# CHAPTER I

## INTRODUCTION

"The Economics of Education is a branch of economics", says Prof. Mark Blaug.[1] "It deals fundamentally with the impact of education on such phenomena as the occupational structure of the labour force, the recruitment and promotion practices of employers.... and, most general of all, the prospects of economic growth". Acquisition of education in a modern economy provides opportunities for individuals to invest in themselves. Public educational expenditure, by and large, is a reflection of individual choices. And individual decisions are profoundly influenced by expected economic returns. This opens the door both to an economic analysis of the private demand for education and the formulation of

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1. Blaug Mark, An Introduction to the Economics of Education Allen Lane, The Penquin Press, London 1970

economic criteria for the collective provision of educational facilities. It is this insight that has inspired the present writer to analyse the economic aspects of Higher Education in the state of Tamil Nadu, India.

ECONOMICS OF EDUCATION

Economists have long been aware of human resources development. Adam Smith stressed the importance of education at various points in the "Wealth of Nations". Alfred Marshall said, "the most valuable of capital is that invested in human beings". Present-day economists like Theodore Schultz, Gary Becker, F. Harbison, C.A. Myers and others have opened the way for the incorporation of investment in education in to the main-stream of economic analysis.

Theodore W. Schultz[2] says: "The economic value of education depends predominantly on the demand for and supply of schooling approached as an investment. In economics, it has long been known that people are an important part of the wealth of nations.... The philosopher economist, Adam Smith, boldly included all the acquired and useful abilities of all the inhabitants of a country as a part of capital, and he gave the right reasons for doing so.... Iriving Fisher, more than a half-century ago laid the analytical foundation for an all-inclusive concept of capital including both man and material objects.... To the extent that schooling increases the future earnings of the student, it has the attributes of an investment. But the human capital thus created cannot be sold as can non-human capital. The contribution of most education is multi-dimensional, in serving at one and the same time social, political and other purposes. Those and other differences between the educational establish-

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2. Schultz, T.W. The Economic value of Education, New York, 1963.

ment and a conventional industry do not, however, preclude the application of economic analysis to education although these differences must be taken into account, by economists in their studies of education".

Investment includes two conditions:

1. The expenditure must not be made to satisfy an immediate want, and
2. The expenditure must yield return.

Expenditure on education is to a very large degree in the nature of investment as the two conditions are present. Education is pursued not only to satisfy cultural wants but also out of economic considerations. It improves the capabilities of people and thereby enhances their future earnings. The investment formed by education may be divided into two parts:

a) a future consumption component, and
b) a future earnings component.

As an enduring consumer component, education is the source of future utilities. This part of education, says Prof. Alba Lerner, is "investment". Education for skills and knowledge, useful for economic endeavour, adds Prof. Schultz, is "investment in future earnings"[3]. Higher Education, with which this study is concerned, has the earnings component as a larger part of the returns.

EDUCATION AND ECONOMIC GROWTH

Recent literature in the economics of education reveals that almost all less-developed countries suffer from persistent under - investment in primary education, hand in hand with

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3. Schultz, T.W., Ibidem[2]

persistent over investment in higher education. Ever since 1950 or thereabouts, higher education has been the fastest growing part of the educational system the world over, especially in the developing countries, whether measured in terms of enrolment or in terms of financial outlay.[4]

"Education is a good investment", says C.A. Moser.[5] "However, it is the lower educational levels that exhibit the highest returns. On these criteria, university education is only marginally a "good investment". Of course, the private returns to all levels of education are much higher than the social ones. When the returns are viewed across countries, the pattern is that less developed countries enjoy higher returns to educational investment than more advanced countries".

Table I - 1 shows the contribution of education to economic growth of selected countries.

The table shows that the contribution of secondary and primary education to economic growth in India is almost 4½ and 3 times, respectively higher than that of higher education. And yet, the rate of growth of higher education in India is much faster than that of secondary and primary education. No wonder one oftem hears the comment that the Indian educational system is "top heavy and bottom weak".[6]

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4. Blaugh Mark - Education and the Employment Problem in developing countries, Allen Lane, The Penguin Press, London.

5. From the foreword by C.A. Moser in George Psacharopaulos's Returns to Education - An International Comparison - New York, Elsevier Publishing Company, 1973.

6. Pandit, H.N. Measurement of Cost Productivity and Efficiency of Education.

TABLE I-1

THE CONTRIBUTION OF EDUCATION TO ECONOMIC GROWTH
BY EDUCATIONAL LEVEL AND COUNTRY

| Country | Percentage Contribution by Educational level | | | Total Contribution = 100% |
|---|---|---|---|---|
| | Primary | Secondary | Higher | |
| 1 | 2 | 3 | 4 | 5 |
| United States | 43 | 31 | 26 | 17.9 |
| Mexico | 59 | 29 | 12 | 13.2 |
| Venezuela | 69 | 22 | 9 | 14.8 |
| Colombia | 54 | 39 | 7 | 24.5 |
| Chile | 56 | 34 | 10 | 11.4 |
| Israel | 46 | 36 | 18 | 4.7 |
| India | 35 | 53 | 12 | 34.4 |
| Malaysia | 43 | 49 | 8 | 14.7 |
| The Philippines | 18 | 50 | 32 | 10.8 |
| South Korea | 38 | 56 | 6 | 15.9 |
| Nigeria | 63 | 25 | 12 | 16.0 |
| Ghana | 37 | 49 | 14 | 23.2 |
| Kenya | 38 | 50 | 12 | 12.4 |
| AVERAGE | 46 | 40 | 14 | 16.4 |

Source: George Psacharopoulose: Return to Education - An International Comparison, New York, Elsevier Scientific Publishing Company, 1973.

Higher education in India in expensive. It is still not within the easy reach of the poor and lower income brackets of society. Why is there still over - investment in higher education ? The question becomes all the more puzzling when

one realizes that, even at the lowest estimates, 10 to 15% of university graduates is unemployed in India. Why do students or their parents still persist in demanding higher education?

In the language of Mark Blaugh, "it is too easy to dismiss this demand as merely a search for status and prestige in a society that places an irrational value on paper qualifications. Actually secondary and higher education in India, still pay off handsomely to Indian students in terms of future earnings, even after allowing for the private costs of education and the possibility of being unemployed for a considerable period of time.[7]

This may partly explain the demand for higher education in India where continues Mark Blaugh, "every University student in India effectively displaces 88 students in primary education ina country where the drop-out-rate in primary education is anywhere from 30 to 50%".[8]

OBJECTIVES

The present thesis is an attempt at evaluating the economic factors that influence Higher Education, meaning thereby Post-Matriculation College Education.

In the first place, Higher Education is a very fast growing sector, but as yet, only a small fraction of the relevant age - group goes to attend the institutions of higher education. The question, therefore, naturally arises as to who goes to the college ? Secondly, Higher

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7 - 8 N.C.E.R.T, New Delhi, 1969

Blaugh Mark - Education and the Employment Problem in developing countries, ~~ibidun~~ ibidem 4

Education is not homogeneous. Various courses of study differ widely in their duration, expense, abilities required and earnings prospects. How do differences in economic background influence the choice of various courses by the students is the next question. What are the private and social costs of acquiring Higher Education ? How do students finance their education ?

These and similar questions are attempted to be examined in the subsequent chapters of this thesis.

Table II-2 presents the number of students in Institutions of Higher Education per thousand of population in the age - group 17-23, in the major states of India in 1973 - 74. It can be seen from the Table that only 3.4 percent of the persons in the age - group 17 - 23 were going to colleges and universities in India in 1973-74. Tamil Nadu with 3.2 percent was very close to the All-India average. The highly elitist nature of Higher Education in India comes out very clearly from the Table.

NATURE AND AVAILABILITY OF DATA

The present study is based on an analysis of data available on Higher Education in India in general, and in Tamil Nadu, in particular.

The data has been classified under two heads - namely,

1. Primary Data: Collected personally by the investigator through an on-the-spot study of selected colleges, and

TABLE I-2

NUMBER OF STUDENTS IN INSTITUTIONS OF HIGHER EDUCATION PER THOUSAND OF POPULATION IN THE AGE-GROUP 17-23, IN THE MAJOR STATES OF INDIA 1973 - 74

| State | Estimated Population in the age group 17-23 (1973) in 000's | | Total Enrolment for the year 1973-74 | | Number of Students per thousand of population (1973) in the age-group 17-23 | |
|---|---|---|---|---|---|---|
| | Total | Women | Total | Women | Total | Women |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Andhra Pradesh | 5,141 | 2,668 | 1,34,070 | 21,734 | 26.07 | 8.46 |
| Assam | 1,829 | 906 | 41,858 | 8,938 | 22.88 | 9.86 |
| Bihar | 7,042 | 3,390 | 92,536 | 10,772 | 13.14 | 3.18 |
| Gujarat | 3,249 | 1,573 | 1,40,483 | 38,674 | 43.24 | 24.49 |
| Haryana | 1,204 | 564 | 53,075 | 12,733 | 44.08 | 22.58 |
| Himachal Pradesh | 409 | 205 | 12,471 | 2,772 | 30.49 | 13.52 |
| Jammu & Kashmir | 575 | 276 | 21,574 | 5,574 | 37.52 | 20.20 |
| Kerala | 2,563 | 1,291 | 79,827 | 33,775 | 31.15 | 26.16 |
| Madhya Pradesh | 5,010 | 2,445 | 50,72,433 | 1,463 | 30.08 | 14.05 |
| Maharashtra | 6,050 | 2,930 | 2,79,630 | 61,261 | 46.22 | 20.91 |
| Manipur | 126 | 66 | 7,600 | 1,871 | 60.32 | 28.35 |
| Meghalaya | 120 | 60 | 5,488 | 1,621 | 45.73 | 27.02 |
| Mysore (Karnataka) | 3,445 | 1,717 | 1,37,353 | 25,839 | 39.87 | 15.05 |
| Nagaland | 60 | 28 | 618 | 117 | 10.30 | 4.18 |

Contd.....

TABLE I-2 Contd

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| Orissa | 2,585 | 1,309 | 36,017 | 4,532 | 13.93 | 3.5 |
| Punjab | 1,614 | 755 | 84,633 | 27,583 | 52.44 | 36.53 |
| Rajasthan | 3,113 | 1,509 | 96,818 | 15,680 | 31.10 | 10.39 |
| Tamil Nadu | 4,843 | 2,404 | 1,55,823 | 39,239 | 32.17 | 16.32 |
| Tripura | 175 | 94 | 6,550 | 2,273 | 37.43 | 24.18 |
| Uttar Pradesh | 10,534 | 4,979 | 3,34,699 | 59,300 | 31.77 | 11.91 |
| West Bengal | 5,281 | 2,601 | 2,65,834 | 75,100 | 50.34 | 28.87 |
| Union Territories (8) | 262 | 124 | 101 | 38 | 88.35 | 67.2 |
| All India | 65,788 | 32,039 | 22,38,879 | 5,21,380 | 34.03 | 16.27 |

Source: Third All India Educational Survey Higher Education 1973-74
University Grants Commission, New Delhi 1978, Page 66

Note: In 1975-76 the percentage of students to their relevant age-group 17-23 were:
Tamil Nadu - 3.5, and India - 4.5

Source: Education in India, 1975-76
Ministry of Educations and Social Welfare,
Government of India, New Delhi.

2. Secondary Data: Drawn from published materials - government, semi-government and private sources - and unpublished materials, mainly Doctoral Theses.

For the collection of the Primary Data, the investigator visited a cross-section of the Arts, Science, Commerce, Medical and Engineering Colleges in the state of Tamil Nadu. A pilot study was carried out by the investigator with the help of a carefully prepared questionnaire containing open questions.[9]

The questionnaire had four sections:

1) General Information,
2) Annual Private Expenditure on Higher Education,
3) Financing Education, and
4) Education and Family Background

Sixty five students constituting 10% of the total number of Arts, Science and Commerce under-graduates of the selected colleges responded to the questionnaire. The sample population was chosen on the basis of systematic sampling.

The data of the pilot study was processed and tested. Accordingly, it was found that the questionnaire needed certain modifications. The final questionnaire contained pre-coded questions,[10] as against the open questions of the pilot study.

The final survey on "The Socio-Economic status of College students of Tamil Nadu", was conducted in January - March 1979. It was proposed to cover one percent of the under-graduates of the five faculties of Arts, Science, Commerce, Medicine and Engineering of the academic year 1978-79

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9. Moser, C.A. and Kalton. G - Survey Methods in Social Investigation, Chapter 13, Questionnaires, Published by Heinemann Educational Books Ltd., 48 Charles Street, London, and the English Languages Book Society, 1976.

10. Moser, C.A. and Kalton. G - ibidem[9]

While our purpose was to investigate one percent of the student population studying in the five faculties mentioned above for the year 1978-79, in the first instance we had to proceed with the process of drawing up of the sample on the basis of 1975-76 data because a complete faculty-wise, management-wise, sex-wise, and stage-wise break-up of university students was available for Tamil Nadu latest up to 1975-76.

In 1975-76, there were 1,62,734 students excluding (Pre-University and Pre-Professional Courses) studying in the four Universities of Tamil Nadu. These four Universities have their territorial jurisdiction spread over the fifteen Revenue Districts of the state.

Of the 1,62,734 University students, 90% (1,46,544) were in under-graduate courses and 10% (16,190) in Post-graduate and Research Courses. Table number I-3 gives the Faculty-wise and Degree-wise, break-up of University students of Tamil Nadu during 1975-76.

For the sake of greater efficiency and easy accessibility, it was proposed to limit the survey to the under-graduates of the five faculties of Arts, Science and Commerce (General Education) and Engineering and Medicine (Professional Education), as these five faculties constituted 94.3% (1,38,230) of the total number of under-graduates (1,46,544) or 85% of the total number of University students (1,62,734) in 1975-76.

As the sample population has to represent the whole, it was of prime importance to choose the most representative group of students from each faculty. It was, therefore, decided to select the sample population from the Second Year Arts, Science and Commerce, and the Third Year Engineering

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10. Moser, C.A. and Kalton. G - ibidem[9]

TABLE I-3

FACULTY-WISE AND DEGREE-WISE ENROLMENT - TAMIL NADU - 1975-76

| Faculty | Number enrolled Degree and Postgraduate | | | Number enrolled Degree only | | | Grand Total (Arts, Science and Commerce)(Engg. and Medicine) |
|---|---|---|---|---|---|---|---|
| | Men (Number row%) | Women (Number row %) | Row Total Col.% | Men (Number row%) | Women (Number row%) | Row Total Col.% | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Arts | 37,544 (62.2) | 20,927 (35.8) | 58,471 (35.9) | 32,528 (64) | 18,244 (36) | 50,772 (34.6) | |
| Science | 36,607 (68.3) | 16,971 (31.7) | 53,578 (32.9) | 33,949 (68.0) | 15,803 (32.0) | 49,752 (34.0) | |
| Commerce | 17,527 (93.6) | 1,198 (6. 4) | 18,725 (11.5) | 16,386 (93.0) | 1,153 (7. 0) | 17,539 (12.0) | |
| Total | 91,678 (70.1) | 39,096 (29.9) | 130,774 (100) | 82,863 (70.2) | 35,200 (29.8) | 1,18,063 (100) | 1,18,063 |
| Engineering | 11,548 (94.8) | 639 (5.2) | 12,187 (7.5) | 11,017 (96.0) | 451 (4.0) | 11,468 (7.8) | 11,468 |
| Medicine | 8,167 ~~(91.1)~~ (81.1) | 1,908 (18.9) | 10,075 (6.2) | 6,920 (79.5) | 1,779 (20.5) | 8,699 (5.0) | 8,699 |
| *Others (Professional) | 7,708 (79.5) | 1,990 (20.5) | 9,698 (5.9) | 6,672 (80.3) | 1,642 (19.7) | 8,314 (5.7) | |
| Total | 27,423 | 4,537 | 31,960 | 24,609 | 3,872 | 28.481 | |
| Grand Total | 11,9101 (73.2) | 43,633 (26.8) | 1,62,734 (100) | 1,07,472 (73.3) | 39,072 (26.7) | 1,46,544 (100) | 1,38,230 |

Others: Education, Agriculture, Vet., Science, Law and Others

Source: University Development in India - Basic Facts and Figures, Part I, Sec.A - 1972-73 to 1976-77, U.G.C. Publication - New Delhi, 1979.

and Medical Students, since these being in the middle of their course of studies, would be best suited to represent their individual faculties.

Sex-wise, the 1,38,230 Undergraduates of the above five Faculties were divided into 73% (1,00,000) men and 27% (37,430) women. The survey was expected to cover 1% of the undergraduates, that is, 1,380, in the ratio of 73% (1007) men and 27% (373) women.

Course-wise Break-up of Colleges:

Table I-4 gives the break-up of Arts, Science and Commerce, and Engineering and Medical Colleges in Tamil Nadu in 1975-76, according to the Type of Management and nature of college, whether for men or women. There were 189 General Education Colleges. Of this, 51 were Government and 138 Private (aided) Colleges, 137 were men's and 52 women's colleges. In Tamil Nadu, Government men's colleges admit also women students, while Private men's colleges usually do not admit women.

As for the Professional Colleges, there were 8 Engineering Colleges (Government 4, Private 3 and Autonomous 10 and 9 Medical Colleges (Government 8, and Private 1). All the 17 Professional Colleges are co-educational colleges.

While selecting the Colleges for the Sample Survey, the investigator has tried to give due weightage to the rural-urban location, the type of management and men-women status of colleges and the male-female ratio of enrolment of students. On this basis, seventeen (17) colleges - eleven (11) Arts, Science and Commerce, three (3) Engineering and three (3) Medical were selected for the Sample Survey. The sample survey covered ten (10) out of the fifteen (15) Revenue Districts of the State. The Districts

TABLE I-4

TAMIL NADU

BREAK-UP OF ARTS, SCIENCE, COMMERCE, ENGINEERING AND MEDICAL COLLEGES IN 1975-76

| Types of Colleges | Number | | | Men's Colleges | | | Women's Colleges | | | Total Govt. & Private | | Grand Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Govt. | Private | Total | Govt. | Private | Total | Govt. | Private | Total | Men's | Women's | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| Arts, Science and Commerce | 51 | 138 | 189 | 38 | 99 | 137 | 13 | 39 | 52 | 137 | 52 | 189 |
| Engineering | *4+1 | 3 | 8 | - | - | - | - | - | - | - | - | 8 |
| Medical | 8 | 1 | 9 | - | - | - | - | - | - | - | - | 9 |
| Total | 64 | 142 | 206 | - | - | - | - | - | - | - | - | 206 |

Note* - 4 - Government Colleges

1 - Autonomous (Central Govt.) College

Source - Performance Budgets 1976-77 - School Education, Collegiate Education, Technical Education, Medical Education, March 1977, Government of Tamil Nadu, Madras.

covered by the Survey are: Madras, Chingleput, North Arcot, Salem, Coimbatore, Nilgiris, Madurai, Tirunelveli, Ramnad and Tiruchirapalli.

The Method of Selection of the Sample Survey

The total number of undergraduates in the five faculties of Arts, Science, Commerce, Engineering and Medicine in 1975-76 was 1,38,230. Faculty-wise they were divided as follows:

| | |
|---|---|
| Arts, Science and Commerce | 1,18,063 |
| Engineering | 11,468 |
| Medical | 8,699 |

(For details please see Table No.I-3)

Taking one percent of these faculties we have: 1,180, 115 and 87, respectively. These respective figures had to be selected systematically from the seventeen colleges chosen for the sample survey. The faculty-wise-enrolment of these colleges in 1975-76 was as follows:

TABLE I-5

ENROLMENT IN SELECTED COLLEGES

1975-76

| Number of Colleges selected | Types of Colleges | Total Enrolment |
|---|---|---|
| 11 | Arts, Science and Commerce Colleges | 15,278 |
| 3 | Engineering Colleges | 4,551 |
| 3 | Medical Colleges | 4,049 |
| Total 17 | | 23,878 |

To determine, the exact percentage of enrolment that had to be selected from the sample Survey College, the investigator calculated the total number required for the sample Survey from each Faculty, namely, 1,180, 115 and 87 respectively, vis-a-vis the total enrolment in the five faculties of the selected colleges in 1975-76. Thus we have :

TABLE I-6

SAMPLE SIZE

| Name of Faculty | Total Enrolment in 1975-76 | Number proposed for the sample survey | Sample Survey as % of total Enrolment |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
| Arts, Science & Commerce | 15,278 | 1,180 | 7.7 |
| Engineering | 4,551 | 115 | 2.5 |
| Medical | 4,049 | 87 | 3.1 |
| Total | 23,878 | 1,382 | 5.8 |

The detailed break-up of the colleges selected for the sample survey with their location, type of management and number of students enrolled in 1975-76 compared to the proposed and actual sample survey with their percentages are given in Table No. I-7.

Table I-8 gives the details of the Sample Survey at a glance. Against the proposed sample survey of 1382 (one percent of 1,38,230), only 1274 (0.92%) undergraduates were interviewed. Thus there has been a shortfall of 0.07%. While

there has been a shortfall of 0.15% in Arts, Science and Commerce Faculties, there was an excess of 0.3% and 0.4% in the Engineering and Medical Faculties, respectively. The shortfall or excess is due to:

1. in the case of the Arts, Science and Commerce Colleges, some of the selected students were either absent from class on the day of the interview, or returned the questionnaires blank, and

2. in the case of the Professional Colleges, though originally it was proposed to limit the survey only to two colleges each from the Engineering and Medical faculties, situated in the three big cities of Madras, Madurai and Coimbatore, in the course of the survey, it was found necessary to include also colleges situated in semi-urban areas, in order to give a better representation to the different socio-economic groups pursuing professional courses. Accordingly, Government Engineering College, Salem, and Chingleput Medical College, Chingleput, were also included. The inclusion of these two colleges increased the number of respondents from the Engineering and Medical faculties.

In 1975-76, the male-female ratio of undergraduates was 73:27. In the Sample Survey the corresponding ratio is 69:31 (874 men: 400 women). The increase in the female ratio is due to the fact that:(a) Colleges (for Men) in the Government Arts-Science and Commerce, a certain percentage of women students also responded to the questionnaire. In the original scheme of the Sample Survey, no provision was made for their inclusion, and (b) in Medical Colleges, in the absence of a male respondent/respondents in class, the next student/students in alphabetical order was/were sent to fill in the questionnaire. In more cases than one, the replacement/s was/were women-students.

The Faculty-wise break-up of the students enrolled in 1975-76 and the Sample Survey is given in Table No. I-9.

The variation in the Faculty-wise percentage of 1975-76 and the Sample Survey is due to:

1. difference in the enrolment figures between 1975-76 and 1978-79. The Sample Survey was conducted in January-March 1979. The proposed Sample Survey Data were based on the enrolment figures of 1975-76. The actual Sample Survey was carried out on the actual enrolment figures of 1978-79, and

2. in some of the selected colleges of General Education, the number of Science Students was larger than that of the Arts Students.

Chapter Scheme:

Chapter one examines the role of Education in Economic Development with special reference to Higher Education and also presents the Objectives, Nature and Availability of Data and the chapter scheme.

Chapter two discusses the growth of Higher Education in Tamil Nadu.

Chapter three attempts at probing the trends in public expenditure on Higher Education in Tamil Nadu.

Chapter four is an attempt at analysing the socio-economic factors affecting access to Higher Education.

Chapter five presents the private expenditure of college students on Higher Education.

Chapter six examines the financing of Higher

Education.

Chapter seven is a study at evaluating the factor cost of Higher Education in Tamil Nadu.

Chapter eight is an attempt at examining the private rates of return to Higher Education in Tamil Nadu.

Chapter nine contains the summary and concluding remarks of our study.

Bibliography and appendices are given at the end.

TABLE I-7

DETAILED BREAK-UP OF SAMPLE SURVEY

GENERAL EDUCATION

| Name of Arts, Science and Commerce Colleges | District | Type of Management | Number of Students in 1975 - 76 | | |
|---|---|---|---|---|---|
| | | | Men | Women | Total |
| 1 | 2 | 3 | 4 | 5 | 6 |
| 1) Presidency College, Madras | Madras | Government | 2,000 | - | 2,000 |
| 2) St. Joseph's College, Trichy | Trichy | Private | 2,600 | - | 2,600 |
| 3) Govt. Arts College, Ooty. | Nilgiris | Government | 1,400 | - | 1,400 |
| 4) Kandasamy Kandar College, Elur | Salem | Private | 1,250 | - | 1,250 |
| 5) C. Abdul Hakkim College, Melvisharam | North Arcot | Private | 1,050 | - | 1,050 |
| 6) M.D.T. Hindu College, Tirunelveli | Tirunelveli | Private | 1,500 | - | 1,500 |

Contd

| Name of Arts, Science and Commerce Colleges | Proposed No. for the Sample Survey - 7.7% of Enrolment | | | Actual Number of Sample Survey Jan.-March 1979 | | | Percentage of Actual Sample survey | Increase (+) or Decrease in sample survey |
|---|---|---|---|---|---|---|---|---|
| | Men | Women | Total | Men | Women | Total | | |
| 1 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 1) Presidency College, Madras | 154 | - | 154 | 121 | 33 | 154 | 7.7 | - |
| 2) St. Joseph's College, Trichy | 200 | - | 200 | 160 | - | 160 | 6.2 | -40 |
| 3) Government Arts College, Ooty | 107 | - | 107 | 55 | 20 | 75 | 5.4 | -32 |
| 4) Kandasamy Kandar College, Elur | 96 | - | 96 | 84 | - | 84 | 6.7 | -12 |
| 5) C. Abdul Hakkim College, Melvisharam | 80 | - | 80 | 74 | - | 74 | 7.0 | - 6 |
| 6) M.D.T Hindu College, Tirunelveli | 115 | - | 115 | 89 | - | 89 | 5.9 | -26 |

Contd.....

TABLE I-7 (CONTD.....)

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| 7) Government Arts College, Ramnad | Ramnad | Government | 560 | - | 560 |
| 8) Sacred Heart College, Tirupattur | North Arcot | Private | 1,100 | - | 1,100 |
| 9) Sri Parasakti College for Women, Courtallam | Tirunelveli | Private | - | 930 | 930 |
| 10) Lady Doak College, Madurai | Madurai | Primate | - | 1,088 | 1,088 |
| 11) Sri Avanashi L.Home Sc. College, Coimbatore | Coimbatore | Private | - | 1,800 | 1,800 |
| Total | | | 11,460 | 3,818 | 15,278 |

Contd

TABLE I-7 (CONTD.....)

| 1 | | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|---|---|---|---|---|---|---|---|---|---|
| 7) | Government Arts College, Ramnad | 43 | - | 43 | 39 | 6 | 45 | 8.0 | +2 ~~+12~~ |
| 8) | Sacred Heart College, Tirupattur | 85 | - | 85 | 65 | - | 65 | 5.9 | -20 |
| 9) | Sri Parasakti College for Women, Courtallam | - | 72 | 72 | - | 73 | 73 | 7.8 | + 1 |
| 10) | Lady Doak College, Madurai | - | 84 | 84 | - | 73 | 73 | 6.3 | -11 |
| 11) | Sri Avanashi L.Home Sc.College, Coimbatore | - | 138 | 138 | - | 106 | 106 | 5.9 | -32 |
| | Total | 880 | 294 | 1174 | 687 | 311 | 998 | 6.5 | -176 |

Contd

TABLE I-7 (CONTD.)

DETAILED BREAK-UP OF SAMPLE SURVEY (PROF. EDUCATION ENGINEERING

| Name of Professional Colleges - Engineering | District | Type of Management | Number Enrolled in 1975-76 | | |
|---|---|---|---|---|---|
| | | | Men | Women | Total |
| 1 | 2 | 3 | 4 | 5 | 6 |
| 12) College of Engineering, Guindy | Madras | Government | 1926 | - | 1926 |
| 13) Government Engineering College, Salem | Salem | Government | 619 | - | 619 |
| 14) P.S.G. College of Technology, Coimbatore | Coimbatore | Private | 2006 | - | 2006 |
| Total | | | 4551 | - | 4551 |

CONTD.

TABLE I-7 (CONTD.)

| Name of Professional Colleges - Engineering | Proposed Number for the Sample Survey 2.5% of Enrolment | | | Actual Number of Sample Survey Jan.-March '79 | | | Percentage of Actual Sample Survey | Increase or decrease (±) in Sample Survey |
|---|---|---|---|---|---|---|---|---|
| | Men | Women | Total | Men | Women | Total | | |
| 1 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 12) College of Engineering, Guindy | 48 | - | 48 | 40 | 17 | 57 | 3.0 | + 9 |
| 13) Government Engineering College, Salem | 16 | - | 16 | 41 | - | 41 | 6.6 | +25 |
| 14) P.S.G. College of Technology, Coimbatore | 51 | - | 51 | 44 | 9 | 53 | 2.6 | + 2 |
| Total | 115 | - | 115 | 125 | 26 | 151 | 3.3 | +36 |

CONTD...

TABLE I-7 (CONTD.)

| Name of Professional College - Medical | Proposed number for the Sample Survey 2.1% of Enrolment | | | Actual number of Sample Survey Jan. - March 1979 | | | Percentage of Sample Survey | Increase or decrease (±) in Sample Survey |
|---|---|---|---|---|---|---|---|---|
| | Men | Women | Total | Men | Women | Total | | |
| 1 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15) Madras Medical College, Madras | 44 | - | 44 | 20 | 24 | 44 | 2.1 | - |
| 16) Madurai Medical College, Madurai | 34 | - | 34 | 22 | 29 | 51 | 3.1 | +17 |
| 17) Chingleput Medical College, Chingleput | 9 | - | 9 | 20 | 10 | 30 | 9.5 | +21 |
| Total | 87 | - | 87 | 62 | 63 | 125 | 3.1 | +38 |
| Grand Total (Arts, Science, Commerce + Engineering + Medical) | - | - | 1,376 | - | - | 1274 | 5.3 | -102 |

TABLE I-7 (CONTD.)

| Name of Professional Colleges - Medical | District | Type of Management | Number Enrolled in 1975-76 | | |
|---|---|---|---|---|---|
| | | | Men | Women | Total |
| 1 | 2 | 3 | 4 | 5 | 6 |
| 15) Madras Medical College, Madras | Madras | Government | 2108 | - | 2108 |
| 16) Madurai Medical College, Madurai | Madurai | Government | 1630 | - | 1630 |
| 17) Chingleput Medical College, Chingleput | Chingleput | Government | 311 | - | 311 |
| Total | | | 4049 | - | 4049 |
| Grand Total (Arts, Science, Commerce + Engineering + Medical) | | | | | 23,878 |

TABLE I-8

SAMPLE SURVEY AT A GLANCE

ACTUAL SAMPLE SURVEY TO THE PROPOSED SAMPLE SURVEY (JANUARY-MARCH 1979)

| Faculty | Number of Degree Students Enrolled in 1975-76 | Number Proposed for the Sample Survey (% of the number enrolled in 1975-76) | Actual Number of Sample Survey (January - March 1979) | Percentage of the Actual Sample Survey to respective Faculties | Increase(+)/ Decrease(-) of the Sample Survey to the Proposed Sample Survey (Number & %) |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| Arts, Science and Commerce | 1,18,063 | 1,180 | 998 | 0.85 | -182 (-0.15%) |
| Engineering | 11,468 | 115 | 151 | 1.3 | + 36 (+0.3% ) |
| Medicine | 8,699 | 87 | 125 | 1.4 | + 38 (+0.4% ) |
| Total (Professional) | 20,167 | 202 | 276 | 1.4 | + 74 (+0.4% ) |
| Grand Total | 1,38,230 | 1,382 | 1,274 | 0.92 | (-0.07%) |

TABLE I-9

FACULTY-WISE - SAMPLE SURVEY

ENROLMENT AND PERCENTAGE (1975-76 AND 1978-79)

| Faculty | Degree Course Enrolment Number | Enrolment Percentage (1975-76) | Jan.-March 1979 Sample Survey - Number | Jan-March 1979 Sample Survey - Percentage |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| Arts | 50,772 | 36.7 | 314 | 24.6 |
| Science | 49,752 | 36.0 | 501 | 39.3 |
| Commerce | 17,539 | 12.7 | 183 | 14.4 |
| Engineering | 11,468 | 8.3 | 151 | 11.8 |
| Medicine | 8,699 | 6.3 | 125 | 9.8 |
| Total | 138,230 | 100.0 | 1274 | 100.0 |