

Diversities and studies in the field
of population.

by
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UNIVERSITIES AND STUDIES
IN THE FIELD OF POPULATION

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I consider it a great privilege to be asked to participate in this Symposium and to offer a few observations on "Universities and Studies in the Field of Population". My main aim is to seek your expert assistance to develop model (or models) for strengthening training activities in the field of population in universities. I may, therefore, pose a few general questions and attempt partly to answer them with the hope that you will consider them, amend and elaborate them. The questions often raised are: (i) How are universities concerned with studies on population problem?, (ii) what is the present situation regarding these studies in universities in India?, (iii) what is being attempted abroad?, (iv) what are the major research problems that need attention?

Role of Universities

My task in answering the first question is simplified as the problem is being discussed in the University of Delhi. This University is a unique pace setter and has a demographic research centre (originally in the Delhi School of Economics) in the Institute of Economic Growth, a reproductive biology unit in the Zoology Department, researchers in the field of population in the School of Social Work and other departments like psychology, sociology, anthropology. The University has a group of devoted social workers led by Shrimati Ganguli who have pioneered family welfare services and provided field practice area. This was initiated about two years ago by Shrimati Durgabai Deshmukh and Shrimati Ganguli. A notable step was taken by Dr. C.D. Deshmukh, the then Vice-Chancellor, on the 5th May, 1965 when he called a meeting of heads of different faculties to discuss intensifying studies in different departments and undertaking studies of problems influencing the people in the area surrounding the University especially "tremendous population problem" which "was immensely important factor influencing the life of mankind in the future". Professor Sher Singh, Minister of State in the Ministry of

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Education, recently focussing attention on planning forums in 3,000 colleges and university departments and two million university and college students increasing at the rate of 10 per cent each year emphasised that "each institution of higher education should have a well coordinated programme of national and social service of its own".* The University Education Commission exhorts us that "we must give up the fatal obsession of the perfection of the past" and increase efforts "to plumb the meaning of life". Both the University Education Commission 1948-49 and the Education Commission 1964-66 have forcefully brought out the pioneering role of university for social action related to the needs of socio-economic development leading to "a good life in a free society", through adding studies in their curriculum, extra-curricular activities, extra-mural activities like correspondence courses, extension lectures, summer institutes, forums, social service. The Education Commission emphasises that "the country would naturally look to the universities for effective leadership for re-educating the teachers and keeping them informed of the new teaching procedures and methods, new philosophies of education as well as development in the various fields of knowledge with which they are concerned. They can also help in building up healthy attitudes of the community towards some fundamental national problems such as those of public health, sanitation, population control and building up of national solidarity."

Studies in field of Population in Indian Universities

While universities like Delhi have made pioneering efforts, generally the situation is different. I understand a few years ago the National Council of Educational Research and Training in a study found that in eight States the syllabus did not refer to population problem in social studies. Some reference to population problem was found in teachers' training schools and colleges. Teaching of biology in the universities and teachers' training institutions refer to human reproduction but not in sufficient detail. Some teaching in marriage and family life appears in home science but mainly devoted to interpersonal relations and child rearing.

Demography is taught in many universities at undergraduate level. A few lectures on India's population problem are given to graduate students in economics, sociology or statistics. Only at few universities (Aligarh, Banaras, Gorakhpur, Lucknow, Jaipur, Saugar) demography is taught at the post-graduate level. In Poona University, there is a compulsory paper in demography for those taking a master's degree in statistics. The University of Kerala provides a two-year diploma course in demography. Demography is offered as an optional subject to the candidates qualifying for the

* Inaugural address of Professor Sher Singh, Minister of State in the Ministry of Education at the Orientation Seminar for Teachers in Colleges and Universities incharge of Planning Forums at the Central Institute of Research and Training in Public Cooperation, New Delhi.

master's degree in sociology, in biology and in economics in Lucknow and Vikram universities. The University of Lucknow offers certificate and diploma courses in demography. Training facilities in the field of population are provided at specialised institutions like the Indian Statistical Institute, Calcutta; the Demographic Training and Research Centre, Bombay; Demographic Research Centres at Trivandrum, Dharwar, Poona, Patna, Lucknow, Delhi and Madras. Besides All-India Institute of Hygiene and Public Health, Calcutta; Planning Research and Action Institute, Lucknow; Institute of Rural Health and Family Planning, Gandhigram; Central Family Planning Institute, New Delhi are conducting studies in the field of population.*

Training Abroad

Some of the training facilities available abroad are given in appendix 'B'. They focus attention on the fact that both by practice and tradition training in population studies and demography has been an area of concern in the universities of the world. The tables show that about 110 universities provide some regular training in this field. The need for this training has been met at undergraduate, graduate, and post-graduate levels. Different universities provide training at one or more levels in this field. The aim of this training is broadly two-fold: (a) to provide general orientation and practical understanding and significance of this aspect of knowledge, (b) to train skilled professionals and technicians in the field of population studies and demography. Several universities offer M.A. or Ph.D. in demography, and some provide for specialization in demography at M.A. and Ph.D. levels in sociology, statistics and economics. While this is an area of wide interest to the universities it has been hard to identify it with any one discipline. This is included in such unexpected departments as engineering, geography and philosophy. The multidisciplinary character of the subject is obvious which calls for inter-departmental coordination. Such coordination seems to be emerging by organizing population study centres or by establishment of inter-departmental committee. Population problem being multidisciplinary in character in some universities like the University of California an inter-departmental arrangement has been made. The Report of the United Nations Inter-regional Workshop on Training Programmes in the field of Population held in Elsinore, Denmark in June 1967 amongst its other valuable observations and recommendations states that "special attention should be given to the multidisciplinary nature of training required for family planning programme, training in demography, the behavioural sciences, medicine and public health, education, administration and other disciplines should be provided". The time allotted widely differs from few lecture-hours to fully developed graduate and post-graduate courses in the field. Normally more than a year of time is allotted to fully developed courses. The mode of training is of two types, depending upon the level and objective of the training. When the objective is to provide at undergraduate level some orientation and basic understanding of the field, the usual arrangement is to provide for lectures which are

* The training provided in 30 Indian universities is given in appendix 'A'.

integrated with some broad subject area of undergraduate training. Under such situations facilities also exist for undergraduate students to take these lectures in other departments like sociology, statistics and economics which concentrate on demography and population studies. For more advanced training the students are required to register in schools of sociology or statistics or economics. Here in addition to intensive formal training they are required to undergo heavy research experience, which ends with writing a thesis in this area. For this purpose many universities have specialised population research centres which are open to advanced students from the departments of sociology, statistics and economics. The contents of the training in this area varies with the variation in the objective of training and the department's subject area interest.

Conclusion

Some general conclusions may be drawn viz.:-

- (i) Both basic nature of this knowledge, and its present importance in the country, suggest the urgent need of more and more universities providing for such training in future.
- (ii) Some type of integration of this training at undergraduate and graduate levels is required. Integrated approach and inter-departmental collaboration at this level would ensure some minimum orientation to all the students.
- (iii) At post-graduate level there seems to be a need of dividing the contents into compulsory minimum and optional maximum. Advance courses in the departments of sociology, economics and statistics, biology, anthropology, psychology and social work could be instituted.
- (iv) In order to provide adequate professional training, there seems to be a great need for developing facilities to provide research experience to advanced students. Universities may find it fruitful to collaborate closely with existing demographic research and training centres and multidisciplinary Institutes like the Central Family Planning Institute.
- (v) It may be useful for graduates in one discipline to undertake studies in other related discipline e.g. biology in social sciences and vice versa.
- (vi) The existing curricula could be reviewed with a view to adding studies in population problems and family planning programme in the country.
- (vii) Summer Institutes may include studies in the field of population.
- (viii) Students should be encouraged to select subjects related to population problem for their thesis and dissertations.

- (ix) Correspondence courses, University Extension Lectures, Forums and social service in the field of population could be instituted. Planning Forums should pay special attention to the population problem and family planning programme.
- (x) Research in the field of population could be intensified. (Appendix 'C' refers to some of the problems in the field of demography and dynamics of human fertility behaviour).

I have not referred to medical education on purpose. The contribution of medical education and research to family planning is extensive. It has, however, been discussed in other forums and the universities have already done much to encourage these activities.

DEMOGRAPHY COURSES GIVEN IN INDIAN UNIVERSITIES*

University	Undergraduate level		Post-graduate level	
	Degree	Syllabus	Degree	Syllabus
1	2	3	4	5
Agra			M. Stat. M. Sc. (Stat.)	Optional-demography ^a Optional-vital statistics and population studies ^a
		Vital Statistics	M. A. (Econ.)	Compulsory-population problems ^a
			M. Sc. (Stat.)	Optional-demography and population studies ^a Compulsory-economics and vital statistics ^b
			M. A. (Soc.)	Optional-population problems with special reference to India ^a
		Elementary ^b	M. A. (Econ.)	Elementary ^a
			M. A. (Econ.)	Elementary ^b
			M. Sc. (Stat.)	Compulsory-elementary ^b
			M. Sc. (Stat.)	Optional-elementary ^b
			M. A. (Econ.)	Optional-advanced ^a
			M. A. (Soc.)	Compulsory-elementary ^b
			M. Sc. (Stat.)	Compulsory-elementary
			M. A. (Econ.)	Optional-vital statistics ^a
			M. A. (Soc.)	Optional-elementary ^b
			M. Sc. (Stat.)	Optional-vital statistics and demography ^a
			M. A. (Econ.)	Optional-population Studies ^a
			M. A. (Soc.)	Optional-social demography ^a
			M. Com.	Optional-elementary ^a
			M. A. (Econ.)	Optional-demography ^a
Jabalpur			M. A. (Econ.)	Optional-demography and vital statistics ^a
Jadavpur			M. Sc. (Stat.)	Optional-elementary ^b
			M. A. (Appl. Econ.)	Optional-elementary ^b

* Proceedings of the World Population Conference, 1965. III, pp. 282-83.

^a Full paper for post-graduate degree examination.^b Part of a paper for post-graduate degree examination.

1	2	3	4	5
Jammu and Kashmir			M. A. (Econ.)	Optional-elementary ^b
Karnataka			M. Sc. (Stat.) M. A. (Soc.)	Optional-elementary ^a Compulsory-elementary ^b
Kerala	B. A. (Econ.) B. Sc. (Stat.)	Elementary ^b Compulsory Elementary ^b	M. Sc. (Stat.) M. Sc. (Demo.)	Compulsory-elementary ^b
Kurukshetra	B. A. (Econ.)	Elementary ^b	M. A. (Econ.)	Compulsory-elementary ^b
Lucknow			M. Sc. (Stat.) M. A. (Soc.)	Economics and vital statistics ^b Social demography ^a
Madras	B. Sc.	Elementary ^b	M. Sc. (Stat.) M. A. (Econ.)	Demography and population studies (not teaching) ^b Elementary ^b
Mysore			M. Sc. (Stat.)	Elementary ^b
Panjab			M. A. (Soc.)	Optional-social demography ^a
Patna	B. A. (Econ.)	Elementary ^b	M. A. (Econ.) M. Sc. (Stat.)	Elementary ^b Actual and vital statistics ^b
Poona	B. A. /B. Sc.	Elementary ^b	M. Sc. (Stat.)	Optional (not teaching) ^a
Rajasthan			M. Sc. (Stat.) M. A. (Econ.) M. A. (Soc.)	Compulsory-elementary ^b Optional (not teaching) Optional-elementary ^b
Ranchi			M. A. (Econ.)	Optional-(not teaching) ^b
S. V. Vidyapeeth			M. A. (Econ.)	Optional-advanced ^a
Saugar			M. A. (Econ.)	Optional-elementary
S. N. D. T. women			M. A. (Econ.) M. A. (Soc.)	Optional-elementary ^a Compulsory-elementary ^b
Vikram	B. Sc. (Stat.)	Elementary		

NOTE:- A. Elementary courses cover the study of birth rates, death rates, life-tables, measurements of fertility, gross and net reproduction rates, population growth, population projection, etc.

B. This does not include training facilities in demographic research at the Indian Statistical Institute, Calcutta and some public health and other Institutes. Further information will be welcomed by the Central Family Planning Institute, New Delhi.

**TRAINING IN POPULATION STUDIES AND DEMOGRAPHY AT
THE UNIVERSITY LEVEL IN SELECTED COUNTRIES***

Name of the country and the university	Departments/Institutes/ Schools offering the courses	Duration	Degree/ Diploma/ Certificate	A Brief Statement of Contents	Remarks
1	2	3	4	5	6
AUSTRALIA					
Australian National University	1. Demography	3 yrs.	Ph. D.	Formal lectures in demography; seminars on specific topics; methods of analysis; central focus is on thesis	Undergraduates in Statistics are given 12 lectures
	2. Statistics				
AUSTRIA					
1. University of Vienna	History, Geography, Social Genetics and Hygiene				Certain number of lectures on this topic are included in various curriculae
2. University of Innsbruck	-do-				
3. University of Graz	-do-				
BELGIUM					
1. Free University of Brussels	Institute du Travail				The programme includes demographic studies.
2. Catholic University of Louvain	Demography		Licence en Sociologie de la Famille et de la Population		

*Source: Directory of Selected Training Facilities in Family Planning and Allied Subjects, International Planned Parenthood Federation, March 1967. The facilities provided in medical schools in different countries is not included. Generally most of health and medical schools provide training in this field.

Note: Information about India is given in Appendix A.
Further information will be welcomed by the Central Family Planning Institute, New Delhi.

1	2	3	4	5	6
<u>BRAZIL</u>					
1. University of Sao Paulo	Social Science			Programme of research and training	Lectures are integrated in the programme of social science faculty.
Note: In many other universities lectures in demography are given in Social Science faculties.					
<u>BURMA</u>					
1. University of Rangoon	1. Institute of Economics		B. A.		Demographic training is integrated in B. A. programme
	2. Statistics	1 yr.	Diploma	Sources & elements of population statistics; population statistics of Burma; Life tables; growth & projections; survey & analysis of population data.	One hour of lectures per week.
<u>CANADA</u>					
1. University of Montreal	Social Science	2 yrs.	M. A. in Demography	Population theory; Canadian Population; political, economic, geographical & sociological aspects of demography; demographic analysis.	
2. University of Western Ontario	Sociology & Economics	2 yrs.	M. A. in Sociology	Primary focus is in the areas of population and urban studies	
NOTE: In addition, two other universities offer courses in demography					
<u>COLOMBIA</u>					
University of Javeriana	Sociology			Lectures on demography & family sociology are included in the curriculum	University of Andes is initiating a programme in this field in the departments of sociology & economics.
<u>CZECHOSLOVAKIA</u>					
1. University of Prague	1. Economics 2. Geography				
2. University of Bratislava	1. Economics 2. Geography				

1	2	3	4	5	6
<u>DENMARK</u>					
1. University of Copenhagen	Sociology	4 hours a week in the 3rd & 4th semesters.	Degree in sociology	Demographic methods used in analysis and description of given populations. Advanced training by special arrangements	These courses are also open to students of economics, geography and history.
<u>FINLAND</u>					
1. University of Helsinki	Sociology	1. Two hrs. per week for two terms 2. Two hrs. per week		1. Introduction to Demographic Research; Population movements 2. Seminar on social policy & population problem	For undergraduates For advanced students
2. University of Tampere				Methods of population research	Social policy students receive 12 hrs. of lectures.
3. Abo Akademi	Sociology/Statistics	12 hrs. lectures		Demography and Family Planning	
<u>FRANCE</u>					
1. University of Paris	Institute of Demography	Min. 1 year	1. General Demography 2. Specialised Demography	Demographic analysis; demographic data; statistics; ecology; policies and theories; political economy; sociology of population; the family & social economics etc.	Training in demography is very extensive in France. There are six full time demography courses which lead to professional qualification in Demography. In addition to universities several institutions teach this subject as a part of their training programme
2. University of Bordeaux	Institute of Demography		1. General Demography. 2. Higher Demography.	Demography (general & economic); population policies and theories; economic and human geography population history; history of population theory; ecology; genetics and biometry; statistics; social surveys.	
3. Caen University	Institute of Demography	1 year		General demography; world population, distribution variations, migrations; demographic, statistics; numerical and graphical application; fertility and its variations; regional pathology; relation	

1	2	3	4	5	6
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between demographic, economic and social phenomena; population types; population policies and theories.

4. Lyons University

Facilities for demographic studies are provided

5. Nancy University

Facilities for demographic studies are provided

GERMAN FEDERAL REPUBLIC

1. Goethe University Education 7 months

Population & structure of European Society

This forms a part of sociology requirements of the students of educational development.

2. Neue University Sociology Psychology 2 terms
Jurisprudence

University of
3. Hamburg)
4. Munich)
5. Nurenburg)
6. Freiburg)
7. Technical)
University)
of Berlin)
8. Munster)

These universities give courses in this area from time to time

GHANA

1. University of Ghana 1. Institute of Statistics
2. Sociology
3. Economics

Demographic analysis, keeping records and taking censuses.

2. University of Science & Technology, Kumasi Architecture

Population Statistics

GHATEMALA

University of Ghatemala

No courses in demography are offered. Only research in demography is carried out.

1	2	3	4	5	6
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HUNGARY

Karl Marx University

Economics

1. Introductory course is compulsory
2. Full course in demography is optional.

IRAN

University of Iran

Institute of Social Research & Studies.

General teaching of demography.

ISRAEL

Hebrew University

1. Geography
2. Statistics

2 hrs. per week in 1st year
3 hrs. per week in 3rd year

Geography of population

Demographic statistics; population measures and models; population trends and their consequences.

ITALY

1. University of Rome

Statistics

4 years

Demographic analysis; population structure; migration; vital events and population projections

Students for the degrees of statistical and acturia sciences, and for statistics and demographic Science are trained in this are some demography is taught

2. Institute Universitaire d'Etudes Europeenes

3. Universita Pontificale Gregorienne

Demographic theories and analysis, sociology of family and ethics of family life.

These subjects are taught to priests.

Note: In addition to the above there are chairs of demography in five universities - Bologna, Rome, Palermo, Florence and Bari.

JAMAICA

University of the West Indies

1. Social Science

1 year

Lectures provide methodological and theoretical orientation.

1	2	3	4	5	6
	2. Arts 3. Statistics	2 terms		Emphasis is on methodological topics	The course is open to university graduates.

JAPAN

1. University of Kansai	Economics & Sociology			Population problem; population theory; sociological and economic aspects of population change; population policies and population of Japan.	Has full demography course
2. University of Keio					Has full demography course
3. University of Chuo					Has full demography course
4. University of Hitotsubashi					Has full demography course
5. University of Meiji	Political Science	2 hrs. per week for 30 weeks		Population theory	

MALAYSIA

University of Malaya	Economics			Demographic analysis	Is offered as a part of statistics course to B. A. (Econ.).
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MEXICO

El Colegio de Mexico		2 years	Diploma in Demography	Statistics; economic analysis; demography; mortality composition of population; sociology of development; fertility; evaluation of demographic data; population structure and inter-relationships.	It is a post-graduate course.
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NETHERLANDS

University of Amsterdam	1. Sociology 2. Human Geography 3. Economics 4. Cultural Anthropology	1 hr. per week for 2 years		Population techniques; descriptive demography; related problems.	
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Note: Lectures in population studies and demographic analysis are offered from time to time in all the sociology departments of six universities of Netherlands.

1	2	3	4	5	6
<u>NEW ZEALAND</u>					
1. University of Auckland	Geography		M. A. in Geography	Concepts and content of population geography; technique of demographic analysis; distribution and inter-relationships of population	This forms one of the four courses for M. A.
2. University of Canterbury	Geography	10-12 lecture hrs.			
3. University of Waikato	Geography	1-1/2 term		Population distribution and population trends.	
4. University of Sociology Wellington					Some lectures are given at various stages.
<u>NORWAY</u>					
University of Oslo	Social Economics			Population Statistics	Some instruction is also given in other faculties.
<u>PAKISTAN</u>					
1. University of Dacca	Statistics		M. A. or M. Sc.	Nature and scope of demography; sources of demographic statistics; calculations and use of demographic statistics; population theory; censuses and population genetics.	
2. University of the Punjab	Economics		M. A. in Economics		Social Science Research Centre also provides experience in demography.
3. Pakistan Institute of Development.	Economics		Post-M. A. in Economics	Lectures on demography and demographic analysis.	
<u>PHILIPPINES</u>					
University of the Philippines	1. Population Institute	1 to 2 years	M. A. (in demography)	Demographic statistics; population studies; demography and cultural geography; statistics	
	2. Sociology		A. B. or M. A.	Demography; human ecology	at undergraduate level

1	2	3	4	5	6
POLAND					
1. University of Lodz	Statistics & Demography				Some training is provided
2. University of Poznan	Statistics & Demography				Some training is provided
3. University of Cracow	Sociology & Demography				Some training is provided
4. University of Wroclaw	Sociology & Demography				Some training is provided
SOUTH AFRICA					
1. University of Witwatersrand	Sociology	1 lecture per week for 1/2 year		Scope, methods and subject matter of demography population problem; population and natural resources; population in South Africa	This is integrated with the first qualifying course in Sociology.
2. University of Pretoria					Some lectures are given
3. University of Stellenbosch					Some lectures are given
SPAIN					
University of Madrid	1. Statistics 2. Politics) 3. Economics) 4. Commerce) 5. Sociology)		Diploma in Statistics	Population theory	Ph. D. students in these departments are offered lectures.
SUDAN					
University of Khartoum	Economics	1 year	B. Sc. Economics	Census; vital statistics; collection & analysis and interpretation of demographic data; life-table; cohort analysis; mortality, nuptiality, fertility; population growth and trends.	One paper
	Anthropology		B. Sc. Anthropology		One paper

1	2	3	4	5	6
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SWEDEN

University of Gothenburg	Demography		Lower doctoral degree		Specialisation in demography
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Note: At all universities demography is included in the statistics course, and is also taught in sociology, economics and related subjects.

SWITZERLAND

University of Basle	1. Economics 2. Social Science	35 hrs.		Contemporary empirical populations; history of population and population change.	
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Note: Most Swiss universities offer courses in demography.

TAIWAN

Chieng-Hsing University	Sociology				One course in population problems is offered.
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THAILAND

Chulalongkorn University	1. Sociology		M. A. in Sociology (demography)	Population Workshop I & II; Population Study; Human Ecology; World Population	
	2. Political Science			Introduction to the study of population	

TUNISIA

University of Tunisia					One course in demography is offered.
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UGANDA

Makerere University	Sociology		B. A. (Soc.)	Population growth theory; demographic analysis; migration; fertility and its control; mortality.	One course is offered.
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U. S. S. R.

University of
Moscow Philosophy

A short course is offered.
Such short courses are offered
in other universities also.

Note: There is a one year post-graduate course in demography in the Moscow Institute of Statistics. It covers theoretical principles of demography; sources of population data; study of population numbers; structure; distribution & migration; Indices of population reproduction; mathematical patterns of population; Demographic analysis; Criticism of bourgeois population theories.

UNITED ARAB
REPUBLIC

Cairo University Statistics 2 hrs. per
week for
1 year. Diploma in
Statistics

UNITED KINGDOM

1. University of
London London School of
Economics

1 year M. Sc. in
Demography

Introduction to demography; Mathematics
of population growth; Elements of demogra-
phic analysis; population trends and
politics; collection & analysis of demogra-
phic data; errors in demographic data;
Design and analysis of demographic
investigation.

Three examinations
1. Demography I
2. Demography II
3. Subjects approved by
teacher

2. University
of Leeds Sociology

Lectures in population
studies & demographic
analysis form an essential
part of their programme

3. University of
Sussex

4. Birmingham

U. S. A.

1. University of
California Demography

Time re-
quired to
get Ph. D.

1. Ph. D. in Courses for M. A. : Population; Population
Demography & Migration; Demographic aspects of human
2. M. A. in fertility; Demography of human mortality;
Demography Introduction to Biostatistics; methods and
documents in population analysis; Advanced
Demographic methods; Research Seminar in
Population.

1	2	3	4	5	6
2. University of Chicago	Sociology Population Research & Training Center	Various	M. A. or Ph.D. in Sociology	In addition to training in research at the centre, many formal courses are offered in the Department of Sociology that are related to population studies.	
3. Cornell University	Sociology (International population programme)	Various	M. A. /Ph. D. in Sociology.	The aims of the programme are to broaden the traditional training of the professional demographer and to include demographic skills and concepts in the training of professionals in other disciplines.	
4. Duke University	1. Sociology 2. Economics	3-4 yrs.	M. A. or Ph. D. in Sociology or Economics.	In sociology course work provides for understanding of general sociology and continues research experience leading to thesis. In economics student must specialise in three fields of which one is demography and economic development. In addition we must take a set of courses in Sociology Department.	
5. Georgetown University	Sociology (Demographic division)	M. A.	M. A. in Demography	Techniques of demography; major substantive areas of demography.	Opportunity to further research training available
6. University of Massachusetts	Sociology				
7. University of Michigan	Sociology Population Studies Center)	1 or more yrs.	M. A. or Ph. D. in Sociology	Student is required to elect two courses in population or human ecology. The center programme supplements formal instruction by providing research experience.	
8. University of North Carolina	Sociology (Population Center)	Various	M. A. or Ph. D. in Sociology	Courses and seminars are offered in population statistics; human ecology & community; other related topics.	Field experience in action programme available. Some of the research projects include. Anthropology - values and motives within a societal grouping, modernisation and population change, birth control as a cultural innovation. Economics - Population change and economic development Psychology Psychological theory of population dynamics, Epidemiology-studies on the antecedents and consequences of abortion and use of contraceptive methods. Political Science-

1	2	3	4	5	6
					Demographic effects of political systems. Biology - physiological behavioural, genetics mechanism-regulating size of natural animal property.
9. University of Pennsylvania	1. Population Studies Center	Various	1. Ph. D. & M. A. in demography	Courses for Ph. D. in demography; Introduction to demography; Mortality and Fertility; Population distribution; migration and urbanization; Demographic research; Demographic aspects of manpower; Demographic, economic and social inter-relations; social and economic theories of population; demographic history; community & ecology; population politics.	
	2. Sociology 3. Economics		2. Ph. D. 3. Ph. D.		
10. University of Pittsburgh	Economics	11 months	M. A.	Demographic measurements; economic determinants and consequences of population change in both developed & developing nations; applied problems.	
11. Princeton University	Office of Population Research/ School of Public & International Affairs)	1 or more years		Survey of world population problems; Techniques of demographic analysis and research.	Some population courses are given in the department of sociology, anthropology; mathematics, and economics at Ph. D. level.
12. University of Southern California	Sociology & Anthropology (Population Research Laboratory)	Various	M. A. or Ph. D. in Anthropology	Courses in Population and human ecology offered.	
13. University of Texas	Sociology	Various	M. A. or Ph. D.		

Note: The teaching of population studies and demography is very extensive in American universities, and is firmly entrenched in departments of sociology. About 16 universities offer extensive graduate work in population studies. Most of these courses consist of practical research work as well as course and thesis work.

YUGOSLAVIA

University of Skopje	Economics	Two hrs. a week for one semester
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Note: Courses in demography are offered in the Departments of Sociology, Economics and Geography at the Universities of Belgrade, Ljubljana and Zagreb and these are given at the undergraduate level.

Some Research Problems

The following list is limited to some areas related to demography and dynamics of human fertility behaviour only. The list indicates some areas in order that different Departments in universities can suggest further subjects needing urgent attention and also research in other fields like biology, mass communication, organisation etc. This is merely to initiate compilation of important research problems which universities and research institutions can undertake.

DEMOGRAPHIC RESEARCH

Demographic studies should include:

- i) Identification of high and low fertility areas, communities and groups for the study of factors responsible for fertility differentials. The comparability of such studies undertaken by the different centres would be enhanced greatly if a minimal uniformity was adopted in respect of concepts, design, tabulation and analysis of data.
- ii) Detailed family planning knowledge, attitude and practice surveys with fertility component should be carried out periodically in a number of districts to find out both the direct and indirect results of the programme.
- iii) Intensive depth studies should be undertaken to ascertain differential receptivity to family planning programmes as between different areas, communities and groups. For the purpose, differentiation as between communities and groups may be based on their economic, social and psychological characteristics. Twenty to thirty fellowships might be offered. The persons should be carefully selected and given training before assigning them to carry out the studies. The amount of fellowship should be attractive enough to get the candidates of requisite quality.
- iv) Resurveys of villages and areas in which demographic surveys were carried out sometime ago should be done to measure demographic changes.
- v) The demographic studies might also be undertaken in areas which have witnessed high rate of economic development. The geographical scope of such studies must be wide enough to permit assessment of the impact of new industrial centre on the regional economy. Such studies might be undertaken both in new and

expanding urban areas as well as in rural areas where intensive efforts of rural development are being undertaken.

- vi) Problems and methods of measurement of fertility variables.
- vii) Studies of economic, social and demographic factors associated with migration phenomena should be undertaken. Such studies might cover both the places of out-migration and in-migration.
- viii) Mortality conditions should first be studied on the basis of available data from hospitals, dispensaries, health centres, etc. with particular reference to cause of death analysis. Based on such studies, certain hypothesis may be formulated which should be tested in well designed studies. Mortality studies should be related to intensive health programmes with a view to assessing the trends which might help in projecting the course of mortality decline for different regions and the country as a whole.
- ix) Morbidity surveys should be undertaken with the help of medical and health agencies with a view to ascertaining the incidence of morbidity according to economic status, occupations and social background.
- x) Studies to improve vital registration.
- xi) Demographic studies of tribal areas are also needed to be undertaken.

STUDIES ON DYNAMICS OF HUMAN FERTILITY BEHAVIOUR

Objectives

- i) Study of background factors influencing family size.
- ii) Study of specific social and cultural factors important for family planning programme in India.
- iii) Study of specific educational techniques to influence fertility behaviour of the people.
- iv) Development of broad action programmes making full use of educators' skills plus findings from type (i), (ii), and (iii) studies under condition of maximum flexibility.
- v) KAP studies on issues relating to family planning.
- vi) Experimental testing of "package" approaches over a period of time.

The studies suggested to be taken up are as follows:

- i) Identifying and studying norms related to fertility behaviour. This will include studies of norms relating to sex, family life pattern, family size, marriage, composition of children in the family and parenthood behaviour etc.
- ii) Study of process and mechanism to modify above existing norms, levels of aspirations and living standards of various groups.
- iii) Study of specific social factors directly related to fertility, age at marriage, widow marriage, education, mobility, status of women, employment of women, etc.
- iv) Studies on the identification of sociological and psychological factors in the acceptance and practice of family planning methods.
- v) Studies of communication and decision making processes in the acceptance of family planning.
- vi) Factors involved in the selection of specific contraceptives at different stages of family building and their effectiveness. Psychological basis of shifting from one family planning method to the other; psychological reaction to the failure of the contraceptive, etc.
- vii) Use effectiveness studies of various contraceptives factors related to it.
- viii) Studies on the knowledge and attitudes towards sterilization and its trend.
- ix) Studies on the knowledge and attitudes towards abortion and its trend.
- x) KAP studies on family planning programme in general and various methods in particular.
- xi) Research on Census and Registration Methods. A vast amount of data collection is going on in India involving a large expenditure of financial and human resources. An investment in improving data collection methods would pay rapid dividends. An active method research programme is required.
- xii) Studies of district or regional variation in growth rates and characteristics. For this, regional approach to population studies may be adopted.
- xiii) Evaluation of long-term and short-term changes in fertility.

- xiv) Studies of barriers, failures, resistance and rumours related to family planning programme.
- xv) Studies on the understanding of the mechanism of fertility generation. It should be able to show the contribution of biological, social and cultural, economic and psychological factors in determining the level of fertility. Some specific aspects and problems which need study with regard to general, biological, social, cultural, and economic correlates of fertility are:
 - a) Demographic aspects such as spacing between births, pattern of age-specific fertility rates, etc.
 - b) Differences in fecundity levels between couples; relationship between fecundity and use of contraception; primary sterility; secondary sterility and the relationship if any, with age at cohabitation, age at first birth and rate of reproduction; length of lactation amenorrhoea and the length of fecundable periods between births.
 - c) Effect of social factors such as age at marriage, widow remarriage, etc. on fertility; effect of socio-economic factors such as education, working status of woman, social status of woman, etc. on fertility.