of literacy adopted by the census staff was higher than would be expected from the wording of the rule.

There is no doubt that many learners have been left out of account, but that their exclusion is far from complete is clear from the fact that in 1891, when they were shown separately, the persons returned as "literate" under 15 years of age formed less than 6 per cent. of the total literate population, and the proportion has now risen to over 15 per cent. It is impossible to say exactly how far learners have been included or omitted, but it would seem that the method of dealing with them has varied in different localities, and in Berar, Bombay, the Central Provinces and two or three Native States, the proportion of persons who have been returned as literate at '15 to 20' is higher than that at '20 and over.' This is also the case in respect of females in all provinces, but here it is probably due to the greater progress which female education has made during the decade, as compared with that of males, and to the relatively larger proportion which the literate, including learners, at the former age bears to that at the latter. The same circumstance might possibly account for the proportions in respect of males

in Berar and the Central Provinces. In Bombay, however, the proportion of literate males over 15 years of age is no greater than that of the literate *plus* learners in 1891, whereas in Bengal a considerable improvement in this proportion has been recorded, in spite of the fact that the present proportion of the literate at the age '15 to 20' is less than that at '20 and over'; it would therefore seem that learners in this province have been more sparingly classed as literate than was the case in Bombay.

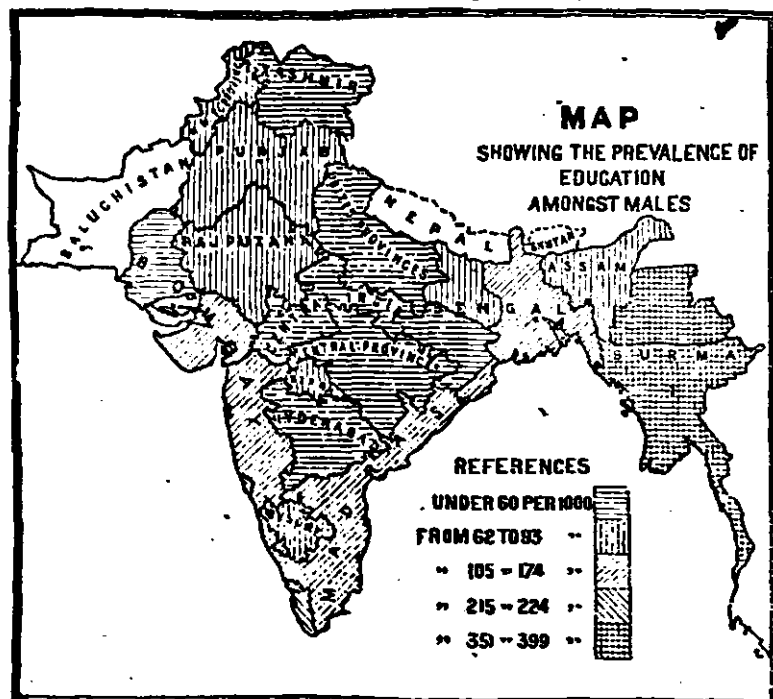
267. Of the larger British provinces, Burma easily holds the first place in respect of literacy, as defined at the census; and no less than 378 per 1,000 of its male, and 45 of its female, population are able to read and write. This province enjoys an elaborate system of indigenous free education, which is imparted by the *pongyis* or Buddhist monks attached to the monasteries, while the instruction of females is not hampered by the prejudices in favour of their seclusion when they approach the age of puberty which so greatly impede progress in other parts of India. Madras stands next to Burma, with scarcely a third of the proportion of literate persons returned in that province;



then follow Bombay and Bengal, and then, at a considerable distance, Assam, the Punjab, the United Provinces, and the Central Provinces. In the matter of education, as in many other respects, the four sub-provinces of Bengal present very divergent results, and if Bengal proper, with its population of 41 millions, be considered separately, it will be found to rank second only to Burma; Orissa follows close on Madras and Bihar stands above the Punjab, while Chota Nagpur takes rank below the Central Provinces.

The Native States, taken as a whole, have only 79 males and 6 females who are literate per 1,000 of each sex, but Cochin, Travancore and Baroda occupy a higher position than any British province except Burma, while in respect of females, Cochin divides with Burma the honours of first place. The poorest results recorded in any part of India are found in the returns for Kashmir where only 38 males and 1 female per mille have been reported to possess the slight educational qualifications recognised by the census.

268. The prevalence of literacy amongst males is shown in the accompanying



NOTE.—For the purpose of this map the four sub-provinces of Bengal, and Lower and Upper Burma are dealt with separately and Sind is distinguished from the rest of the Bombay Presidency.

map. It will be noticed that in almost all cases the proportion is highest in areas which lie along the coast, and that it gradually diminishes as one proceeds inland. The only marked exception is in the case of Upper Burma. It is also worthy of note that in the north-west of India, where the Aryan element in the population is believed to be strongest, the people are far more ignorant than in the east and south where the Mongoloid and Dravidian races

predominata. It will be seen in paragraph 270, that in large cities the people are better educated than in rural areas, but in other respects there seems to be no connection between the spread of education and the density of the population. The most thickly peopled tracts in the whole of India are to be found in Bihar and the United Provinces, but from the point of view of education these tracts are very backward. Bengal proper, which also carries a dense population, occupies a better position, but it is not nearly so advanced as Burma which is very sparsely inhabited. In Rajputana the State of Jaisalmer, with only 5 persons to the square mile, has double the proportion of literate persons that is found in Dholpur which has 235 to the square mile.

Females.

269. The distribution of education amongst females is somewhat curious. It is not difficult to understand why the Burmese female, with her freedom from the prejudices which lead to her seclusion elsewhere, should be comparatively well educated, but it is less easy to see why the proportion should also be relatively very high in Cochin and Travancore; it is due in part to the large Native Christian population, but even excluding Christians, it is still much higher in these two States than in any other part of India outside Burma.

*Case of 1850
Burmese female
17/2/1900*

In Madras as a whole 11 females per mille are literate, but if the figures for Cochin and Travancore be excluded, the proportion falls to 9, the same as in Bombay, compared with 8 in Baroda and Mysore, 5 in Bengal (8 in Bengal proper), 4 in Assam, 3 in the Central India Agency, Berar, the Punjab and Hyderabad, and smaller proportions elsewhere.

Education in cities.

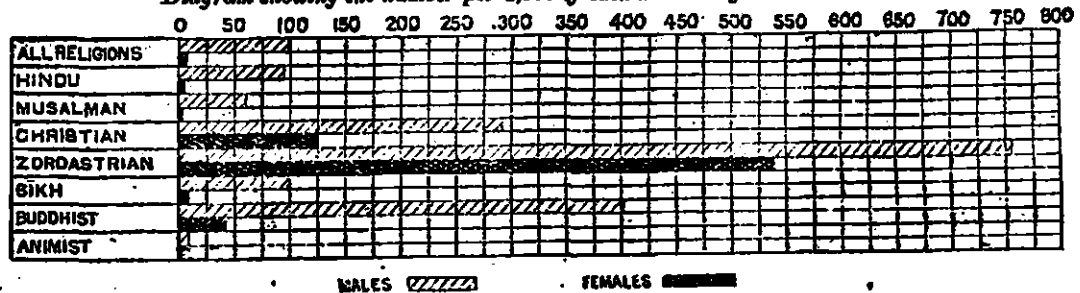
270. The inhabitants of large towns are far better educated than those of

Province or State.	NUMBER OF LITERATE PERSONS PER 1,000 OF EACH SEX.			
	TOTAL POPULATION.		CITIES.	
	Males.	Females.	Males.	Females.
1.	2.	3.	4.	5.
India.	98	7	259	49
Bengal.	104	5	276	69
Bombay.	116	9	261	68
Burma.	378	45	469	188
Madras.	119	9	355	66
Punjab.	64	3	185	27
United Provinces.	57	2	176	20
Hyderabad.	55	3	242	34
Mysore.	93	8	304	70

rural areas, and the special table for cities shows that 259 males and 49 females per mille can read and write, compared with only 98 males and 7 females in the country as a whole. The reasons for this are obvious. The cities are not only great centres of trade and industry, but they are also, in many cases, the home of higher education, and contain colleges and advanced schools to which students from other parts resort in large numbers.

In some parts, moreover, the educated and leisured classes show a preference for city life and frequently have a town-house where they reside for the whole, or a great part of the, year. The presence of the Government and the High Court further raises the proportion of the literate in cities which are the capitals of provinces.

Diagram showing the number per 1,000 of each main religion who are literate.



Education by religion.

271. Turning to the statistics of education by religion, we find that the best results are shown by the Zoroastrians or Parsis, nearly two-thirds of whom are able to read and write, the proportion being three-quarters in the case of males and more than half in that of females. The highest proportion is at the age '15 to 20', where 91 per cent. of the males and 79 per cent. of the females have been returned as literate, and it would thus seem that the community is still progressing, and that at the next census the number who are altogether uneducated will be even smaller than it is now. The Jains come next with 25 per

cent. of their community (males 47, and females 2, per cent.) returned as literate, and then the Buddhists with 22 (40 males and 4 females). The followers of this religion are found mainly in Burma where every monastery is a centre of instruction for the children of the neighbourhood. The Christians follow closely on the Buddhists, but in their case the figures (males 29, and females 13, per cent.) are a compound of a very high degree of literacy amongst Europeans and Eurasians and of a lower one amongst the native converts, many of whom are recruited from amongst the most ignorant sections of the community. The statistics of literacy amongst Native Christians taken by themselves have not been worked out for all provinces, but where figures are available, it is found that they enjoy a far greater degree of education than the other religious communities not yet mentioned. A long gap intervenes between the Christians and the Sikhs, who have 98 literate males and 7 literate females per 1,000 of each sex, or exactly the same proportions as in India as a whole. Among the Hindus ability to read and write is slightly less widespread than among the Sikhs, but more so by 51 per cent. than it is amongst the Muhammadans; the latter, like the Christians, include in their ranks a high proportion of converts from the lower grades of Hinduism, whose Hindu congeners are doubtless every whit as ignorant as they are. The general position of the Muhammadans is determined by the figures for Bengal and the Punjab where the bulk of them are found; in the United Provinces the proportions approach equality, while in Madras and the whole of the intervening area, including Mysore, Hyderabad, Berar, the Central Provinces and Central India, they claim a larger proportion of persons able to read and write than do their Hindu neighbours. At the bottom of the list come the Animistic tribes who can boast of only 8 males per mille who are literate and practically no females.

272. The change of system already described, and the uncertainty as to the extent to which persons under instruction have been treated as literate, make it difficult to institute an effective comparison between the results of the present census and those of 1891. If we leave out of account altogether the persons shown as learning at previous censuses, we get a steady increase in the number of literate males per mille from 66 in 1881, to 87 in 1891, and 98 on the present occasion, the corresponding proportions for females being 3, 4 and 7. A comparison on this basis is, however, clearly defective, and, on the whole, the most satisfactory procedure seems to be to consider only persons over 15 years of age and, assuming that all persons over this age who would have been classed as 'learning' according to the rules of 1891 have on the present occasion been returned as 'literate,' to compare the literate of this age at the present census with the total of the learning and literate of the same age in 1891. The number of literate males aged '15 and over' is thus 12,560,032 or 138 per mille, compared with 11,357,996, or 141 per mille, ten years ago, and that of literate females 754,510, or 8 per mille, as against 475,842, or 6 per mille. There has been a large addition to the absolute number of literate persons of both sexes, but while the proportion which they bear to the total population for which the statistics of Education have been collected has risen by 2 per mille in the case of females, that for males has fallen by 3 per mille. This decrease, however, is only apparent and is due to the inclusion in the statistics of the present census of about 32 million persons in Central India, Kashmir, Rajputana and other backward tracts who were left out of account in 1891. Excluding these areas the proportion of literate males at the present census would be 144 per mille. Moreover, as already stated, the basis of comparison, though the best that can be adopted, is to some extent conjectural, and it is impossible to say with certainty how far the two sets of figures are really comparable. At the same time it must be admitted that the results are not so satisfactory as might have been expected in a country where there is so vast a field for improvement as there is in India, and it is, therefore, necessary to consider in some detail the causes which tend to retard progress, and the efforts which have been made to combat them. Meanwhile it may be noted that in respect of males, Bengal, Berar and the Central Provinces have improved their position since 1891; Bombay is stationary, and Burma, Madras, the Punjab and the United Provinces have fallen back; in the Native States progress is shown only by Baroda, Mysore and Travancore. In the case of females the proportional increase is high, but the absolute addition to the female literate population is very small and the total is still

extraordinarily low. If British territory only be taken into account the rise is from 6 to 9 per mille, an increase of 50 per cent. This result is due mainly to the improvement which has taken place in Burma (from 34 to 56 per mille), Bengal (from 4 to 7) and Bombay (from 7 to 10); smaller gains have been recorded in the other provinces also, except the Central Provinces which is stationary. In the Native States female literacy seems from the proportional figures to be less prevalent than it was ten years ago, but this is due to the inclusion in the returns of the statistics for certain backward areas not dealt with in 1891.

Causes of
general want
of progress.

273. The causes of the general illiteracy prevailing in India are to be found in the history of the country and the social conditions of the people. Prior to the advent of the British, India had been, for centuries, the cockpit of contending dynasties, who looked solely to their own aggrandisement and seldom or never regarded the great body of their subjects in any other light than as the source from which money was to be squeezed for the maintenance of themselves, their courtiers and their armies. Some rulers took a greater share of the raiyats' produce than others, and occasionally large tracts were devastated by the troops of hostile armies, but in other respects the people were very little affected by the constant change of rulers. The idea that it was the duty of the monarch to govern for the good of his subjects was alien alike to Pathán, Moghal and Maráthá, and the tax collector was the only connecting link between the governor and the governed. Under such conditions, it is small wonder that the common people should have lived sunk in the deepest ignorance, with few thoughts beyond the provision for themselves and their families of the bare necessities of life, and that the knowledge of reading and writing should have been confined to those who depended on it for their livelihood, *i.e.*, to the priests, traders and accountants. The influence of caste, with its system of hereditary occupations, tended in the same direction; for not only were the learned professions the close monopoly of a few castes, but the imparting of knowledge to Sudras was strictly forbidden.

274. This was the state of things when the British acquired possession of India and its influence still continues. On the one hand we find a limited number of castes whose traditional occupations necessitate a knowledge of reading and writing, and on the other the great mass of the people, who live by agriculture or manual labour, who have for many generations been illiterate, who are regarded by the higher castes as unfit for education, and who are themselves indifferent to its advantages and can see no reason why their children should be sent to school or taught things of which they themselves are ignorant and in which they can perceive no practical use.*

The former class have always been alive to the necessity of educating their children and in former times they maintained their own schools or *páthshálas*. When the efforts of the State were directed towards the advancement of education, it was too often this class who reaped the benefit of the measures which were adopted, whether they took the shape of grants-in-aid to, and the improvement of the curriculum in, indigenous schools, which was the policy generally followed in Bengal, or the establishment of new schools under direct management, as has been the usual practice in Bombay. In provinces where caste feeling is strong the indigenous schools were maintained almost solely for pupils of the higher castes, and where they received State recognition there was still a tendency for these castes to monopolize them. Where new schools were established under direct management, they merely replaced those previously in existence and, for the most part, drew their pupils from the same class. The only castes that are willing, generally speaking, to pay for the education of their children are those belonging to the limited group already referred to. The castes at the bottom of the social scale are not only indifferent to the advantages of education, but they are also generally too poor to be able to set aside the sum required to meet the fees, even if they can spare their children

* It is sometimes alleged that the lower castes are mentally unfitted for the benefits of education, but for this statement there seems to be no justification. Generally speaking, it may be said that the only racial difference between low and high castes is that the latter often contain a greater infusion of Aryan blood, but it has been shown that the prevalence of literacy does not follow racial lines and that the North-West of India, where the Aryan element is strongest, is the most backward. Moreover many of the low castes of the present day or occupied a high position, and some of them, such as the Bihars, would appear, from the ruins ascribed to the period of their supremacy, to have possessed a high degree of civilization.

for the purpose and dispense with the help they receive from them in various ways, such as in herding their cattle, collecting fuel, etc.*

There is, moreover, in some provinces a strong prejudice on the part of the higher castes against allowing their children to sit in the same building with children of low origin, and especially with those commonly regarded as unclean, and the teachers often object to admitting them or, if they admit them, make them sit in the verandah.† This sentiment is especially strong in Southern India, where the views on the subject of pollution have been most fully developed; it is said to be gradually dying out, but it is still a factor to be reckoned with. Its indirect effects are even more far-reaching, owing to the fact that the officers of the Education Department, with whom the decision practically rests as to the localities where new schools are to be opened and what grants-in-aid should be given, belong almost exclusively to the small privileged group of high castes. In Bengal, for example, excluding 44 Europeans and Eurasians, who are employed mainly in administrative appointments or in institutions where higher education is imparted, there are 137 officers of the Education Department, of whom no less than 111 are Bráhmans, Baidyas and Káyasths; only 9 are Muhammadans, 5 are Native Christians and 12 belong to other castes. The lower grades of the community are entirely unrepresented.‡

275. We have seen that the masses do not appreciate the benefits of education; they can ill afford to pay for the tuition of their children or even to spare them from their work at home; the children of castes regarded as unclean are not wanted in the ordinary schools, either by the teachers or by the other pupils; and the needs of the lower castes generally are apt to be overlooked by the subordinate inspecting officers of the Education Department. In such circumstances it is not to be expected that they can be brought within reach of our system of instruction unless special treatment is meted out to them. That their indifference to education can be overcome if suitable steps are taken, is shown by the statistics of literacy amongst Native Christians, who in most provinces, in spite of their humble origin, claim a larger proportion of persons able to read and write than most Hindu castes. Here and there something has been done to encourage education amongst them, either by establishing special schools for impure castes and in backward localities, or by making grants for schools to missionary bodies working amongst forest and hill tribes, but attention has in the main been concentrated on the development of the general educational system by departmental agency, without reference to the castes of the pupils, and no special efforts have been made to attract those of medium or low social status.§ This, it would seem, is the main reason why, in spite of the constant attention that has been given in recent years to the diffusion of education, the results, as indicated by the census, have been so small.

The above remarks refer primarily to the Hindus and to the tribes hovering on the outskirts of Hinduism, but they apply in the main with equal force to the rank and file of the Muhammadan community. In their case, moreover, there is the further difficulty that the learning by heart of long passages from the Koran is considered more important than the acquisition of secular knowledge in the village school.

It is unnecessary to dilate at length on the difficulties attending the diffusion of education amongst females, as they are well known. In the case both of Hindus and Muhammadans it is the fashion to seclude young girls as soon as they approach the age of puberty, and there is a strong general prejudice, not only against allowing them to go to school, but also against permitting them to be taught at home. These scruples are slowly giving way amongst certain sections

* There are exceptions, and some castes, such as the Sháhás of Bengal, which are held in low estimation socially, have attained a relatively high position in respect of education, but the number of such cases is limited. It should be added that in the Punjab children of agriculturists are exempted from the payment of fees and in several other provinces a liberal scale of exemptions is allowed in favour of the children of poor parents.

† Cases are by no means rare where the efforts made to enforce an equality of treatment for the depressed castes have led to large schools remaining closed for years and even to disturbances of the peace and the destruction by fire of the crops and huts of the people belonging to these castes.

‡ Bengal Census Report, page 466.

§ In Bengal proper the twice-born castes form only 12·8 of the total Hindu population and the clean Sudras only 16·4 per cent. In Madras 6·7 per cent. of the population rank as twice-born and 31 per cent. as clean Sudras; the remaining 63·3 per cent. are all more or less unclean. The measures adopted in Madras for encouraging education amongst the depressed castes (or Panchamas as they are called locally), described on page 353 of Mr. J. S. Cotton's Report on the Progress of Education in India, 1892-93 to 1896-97, represent the most important step yet taken in the direction of providing education for the lower classes. But the number of pupils (69,464 in 1891-92) is still small compared with the total strength of the castes in question.

of the community, and societies are being formed, not only in connection with Christian missions, but also amongst the people themselves, for imparting instruction in the zenanas. In this way the females of the upper classes are gradually being brought within the reach of knowledge, and a foundation is being laid, upon which it may be hoped that in time a far more extensive edifice may be built.

Reference to
Statistics of
Education
Department.

276. We have hitherto dealt with the question solely from the point of view of the census, but before leaving the subject, it will be interesting to refer briefly to the progress indicated by the returns of the Education Department. The two sets of statistics run of course on different lines, and while the latter treat only of persons actually under instruction, the census figures refer, as we have seen, mainly to those who have left school.

An abstract of the Departmental returns for each province will be found in

Class of Instruction.	Number of Institutions.		Number of scholars.	
	1901.	1891.	1901.	1891.
Arts Colleges	141	105	16,703	12,165
Professional Colleges	44	31	4,851	3,424
Secondary Schools	5,461	4,967	586,628	463,069
Primary Schools	92,133	94,023	3,157,724	2,690,827
Training and other special Schools	964	574	33,924	20,389
Private Institutions	42,343	38,244	605,212	488,038

subsidiary table No. VIII, and the totals for the whole of British India are reproduced in the margin. Higher education has progressed rapidly, but the advance in respect of primary education, i.e., the teaching of reading and writing and ele-

mentary arithmetic, has been slow, except in the United Provinces and the Central Provinces where, however, the apparent improvement is due mainly to the incorporation in the returns of schools already in existence, which were previously left out of account. The recognition of these schools will no doubt result in an improved system of teaching, but it seems doubtful if it will operate to any marked extent in increasing the number of persons to whom the rudiments of learning are conveyed. In Bengal there are now fewer primary schools than there were ten years ago, and although there are slightly more pupils, it has been said that the end of the track indicated by the indigenous *pathshālas* has been reached, and that the further extension of education and the instruction of the children of the lower classes is a problem of very great difficulty. In some parts, especially in Bihar, many of the higher castes are still very backward and there is ample scope for further improvement, but it is an undoubted fact that the classes whom the present system of education chiefly affects, form but a very small proportion of the total population.

Expenditure
on primary
education.

277. The expenditure on primary education in British provinces from provin-

Provinces.	EXPENDITURE ON PRIMARY EDUCATION FROM PROVINCIAL AND LOCAL FUNDS.		EXPENDITURE IN 1901.	
	1901.	1891.	Per 1,000 of population.	Per 1,000 pupils in public institutions.
1	2	3	4	5
	Rs.	Rs.	Rs.	Rs.
Assam	1,71,980	1,19,968	28	1,931
Bengal	8,34,795	6,52,671	11	667
Bihar	2,07,701	1,89,563	76	4,955
Bombay	10,77,023	15,66,888	107	3,839
Burma	2,91,452	1,80,529	28	2,243
Central Provinces	3,22,978	2,14,619	33	2,766
Madras	9,48,787	7,45,455	25	1,526
Punjab	4,39,306	3,64,005	20	3,741
United Provinces	7,18,471	5,67,822	15	2,599
TOTAL	59,12,492	46,01,520	26	1,873

cial and local funds is noted in the margin. It would be misleading to distinguish the contributions from these two sources, as in many cases the local authority is simply an agent for administering a grant made by Government, and a great part of its disbursements is met by a countervailing allotment from Provincial revenues, which, however, is not specially ear-marked, and is shown in the public accounts merely as a grant to

the local authority concerned. The actual outlay, moreover, is considerably greater

than would appear from the figures, which do not include the salaries of the lower grades of the inspecting staff, who are almost wholly concerned with the supervision of primary schools. It may be added that the Government of India have recently made a series of grants to local Governments, amounting in the aggregate to 40 lakhs, for educational purposes, and have at the same time laid stress on the principle that primary education has a strong claim upon the sympathy of Government and should be made a leading charge upon the Provincial revenues. In these circumstances a great extension of the present system of primary schools may be looked for in the near future. It must also be borne in mind that the expenditure from provincial and local funds is supplemented by fees and voluntary subscriptions, and that if these be added the total expenditure is about twice as great as that shown in the above statement. The expenditure from all sources was Rs. 91,29,887 in 1891 and Rs. 1,16,07,277 in 1901.

In proportion to its population by far the largest expenditure from provincial and local funds is incurred in Bombay, and the smallest in Bengal. In comparison with its disbursements, however, the largest number of pupils is to be found in the Bengal schools, which, being administered on the grant-in-aid system, cost the State far less than those of Bombay, where the schools are under direct management. The total expenditure on primary education has risen during the last decade by 28 per cent. Bombay has augmented its contributions by 4 lakhs, Bengal, Madras and the United Provinces by from 1½ to 2 lakhs, the Central Provinces and Burma by 1 lakh and the other three provinces by smaller amounts.*

278. If other things were equal, the facilities for education would depend on the distance which the children have to go in order to attend a school. The mean distance from one school to another (including private institutions) in each of the main provinces is noted in the margin.† For the purpose of this statement it is assumed that the schools are equally distributed over the whole area, which of course is not really the case. In Bengal, for example, they are unusually plentiful in the Metropolitan districts, but they are few and far between in Chota Nagpur and other

Province.	Mean distance between each school in miles.
Bengal	1.9
Madras	2.5
United Provinces	3.1
Burma	4.1
Assam	4.4
Berar	4.4
Bombay	4.4
Punjab	4.8
Central Provinces	7.6

outlying tracts. At the same time the arithmetical mean for a province affords a good indication of its position as compared with other provinces. It thus appears that, if all the schools in a province were equidistant, no child in Bengal would have to go more than a mile to reach one; in Madras and the United Provinces the maximum distance would be barely a mile and-a-half, and the Central Provinces is the only tract where it would much exceed two miles.

The order of the several provinces in respect of the relative prevalence of literacy differs very greatly from that shown in the above statement. The proportion of literate persons is more than three-and-a-half times as great in Burma, where there is no caste system and the schools are open to all alike, as it is in Bengal, although the schools in the former province are twice as far apart as in the latter. There is very little difference in the proportion of the literate between Madras and Bombay, or between the Central Provinces and the United Provinces, but in both cases there is a great difference in the mean distance between schools. The absence of any clear co-ordination between the two data confirms the view that the spread of education does not depend primarily on the multiplication of schools, and that there are large sections of the population who will remain ignorant, however many schools there may be, unless something more is done to attract them than has hitherto been attempted.

* It is not within the scope of this chapter to discuss the question of education generally, but I may perhaps be permitted to notice the very small proportion, even of those who attend school, who advance beyond the most elementary stage. Even in secondary schools a large proportion of the pupils are found in the lower classes which practically correspond to those of primary schools, and only four in 1,000 are reading in Arts or Professional Colleges.

† The calculation is based on the well-known formula $\log d = 1.081235 - \frac{\log n}{2}$, where n represents the number of schools in 100 square miles and d is the mean distance between them.

Comparison
of literate
population
with educa-
tion returns.

279. If the returns of the Education Department dealt with all schools in existence and were prepared everywhere on the same system, and if the proportion of pupils from year to year were fairly constant, it would be reasonable to expect a fairly uniform ratio in the different provinces between the

Province.	No. of persons returned as literate per 100 pupils.
Assam	208
Bombay	257
Central Provinces	257
Bengal	268
Berar	264
Madras	343
United Provinces	344
Punjab	377
Burma	724

number of pupils and the number of persons returned as literate. It will be seen, however, from the figures in the margin, that the actual proportion is far from uniform. The low position of Assam is easily explained by its large immigrant population, almost all of whom are unlettered, while the high rank of Burma is due to its numerous indigenous institutions which are outside the jurisdiction of the Department of Public Instruction. Excluding these two provinces, the others fall into two fairly homogeneous groups, *viz.*, Bombay, the Central Provinces, Bengal and Berar with about 5 literate persons to every 2 pupils and Madras, the

United Provinces and the Punjab, with about 7 persons who can read and write to 2 under instruction. The reason for the difference is not altogether clear, but it may possibly be due to the fact that, in the latter group of provinces, more persons receive instruction in reading and writing either at home or in private institutions. We know that in Bengal almost all indigenous schools have been brought on to the books of the Education Department, while in Upper India, many of the trading castes at least, teach their children privately. At the same time the proportion of the literate to the learning in the first mentioned group seems very small and, if correct, can only be explained on the hypothesis that many of those who go to school fail to derive much benefit from their studies and either leave before they can read and write fluently or else, by want of practice, again forget what they have learnt.

Education by
Caste.

280. The table showing education by caste was an optional one, and even where it was prepared, the general procedure was to work out the statistics only for certain selected castes. The whole or nearly the whole Hindu population was dealt with in the Central Provinces, Mysore and Baroda; nearly three-quarters in Bengal, and nearly two-fifths in Madras; but elsewhere the scope of the table was much more restricted, and in the Punjab and several other provinces and states it was not prepared at all. In Table IX for the whole of India the field is even narrower, and only a few of the typical castes dealt with in the corresponding Tables of the provincial series have been included. In these circumstances it is not possible to give figures for the whole country, and it must here suffice to mention briefly the general results. Further details will be found in the notes on the statistics for individual provinces and states to which the concluding part of this chapter will be devoted.

The most noticeable feature of the return is that everywhere the professional and trading castes take the lead. The proportions vary in different tracts, and high castes in one area may be more backward, from the point of view of literacy, than castes of far lower rank elsewhere. For example the Bābhans and Rājputs of Bihar are outstripped in the race for education by the Chāsi Kaibarttas of Bengal proper. But in any given area the general rule is that, if the divisions are not too minute, the degree of education varies directly with the social position of the caste. The Brāhman does not always stand first. In Madras he does so, but in Bengal proper he is headed by the Baidya, in Bombay by the Vāni and Prabhu, and in Central India by the Mahesri. Nowhere, however, is he surpassed by any caste of the same locality which does not claim a twice-born origin. The other castes of this standing almost invariably possess a larger proportion of literate persons than any clean Sudra caste; the latter again rank higher in this respect than the unclean Sudras, and the unclean Sudras than those that are altogether outside the pale of Hindu society. There are occasional exceptions, where a caste, such as the Shāhā of Bengal, is far better educated than its social position would indicate; in such cases it is generally found that the community in question is at the present time more prosperous than its neighbours and claims a much better position than that assigned to it by the leaders of Hindu society.

25L. Of the total population of India 68 males and 7 females in every 10,000 persons of each sex were returned as literate in English. This is inclusive of Europeans and Eurasians. If the Christian community be excluded, the proportions fall to 56 males and 1 female. The Christians, as a whole, including Native Christians, are, however, far surpassed by the Parsis, of whose males no less than two-fifths, and of whose females one-tenth, know English. The Jains and Hindus, who come next to the Christians, have a very low general average, but, as will be seen further on, some of the higher castes, such as the Baidyas of Bengal and the Prabhus of Bombay, possess a remarkable number of persons acquainted with this language. The Sikhs rank next to the Hindus in this respect and then come the Muhammadans and Buddhists. Amongst those who were returned as Animistic by religion, practically none know English.

Religion.	Persons of 10,000 who know English.	
	Males.	Females.
Hindu	64	1
Jain	134	1
Musliman	33	---
Christian	1,279	615
Parsi	4,075	961
Sikh	48	---
Buddhist	24	1
Animist	3	---

Excluding the minor political units, the study of English is most popular in Bombay where 112 males and 15 females are acquainted with it, compared with 90 males and 10 females in Madras and 89 males and 6 females in Bengal.* In Bengal proper the proportions are 138 and 9 respectively, but in the remaining sub-provinces they are lower than in any other part of British India, of which the United Provinces, with 35 males and 5 females, is the most backward. The Native States have generally a comparatively small English-knowing population, but this is not the case in Cochin, Travancore and Mysore.

Statistics of the number of persons acquainted with English were collected in 1891 only for those returned as 'literate' and not for the 'learning', and this must be borne in mind when comparing the proportions shown in subsidiary table No. IV with those of the present census. Excluding persons shown as learning, only 36 males and 5 females per 10,000 of each sex were then returned as literate in English. The apparent proportion for males has thus nearly doubled during the decade, while that for females shows an increase of less than 50 per cent., but it is impossible to say to what extent the result is due to the difference in the system under which the figures were collected. The relatively more rapid spread of English education amongst males is due to the fact that in the case of females the total number of persons knowing English is so small that those who are European or Eurasian by race bulk much more largely in the total. The rate of increase amongst natives of the country is probably at least as great in the case of females as in that of males.

Main results by Provinces.

282. In Assam 209,252 males or 67 per 1,000 have been returned as literate, and 13,134 females or 4 per 1,000. The best results are found in the Surma Valley and in the Khási Hills, where the Welsh Calvinistic missionaries have done much in the cause of education, and the worst in the Naga and Garo Hills. In the Brahmaputra Valley the proportion of literate males ranges from 68 per mille in Kamrup to 49 in Goalpara, where it is lower than in the Lushai Hills, and is not nearly so high as in the adjoining portion of Bengal. Amongst males one Christian in three is literate, while for Hindus, Muhammadans and Animists the ratio is 1 in 11, 1 in 23 and 1 in 111 respectively.

The number of persons who know English is 21,511 or 4 per mille. In the case of the indigenous castes education is most widely diffused amongst the Bráhmans and Káyasths with 517 and 471 literate males per 1,000 respectively. The Sháhás and Ganaks with 355 and 282 come next, and then the Native Christians with 271. No other caste can claim more than 121 per mille and no aboriginal tribe except the Khási has more than 25, while the majority have less than a dozen. In respect of females the Native Christian community, with 176 are literate per mille, heads the list; then come the Káyasths with 56 each sex, and

* The probable reason for the low proportions in Madras will be found in paragraph 280) is almost as

Bráhmans with 27; only three other castes, including the Kásis, have 10 or more; one has 7 and two 5, and all the rest have 3 or less.

Of the total literate population nearly two-thirds returned Bengali, and rather more than a quarter, Assamese, as the language which they could read and write.

If we take as the basis of comparison with 1891 the number of literate persons aged 15 and over, and treat the learning of 1891 as literate, we find that literacy is slightly less prevalent than it was at the previous census, a decline of 6 per mille amongst males being only partially met by a rise of 3 per mille amongst females. This is attributed by Mr. Allen to the disturbing influence of ignorant immigrants, who have increased in number more rapidly than the indigenous population, which, in some districts, is considerably less now than it was ten years ago. The accuracy of the tabulation is not altogether free from suspicion, and it is possible that entries of 'literate' were occasionally overlooked, either when the slips were prepared or when they were being sorted.*

Bengal.

283. The number of literate persons in Bengal, including its Native States, is 4,307,474 or 55 per mille. The proportion per 1,000 males is 104 compared with only 5 per 1,000 females. It has already been stated that the figures vary greatly in each of the four sub-provinces, and while the number of literate males per mille is 128 in Bengal proper and 120 in Orissa, it is only 70 in Bihar and 49 in Chota Nagpur. In Bengal proper again the proportion is far higher in the metropolitan districts of Central and West Bengal—where it rises to 316 per mille in Calcutta and exceeds 200 in Howrah, Midnapore and the 24-Parganas—than it is in North Bengal where the ratio falls to 70 in Jalpaiguri and 64 in Rangpur. In Bihar the highest proportion is found in Patna (123) and the lowest in Champaran (45), while in Chota Nagpur it ranges between 77 in Manbhum and 16 in the Tributary States. The relative prevalence of female education corresponds, though on a far lower plane, with that amongst males, but the pre-eminence of Calcutta is much more marked; the proportion who are literate per mille is here 115 compared with only 14 in the two next districts, Hooghly and Darjeeling. In North Bihar only two females per mille can read and write, while in South Bihar, North Bengal and Chota Nagpur the proportion is 3 per mille.

The greatest amount of literacy is met with amongst the Christians, partly on account of the large foreign element, where the proportion of educated persons is very high, and partly because the missionaries do their utmost to give instruction to their converts. The success of their efforts will be apparent from the figures noted in the margin, showing for a few tribes the number who are literate per 1,000 amongst converts to Christianity, as compared with those who have retained their old Animistic beliefs.

Tribe.	LITERATE PER 1,000 MALES.	
	Christians.	Others.
Lepcha . . .	141	29
Gáro . . .	115	8
Mun'ia . . .	68	7
Orson . . .	41	3
Santal . . .	226	8

Next to the Christians, the proportion of the literate, both male and female, is highest amongst the Buddhists, but the difference between them and the Hindus is very slight. The Muhammadans are much more backward, and the proportion who can read and write is barely half as great as it is amongst Hindus. In every 1,000 males only 68 are literate, and in every 1,000 females only two. The disproportion is more marked in the case of literate persons under 15 than it is at the higher ages, and it would thus seem that the Hindus are increasing the lead which they already hold. The Animists, as might be expected, come last. Only eight males in 1,000 are literate, and there are scarcely any literate females.

284. The statistics of education by caste show that practically the whole Eurasian community can read and write. Amongst the castes native to the Province the Baidyas take the first place with a literate male population of 648 per mille; then follow the Káyasths with 560, the Karans with 528, the Subarnáshiks and Gandhabaniks with 519 and 510 respectively, the Águris with 493, the Bráhmans with 467. The low position of the Bráhmans is due to the more ^{caste} ^{for} Bihar, where only 273 per 1,000 males of this caste can read and write.

*Districts where the education statistics were worked out a second time, the number of literate persons was 20,562 compared with 17,717 at the first working.

and write. In Bengal proper the proportion is 639 per mille. The educational status of the other high castes in Bihar is also low. The Khatris have 380 literate males per 1,000, but the Bábhans have only 166, and the Rájputs only 150. Compared with other Bihar castes these figures are fairly high, but they are exceeded in Bengal proper in the case of many castes of much lower rank. Amongst the Khandáits of Orissa about 1 male in 7 is able to read and write. Of the indigenous trading castes of Bihar the Barnawárs, with 285 males per mille who can read and write, occupy the highest place, and are followed by the Máhuris, Kasarwánis, Kalwárs and Rauniárs. Amongst the artizan castes of Bengal proper the Kánsári, Teli, and Mayrá take the highest place, while in Bihar the Halwái stands first. The race castes generally rank very low. Amongst the Muhammadans, the highest educational rank is held by the Saiads, Moghals and Patháns.

In respect of female education, the Baidya is *facile princeps*. More than one of his females in every four can read and write. Then follow Santáli Christians, Moghals, Subarnabaniks, Khatris, Káyasths, and Lepcha converts to Christianity. In the province as a whole only 26 female Bráhmans per mille are literate, but in Bengal proper the proportion rises to 56. The position of the Káyasths also is improved, if only Bengal proper be considered, and here the proportion is nearly 80 per mille.

As in the case of female education, so also in respect of a knowledge of English, the Baidyas come easily first, with 303 males per mille who are literate in this language. The Subarnabaniks of Calcutta stand next with 268 and the Gandhabaniks with 175, and then the Káyasths with 133. The Bráhmans again hold a relatively low place, and only 74 per 1,000 know English. If, however, we take the Bráhmans of Bengal proper only, the proportion rises to 157, compared with 147 amongst the Káyasths of the same area. Amongst the lower castes, who form the great bulk of the population, there are practically none who are acquainted with English. Bengali is the language which two-thirds of the literate population can read and write, while Hindi claims rather more than a quarter and Oriya rather less than a tenth.

Taking only persons over 15 years of age and adding the learning of 1891 to the literate, we find that the actual number of literate males has increased during the decade by 15 per cent. The greatest proportional advance has been recorded in Orissa and the smallest in East Bengal where the increase in the number of literate persons has barely kept pace with the general growth of the population. In the case of females there has been an increase of 63 per cent. in the number able to read and write, but the proportion of such persons to the total female population is still very small.

285. The persons who are literate in Berar number 123,316 or 45 per 1,000 Berar. of the total population; of these 118,958 or 85 per mille are males and 4,358 or 3 per mille are females. The three northern districts, Amraoti, Akola and Ellichpur, show the best results, and Wun in the south-east, the worst. Four-fifths of the total literate population returned Maráthi as the language which they were able to read and write. The Parsis as a community are the best educated, with 818 literate males per mille and 651 females. They are followed by the Christians with 600 and 518 respectively and the Jains with 462 and 9. The Muhammadans of this Province with 114 and 8 occupy a better position than the Hindus who have only 83 males and 2 females per 1,000 of each sex who are able to read and write. Amongst Hindu castes the Bráhmans occupy the first place, and next to them the Wánis, Rájputs and Kunbis. The Mahárs, Dhangars, Wanjaris, Gonds, Kolis, Korkus and Koláms are practically all illiterate. Fifty-six males and 4 females per 10,000 are acquainted with English. Compared with 1891, there has been an increase of 13 per cent. in the actual number of literate males aged 15 and over, and of 90 per cent. in that of females, and the proportions per 1,000 of each sex now stand at 111 and 3 respectively, as against 94 and 2 at the previous census.

286. There are 1,626,683 persons in the Bombay Presidency who are able Bombay. to read and write, or 64 per mille. The proportion for males is 116 and for females 9 per mille. Excluding Bombay City, where the proportions are 249 and 95 respectively, the diffusion of education is greatest in Gujarát where there are 206 males and 16 females who are literate in every 1,000 of each sex, and in one district, Surat, the proportion of literate males (245 per mille) is almost as

great as in Bombay City. The most backward tract is Sind where the ratio falls to 49 males and 5 females per 1,000 of each sex; and the lowest figures of all are those for Thar and Párkar (18 males and no females): It is, however, to be noted that in spite of an increase of 12 per cent. in the general population, the number of literate Musalmans in Sind has declined considerably since 1891, and in some districts the fall is so startling as to suggest the possibility of errors having crept in in the course of tabulation. It is scarcely credible that there should be only 2,705 literate Muhammadans in Karáchi, where there were 6,566 in 1891 or 389 in Thar and Párkar compared with 1,459 at the previous census. The Provincial Superintendent himself thinks that some mistake must have been made, but he did not apparently have the results tested by fresh tabulation. Of the various religious communities the Parsis head the list with 752 males and 542 females per mille able to read and write, and then the Christians and Jains with

Religion.	NUMBER PER MILLE WHO ARE LITERATE.	
	Males.	Females.
Parsi	752	542
Christian	380	203
Jain	490	27
Hindu	110	5
Musalman	78	5

rather less than half this ratio. The Hindus and Musalmans come last. The position of Christians is lower than it otherwise would have been, partly because of the large number of old converts to Roman Catholicism along the coast, who enjoy few educational facilities, and partly because of numerous conversions during the decade from the lower castes, who are generally illiterate.* The Jains of Gujarát or Marwar, who are for the most part Vánis or traders, show a much higher

standard of literacy than their co-religionists of the South Maráthá country who are mainly cultivators.

287. The caste with the largest proportion of literate males is the Váni with 776 per mille; it is followed by the Bráhmán with 580 and the Prabhu with 474. The figure for Bráhmáns would be much higher, if those of Sind, who are notoriously ignorant, were excluded. The Maráthás, whose traditions are military rather than clerical, have only 59 per mille in Bombay proper and 43 in the Deccan, and the Maráthá Kunbis only 26. The Dheds or Mahárs, who are village menials, come at the bottom of the list with only 7 per mille. The general order is much the same in the case of females, but here the Prabhus take precedence of the Vánis.

The number of English literates in the whole Presidency is 165,785 or nearly twice the number returned in 1891. Of the total nearly 32,000 are Europeans, but even so, of the various religious communities, the Parsi is the one best acquainted with this language, which is more or less familiar to 1 in every 4 persons. The Christians come second with 1 in 5. Amongst the Jains 1 person in 110 knows English, amongst the Hindus 1 in 250 and amongst the Muhammadans 1 in 500. Of the Hindu castes the Prabhus have the highest proportion and English is known to 2 males in every 7; next come the Bráhmáns with 1 in 10 and the Vánis with 1 in 14. Of the Prabhu females 17 per mille know English; with the single exception of Bráhmáns no other selected caste can claim even 1 per mille. Forty-five per cent. of the literate population returned Gujaráti as their language, 33 per cent. Maráthi, 10 per cent. Kanarese, and 5 per cent. Sindhi, the remaining 7 per cent. being divided between Hindostani and various other languages.

The proportion of literate males over 15 years of age is exactly the same as in 1891, while that of females has risen slightly. In view of the fact that the proportion of literate males at the age '15-20' is considerably greater than that at the higher ages, it would seem that education must be more widely diffused than it was ten years ago. We have seen that the present return for Sind is untrustworthy, and if that tract be excluded the proportion at the present census stands at 168 males and 11 females per mille compared with 160 and 8 respectively in 1891. The result disclosed by these figures seems more probable than that for the Presidency as a whole.

288. Although it possesses less than a third of the population of the Madras Presidency, Burma contains very nearly as many literate persons, viz., 2,223,962,

Burma.

* The number of Christians in the Bombay Presidency has risen by 20 per cent. since 1891

of whom 1,907,074 are males and 226,888 are females; the proportional figures for the two sexes work out to 378 and 45 per mille respectively. In almost every village in the province there is a monastery where one of the principal duties of the presiding *pōngyi*, or Buddhist monk, is the instruction, free of charge, of the children belonging to the village. The standard of education is, however, very low—lower even than that in the primary schools recognized by the Education Department, and it is probable that if any test were applied higher than that imposed by the census, *i.e.*, than the mere ability to read and write, the influence of these monastic schools on the statistics would disappear, and Burma would hold a far lower position in comparison with other provinces than that which it occupies on the basis of the present statistics. So far as these statistics are concerned, the most advanced districts are those lying along the banks of the Irrawaddy, from Mandalay to its mouth, and the Upper Chindwin. In all these districts at least 2 males in every 5 are able to read and write, and in five of them, *viz.*, Minbu, the Upper Chindwin, Shwebo, Magwe and Mandalay, more than half can do so. These five districts are all in Upper Burma, where the indigenous system of education is more complete, and the influence of the *pōngyis* is greater, than in Lower Burma. The figures for the latter part of the province are affected in two ways. On the one hand there are numerous immigrants from Upper Burma who help to raise the proportion of the literate, while, on the other, it contains many ignorant aliens who bring down the average. The latter are particularly numerous in Rangoon City, with the result that in that rising industrial centre there are fewer literate males than in any other part of the riparian tract described above.

The prevalence of education amongst females, which depends far more on State aid and encouragement, follows very different lines, and the proportion who can read and write is three times as great in Lower, as it is in Upper, Burma. In the former tract 1 in 15 is literate, Rangoon City taking the first place with 1 in 4, and Hanthawaddy the second, with 1 in 9, while in Upper Burma the general ratio is only 1 in 43, and the highest (in Minbu) is 1 in 28. The absence of all prejudices in favour of the seclusion of women which elsewhere operate so injuriously on the education of females is one of the main reasons why in this province the proportion who can read and write is higher than in any other part of India, Cochin only excepted.

289. Distributed by religion, education is most widely diffused amongst Christians whose literate population represents a ratio of 423 per 1,000 males and 243 per 1,000 females. The Buddhists with 410 and 44 respectively show almost equally good results for males, but in respect of female education their relative position is much lower; it is to be noted, however, that to the total number of literate females the Christians contribute only 16,732 compared with 202,688 who are Buddhists. The proportions for Hindus are slightly better than those for Muhammadans; in respect of females both communities present very similar figures to those for Buddhists, but the proportion of literate males is less than half as great. The Animists, as usual, take the lowest place, but with 48 literate males and 2 literate females per mille, they are not nearly so backward as the corresponding communities in India proper. Of the indigenous races the Burman stands easily first with 490 males and 55 females per mille who are able to read and write. The Talaings, their former rivals in the struggle for the political supremacy, come next with 357 and 62, then follow the Karens and Shans with less than half these proportions, the Chins with 48 and 2 and, last of all, the Kachins with 14 and 2 per mille.

More than 93 per cent. of those able to read and write claimed Burmese as their language; only 1 per cent. returned Shan, and an even smaller number Karen and Talaing.

In comparison with 1891 the proportion of male literates over 15 years of age has fallen from 603 to 529 per mille. This is due mainly to the inclusion in the present returns of the figures for an extensive area, not dealt with in 1891, in which the ratio of educated persons is very low. If the Chin Hills and Shan States be left out of account the ratio for the present census rises to 583. This is still slightly lower than in 1891, but the difference is explained by the growth of the ignorant coolie population from Bengal and Madras. The number of females who can read and write has risen from 34 to 56 per mille, or to 63 if the newly enumerated areas in Upper Burma be left out of the calculation. The

knowledge of English is not commensurate with that of the vernacular languages and in this respect Burma holds a low place compared with the other large provinces. Only 61 males and 13 females per 10,000 of each sex can read and write this language.

Central
Provinces.

290. From the educational point of view the Central Provinces is, next to Kashmir, the most backward tract in the whole of India. Only 54 males and 2 females per 1,000 of each sex have been returned as literate. In British districts the proportions are slightly better than the provincial average, *viz.*, 58 and 2, compared with 32 and 1 in the Native States. In British territory again, the Jubbulpore and Nerbudda divisions are more advanced than those of Nagpur and Chattisgarh. The highest ratio of literate males is found in the Nimar district (112 per mille) and that of females in Nagpur (7 per mille).

Excluding Jews, Sikhs and Parsis, whose total strength is in each case less than 1,000, the highest proportion of literacy is found amongst Christians, where it stands at 473 males and 335 females per mille, or 272 and 203, respectively, if native Christians alone be considered. The Jains have 455 literate males per mille, but the corresponding proportion for females is only 16. In this province, as in Berar and Madras, the Muhammadans, with 177 males and 9 females per mille, who are literate, take precedence of the Hindus, who have only 55 males and 1 female respectively. The Animists as usual occupy the lowest place with only 4 literate males per mille and practically no literate females.

Of the Hindu castes the most advanced are the Káyasths, Baniyas, Bráhmans and Bidurs, in the order named, with from 57 to 33 per cent. of their males literate; these four castes contain between them only 6 per cent. of the total number of Hindu males, but they claim 44 per cent. of those who are able to read and write. Amongst other castes with a fair sprinkling of educated men are the Sonar, Maráthá, Joshi, Bairági, Bhát, Bárai, Rájput, Darji, Gosain, and Kalar. The lower castes and forest tribes have hitherto enjoyed but few opportunities for education and the number of literate males is in nearly all cases less than 1 per cent. The Káyasths alone have a fair proportion of literate females, *viz.*, 26 per mille, compared with 11 and 9 in the case of Baniyas and Bráhmans respectively.

Only 4 males per mille and less than 1 female are able to read and write English. About three-fifths of the total literate population returned Hindi as the language which they could read and write; one-fifth named Maráthi, one-tenth Oriya and one-twentieth Urdu.

The number of literate persons aged 15 and over has increased considerably since 1891 in spite of the high standard of literacy which was taken for census purposes.* The number of pupils on the rolls of the Education Department rose from 111,498 in 1891 to 154,101 in 1896, when further progress was checked, first by the inclusion of the provincial grant for primary education in the general contributions to District Council Funds, and subsequently by a large reduction in these contributions. The District Councils were thus unable to support all the schools and the number of pupils in 1900 was only 127,000.

Madras.

291. Excluding the small provinces of Coorg and Ajmer-Merwara, Madras ranks next to Burma, and the proportion per mille who are literate is 119 in the case of males and 9 in that of females.† In the City of Madras 1 male in 3 and 1 female in 11 can read and write; elsewhere the most

Locality.	PROPORTION OF LITERATE PER MILLE.	
	Male.	Female.
West Coast Division	155.	25
South " " " "	143	9
East " " " "	83	6
Deccan " " " "	81	4
Agency " " " "	18	1

advanced tract is the West Coast Division which includes the Nilgiris, Malabar and South Canara. In respect of males it is followed closely by the South Division, but its literate females are relatively almost three times as numerous as those of the latter tract. The remote and sparsely populated Agency division is naturally the most backward. Of the main religious communities, the Christ-

ians lead the way with 198 males and 91 females per mille, or 162 and 59

* *Ante*, paragraph 266.

† Excluding Cochin and Travancore which are dealt with separately in paragraph 297.

respectively, if Europeans and Eurasians are excluded. They are followed by the Muhammadans with 140 and 9 and the Hindus with 116 and 7. The Animists, as usual, are almost wholly illiterate. The relatively large number of literate Muhammadans is due in part to the special efforts made by Government in recent years to moderate the fanaticism of the Mappilas by giving them special educational advantages. The low position of the Hindus as a body is explained by the dead weight of the lower castes, who do not readily take to learning. The superior castes contain a much larger proportion of persons able to read and write than the Muhammadans, and far surpass them in the matter of higher education.

292. The statistics of literacy by caste show that next to the Eurasians, who are almost all literate, the Bráhmans stand first with 578 males and 44 females per mille. The proportions for this caste vary in different parts of the Presidency. The Tamils have most literate males (736 per mille) and the Malayálam Bráhmans most literate females (212 per mille); the wider diffusion of female education amongst the latter gives them the first place for the two sexes taken together. Those who speak Oriya are the most backward section of the caste and take rank below the Komatis, Náyers and Chettis. The Native Christians, who are recruited for the most part from the lowest servile castes, rank next, and then various groups of artizans, toddy-drawers and oil-pressers. Certain castes of cultivators and shepherds, though of higher social rank than those just referred to, are outstripped by them in the matter of education. Last of all come the earth-diggers, leather-workers, agricultural serfs and various hill and forest tribes. Mr. Francis draws attention to the superiority in education of the Malayálam to the corresponding Tamil castes, and of the Tamils to the corresponding Telugus. At the same time Tamil is the language best known to 56 per cent. of those who can read and write, Telugu to only a quarter and Malayálam to only one-ninth.

Only 90 males and 10 females in every 10,000 of each sex are able to read and write English.* In this respect the Hindus slightly excel the Muhammadans. Amongst Bráhmans the language is known to 975 in every 10,000 males but to only 11 females in the same number. So far as the latter sex is concerned the Native Christians with 77 in 10,000 show the best results; the corresponding proportion for males is 272. The figures for the English-knowing are much smaller than one would have expected from the extent to which this language enters into the general school curriculum, and from the fact that it is taught even in primary schools in the larger towns, as well as from the increasing degree to which it is spoken by the lower classes, especially by domestic servants, and it would seem that the standard taken by the enumerators must have been too high to permit of their inclusion. Many of those who can speak English are not able to read or write it.

293. In comparison with 1891 the results of the present census are very disappointing and only 174 males and 11 females per 1,000 of each sex are literate at the age of 15 and over, as against 188 and 9 respectively ten years earlier. It seems scarcely credible that there can have been a retrogression to this extent. The returns of the Education Department show that the

Year.	Number of pupils in all schools.
1881	337,808
1891	644,164
1901	850,324

number of persons under instruction has increased very greatly during the last two decades and unless the rise is due mainly to some change of system, i.e., to the inclusion in the returns of schools previously left out of account, a considerable growth of the literate population must have taken place. Mr. Francis is of opinion that the standard of literacy was higher at the

present census than in 1891. He says:—

“Mr. Stuart thought that in 1891 the number of literate males above the age of 25 was exaggerated by the inclusion therein of people who could only sign their names, and consequently at all the classes of oral instruction of Tahsildars and others held in the districts I emphasised the necessity of precautions against the repetition of this error. At these classes I was almost always asked to define the term ‘literate,’ and the answer always given was that no person should be considered to be literate who could not write a letter to a friend and read the reply received from him. It is thus probable that the standard of literacy required at the present census was higher than that demanded at former enumerations.”

* Cochin and Travancore are again left out of account.

However this may be, the decline in the case of males is common to all districts except the Nilgiris.

Punjab and
North-West
Frontier
Provinces.

294. Including the Feudatory States there are, according to the census, 676,603 persons in the Punjab who are able to read and write. This gives a proportion of 36 per mille for the total population, or of 64 males and 8 females for each sex taken separately. The proportion of literate males is 63 per mille in British districts compared with 48 in the Native States, but in other respects the local variations in the prevalence of education are far less marked in the Punjab than in most provinces, and in natural divisions the proportion ranges between 60 per mille in the western part of the Gangetic plain and 70 in the "North-West Dry Area". Of individual districts the most advanced are Multan,* where 1 male in every 10 can read and write, and Jhang, Dehra Ismail Khan and Rawalpindi where 1 in 11 can do so. In Hazara and Kurram, on the other hand, only 1 male in 30 is literate. The total number of literate females is so small that the proportions are much influenced by the inclusion of Europeans, and the districts which head the list are those where Europeans are numerous such as Peshawar, Rawalpindi, Simla and Lahore.

The Parsis and Christians claim as literate three-fifths and one-half respectively of their total strength. The proportions

Religion.	LITERATE PER 1,000.	
	Males.	Females.
Parsi	781	482
Christian	672	311
Jain	480	18
Buddhist	164	10
Sikh	93	7
Hindu	103	4
Muhammadan	26	1

for the other religions are:—Jains 1 in 4, Buddhists 1 in 12, Hindus 1 in 17, Sikhs 1 in 19 and Muhammadans 1 in 68. Of the 42,432 literate females nearly one-fifth are Christians. The proportions for all other religions are very small; their relative position is the same as in the case of males, the Jains coming first and the Muhammadans last of all. The optional table showing education by caste was not prepared in the Punjab. There are 98,831 persons literate in English

of whom one-third are Christians. Excluding this religion there are only 66,506 males and 760 females who know English. The proportion per 10,000 males is:—for Hindus 72, for Sikhs 49 and for Muhammadans 25. Of the total number of persons returned as literate 38 per cent. can read and write Urdu, 25 per cent. Lande or Mahājani, 17 per cent. Gurmukhi and 15 per cent. Hindi.

The total number of literate persons at the age of 15 and upwards is 868,743, viz., 835,642 males and 33,101 females compared with 789,911 males and 18,798 females in 1891. The absolute number shows an increase for both sexes, but in the case of males the gain is not commensurate with the general growth of the population and the proportion per mille is smaller now than it was ten years ago. Mr. Rose thinks that the enumerators were inclined to omit from the record literacy in scripts like Tankri and Lande which are not taught in the Government schools, but the error on this score was probably not greater on the present occasion than in 1891.

United
Provinces.

295. The returns for the United Provinces place the number of literate persons at 1,435,844 males and 56,413 females. The proportion per mille is 57 for males and 2 for females. So far as can be gathered from the statistics collected at the census, the Western Himalayan districts, with a literate population of 105 males and 5 females per mille, are the best educated part of the province. The proportions are almost identical in the Central India Plateau, Mirzapur and the Eastern part of the Gangetic plain, where literate persons are less numerous by one-third than in the area first mentioned. Then follow the central part of the Gangetic plain, the Sub-Himalaya East, the Western plain and, last of all, the Sub-Himalaya West, or the line of districts between Sahāranpur and Pilibhit. Dehra Dūn with its large population of Europeans and Eurasians is the only district where the number of educated females (20 per mille) is at all appreciable; Lucknow and Benares have 8 and Allahabad and Bareilly 6, but in no other district does the proportion exceed 5 per mille, while in Fatehpur, Hamirpur and Gonda it is less than 1. The above distribution of the literate is almost the reverse of that indicated by the statistics of the Education Department, a circumstance which Mr. Burn explains by the suggestion that private education is most common in the districts where the census proportions are highest.

* Excluding Malakand, Dir, Swat and Chitral.

The greatest prevalence of literacy (481 males and 318 females per mille) is found amongst Christians. Separate figures are not available for Native Christians, but Mr. Burn mentions that the mission which has obtained the largest number of converts has recently been compelled by want of funds to close many of its schools. The Jains come next, with two-fifths of their male population able to read and write, but in respect of their females they are surpassed by the small community of Aryas who, with very nearly the same proportion for males, have 1 literate female in every 15, compared with only 1 in 59 amongst the Jains. The Hindus have only 30 literate persons per mille and the Muhammadans 28; the sex proportions for the former are 56 males per mille and 2 females, and for the latter 52 and 3.

The United Provinces are as backward in respect of a knowledge of English as they are in education generally, and only 35 males and 5 females per 10,000 claim to be able to read and write this language. Excluding Christians the proportions are only 26 and 0.2. It is noteworthy that 37 Musalman males in every 10,000 know English compared with only 23 Hindus, whereas in Bengal the corresponding proportions are 114 for Hindus and only 28 for Muhammadans.

296. Only eight castes were dealt with in the table showing education by caste and the conclusions to be drawn from it are thus very limited. The most interesting fact disclosed is the high educational position of the Káyasths; they constitute barely 1 per cent. of the total population, but they claim 11 per cent. of the total number of persons who can read and write, and 20 per cent. of the aggregate of literate females.

Mr. Burn has compiled some very interesting information regarding the characters in use in the United Provinces. More than a million persons know only the Nagri character or some cursive form derived from it (Kaithi), as compared with about a quarter of a million who know the Persian character only and rather more than an eighth of a million who know both.

In spite of the fact that the number of pupils in primary schools has risen during the decade from 158,908 to 276,396, the present census shows a slight decline in the proportion of males who are literate at the age of 15 and upwards. The increased attendance at primary schools, and especially at those of the "Aided" class, dates mainly from 1896, when an additional grant of Rs. 75,000 was made to District Boards for expenditure on the advancement of primary education, and when the census was taken there had scarcely been time for this to have affected the number of literate persons at the ages at which alone comparison with the results of the previous census is possible. But even so, it is difficult to believe that there has been a real falling off in the proportion of the literate amongst males. The proportion of literate females per mille has improved, but the absolute number is still very paltry.

297. It is not proposed to discuss in detail the statistics relating to Native States, and only a few points of special interest will be noticed.

From an educational standpoint the two States of Cochin and Travancore in the Madras Presidency are exceptionally advanced and take rank above all the British provinces except Burma. In Cochin 22 per cent. of the male population can read and write and the proportion is almost as high in Travancore. In the former State 45 females per mille are literate and in the latter 31. Travancore has improved its position since 1891, but Cochin has retrograded, and the proportion of males aged 15 and over who are literate has fallen from 357 to 333 per mille. The high position of these two States is due in part to the fact that a quarter of their inhabitants are Christians, mainly of the Syrian Church, or its modern offshoots who are far better educated than the other sections of the community.

298. Baroda follows next with 163 males and 8 females per 1,000 of each sex. This represents a marked improvement, as compared with 1891, and is ascribed to measures taken in that year to increase the number of the village schools where the first rudiments of knowledge are taught. The expenditure on education in this State is far above the average and works out to 7 annas per head of the population.

299. The only other State with a fair relative prevalence of education is Mysore. Mysore, where there are 93 males and 8 females per mille who can read and write. If we exclude persons under 15 years of age, the proportions have risen

slightly since 1891, but this is due to immigration rather than to the greater activity of local educational institutions. Amongst immigrants the proportion of literate persons per mille is 157 for males and 21 for females compared with only 84 and 5 respectively amongst the native-born. The Christians and Jains are the best educated religious communities, and the Musalmans have relatively twice as many literate persons as the Hindus, though not so many as the higher Hindu castes such as Bráhmaṇ, Komati, Nagartha and Pille. Eighty per cent. of the literate population returned their mother-tongue as the language in which literate; the rest, chiefly immigrants of Tamil, Telugu or Maráthá origin, named other languages, which they had a better opportunity of learning in the local schools. A knowledge of English is found mainly in the cities of Mysore and Bangalore and in the Kolar Goldfields.

Central
India and
Rajputana.

300. The proportional figures for 1891 shown against Central India and Rajputana refer only to the results obtained in certain towns where alone literacy was recorded in that year, and they are of no value for purposes of comparison. In Central India the Jains are almost wholly engaged in mercantile pursuits, and it is therefore not surprising to find that 36 per cent. of their males can read and write. The high proportion amongst the Muhammadans (14 per cent.) is accounted for by the circumstance that the followers of this religion are generally connected with certain dominant families. The Hindus who form the great bulk of the population are mainly agrarian and only 5 per cent. of their males are literate. The Mahesris are the best educated caste of Hindus; they are followed by the Bráhmaṇs and Agarwáls. The Rájputs, who include in their ranks many of the ruling families, also take a high place. The Animists who number about a million can boast of only 946 persons able to read and write. Of the different Agencies, etc., the Indore Residency takes the highest place with a literate population of 177 males and 13 females per mille.

The general results in Rajputana are much the same as those in Central India, but while the standard of literacy amongst males is somewhat higher, there are fewer females who can read and write. In Rajputana, moreover, the Muhammadans rank below the Hindus, as they include in their ranks numerous converts from the lower sections of Hindus who are mostly agriculturists and amongst whom education has made little progress. The proportion of literate persons is highest in Siróhi (124 males and 6 females per mille) and lowest in Dholpur where only 26 males per 1,000 and 5 females per 10,000 can read and write.

Hyderabad.

301. The proportional strength of the literate population in Hyderabad is almost identical with that in Central India. The statistics indicate a slight improvement in the number of educated females, but that of males has suffered a considerable diminution. The Jains, of whom more than 1 male in 3 can read and write, are as usual far better educated than the Hindus or Muhammadans. The ruling prince being a Muhammadan, it perhaps is only natural that his co-religionists, with 1 literate male in 10, should be far ahead of the Hindus, of whom only 1 male in 21 can read and write.

Kashmir.

302. As already stated, Kashmir is, in educational matters, the most backward tract in the whole of India. The whole State contains only 74 schools with 5,428 pupils, an insignificant number compared with the total population of school-going age which approaches a million. The Muhammadans, who form three-quarters of the population, are by far the most ignorant, and only 7 per mille can read and write compared with 58 per mille in the case of Hindus.*

* In *The Valley of Kashmir*, Sir Walter Lawrence shows that in 1891, when there were only 1,585 boys on the rolls of the State schools, the Hindus, though forming less than 7 per cent. of the population, monopolised over 88 per cent. of the education bestowed by the State. He adds that the more affluent of the villagers prefer the Mosque schools to the instruction given by the State and that many Muhammadans of the better class can read and write Persian with ease. In these circumstances one would have expected to see a somewhat higher proportion of literate Muhammadans than that indicated by the census figures.

SUBSIDIARY TABLE I.

Education by age, sex and religion.

Age Period.	NUMBER PER 1,000.						NUMBER PER 1,000 LITERATE IN—				NUMBER PER 10,000 LITERATE IN ENGLISH.			FEMALES TO 1,000 MALES.		
	LITERATE.			ILLITERATE.			PROVINCIAL VERNACULARS.		OTHER LANGUAGES.		Total.	Male.	Female.	Literate.	Illiterate.	Literate English.
	Total.	Male.	Female.	Total.	Male.	Female.	Male.	Female.	Male.	Female.						
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.
All religions.																
All ages	53	98	7	947	902	993	95	6	4	...	38	68	7	68	1,061	11
0-10	8	13	2	992	987	998	13	2	...	...	5	7	2	157	1,001	3
10-15	51	85	10	949	915	990	82	9	2	1	38	62	9	99	892	11
15-20	75	132	14	925	868	986	129	12	5	1	74	131	13	95	1,056	11
20 and over	74	139	8	826	861	922	134	7	7	1	50	91	8	54	1,140	11
Hindu.																
All ages	50	94	5	950	906	995	93	4	3	...	38	64	1	48	1,065	11
0-10	8	14	2	992	986	998	14	1	...	...	3	5	...	102	1,006	3
10-15	49	83	7	951	917	993	82	7	1	...	36	64	1	69	896	11
15-20	71	127	10	929	873	990	126	10	3	...	71	133	2	69	1,028	11
20 and over	68	131	5	932	869	995	128	5	5	...	41	81	1	39	1,147	11
Sikh.																
All ages	59	98	7	941	902	993	106	7	4	...	30	52	...	58	842	...
0-10	5	7	2	995	993	998	8	2	...	...	1	2	...	168	765	...
10-15	44	87	10	956	933	990	71	10	1	...	26	43	...	103	704	...
15-20	67	103	14	933	897	986	115	14	3	...	79	131	1	89	731	...
20 and over	83	143	8	917	857	992	156	8	7	...	34	61	...	47	936	...
Jain.																
All ages	252	470	18	748	590	982	453	17	29	1	70	134	1	35	1,721	...
0-10	47	87	7	953	913	993	85	7	2	...	4	8	...	82	1,077	...
10-15	252	442	30	748	558	970	431	29	16	1	82	150	2	58	1,436	...
15-20	329	557	29	671	413	971	588	28	34	1	165	304	3	42	2,023	...
20 and over	317	598	18	683	404	982	572	17	41	1	76	146	1	28	2,272	...
Buddhist.																
All ages	220	402	42	780	598	958	398	42	4	...	12	24	1	108	1,640	...
0-10	22	33	11	978	967	989	33	11	...	...	2	3	...	346	1,043	13
10-15	197	327	58	808	673	942	325	57	2	...	13	24	1	165	1,312	5
15-20	283	519	72	717	481	928	514	72	5	...	24	50	2	156	2,163	4
20 and over	316	590	50	684	410	950	585	50	6	...	15	30	1	87	2,388	3
Zoroastrian.																
All ages	649	756	538	351	244	462	690	505	67	80	3,555	4,075	981	679	1,807	22
0-10	211	220	201	789	780	799	201	187	16	12	222	268	177	922	1,036	66
10-15	781	840	715	219	160	285	783	656	41	38	2,078	2,780	1,312	779	1,632	43
15-20	850	909	789	160	91	211	836	750	84	37	3,904	5,546	2,183	828	2,289	37
20 and over	742	806	581	258	105	419	813	548	87	34	3,235	5,381	958	612	3,761	16
Musalman.																
All ages	33	60	8	967	940	997	54	2	7	1	17	32	...	47	995	1
0-10	4	7	1	996	993	999	7	1	1	...	1	2	...	115	982	3
10-15	31	51	4	969	949	996	47	3	5	1	16	28	...	64	833	1
15-20	45	84	5	955	916	995	76	4	9	2	39	75	1	64	1,054	1
20 and over	48	89	4	952	911	996	80	3	11	1	22	43	1	39	1,035	1
Christian.																
All ages	211	291	125	789	700	875	193	74	40	31	963	1,289	615	403	1,154	44
0-10	49	53	44	951	947	956	32	24	9	8	231	243	219	856	1,033	32
10-15	213	245	177	737	755	823	194	126	20	18	734	786	676	656	989	78
15-20	290	361	217	710	639	783	284	145	33	28	1,164	1,369	954	587	1,200	68
20 and over	287	414	144	713	586	856	261	77	62	28	1,390	1,939	773	309	1,300	35
Ahmist.																
All ages	4	8	...	996	992	1,000	5	...	2	...	1	2	...	59	1,023	5
0-10	1	1	...	999	999	1,000	1	...	...	...	...	...	...	160	1,027	7
10-15	4	7	1	996	993	999	5	...	2	...	1	1	...	66	890	11
15-20	6	11	1	994	989	999	8	1	2	...	2	4	...	72	1,057	5
20 and over	6	11	1	994	989	999	8	...	4	...	2	3	...	50	1,051	5

SUBSIDIARY TABLE II.

Education by age, sex and locality.

PROVINCE, STATE OR AGENCY.	LITERATE PER 1,000.									
	0-10.		10-15.		15-20.		20 and over.		All ages.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
1. INDIA.	13	2	85	10	132	14	139	8	98	7
Provinces.	14	2	89	10	138	14	145	8	102	7
Ajmer-Merwara	20	4	94	10	119	12	157	9	120	8
Assam	18	2	65	7	92	8	94	5	87	4
Bengal	19	2	101	8	140	9	147	6	104	5
Bengal Proper	25	3	133	13	177	13	177	9	128	8
Bihar	10	1	61	3	93	4	102	3	70	2
Orissa	18	1	105	5	139	6	175	4	120	4
Chota-Nagpur	8	1	41	4	65	5	76	3	49	3
	13	2	84	6	129	6	109	3	85	3
	21	3	117	15	168	19	153	9	116	9
	33	12	315	61	485	77	537	53	378	45
Central Provinces	5	1	49	4	81	4	76	2	54	2
Coorg	8	3	92	23	162	37	173	16	128	16
Madras	11	2	95	15	160	22	175	10	119	9
N.-W. Frontier and Punjab	4	1	48	5	82	6	96	4	64	3
United Provinces of Agra and Oudh	6	1	45	3	76	4	81	3	57	2
States and Agencies.	11	2	62	9	104	12	108	7	79	6
Baroda State	34	4	160	13	206	13	208	7	163	8
Central India Agency	10	1	49	4	75	8	72	4	55	3
Cochin State	17	7	168	59	252	77	343	56	224	45
Hyderabad State	9	2	45	5	77	6	75	4	55	3
Kashmir State	2	...	22	1	45	1	60	1	38	1
Mysore State	14	3	82	11	144	18	128	8	93	8
Rajputana Agency	11	...	43	2	77	3	83	2	62	3
Travancore State	17	7	136	43	264	58	319	35	215	31

SUBSIDIARY TABLE III.

Education by religion, sex and locality.

PROVINCE, STATE OR AGENCY.	LITERATE PER 1,000.									
	HINDU.		JAIN.		MUSALMAN.		CHRISTIAN.		AHMEDI.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
1. INDIA.	94	5	470	18	60	3	291	125	8	...
Provinces.	99	5	477	24	60	3	297	152	9	1
Ajmer-Merwara	95	5	457	11	96	4	644	508	...	...
Assam	90	4	...	...	44	2	325	217	9	1
Bengal	127	6	739	33	68	2	310	191	8	...
Berar	83	2	462	9	114	8	600	518	2	...
Bombay	110	5	490	27	73	5	390	208	11	...
Burma	207	42	...	...	194	39	423	243	48	2
Central Provinces	55	1	455	16	177	9	478	335	4	...
Coorg	121	13	...	...	169	13	363	169	1	...
Madras	116	7	415	16	140	9	198	91	5	...
N.-W. Frontier and Punjab	103	4	480	18	26	1	572	311	...	...
United Provinces of Agra and Oudh	56	2	397	17	52	3	431	318	...	...
States and Agencies.	72	5	456	9	67	6	281	75	3	...
Baroda State	160	5	887	19	178	6	135	47	7	...
Central India Agency	50	3	361	8	138	16	709	445	2	...
Cochin State	218	39	500	...	125	6	273	73	1	...
Hyderabad State	43	2	342	6	97	10	551	307	2	...
Kashmir State	107	2	602	...	13	...	521	393	...	...
Mysore State	86	5	424	24	163	25	391	238	5	1
Rajputana Agency	50	1	464	8	44	3	709	719	2	...
Travancore State	208	25	...	...	158	11	259	58	3	1

SUBSIDIARY TABLES.

SUBSIDIARY TABLE IV.

English Education by age, sex and locality.

PROVINCE, STATE OR AGENCY.	LITERATE IN ENGLISH PER 10,000 IN 1901.										LITERATE IN ENGLISH PER 10,000 IN 1901.	
	0-10.		10-15.		15-20.		20 and over.		All ages.		All ages.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
INDIA.	7	2	62	9	131	13	91	8	68	7	36	5
Provinces.	7	3	63	10	143	14	93	9	74	7	37	4
Ajmer-Merwara	53	11	144	23	259	28	186	35	165	29	87	12
Assam	6	1	66	4	117	6	89	6	64	5	35	2
Bengal	12	2	107	8	180	9	114	7	89	6	43	3
<i>Bengal Proper.</i>	18	3	173	13	280	14	173	12	138	9	67	5
<i>Bihar</i>	4	1	34	2	65	3	42	2	33	2	16	1
<i>Orissa</i>	4	1	29	2	53	2	36	2	28	1	17	1
<i>Chota-Nagpur</i>	4	1	24	2	45	2	42	2	27	1	12	1
Berar	3	1	44	5	126	6	71	4	56	4	17	1
Bombay	8	5	79	19	217	32	154	17	112	15	60	10
Burma	10	4	49	16	89	21	83	14	61	13	40	10
Central Provinces	3	2	16	5	62	6	56	5	37	4	18	3
Coorg	11	7	88	31	211	28	189	33	141	24	75	15
Madras	7	3	80	15	190	25	121	12	90	10	44	10
N.-W. F. and Punjab	3	2	43	7	119	9	88	7	63	6	30	4
United Provinces of Agra and Oudh.	14	2	25	5	57	7	56	6	35	6	18	3
States and Agencies.	4	2	27	7	66	10	50	6	37	5	23	5
Baroda State	2	...	37	2	115	3	67	2	53	2	18	1
Central India Agency	4	1	21	4	56	5	44	4	33	3	645	137
Cochin State	5	1	114	27	266	36	135	10	108	12	...	...
Hyderabad State	3	3	16	6	31	6	30	5	21	4	14	3
Kashmir State	...	...	8	...	23	...	13	1	9	...	...	...
Mysore State	6	4	64	16	172	34	113	19	83	16	51	11
Rajputana Agency	4	1	13	1	22	2	25	2	19	1	...	...
Travancore State	4	2	60	20	176	27	119	14	87	13	...	...

Note.—The proportions knowing English in 1901 are based on the figures for the persons returned as 'literate'; statistics of the English-knowing were not collected for the persons then returned as 'learning.' The figures against Madras in columns 12 and 13 include Cochin and Travancore, and those for Central India refer only to the persons enumerated in a few towns and on the railway.

SUBSIDIARY TABLE V.

Progress of education since 1881 by locality.

PROVINCE, STATE OR AGENCY.	NUMBER PER 1,000 MALES.						NUMBER PER 1,000 FEMALES.						NUMBER PER 1,000 OVER 15 YEARS OF AGE WHO ARE LITERATE.			
	1901.		1891.		1881.		1901.		1891.		1881.		MALE.		FEMALE.	
	Literate.	Learning.	Literate.	Learning.	Literate.	Learning.	Literate.	Learning.	Literate.	Learning.	Literate.	Learning.	1901.	1891.	1901.	1891.
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.		
INDIA.	98	87	32	66	25	7	4	2	3	1	138	141	8	6		
Provinces.	102	86	23	66	25	7	4	2	3	1	144	141	9	6		
Ajmer-Merwara	120	111	21	93	23	8	6	2	5	1	161	176	9	9		
Assam	67	58	18	33	14	3	2	1	1	...	94	100	6	3		
Bengal	104	81	34	53	29	5	3	1	2	...	146	137	7	4		
Berar	85	58	26	42	20	3	1	1	1	...	111	94	3	2		
Bombay	116	94	32	78	29	9	5	2	3	2	155	155	10	7		
Burma	378	391	59	352	109	45	24	5	18	18	529	603	56	34		
Central Provinces	54	38	14	32	15	2	1	1	1	1	77	66	2	2		
Coorg	138	112	44	88	43	16	9	8	5	5	171	169	20	13		
Madras	119	116	38	103	35	9	7	3	6	3	174	188	11	9		
N.-W. F. and Punjab	64	59	13	47	14	3	2	1	1	1	93	97	4	3		
United Provinces of Agra and Oudh	57	51	10	45	13	2	2	...	1	...	80	83	3	2		
States and Agencies.	79	91	22	64	19	6	7	2	1	1	107	143	8	10		
Baroda State	163	109	31	87	19	8	4	2	1	1	207	175	8	6		
Central India Agency	55	242	36	238	63	3	27	6	26	17	72	329	4	37		
Cochin State	224	238	66	...	...	45	58	17	...	...	333	337	59	58
Hyderabad State	55	59	13	60	13	3	2	1	...	...	75	92	4	3
Mysore State	93	81	34	81	31	3	5	3	2	2	131	127	9	7		
Rajputana Agency	53	266	42	...	...	2	36	23	...	...	82	340	3	123
Travancore State	215	191	40	...	...	31	27	8	...	...	311	286	38	...

Note.—In columns 12 and 13 persons shown as learning in 1901 have been treated as literate. The figures against the Central India Agency for 1891 refer not only to the inhabitants of certain towns. Similarly the 1891 figures for Rajputana are based on the return for (1) Railway, (2) Europeans and Europeans.

SUBSIDIARY TABLE VI.

Education by Selected Castes.

CASTES.	NUMBERS PER 1,000.						NUMBERS PER 10,000 LITERATE IN ENGLISH.			PERCENTAGE OF PROPORTION OF LITERATE OR CORRESPONDING PROPORTION FOR THE WHOLE PROVINCE.		
	Literate.			Illiterate.			Total.	Male.	Female.	Total.	Male.	Female.
	Total.	Male.	Female.	Total.	Male.	Female.						
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
ASSAM.												
Brahman	297	517	27	703	483	973	330	592	8	825	772	675
Kayastha	279	471	56	721	529	944	498	910	9	775	703	1,400
Kalita	50	93	2	950	907	993	43	81	1	139	139	50
"	48	90	3	952	910	997	20	39	...	133	134	75
"	31	59	2	989	941	998	50	37	1	86	88	50
"	30	58	1	970	942	999	12	23	...	83	87	25
Kalbarita and Kowat	26	50	1	974	950	999	18	35	...	72	75	25
Chutiya	24	46	...	976	954	1,000	24	47	...	67	69	...
Booh	24	46	1	976	954	999	16	31	...	67	69	25
Nadial (Dom-Patal)	20	37	2	980	963	998	5	10	...	56	55	50
BENGAL.												
Baidya	456	648	259	544	352	741	1,585	3,039	85	829	623	5,189
Kayastha	311	560	66	689	440	934	673	1,323	33	567	533	1,320
Brahman	288	467	26	762	533	974	356	737	6	483	449	520
Madgop	139	268	12	861	732	983	165	323	2	352	353	240
Kalbarita (Ohasi)	130	323	4	870	677	996	53	131	...	236	311	80
Pod	94	183	5	906	817	995	15	29	...	170	175	100
Babhan	88	166	9	912	834	991	13	27	...	160	160	180
Teli	60	118	3	940	882	997	26	53	...	103	113	40
Chandal or Namasudra	33	64	1	967	936	999	4	9	...	60	62	20
Rajbansi	61	59	1	969	941	999	3	6	...	56	56	20
Jolaha	25	50	2	975	950	998	10	20	...	45	43	40
Santal	5	7	...	997	993	1,000	...	1	...	5	7	...
BERAR.												
Brahman (Akola)	366	595	47	634	405	953	620	1,054	15	812	700	1,567
Wani (")	309	530	8	691	470	992	38	66	...	687	624	267
Pathan (")	56	104	7	944	896	993	45	88	2	124	123	233
Shekh. (")	52	97	7	943	903	993	34	66	1	116	114	233
Teli (Amraoti)	33	64	1	967	936	999	6	12	...	73	75	33
Kur (Akola)	33	64	2	967	936	998	5	9	...	73	75	67
Mali (Amraoti)	32	42	...	978	958	1,000	5	9	...	49	49	...
" (")	5	9	...	995	991	1,000	2	4	...	11	11	...

SUBSIDIARY TABLES.

SUBSIDIARY TABLE VI—*contd.*

Education by Selected Castes—*contd.*

Castes.	NUMBERS PER 1,000.						NUMBERS PER 10,000 LITERATE IN ENGLISH.			PERCENTAGE OF PROPORTION OF LITERATE OR CORRESPONDING PROPORTION FOR THE WHOLE PROVINCE.		
	Literate.			Illiterate.			Total.	Male.	Female.	Total.	Male.	Female.
	Total.	Male.	Female.	Total.	Male.	Female.						
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
BOMBAY.												
Vani (Gujarat)	444	770	158	556	224	842	331	709	5	694	669	1,757
Prabhu	328	474	177	672	526	823	1,566	2,914	172	612	409	1,967
Brahman	323	580	54	677	420	946	529	1,026	10	505	500	1,005
Native Christian	286	378	110	714	627	890	2,472	2,846	1,713	447	322	1,221
Bhatia (Sind)	182	321	35	818	679	965	190	368	2	284	277	35
Musalman	24	44	2	976	956	998	8	15	...	37	38	...
Maratha (Deccan)	19	43	1	981	957	999	4	8	...	30	37	...
„ (Bombay Proper)	23	59	1	922	941	999	5	10	...	22	51	...
„ Kunbi	11	26	...	989	974	1,000	3	7	...	9	22	...
Koli	13	24	1	987	976	999	...	...	...	20	21	...
Dhed or Mahar	4	7	...	996	993	1,000	1	2	...	6	6	...
BURMA.												
Burmese	268	490	55	732	510	945	11	20	2	125	130	...
Talaing	211	357	62	789	643	938	11	19	3	98	94	...
Karen	91	143	37	805	657	900	23	33	12	42	38	...
Shan	79	162	9	921	848	991	1	2	...	37	40	...
Chin	25	48	2	975	952	993	1	1	...	12	13	...
Kachin	8	14	2	992	986	998	...	...	...	4	4	...
CENTRAL PROVINCES.												
Bania	232	446	11	768	554	989	49	95	1	829	826	57
Brahman	194	365	9	806	635	991	176	337	2	693	676	4
Sonar	100	215	4	891	785	996	21	42	...	389	398	50
Maratha	100	200	3	900	600	997	89	180	1	357	370	15
Bairagi	85	160	4	915	840	996	2	4	...	304	296	2
Kalar	52	105	1	948	895	999	10	19	...	186	194	50
Gond	3	6	...	997	994	1,000	...	...	...	11	11	...
Chamar	2	4	...	998	996	1,000	...	...	...	7	7	...
MADRAS.												
Eurasian	719	729	710	281	271	280	7,045	7,150	6,951	1,141	613	7,8
Brahman	308	578	44	692	422	956	488	975	11	489	486	4
Native Christian	109	162	59	891	828	941	173	272	77	173	136	6
Kammala	104	207	3	896	793	997	5	11	...	165	174	...
Shanan	79	154	6	921	846	994	3	5	...	125	129	...
Mappilla	45	87	4	955	913	996	3	5	1	71	73	...
Paraiyan	5	10	...	995	990	1,000	...	...	...	8	8	...
Mala	3	6	...	967	994	1,000	...	1	...	5	6	...
Madiga	1	2	...	999	998	1,000	...	...	...	2	2	...
Cheruman	1	2	...	999	998	1,000	...	...	...	2	2	...

SUBSIDIARY TABLE VI—*contd.*Education by Selected Castes—*contd.*

CASTES.	NUMBER PER 1,000.						NUMBER PER 10,000 LITERATE IN ENGLISH.			PERCENTAGE OF PROPORTION OF LITERATE OR CONSISTENT WITH PROPORTION FOR THE WHOLE PROVINCE.		
	Literate.			Illiterate.			Total.	Male.	Female.	Total.	Male.	Female.
	Total.	Male.	Female.	Total.	Male.	Female.						
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
UNITED PROVINCES OF AGRA AND OUDH.												
Kayastha	310	553	43	690	447	954	...	...	...	1,000	970	2,310
Chandal	9	17	1	991	983	999	...	...	...	29	30	50
Chamar	9	17	1	991	983	999	...	...	...	29	30	50
Chamar	1	...	...	999	998	1,000	...	...	...	3	4	...
BARODA STATE.												
Andraseni (Kayastha) (Babu)	437	744	88	503	256	912	921	1,671	68	497	456	1,100
Chaman (Maharashtra)	424	730	56	576	270	944	555	1,018	...	482	448	700
Chaman	337	631	18	663	369	982	177	338	2	383	387	225
Chaman (Gujarati)	228	429	17	773	571	983	78	150	3	259	263	212
Chaman	184	339	8	816	681	992	117	219	2	209	208	100
Kunbi	178	316	14	822	684	986	30	56	...	202	194	175
Chaman (Vanza)	188	275	1	999	725	999	11	23	...	157	169	12
Chaman	17	147	1	923	853	999	13	25	...	87	90	12
Chaman	41	80	...	959	920	1,000	4	8	...	47	49	...
Chaman	6	12	...	994	988	1,000	...	...	...	7	7	...
CENTRAL INDIA AGENCY.												
Chaman	120	231	10	880	769	990	117	222	12	400	429	333
Chaman	97	183	3	903	817	997	13	26	...	323	323	100
Chaman	64	110	5	936	890	995	50	86	4	213	200	167
Chaman	61	115	1	939	885	999	2	4	...	203	203	33
Chaman	8	14	...	992	986	1,000	1	2	...	27	25	...
COCHIN STATE.												
Chaman (Malayali)	472	695	227	528	305	773	34	66	...	352	310	504
Chaman (Malayali)	466	615	319	534	385	681	617	1,171	67	318	275	709
Chaman	266	425	110	734	575	881	108	209	14	199	190	264
Chaman	172	270	72	828	730	928	59	96	21	128	121	100
Chaman	102	202	6	898	798	994	2	3	...	70	90	13
Chaman	66	126	7	934	874	993	4	9	...	49	56	16
Chaman (Jonakan)	62	118	5	938	882	995	2	4	...	46	53	11
Chaman	23	41	1	977	959	999	3	5	...	17	18	2
Chaman	4	8	...	996	992	1,000	...	...	...	3	4	...

SUBSIDIARY TABLE VI—concl'd.

Education by Selected Castes—concl'd.

Castes.	NUMBERS PER 1,000.						NUMBERS PER 10,000 LITERATES IN SPECIAL.			PERCENTAGE OF PROPORTION OF LITERATES OF CORRESPONDING PROPORTION FOR THE WHOLE PROVINCE.		
	Literate.			Illiterate.			Total.	Male.	Female.	Total.	Male.	Female.
	Total.	Male.	Female.	Total.	Male.	Female.						
I.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
MYSORE STATE.												
Brahman	376	681	64	624	319	936	528	1,022	24	737	732	80
Digambara	226	410	21	774	590	979	43	79	...	443	441	26
Panchala	98	177	4	907	823	996	9	17	...	182	190	...
Lingayat	73	142	4	927	858	996	7	13	...	143	153	5
Vakkaliga	21	41	1	979	959	999	4	7	...	22	44	12
Kuruba	11	21	1	989	979	999	1	3	...	22	41	...
Korama	10	17	2	990	983	998	...	...	...	20	18	...
Beda	10	18	1	990	982	999	2	4	...	20	19	11
Meda	8	16	...	992	984	1,000	...	...	...	16	17	...
Holaya	5	9	1	995	991	999	3	6	...	10	10	...
Lambani	1	1	1	999	999	999	...	...	...	2	1	...
TRAVANCORE STATE.												
Brahman (Malayali)	446	663	191	554	337	809	23	41	2	360	308	...
Ambalavasi	371	576	156	629	424	844	106	208	...	299	268	...
Kaniam	205	519	55	705	481	945	...	2	...	238	241	...
Nayar	216	376	57	784	624	943	59	111	6	174	175	...
Native Christian	156	257	51	814	743	949	60	129	28	126	120	...
Kammala	124	233	14	876	767	986	3	6	...	100	108	...
Iluvan	78	137	10	927	863	990	4	7	...	59	64	...
Shanan	37	70	4	963	930	996	2	4	...	20	33	...

SUBSIDIARY TABLE VII.

Main results of University Examinations in 1891 and 1901.

Universities.	MATRICULATION OR ENTRANCE.		F. A. OR INTERMEDIATE EXAMINATION, 1st B.A. 1st B. Sc.		DEGREES.		LAW.		MEDICINE.		CIVIL ENGINEERING.	
	Candidates.	Passed.	Candidates.	Passed.	Candidates.	Passed.	Candidates.	Passed.	Candidates.	Passed.	Candidates.	Passed.
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
Calcutta	{ 1901	5,814	3,131	3,510	1,125	1,933	415	578	166	506	208	62
	{ 1891	4,721	2,035	1,996	737	970	304	310	132	108	70	24
Madras	{ 1901	7,313	1,423	3,614	1,761	801	413	610	300	97	49	30
	{ 1891	7,002	1,648	2,600	1,027	508	263	130	40	94	22	10
Bombay	{ 1901	4,551	1,611	1,386	809	359	225	498	190	368	174	130
	{ 1891	3,804	1,090	1,050	435	224	107	83	39	178	84	108
Allahabad	{ 1901	1,560	810	526	197	315	190	59	8	...	...	564
	{ 1891	1,593	606	476	204	180	103	28	13	...	...	323
Lahore	{ 1901	2,315	1,313	527	244	376	138	387	181	116	62	...
	{ 1891	1,066	399	153	87	66	44	...	...	40	23	...

Bombay—columns 2—3.—Include for 1901 and 1891 respectively 963 examinees and 392 passed and 630 candidates and 331 passed in University School Final Exam.
 Punjab—columns 4—5.—Include for 1901 5 candidates and 4 passed in Oriental learning.
 columns 6—7.—Include for 1901 and 1891 respectively 2 examinees and 4 passed in Oriental learning.

SUBSIDIARY TABLE VIII.

Number of institutions and pupils in 1891 and 1901, according to the returns of the Education Department.

CLASS OF INSTITUTION.	Year.	INDIA.		ASSAM.		BENGAL.		BIBAR.		BOMBAY.	
		No. of Institutions.	Scholars.	No. of Institutions.	Scholars.	No. of Institutions.	Scholars.	No. of Institutions.	Scholars.	No. of Institutions.	Scholars.
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
Hindu	1901	147,086	4,405,042	3,458	109,800	62,142	1,633,823	1,036	46,675	12,132	672,860
	1891	187,944	8,677,913	2,940	78,784	65,850	1,468,948	1,394	50,342	11,977	620,493
Hindu Institutions	1901	101,748	3,799,880	3,196	101,308	52,066	1,520,187	1,081	46,252	9,617	569,183
	1891	99,700	8,104,874	2,355	72,995	52,563	1,336,836	1,375	50,203	9,324	553,092
Colleges	1901	141	16,708	1	49	44	8,190	...	...	9	1,826
	1891	105	12,165	...	...	34	5,233	...	...	...	1,289
Professional Colleges	1901	44	4,851	...	...	20	2,264	...	...	5	1,011
	1891	31	3,424	...	...	14	1,493	...	...	4	569
Primary Schools	1901	5,461	586,628	150	13,980	3,528	242,576	28	4,187	484	47,623
	1891	4,967	469,080	110	10,309	3,479	207,463	26	4,669	403	41,714
Secondary Schools	1901	93,123	3,157,724	3,006	89,050	48,881	1,251,973	909	41,915	9,067	514,922
	1891	94,023	2,690,827	2,232	62,145	49,755	1,115,663	1,247	45,423	8,884	506,673
Training Schools	1901	170	5,496	22	360	27	1,233	1	57	19	821
	1891	340	5,734	16	381	323	1,933	1	91	15	881
Special Schools	1901	704	28,428	17	849	568	18,934	3	93	33	2,925
	1891	229	14,066	7	210	58	5,049	1	25	29	1,070
Hindu Institutions	1901	42,348	605,212	262	5,492	10,076	118,191	5	423	2,515	63,737
	1891	38,244	493,038	265	5,769	13,377	132,057	9	134	2,653	67,408
Unaided	1901	4,893	61,761	89	2,431	2,875	24,264	2	65	88	2,857
	1891	5,490	66,737	96	1,852	2,800	33,000	6	99	84	1,293
Auxiliary	1901	26,663	362,283	1	18	3,669	88,366	...	...	1,170	32,815
	1891	19,500	245,733	19	462	4,962	34,027	2	29	1,335	49,049
Teaching the Koran only	1901	11,016	173,992	166	2,916	3,893	56,191	...	...	1,197	25,902
	1891	12,495	164,530	162	3,169	5,235	62,327	...	...	691	12,667
Schools not conforming to Departmental standard.	1901	263	7,176	6	127	117	2,370	3	358	65	2,153
	1891	760	16,043	8	307	340	3,723	...	...	143	4,498

CLASS OF INSTITUTION.	Year.	BURMA.		CENTRAL PROVINCES.		MADRAS.		PUNJAB.		UNITED PROVINCES.	
		No. of Institutions.	Scholars.	No. of Institutions.	Scholars.	No. of Institutions.	Scholars.	No. of Institutions.	Scholars.	No. of Institutions.	Scholars.
1.	2.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.
Hindu	1901	17,599	307,076	2,394	127,416	26,936	850,224	7,479	260,164	18,920	433,499
	1891	10,863	169,449	1,845	111,493	22,023	644,194	9,640	245,713	11,717	289,521
Hindu Institutions	1901	4,431	159,394	2,394	127,416	21,215	731,207	3,123	189,405	7,620	322,578
	1891	5,819	128,390	1,845	111,493	18,639	538,137	2,338	140,401	5,352	216,267
Colleges	1901	2	140	3	262	41	3,279	18	1,251	28	1,697
	1891	1	25	3	213	85	3,305	7	493	16	1,734
Professional Colleges	1901	...	...	2	34	6	636	1	178	10	798
	1891	...	...	...	...	5	518	1	194	7	723
Primary Schools	1901	829	80,000	258	9,834	732	100,128	406	68,067	546	70,270
	1891	63	9,604	260	24,112	815	70,515	293	46,424	509	63,254
Secondary Schools	1901	4,091	127,638	3,120	116,784	20,803	631,627	2,632	117,420	6,982	376,396
	1891	5,710	119,057	1,557	86,219	17,335	505,230	2,025	92,261	4,758	159,908
Training Schools	1901	10	304	5	220	74	1,612	6	322	6	543
	1891	4	81	5	235	70	1,427	5	342	7	363
Special Schools	1901	49	1,312	6	282	57	3,927	15	2,167	48	2,939
	1891	21	623	20	530	29	2,193	7	783	58	3,255
Hindu Institutions	1901	13,118	147,682	...	...	5,711	119,017	4,356	60,759	6,300	10,921
	1891	5,044	40,059	...	...	3,189	61,037	7,812	105,312	6,395	71,254
Unaided	1901	...	...	...	...	241	5,415	378	6,541	1,228	16,188
	1891	...	...	...	...	130	4,060	794	9,408	1,579	17,925
Auxiliary	1901	12,839	142,965	...	...	4,460	84,467	1,023	22,670	2,436	45,932
	1891	4,821	37,014	...	...	2,843	52,109	1,476	31,438	3,542	41,711
Teaching the Koran only	1901	251	4,078	...	...	1,005	20,078	2,016	39,081	1,586	16,751
	1891	213	2,993	...	...	107	4,464	4,502	57,397	1,244	11,619
Schools not conforming to Departmental standard.	1901	28	630	...	...	5	63	39	1,487	...	...
	1891	10	53	...	...	19	304	240	7,069	...	...

CHAPTER VI.

Occupation.

The Scope of the Return.

303. The subject of occupation is without doubt the most complicated, and in some respects, the least satisfactory of any dealt with at the census, but before discussing it in detail it is necessary to explain briefly the instructions which were issued with a view to obtaining the required information, and the plan adopted for its classification, *i.e.*, the distribution of occupations according to a certain number of definite categories, under one or other of which every one of the innumerable entries found in the schedules should be classified. General.

304. In 1891 the information on this subject was collected in a single column of the schedule headed "Occupation or means of subsistence," and the following instructions were laid down for the guidance of the enumerators:— The nature of the information collected.

"Enter here the exact occupation or means of livelihood of all males and females who do work or live on private property, such as house-rent, pension, etc. In the case of children and women who do no work, enter the occupation of the head of their family, or of the person who supports them, adding the word "dependent," but do not leave this column unfilled for any one, even an infant. If a person have two or more occupations, enter only the chief one, except when a person owns or cultivates land in addition to another occupation, when both should be entered.

"No vague terms should be used, such as 'service,' 'Government service,' 'shop-keeping,' 'writing' and 'labour,' etc., but the exact service, the goods sold, the class of writing or of labour must be stated. When a person's occupation is connected with agriculture, it should be stated whether the land is cultivated in person or let to tenants; if he be an agricultural labourer, it should be stated whether he be engaged by the month or year, or is a daily field labourer. Women who earn money by occupations independent of their husbands, such as spinning, selling fire-wood, cow-dung cakes, grass, or by rice pounding, weaving, or doing house-work for wages should be shown under those occupations. If a person makes the articles he sells he should be entered as 'maker and seller' of them. If a person lives on alms, it should be stated whether he is a religious mendicant or an ordinary beggar. When a person is in Government, railway, or municipal service, the special service should be entered first, and the word Government, railway, or municipal, etc., after it, as:—clerk, Government; sweeper, municipal; labourer, railway. If a person be temporarily out of employ, enter the last or ordinary occupation."

At the present census three columns were provided, as noted in the margin,

OCCUPATION OR MEANS OF SUBSISTENCE OF ACTUAL WORKERS.		Means of subsistence of dependents on actual workers.
Principal.	Subsidiary.	
9	10	11

two for the principal and subsidiary occupations, respectively, of actual workers, and the third for the means of subsistence of dependents, or persons supported by the labour of others. The instructions for filling in these three columns were as follows:—

"Column 9 (*Principal occupation of actual workers*).—Enter the principal occupation or means of livelihood of all persons who actually do work or carry on business, whether personally or by means of servants, or who live on private property such as house-rent, pension, etc. The column will be blank for dependents.

"Column 10 (*Subsidiary occupation of actual workers*).—Enter here any occupation which actual workers pursue in addition to their principal occupation. If they have no such additional occupation, enter in this column the word 'none.' The column will be blank for dependents.

"Column 11 (*Means of subsistence of dependents*).—For those who do not work or carry on business, either personally or by means of servants, and who own no private property, enter the *principal* occupation of the head of the family or of the person who supports them. The column will be blank for actual workers."

In the instructions to supervisors these rules were thus amplified:—

"In column 9 general or indefinite terms such as 'service,' 'shop-keeping,' 'writing,' 'labour,' etc., must be avoided. The enumerator should find out and state the exact kind of service, the goods sold, the class of writing or labour.

"If a man says his occupation is service, it is necessary to distinguish:—

- (1) Government service, (2) Railway service, (3) Municipal service, and (4) village service, stating his rank and the nature of his work.

"In the case of domestic service the enumerator must state precisely the kind of service rendered. Pensioners should be shown as military or civil, as the case may be. Persons who

live on the rent of lands or buildings in towns should be entered as landlords. Persons who live on money lent at interest or on stock, bonds, or other securities, should be shown as capitalists.

"In the case of agriculture distinguish—(1) Rent receivers, (2) actual cultivators, including sharers, and (3) field labourers, separating those regularly employed from those who work by the day or by the job. Gardeners and growers of special products such as tea, betel, etc., should be entered separately. In the case of labourers, not being agricultural labourers, distinguish earth-workers, labourers in mines, and operatives in mills, etc., stating the kind of mill or factory, such as jute mills, silk factories, etc. In the case of clerks the occupation of the clerk's employer should be noted. Accountants, cashiers, salesmen in shops, etc., should be shown separately. In the case of traders the kind of trade should be carefully specified, and it should be stated whether they make what they deal in. In the case of large manufactures show the proprietor as a manufacturer, and specify the branch of manufacture, as cotton manufacturer, etc. For minor industries state precisely the nature of the work done, for example, whether a weaver weaves cotton, silk, carpets, etc., whether a bangle-maker makes bangles of glass or lac, and so on.

"Persons engaged in home industries must be carefully distinguished from those employed in mills, whether large or small, and whether under European or native management.

"Women and children who work at any occupation, of whatever kind not being an amusement or of a purely domestic character, such as cooking, must be entered in this column, whether they earn wages or not. If a man has several subsidiary occupations, the enumerator should enter in column 10, only that on which he spends the most time. In the case of dependents of a joint family, several members of which earn money, he should enter in column 11 the principal occupation of the eldest. Servants should not be shown as dependent on the occupation of their master."

Apart from the arrangement of columns, the main point of difference between the two sets of instructions is that in 1891 dual occupations were entered only where one of them was connected with agriculture, whereas at the present census, the entry of all dual occupations was provided for. The main object in view, however, was the simplification of the instructions, and in the general occupation tables no use was made of the additional information thus recorded.*

System of
classification.

305. The system of classification followed on the present occasion was based on that devised by Mr. Baines in 1891, and explained by him as follows:—

"The object in view is to group the entries in the census schedules as far as possible in accordance with the distribution of occupations in India in general, and at the same time to allow room for the designation of special features found only in certain provinces. It is superfluous, therefore, to discuss the classification in use at the census of communities further advanced in economic differentiation, or one based simply on the abstract laws of sociological science. The classification now published is not altogether scientifically correct, but it will serve its purpose if it collects under one head occupations known to be akin to each other, and keeps apart others which are but nominally related.

"2. There are certain classes of occupations in India which require a few general remarks before the details of the scheme are reviewed. In the first place, Government service is so comprehensive a term in this country, that for the purposes of classification it is necessary to restrict its application to the functions which cannot be dissociated from the main end of administration—protection and defence. Thus, special functions undertaken by the State in India beyond the primary duties above quoted are to be classed, not under the head of Government service, but under their special designation. Public instruction will come under education, and engineering, meteorology, agricultural training, medical practice, and administration under these heads respectively. It will be almost impracticable to effect a complete separation from the general title to which objection is raised above, as the combination of these special functions with that of the military or civil service of the Crown has been retained too closely in the schedules to admit of discrimination; but, as far as possible, the principle above enunciated should be rigorously applied. It is the same with the service of local and municipal bodies, where only persons actually engaged in administration should be entered under those titles. Engineers and road overseers or supervisors, sanitary inspectors or surveyors, schoolmasters and vaccinators, all have their special groups, irrespective of the source from which their salary is drawn. If the extent to which in India the functions of the State are exercised beyond the limits of protection be in question, the better source of information will be the periodical lists published by the Government of its employes, rather than a census return.

"3. A second class of occupations needing special treatment is the very large one of what have been called 'village industries,' one great characteristic of which is that the same person both makes and sells. Amongst the most important of these come the brass-smith, black-smith, cotton weaver, potter, tanner, carpenter, and the like, representing, with their fellows, the bulk of the artizan class throughout the country. Owing to the extension of towns, it is misleading to group such occupations under what would be otherwise an obviously suitable title, and some artizans indeed may have totally changed the character of the occupation on emigrating from the simple community to which they originally ministered. It has, therefore, been thought advisable to make no difference in the classification between those who make

* A limited use was made of it in special tables prepared in several provinces.

and those who sell special goods, though in the sub-divisional groups there is room for the general dealer, the commercial agents, and other middlemen, and also for that class of dealers known by a special name in each province, which supplies certain articles which are almost invariably associated together throughout the country.

"4. After the above general remarks, the scheme may be taken up in detail. In the *Classes*. first place, the aggregate of the various means of livelihood are divided into the following main *Classes* :—

- A.—Government.
- B.—Pasture and agriculture.
- C.—Personal services.
- D.—The preparation and supply of material substances.
- E.—Commerce and the transport of persons, goods, and messages, and the storage of goods.
- F.—Professions, learned, artistic, and minor.
- G.—Indefinite occupations, and means of subsistence independent of occupation.

Of these, the first and fourth are the most complicated, though, making allowances for the defective return in certain cases, the former should be nearly freed from all but those who can rightly be classed in it. The fourth has had to be minutely sub-divided lest confusion should arise.

"5. Subordinate to the seven *Classes* come 24 *Orders*, as shown marginally, bracketted *Orders*. according to their respective main heads. The first few explain themselves. As regards the seventh, eighth, ninth, tenth, and eleventh, the object which the article or service

ORDERS.				
A {	I. Administration. II. Defence. III. Foreign and consular State service.	D {	XIII. Metals and precious stones. XIV. Glass, pottery, and stone ware. XV. Wood, cane, and leaves. XVI. Drugs, gums, etc. XVII. Leather.	more prominently than the material dealt with. On the other hand, from the twelfth to the seventeenth, the latter is regarded as more characteristic of the occupation than the object for which the prepared article is intended. The distinction is, of course, conventional only and not economic, as in both <i>Orders</i> the makers and the sellers of an article are combined, and it is only
B {	IV. Cattle-breeding, etc. V. Agriculture.	E {	XVIII. Commerce. XIX. Transport and storage. XX. Learned and artistic professions.	
C {	VI. Personal services. VII. Food and drink. VIII. Light, firing, and forage.	F {	XXI. Sports and amusements. XXII. Complex occupations.*	
D {	IX. Buildings. X. Vehicles and vessels. XI. Supplementary requirements.	G {	XXIII. Indefinite occupations. XXIV. Independent of work.	
E {	XII. Textile fabrics and dress.			

* In the Imperial returns this was omitted, and Order XXIII was divided into XXII—General Labour, and XXIII—Indefinite or disreputable.

in the eighteenth that special mention is made of those who return themselves as exclusively engaged in distribution.

"6. The classification next passes into sub-orders, and, where still further definition is *Sub-orders* thought necessary, into groups below the sub-orders. Of the latter, there are 77, which are *and groups*. shown, with their groups, in Appendix A. In some respects they are the most important items of the scheme, and it is possible that, with careful classification, the Imperial tables may be based on them, leaving detail below groups for supplementary or provincial returns. At all events, beyond a few generally prevalent occupations, it is probable that each Province will be best served by being given discretion to select under each group the items it considers most typical or otherwise important in the constitution of its population. Before this is done, however, every occupation and means of livelihood returned will have to be catalogued for classification, so that uniformity up to the point mentioned above may be ensured.

"7. In Appendix B is given a sample of the application of the scheme to a collection of items found in two or three of the Census Reports of 1881. It is not to be confounded with a complete index, such as was attempted on the last occasion, but will nevertheless serve as a general guide in preparing the detailed catalogues prescribed for the present census in Appendix B, page 12 of Circular M.

"8. A very important point to be dealt with in connection with the tabulation of occupations *Occupations* in India is how to deal with an occupation shown conjointly with some description of agricul- *combined* ture, or with the possession of land, or, again, which is locally known to be always combined *with* with another non-agricultural occupation, of apparently quite a distinct character. It seems *agriculture*. advisable to show all of the former class in the main return under their respective special headings, and in a supplementary return to show them with the agricultural connection as the main head, and the special occupation subordinate to each several sub-division of the former. For example :—We may have a pleader who is a non-cultivating landowner, a money-lender who is also a non-cultivating landowner, a carpenter who is a cultivating tenant, and so on. In the general return these will appear under the items of pleader, money-lender, and carpenter respectively. In the supplementary return, after the total number of non-cultivating landowners who have no other occupation returned against them, will come the pleader, and after him the money-lender, whilst the carpenter will occupy a corresponding position under the head of cultivating tenant. In this way the total number of landowners and tenants and their families, so far as the census return is correct, will be obtained without detracting from the roll of the occupations which probably take up an equal or greater portion of the time of the person returning both. As regards the second class, no general heads can be prescribed, as the

combinations may differ in every province. Notorious instances are those of the tanner and shoemaker, shepherd and blanket-weaver, and, as shown by Mr. Ibbetson for the Punjab, the fisherman, water-carrier, and public cook. Where the caste is used to denote the occupation, there need be no difficulty in providing a special heading for the complex functions in question. In other cases, local knowledge should be called in to point out which are the occupations almost always combined together, and these can be demarcated by a special note to the return. The instruction, however, that only the main occupation should be entered in the schedule, is against the chance of obtaining a complete return of non-agricultural combinations. All the same, Provincial Superintendents should suggest as soon as possible the heads of this class which they find can be distinguished in their respective Provinces."

At the present census the main division of occupations into Classes, Orders and Sub-orders described above remained unchanged and the only alteration consisted of the division into two of one of Mr. Baines' "Classes" and of two of his "Sub-orders." In the case of groups, however, although the general arrangement was maintained, there were many alterations in detail; some of the old groups were amalgamated or transferred to other sub-orders, while on the other hand, new groups were provided with the object of distinguishing (a) makers from sellers and (b) workers in factories from those engaged in hand industries. The scheme as thus revised, comprises 7 'Classes,' 24 'Orders,' 79 'Sub-orders,' and 520 'Groups.'

Dual Occupa-

306. It has already been stated that the only general use made of the return of dual occupations was in cases where one of them was agricultural. In 1891 the non-agricultural occupation was, in all such cases, taken for the purpose of the general occupation table, and a separate return was prepared showing for each occupation the number of persons pursuing it in conjunction with agriculture. At the present census, dual occupations have been returned only for actual workers; the latter have been classed according to their principal occupations, whether agricultural or otherwise, and columns have been added to show the number of persons entered under each non-agricultural head who depend partly on agriculture as a subsidiary means of livelihood. In other words the figures given at the present census for rent-payers and rent-receivers represent the total number who returned these occupations as their principal means of support, whereas in 1891 the corresponding groups included only those who subsisted solely on these pursuits. The number of persons who follow agriculture as an accessory to some other occupation has been shown against the occupation concerned, but in only one province have the corresponding figures been given for persons whose main occupation is agricultural, but who are partially dependent on other means of livelihood. This subject will be further discussed in a subsequent paragraph.

Workers and Dependents.

307. The other important departure from the procedure followed in 1891 was in respect of the distinction between workers and dependents. In 1881, workers only were dealt with in the occupation table, but the results were so unsatisfactory that it was resolved at the next enumeration to endeavour to secure a return, not of the persons actually engaged on each occupation, but of the persons supported or maintained by it. The reasons which led to this decision were summarized by Mr. Baines as follows:—

"Before discussing the results of the enumeration of India by occupation, as qualified by the above general admissions of imperfection, some explanation is necessary of the scope of the returns and of the system on which they were prepared, because important innovations have been introduced into both since the preceding census. It has been stated above that the object of the present census was to obtain a view of the supporting power, at the time of the census, of each means of livelihood, whereas in 1881 the return was that of workers only, and persons of, so to speak, independent means. Thus no less than 53 per cent. of the population, or, as the return was by sexes, 37½ per cent. of the males, and 69½ of the females, was excluded. If, therefore, the total strength of any particular group was in question, such as, for instance, the agricultural or the artisan class, recourse to approximation was necessary; and this had to be based on estimates of the probable number of heads of families, and of the numerical strength of their respective households. As there was no general tabulation of occupation by age, except in a few of the larger towns, the above computations had to be purely conjectural, and the postulates and methods of calculation differed in each province. But even as a record of the working population only, the results, in the opinion of the Superintendents of the census operations, in their respective provinces, were very defective, and so far as the return of working females is concerned, the figures were found by Sir W. Chichele Plowden, the then Census Commissioner for India, to be unworthy of examination. A few facts in confirmation of this view may as well be cited, which will show that the abandonment of the former system was neither premature nor based on inadequate grounds. First of all, of course, stands the inconsistency of practice in regard to the entry of the occupation of women, which is based to a great extent on social considerations. Where there is a strong and well defined line drawn between the upper and the lower grades of society, owing to

distinctions of caste or race, the women who actually do work are generally returned as workers in the lower section only, although they may be similarly engaged in various occupations in many of the higher classes. On the other hand, there is noted a general tendency to return the women of the middle classes, all over India, as following the occupation of the head of their household, whether they actually do so or not. This last fact was one of the inducements to adopt the scheme of return indicated by this inclination. Then, again, the distinction between the principal and his dependents or sharers is much valued in certain occupations, so the chief worker, especially the artisan, is disposed to ignore, in making the return, the aid rendered by the others with whom he may be connected. There is a similar inconsistency with regard to occupations dependent on the land. In some cases, the nominal occupant will alone be recognised, and the rest of the family returned as labourers, whereas in others, where the participation of the soil is based on different principles, the number of occupants or sharers will include all who have any interest therein, irrespective of the position of the patriarch. The young children of agriculturists, too, are as often as not entered as graziers, though their attention is gratuitously devoted to the family live-stock only. Elsewhere, they will be found to have been omitted from the workers altogether, or returned, in some instances, as farm servants. Other cases of a similar tendency can be adduced, but, on the whole, they reduce themselves to the above categories of inconsistency of treatment of subordinate or subsidiary interest in the family means of livelihood."

308. The instructions of 1891 provided for the entry of the word "dependent" after the occupation noted against non-workers, but this was merely in order to make matters easier for the enumerators, who would otherwise have been puzzled by the incongruity of showing, for instance, an infant as a cultivator or a female as a soldier, and in the course of tabulation the distinction was neglected altogether. At the same time the persons returned against each occupation were classified by sex and also by three age groups—'0 to 5', '5 to 15', and '15 and over'.—and it was thought that this would afford a fairly accurate idea as to the number of persons who were actual workers.* In several provinces, and especially in Bengal, regret was expressed by the Provincial Superintendents at the failure to tabulate workers and dependents separately. At the present census, therefore, actual workers have again been distinguished from dependents; the latter, however, have not been left out of account but have been tabulated under the occupations from which they derive their support. We have thus, as in 1891, a return of the total population supported by each occupation, and also, as in 1881, a return of the number of persons actually following each occupation. The distinction by age, introduced in 1891 in lieu of a return of actual workers, has been abandoned, as no longer necessary, but on the other hand a new table has been prepared in some provinces showing occupations classified according to caste.

309. Having now explained at sufficient length the character of the information asked for and the manner in which it was tabulated, we will proceed to consider its signification and the value to be attached to it. In the first place it must be remembered that all that the census can tell us is the distribution of the population according to occupation on a single day, and this will vary greatly according to the season of the year. Amongst the great class of landless labourers the means of livelihood changes with the season, and the same man may be at one time a field-labourer, at another time an earth-digger, and again a porter, saltpetre-worker, paddy-husker, *pálki*-bearer, firewood-collector, etc.; so that the head under which he will appear in the Occupation Table depends on the date fixed for the enumeration. Some occupations, such as indigo manufacture and jute pressing, which at certain seasons afford employment to large numbers, were practically obliterated at the census, which was taken on the 1st March, while others, such as earthwork or the milling of rice in Rangoon which was then at its height, were unduly magnified.†

310. Secondly, it is far from being the rule that each person follows only one specified occupation. The division of labour has not yet proceeded very far in India, and the same man often combines several pursuits which in Europe would be quite distinct, and which are shown in different parts of the Occupation Scheme. The fisherman, for instance, is often a boatman; the money-lender, a landowner; the cultivator, a day labourer; the village *chaukidar*, a cultivator, and the like. It would have been impossible to deal with all such cases and it has already been explained that the only dual occupations generally

* The age distribution, though given in the Provincial, and most of the State, Volumes was not shown in the Occupation Table for India as a whole.

† According to the census there were only 8,249 workers in indigo factories but in the Financial and Commercial Statistics for British India (Ninth issue) the number of persons thus employed during 1900 is placed at 240,333.

tabulated were those where the subsidiary pursuit was agricultural. In other cases only the main occupation was looked to.*

It follows that the census tables purport to show, not the total number of persons who follow each avocation, either alone or conjointly with something else, but merely the number who returned it as their chief means of subsistence.† Thus in Bengal the total number of village chaukidars according to the police returns was 152,287, but only 88,936 were entered under this head in the main occupation table. The difference is due to the fact that in many cases the persons thus employed, who are seldom able to live solely on their pay, which never exceeds six, and is sometimes only two, rupees per mensem, reported some other pursuit to be their principal one. A special table showing the subsidiary occupations of cultivators and field labourers indicates that 36,434 persons entered under these heads were also chaukidars and there must have been about 27,000 more who returned fishing, general labour or some other form of employment as their principal means of support.

(iii) Mixed occupations.

311. The same remarks apply to the numerous cases of occupations of a mixed character which are not specially provided for in the scheme; these had to be assigned, more or less arbitrarily, to one or other of several special heads shown in the scheme under either of which they might be classed with almost equal propriety. The shepherd, for example, finds a place in one group, in Order IV, and the blanket-weaver in another, in Order XII, but it is the rule rather than the exception for the same man to combine the two functions. The Māli or garland-maker also makes flowers of pith and fireworks; and money-lending and grain-dealing are in many parts merely different aspects of the same business. There are moreover certain recognised shops which have no corresponding equivalent in English, such as that known in Bengal as a *manohāri dokān*. - In 1891 the keepers of such shops appear to have been treated as stationers; but although stationery is sold, this is by no means the only, or indeed the most important, class of goods dealt in; amongst other articles, may be mentioned clocks, chairs, glass, glass bangles, looking-glasses, enamelled plates, toys, biscuits, caps, buttons, stockings, handkerchiefs, shoes, brushes, woollen goods, tobacco, soap, perfumery, tin boxes, walking-sticks, and *hukks*; and at the present census they have been classed as general dealers in the Imperial table.

Not only was there much uncertainty in assigning to a particular group persons returned as living by these mixed occupations not provided for in the scheme, but it was often clear that the occupation named by the enumerator was only one of several actually followed. Thus a Dom is a scavenger and a drummer as well as a basket-maker, and his wife is an accoucheuse, but both would often be entered under only one of these heads. Many persons who deal in various kinds of goods and also lend money were often returned either as money-lenders or as dealers in some special articles. In Madras—

“The ordinary vernacular term for the village cobbler is ‘*chakkiliyan*’, and it would never occur to an enumerator that this was an inadequate description of a man’s occupation.— But in the scheme leather-dyers, shoe, boot, and sandal-makers, tanners and carriers, sellers of manufactured leather goods, sellers of hides, horns, bristles, and bones, water-bag, well-bag, bucket and ghee-pot makers are all differentiated. The village cobbler is probably any or all of these by turns, and it was not easy to ensure that the entry ‘*chakkiliyan*’ was always consistently classified under the most appropriate of these heads.”

(iv) Mistakes in the Schedules.

312. The inaccuracy of the entries in the schedules is a fertile source of error. There is throughout India much confusion of thought between a man’s caste, which connotes his traditional occupation, and the means of livelihood by which he actually subsists. A man of the barber caste will often call himself a barber, even when his income is mainly derived from agriculture or some other employment, and a Brāhman, especially if a mendicant, will say he is a priest, even though he may never have exercised any priestly function beyond perhaps dipping his toe in a bowl of water for the delectation of some pious Sudra, who will not break his fast until he has had a draught of water thus sanctified. In the Punjab Mr. Rose considers that the figures for scavengers

* In the Punjab, United Provinces, Assam, etc., a limited number of selected dual occupations were tabulated and in Bengal a return was prepared of the non-agricultural occupations of persons mainly agriculturists.

† The same difficulty exists in England also, and Dr. Longstaff has suggested that it should be met by entering the person under both headings, making the requisite correction when totalling the occupations (Studies in Statistics, page 224). This, however, would involve an amount of elaboration which would not be possible in the time allowed.

have been swollen by the wholesale inclusion of Chuhras, who are by traditional occupation sweepers, but who in practice more often live by agricultural labour. In the same province the blacksmith, or "Lohár," by caste is often a carpenter, or "Tarkhán," by occupation and, if asked his trade, will reply Lohár Tarkhán, so that it is a matter of pure chance under which head he is shown. There is also a good deal of intentional mis-statement, and the occupation which is considered the more respectable is often returned instead of that which is really the principal means of subsistence. For example a person who possesses a minute holding of land would return himself as a cultivator, even though for nine months of the year he supported himself by working as a coolie, and in Madras toddy drawers and leather workers are said in some cases to have described themselves as agriculturists.

313. The above causes of error are bad enough, but even more mistakes are probably due to the vagueness and want of precision with which occupations are described. In spite of all the care taken to prevent it, the schedules literally teemed with words which conveyed no definite meaning whatever, and the classification of which was a matter of great uncertainty. Thus in Bengal it is stated that—

"Entries such as *Isaraddr* (farmer), peon, contractor *mistri* (artificer), coolie and *chákari* (service) were very common. There were numerous other entries which, though not so vague as the above, could still be classed under several different heads of the scheme, such as railway coolie, doctor (unspecified), mendicancy (unspecified), engineer, service in mill, cloth-seller, *krishti-majur*, *go-rakshyak*, *kaila-bikray* (*kaila* means 'charcoal' as well as 'coal'), wood-seller and the like. Many of these terms were most difficult to deal with, and although a clue was often furnished by the locality where the person was enumerated, or by the caste, sex and other entries on the slip relating to him, it was inevitable that there should be a considerable amount of guessing, and it would be absurd to pretend that in every case the persons concerned were assigned to the right groups in the occupation scheme. All that can be said is that we did the best we could, and that, considering the large numbers dealt with, it may be hoped that the mistakes which occurred to some extent cancelled one another."

Similarly in Madras Mr. Francis writes :—

"The mass of the people here are totally illiterate, and proportionately inaccurate. The native of South India's idea of the way to fix the time of day at which an event occurred is to say that it happened when the sun was so many palmyra trees high in the heavens, and persons with such rudimentary notions of exactness as this can hardly be expected to give a clear account of their means of subsistence, especially when these are numerous or complex. The schedules consequently contained thousands of the vaguest entries which could not possibly be really satisfactorily classified. For instance, the entry 'cotton business' might mean that the person referred to was a weaver of cotton cloths, or of cotton carpets, or of cotton tape; or, on the other hand, that he was a cotton-cleaner, a cotton-spinner, a cotton-sizer, a cotton-dyer, or a cotton-calenderer, fuller, or printer, or even that he was a dealer in cotton, or cotton cloths, or cotton thread. Yet the groups in the Sub-order 40—Cotton, and elsewhere require all such persons to be differentiated. 'Smith,' again, might mean gold-smith, brass-smith, copper-smith, white-smith, or black-smith. 'Estate coolie' might mean that the individual was employed on a coffee estate, or a tea estate, or a cinchona estate, or on one where all three of these products were grown. 'Clerk' might mean any one of the 29 different kinds of clerks provided for in the various parts of the occupation scheme. Fifty similar cases could easily be instanced.

"Sometimes, no doubt, the caste entry in the schedule would help in the determination of the meaning of vague entries of this description. 'Weaver' may mean cotton-weaver, or silk-weaver, or a weaver of jute gunny-bags, or of grass mats, or of goats' hair blankets, and all of these have to be distinguished. If, however, the caste entry was Patnúl the odds were largely in favour of the individual being a silk-weaver, as Patnúls usually weave in that material only, while if it was Kuruba it was practically certain that he wove nothing finer than blankets. In the absence of any such assistance the only course open was to classify weavers unspecified as weavers of cotton, on the ground that it was more probable that they wove cotton than any other material."

314. The efforts made to distinguish between makers and sellers and between workers in factories and those engaged in the corresponding home industries have not met with very great success. So far as village occupations are concerned, their most characteristic feature is that the same person is the manufacturer and also the retail dealer. The confectioner for example makes his sweets and sells them; the potter retails the earthen vessels which he moulds; the person who makes bangles also vends them, and the fisherman usually himself takes to market the fish which he catches. The difficulty of drawing the line between the two functions is dwelt on by the Superintendents of all the larger provinces. There is a similar consensus of opinion regarding the attempt to obtain a separate return of workers in factories, and Mr. Francis says "the statistics of workers in factories must be frankly admitted to be far below any

(v) Vagueness of entries.

(vi) Uncertainty respecting makers and sellers and factory workers.

others in Table XV in point of accuracy, not to say entirely worthless." Only 118 persons were shown as working in the carpet factories of Amritsar city, and Mr. Rose thinks that the rules must have been misinterpreted and the term taken to apply only to places in which machinery is employed. The discrepancies between the results of the census and those furnished in the Return of Large Industries published by the Director General of Statistics are often very marked, and as the latter are specially collected and may be presumed to be fairly accurate, it is a question whether any useful purpose is served by attempting to obtain similar details through the agency of the census.

(vii) Errors in
Compilation.

815. Even if the original return had been clear and free from error there was still ample room for mistakes in the course of compilation. The system of classification varied. In some provinces the Superintendent himself passed orders as to the group to be assigned to each occupation found in the schedules, the occupations with their classification being entered in an alphabetical index, which was added to and re-written from time to time, while in others the duty was delegated to the officers in charge of tabulation centres or to selected subordinates. Under the latter system uniformity was impossible, and even where the work was done on the basis of an alphabetical index passed by the Superintendent himself, there was still ample room for mistakes: In the first place, the men who sorted the slips might neglect the rule which required that each occupation should be entered exactly as it was found on the slip, and might add together items which, though apparently similar, were exhibited in different groups of the occupation scheme. Secondly the men who affixed the group numbers might rely on their memory, instead of consulting the index, and so make mistakes; and thirdly, the process of compiling such a vast array of separate items* was a very elaborate one, and there was continual danger of misposting. In most provinces the system of check was sufficient to ensure the detection of a large proportion of the mistakes which were made, but there must always have been a certain residuum of error.

Instances
of above diffi-
culties.

816. The above observations will become more clear if a few practical instances are given of the effect of differences of classification and of the way in which mistakes can creep in. In Bengal many labourers who were shown as 'woollics unclassified' in 1891, have at this census been classed under the agricultural head and the result is that nearly 5 million persons have been shown in Order V as farm-servants and field-labourers compared with rather more than a million and a half in 1891, while Order XXII contains three million persons less than it did on that occasion. In Madras, the number of general labourers has declined, in comparison with 1891, from about 2½ millions to half a million while the agricultural labourers number 7½, as compared with 4, millions. In Rajputana Captain Bannerman says:—

"While the watchmen and weighmen have increased, the porters have greatly diminished. Difference of classification seems to be the main cause, for it appears that in 1891 many of the field-labourers were classed as porters, the entry in the schedules having been simply the comprehensive term *mazdur*."

In Burma the number of field-labourers has risen from 682,000 to 4,322,000,

	In 1891.	
Land occupants	2,533,784	
Tenants and sharers	737,003	
	Total	3,270,787
	In 1901.	
Rent-receivers	713,508	
Rent-payers	4,245	
	Total	717,753

but here the increment is due mainly to the entry under this head of "cultivators pure and simple," who might more accurately have been classed as "rent-payers"; the number of persons under this latter head, as well as that of rent-receivers, is now absurdly small, and the aggregate number of persons shown as having an interest in land is less than a quarter as great as it was ten years ago. In Gujarat, "a province where

tenancies are common, the half million tenants registered in 1891 have been reduced to 576 and it is probable that a considerable proportion of the tenants have been wrongly classed as labourers." The vague entry of "service," which may mean practically anything, but in Bengal at least comparatively seldom refers to domestic employment, was shown in that province, at the present

* With 520 groups of occupation, two sexes, and separate entries for workers, workers partially agriculturists, and dependents, there might be as many as 3,000 separate headings for each unit of compilation.

census, under a separate heading amongst "indefinite occupations" in Order XXIII; this Order thus includes 216,000 persons who in 1891 were apparently entered under the "Miscellaneous" group of Order VI—Personal and Domestic Services. In the Punjab a marked decline in the number of petty Government servants is accounted for on the hypothesis that the enumerators in many cases entered "service" without further details. In Sind, in 1891, all cultivators who personally disposed of their produce were classed as grain dealers. In the Punjab grain dealers now number 339,852, compared with 36,274 in 1891 and the only reasonable explanation seems to lie in some similar freak of classification. In the same Province the decline in the number of furniture dealers from 4,765 to 479 is said to point to some error in tabulating the results, and a similar explanation alone can account for the presence of 209 shipowners in Nahan, 118 insurance agents and under-writers in Gujranwala and 53 piano-tuners in the Chenáb Colony. In Madras the figures for farm servants are "most untrustworthy," and some districts show no prisoners in their jails. The Assam returns fail to show any coal miners in the Khasi Hills, while those for Burma include 6,415 vermin and animal catchers who appear to have no real existence. In Bombay the decline in the number of mechanics from 9,911 to 5,851 is "hardly credible." Speaking of the previous census Mr. Enthoven writes:—

"All the pig breeders and dealers of the Presidency, with a few trifling exceptions, are shown to be in Belgaum, and consist of 9 males and 307 females. Half the population supported by piano-tuning are found in the Sholápur District, and are women. The sale of photographic apparatus supports 380 persons, 163 of whom are in the Panch Maháls, and they are almost exclusively females.

"If a reference is made to Table XV, Part I-A for 1901, it will be seen that there are now only 18 persons returned as supported by pig breeding in the whole of the Presidency, exclusive of Native States; that females dependent on piano-tuning are no longer to be found in Sholápur; and that the sale of photographic apparatus has ceased to offer an attractive livelihood to the female population of the Panch Maháls. To put this in other words, Mr. Drew's "strange" entries were obviously slips in the Abstraction offices. Doubtless the slip system introduced on this occasion has afforded a greater measure of security than formerly existed against such errors. But the object of referring to them here is to draw attention to the great risk of incorrect entries when very large figures are being elaborately classified. From this point of view, it is useless to trace in too great detail the variations in entries under occupational groups from census to census. The broad distinctions between classes, and perhaps orders are in most cases maintained without great difficulty. Further down the classification basis becomes uncertain, and the conclusion which can legitimately be based, in most instances, on an extraordinary difference in the number entered at the two censuses, is merely that the increase is owing to there being more, or the decrease to there being less."

The Bombay table for the present census is not altogether free from similar improbabilities. Thus in iron foundries the superior staff is placed at 4,130 while there are only 257 persons shown as operatives; there are 11,322 owners, managers and superior staff attached to clothing agencies, but only 4,208 operatives and other subordinates, and in aerated-water factories the corresponding figures are 4,100 and 431.

317. I have drawn attention to these points at some length in order to show how useless it is to expect from the Census detailed statistics of occupation. In his report on the Census of India in 1891 Mr. Baines wrote:—

"It may be gathered from these remarks that a high value is not attached to the results of the census of occupation. This is true, and the opinion is not confined to those who have had the administration of the operation in India alone. In some of the countries in Europe the subject is excluded altogether from the enumeration, and in one at least, which need not be named, much forethought and many elaborate instructions were rewarded by results with which the census authorities thought it advisable not to mislead the public, by including with the rest. In Germany, as well as in the United States, it has been decided that a comprehensive industrial survey, obtained by dint of detailed enquiry, spread over a considerable time, is preferable to the rough and ready return which is all that it falls within the capacity of a synchronous census to furnish."

Similarly, in the report on the Census of England and Wales in 1891 (page 35) it is said that—

"A census.....does not supply data which are suitable for minute classification or admit of profitable examination in detail. The most that it is reasonable to expect from data so collected is that they shall give the means of drawing such a picture of the occupational distribution of the people as shall be fairly true in its main lines, though little value can be attached to the detailed features. It is not wise to demand from a material a result for the production of which it is unsuited."

Proposed
simplification
of classifica-
tion in future.

In a paper read before the Royal Statistical Society * Mr. Baines repeated the opinion that detailed information as to the industrial organization of a country cannot be obtained by the machinery of the general census, and in the discussion which followed the reading of this paper, Sir Robert Giffen expressed agreement with Mr. Baines as to the undesirability of attempting to do much regarding occupations in an ordinary census, and admitted that, if an elaborate enquiry were desired, it could only be carried out by a separate proceeding, quite outside the census and conducted by a different staff.

All that can be expected, or that should be attempted, is a broad general division of the population under a few main heads. Accuracy in details cannot be looked for, and it is not claimed by any of the Provincial Superintendents. Mr. Francis for example writes as follows :—

“The broad totals of Classes and Orders, which are those which are mainly required for administrative purposes, will be found to be reliable, even when examined district by district. As one goes further into detail, however, and the law of large numbers ceases to operate, there are cases in which less faith can be placed in the figures.”

318. It is true that, the larger the aggregate taken, the smaller is the risk of error, but one of the unavoidable defects of a very elaborate scheme is that it often separates occupations which are very nearly allied. Thus agricultural labourers are classed in Order V and general labourers in Order XXII, and we have seen that in Bengal more than three million persons who were shown in the latter group in 1891 have now been relegated to the former. Shepherds are in one Order and blanket-makers in another; boatmen and fishermen are similarly separated, and so are religious mendicants and ordinary beggars, although in practice it is often impossible to say with certainty to which head any particular entry should be allocated. Grain dealers and the vendors of special articles are shown in different Orders of Class D, but “shopkeepers unspecified,” of whom there are 1½ million, are included in Class E. It follows that, even when the larger heads in the scheme, such as Orders or Classes, are dealt with, the results are vitiated, so far as comparison with the previous enumeration, or between different parts of India is concerned, by the want of uniformity in dealing with the details. It will be seen further on that nine-tenths of the population follow a limited number of simple occupations, and it seems to me that, if the scheme were in future restricted to about 30 comprehensive heads, we should obtain a better general view of the functional distribution of the people than under the present system.† We should then know how many persons were land-occupants, how many landless labourers, how many boatmen and fishermen, and how many weavers, and the like. For the details regarding many special heads, such as jute or cotton mills, tea-gardens, coal-mines, etc., statistics of a far more reliable character than those offered by the census can be obtained from the returns compiled by the Director-General of Statistics; a great deal of information regarding other occupations can be gleaned from the Income-tax returns, while the strength of the army and the civil services, the number of police and village watchmen, of prisoners in jails, etc., can be gathered from various official publications. Such statistics might well be compiled in connection with the census, but they should be obtained in the manner here indicated and not through the agency of the enumerators.‡

Reference to statistics.

319. The actual figures obtained from the return of occupations will be found in Table XV. The main features of the Table are, as usual, illustrated by means of proportional figures in subsidiary tables at the end of the Chapter, *viz.* :—

- I. General distribution by occupation.
- II. Distribution of the Agricultural, Industrial, Commercial, and Professional population by provinces and states.
- III. Number per 1,000 supported by each Order of occupations.

* Journal of the Royal Statistical Society, Volume LXIII, Part I.

† At the recent census of Cuba all occupations were classed under 18 main headings. The difficulties attending a correct classification of occupations in India according to any elaborate scheme have only now become apparent. The scheme devised by Mr. Baines in 1891 differed in so many respects from the previous one that no comparison between the results of the two censuses was possible, and it is only now, when the same scheme has been retained in all its essential features, that the great variations which may take place solely owing to changes in classification, mistakes and the like, have made themselves noticeable. Prior to the tabulation of the results of the present census no one thought of suggesting any radical change in the scheme drawn up in 1891 which, from an abstract point of view, seemed as good as any that could be devised.

‡ The collection at the Census of statistics regarding persons under instruction has been abandoned on the ground that this information is given in the reports of the Department of Public Instruction, and the same principle applies to the endeavour to secure by the agency of the census detailed information regarding occupations which is already compiled by a separate agency.

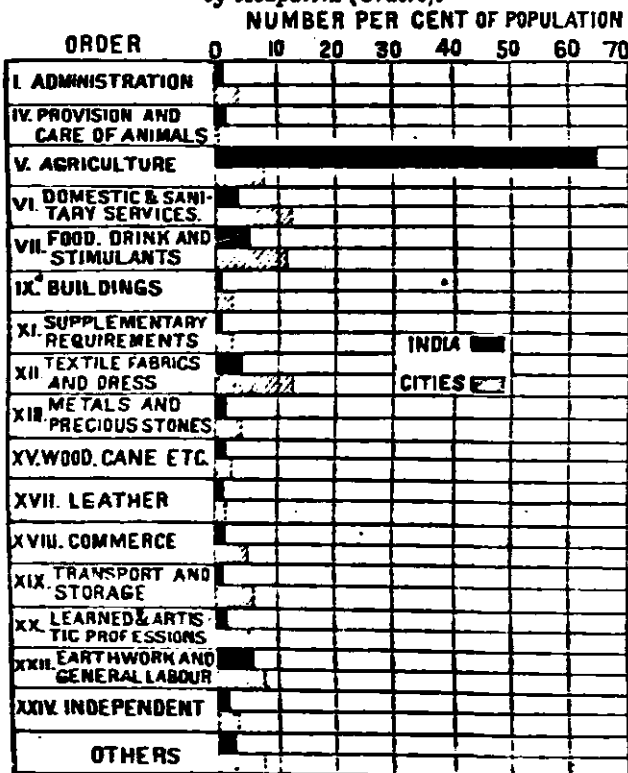
- IV. Number per 10,000 supported by various primitive occupations in each province and state.
- V. Occupations of females by Orders, and selected Sub-orders and Groups.
- VI. Proportion of workers to dependents, and of female, to male, workers in certain occupations.
- VII. Occupations combined with agriculture as a subsidiary pursuit.
- VIII. Comparison of occupations with 1891 by Classes, Orders, and Sub-orders.
- IX. Comparison of agricultural population with 1891.
- X. Main distribution of occupations in cities.
- XI. Large industries.

*Main Features of the Return.**

320. Before dealing with the minor heads of the occupation scheme it will be desirable to view the results from a more general point of view and to note the functional distribution of the people according to the larger divisions. The most striking feature of the return is the immense preponderance of agricultural pursuits. Nearly two-thirds of the total population have returned some form of agriculture as their principal means of subsistence; 52 per cent. are either landlords or tenants, 12 per cent. are field labourers, and about 1 per cent. are growers of special products and persons engaged in estate management, etc. In addition to these, about 2½ per cent., who mentioned some other employment as the chief source of their livelihood, are also partially agriculturists, and another 6 per cent., who have been shown under the head of "general labourers", are doubtless in the main supported by work in the fields. About 15 per cent. of the total population (including dependents) are maintained by the preparation and supply of material substances; and of these more than a third find a livelihood by the provision of food and drink, and a quarter by working and dealing in textile fabrics and dress. Domestic and sanitary services provide employment for very few, and the number of persons who subsist by this means is less than 4 per

Population supported by each Class of occupation.

Diagram showing the general distribution of the population by occupation (Orders).



cent. of the population. The occupations of about 2½ per cent. fall under the head "Commerce, transport and storage," the number engaged in "commerce" being slightly greater than that in "transport and storage." Government service and the "learned and artistic professions" are the principal means of support of 19 and 17 per mille respectively.

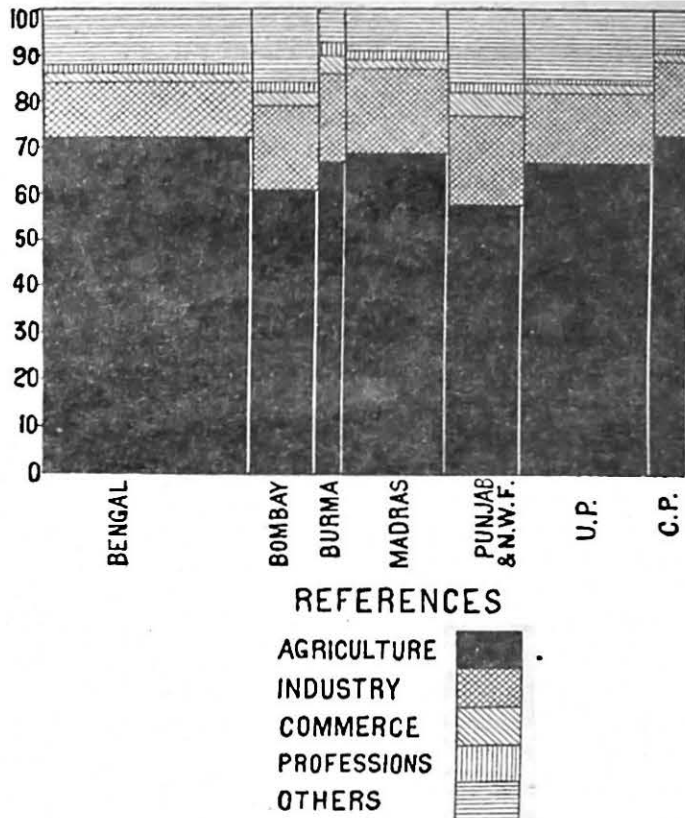
The above proportions refer to the total population; those for cities, which are also illustrated in the annexed diagram, follow very different lines. In these large centres of population, instead of two-thirds, barely one-twelfth of the population are dependent on agriculture, and the number engaged in the "preparation and supply of material substances" rises from one-seventh to two-fifths; one-eighth derive a livelihood from "commerce" and nearly as many from "personal and

domestic services;" one-eleventh from "unskilled labour," and one-fourteenth from Government service.

* In the discussion which follows occasional instances of repetition will be noticed. It is probable that this Chapter will be used chiefly for purposes of reference, and it seems, therefore, important to make each portion complete in itself in all essential particulars.

general proportions in the main provinces.

321. The foregoing remarks refer to the main distribution of occupations in India as a whole. The diagram showing the distribution of the population by occupation (Classes) in certain Provinces.



NOTE—The base of each rectangle is proportional to the total population of the Province. The height shows the percentage of the population which is employed on each Class of occupation.

tendency of industries is towards aggregation in large centres, and the proportion returned under this head varies greatly even in the same province, e.g., in the Punjab, where it ranges from less than 4 per cent. in Kurram to over 31 per cent. in Jhang, and in Bombay, where it lies between 4 per cent. in Thana and 35 per cent. in Surat. The commercial and professional classes everywhere form but a very small proportion of the population. The head "Others" which includes 'Earth-work and general labour,' 'Domestic and Sanitary Services,' 'Government,' 'Indefinite and disreputable occupations,' and 'Persons independent of work,' is made up mainly of the two heads first mentioned which contribute respectively 45 and 27 per cent. of the total.

industries.

322. Another method of viewing the occupation statistics from a general standpoint is by picking out the occupations commonly followed in every village, i.e., those which, taken together, meet all the requirements of ordinary rural life. The number per 10,000 of the population who subsist by these primitive occupations in India as a whole is noted in the margin. Similar details for each of

Occupation.	Number per 10,000 of population.
1. Landlords and Tenants	5,286
2. Labourers	1,869
(a) Agricultural Labourers	1,139
(b) General Labourers	730
3. Stockowners, milkmen, and herdsmen	165
4. Fishermen and boatmen	106
5. Oil-pressers	63
6. Toddy-drawers and sellers	31
7. Grain-parchers	26
8. Leather-workers	98
9. Basket-makers, scavengers, and drummers	104
10. Grocers and confectioners	80
11. Grain-dealers and money-lenders	114
12. Vegetable and fruit sellers	48
Carried over	7,990

the main provinces will be found in subsidiary table IV at the end of the Chapter. The occupations as there entered are to be understood in the widest sense and do not bear the more restricted meaning assigned to them in the classified scheme. The term 'general labour' for example includes not only the ordinary coolie, but also flour-grinders, paddy-huskers, tank-diggers and other earth-workers, paliki-bearers, firewood-collectors, etc. Cattle-breeders and dealers,

Occupation.	Number per 10,000 of population.
Brought forward	7,990
13. Makers and sellers of bangles	12
14. Silk-worm rearers and silk-weavers	10
15. Cotton-workers (not in mills)	240
16. Goldsmiths and blacksmiths	97
17. Brass, copper, and bell-metal workers	13
18. Carpenters	86
19. Potters	76
20. Tailors	39
21. Other shop-keepers	52
22. Barbers	77
23. Washermen	68
24. Priests	60
25. Village quacks and midwives	14
26. Mendicants	167
TOTAL	9,001

milkmen and herdsmen, are similarly grouped under one head, and fishermen, boatmen, and fish sellers, under another. It has already been explained that the subdivision of labour in India has not proceeded so far as the general classification scheme would indicate, and by adding together these and similar allied occupations, which are generally followed, either at different times or concurrently, by one and the same person, the differences due to the vagaries of the original return or of the classi-

fication in the census offices have to a great extent been eliminated.* In the case of agricultural and general labourers the border line is, as already explained, most uncertain; and we have already seen that in some provinces large transfers have taken place between the two heads as compared with 1891. The two items have been entered separately in the subsidiary table as it will be shown further on that in one or two provinces there has been some confusion between cultivators and agricultural labourers but, for the present purpose, it is better to look only to the total of the two groups combined.

In India as a whole about nine persons out of ten are supported by the simple occupations here referred to. The proportion is above the average in Bengal, the Central Provinces, Madras and the United Provinces and below it in the Native States, Assam, Bombay, Burma, and the Punjab. The low figure for Assam is due to the extensive tea industry which affords employment to one-tenth of the total population of the province; if persons thus supported are left out of the account, it is higher there than in any other part of India.

323. A peculiar feature of Indian rural life is the way in which each village is provided with a complete equipment of artizans and menials so that, until the recent introduction of western commodities, such as machine-made cloth, kerosine oil, umbrellas and the like, it was almost wholly self-supporting and independent. The subject is somewhat trite, but the following extract from Mr. Rose's Report presents some of the main facts in a new and interesting light:—

Organization of village industries.

"Under the old social system of these Provinces every tract, and, to a certain extent, every village, was a self-contained economic unit, in which were produced the simple manufactures required by the community. This system facilitated the development of a caste system based on hereditary occupation. Below the land-holding tribe, and subject to its authority, were the various sacerdotal, artizan and menial classes, which have more or less crystallized into castes and these classes were, economically and socially, closely dependent on the dominant tribes who owned the land and controlled its allotment. These castes were all more or less servile, and were paid by a share of the produce of the soil, or, more rarely, by fixed allowances in kind, cash payments being probably a very recent innovation. But the better classes among them were also assigned land for maintenance, and this system was especially fostered by the priestly groups, so much so that, according to Pathan custom, all Saiyads, all descendants of saints, and all descendants of *mullahs* of reputation for learning or sanctity are entitled to grants of free land called *seri*, the amount of the grant varying according to the degree of inherited sanctity. In precisely the same way to Bráhmans were given grants of land (*sasan*), varying in extent from a group of villages conferred by the State, to a mere plot granted by the village community or a section of it. The possession of such a grant conferred a high social status on the grantee, so that the Sasani, or beneficed, Bráhman of the hills stands higher than those who hold no such grants. Similar grants were also made to any religious personage, or to a shrine or temple, and, by an extension of the same principle, to men of the artizan classes. These grants were alike in character and conferred no absolute right of ownership, the grantee having an inherent power to resume a grant if the purposes for which it was made were not fulfilled, but the grants varied in degree, those to shrines or sacred personages to all intents and purposes conferring a permanent right of possession hardly distinguishable from ownership, and those made to menials being wholly precarious. The

* On the other hand some of the items, such as "other shopkeepers," and "priests," include persons who do not belong to the village community, but who cannot be excluded as they have been classed under the same head with those who do, *vide* paragraph 332.

tenures thus conferred, whatever their precise legal nature, enabled the servile classes to eke out a living by cultivation, but it left them menials, or artizans, or priests as before, and custom forbade them to change their abode without the consent of the landholders. And if the dominant tribe migrated its dependent castes went with it, the Bráhmans of the tribe, its Bháts, Doms, and other menials migrating also, a custom which even now may be found in operation in many cases in the Chenáb Colony.

"Thus each tribe, at least, if not each village, was, economically, a water-tight compartment, self-contained and independent of the outside world for the necessaries of life, but for commodities not obtainable within its own borders it depended on foreign sources of supply and on the outside castes such as the Labanas, or salt-traders, who formed no part of the tribal or village community. Thus there have never arisen, in this part of India, any great industries. Foreign trade, necessarily confined to the few large towns, was limited to superfluities or luxuries, and such industries as existed were necessarily on a small scale. Further, inasmuch as each community was absolutely independent, as far as necessaries were concerned, the few industries which supplied luxuries never became firmly rooted and have succumbed at the first breath of competition. Everywhere in our official literature one reads of struggling industries in the small towns, though fostered by intermittent official encouragement, dying of inanition. The causes seem obvious enough. Everything essential can be, and for the most is, made in the village or locality, so that there never is a demand for imported articles of ordinary make, those made by the village artizans, however inferior in quality, satisfying all requirements. In good seasons there is some demand for articles of a better class, but when times are bad that demand ceases, and the industry languishes. Thus the village industries alone are firmly established. If the crop is short, everyone from the landlord to the Chuhra, receives a diminished share, but small as the share may be, it is always forthcoming, whereas in the towns the artizan is the first to suffer in times of scarcity, and if the scarcity is prolonged, the urban industries are extinguished. But if, on the one hand, these industries are precarious, the village industries are firmly established and will probably die hard in the face of the increasing competition which menaces them."

324. The same subject is dealt with as follows in the Bengal Report :—

"The duties and remuneration of each group are fixed by custom, and the caste rules strictly prohibit a man from entering into competition with another of the same caste. In many districts, the barber, washerman, blacksmith, etc., each has his own defined circle (*brit* or *shashan*), within which he works, and no one else may attempt to filch his customers, or *jajmans*, from him on pain of severe punishment at the hands of the caste committee. The exclusive right to employment by the people in the circle constituting a man's *brit* is often so well established, that it is regarded as hereditary property and, with Muhammadans is often granted as dower. The method of payment often consists of a fixed sum for regular services *e. g.*, to the blacksmith for keeping the plough in order, to the barber for shaving and hair cutting, to the leather-dresser for supplying country shoes and leather straps for plough-yokes and the like, and a special fee on particular occasions, such as to the village midwife, who is usually the wife of the cobbler or drummer, for the delivery of a child, and to the barber on the occasion of marriages.

Much curious information on this subject is given by Dr. Grierson in his little book on the Gaya district, where the old customs have been preserved to a greater degree than in most other parts of the Province. The custom is there for each artizan to take his recognised share of grain when the crop has been reaped and brought to the threshing-floor. The carpenter and blacksmith are each given about a maund of grain (half being rice) yearly for each plough, while the Chamár gets 12 seers. The Dom or basket-maker receives no regular income. He is paid for what he does, and his only perquisite is the right to take the table leavings of all castes, except the Dhobá, whose remains he scorns to touch. The Teli also draws no fixed stipend, but receives 4 seers of oilseed for every seer of oil he is required to supply. In addition to these regular payments from the villagers, the artizan or village servant often holds a small plot of land rent-free, in return for which he supplies the zamindár with earthenware, or shaves him and his family and cuts their hair, etc., as the case may be.

The same system is in vogue in Bengal proper, but to a more limited extent. The Dhobá and Nápit usually enjoy small grants of rent-free land from the zamindárs, and the *pálki*-bearers and Háris also do so occasionally. They receive fixed remuneration, in cash or grain, from the villagers; but the present tendency is towards payment by the job. The village carpenters and blacksmiths are usually paid in cash for the actual work done. The Nápit often enjoys the exclusive right to work for people in a recognised circle, but this is not usually the case with the other village servants and artizans. The village organization, with its complete outfit of servants and artizans who render it independent of all outside help, which is so common in other parts of India, never seems to have been fully developed in the greater part of Bengal proper, and there is often a great dearth of local craftsmen, which is now being met by the settlement of immigrants from Bihar. The up-country Dhobá, for example, is now to be found in almost all parts of Bengal.

In Orissa, on the other hand, the system, as it obtains in Bihar, is in full force. Whenever a new village is formed, the first care of the settlers is to secure their own staff of village servants, who are induced to come by small grants of land known as *chákrán jaigir*, averaging about an acre in area, which they enjoy in addition to the customary remuneration from the

villagers whom they serve. The washerman and barber work for a group of from 30 to 50 families and receive small monthly payments of grain or money. The barber also gets presents of cloth and rice, on the occasion of marriages, varying in value from Re. 1 to Rs. 5, while the washerman receives the old cloths in which dead bodies are carried to the pyre, and also the cloths discarded at the *śradh* by the relatives, who are given new ones on that occasion. His wife, moreover, receives small presents from well-to-do people when a child is born. The carpenter and blacksmith receive from 12 seers to 15 seers of paddy per plough and are paid by the job for other work; they, too, enjoy a monopoly of the work in a fixed circle of *jajmans*, who are partitioned amongst their heirs like other property. The Jyotish, or astrologer, has no definite circle, but he usually serves about 100 families, and also acts as the priest of the Chamār and Siyal castes. He attends at all ceremonial observances and shares the offerings with the Brāhman, taking from a quarter to three-eighths of the total amount given."*

In his report for the Central Provinces Mr. Russell gives many interesting notes on various village industries such as grain parching, dyeing and bangle and kite making and also on the relations which exist between master and servant and the farm servant in particular.

325. The village organization of other parts of India is in full vigour in Bihar and Orissa, but in Bengal proper it is far less developed. Further east, in Assam and Burma, it disappears altogether, and the village functionaries above described are almost unknown. In Assam there are only 14 washermen and 21 barbers per 10,000 of the population and in Burma only 9 and 3, compared with 68 and 77 respectively in India as a whole, and the proportion would be even smaller, if it were not for the towns and the large European population. Oil-pressers, grain parchers, leather-workers, basket-makers, etc., are also comparatively rare in these two Provinces. Cultivators are most numerous in Assam, Bengal, the United Provinces and the Punjab; unskilled labourers in the Central Provinces, Bombay and Madras †; stock breeders in the Central Provinces, Madras, and Bombay; weavers (not in mills) in the Punjab and Central Provinces; carpenters in the Punjab and Burma; fishermen in Burma, Assam and Bengal proper; oil-pressers in the United Provinces and the Central Provinces; barbers in the Punjab and the United Provinces; washermen in Madras, and leather-workers, basket-makers, priests, potters, and grain-dealers in the Punjab.

326. In 1891 the occupations of all persons living in towns, as defined for census purposes, were tabulated separately. The object in view was to ascertain how far the avocations of the urban community differed from those of people living in rural areas, but the results were obscured by the large extent to which the smaller towns partake of the nature of overgrown villages. It was, therefore, thought better, on the present occasion, to take as the basis of the urban statistics the figures for cities, i.e., places with a population of not less than 100,000 persons.‡ The proportional figures for all these places taken together are exhibited in the diagram in the margin of paragraph 320 and in subsidiary table X, which also contains the details for fourteen selected cities of special industrial and commercial importance. We have already seen how, in all cities taken together, agriculture is the means of support of only one-twelfth of the inhabitants, as compared with two-thirds in the general population, but in some of the selected cities the proportion is much lower even than this. In Bombay only 1 person in 130 is thus supported, in Karachi 1 in 40, in Rangoon 1 in 33, and in Calcutta and Madras 1 in 28.

The preparation and supply of material substances, which in India at large support one person in six, in cities afford a livelihood to two in five. In Delhi, Ahmedabad and Amritsar more than half the inhabitants are thus engaged; the proportion is above the general average in Bombay, Madras, Rangoon, Karachi,§ and Howrah, but in Calcutta, Lahore, Allahabad and—strange to observe—Cawnpore, it is below it. In Bombay and Ahmedabad the cotton mills support one-seventh of the population. Cawnpore, Agra, Karachi, and Delhi are also largely indebted for their growing importance to the cotton mills which have sprung into existence in recent years. In Rangoon one-ninth of the

* In the Madras Census Report for 1891 (page 23) Mr. Stuart gives a similar account of the village organization in that Presidency, and shows how it gradually breaks down as the village increases in size and eventually becomes a town.

† Burma is omitted for reasons explained elsewhere.

‡ It has already been explained that in the Provincial Reports a somewhat wider meaning was given to the term 'city.'

§ A peculiarity of the figures for Karachi is the large proportion of "betel-leaf and areca-nut sellers" who are one-nineteenth of the population.

population find a livelihood in the rice mills. Jute mills and jute presses support one-eleventh of the inhabitants of Howrah, and one-nineteenth are maintained by its machinery and engineering workshops. The leather factories of Cawnpore support nearly 3 per cent. of the population.

827. Commerce, including transport and storage, is essentially an urban form of occupation and is returned in cities by 1 person in 8, compared with 1 in 38 in India at large; in Calcutta and Rangoon the proportion rises to 1 in 4, and in Bombay, Madras, Delhi, Lahore, Amritsar, and Howrah it is 1 in 6 or thereabouts, but in Karachi it is only 1 in 12, in Ahmedabad and Cawnpore 1 in 13, and in Allahabad 1 in 27. The variations from the general average for cities in the case of learned and artistic professions (1 in 17) are not as a rule very marked, but the proportion is unusually low in Allahabad (1 in 40) and highest of all in Madras (1 in 12).

Unskilled labour finds most representatives in Howrah (1 in 6), Bombay (1 in 7), and Agra, Cawnpore, and Allahabad (1 in 8). The high proportion in Howrah is due to the entry under this head of 10,000 persons whose means of livelihood was entered merely as "factory work" and who could not therefore be assigned to any definite group, and if these be excluded, only 1 person in 9 depends for his livelihood on "unskilled labour." It is possible that the figures for some of the other cities have been similarly affected by defects in the original return.

Persons "independent of work" (mostly mendicants) are relatively two-and-a-half times as numerous in cities as in the general population; members of the "learned and artistic professions" are three-and-a-half times as numerous, and Government servants nearly four times.

workers and dependents.

828. The instructions that were laid down as to the distinction between workers and dependents have already been quoted. The rule was that women and children who work at any occupation, not being an amusement or of a purely domestic character, such as cooking, should be entered as actual workers, but amongst the more respectable classes, both of Hindus and Muhammadans, it is not considered proper for a woman to work, and there is thus a tendency to show her as a dependent, even though she may, as a matter of fact, be a worker. It is also very difficult in practice to say at what particular point the line is to be drawn. Is a woman to be regarded as a worker because she husks paddy for domestic consumption, or weaves cloth for the use of her family? Or is a child to be so classed, because he occasionally looks after his father's cattle, or assists in minor agricultural operations such as weeding? Mr. Burn says in his Report for the United Provinces:—

"The principal difficulty found at the present census was the distinction between actual workers and dependents. In a Hindu joint family it is usual to regard the father or eldest brother as head of the family, and in one district I found, luckily before enumeration had commenced, that orders had actually been issued to record the head of the family only as a worker and the rest of the family as dependents. This difficulty was partly due to the use of the word "dependent" which is difficult to translate, and it will, I think, be advisable in future to use simply the terms "worker" and "non-worker", explaining that the former also includes persons with an independent income such as a pension. The case of women and children also gave some difficulty apart from that noted above; both of these, especially in the poorer families, work at home industries and household duties, and the difficulty was to decide whether they should be recorded as workers or dependents. The instructions given laid down that the test was to be whether they did sufficient work to earn their own living, and this was found sufficiently practical to act on."

Mr. Rose is of opinion that "the line between those who are entirely dependent and those who pursue some subsidiary occupation but are virtually dependent on the principal workers has not been strictly drawn" but that nevertheless "the figures represent an approximation to the truth." So far as they go the proportions given in columns 2 and 3 of subsidiary table VI indicate that the proportion of actual workers is considerably below the general average in Kashmir, Mysore, Baluchistan, the Punjab, and Bengal, and a good deal above it in Ajmer, Berar, the Central Provinces, Coorg, and Rajputana. In India at large 47 per cent. of the population have been returned as workers and 53 per cent. as dependents. The general proportion for cities is the same as in the general population, but there are marked variations in different parts; in Agra and Madras barely one-third of the inhabitants are shown as workers while in Rangoon, Calcutta, and Bombay three-fifths have been so entered.

The largest number of dependents is found in the case of occupations

CLASS OF OCCUPATION.	NUMBER PER CENT.	
	Workers.	Dependents.
A.—Government	39	61
B.—Pasture and Agriculture	46	54
C.—Personal, Domestic and Sanitary services.	52	48
D.—Preparation and Supply of Material substances.	48	52
E.—Commerce and Transport	41	59
F.—Professions	41	59
G.—Unskilled labour not Agricultural	55	45
H.—Indefinite and Disreputable	56	44

connected with Government, Commerce and the Professions, which include most of the higher and more remunerative forms of employment, and the smallest amongst the comparatively simple and illpaid avocations falling under the heads "Personal, domestic, and sanitary

services," "Unskilled labour," and "Indefinite." The proportion of workers and dependents in each Order and Sub-order is given in subsidiary table I, and the local distribution under each of the main heads—Agriculture, Industry, Commerce, and Professions will be found in subsidiary table II. The proportions, however, hinge mainly on the extent to which females are employed and the detailed consideration of the subject can best be taken up from this standpoint.

329. Of the total number of males only one-third are dependents, but amongst females barely that proportion earn their own living. Only 31 per cent. of the persons returned as actual workers are females, i.e., to every 1,000 males who are workers there are only 450 females. The proportion of the latter is less than 10 per cent. in Orders I—Administration, II—Defence, III—Service of Native and Foreign States, X—Vehicles and Vessels, XIII—Metals and Precious Stones, and XIX—Transport and Storage, while it exceeds 80 per cent. in the following Sub-orders, viz., 11—Agricultural labourers, 18—Provision of vegetable food, 21—Fuel and forage, 39—Silk, 41—Jute, hemp, etc.,

Occupations of females.

Occupation.	Number of female workers in thousands.	Female workers per 1,000 males.
Rent-payers	11,008	324
Field-labourers	8,954	1,032
Rent-receivers	6,152	438
General labour	3,841	712
Mendicancy	938	518
Cotton-weavers	833	453
Rice-pounders	559	10,068
Cotton-spinners	509	5,639

50—Cane, matting and leaves, and 77—Disreputable. The occupations which support more than half a million female workers are noted in the margin. It will be observed that these eight occupations combined include considerably more than three-quarters of the total number of females who help to support themselves and their families.

In all but two cases, however, the number is great because the occupation is a common one generally and not because it is in any way a speciality of the weaker sex. It is only in the case of field-labourers, rice-pounders, and cotton spinners that the female workers outnumber the male, and their numerical superiority is very marked only in the case of the two last. Amongst the occupations not shown in the above statement where the figures for females exceed those for males may be mentioned (a) flour-grinders, silk-worm rearers and cocoon gatherers, rope and netmakers, midwives,* tattooers, and prostitutes, where the excess of females is very great and (b) grain parchers, vegetable and fruit sellers, hay, etc. sellers, firewood, etc. sellers, silk carders, spinners and weavers, rope and net sellers, basket and mat makers and sellers, and leaf-plate makers and sellers, where the difference in the sex proportions is comparatively small. Although the females are in a minority, their deficiency is only slight amongst tea-garden coolies, water-carriers, dairy-men, fish-dealers, coal-miners and spangle and sacred-thread makers.

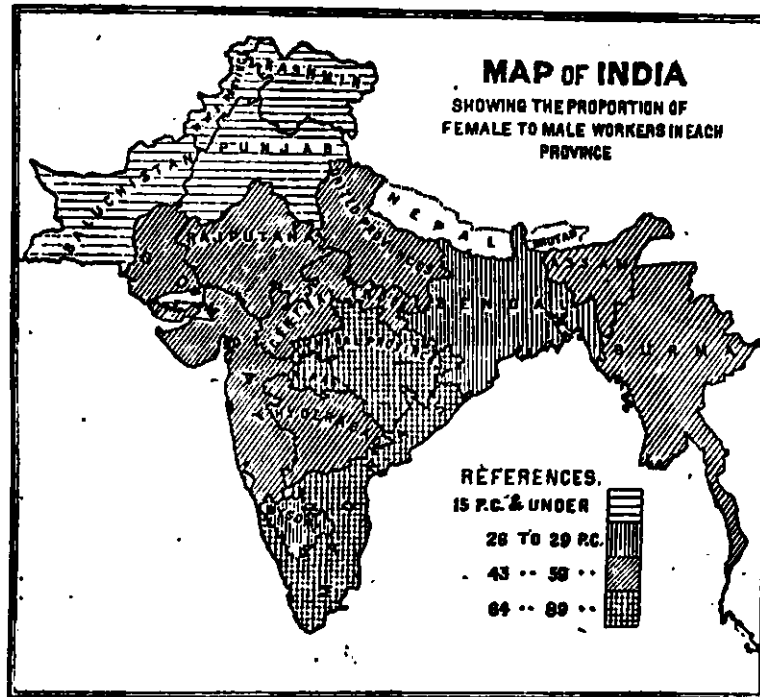
The avocations in which females are engaged may be grouped into three classes—those which are followed by them independently, without reference to the work of their male relatives, such as midwifery, tattooing, silk-worm rearing, domestic service, flour grinding and the like; those which are supplementary to the husband's occupation, such as cotton-spinning, carried on by the wives of weavers, and the selling of fruit, vegetables, milk and fish by the

* A few males have been returned as midwives. In Bengal the persons so entered merely sever the umbilical cord and do not assist in the actual delivery.

wives of fruit and vegetable growers, cow-keepers and fishermen; and lastly those in which both sexes work together, such as basket-weaving, work on tea gardens and coal mines and as field-labourers or *jhum* cultivators. The occupations which females follow, either independently or as a supplement to some kindred employment of their male relatives, are generally distinguished by two characteristics, their simplicity and the small amount of physical labour which they involve.

Local and functional distribution of female workers.

330. The proportion of female workers is lowest in the north-west of India,



in the Punjab and Kashmir, and it is also much below the average in Mysore and Bengal, while it is exceptionally high in Berar, the Central Provinces, Madras and Coorg; in the rest of India the variations are comparatively slight, and range only from 43 per hundred males in the United Provinces to 59 in Rajputana.

The local proportions in respect of some of the main occupations are given in subsidiary table VI. In the case of rent-receivers the female workers are

more than half as numerous as the males only in Coorg, the Central Provinces, Bombay, Madras, Assam, Burma and Ajmer; the areas where they exceed this proportion in respect of rent-payers are the same, except that in this case Rajputana takes the place of Assam. Female farm servants are numerous only in Travancore, the Central India Agency and Hyderabad, but the field labourers of this sex often outnumber those who are males, and the excess is very marked in Assam, Berar, the Central Provinces, Madras, Central India, and Rajputana, especially in the first mentioned province, where there is no class of landless labourers and the only persons usually obtainable for work in the fields are poor widows and other females who have no male relatives to depend on. Women are most commonly employed as indoor servants in Madras, Baroda, Cochin and Travancore, and as water-carriers in Bengal, the Central Provinces, Baroda and Madras.

331. It might be supposed that the people must be most prosperous where the proportion of drones is smallest, i.e., where there are most female workers. Or, conversely, it might be imagined that where the people are poor, there they can least afford to do without assistance from the female members of their families. As a matter of fact, however, there is no apparent connection between the material condition of the people and the extent to which women share in the labours of the men.* The most prosperous tracts in India are perhaps to be found in Burma and East Bengal, but in the former the proportion of female workers is much above the average, while in the latter it is much below it; the people of Madras are probably quite as well-off as those of the Punjab, but in the former province female workers are four times as numerous as in the latter. Nor does the proportion vary with the pressure of the population on the soil. Bengal, excluding Chota Nagpur, is more densely inhabited than the United Provinces, but it has a much smaller proportion of female workers; and the Central

* The employment of women may add to the economic efficiency of the community at large, but it does not necessarily conduce to the well-being of the labouring classes. In a certain part of England it has been stated that the reliance on the additional earnings of the women engaged in glove making has caused the farm labourers to accept a rate of wages below that which affords the normal human subsistence. (Journal of the Statistical Society, 1908, Part II, page 354.)

Provinces, though more sparsely populated than Bombay, contains many more females who help to swell the family income. The main explanation of the local variations is to be found in the state of feeling regarding the seclusion of women. Where the prejudice against their appearing in public is strong, as in the Punjab, where Muhammadans and Rájputs of all classes would suffer greatly in social estimation if they allowed their women to help in the fields, female workers are found only amongst the lower sections of the community, but where such scruples are weak or non-existent, as in Burma and amongst the hill tribes of Assam, Chota Nagpur and the Central Provinces, the number returned is comparatively large. It must be borne in mind, however, that the real differences in this respect are less than the figures would indicate, and that women, who would be entered as workers in the tracts where there are few scruples regarding the *parda*, would be shown as dependents in those where the prejudices on the subject are strong.

In cities the number of female workers varies according to the class of labour required. Where cotton mills are numerous, as at Ahmedabad, the proportion is high, but it is very low in commercial centres like Rangoon and Karachi.

332. It would be interesting if the table of occupations could be utilised to throw light on the extent to which the introduction of European capital and methods of work has influenced the functional distribution of the people. It is, however, not always possible to draw a distinction between imported, if one may use the expression, and indigenous occupations. The group "bankers, money lenders, etc.," for example, includes both the European banker and the village usurer, and "general merchants" include both the wholesale traders of the Presidency towns and the indigenous dealers in general merchandise of rural areas. The labourers engaged in the construction of railway embankments and canals cannot be distinguished in the returns from those working on roads. The advent of the British has greatly augmented the number of persons employed in the direct administration of the country and has also added enormously to the staff of teachers, engineers, medical practitioners, and the like; but of these, too, no reliable count can be taken. There are, however, certain occupations which are wholly exotic, of which the principal ones are noted in the margin, and these are shown by the returns to be the means of support of 1½ million persons or between 5 and 6 persons per mille. In most cases, moreover, industries conducted in factories have been distinguished in the course of compilation from the corresponding hand industries. The return is not complete; some factory industries, such as woollen mills, have not been differentiated, while even where they have been, the entries in the

Railways (open line)	602,998
Post Office	133,933
Telegraphs	20,490
Tea gardens	874,975
Coffee plantations	106,154
Cinchona plantations	1,007
Indigo factories	15,783
Total	1,656,336

schedules were often not sufficiently precise, and factory employes were in consequence relegated to the group provided for hand workers, or to some more general head, so that, as will be seen from subsidiary table XI, the census figures often fall far short of those collected in connection with the Return of Large Industries published by the Director-General of Statistics. So far as they go, however, these figures show that, in addition to the persons included in the above statement, more than 1½ million are employed in factories, coal mines and other undertakings founded with European capital or conducted according to European methods. The total thus exceeds 3 millions, or 1 per cent. of the total population. This may not seem very much, but it is at least a beginning, and there are many indications that India is entering on a period of great industrial activity. The local production of coal, coupled with the extension of railway communication, has removed one of the chief obstacles to progress and, in Bombay at least, native capital is beginning to flow more freely towards industrial enterprise. The main difficulty in this connection is that the ordinary native of this country does not yet put much trust in joint stock undertakings and the small capitalist still fights shy of investing his savings in companies.

Of all the industrial undertakings, properly so called, the cotton mills are

by far the most important. According to the census 347,728 persons are supported by employment in these mills, of whom 185,875 are actual workers. Half the total number are in the Bombay Presidency, and the rest are distributed over various parts of the country, the largest number in any single province being in Madras, where it amounts to 17,486. Jute mills are returned as supporting 130,664 persons, practically all in Bengal, and collieries 100,829, more than four-fifths of whom are found in the same province. According to the Return of Large Industries, the number of cotton mills has risen during the decade from 127 to 190 and the average number of employes from 118 to 156 thousand. There were 35 jute mills at work in 1900, compared with only 25 ten years earlier, and the average number of hands was 110, against less than 65, thousand. The persons employed in coal mines were returned at 35,000 in 1891 and at 95,000 in 1901. For further details reference may be made to subsidiary table XI.

The Agricultural Population.

General
results.

333. Of the total population of India about two-thirds returned some form of agriculture as their principal means of subsistence. Order V—Agriculture includes four sub-orders:—

- (a) Landlords and tenants, under which head 52 per cent. of the population were enumerated;
- (b) Agricultural labour, which includes 12 per cent.;
- (c) Growers of special products, who constitute about 1 per cent., and
- (d) Agricultural training and supervision and forests which account for about one-third per cent.

The first of these sub-orders is again divided into two groups, *viz.*, (i) rent receivers and (ii) rent-payers, which contain respectively 16 and 36 per cent. of the total population. In the provincial series of Reports of the Census Superintendents were given the option of further subdividing these groups, and in Madras, Mr. Francis has distinguished between cultivating and non-cultivating landowners and cultivating and non-cultivating tenants. In the United Provinces Mr. Burn has followed a different system, and has broken up the group of rent-payers into three parts according to their legal status, *viz.*, tenants with some rights of occupancy, tenants with no rights of occupancy, and sub-tenants. Mr. Rose in the Punjab combines both these lines of cleavage and his sub-groups include (i) owners, (a) cultivating, (b) non-cultivating; (ii) mortgagees, (a) cultivating, (b) non-cultivating; (iii) occupancy tenants, (a) cultivating, (b) non-cultivating; and (iv) tenants-at-will. Occupancy tenants who sub-let have been added to rent-receivers, whereas in the United Provinces all tenants have been classed as rent-payers. In the Central Provinces the different classes of tenants have been distinguished, but "the figures are not accurate because 300,815 persons were simply shown as tenants without their class being recorded." In Bombay—

"An attempt was made to arrive at some more detailed classification of the population living on the land, with a view to showing the number both occupying and cultivating land, those occupying but not cultivating, and those cultivating but not occupying, the term 'occupant' referring to persons paying assessment to Government for the land. It was hoped by this means to obtain some statistics of interest bearing on the extent to which the cultivating population held direct from Government the land from which they gained their livelihood. But the entries in the schedules were so carelessly made that the statistics could not be compiled for a sufficient number of cases to be of any value, and the attempt was therefore abandoned."

In Bengal no subdivision of the two main groups was made because—

"any attempt to do so would have been misleading, owing to the impossibility of securing entries in the schedules sufficiently clear to permit of the necessary differentiation. The terms used in describing the different kinds of interest in land are so numerous, and their meaning in different localities varies so greatly, that any attempt to particularise would have been foredoomed to failure. I consulted district officers on the subject, but the general opinion was strongly against any attempt to complicate matters by the detailed instructions which would have been necessary, especially as it would have been quite impossible, with the agency available, to ensure their being carried out."

In Burma also the main heads were left untouched, but even so, the figures are incomplete, because persons returned as cultivators (unspecified)

were classed, not as rent-payers but as field labourers.* Mr. Lewis says:—

"The term 'Rent-payers' would properly cover the very large class of State land workers in Upper Burma who pay rent for their holdings direct to Government, and if it had been decided to require all agriculturists in Upper Burma to state whether the land they worked was *bobabaing* or State it might have been possible to secure fuller returns for occupation number 36 than were actually obtained. An instruction of this nature would, however, have been directly opposed to the policy of dissociating the census as far possible in the minds of the people from revenue collection and it has thus been found necessary to sacrifice a certain amount of detail to the susceptibilities of the enumerated. It is, moreover, a question whether in a country like Burma the duty of differentiating nicely between the various classes of agriculturists is one which need be thrown upon the census department."

The above quotations have been given as they clearly explain why in the general scheme no attempt has been made to subdivide the two large groups of rent-receivers and rent-payers, which contain between them more than half the total population. Wide as they are, we have seen that in Burma at least they do not cover the ground that they were intended to, and in other provinces also there has doubtless been a good deal of confusion, though on a smaller scale. Mr. Francis points out that—

"The small agriculturist is frequently a cultivating and non-cultivating landowner, a tenant, a farm-servant and a field-labourer all rolled into one; owning land which he partly cultivates and partly lets out for rent, hiring other land from some one else, and eking out his earnings by working on the land of others in between whiles."

The expressions "rent-receivers" and "rent-payers," moreover, do not cover the same ground as the terms "land-occupants" and "tenants" used at the previous census, and there is reason to believe that they have not always been uniformly interpreted. The value of the distinctions which have been made depends largely on local considerations and in some provinces the details may be more accurate than in others.† But in dealing with the aggregate for India as a whole it would be misleading to lay stress on the figures for groups and the only safe method is to deal with the whole sub-order collectively.

334. Taking the two groups together, and adding to them the growers of special products, who also fall properly within the same category, we find that persons with an interest in land are relatively most numerous in Assam, where they constitute 72 per cent. of the population. This backward province contains an exceptionally small urban population, has very few village servants or artisans, and no class of wealthy landlords with their numerous hangers on and attendants. Bengal comes next to Assam with 64 per cent., and then the United Provinces and the Punjab with 56 and 55 per cent., Madras with 49, and the Central Provinces with 48, per cent. The proportion in Burma stands at only 24 per cent., but this is due to the circumstance, already alluded to, that 'cultivators unspecified' were there classed as agricultural labourers. Of the main provinces other than Burma, the smallest proportion of persons possessing an interest in land is found in Bombay (43 per cent.).

Local
distribution
of landlords
and tenants.

The above figures represent the provincial averages but within the limits of the larger provinces there are great local variations. In the Punjab, for example, the proportion is far higher in the Himalayan districts than in Amritsar, Lahore, Multan, Delhi, and Jhang; and in the United Provinces in Almora, Garhwal, and the Tehri State than in the Western Plain. In Madras, Mr. Francis points out that the districts with a low average are not those which are infertile but those which contain a comparatively large industrial population, and his observation applies to all parts of India, with the rider that the proportion depends also on the extent to which the primitive organization of labour which characterizes the typical Indian village is in vogue. Where each village is supplied with a complete outfit of village servants and artisans the proportion of cultivators is lower than where, as in Assam, each family does its own washing, weaving, basket-making and the like, and the professional barber, washerman, scavenger, carpenter, etc., are non-existent. In some provinces, moreover, the holdings are larger than in others, and many of the persons engaged in cultivation are merely hired labourers.

* In Salween and Amherst no rent-payers at all are entered in the return and in eight other Districts the total number is less than 10.

† In some cases marked variations are noticed in comparison with 1891. In Cochin, for example, cultivating tenants have increased from 33 to 182 thousand; in Madras cultivating land-owners have increased from 8½ to 13½ million, while non-cultivating land-owners have fallen from nearly three, to less than four-fifths of a million, and in Assam cultivating tenants number 1½, compared with little more than half a million. In some cases there must clearly be some error either in 1891 or at the present census, or at least some radical change in the interpretation assigned to the entries in the schedules.

Agricultural
Labour.

335. The next sub-order, "Agricultural Labour" is divided into three groups, *viz.*, farm-servants, field-labourers, and *jhum* or *laungya* cultivators. The last mentioned group, which belongs perhaps more properly to the previous sub-order, is admittedly not complete, and many of the wild tribes who live by this wasteful form of shifting cultivation have been returned as ordinary cultivators. There has been much confusion between farm-servants and field-labourers, and also between the two combined and the head 'general labourers' which finds a place in Order XXII. It has already been explained that most unskilled labourers depend mainly on field work for their subsistence, but large numbers have been relegated to the more indefinite head, either because of the vagueness of the entries in the schedules, or because at the time of the census, when there was in many parts less field work than usual, they were employed temporarily on some other kind of labour. Excluding Burma, the largest number of agricultural labourers in any of the main provinces is returned in the Central Provinces, Madras and Bombay, and by far the smallest number in Assam and the Punjab.

Occupations
combined
with
Agriculture.

336. We have hitherto been dealing with the question solely with reference to the principal occupations entered in the schedules. Some of the persons thus classed as agriculturists follow other pursuits as a secondary means of livelihood but, contrariwise, there are many who have been classed under some non-agricultural head, because that has been returned as their main occupation, who are also partially dependent on the land. In other words the return of the agricultural population has, on the one hand, been swollen by the inclusion of persons whose means of subsistence, though mainly, are not wholly, agrarian, while on the other, it has been reduced by the total exclusion of those who practise agriculture as an ancillary form of employment.

(1) Where
agriculture
is the sub-
sidiary occu-
pation.

337. We will commence with the latter, whose number, in the case of actual workers, has been tabulated in all provinces and states, and is shown against each non-agricultural head of occupation in Table XV.* We may assume that the proportion of persons with dual occupations which is found to exist amongst workers, applies equally to the whole population, including dependents, and if so, in India as a whole, in addition to the 651 persons per mille who are wholly or mainly dependent on agriculture, there are also 24 per mille who depend on it as a secondary means of subsistence.† The proportion of such persons is largest in Hyderabad, Rajputana, and the United Provinces, where it ranges from 55 to 36 per mille, and it is also above the average in Ajmer, Central India, and Mysore; it is slightly below it in Bengal, Bombay, Madras, and the Punjab, and considerably so in Assam, Berar, Burma, the Central Provinces, Coorg, Baroda, Cochin, Travancore, and Kashmir. The proportion of persons who are partially agriculturists is highest in the case of occupations falling under Class A—Government, where 1 person in 8 depends on some agricultural pursuit as a subsidiary means of support; in Mysore half the persons in Order I—Administration, have been shown as partially agriculturists, in Coorg one-third and in Madras one-fourth. Of those engaged in 'Personal, domestic and sanitary services,' 77 per mille have returned some form of agriculture as a subsidiary employment; and in the United Provinces, Madras, and Mysore the proportion ranges from 108 to 113 per mille. It would be tedious to recite the proportions in further detail, as they are all available in subsidiary table VII, but attention may be drawn to the close connection with the land indicated by the figures for blacksmiths and other workers in metal, and also for potters and their congeners in the United Provinces, Mysore and Bengal; and for pleaders and priests in Madras, the United Provinces, Bengal and several smaller provinces and states.

* It should be explained that these figures refer only to persons whose agricultural avocations were entered in column 10 of the schedules, which refers to subsidiary occupations. The Census dealt only with two occupations, and persons with three or more, whose income from agriculture was so small as not to occupy the first or second place, were left out of account. This however has probably not had any appreciable effect on the statistics. A further source of error is possibly to be found in the defective return of subsidiary occupations. In all cases the main occupation was entered, but it is very doubtful if the enumerators were equally particular about ascertaining and recording subsidiary means of livelihood. The omissions, however, were probably not numerous in the case of subsidiary occupations connected with agriculture.

† This ratio refers, as stated, to the total population. If we exclude those who are mainly agriculturists, and base the calculation on the number whose principal occupation is non-agricultural, the proportion rises to 24 per mille.

338. There is no place in the Imperial tables for the entry of the subsidiary occupations of agriculturists, and Bengal is the only province where a full record is available of the number of persons whose main occupation is of an agricultural nature but who depend partly on some other means of subsistence.* In that Province 1,654,650 persons out of 20,521,309 actual workers in Sub-orders 10 and 11 mentioned some non-agricultural pursuit as a subsidiary means of subsistence; this gives a proportion of 53 per mille on the total number of actual workers in the province, compared with 21 per mille who practised some other occupation in conjunction with agriculture but returned the latter as the subsidiary one. In other words, out of every seven persons living partly by agriculture and partly by some other avocation, 5 returned the former, and 2 the latter, as their principal means of subsistence. The disproportion in all probability represents a state of feeling rather than a state of fact, and the agricultural head was doubtless in many cases given precedence, not because it was really the more lucrative, but because it was considered the more respectable. In the

(ii) Where agriculture is the main occupation.

Subsidiary occupations.	Number per 10,000.
(a) OF RENT-RECEIVERS.	
Money-lenders	217
Priests	164
General Merchants	115
Clerks, not Government	79
(b) OF RENT-PAYERS.	
General labourers	258
Shop-keepers	69
Weavers	36
Fishermen	32
Cattle-breeders	31
Barbers	24
Oil-pressers	21
Potters	18
Washermen	18

Note.—The proportions refer to the total number of rent-receivers and rent-payers respectively and not merely to the number with dual occupations.

case of rent-receivers the most common non-agricultural occupations are money-lending, the priesthood, general trade, grain dealing, and private clerical service; and in the case of cultivators, general labour, shopkeeping, and weaving; a considerable number of both classes were by subsidiary occupation village servants and artizans such as barbers, oil-pressers, potters, and washermen.

In the Punjab only certain selected subsidiary occupations of rent-receivers and rent-payers were tabulated; of them the most common are (c) for rent-receivers—village servants 109, traders 62, artizans 60, and Government officials 44 per 10,000 and (b) for rent-payers—artizans 109, menials 64, traders 37, general

labourers 36, and village servants 34 per 10,000. In the United Provinces out of every 10,000 rent-payers 511 are also day labourers, 72 are artizans and 16 are money-lenders: of the same number of rent-receivers, 61 are money-lenders, 54 day labourers, 17 artizans, and 9 pensioners.

339. The proportion of persons shown in Order V—Agriculture, at the present census is 651 per mille compared with only 599 in 1891. If the system of classification had remained unchanged, the inference would be that this indicates a greater dependence on the land due to the abandonment of weaving and other indigenous industries. We have seen, however, that there has been an important change of system, and that on the present occasion each person has been entered according to the principal occupation returned by him, whereas in 1891 all dual occupations were tabulated under the non-agricultural head. The proportion for 1891 refers to the number of persons solely dependent on agriculture, while that for the present census includes also those with other occupations who named the agricultural one as their chief means of support. A separate return was prepared in 1891 of the persons partly dependent on agriculture who were thus excluded from the agricultural head in the general occupation table and if these be added, the proportion wholly or partly dependent on agriculture in 1891 rises to 645. Similarly on the present occasion, if we add to those returned as chiefly dependent on agriculture the number who follow it as a subsidiary occupation, the proportion is 675 per mille. The difference, viz., 30 per mille, is still considerable, but it can be accounted for in more ways than one. In the first place there is the uncertainty, already alluded to, as to how the ordinary coolie should be dealt with. In the Central Provinces, where the number of persons entered under the head "General Labour" has fallen by more than half while that of "agricultural labour" shows a corresponding rise, Mr. Russell explains the result by saying that "at this census persons who returned

Comparison with 1891, (a) in number wholly or partly agricultural.

* In the United Provinces, the Punjab, and one or two other provinces, dual occupations (some of which were, while others were not, connected with agriculture) were tabulated for certain selected groups, but the total number of persons, mainly agriculturists, who also practised some non-agricultural occupation, was not ascertained.

the term "labour" from rural areas were classified as field-labourers, "as it was considered that they were more dependent on agriculture than on any other single means of subsistence." In Bengal we have already seen that in comparison with 1891 about 3 million labourers have been transferred from the non-agricultural to the agricultural head; here too the cause is a change in the method of classification, coupled with the more successful elimination of the word "coolie" from the enumeration schedules, rather than an alteration in the actual conditions of the Province. There has been a similar transfer of about 2 million persons from the former to the latter head in Madras. Sometimes there has been a move in the other direction, and in the Punjab a decrease of half a million has taken place in the number of field-labourers coupled with a still larger increase in that of sweepers, many of whom are supported mainly by agrastic employment, and of general labourers. The net result, however, for India as a whole shows a large shifting from the non-agricultural to the agricultural head. Excluding Burma, where genuine cultivators have been thus classed, the number of farm-servants and field-labourers combined has risen from 17,990,575 to 29,669,315 or by 11,678,740, while that of general labourers has fallen from 23,592,649 to 16,549,442 or by 7,043,207. It may be assumed that the latter number at least, or 25 per mille, has been added to the agricultural population merely by changes in the classification of landless labourers. There have been other local changes which have tended in the same direction, *e.g.*, in Bombay, where the increase in the population supported by agriculture is due mainly to the rectification of an error of classification in 1891, when some 390,000 cultivators in Sind were classed as industrial merely because they disposed of their own produce.

(b) in number solely agricultural.

840. There are, moreover, reasons for believing that in some provinces the supplementary return prepared in 1891 of persons partly dependent on agriculture was not very complete. As already explained that return purports to include all cases where agriculture is practised in conjunction with some other means of livelihood, whether as a principal or as a subsidiary occupation. We have seen that in Bengal at the present census, in the case of occupations combined with agriculture, the latter has been returned as the main occupation by 5 persons to every 2 who have named it as the subsidiary one. The proportion who were "partially agriculturists," as the term was understood in 1891, should, therefore greatly exceed the corresponding proportion in 1901, which refers only to those whose agricultural pursuit is a subsidiary one, and it does so in Assam (88 to 13), Bengal (73 to 21), the Central Provinces (23 to 6), the United Provinces (80 to 36) and Baroda (22 to 9). In some provinces, however, the excess is comparatively small, *e.g.*, in Bombay (33 to 21), Madras (26 to 19), and the Punjab (31 to 22), while in others the proportion was actually less in 1891 than at the present census, *e.g.*, in Berar (8 to 12), Burma (1 to 10), Hyderabad (29 to 55) and Mysore (7 to 33). It follows that in 1891 the number of persons who were partially agriculturists must have been under-stated in the returns for India as a whole. It is impossible to say to what extent this was the case, and the only way to eliminate the error would be by taking as the basis of comparison, the number of persons at each enumeration who depended solely on agriculture for their support. Unfortunately this information is available at the present census only for the Province of Bengal. If it be assumed that the proportion which the number of persons returned in Bengal under the agricultural head, who are partially non-agriculturists, bears to that of those who follow some form of agriculture as a subsidiary occupation is of general application, the 24 persons per mille, in India as a whole, who returned agriculture as a subsidiary occupation, would connote about 60 per mille who returned it as their chief means of support but who were also partially non-agriculturists. Deducting this figure from the 651 per mille who are wholly or chiefly agriculturists we get 591 per mille as the proportion of persons who are solely dependent on agriculture, compared with 599 per mille in 1891.* There would thus seem to have been a slight decrease in the proportion of persons solely dependent on agriculture, in spite of the extensive transfers to the agricultural head owing to the vagaries of classification already alluded to. It is not pretended that the above calculation is absolutely, or even approximately, correct, for although Bengal contains a quarter

* For provincial details and a further explanation of the method by which the figures have been arrived at, subsidiary table IX may be referred to.

of the total population of India, there may be many reasons why the proportion which obtains there between the number of persons practising agriculture (a) as a principal and (b) as a subsidiary means of subsistence should differ greatly from that elsewhere, but it is of value as showing that no deduction can be made from the comparative results of the two enumerations in support of the contention that the people of India are becoming more and more dependent on the soil as a means of livelihood.

Non-Agricultural Occupations.

341. The above examination of the return, so far as it relates to agricultural avocations, has been carried into some detail, partly because agriculture, which is the means of subsistence of two-thirds of the inhabitants of India, is by far the most important item in the classified scheme of occupations, and partly because it was necessary to show that the growing dependence on the land, which a superficial comparison of the results of the present census with those of its predecessor would seem to suggest, has no real existence in fact. The subject of large industries has already been dealt with; the other occupations will be discussed more briefly and attention will be drawn only to points of special interest. Unless the contrary is specially stated, the figures quoted should be understood to refer to the total population supported by an occupation and not merely to the number of actual workers. The increase of nearly 20,000,000 persons in Order V—Agriculture, which has been explained at length above, has its corollary in a corresponding decrease under other heads, but the extent to which they have been affected varies in each case according to the degree to which the occupation in question is pursued in conjunction with agriculture. Where the combination is a common one, the decrease under the non-agricultural head is considerable, and *vice versa*. In a few cases of special importance where some data for forming an opinion are available, an attempt will be made to gauge and allow for changes due to the alteration of system, but this will not be possible generally, and it will be necessary therefore to remember that where there is only a slight falling-off in the figures for the present census, they probably indicate an increase in the actual numbers, and that any gain which may be apparent from the figures is almost certainly less than that which has really taken place.

342. Employment under Government is the means of support of more than 5½ million persons or 19 per 1,000 of the population. Of these 13 per mille are shown in Order I—Administration, 1 per mille in Order II—Defence, and 5 per mille in Order III—Service of Native and Foreign States. Order I is again subdivided into (a) the Civil Service of the State, which is the means of subsistence of 4 per mille, and includes the various officers of Government engaged in the direct administration of the country (but not Engineers, or officers of the postal, telegraph, medical, education, and other similar departments,) and also clerks, inspectors, constables, messengers and other subordinates; (b) Service of local and municipal bodies which supports 1 per mille; and

Group.	NUMBERS ACCORDING TO	
	Census.	Returns of the Military Department.
1.	2.	3.
11. Officers	5,989	3,571
12. Non-commissioned officers and privates	127,980	187,114
16. Military service unspecified	30,369	
TOTAL	164,338	190,685

NOTE.—The figures in column 3 are exclusive of 20,656 persons in the reserve, and also of 693 officers and 28,306 men absent on Command, chiefly in South Africa and China.

(c) village service, under which category 8 per mille have been returned, including village headmen and accountants, watchmen and other village servants; the last mentioned head alone supplies more than 1½ million persons, or more than two-thirds of the total number in the Sub-order. About two-fifths of a million are shown as supported by Order II—Defence, of whom 238,000 are actual workers. The number who are shown as belonging to the Army proper is compared in the margin with the returns of the Military Department. The discrepancy in the case of 'Officers' is due mainly to the fact that native officers, whose number 2,793, have been classed in the army returns with 'Non-commissioned officers and privates,' whereas at the census they were probably included under the first mentioned head. The deficiency in the census figures for 'Non-commissioned

General remarks.

Class A—Government.

officers and privates,' even when 'Military service, unspecified' is added, seems due to various causes. Some persons, such as native drivers in the Royal Artillery, who ought to have been classed as privates, may have been wrongly relegated to the heads 'Followers' and 'Military administrative establishments', which include between them some 52,000 workers; men absent on leave may not always have returned themselves as mainly dependent on their service in the army; while those employed in arsenals and gun factories have been grouped under other heads in the classified scheme of occupations.

As compared with 1891 there has been a decrease of 17 per cent. in the number of persons dependent on Government employment, but the diminution is not more than can be accounted for by the entry under Order V of village servants and others who returned agriculture as their chief means of support but who at the previous census were in all cases classified according to their non-agricultural means of subsistence.* Within the Class, the fluctuations are due mainly to changes in the system of classifying persons in Native States who were returned as in the service of the State within the limits of which they were enumerated.

Class B—
Pasture and
Agriculture.
Order IV—
Pasture.

343. Class B—Pasture and Agriculture is shown as the principal means of subsistence of 665 persons per mille of whom 13 per mille are in Order IV—Provision and Care of Animals and 652 in Order V—Agriculture. Of the total number in Order IV, three-fifths are herdsmen, and the majority of these are doubtless children employed to look after the village cattle. There has probably been some confusion between this head and cattle dealers and breeders, who appear in the same Order, and milkmen and butter dealers, who are classed in Order VII. The sheep and goat breeders, who number about a third of a million, generally combine this occupation with the weaving of blankets and woollen cloth, under which head about a quarter of a million persons are grouped in Order XII. The total number of persons supported by occupations falling under Order IV is greater by 9 per cent. than in 1891, but two-thirds of the increase is due to the inflation of the figures for shepherds and goatherds at the expense of those for blanket-weavers, etc., which are smaller by nearly a quarter of a million than the corresponding entry of the previous census. The former group has also gained by a transfer of a quarter of a million persons from the group "sheep breeders, etc.," and herdsmen have similarly been augmented by three hundred thousand persons shown as cattle breeders in 1891, but as these groups lie within the same Sub-order, such changes do not affect a comparison of the main heads of the occupation scheme.

Order V—
Agriculture.

344. Order V—Agriculture has already been dealt with as a whole, but there are a few items in Sub-order 12—Growers of special products, which are of interest. The persons employed on tea gardens with their families number seven-eighths of a million. Of these five-sevenths were enumerated in Assam, where the tea industry supports a tenth of the total population of the province,† and all but a few thousand of the remainder in Bengal. About 100,000 persons are employed in the coffee plantations of Southern India. There is an increase during the decade of over 80 per cent. in the number of persons supported by the tea and coffee industries combined, but this is due in part to an error in the Bengal return for 1891. Betel-vine and areca-palm growers show an increase of 90,000 as compared with the last census, but there has been an equivalent reduction in the number of sellers of these commodities who are classed in Order VII, Sub-order 19. The distinction between the two occupations does not always exist in fact, and the same vernacular term is often applied to both; about six-sevenths of a million persons are supported by the two taken together. According to the present census there are less than three-fifths of a million "Fruit and vegetable growers," or half a million fewer than in 1891, but there is a corresponding increase in the "Miscellaneous" group of the same Sub-order, and also of 139,000 in that of "Vegetable and fruitsellers" in Sub-order 18. These changes are clearly a matter of classification. So far as the returns of the present census can be relied on, the total number of persons supported by the growing and selling of fruit and vegetables is not far short of a million and-a-half. The agents and managers of landed estates with their clerks, bailiffs, and other subordinates aggregate about 900,000, or much the same as at the previous census, but

* See ante, paragraph 308.

† In Assam the tea garden coolies number 623,417 and the total population of tea gardens is 657,331.

the distinction between the two groups has been more accurately drawn on the present occasion, and the superior staff now represent only one-eighth of the total against three-fifths in 1891.

345. The number of persons dependent on personal, domestic and sanitary services is about 10½ millions, or 36 per mille, against 11½ millions in 1891; of those now returned more than 9 millions are in Sub-order 14—Personal and domestic services, and a million and a half in Sub-order 16—Sanitation, which consists almost exclusively of sweepers and scavengers. In the Class as a whole there has been a decline of about half a million in comparison with 1891, a decrease of about 900,000 in Sub-order 14 being partly counterbalanced by an increase of 400,000 in Sub-order 16. The change in the latter head is due largely to the figures for the Punjab, where Chuhras have been more freely returned as sweepers than in 1891. At the present census more than half the total Sweeper population of India is returned in the Punjab; the number is here twice as great as in the United Provinces and more than ten times that reported in Bengal.

Class C—
Personal
services.

About a quarter of the loss in Sub-order 14 is due to the entry in another part of the scheme of the persons who in Bengal returned their occupation as 'service' without any further specification; the vernacular word employed in the schedules (chákari) connotes clerical employment more frequently than domestic service, but it was classed under the latter head in 1891. The rest of the difference is explained by the entry of many village servants under some agricultural head; such persons are frequently remunerated, in part at least, by a grant of land, and where they returned their main employment as cultivation they were entered accordingly at the present census, whereas in 1891 they were classed in the main occupation table according to their non-agricultural means of support. There are now 2½ million persons returned as barbers or about a quarter of a million less than in 1891. The Bengal return of the non-agrestic pursuits of persons mainly dependent on agriculture shows that 24 per 10,000 rent-payers and 12 per 10,000 farm-servants and field-labourers were also barbers, and if we apply these proportions to the figures for the whole of India, we get 297,000 as the number of persons who returned some form of agriculture as their chief means of subsistence, but who in 1891 would have been classed as barbers. With this addition the apparent decrease of 10 per cent. becomes converted into a small increase of 2 per cent. By a similar calculation the number of washermen (now about two millions), instead of declining by 2 per cent., would appear to have risen by nearly 9 per cent. It is unnecessary to consider the other items in detail, but it may be noticed in passing that indoor servants number about 2 millions, water-carriers more than a million, and cooks more than a third of a million.

346. Next to Class B, Class D is numerically the most important in the whole occupation scheme and includes the means of livelihood of 45½ million persons or 155 per thousand of the total population. It comprises no less than eleven Orders, the largest being "VII—Food, Drink and Stimulants" and "XII—Textile fabrics and Dress." Order VII contains three Sub-orders, viz., 17—Provision of animal food, 18—Provision of vegetable food, and 19—Drink, stimulants and condiments. The provision of animal food supports nearly four million persons, or about 100,000 less than in 1891. The main items are the two groups devoted to fishermen and fish-dealers, which between them support 2½ million persons. The total number

Class D—
Preparation
and Supply
of Material
Substances.
Order VII—
Food, Drink
and Stimu-
lants.

Order.	Persons supported in thousands.
VII.—Food, Drink and Stimulants	16,759
VIII.—Light, Firing and Forage	1,461
IX.—Buildings	1,580
X.—Vehicles and vessels	132
XI.—Supplementary requirements	1,232
XII.—Textile fabrics and Dress	11,214
XIII.—Metals and precious stones	3,711
XIV.—Glass, Earthen and stone ware	2,143
XV.—Wood, Cane, Leaves, etc.	3,790
XVI.—Drugs, Gums, Dyes, etc.	456
XVII.—Leather, etc.	3,242

slightly less than in 1891, a large decrease in the former group being nearly cancelled by a corresponding gain in the latter. Milkmen and dairymen number 925,000 and *ghis* preparers and sellers 88,000 more. These two groups combined have about the same strength as in 1891, but there has been a transfer of about 47,000 persons from the latter to the former. The total number of butchers and slaughterers in the whole of India only slightly exceed

third of a million, a convincing testimony to the small extent to which meat enters into the diet of the people, even in the case of those who are not precluded from eating it by religious scruples.

347. Of the occupations included in Sub-order 18, which are the means of subsistence of more than 8½ million persons, the most important are those noted in

Occupation.	Number supported in thousands.
Grain and pulse dealers	2,264
Oil pressers (including mills)	1,809
Rice pounders	901
Vegetable and fruit sellers	862
Grain parchers	762
Flour grinders (including mills)	623
Sweetmeat makers and sellers	604
Makers and sellers of sugar, molasses, etc.	217

the margin. The grain dealer is found in almost every village, and is often a money lender as well, especially in Bombay and Northern India, where he is most frequently met with, and where his insidious ways with the agricultural community have recently led to special legislation in the interests of the latter. The number of persons shown under this head is

much smaller than in 1891 owing to the fact, already adverted to, that on that occasion cultivators in Sind who disposed of their own produce were classed as grain-dealers.* The number of oil pressers is declining in all the larger provinces except Burma and the Punjab: Kerosine is replacing vegetable oils as an illuminant, and the Telis are in consequence gradually taking to other pursuits; in Bengal many of them become shop-keepers, while in the United Provinces they often seek a livelihood by the parching of grain. The heavy imports of sugar from abroad have reduced the number of persons who in this country subsist by its manufacture and the other connected industries.

Two-fifths of the persons in Sub-order 19, which supports in all nearly four million persons, are "Grocers and general condiment dealers;" owing chiefly to wholesale changes of classification in the Punjab and Rajputana, the number of such persons is less by 94 per cent. than it was in 1891.† Toddy drawers and sellers have a total strength of 912,000; the decrease of 9 per cent., as compared with the previous census, is due to the change of system in dealing with occupations practised in conjunction with agriculture to which allusion has so often been made.

348. Of the 1½ million persons supported by Order VIII, five-sixths are collectors and sellers of grass, fodder, firewood and charcoal. About 100,000, as compared with only 35,000 in 1891, are supported by the coal-mines, chiefly of Bengal, which are rapidly springing into importance.

The number of persons supported by occupations connected with building is also about a million and a half, of whom a quarter are engaged with building materials (chiefly bricks, tiles and lime) and the rest are masons, builders and thatchers. There has been an increase in the number of persons thus employed, especially in the case of brick and tile makers. In many parts of the country, those who are able to afford it are replacing structures of less durable materials by houses of brick.

349. Less than one-seventh of a million persons returned their means of support as connected with the construction of vehicles and vessels. This small number is divided in nearly equal proportions between the three Sub-orders, which relate respectively to (a) railway plant, (b) carts, carriages, etc., and (c) ships and boats. The number of the last mentioned is smaller than one would have expected, and is less by 19 per cent. than in 1891; possibly some of the builders of country boats were returned under the general head of carpenters.‡

850. A miscellany of occupations are collected in Order XI, but the total number of persons contained in it is less than 1½ million. The manufacture of paper supports about 16,000 persons, and work in printing presses nearly 73,000, or 25 per cent. more than in 1891. About one-third of the paper makers are employed in mills, chiefly in Bengal, and the rest make it by hand; the hand-made article includes the rough paper prepared in the Shan States which is used for wrappers, umbrellas, etc. Only 5,000 are returned as wood carvers, 3,000 as ivory carvers and 6,000 as mica, flint and talc workers and millers. On the other hand turners and lacquerers number 36,000, *hukka* stem

* The number of "grain dealers" in Bombay has fallen from 875,161 to 312,614.

† In the Punjab a decrease under this head from 495,034 to 28,401 has been accompanied by an increase in number of grain dealers from 344,166 to 509,995. In Rajputana a fall from 173,266 to 12,531 is accompanied by a similar rise from 17,270 to 85,880.

‡ In the United Provinces the number of actual workers under this head is only 34 and in Bombay only 210.

Order VIII—
Light, Firing
and Forage.

Order IX—
Buildings.

Order X—
Vehicles and
Vessels.

Order XI—
Supplemen-
tary Require-
ments.

makers and sellers 21,000, and toy, kite and cage makers and sellers 17,000. The making of bangles, necklaces, beads and sacred threads affords support to more than half a million persons, of whom 188 and 152 thousand, respectively, live by the making and selling (a) of glass and (b) of other kinds of bangles; the former have increased by 3 per cent. during the decade, but the latter have declined by 11 per cent. Nearly a third of a million are returned under Sub-order 36—Tools and Machinery. The great majority (about a quarter of a million) are makers of ploughs and agricultural implements; they are more than 2½ times as numerous as in 1891, when many must have been accredited to the general group for blacksmiths, which shows a considerable shrinkage at the present census.

351. A far more important head in the scheme is Order XII—Textile fabrics and Dress, which is the means of support of nearly 11½ millions or 38 per thousand

Order XII—
Textile
fabrics and
Dress.

Sub-order.	Population supported in thousands.
38. Wool and Fur	394
39. Silk	400
40. Cotton	7,702
41. Jute, Hemp, Flax, Coir, etc.	649
42. Dress	2,069

of the population. There are five Sub-orders, which, with the population supported by them, are noted in the margin. More than three-quarters of the persons dependent on occupations in Sub-order 38 are weavers of blankets, woollen cloth and the like, and we

have already seen how at the present census there has been a large transfer from this group to the kindred one of shepherds, etc., in Order IV. In the Punjab, says Mr. Rose, woollen industries show a remarkable development, and the carpet-making business of Amritsar is flourishing, but here as elsewhere, save only in Central-India, a decline is indicated by the census figures. There is a considerable apparent increase in the number of silk-weavers and the like, but it is not certain that this is altogether genuine. It may be due to the greater success in discriminating between this occupation and cotton-weaving, owing to more care having been taken to secure proper entries in the schedules.

352. Cotton-weavers show a decline of 10 per cent., viz., from 6,448,120 in 1891 to 5,808,243,* according to the returns of the present census, but the decline is mainly, if not wholly, fictitious. In Bengal 35 rent-payers per 10,000 returned weaving as a subsidiary occupation; so also did 24 per 10,000 farm-servants and field-labourers and 195 per 10,000 Jhum cultivators, and under the system of tabulation adopted in 1891 all of these would have been classed as weavers in the main occupation table. If these persons had been similarly treated on the present occasion, it would have resulted in that Province in an addition of 16 per cent. to the figure entered in Sub-order 40.† A similar addition to the proportion of weavers in India at large would give a figure slightly in excess of that returned in 1891. There is admittedly a great element of uncertainty about all such calculations, and the only point which it is desired to make is that the comparison of the results of the two enumerations cannot be relied upon to prove that the occupation of weaving supports fewer persons than it did ten years ago. It may do so, or it may not, but so far as the census figures are concerned the deficiency may equally well be due to other causes. The above remarks refer to India as a whole. The relation between the figures of the present enumeration and those of 1891 varies greatly in certain provinces and states. There is an increase under this head in Berar, Rajputana, and Kashmir. In Bengal, Madras, the United Provinces, Assam and Hyderabad the falling off is less than the shrinkage which would be expected, having regard to the change of system above alluded to, and in Bombay,‡ the Punjab and Mysore it does not very greatly exceed it, but in

Cotton-
weavers.

Provinces, etc.	Number supported per 10,000.	
	1891.	1901.
Burma	186	313
Central Provinces	329	447
Baroda	185	284
Central India Agency	125	193

the provinces noted in the margin the reduction is so considerable as to call for some other explanation. Either there has been a real diminution in the proportion of persons dependent on weaving, due, perhaps, except in Burma, to direct and indirect losses

* Includes 347,728 persons employed in cotton mills who were not shown separately in 1891.
 † It is safer to make the calculation on the total of the Sub-order, as in the supplementary return alluded to the occupations were interpreted in the widest possible sense, and spinners were thus added to weavers; in the discussion that follows, however, weavers are dealt with separately.
 ‡ In Bombay there would have been a heavy fall in the proportion of the population who are weavers but for the growth of the cotton mills which now account for one-third of the total number. The growth of mills also explains the increased proportion of weavers in Berar and Hyderabad.

from famine, or the schedules have been filled in differently, *e.g.*, in respect of women who weave cloths for domestic wear. Cotton spinners, sizers and yarn beaters number four-fifths of a million or 25 per cent. less than in 1891. The decline is greatest in the Central Provinces, Madras, the Punjab, the United Provinces, Ajmer, Baroda, Berar and Hyderabad. It is not always easy to distinguish between this occupation and weaving, but there seems very little doubt that there has been a genuine decrease, as even the hand weavers show a constantly growing tendency to use machine-made yarn.

353. The number of workers in jute and other fibres, with their families, has risen from 461 to 649 thousand. About one-third of the total are operatives, etc., in the Bengal jute mills and jute presses, who aggregate 143,000 compared with only 38,000 ten years ago. The number of rope, sacking and net makers, etc., has risen from 289 to 413 thousand, owing to the figures for Madras including the States of Cochin and Travancore, where 233,000 have been returned against only 22,000 in 1891, a considerable number of persons having apparently been transferred to this head from that provided for "fibre matting and bag makers and sellers", whose number in that Presidency has declined from 102 to 15 thousand.*

Sub-order 42—Dress is returned as the means of support of about 2 million persons, of whom more than half are "tailors, milliners, dress-makers and darners," *i.e.*, mostly *darzis*, and three-quarters of the remainder are "piece-goods dealers." In the Sub-order as a whole there is a decline of 15 per cent. in comparison with 1891.

354. The workers and dealers in metals and precious stones and their dependents number nearly $3\frac{1}{2}$ millions. There are four Sub-orders, *viz.*, 43—Gold, silver and precious stones with $1\frac{1}{2}$ million persons; 44—Brass, copper and bell-metal with nearly two-fifths of a million; 45—Tin, zinc, etc., with 76,000; and 46—Iron and steel with $1\frac{1}{2}$ million persons. A comparison with the corresponding figures for 1891 shows a decline of only 3 per cent., so that in reality there has probably been a considerable increase, as in addition to the entry of many persons with dual occupations under some agricultural heading, there has been, as already noted, a transfer of about 100,000 persons to the group 'plough and agricultural implement makers' in Sub-order 36. That there should be an increase is only natural; the handicrafts here dealt with do not suffer much from European competition while, with growing prosperity, the people may be expected to take more and more to metal utensils for domestic purposes and to augment their stock of ornaments and jewellery.

355. The persons dependent on the manufacture of earthenware and kindred occupations number rather more than two millions, of whom four-fifths are the ordinary village potters who meet the simple requirements of their neighbours in the matter of earthen pots, plates, pitchers and other vessels. Their number has declined by 9 per cent. since 1891.

There are $3\frac{1}{2}$ million persons who are supported by occupations in Order XV, of whom 2 millions are ordinary carpenters, $1\frac{1}{2}$ million are basket, mat, etc., makers, and a quarter of a million are wood cutters and sawyers. Of 10,000 operatives in saw-mills, two-thirds are returned from Burma. This province enjoys a flourishing timber trade, especially in teak and *pyinkado*, and at most seasons of the year the principal waterways are crowded with rafts of timber on their way to Rangoon and Moulmein; in this Province 15 persons per mille are supported by Sub-order 49—Wood and bamboos, compared with 8 per mille in India as a whole.

356. The various avocations grouped under the general head "Drugs, Gums, Dyes, etc.," afford a livelihood to less than half a million persons including, amongst others, saltpetre refiners, chemists and druggists, perfume, incense and sandalwood preparers and sellers, collectors of lac, wax, honey, camphor, gum and rubber, and persons occupied with miscellaneous drugs and dyes. There is an increase of 16 per cent. in comparison with 1891, chiefly under the heads provided for miscellaneous drugs and dyes.

Leather working and skin dressing with their cognate occupations are the means of subsistence of $3\frac{1}{2}$ million persons, or about the same as in 1891. The figures for detailed groups are of very little interest, as they depend more on

Order XIII—
Metals and
Precious
Stones.

Order XIV—
Glass,
Earthen and
Stoneware.

Order XV—
Wood, Cane
and Leaves,
etc.

Order XVI—
Drugs,
Gums, Dyes,
etc.

Order
XVII—
Leather.

* The States of Cochin and Travancore, which were dealt with on this occasion by independent Census Superintendents, are mainly responsible for these variations.

the idiosyncrasies of the census staff than on actual facts. In one of the Madras districts, for example, most of the leather workers have returned themselves, or been classified, as makers of well-buckets.

357. Class E—Commerce, Transport and Storage includes the avocations of 7½ million persons, of whom more than 4 millions are found in Order XVIII—Commerce. The latter figure, however, is swollen by the inclusion of more than 1¼ million "Shopkeepers, otherwise unspecified" many of whom, if more completely returned, would have been entered under one of the heads provided in Class D for the sale of various material substances. There are a million 'Bankers and money lenders,' or rather more than in 1891, and 486,000 'General merchants,' against more than double that number ten years ago. The decrease in the Order as a whole amounts to 10 per cent., which is probably less than the loss arising from the different treatment accorded to occupations combined with agriculture.

Class E—
Commerce,
Transport,
and Storage.
Order XVIII
—Commerce.

358. Of the 3½ million persons in Order XIX, about half a million find a livelihood in connection with the working of railways (Sub-order 58).* There are 1,600,000 persons in Sub-Order 59—Road, of whom more than a third are carters and cartowners, a third are owners and drivers of pack-ponies, bullocks, etc., and a sixth are *palki*-bearers. Sub-order 60—Water, with over three-quarters of a million, derives 71 per cent. of its total strength from the single group 'Boat and barge men.' Sub-order 61—Messages includes service in the post office and telegraph departments which support 134,000 and 20,000 respectively; there are also a few persons employed in connection with telephones.

Order XIX
—Transport
and Storage.

Owing to a great diminution in the number of persons shown as dependent on service in the postal department, the number of persons in this Sub-order is less than half that returned in 1891. The decline is greatest in Bengal, where the number of persons returned as dependent on post office employment has fallen from 121 to 28 thousand, but it is also very marked in Bombay, Madras, the United Provinces and the Central Provinces; and the Punjab alone in British territory shows an increase. The census figures for actual

workers in the post office in some of the main provinces are compared in the margin with those published by the Director General. The former are in all cases less than the latter, owing partly to the vagueness of the entries in the schedules, especially in the case of postmen and other subordinates, who form a very large proportion of the total, which has led to their classification under some more general head, and partly to their having in some cases returned some other means of livelihood as their principal one. The Telegraph

Province.	NUMBER OF PERSONS EMPLOYED IN THE POST OFFICE.	
	Census figures.	Departmental returns for 1901.
A. m. n.	1,539	2,020
Bengal	10,337	14,632
Bombay	6,435	8,096
Burma	1,411	1,767
Central Provinces	2,609	3,278
Madras	8,233	9,693
Punjab	6,769	7,319
United Provinces	6,493	8,443

Note.—Miscellaneous agents, such as schoolmasters, who are not primarily postal servants, are omitted from the departmental figures.

Department as a whole shows a fair increase in the number of its employes, but there are great variations in the figures for the upper grades and subordinates taken separately. In Sub-order 62—Storage and Weighing, less than half a million persons are included, of whom three-quarters are porters.

The Order as a whole shows a decrease of 11 per cent. There is a large increase under 'Railways,' and 'Water' is stationary, but there is a heavy falling off in the other Sub-orders. That under messages has been dealt with above. In the case of 'storage and weighing' it is explained by the extraordinary figures returned for Rajputana in 1891 when 305,000 persons were classed as porters, or more than half the total for the whole of India, compared with only 5,000 at the present census, which is a much more probable figure. The distinction between a porter and a general labourer, as returned in the census schedules, is not always clear, and the method of classification adopted in different tracts does not seem to have been very uniform. Madras, for example, is credited

* Persons engaged in constructing railway carriages and in throwing up railway embankments are shown in other parts of the scheme.

with 169,000 porters, compared with 46,000 in Bengal and 47,000 in the United Provinces. There is a noticeable fall in the number of watchmen at stores, and in Bombay, Burma and Madras the number now returned varies from one-sixth to one-twenty-second of the corresponding figures for 1891.

Class F—
Professions.

359. Class F contains five million persons or 17 per thousand of the population. All of these, except 128,000 in Order XXI—Sport, are included in Order XX—Learned and Artistic Professions, but it should be noted that this Order covers several occupations which are neither learned nor artistic. There are for example nearly 700,000 religious mendicants and inmates of monasteries, many of whom are almost indistinguishable from the ordinary beggars who find a place in Class H, 432,000 temple servants, burning-ghat attendants and the like, 46,000 petition-writers and touts, 319,000 medical practitioners without any diploma, 13,000 vaccinators and 89,000 midwives. Of the 266,000 'bandmasters and players,' the great majority are low-caste drummers and tom-tom beaters and the 284,000 'actors, singers and dancers' also belong mainly to the gypsy and vagrant fraternity, and many of them might more correctly have been entered as prostitutes. There are 1½ million persons returned as priests, but here too the figures are swollen by the inclusion of many who are really mendicants, or who described themselves as priests merely because they were Bráhmans by caste, and the decline of 19 per cent. since 1891 may be due in part to the elimination of misdescriptions of this kind. There are 123,000 astrologers and diviners, and 464,000 professors and teachers. Lawyers of various kinds number 142,000 or rather more than in 1891. There is a considerable increase in the number of lawyers' clerks and petition-writers, but this is due mainly to a more correct description of occupations in the schedules which has reduced the number of 'clerks unspecified' from 226 to 170 thousand. The medical profession supports more than half a million and "Engineering and Survey" a hundred thousand. There has been an increase under both heads since 1891. In individual groups the most noticeable change is in that for "Practitioners with diploma" which contains 43,000 persons compared with only 16,000 at the previous census.

Class G—
Earthwork
and General
Labour.

360. There are about 18½ million persons, or 63 per mille, in Class G, all but 1½ million of whom are included in the single group "General labour," i.e., they are ordinary landless labourers, who, as already noticed, in most cases depend mainly on field work for their support. The decrease of 29 per cent. in comparison with 1891 has already been explained. At the time when the census was taken, tank digging supported two-fifths of a million, and labour on roads, railways and canals rather more than half a million. Earth-work is generally carried on only during the dry season, and at other times of the year these people seek other forms of employment. Many who were returned merely as 'coolies,' and so were classed under the head 'General labour,' were probably engaged in work of this description. The persons whose occupations were incompletely recorded number only 545 thousand against 1,395 thousand in 1891. The real decrease is even larger than the above figures would indicate, as those for the present census include a quarter of a million persons whose occupations were described as 'service,' and who in 1891 were classed under the head of "personal services."

Class H—In-
dependent of
Occupation.

361. The last class to be mentioned is that of persons who do not work for their livelihood, but live on their income from property other than land, or on alms, or on allowances of various kinds, or at the State expense. Their number is 5 millions, and more than fourth-fifths of them are ordinary beggars. It has already been mentioned that, although religious mendicants are entered in a separate part of the scheme, the distinction between the two groups is hazy and uncertain. The two together include 4,914,000 persons or 6½ per cent. fewer than at the previous census. The decline is due in part to the comparatively heavy mortality amongst beggars during the famine years, but it is also partly attributable to the spread of education and the consequently weaker hold which the so-called ascetics have on the imagination of the people; it is much less easy than it was formerly for the members of the various begging fraternities to unloose the purse strings of the villagers. About 354,000 persons said that Government pensions were their chief means of subsistence and 156,000 were in jails or asylums.

Occupation by Caste.

362. The combination of caste and occupation, which would have been impossible under the old method of abstraction by ticks, offers no insuperable difficulties when dealt with on the slip system, and a table presenting these statistics was therefore added at the present census to the series prescribed in 1891. It was, however, left to the option of Local Governments to cause it to be prepared or not, as they might think fit, with the result that in only four provinces was the table attempted, and in two of these the population included in its scope was small.

Province.	Number of castes.	Population dealt with (actual workers only).
Bengal	130	17,123,664
Central Provinces	121	6,687,181
Madras	21	3,672,655
Bombay	17	2,014,232

The table was also prepared in five Native States, *viz.*, Central India, Mysore, Travancore, Baroda and Cochin.

363. In view of the fragmentary nature of the statistics, a general review is impossible, and the subject can best be dealt with by extracts from the reports of the Superintendents who prepared this return. The following is an excerpt from the Bengal report:—

“In considering the statistics of occupation by caste it must be borne in mind that, on the one hand, there is the tendency on the part of some of the functional castes, which has already been alluded to, to describe as their occupation that which is assigned to them by tradition, and on the other, the fact that in these statistics only the principal occupation has been dealt with, and that many who mentioned agriculture as their principal means of support may have named their caste occupation as a subsidiary one.

“Conditions vary so greatly in different parts of this large province that the figures for each sub-province frequently disclose very divergent results. The most striking feature of the statistics which have been collected is the extent to which the different functional castes have abandoned their traditional occupations, especially in Bihar. The Ahir or Gośālā is in theory a dairyman, but in Bihar four-fifths of the total number are cultivators, and barely 1 in 20 follows the traditional caste occupation. In Bengal proper, however, the proportion is much higher, and nearly a third of the total number keep cows and sell milk. The proportion is about 1 in 7 amongst the Gauras who are the corresponding caste of Orissa. The Chamār should be a worker in leather, but in Bihar only 7 per cent. were returned under this head, while two-thirds were shown in Order V—Agriculture, and nearly one-fifth as earth-workers and general labourers. In Bengal proper, on the other hand, nearly a quarter of the total number are leather workers and only a third follow agricultural pursuits. The Hajjāms and Nápits are more faithful to their traditional profession; two-fifths of them were returned as barbers in Bihar and more than half in Bengal proper. The proportion of Kumbhārs who are still potters is also fairly high, being nearly 2 in 5. Nearly half the Telis of Bihar subsist by cultivation, but more than a third of them follow their traditional occupation of oil-pressing. In Bengal proper nearly half the Jolāhās or Muhammadan weavers live by weaving, but only a quarter do so in Bihar. The Tāntīs, or Hindu weavers, have given up their characteristic handicraft to a much greater extent, and only 1 in 9 still are cotton weavers in Bihar and 9 in 20 in Bengal proper. The proportion of weavers is even smaller amongst the Pāns of Orissa, being only 1 in 18. Lastly the Brāhmins follow priestly pursuits to a very limited extent. In Bengal proper barely 1 in 6 is a priest, in Bihar 1 in 13, and in Orissa only 1 in 34. The low proportion in the last-mentioned sub-province is due to the inclusion of the degraded Māstān Brāhmins who are usually ordinary cultivators.

“The above discussion is based solely on the census statistics. In subsidiary table VIII, I have given details of the caste or nationality of the officers of certain departments of Government compiled from official publications and independent enquiries based thereon. The most noticeable feature of this return is the very small share of high appointments which falls to the Muhammadans, and the practical monopoly of all such appointments held by Hindus by the members of the Brāhman, Baidya, and Kāyasth castes. The Hindus are less than twice as numerous as the followers of the Prophet, but they hold nearly nine times the number of high appointments, *viz.*, 1,285 compared with only 141. Again, of the total Hindu population, less than 1 in every 11 is a Brāhman, Baidya or Kāyasth, but these three castes between them hold 1,104 of the 1,235 appointments filled by Hindus. Their advantage is still more marked if we consider only the highest appointments. The three High Court Judgeships and the 22 posts in the Covenanted and Statutory Civil Service which are held by Hindus, are all filled by members of these three castes. As regards their relative success amongst themselves, it will be noticed that the Baidyas have by far the largest share of these appointments and the Brāhmins the smallest. The Baidyas are outnumbered by the Brāhmins and Kāyasths in the ratios of 34 to 1 and 18 to 1, respectively; yet they can boast of 7 Covenanted and Statutory Civilian appointments compared with only 2 who are Brāhmins and 13 who are Kāyasths. Of the Deputy and Sub-Deputy Magistrates, 70 are Baidyas, 128 Brāhmins and 144 Kāyasths. The proportion of Baidyas is not so high amongst the Sub-judges and Munsifs, but, even here, with 40 appointments, compared with 136 filled by Brāhmins and 160 by Kāyasths, they have far more than their fair numerical share. On the other hand, the Rājputs and Khātris, though they number nearly a million and a half, hold only 5 high appointments, and the Bābhāns with over a million hold none. The Gośālās with nearly 4 millions claim but 1 appointment—

a subordinate post in the Medical Department. Numerous castes are entirely unrepresented in the higher grades of the Civil Service of the State, amongst whom it will suffice to mention the Rájbanis and Namasudras with an aggregate strength of nearly 4 millions, and the Kurmis and Bádís, each numbering over a million.

"In conclusion we may glance briefly at some of the results disclosed by the Appendix to Table XVI which gives the distribution by caste of the persons engaged on some of the main occupations. It is unnecessary to refer again to Group 2—Officers of Government, as the constituent castes of this group have just been considered with reference to the more detailed statistics collected independently. In Group 3—Clerks, Inspectors, etc., the Káyasths, with nearly 10,000 appointments, easily hold the first place. They are followed by the Bráhmans with about 6,000, while the Baidya is the only other caste that can claim more than 1,000 actual workers in this group. Amongst zamindars, the Bráhmans, who number about 85,000, are most numerous; then follow the Káyasths with 73,000, the Bábhans with 36,000 and the Rájputs with 25,000. Bráhman zamindars are found all over the Province. They are especially numerous in the Orissa, Presidency, Patna and Dacca Divisions, but they are outnumbered in the Presidency and Dacca Divisions by the Káyasths and in Patna by the Bábhans and Rájputs, especially by the former, who are more than twice as numerous. Of the other castes, the first place is taken by the Kaibarttas with nearly 11,000 landholders, mostly in Bengal proper, and next to them come the following, all of whom contribute more than 4,000 to the total; the divisions where they are mainly found are noted against each caste:—Ahir and Goálá (Presidency and Patna), Baidya (Dacca and Chittagong), Karan (Orissa), Khandáit (Orissa), Kurmi (Patna), Namasudra (Presidency and Dacca), Rájbanis (Rajshahi), Sháhá (Dacca and Rajshahi), and Tei (Burdwan). The agents and managers of landed estates and the officers of the postal and telegraph departments are mainly Bráhmans and Káyasths, and the same castes hold a leading position, in point of numbers, amongst professors and teachers in schools and lawyers and law agents. They also considerably outnumber the Baidyas amongst medical practitioners, but the latter, of whom the practice of medicine is the traditional occupation, stand easily first if the proportional figures are looked to. Of the total number of Baidyas 1 in every 20 has been returned as a medical practitioner (actual worker), whereas amongst Káyasths and Bráhmans the corresponding proportions are only 1 in 103 and 1 in 400 respectively."

Madras.

- 363. Mr. Francis deals with the matter thus:—

"These figures are of much interest. They will in the first place effectually demolish any vestige which may remain of the idea that the functions of the South Indian castes are still confined to the narrow limits laid down for them in Manu and the Vedas or by tradition, and that the Bráhmans are still exclusively engaged in priestly duties, the trader castes in commerce, and the cultivator and agricultural labourer castes in tilling the land; that the weaver castes still confine themselves to providing the clothes, and the toddy-drawer castes, the liquid refreshment, of the village community, and that the cobbler and the smith castes still stick exclusively to the last and the anvil at which their forefathers worked for so many generations. The trader castes (Kavarai, and its Telugu equivalent Balijs) and the cultivator castes (Maravan and Kallan) shown in the table were not selected as being typical followers of these two callings, but for other reasons, and it is not perhaps fair to argue from the figures in their cases. The Pallis, again, are a caste which is compounded of very many subdivisions, and which has no very clearly defined traditional occupation. But all the others are particularly typical representatives of those who follow the occupations traditionally assigned to each, and the results in their cases may be declared to be of wide application.

"Looking into the statistics regarding them we find that, as was perhaps to be expected, the agricultural labourer has done the least of all of them to get himself out of the rut to which he was consigned. Yet even among this class, as many as 5 per cent., even of the unprogressive Chorumans of the West Coast, are engaged in occupations which are in no sense agricultural, and in the case of the Málas of the Telugu districts the percentage rises to 12. The weavers and artisans come next in faithfulness to their traditional employment, and those who have left it have mainly taken to the land. The leather-workers and toddy-drawers are less exclusive, but probably in their cases the large numbers who have returned agricultural occupations have been actuated rather by the desire to magnify the respectability of their social position than to assist the earnest enquirer after sociological facts by the strictest regard for accuracy in making the returns. But of all the castes the Bráhmans show the greatest divergence from their accepted position. Only 11·4 of them follow their traditional calling, even if among these are included astrology and begging, and of the remainder considerable numbers are engaged in such unorthodox occupations as field-labour, money-lending, trade in grain, condiments, vegetables, gold and silver and even tobacco and snuff, accursed and unclean as these latter used once to be considered. No less than 60 per cent. of them have found agriculture a more congenial calling than the priesthood.

"The table gives figures for the Bráhmans of each of the main linguistic divisions, and it is interesting to notice how much more catholic in their callings the Oriya-speaking members of the caste are than their less secular brethren. They are the only section which returns masons and builders and dye-makers and silk-sellers among its members, and they are responsible for most of the agricultural labourers, vegetable-sellers and snuff-dealers to which reference has been made above. As was to be anticipated, the Malayálam Bráhmans, who are mainly made up of the Nambudris of Malabar, a section which is famous for its aloofness from the world and its adherence to the old order of things, are more largely engaged in priestly duties and temple-service than any other division. Twenty-three per cent. of them are so employed, while in no other section is the percentage even half of this, and among the Canarese Bráhmans it is as low as 6·7. The percentage of those engaged in the public service is highest (7) among Tamil

Bráhmans, and lowest among the Oriyas (5). On the other hand, fewer of the Tamil section than of any other are land-holders and tenants, the Canarese division showing the highest percentage engaged in such callings. All these figures correspond closely with the known characteristics of the various sections in these respects which have been already referred to in the caste glossary attached to the preceding chapter.

"The means of subsistence of the Eurasians are of interest in connection with the ever-recurring discussions regarding the future and prospects of the race. The figures in subsidiary table 13 give the occupations of the 5,718 actual workers who reside in the three districts in which the race is most numerously represented, namely, Madras City (4,083), Malabar (1,149), and Chingleput (486). Most of those in the last of these three reside in Perambur, just outside the Madras municipal limits, and the figures of Chingleput and Madras may therefore be taken together. The Malabar Eurasian also differs little from his East Coast brother in occupation, except that he provides most of the tailors, carpenters, agriculturists and coffee estate employes in the list. The figures for all three districts are therefore, as in other cases, combined together in subsidiary table 13. In examining them it must be borne in mind that, as has already been pointed out in the last chapter, Native Christians have in some cases returned themselves as Eurasians, although they could lay no claim to the slightest admixture of white blood in their veins, with the idea of raising themselves in the social scale. The most noticeable point about the statistics is the great variety of the occupations in which Eurasians are engaged. None of the other communities selected approach them in this respect. The list gives 52 callings followed by seven persons or more and 6·8 per cent. of the community live by others which are followed by even less than this number. Excluding subsistence on endowments and scholarships (most of the persons comprised under which are the inmates of the orphan and other asylums in Madras City), there is no occupation in the list which is followed by as many as 8 per cent. of the community. The popular idea that Eurasians are mainly employed as fitters or clerks or on the railways is therefore clearly inaccurate. The next most noticeable fact is that 17·3 of the 'actual workers' in the list live on endowments, on their relatives and friends, in convents, in lunatic asylums, in jail or by begging. Subsidiary table 13 does not distinguish males from females, and it may therefore be added that of the 5,718 actual workers shown therein 1,680 are women. Of these, 597 are inmates of orphan asylums, etc., 262 are sempstresses and milliners, 201 school teachers, 107 midwives and hospital nurses, 81 are in domestic service, and 38 are shop assistants and clerks."

364. In Bombay, says Mr. Enthoven:—

Bombay.

"It will be observed, on a reference to the table at the end of this Chapter, that at the present day 22 per cent. of the Bráhmans, of whom 100,000 were taken as a test, follow the traditional occupation of priest and student. The prohibition against State service and agriculture is now of little weight, since 47 per cent. follow those two methods of earning a livelihood. Possibly, the peculiar circumstances of the present day are held to constitute the exception provided for in Manu. How far the absolute prohibition against a Bráhman selling cooked food, condiments or salt, milk, and sugar, is consistent with the fact that 5 per cent. are occupied in the 'supply of food, drink, and stimulants,' we need not pause to enquire. The 'supply of textile fabrics and cloth' seems almost equally irregular from Manu's point of view. The high percentage of the caste following agriculture is largely due to the Karnatak Bráhmans, of whom 75 per cent. are apparently agriculturists. In occupation, the Sindhi Bráhmans would appear to be the most orthodox, since 54 per cent. of the selected number have been shown under the 'learned and artistic professions.' The Vánis may perhaps be taken as the nearest approximation to the Vaishyas of Manu's Code, to whom trade and agriculture were allotted as occupations. They appear to show 25 per cent. in commerce, to which, perhaps, should be added 39 per cent. in the supply of food and drink, 10 per cent. in textile fabrics and dress, as well as 3 per cent. under agriculture, if we wish to arrive at the true percentage following lawful employment. It is interesting to note that this caste now shows 2 per cent. in administration, compared with the 7 per cent. of the Bráhmans.

"The Marátha and the Marátha Kunbi show their respective preferences for agriculture by the figures 89 and 96. The Amil division of the Lohánas, originally traders, have 42 per cent. in administration, the highest average of any caste. Kostis and Sális should be weavers. They have 64 per cent. of their workers occupied in weaving, the number rising to 90 per cent. in the case of the Deccan weavers, and falling to 38 in the Karnatak. The Karnatak weavers appear mostly under 'agriculture,' which seems to offer them a livelihood in periods of depression in trade. Kunbis are cultivators and apparently are content to cultivate; 97 per cent. are included in the head of 'Agriculture.' It is perhaps noticeable that 1 per cent. in Gujarát are shown under 'Administration.' In Káthiáwár, Kunbis are said to be developing a taste for the service of the State. Of the Kolis, Bhils, and Kátkaris, 92, 60 and 60 per cent. are employed in agriculture. In former days these tribes were very largely occupied in committing gang robberies and other depredations on their more peaceful neighbours, from which pursuits they sought relief very much as the Coster when he has 'done jumping on his mother.' If the number in column 21, 'earth-work and general labour,' and column 9, 'light, firing and forage,' are added to the above, it will be seen that the number following occupations which they could return to the Police without fear of unpleasant consequences is very considerable.

"It must be explained, in conclusion, that the reason for showing 88 per cent. of the Shikaris as following their traditional occupation when this percentage is taken from column 7, 'personal, household and sanitary service,' is that this caste, which is found in Sind, is not a hunting caste as has sometimes been imagined from the name, but a caste of sweepers, who are Musalmans, and may rise in the social scale to the more respectable caste of Machis by passing through the fire with certain rites and ceremonies."

Caste or
race of
Government
officers—
Bengal.

365. In the extract from the Bengal report quoted above, it has been shown that though the Hindus of that Province are less than twice as numerous as the Muhammadans, they hold nine times the number of high appointments under Government, and that the Bráhmans, Baidyas and Káyasths, though they form less than one-eleventh of the total Hindu population, hold between them 1,104 of the 1,235 high appointments held by Hindus. An examination of similar statistics for several other provinces which have been collected with the assistance of the Provincial Superintendents shows that this monopoly of high appointments by a few favoured castes is not by any means peculiar to Bengal.

United
Provinces.

366. In the United Provinces of 1,192 such appointments held by persons other than Europeans and Eurasians, 28 are held by Native Christians, Sikhs, Parsis and Jains; Muhammadans hold 453 and Hindus 711. The Muhammadans are only one-sixth as numerous as the Hindus and so, in proportion to their numerical strength, they enjoy nearly four times as many high appointments. The disproportion would be still greater if we excluded from the appointments credited to the Hindus 96 held by immigrants from Bengal. The difference between these figures and those found to exist in Bengal, where the bulk of the Muhammadans are local converts from depressed communities, is very noticeable, but it has its counterpart in the relative prevalence of education amongst Hindus and Muhammadans in the two provinces referred to in the last Chapter.* Of the 615 posts in the possession of the local Hindus, no less than 584 are held by members of five castes—Bráhman, Baniya, Káyasth, Khatri and Rájput. In other words 95 per cent. of the appointments are held by only a quarter of the Hindu population and the remaining three-quarters claim between them only 5 per cent. The Chamárs have a strength of nearly 6 millions, but not a single post in the higher grades of Government service is held by a member of this caste. The Kabárs, Kurmis, Lodhas and Pásis are similarly unrepresented, although they each number more than a million, and so are the Dhobis, Gadarias, Kachhis, Koiris, Koris, Kumhars, Muraos, Nais and Telis each of which has upwards of half a million. Of the five castes who practically monopolize the appointments enjoyed by Hindus, the Khatri in proportion to their numbers do best; they are barely one-ninth as numerous as the Káyasths, but hold more than a quarter as many appointments. The Káyasths again, with only one-ninth the strength of the Bráhmans, can boast of 224 appointments to the latter's 165.

Bombay.

367. In Bombay, the Parsis claim 86 high appointments, the Muhammadans 23, and the Hindus 266. There are 187 times as many Hindus as there are Parsis, but the former only hold 3 appointments to 1 held by a Parsi. The Hindus, again, have more than 11 appointments to 1 held by a Muhammadan, but their population is less than four times as great. The Bráhmans, though forming less than one-thirteenth of the total number of Hindus, hold 8 appointments out of 11, and the Prabhus, Baniyas and "Sindhi Hindus," many of whom doubtless belong to the above castes, all but 4 of the remainder. The return contains no entry of any Marátha, Kunbi, Koli, Lingáyat or Mahar although these castes have a strength of from $1\frac{1}{2}$ to $3\frac{1}{2}$ millions each.

Central
Provinces
and Assam.

368. In the Central Provinces the Parsis fill 9 appointments of the kind under consideration, and the Native Christians 3, Muhammadans 75 and Hindus 339. As in the United Provinces the Muhammadans have considerably more than their fair numerical share, and in the general population they are outnumbered by the Hindus in the ratio of 27 to 1. Of the Hindus who fill these appointments 229 are Bráhmans, 68 are Káyasths, 12 Baliyas, 11 Baniyas and 10 Rájputs; these 5 castes form only one-tenth of the Hindu population, but the remaining nine-tenths have only 9 appointments between them. In proportion to their numbers the Káyasths are the most highly favoured, and with only one-eleventh of the Bráhman population they possess nearly one-third as many appointments.

In Assam, of high appointments held by natives of the country the occupants of 2 are Native Christians and of 17 Muhammadans, and the remaining 136 are in the hands of Hindus, of whom there are 50 Káyasths, 47 Bráhmans, 18 Baidyas, 4 Kalitas and 4 Sháhás, leaving only 13 appointments for all other castes combined; with the exception of one of the Native Christians, who is a Khási, not a single member of any Animistic tribe is included in the list.

SUBSIDIARY TABLE I.

General Distribution by Occupation.

ORDER AND SUB-ORDER.	NUMBER PER 10,000 OF TOTAL POPULATION OF INDIA.		NUMBER PER 10,000 OF TOTAL POPULATION OF CITIES.		PERCENTAGE IN EACH ORDER AND SUB-ORDER OF		PERCENTAGE OF ACTUAL WORKERS EMPLOYED	
	Persons supported.	Actual workers.	Persons supported.	Actual workers.	Actual workers.	Dependents.	In Cities.	Outside Cities.
1.	2.	3.	4.	5.	6.	7.	8.	9.
Total	10,000	4,717	10,000	4,720	47	53	3	97
A.—Government.	191	75	720	300	39	61	13	87
I.—Administration.	130	47	359	130	38	64	9	91
Civil Service of the State	42	14	265	93	35	65	21	79
Service of Local and Municipal Bodies	9	4	72	29	40	60	26	74
Village Service	79	29	22	8	37	63	1	99
II.—Defence.	13	8	88	50	60	40	20	80
Army	13	8	84	47	60	40	19	81
Navy and Marine	...	...	4	3	84	16	82	18
Service of Native and Foreign States.	48	20	279	120	42	58	19	81
Civil Officers	36	14	171	71	41	59	16	84
Military Officers	12	6	108	49	47	53	23	72
—Pasture and Agriculture.	6,651	3,090	868	374	46	54	...	100
—Provision and care of animals.	135	87	53	23	64	36	1	99
Stock breeding and dealing	133	86	40	19	64	36	1	99
Training and care of animals	2	1	13	4	40	60	15	85
V.—Agriculture.	6,516	3,003	815	351	46	54	...	100
Landholders and Tenants	5,190	2,229	522	239	43	57	...	100
Agricultural Labour	1,204	713	141	73	59	41	...	100
Growth of Special Products	89	49	44	21	54	46	1	99
Agricultural Training and Supervision and Forests	38	12	48	16	38	62	5	95
C.—Personal Services.	364	189	1,218	657	52	48	11	89
—Personal, Household and Sanitary Service.	364	189	1,218	657	52	48	11	89
Personal and Domestic Services	309	161	1,079	531	52	48	12	88
Non-Domestic Establishments	3	1	21	9	45	55	26	74
Sanitation	52	27	118	67	51	49	8	92
D.—Preparation and Supply of Material Substances.	1,554	739	3,974	1,835	48	52	8	92
VII.—Food, Drink and Stimulants.	570	276	1,163	534	48	52	6	94
F. Animal Food	135	64	225	95	47	53	5	95
G. Vegetable Food	300	164	655	319	51	49	7	93
H. Drinks, Condiments and Stimulants	135	68	283	120	43	57	7	93
VIII.—Light, Firing and Forage.	80	39	107	56	60	40	6	94
I. Lighting	4	2	13	6	49	51	11	89
J. Fuel and Forage	45	28	94	50	61	39	6	94

SUBSIDIARY TABLE I—*contd.*General Distribution by Occupation—*contd.*

ORDER AND SUB-ORDER.	NUMBER PER 10,000 OF TOTAL POPULATION OF INDIA.		NUMBER PER 10,000 OF TOTAL POPULATION OF CITIES.		PERCENTAGE IN EACH ORDER AND SUB-ORDER OF		PERCENTAGE OF WORKERS IN	
	Persons supported.	Actual workers.	Persons supported.	Actual workers.	Actual workers.	Dependents.	In Cities.	
1.	2.	3.	4.	5.	6.	7.	8.	
D.—Preparation and Supply of Material Substances—<i>contd.</i>								
IX.—Buildings.								
	54	23	202	109	43	57	15	
22. Building Materials	14	6	39	19	47	53	10	
23. Artificers in Building	40	17	223	90	41	59	18	
X.—Vehicles and Vessels.								
	4	2	44	18	37	63	34	
24. Railway and Tramway Plant	1	1	29	12	40	60	64	
25. Carts, Carriages, etc.	1	1	13	5	39	61	27	
26. Ships and Boats	2	...	2	1	34	66	8	
XI.—Supplementary Requirements.								
	42	18	252	107	44	56	19	
27. Paper	1	...	13	5	46	54	33	
28. Books and Prints	4	2	80	34	39	61	72	
29. Watches, Clocks and Scientific Instruments . . . . .	...	...	10	3	35	65	61	
30. Carving and Engraving	2	1	17	8	44	56	27	
31. Toys and Curiosities	2	1	13	5	39	61	29	
32. Music and Musical Instruments . . . . .	...	...	3	1	43	57	22	
33. Bangles, Necklaces, Sacred Threads, etc.	18	9	55	25	50	50	9	
34. Furniture	1	...	8	3	35	65	44	
35. Harness	1	...	6	2	42	58	37	
36. Tools and Machinery	11	4	33	15	37	63	12	
37. Arms and Ammunition	2	1	14	6	41	59	26	
XII.—Textile Fabrics and Dress.								
	361	194	1,207	617	51	49	10	
38. Wool and Fur	13	7	39	18	50	50	9	9
39. Silk	14	7	101	53	56	44	22	7
40. Cotton	262	135	629	340	52	48	8	0
41. Jute, Hemp, Flax, Coir, etc.	22	14	80	48	62	38	11	8
42. Dress	70	31	358	158	44	56	16	8
XIII.—Metals and Precious Stones.								
	126	47	392	152	38	62	10	9
43. Gold, Silver and Precious Stones	60	21	210	79	36	64	12	6
44. Brass, Copper and Bell-Metal	13	5	60	22	37	63	15	8
45. Tin, Zinc, Quicksilver and Lead	3	1	29	12	30	70	37	0
46. Iron and Steel	50	20	94	39	40	60	6	9
XIV.—Glass, Earthen and Stone ware.								
	73	35	61	29	49	51	3	9
47. Glass and Chinaware	1	...	9	4	38	62	51	4
48. Earthen and Stoneware	72	35	52	25	40	60	2	9
XV.—Wood, Cane and Leaves, etc.								
	129	59	243	108	45	55	6	9
49. Wood and Bamboos	85	34	139	60	39	61	8	9
50. Canework, Matting and Leaves, etc.	44	25	54	28	58	42	4	9
XVI.—Drugs, Gums, Dyes, etc.								
	15	7	61	24	47	53	11	8
51. Gums, Wax, Resins and Similar Forest Produce	3	2	10	4	58	42	8	0
52. Drugs, Dyes, Pigments, etc.	12	5	51	20	44	56	12	8
XVII.—Leather.								
	110	48	181	81	43	57	6	9
53. Leather, Horn and Bones, etc.	110	48	181	81	43	57	6	94

SUBSIDIARY TABLE I—concl'd.

General Distribution by Occupation—concl'd.

ORDER AND SUB-ORDER.	MEMBERS PER 10,000 OF TOTAL POPULATION OF INDIA.		MEMBERS PER 10,000 OF TOTAL POPULATION OF CITIES.		PERCENTAGE IN EACH ORDER AND SUB-ORDER OF		PERCENTAGE OF ACTUAL WORKERS EMPLOYED	
	Persons supported.	Actual workers.	Persons supported.	Actual workers.	Actual workers.	Dependents.	In Cities.	Outside Cities.
1.	2.	3.	4.	5.	6.	7.	8.	9.
—Commerce, Transport and Storage.	268	108	1,247	564	41	59	17	83
XVIII.—Commerce.	148	55	592	236	38	62	14	86
Money and Securities	41	14	127	47	35	65	11	89
General Merchandise	25	10	127	40	39	61	16	84
Shipping unspecified	63	28	211	94	41	59	12	88
Commission, Brokers and Agents	14	5	127	46	36	64	30	70
XIX.—Transport and Storage.	120	53	655	328	44	56	20	80
Railway	17	7	153	61	42	58	27	73
Road	55	24	194	87	43	57	12	88
River	27	13	141	100	40	61	25	75
Postages	5	2	38	14	38	62	23	77
Weighing and Weighing	16	7	129	66	45	55	29	71
F.—Professions.	172	71	598	228	41	59	10	90
Learned and Artistic Professions.	168	69	587	223	41	59	11	89
Education	98	39	104	84	42	58	7	93
Literature	17	6	76	27	39	61	14	86
Law	7	3	78	28	37	63	35	65
Medicine	10	3	70	20	27	73	25	75
Engineering and Survey	18	7	78	28	39	61	13	87
Natural Science	8	1	29	8	37	63	22	78
Decorative Art, and Sculpture	1	1	12	5	41	59	45	55
Music, Acting and Dancing	19	9	49	23	44	56	29	71
XXI. Sport.	4	3	11	5	47	53	8	92
Sport	1	1	4	2	44	56	8	92
Games and Exhibitions	3	1	7	3	48	52	7	93
—Unskilled Labour, not agricultural.	635	349	938	537	55	45	5	95
XXII.—Earthwork and General Labour.	610	335	826	467	55	45	5	95
Earth-work, etc.	34	21	39	21	63	40	3	97
General labour	576	314	787	446	55	45	5	95
XXIII.—Indefinite and Disreputable Occupations.	25	14	112	70	56	44	16	84
Indefinite	10	10	65	35	58	47	12	88
Disreputable	6	4	47	35	66	34	27	73
XXIV.—Independent.	170	96	431	231	56	44	8	92
Property and Alms	153	87	267	150	57	43	6	91
At the public charge	17	9	164	81	53	47	29	71

Distribution of the Agricultural, Industrial, Com.

PROVINCE, STATE OR AGENCY.	AGRICULTURE.				INDUSTRY.		
	Population supported by agriculture.	Proportion of agricultural population per 1,000 of population of Province, State or Agency.	PERCENTAGE OF AGRICULTURAL POPULATION OF		Population supported by industry.	Proportion of industrial population per 1,000 of population of Province, State or Agency.	PERCENTAGE OF INDUSTRIAL POPULATION OF
			Actual workers.	Dependents.				Actual workers.
1.	2.	3.	4.	5.	6.	7.	8.
INDIA.*	191,691,731	652	46	54	45,719,022	155	48
Ajmer-Merwara	254,763	534	63	37	85,247	179	53
Assam	5,160,971	842	40	51	479,358	78	54
Baluchistan and Agency	577,097	712	31	66	21,463	26	45
Bengal and States	56,128,687	715	97	63	9,654,684	123	47
Berar	2,016,067	732	71	29	354,406	129	57
Bombay and States	14,927,569	586	55	45	4,641,300	162	46
Burma	6,860,763	661	42	58	1,023,084	186	56
Central Provinces and States	8,318,319	700	68	32	1,927,994	162	65
Coorg	147,690	818	71	29	17,228	95	63
Madras and States	26,673,007	690	56	44	6,772,967	175	47
North-West Frontier Province	15,280,046	569	36	64	5,198,463	194	39
Punjab and States							
United Provinces of Agra and Oudh and States.	31,743,667	655	48	52	7,245,711	149	47
Baroda State	1,014,927	520	45	55	277,313	142	46
Central India Agency	4,342,274	503	52	48	1,475,561	171	54
Cochin State	412,256	508	44	56	263,068	324	49
Hyderabad State	5,132,002	461	40	60	1,928,578	173	43
Kashmir State	2,184,860	752	28	72	328,681	118	41
Mysore State	3,637,162	660	31	69	591,067	107	34
Rajputana Agency	5,479,293	564	64	36	1,768,082	182	55
Travancore State	1,392,712	472	35	65	765,370	259	48

* The figures for "India" are inclusive of the And

E II.

Professional Population by Locality.

Population enumerated by censuses.	COMMERCE.			PROFESSIONS.				PROVINCE, STATE OR AGENCY.
	Proportion of commercial population per 1,000 of population of Province, State or Agency.	PERCENTAGE OF COMMER- CIAL POPULATION OF		Population supported by professionals.	Proportion of professional population per 1,000 of population of Province, State or Agency.	PERCENTAGE OF PROFE- SSIONAL POPULATION OF		
		Actual workers.	Dependents.			Actual workers.	Dependents.	
10.	11.	12.	13.	14.	15.	16.	17.	18.
197,771	14	38	62	4,028,092	17	41	59	INDIA.
7,102	15	40	60	12,094	25	56	44	Ajmer-Merwara.
17,906	8	54	46	84,006	14	38	62	Assam.
17,693	22	38	62	4,259	5	45	55	Baluchistan and Agency.
601,070	8	89	61	1,341,167	17	40	60	Bengal and States.
44,868	16	41	59	40,924	15	48	52	Berar.
518,110	20	37	63	474,014	19	40	60	Bombay and States.
30,501	22	47	53	262,273	25	51	49	Burma.
89,301	8	49	51	117,878	10	56	44	Central Provinces and States.
439	2	56	44	1,752	10	47	53	Coorg.
289,630	8	33	67	628,776	16	36	64	Madras and States.
7,564	28	35	65	572,295	21	38	62	North-West Frontier Province. Punjab and States.
370,459	8	36	64	639,804	13	40	60	United Provinces of Agra and Oudh and States.
61,080	31	38	62	53,203	37	47	53	Baroda State.
183,625	31	43	57	115,572	13	47	53	Central India Agency.
7,547	9	35	65	25,792	32	40	60	Cochin State.
427,974	38	40	60	142,790	13	41	59	Hyderabad State.
56,515	19	33	67	48,816	17	37	63	Kashmir State.
105,404	19	35	65	87,426	16	34	66	Mysore State.
239,436	25	39	61	201,197	21	53	47	Rajputana Agency.
78,140	26	36		73,726	25	35	65	Travancore State.

omitted from the details that follow

Number per mille of Population sup.

ORDERS.	NUMBERS								
	India.	Ajmer-Merwara.	Assam.	Baluchistan.	Bengal.	Bihar.	Bombay.	Burma.	Ce.
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
ALL OCCUPATIONS.	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1
A.—Government.	19	24	6	34	7	34	34	19	
I.—Administration	13	14	4	12	7	33	23	15	
II.—Defence	1	9	2	18	...	1	2	3	
III.—Service of Native and Foreign States	5	1	...	4	...	...	9	1	
B.—Pasture and Agriculture.	665	545	844	776	724	741	605	670	
IV.—Provision and care of animals	13	11	2	64	9	9	19	9	
V.—Agriculture	652	534	842	712	715	732	586	661	
C.—Personal Services.	36	59	12	14	22	19	31	10	
VI.—Personal, Household and Sanitary services	36	59	12	14	22	19	31	10	
D.—Preparation and supply of Material Substances.	154	179	78	27	123	129	132	136	
VII.—Food, Drink and Stimulants	57	57	46	10	59	35	57	95	
VIII.—Light, Firing and Forage	5	5	1	2	3	7	13	3	
IX.—Buildings	6	6	2	1	3	4	9	6	
X.—Vehicles and Vessels	...	...	...	...	1	...	1	2	
XI.—Supplementary requirements	4	7	1	1	3	4	4	4	
XII.—Textile Fabrics and Dress	38	41	13	4	24	36	46	41	
XIII.—Metals and Precious stones	13	13	6	3	10	13	15	9	
XIV.—Glass, Earthen and Stone ware	7	10	3	1	6	6	7	9	
XV.—Wood, Cane and Leaves, etc.	13	10	5	2	9	15	16	21	
XVI.—Drugs, Gums, Dyes, etc.	2	3	...	...	1	2	1	1	
XVII.—Leather, etc.	11	22	1	3	4	7	13	1	
E.—Commerce, Transport and Storage.	26	43	14	113	20	25	35	43	1
XVIII.—Commerce	14	15	8	22	9	16	19	22	
XIX.—Transport and Storage	12	28	6	91	11	9	15	21	
F.—Professions.	17	26	14	5	17	16	20	25	1
XX.—Learned and Artistic Professions	17	25	14	5	17	15	19	25	10
XXI.—Sport	...	1	...	...	...	1	...	...	...
G.—Unskilled Labour not Agricultural.	64	108	18	22	79	19	69	43	30
XXII.—Earth-work and General labour	61	103	18	19	75	18	66	42	34
XXIII.—Indefinite and Disreputable occupations	3	3	...	3	4	1	3	1	
H.—Means of subsistence independent of occupation.	17	18	14	9	8	17	25	4	
XXIV.—Independent	17	18	14			17	25	4	

E III.

h Order of Occupation.

ACTUATED IN									Occup.
Madras.	Punjab.	United Provinces.	Bombay State.	Central India Agency.	Hyderabad State.	Kashmir State.	Myore State.	Rajasthan Agency.	21.
12.	13.	14.	15.	16.	17.	18.	19.	20.	
1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	ALL OCCUPATIONS.
17	21	13	41	42	55	17	38	44	A.—Government.
16	13	13	12	3	25	4	20	14	I.—Administration.
1	5	1	...	2	2	1	2	...	II.—Defence.
...	3	...	29	37	18	12	16	30	III.—Service of Native and Foreign States.
707	500	665	541	525	498	764	675	579	B.—Pasture and Agriculture.
16	11	11	21	23	25	12	15	16	IV.—Provision and care of animals.
691	500	654	590	503	461	752	660	563	V.—Agriculture.
23	63	56	50	56	50	20	31	47	C.—Personal Services.
28	60	56	50	56	50	20	31	47	VI.—Personal, Household and Sanitary services.
175	194	160	142	171	173	113	107	102	D.—Preparation and Supply of Material Substances.
66	45	55	35	48	48	26	24	54	VII.—Food, Drink and Stimulants.
5	4	2	5	12	2	3	6	8	VIII.—Light, Firing and Forage.
9	7	3	8	4	8	2	9	7	IX.—Buildings.
1	...	...	1	...	...	...	...	...	X.—Vehicles and Vessels.
3	9	5	4	5	4	6	3	5	XI.—Supplementary requirements.
43	57	40	35	35	47	46	27	44	XII.—Textile Fabrics and Dress.
14	15	14	13	12	17	7	16	19	XIII.—Metals and Precious stones.
5	11	9	14	10	8	5	5	14	XIV.—Glass, Earthen and Stone ware.
16	15	11	10	16	14	7	9	13	XV.—Wood, Cane and Leaves, etc.
2	1	3	2	4	2	...	1	1	XVI.—Drugs, Gums, Dyes, etc.
12	30	7	15	25	23	11	7	24	XVII.—Leather, etc.
21	45	19	35	25	45	28	24	31	E.—Commerce, Transport and Storage.
7	28	8	31	21	39	19	19	25	XVIII.—Commerce.
14	17	11	4	4	6	9	5	6	XIX.—Transport and storage.
17	22	14	23	14	13	17	17	21	F.—Professions.
16	31	13	27	13	13	17	16	21	XX.—Learned and Artistic Professions.
1	1	1	2	1	...	...	1	...	XXI.—Sport.
23	34	63	133	131	132	16	90	57	G.—Unskilled Labour not Agricultural.
22	34	65	133	130	129	16	86	57	XXII.—Earthwork and General labour.
1	3	3	...	1	3	...	4	...	XXIII.—Indefinite and Disreputable occupations.
12	33	15	23	24	37	25	16	39	H.—Means of subsistence independent of occupation.
12	33	15	23	24	37	25	16	39	XXIV.—Independent.

SUBSIDIAR

Proportion of Population support

Occupation.	Groups included.	Number per 10,000			
		India.	Assam.	Bengal.	Bombay.
1.	2.	3.	4.	5.	6.
1. Landlords and tenants	36, 37, 40, 49, 50, 51, 52 .	5,386	7,239	6,429	4,284
<i>Labourers</i> . . . . .	.....	1,869	378	1,507	2,407
2. Agricultural labourers	38, 39	1,139	150	636	1,566
3. General labourers	96, 102, 149, 150, 165, 360, 420, 441, 500, 501, 502, 504.	780	238	871	841
4. Stock-owners, milkmen and herdsmen	26, 27, 30, 31, 32, 78, 82 .	165	45	147	224
5. Cotton workers (not in mills)	271, 272, 275, 276, 278 .	240	94	141	203
6. Goldsmiths and blacksmiths	317, 328	97	85	73	103
7. Brass, copper and bell metal workers	322, 323	13	9	14	16
8. Carpenters	280, 344, 346	86	23	48	109
9. Fishermen and boatmen	79, 80, 429	106	266	190	99
10. Oil pressers	100, 101, 143, 144	63	19	62	50
11. Barbers	60	77	21	59	74
12. Washermen	65	68	14	43	30
13. Toddle-drawers and sellers	131, 132	81	41	12	6
14. Grain parchers	98	26	6	32	5
15. Leather workers	387 to 390	98	13	40	100
16. Basket makers, scavengers and drummers	74, 347 to 349 and 483	104	28	67	77
17. Priests	444, 447	60	75	69	8
18. Potters	155, 336, 337	76	30	63	
19. Mendicants	446, 513	167	127	36	264
20. Village quacks and midwives	468, 472	14	10	19	8
21. Grocers and confectioners	99, 103, 104, 124	60	40	83	116
22. Grain dealers and money lenders	97, 392, 394	114	38	65	151
23. Tailors	306	39	14	23	54
24. Vegetable and fruit sellers	105, 123	48	37	47	64
25. Other shopkeepers	398, 398 (a), 400	52	54	35	54
26. Makers and sellers of bangles	208 to 211	12	5	7	13
27. Silk-worm rearers and silk weavers	259, 260	10	1	15	20
TOTAL . . . . .	.....	9,001	8,622	9,376	8,614

TABLE IV.

certain Primitive Occupations.

TOTAL POPULATION.						Occupation.
Burma.	Central Provinces.	Madras.	Punjab.	United Provinces.	Native States.	
7.	8.	9.	10.	11.	12.	13.
2,408	4,757	4,882	5,511	5,568	4,436	1. Landlords and tenants.
4,700	4,892	2,367	627	1,639	1,896	<i>Labourers.</i>
4,171	2,212	1,978	176	902	797	2. Agricultural labourers.
529	480	389	451	737	1,096	3. General labourers.
91	303	174	122	129	213	4. Stock-owners, milkmen and herdsmen.
242	404	315	454	260	209	5. Cotton workers (not in mills).
60	117	112	113	112	105	6. Goldsmiths and blacksmiths.
4	16	15	10	12	13	7. Brass, copper and bell metal workers.
150	49	96	166	88	101	8. Carpenters.
282	97	119	13	19	48	9. Fishermen and boatmen.
31	88	42	49	114	56	10. Oil pressers.
3	64	60	112	128	81	11. Barbers.
9	48	144	49	97	76	12. Washermen.
71	1	83	3	2	90	13. Toddy-drawers and sellers.
1	47	5	22	65	7	14. Grain parchers.
9	92	85	289	69	165	15. Leather workers.
66	83	83	330	117	82	16. Basket makers, scavengers and drummers.
6	28	62	112	51	71	17. Priests.
33	62	68	122	91	91	18. Potters.
165	147	83	305	145	278	19. Mendicants.
44	7	17	11	8	9	20. Village quacks and midwives.
126	37	175	38	48	37	21. Grocers and confectioners.
83	124	82	194	167	122	22. Grain dealers and money lenders.
56	31	19	44	67	44	23. Tailors.
88	48	53	39	47	44	24. Vegetable and fruit sellers.
151	5	14	137	17	88	25. Other shopkeepers.
1	14	10	7	21	15	26. Makers and sellers of bang'les.
33	13	14	5	3	2	27. Silk-worm rearers and silk weavers.
8,883	9,354	9,159	8,866	9,104	8,378	TOTAL.

SUBSIDIARY TABLE V.

Occupations of Females by Orders, selected Sub-orders and Groups.

Group No.	Order or Sub-Order.	NUMBER OF ACTUAL WORKERS.		Number of females per 1,000 males.
		Males.	Females.	
1.	2.	3.	4.	5.
	ALL OCCUPATIONS.	95,709,280	43,046,002	450
	I.—ADMINISTRATION.	1,307,999	70,973	54
	II.—DEFENCE.	238,193	455	2
	III.—SERVICE OF NATIVE AND FOREIGN STATES.	558,852	30,952	55
	IV.—PROVISION AND CARE OF ANIMALS.	2,199,378	346,579	158
	8. Stock-Breeding and Dealing.	2,173,337	343,652	158
27	Herdsman	1,439,088	193,209	134
30	Sheep and goat breeders and dealers	145,113	24,003	165
31	Shepherds and goatherds	387,520	68,470	228
	V.—AGRICULTURE.	60,627,687	27,520,631	452
	10. Land-holders and Tenants.	48,404,893	17,160,291	355
36	Rent receivers	14,377,965	6,151,933	428
37	Rent payers	34,026,928	11,008,358	324
	11. Agricultural Labourers.	11,201,280	3,786,848	374
38	Farm-servants	1,905,767	500,535	251
39	Field-labourers	8,678,314	3,954,149	1,032
40	Taungya or jhum cultivators	537,199	332,114	630
	12. Growers of special Products	367,633	561,167	647
48	Tea plantations—labourers and other subordinates	329,434	309,691	940
52	Fruit and vegetable growers	194,045	120,616	622
	VI.—PERSONAL, HOUSEHOLD AND SANITARY SERVICES.	3,760,267	1,805,703	480
	14. Personal and Domestic Services.	3,249,865	1,494,830	460
60	Barbers	329,579	162,773	196
61	Cooks	138,560	55,820	403
64	Indoor servants	733,636	435,255	555
65	Washermen	630,288	473,976	760
66	Water-carriers	313,702	255,139	801
	15. Non-Domestic Establishment.	23,003	10,537	449
	16. Sanitation.	436,699	300,256	617
74	Sweepers and scavengers	431,081	299,248	623
	VII.—FOOD, DRINK AND STIMULANTS.	4,790,381	3,330,834	694

SUBSIDIARY TABLE V—*contd.*Occupations of Females by Orders, selected Sub-orders and Groups—*contd.*

Group No.	Order or Sub-Order.	NUMBER OF ACTUAL WORKERS.		Number of females per 1,000 males.
		Males.	Females.	
1.	2.	3.	4.	5.
	17. Provision of Animal Food.	1,204,158	667,769	555
76	Butchers and slaughterers	107,499	22,681	211
78	Cow and buffalo keepers, and milk and butter sellers	264,066	222,091	841
79	Fishermen and fish curers	464,132	114,426	247
80	Fish dealers	324,658	290,716	895
82	Ghi preparers and sellers	29,050	12,729	438
	18. Provision of Vegetable Food.	2,313,323	2,222,425	965
96	Flour grinders	35,671	360,047	10,094
97	Grain and pulse dealers	737,193	317,476	295
98	Grain purchasers	187,554	260,841	1,391
100	Oil processors	342,093	167,685	489
101	Oil sellers	214,169	156,217	729
102	Rice pounders and huskers	55,520	559,972	10,068
103	Sweetmeat makers	49,521	72,629	255
104	Sweetmeat sellers	131,422	90,849	691
105	Vegetable and fruit sellers	222,787	245,820	1,103
	19. Provision of Drink, Condiments and Stimulants.	1,278,900	429,620	336
123	Cardamom, betel-leaf and areca-nut sellers	165,905	83,281	502
124	Grocers and general condiment dealers	510,433	155,865	305
128	Salt sellers	63,195	25,558	563
130	Tobacco and snuff sellers	89,796	42,705	476
132	Toddy sellers	85,981	47,811	550
	VIII.—LIGHT, FIRING AND FORAGE.	406,004	468,938	1,155
	20. Lighting.	38,458	17,566	525
	21. Fuel and Forage.	372,546	451,422	1,212
147	Collieries : miners and other subordinates	34,523	27,962	810
149	Hay, grass and fodder sellers	150,352	163,264	1,086
150	Firewood, charcoal and cowdung sellers	183,813	257,691	1,402
	IX.—BUILDINGS.	551,482	121,653	221
	22. Building Materials.	133,248	52,462	394
155	Brick and tile makers	61,334	18,248	293
157	Lime, chunam and shell burners	14,150	8,394	593
158	Lime, chunam and shell sellers	19,190	14,722	767

SUBSIDIARY TABLE V—*contd.*Occupations of Females by Orders, selected Sub-orders and Groups—*contd.*

Group No.	Order or Sub-Order.	NUMBER OF ACTUAL WORKERS.		Number of females per 1,000 males
		Males.	Females.	
1.	2.	3.	4.	5.
	23. Artificers in Building.	418,234	69,191	165
	X.—VEHICLES AND VESSELS.	47,205	2,145	45
	XI.—SUPPLEMENTARY REQUIREMENTS.	417,208	123,807	297
	30. Carving and Engraving.	22,351	4,510	202
	31. Toys and Curiosities.	14,502	2,914	201
	32. Music and Musical Instruments.	4,468	704	158
	33. Bangles, Necklaces, Beads, Sacred Threads, etc.	173,421	100,661	580
209	Makers of bangles, other than glass	27,597	14,323	519
209	Sellers of bangles, other than glass	21,317	11,352	533
210	Makers of glass bangles	24,211	13,707	566
211	Sellers of glass bangles	34,826	21,178	603
214	Rosary, bead and necklace makers	15,065	9,987	663
215	Rosary, bead and necklace sellers	9,015	5,322	590
216	Flower garland makers and sellers	26,894	17,036	635
217	Makers and sellers of spangles, lingams and sacred threads	6,868	5,592	814
	XII.—TEXTILE FABRICS AND DRESS.	3,507,767	2,210,548	630
	38. Wool and Fur.	110,920	77,574	647
251	Persons occupied with blankets, woollen cloth and yarn, fur, feathers, and natural wool	83,340	60,998	732
254	Dealers in woollen goods, fur and feathers	5,999	1,590	265
	39. SILK.	107,248	117,495	1,098
259	Silk-worm rearers and cocoon gatherers	10,201	39,964	3,918
260	Silk carders, spinners and weavers; makers of silk braid and thread	64,808	67,798	1,053
261	Sellers of raw silk, silk cloth, braid and thread	17,698	6,259	354
	40. Cotton.	2,411,717	1,561,056	647
271	Cotton cleaners, pressers and ginnerers	153,801	89,942	585
272	Cotton weavers: hand industry	1,836,434	832,594	453
275	Cotton spinners, sizors, and yarnbeaters	90,205	500,200	5,630
276	Cotton yarn and thread sellers	23,284	10,472	450
278	Cotton dyers	72,854	27,866	376
	41. Jute, Hemp, Flax, Coir, etc.	192,366	210,756	1,096
290	Rope, sacking and net makers	74,614	159,090	2,132

SUBSIDIARY TABLE V—*contd.*Occupations of Females by Orders, selected Sub-orders and Groups—*contd.*

Group No.	Order or Sub-order.	NUMBER OF ACTUAL WORKERS.		Number of females per 1,000 males.
		Males.	Females.	
1.	2.	3.	4.	5.
291	Rope, sacking and net sellers	17,121	18,638	1,083
292	Fibre matting and bag makers	9,394	9,746	1,037
	42. Dress.	676,516	242,662	360
303	Hosiery and haberdashers	12,882	4,291	333
306	Tailors, milliners, dress makers and darners	369,851	189,458	513
	XIII. METALS AND PRECIOUS STONES.	1,281,163	112,727	88
	43. Gold, Silver, and Precious Stones.	699,931	33,671	56
	XIV. GLASS, EARTHEN AND STONWARE.	705,744	337,688	478
	48. Earthen and Stone Ware.	699,977	326,705	481
336	Potters and pot and pipe-bowl makers	602,892	281,126	466
337	Sellers of pottery ware	80,734	48,871	605
	XV. WOOD, CANE, AND LEAVES, ETC.	1,288,655	433,363	336
	49. Wood and Bamboos.	918,573	60,970	66
345	Dealers in timber and bamboos	51,288	19,633	383
	50. Cane work, Matting and Leaves, etc.	370,082	372,393	1,006
347	Baskets, mats, fans, screens, brooms, etc., makers and sellers	328,600	330,552	1,006
349	Leaf-plate makers and sellers	26,125	85,697	1,366
349(a)	Pith and bark collectors, workers and sellers	2,003	625	312
	XVI. DRUGS, GUMS, DYES, ETC.	151,332	64,168	422
	51. Gums, Wax, Resins, and similar Forest Produce.	33,171	24,372	735
	52. Drugs, Dyes, Pigments, etc.	118,661	39,781	335
365	Saltpetre refiners	16,333	9,510	582
366	Saltpetre sellers	3,942	2,012	510
	XVII. LEATHER, ETC.	1,149,243	251,956	219
	XVIII. COMMERCE.	1,380,654	222,998	162
	54. Money and Securities.	357,184	62,298	174
	56. Dealing unspecified.	645,452	101,608	157
	XIX. TRANSPORT AND STORAGE.	1,484,481	76,805	52
	62. Storage and Weighing.	177,246	33,017	214

SUBSIDIARY TABLE V—*concl'd.*Occupations of Females by Orders, selected Sub-orders and Groups—*concl'd.*

Group No.	Order or Sub-Order.	NUMBER OF ACTUAL WORKERS.		Number of females per 1,000 males.
		Males.	Females.	
1.	2.	3.	4.	5.
	XX. LEARNED AND ARTISTIC PROFESSIONS.	1,894,513	325,691	193
	87. Religion,	971,869	178,656	184
446	Religious mendicants, inmates of monasteries, convents, etc	278,752	97,686	350
	63. Medicine.	133,477	70,644	529
472	Midwives	910	58,724	64,532
473	Compounders, matrons, nurses and hospital, asylum and dispensary service.	13,346	3,578	258
	70. Pictorial Art and Sculpture.	12,304	4,517	367
486	Tattooers	1,665	3,471	2,085
	71. Music, Acting, Dancing, etc.	209,411	58,898	281
490	Actors, singers and dancers, and their accompanists	100,945	53,674	532
	XXI. SPORT.	49,943	9,711	194
	XXII. EARTHWORK AND GENERAL LABOUR.	5,803,321	4,043,577	697
	74. Earthwork; etc.	496,105	202,197	498
501	Tank diggers and excavators	131,019	102,085	779
502	Road, canal and railway labourers	243,581	85,126	350
	75. General Labour.	5,397,216	3,841,389	712
504	General labour	5,397,216	3,841,389	712
	XXIII. INDEFINITE AND DISREPUTABLE OCCUPATIONS.	211,740	204,051	964
	76. Indefinite.	204,974	85,248	416
	77. Disreputable.	6,766	118,803	17,559
506	Prostitutes, including sequins and neauchis	457	116,888	255,772
	XXIV. INDEPENDENT.	1,890,268	929,959	493
	78. Property and Alms.	1,643,758	907,031	552
510	House-rent, shares, and other property not being land	37,698	27,241	725
511	Allowances from patrons or relatives	16,479	11,183	679
512	Educational or other endowments, scholarships, etc.	17,202	7,971	463
513	Mendicancy (not in connexion with a religious order)	1,572,479	830,636	547
	79. At the State Expense.	246,510	22,923	93
515	Pension, military services	35,776	7,340	205

SUBSIDIARY TABLE VI.

Ratio of Workers to Dependents and of Female to Male Workers in certain occupations.

Province or State.	NUMBER PER CENT. OF			NUMBER OF FEMALES PER 100 MALE WORKERS.							
	Actual workers.	Dependents	All Occupations.	Groups.							
				36 Rent receivers.	37 Rent payers.	38 Farm servants.	39 Field labourers.	44 Indoor servants.	46 Water carriers.	48 Grain packers.	50 General labourers.
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
INDIA.	47	53	45	43	32	25	103	56	80	139	71
Bihar	60	40	40	54	67	8	82	27	31	56	65
Bombay	50	50	54	60	20	22	1,496	33	3	439	53
Bengal	36	64	...	...	...	...	...	10	1	...	...
Madhya Pradesh	40	60	29	21	17	12	69	98	373	255	51
Madras	67	33	77	12	7	2	147	46	17	125	101
United Provinces	53	47	53	68	53	16	76	28	66	60	78
Assam	46	54	57	55	120	38	52	45	80	63	43
Central Provinces	67	33	69	63	88	26	200	92	314	320	133
Coastal Provinces	70	30	67	91	77	40	86	47	31	114	64
East Bengal	53	47	69	62	55	32	159	141	111	173	132
North-West Frontier Province	38	62	15	11	8	5	16	14	41	118	26
West Bengal	40	51	43	28	37	12	101	55	84	83	74
Andhra	47	53	40	33	30	36	89	147	125	46	105
East India	54	46	54	47	45	64	143	30	76	47	95
Madhya Pradesh	47	53	64	14	31	15	110	551	...	300	22
Hyderabad	43	57	56	38	49	55	108	34	17	14	114
North-West Frontier Province	31	69	10	4	4	11	9	14	31	9	33
Coastal Provinces	34	66	26	18	19	32	19	48	40	240	87
United Provinces	61	39	59	25	70	46	134	36	85	59	105
Madhya Pradesh	43	57	46	23	15	134	84	220	85	356	68

Occupations combined with Agriculture

OCCUPATION (CLASS AND ORDER).	NUMBER							
	India.	Ajmer Merwara.	Assam.	Baluchistan.	Bengal.	Bihar.	Bombay.	Burma.
1.	2.	3.	4.	5.	6.	7.	8.	9.
ALL OCCUPATIONS.	24	34	18	15	21	12	21	10
A.—Government.	128	42	71	200	153	182	130	66
I.—Administration	155	63	121	105	159	187	155	70
II.—Defence	134	20	11	253	10	...	86	58
III.—Service of Native and Foreign States.	55	57	36	...	181	...	72	84
B.—Pasture and Agriculture.	4	11	0·1	0·1	2	...	5	1
IV.—Provision and care of animals.	40	76	13	8	22	7	24	28
V.—Agriculture	3	10	0·1	0·1	1	...	4	...
C.—Personal Services.	77	57	64	23	80	65	61	15
VI.—Personal, household and sanitary services.	77	57	64	23	80	65	61	15
D.—Preparation and supply of material substances.	67	102	84	6	74	43	48	26
VII.—Food, drink and stimulants.	62	110	115	8	67	56	38	27
VIII.—Light, firing and forage	30	28	22	1	31	20	24	17
IX.—Buildings.	44	1	97	30	56	22	50	18
X.—Vehicles and vessels	52	...	260	43	82	...	59	18
XI.—Supplementary requirements.	53	34	51	56	66	29	38	11
XII.—Textile fabrics and dress.	53	44	14	3	83	24	40	30
XIII.—Metals and precious stones.	104	93	87	3	155	62	60	17
XIV.—Glass, earthen and stoneware.	125	282	90	...	143	52	88	15
XV.—Wood, cane and leaves, etc.	87	243	84	1	68	60	85	26
XVI.—Drugs, gums, dyes, etc.	52	78	24	...	116	18	33	55
XVII.—Leather	86	135	109	4	74	54	72	6
E.—Commerce, Transport, Storage.	61	30	64	8	81	75	55	27
XVIII.—Commerce	65	94	60	2	72	107	59	28
XIX.—Transport and storage	57	6	69	9	86	22	52	27
F.—Professions.	86	55	133	15	105	78	50	13
XX.—Learned and artistic professions.	88	56	134	15	106	84	51	13
XXI.—Sport	37	...	44	...	34	18	19	22
G.—Unskilled Labour not Agricultural.	28	36	84	3	26	9	25	16
XXII.—Earth-work and general labour.	28	37	86	9	26	8	26	16
XXIII.—Indefinite and disreputable occupations.	27	...	3	1	30	37	6	13
H.—Means of Subsistence independent of Occupation.	36	75	6	8	19	33	35	9
XXIV.—Independent	36	75	6	8	19	32	35	9

VII.

(where is the subsidiary occupation).

Agriculture.											OCCUPATION (CLASS AND ORDER).
Muz.	Punjab.	United Provinces.	Barda State.	Central India Agency.	Hyderabad.	Kashmir.	Cochin.	Travancore.	Mysore.	Rajputana.	
12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.
20	22	36	9	27	55	13	6	5	33	37	ALL OCCUPATIONS.
39	112	149	25	67	108	36	12	42	320	53	A.—Government.
251	76	136	65	45	155	46	...	78	499	92	I.—Administration.
27	180	241	...	161	6	41	...	...	7	292	II.—Defence.
236	84	35	8	64	80	31	12	36	125	32	III.—Service of Native and Foreign States.
9	2	10	1	9	42	1	2	1	3	3	B.—Pasture and Agriculture.
82	45	82	21	71	78	34	3	9	11	104	IV.—Provision and care of animals.
...	7	9	1	5	39	1	2	04	..	...	V.—Agriculture.
112	39	108	22	38	64	38	7	10	113	81	C.—Personal services.
112	89	109	22	38	64	38	7	10	113	81	VI.—Personal, household and sanitary services.
65	48	108	24	40	71	46	8	6	93	121	D.—Preparation and supply of material substances.
50	39	95	17	47	88	46	12	12	67	103	VII.—Food, drink and stimulants.
48	36	40	8	47	68	14	16	2	26	28	VIII.—Light, firing and forage.
51	21	51	20	21	52	12	5	6	63	56	IX.—Buildings.
32	25	47	19	40	22	...	...	5	21	31	X.—Vehicles and vessels.
64	87	98	11	46	41	104	2	8	48	68	XI.—Supplementary requirements.
55	31	77	15	30	59	25	2	8	90	95	XII.—Textile fabrics and dress.
100	80	211	37	44	83	63	6	12	181	111	XIII.—Metals and precious stones.
143	61	177	37	57	82	81	5	11	208	177	XIV.—Glass, earthen and stoneware.
85	65	165	37	35	51	82	9	8	88	238	XV.—Wood, cane and leaves, etc.
41	27	61	7	8	52	15	6	15	27	39	XVI.—Drugs, gums, dyes, etc.
110	58	107	42	49	70	110	6	8	59	195	XVII.—Leather.
50	60	79	22	30	75	31	7	14	100	74	E.—Commerce, Transport Storage.
79	72	87	24	31	75	32	4	17	111	74	XVIII.—Commerce.
37	40	78	6	24	74	28	8	7	62	73	XIX.—Transport and storage
172	74	106	23	48	78	42	16	27	133	118	F.—Professions.
176	76	107	22	50	78	42	16	27	139	119	XX.—Learned and artistic professions.
30	31	87	15	13	78	33	34	17	20	39	XXI.—Sport.
33	17	25	9	58	48	16	14	3	11	35	G.—Unskilled Labour not Agricultural.
32	17	24	9	58	48	17	14	3	10	35	XXII.—Earth-work and general labour.
35	12	40	...	7	24	...	8	4	41	7	XXIII.—Indefinite and disreputable occupations.
27	25	48	9	11	52	24	4	8	37	26	H.—Means of Subsistence independent of Occupation.
27	28	48	9	11	52	24	4	8	37	26	XXIV.—Independent.

SUBSIDIARY TABLE VIII.

Comparison of Occupations with 1891, by Classes, Orders and Sub-Orders.

OCCUPATION.	POPULATION SUPPORTED BY		Variation. Increase (+) or Decrease (-).	Variation per cent.
	1901.	1891.		
1.	2.	3.	4.	5.
ALL OCCUPATIONS.	294,188,046	287,223,431	+6,964,615	+2
A.—Government.	5,808,185	6,764,605	-1,156,420	-17
I.—Administration.	3,843,904	5,268,024	-1,424,120	-27
1. Civil Service of the State	1,255,310	2,063,033	-807,723	-39
2. Service of Local and Municipal Bodies	273,518	118,135	+155,383	+132
3. Village Service	2,315,076	3,086,856	-771,780	-25
II.—Defence.	366,646	664,422	-297,776	-45
4. Army	362,326	663,271	-300,945	-45
5. Navy and Marine	4,320	1,151	+3,169	+275
III.—Service of Native and Foreign States.	1,397,635	832,159	+565,476	+68
6. Civil Officers	1,043,872	690,208	+353,664	+51
7. Military	353,763	141,951	+211,812	+149
B.—Pasture and Agriculture.	195,663,204	175,381,239	+20,281,965	+12
IV.—Provision and Care of Animals.	3,976,473	3,645,849	+330,624	+9
8. Stock Breeding and Dealing	3,904,669	3,585,398	+319,271	+9
9. Training and care of animals	71,804	60,451	+11,353	+19
V.—Agriculture.	191,691,731	171,735,390	+19,956,341	+12
10. Land-holders and Tenants	154,570,404	149,931,159	+4,639,245	+3
11. Agricultural Labourers	33,523,682	18,673,206	+14,849,476	+80
12. Growers of Special Products	2,628,620	2,219,373	+409,247	+18
13. Agricultural Training and Supervision and Forests	970,025	911,652	+58,373	+6
C.—Personal Services.	10,717,500	11,210,104	-492,604	-4
VI.—Personal, Household and Sanitary Services.	10,717,500	11,210,104	-492,604	-4
14. Personal and Domestic Services	9,103,392	9,998,419	-894,627	-9
15. Non-domestic Establishment	76,098	47,803	+28,285	+50
16. Sanitation	1,537,620	1,163,882	+373,638	+32
D.—Preparation and Supply of Material Substances.	45,870,559	48,631,097	-2,054,538	-5
VII.—Food, Drink and Stimulants.	16,821,800	17,785,217	-963,417	-5
17. Provision of Animal Food	3,952,966	4,045,165	-92,199	-2

SUBSIDIARY TABLE VII—*contd.*Comparison of Occupations with 1891, by Classes, Orders and Sub-Orders—*contd.*

OCCUPATION.	POPULATION SUPPORTED IN		Variation. Increase (+) or Decrease (-).	Variation per cent.
	1901.	1891.		
1.	2.	3.	4.	5.
18. Provision of Vegetable Food	8,893,230	8,911,334	+81,965	+1
19. Provision of Drink, Condiments and Stimulants	3,975,545	4,928,728	-953,183	-19
VIII.—Light, Firing and Forage.	1,398,212	1,385,491	+12,721	+1
20. Lighting	40,989	26,827	+14,162	+53
21. Fuel and Forage	1,357,223	1,358,664	-1,441	-0.1
IX.—Buildings.	1,579,760	1,437,739	+142,021	+10
22. Building Materials	367,564	284,483	+83,081	+29
23. Artificers in Building	1,212,196	1,153,256	+58,940	+5
X.—Vehicles and Vessels.	88,797	103,979	-15,182	-15
25. Carts, Carriages, etc.	43,469	47,728	-4,259	-9
26. Ships and Boats	45,328	56,251	-10,923	-19
XI.—Supplementary Requirements.	1,231,671	1,155,267	+76,404	+7
27. Paper	34,873	78,153	-43,280	-55
28. Books and Prints	114,910	94,277	+20,633	+22
29. Watches, Clocks, and Scientific Instruments	15,455	11,638	+3,817	+33
30. Carving and Engraving	60,790	44,336	+16,454	+37
31. Toys and Curiosities	45,084	69,747	-24,663	-35
32. Music and Musical Instruments	12,064	21,397	-9,333	-44
33. Bangles, Necklaces, Sacred Threads, etc.	548,829	586,739	-37,910	-6
34. Furniture	17,813	15,616	+2,197	+14
35. Harness	15,561	17,406	-1,845	-11
36. Tools and Machinery	316,736	173,593	+143,143	+82
37. Arms and Ammunition	49,556	42,365	+7,191	+17
XII.—Textile Fabrics and Dress.	11,214,158	12,611,454	-1,397,296	-11
38. Wool and Fur	393,848	597,701	-193,853	-33
39. Silk	399,569	319,397	+80,172	+25
40. Cotton	7,702,003	8,820,653	-1,118,650	-13
41. Jute, Hemp, Flax, Coir, etc.	649,406	461,193	+188,213	+41
42. Dress	2,069,332	2,422,510	-353,178	-15

NOTE.—The figures do not always agree with those in Table XV. See note on page 241. Sub-order 24 has been amalgamated with Sub-order 25.

SUBSIDIARY TABLE VIII—*contd.*Comparison of Occupations with 1891, by Classes, Orders and Sub-Orders—*contd.*

OCCUPATION.	POPULATION SUPPORTED IN		Variation. Increase (+) or Decrease (-).	Variation per cent.
	1901.	1891.		
1.	2.	3.	4.	5.
XIII.—Metals and Precious Stones.	3,710,804	3,821,433	-110,629	-3
43. Gold, Silver and Precious Stones	1,768,597	1,783,374	-15,277	-1
44. Brass, Copper and Bell-metal	390,226	405,600	-15,374	-4
45. Tin, Zinc, Quicksilver and Lead	76,098	59,048	+17,050	+29
46. Iron and Steel	1,475,883	1,572,911	-97,028	-6
XIV.—Glass, Earthen and Stone Ware.	2,143,167	2,360,623	-217,456	-9
47. Glass and China Ware	17,942	14,419	+3,523	+24
48. Earthen and Stone Ware	2,125,225	2,346,204	-220,979	-9
XV.—Wood, Cane and Leaves, etc.	3,790,492	4,293,012	-502,520	-12
49. Wood and Bamboos	2,499,531	2,868,483	-368,952	-13
50. Cane work, Matting and Leaves, etc.	1,290,961	1,424,579	-133,618	-9
XVI.—Drugs, Gums, Dyes, etc.	455,763	391,575	+64,188	+16
51. Gums, Wax, Resins and similar Forest Produce	98,483	76,186	+22,297	+29
52. Drugs, Dyes, Pigments, etc.	357,280	315,389	+41,891	+13
XVII.—Leather, etc.	3,241,935	3,285,307	-43,372	-1
53. Leather, Horn and Bones	3,241,935	3,285,307	-43,372	-1
E.—Commerce, Transport, Storage.	7,769,403	8,681,101	-911,698	-11
XVIII.—Commerce.	4,197,771	4,685,579	-487,808	-10
54. Money and Securities	1,200,998	1,128,293	+72,715	+6
55. General Merchandise	744,704	1,186,892	-442,188	-37
56. Dealing-unspecified.	1,839,958	1,907,555	-67,597	-4
57. Middlemen, Brokers and Agents	412,111	462,849	-50,738	-11
XIX.—Transport and Storage.	3,571,632	3,995,522	-423,890	-11
58. Railway *	547,356	327,716	+219,640	+67
59. Road	1,605,529	1,808,186	-197,657	-11
60. Water	758,945	789,752	-30,807	-4
61. Messages	155,374	327,074	-171,700	-53
62. Storage and weighing	476,428	747,794	-271,366	-36

* Excluding Police on Railways.

SUBSIDIARY TABLE VIII—concl'd.

Comparison of Occupations with 1891, by Classes, Orders and Sub-Orders—concl'd.

Occupation.	POPULATION EMPLOYED IN		Variation, Increase (+) or decrease (-).	Variation per cent.
	1901.	1901.		
1.	2.	3.	4.	5.
F.—Professions.	5,054,293	5,323,339	- 267,046	- 13
XX.—Learned and Artistic Professions.	4,928,092	5,082,150	- 154,057	- 13
63. Religion	2,728,812	3,383,416	- 654,604	- 19
64. Education	497,509	486,497	+ 11,012	+ 2
65. Literature	199,034	280,703	- 80,869	- 39
66. Law	279,846	226,163	+ 63,483	+ 24
67. Medicine	520,044	514,076	+ 5,970	+ 1
68. Engineering and Survey	100,700	94,370	+ 6,430	+ 7
69. Natural Science	1,332	1,354	- 22	- 3
70. Pictorial Art and Sculpture	38,160	45,756	- 7,596	- 17
71. Music, Acting, Dancing etc.	562,055	649,926	- 87,871	- 14
XXI.—Sport.	128,201	141,180	- 12,979	- 9
72. Sport	42,627	48,919	- 1,292	- 3
73. Games and Exhibitions	85,574	97,261	- 11,687	- 12
G.—Unskilled labour not agricultural.	18,891,364	25,957,953	- 7,266,589	- 28
XXII.—Earth-work and General Labour.	17,954,331	24,394,972	- 6,440,641	- 26
74. Earth-work, etc.	1,012,235	574,695	+ 437,540	+ 76
75. General Labour	16,942,096	23,820,277	- 6,878,181	- 29
XXIII.—Indefinite and Disreputable Occupations.	737,833	1,562,981	- 825,948	- 43
76. Indefinite	545,411	1,305,348	- 849,937	- 61
77. Disreputable	191,622	167,633	+ 23,989	+ 14
H.—Means of subsistence independent of occupation.	5,000,538	4,773,993	+ 226,545	+ 5
XXIV.—Independent.	5,000,538	4,773,993	+ 226,545	+ 5
78. Property and Alms	4,490,151	4,308,534	+ 181,617	+ 4
79. At the State Expense	510,387	465,459	+ 44,928	+ 10

Note.—For the purpose of the above table those groups which were shown in one part of the schedule in 1901, and in a different part at the present census have been transferred to the Order and Sub-order in which they have now been classed. The result is that the totals of Orders and Sub-orders for 1901 shown above differ in some cases from the corresponding totals in the census tables for that census. Where one group of the 1901 census has now been split up into two groups, it has been necessary for the purpose of comparison to amalgamate them. In a few cases the new groups have gone to different Sub-orders, and their amalgamation has affected the totals of the Sub-orders concerned, which in such cases do not agree with the totals shown in Table XV. This is the case, for example, in the case of Sub-order 10 and 11 owing to the amalgamation of farm cultivation shown in Sub-order 11 with rest payers in Sub-order 10. The combination of the groups for shopkeepers and hatch dealers has similarly affected the totals of Sub-orders 22 and 23, and of those for pressure and culch of vegetable oil for lighting and ordinary oil painters and rollers, the totals of Sub-orders 19 and 20.

SUBSIDIARY TABLE IX.

Comparison of Agricultural population with 1891 by Provinces and States.

PROVINCE, STATE OR AGENCY.	NUMBER PER MILLE									
	Wholly or mainly Agriculturists, 1901.	Of whom partly non-Agriculturists, 1901.	SOLELY AGRICULTURISTS.		PARTIALLY AGRICULTURISTS.				TOTAL—WHOLLY OR PART AGRICULTURISTS.	
			1901.	1891.	Agriculture main occupation, 1901.	Agriculture subsidiary occupation, 1901.	TOTAL 1901.	TOTAL 1891.	1901.	1891.
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
INDIA.	651	60	591	599	60	24	84	46	675	645
Provinces.	668	55	613	611	55	22	77	48	699	639
Ajmer-Merwara	584	85	449	484	85	34	119	33	568	517
Assam (b)	842	32	810	775	32	13	45	88	855	803
Bengal (c)	715	53	662	634	53	21	74	78	736	707
Berar	732	30	702	686	30	12	42	8	744	624
Bombay (a)	686	53	533	580	53	21	74	33	607	613
Burma	661	25	636	634	25	10	35	1	671	635
Central Provinces	700	15	685	651	15	6	21	23	706	674
Coorg	818	15	803	720	15	6	31	27	824	747
Madras (with Cochin and Travancore)	672	48	624	574	48	19	67	26	691	640
Punjab (with N.-W. F.)	569	55	514	572	55	22	77	31	591	608
United Provinces	655	90	565	610	90	36	126	80	691	680
States.	547	90	457	527		36	126	23	533	649
Baroda	520	28	497	576	28	9	32	22	529	600
Central India	508	67	436	481	67	27	94	(a)	530	481
Hyderabad	461	137	324	449	137	55	192	29	516	478
Kashmir	752	33	719	681	33	13	46	(a)	765	681
Mysore	660	82	578	666	82	38	116	7	693	673
Rajputana (e)	564	93	471	540	93	37	130	(a)	601	540

Notes.—The proportions in columns 5 and 9 are based on the Census figures for 1891 which refer to the whole population ascertained, and those in column 2 on the basis of the whole population in the occupation table for 1901. At this census the returns of those who practiced agriculture as a secondary occupation were worked out only for agricultural workers. It may, however, be fairly assumed that the same proportion is applicable also to dependents and the proportions in column 7 have been calculated accordingly. Bengal was the only Province where figures were given showing how many of the persons who returned agriculture as their principal means of subsistence were partly dependent on some other occupation. Consequently the proportions in columns 3 and 6 (which are identical) are based on the actual results of the census only in the case of Bengal. For other Provinces they represent an estimate based on the assumption that the proportion found to exist in Bengal, in the case of persons with dual occupations, between those who returned agriculture as their principal, and those who returned it as their subsidiary means of support, is of general application. It is not clear that the figures thus obtained are absolutely or even approximately correct, but merely that, in the absence of other data they afford a general indication of the probable proportions.

(a) Figures not available.

(b) The proportion in column 5 has been calculated on the total population excluding North Lushai for which occupation was not returned in 1891. (Population excluded, 41,590.)

(c) The proportion in column 5 has been calculated on the total population excluding Hill Tippera (population 137,443) for which occupation was not returned. The proportion in column 9 is based on the figures for 21 districts only. The returns prepared for the remaining districts was rejected as untrustworthy.

(d) The proportion in column 5 has been calculated on the total population except the feudatories for which occupation was not returned.

(e) The proportion in column 5 has been calculated on the total population excluding Banarwara and Partabgarh (population 290,916).

The figures for Sulemans and Baluchistan though taken into account in Subsidiary table I have been left out of account in this subsidiary table.

SUBSIDIARY TABLE X.

Occupations in cities.

INDIA AND CITIES.	NUMBER PER 10,000 SUPPORTED BY EACH CLASS OF OCCUPATIONS.									NUMBER PER CENT. OF		Number of female workers per 100 male.
	A.—Gov. employ.	B.—Fam. and Agricult.	C.—Per-sonal services.	D.—Prepa-ration and supply of material substances.	E.—Com-merces, etc.	F.—Learn-ed profes-sions.	G.—Un-skilled labour.	H.—Inde-pendent.	All occu-pations.	Actual workers.	Depen-dents.	
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
INDIA.	191	6,651	364	1,554	263	172	635	170	10,000	47	53	45
TOTAL CITIES	726	368	1,218	3,974	1,247	598	938	431	10,000	47	53	27
Calcutta	467	368	1,757	3,205	2,404	646	738	420	10,000	60	40	15
Bombay	410	77	1,277	4,115	1,620	602	1,520	379	10,000	58	42	19
Madras	606	366	1,250	4,240	1,773	864	341	560	10,000	36	64	24
Lucknow	414	961	1,738	3,890	962	578	948	509	10,000	47	53	35
Rangoon	620	301	1,074	4,352	2,324	472	635	323	10,000	62	38	10
Delhi	362	410	989	5,308	1,709	647	474	203	10,000	44	56	22
Lahore	808	743	1,976	3,440	1,605	601	663	470	10,000	40	60	8
Almiedabad.	316	436	1,018	5,461	786	484	1,123	377	10,000	48	52	39
Canapore	221	1,735	1,965	3,465	785	269	1,343	217	10,000	48	52	26
Agra	454	978	1,485	3,796	991	437	1,380	484	10,000	35	65	11
Amritsar	472	398	764	5,193	1,838	662	307	366	10,000	46	54	11
Allahabad	479	3,199	1,993	3,094	374	243	1,387	326	10,000	47	53	43
Yonrah	232	500	738	4,145	1,772	614	1,759	231	10,000	55	45	16
Karachi	925	247	1,408	4,723	678	493	952	374	10,000	42	58	6

SUBSIDIARY TABLE XI.

Large Industries.

Group No.	Factory, etc.	CENSUS FIGURES.			TOTAL WORKERS ACCORDING TO ESTIMATE OF LARGE INDUSTRIES IN	
		TOTAL SUPPORTED.		Total Workers.	1910.	1901.
		India.	Main Provinces.			
1.	2.	3.	4.	5.	6.	7.
107-8	Aerated Water Factories	9,094	{ Bombay 4,709 } { Punjab 1,409 }	6,140	2,303	315
235-236	Arms and Ammunition Factories	2,955	{ Punjab 1,561 } { Bengal 986 }	1,188	...	..
237-238	Arsenals	4,380	{ Madras 1,327 } { United Provinces 498 }	1,864	...	...
85-86	Biscuit Factories	2,673	{ Bengal 1,061 } { Punjab 1,003 }	1,134	...	...
380-381	Bone Mills	1,598	{ Punjab 291 } { Bengal 260 }	1,082	991	401
320-321	Brass Foundries	5,092	Bombay 2,702	1,994	17,535 *	9,916
100-110	Breweries	1,785	{ Punjab 283 } { Madras 255 }	886	...	...
151-152	Brick and Tile Factories	14,568	{ Bengal 6,747 } { Madras 5,792 }	8,809	7,258	1,129
392-393	Brush Factories	298	Punjab 208	108	...	...
340-341	Carpentry Works	12,923	{ Punjab 7,743 } { Bengal 2,020 }	5,222	...	..
160-161	Cement Works	2,050	{ Bengal 921 } { Burma 391 }	1,086	638	102
301-362	Chemical Factories	251	{ Bengal 60 } { Burma 21 }	83	384	...
294-295	Clothing Agencies	23,104	Bombay 16,120	9,045	...	..
169-170	Coach Building Factories	2,535	{ Punjab 672 } { Bombay 498 }	813	...	...
146-147	Collieries	100,329	Bengal 83,059	62,897	89,248	84,837
263-264	Cotton Ginning, Cleaning and Pressing Mills.	80,508	{ Bombay 20,216 } { United Provinces 13,875 } { Central Provinces 8,754 } { Madras 4,969 }	42,117	49,630	16,803
287-288	Cotton Spinning, Weaving and other Mills.	347,728	{ Bombay 168,655 } { Madras 17,486 } { Central Provinces 11,518 } { Bengal 7,829 } { Punjab 5,744 }	165,875	166,039	117,922
350-351	Cutch Factory	259	Bombay 217	95	1,046	4,500
111-112	Distilleries	7,780	{ Bombay 2,567 } { United Provinces 1,012 }	4,183	1,277	..

* Includes also Iron Foundries, vide Groups 326, 327, and Machinery and Engineering Workshops, Groups 125, 126.

SUBSIDIARY TABLE XI—*contd.*

Large Industries—*contd.*

Factory, etc.	CENSUS FIGURES.			TOTAL WORKERS ACCORDING TO RETURNS OF LARGE INDUSTRIES IN		
	TOTAL SUPPORTERS.		Total workers.	1901.	1902.	
	India.	Main Provinces.				
1.	2.	3.	4.	5.	6.	7.
13-27A } 431-432 } Dockyards, Harbour and Canal Service	52,597	{ Punjab 23,316 } { Bengal 12,449 }	24,481	...	...
27-308 Dye Works	9,862	{ Punjab 1,674 } { Bengal 650 }	3,976	799	...	
31-34(b) Electric-lighting	63	Bengal 63	34	...	...
37-58 Flour Mills	5,775	{ Punjab 1,962 } { United Provinces 1,424 } { Bengal 1,102 }	2,748	2,554	1,172	
213-219 Furniture Factories	633	Bombay 524	392	...	...
190-197 Gas Works	1,742	{ Bengal 876 } { Bombay 290 }	909	546	...	
207-231 Glass Factories	119	Punjab 84	54	126	70	
302-310 Gold Mines	12,746	{ Madras 1,451 } { Burma 390 }	5,398	...	...
221-242 Gun-carriage Factories	3,281	{ Madras 1,744 } { Bengal 807 }	1,236	...	...
239-240 Gun-powder Factories	2,113	Bengal 1,260	1,003	...	...
276-297 Hosiery Factories	677	Bombay 367	258	...	...
115-116 Ice Factories	3,176	{ United Provinces 904 } { Punjab 749 }	1,223	827	634	
326-327 Iron Foundries	12,553	{ Bombay 4,415 } { Bengal 4,222 }	5,910	<i>Vide Brass Foundries with which this is included.</i>		
295-306 Jute Mills	130,864	Bengal 129,727	78,786	110,462	64,721	
283-284 Jute Presses	13,804	Bengal 13,729	5,501	20,785	8,242	
321-352 Lac Factories	11,906	{ United Provinces 4,958 } { Bengal 2,510 }	8,649	7,217	3,002	
221-226 Machinery and Engineering Workshops	21,863	{ Bengal 15,790 } { Burma 2,501 }	9,558	<i>Vide Brass Foundries.</i>		
119-139 Match Factories	253	Bengal 147	149	...	...
307-308 Mints	1,949	{ Bengal 562 } { Bombay 420 }	896	...	...
39-40 Oil Mills	12,332	{ Bengal 3,120 } { Madras 2,374 }	5,851	5,084	1,651	
113-114 Opium Factories	2,750	{ United Provinces 1,790 } { Bengal 708 }	1,082	...	...

SUBSIDIARY TABLE XI—concl'd.

Large Industries—concl'd.

Group No.	Factory, etc.	CENSUS FIGURES.				TOTAL WORKERS ACCORDING TO RETURN OF LARGE INDUSTRIES IN	
		TOTAL SUPPORTED.			Total Workers.	1900.	1911.
		India.	Main Provinces.				
1.	2.	3.	4.	5.	6.	7.	
179-180	Paper Mills	6,959	Bengal	4,534	4,052	4,871	2,1
140-141	Petroleum Refineries	7,588	{ Burma	3,504	3,652	...	...
			{ Bombay	2,902			
334-335	Pottery Works	1,281	Bengal	376	706	2,448	1,2
			Bengal	20,468	25,140	18,968	...
188-184	Printing Presses	65,832	{ Madras	14,125			
			{ Bombay	12,175			
			{ United Provinces	7,814			
167-168	Railway and Tramway Factories	43,368	{ Madras	19,022	17,267	...	...
			{ Bombay	13,614			
			{ Central Provinces	3,680			
91-92	Rice Mills	55,745	Burma	50,581	42,676	12,392	5,200
297-298	Rope Works	4,494	{ Bengal	2,333	2,761	2,888	2,300
			{ Bombay	1,326			
117-118	Salt Stores	19,717	{ Madras	13,483	9,966	...	...
			{ Punjab	2,454			
343-348	Saw Mills	11,872	Burma	8,084	7,219	9,711	6,000
255-256	Silk Filatures	20,466	Bengal	19,719	10,870	12,292	6,000
257-258	Silk Mills	5,411	{ Punjab	2,890	2,428	3,220	3,000
			{ Bombay	779			
333-334	Soap Factories	1,792	{ Punjab	745	745	255	...
			{ Bengal	414			
153-154	Stone and Marble Works	48,164	Bombay	8,723	19,274	...	...
98-04	Sugar Factories	54,502	{ United Provinces	40,606	28,118	5,452	3,000
			{ Bengal	6,130			
384-385	Tanneries	20,898	Madras	14,668	8,928	6,200	3,000
269-270	Tent Factories	716	Bengal	379	317	...	...
265-266	Thread Glazing and Polishing Factories	1,125	Bengal	478	604	...	...
119-120	Tobacco Factories	1,250	{ Madras	551	630	2,148	1,000
			{ Burma	296			
298-299	Umbrella	2,041	Burma	1,767	1,087	...	...
439-440	Warehouse	15,600	Bengal	9,845	6,982	...	...
			{ Bombay	3,407	5,331	...	...
121-122	Waterworks	8,910	{ Bengal	1,836			
			{ Madras	1,778			