

**A COMPARITIVE STUDY OF
SPECIALISED AND CONVENTIONAL
POST-GRADUATE COURSES
IN UNIVERSITIES IN TAMIL NADU**

**PROJECT SPONSORED BY
DEPARTMENT OF SCIENCE AND TECHNOLOGY
GOVT. OF INDIA**

**UNIVERSITY STUDENTS ADVISORY BUREAU
UNIVERSITY OF MADRAS, MADRAS
DECEMBER, 1995**

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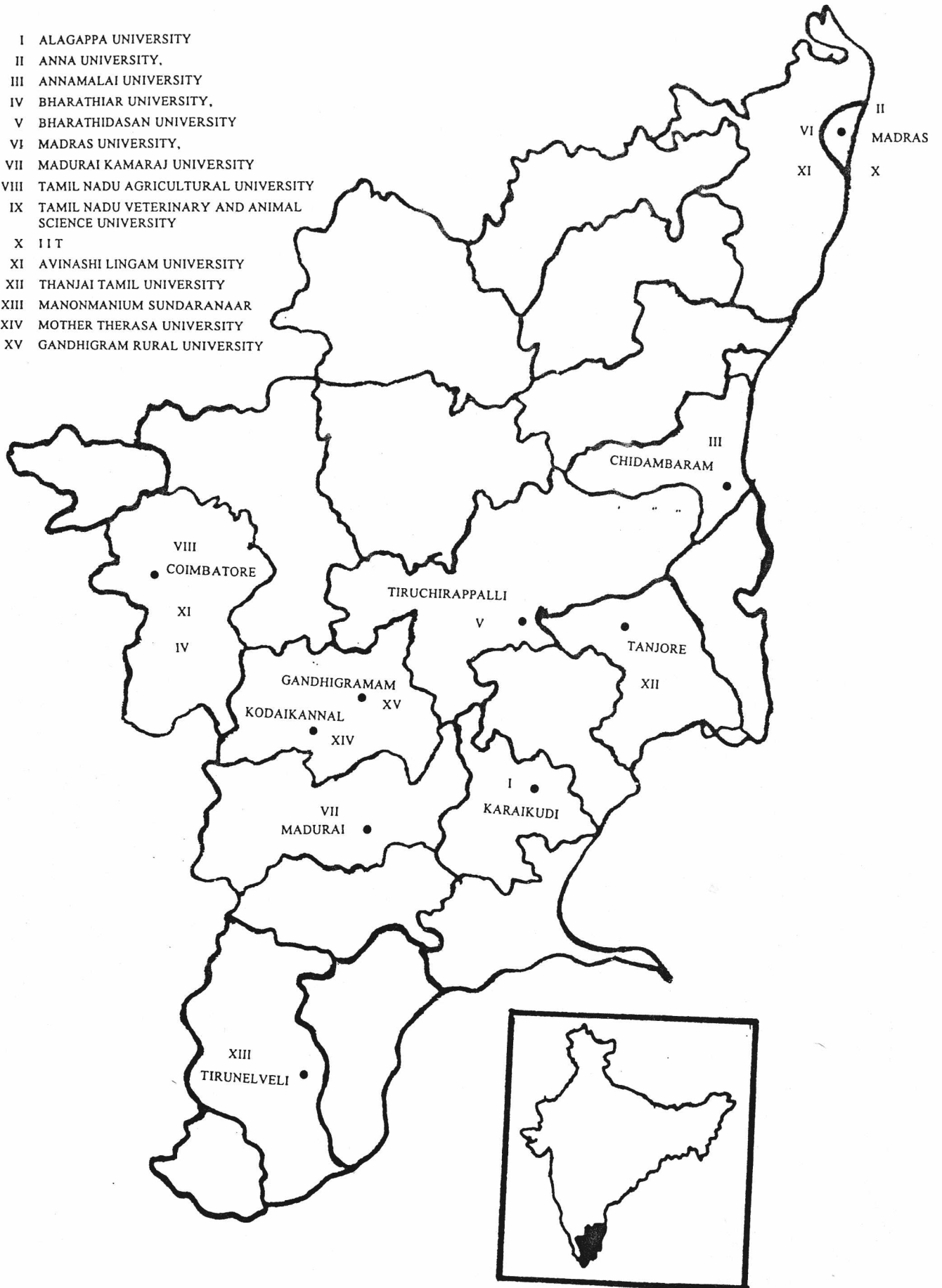
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UNIVERSITIES IN TAMILNADU

- I ALAGAPPA UNIVERSITY
- II ANNA UNIVERSITY,
- III ANNAMALAI UNIVERSITY
- IV BHARATHIAR UNIVERSITY,
- V BHARATHIDASAN UNIVERSITY
- VI MADRAS UNIVERSITY,
- VII MADURAI KAMARAJ UNIVERSITY
- VIII TAMIL NADU AGRICULTURAL UNIVERSITY
- IX TAMIL NADU VETERINARY AND ANIMAL SCIENCE UNIVERSITY
- X I I T
- XI AVINASHI LINGAM UNIVERSITY
- XII THANJAI TAMIL UNIVERSITY
- XIII MANONMANIUM SUNDARANAAR
- XIV MOTHER THERASA UNIVERSITY
- XV GANDHIGRAM RURAL UNIVERSITY



EXECUTIVE SUMMARY

A study was undertaken by University Students Advisory Bureau (USAB) of University of Madras during 1992 -94 on "A comparative study of Specialised Courses and Conventional Courses in Universities in Tamilnadu", under the sponsorship of the Department of Science & Technology (DST), Govt of India. The objectives of the study were primarily to inventorise the Specialised courses offered by the Universities based in the Tamil Nadu state and investigate their potentials and the outputs in terms of employment to the alumni of the Universities.

There are fifteen Universities in Tamil Nadu nine of which offer 45 Specialised courses. These come under ten disciplines of study. The study was to assess the relative merit of specialised courses, and enlistment of those conventional courses which are akin/allied to specialised courses. Questionnaires containing socio-economic profile and academic components intimately related to education and training were used to collect information from Universities and alumni.

As per records of the Universities and the agencies of the state,, the enrolment of students during 1980-1992 in specialised courses of nine Universities was 6196. And, it was 6238 in the conventional courses. Access to reach all 6196 alumni by fast and sure mode of communication was made with the assistance of Universities and employment exchanges, industries etc.,. Only 400 of them from each category of courses could be consolidated and used as samples for the study.

The analysis of the alumni chosen for the study lent to conclude that 66.67% of the students of urban centres availed the specialised courses. It was true with the conventional courses too. Social and economic status of the parents of the alumni had significant influence in admission, employment and other benefits accrued out of specialised courses to the alumni. The graduates of the conventional courses were less advantaged in job market than their contemporaries in the specialised courses.

The advantages gained by over 75% of the respondents of specialised courses included (1) availability of jobs immediately after completion of the study with salaries exceeding Rs.4000 per month ; (2) opportunity to secure job through direct recruitment organised by placement centres and scientific and technical departments in the State and

at the Centre and (3) Promotion of self employment (enterpreneurship). The conventional course graduates were handicapped with programmes of study with limited venues for jobs and unable to draw parallels with their contemporaries in the specialised courses. The major barriers are that the course modules and their contents are absolute and non-specific to any type of jobs.

There were several suggestions and comments received from the respondents. The need for change in the syllabi of all the subjects of study under conventional courses was stressed. Similar stress from among the graduates of specialised courses was marginal (<25%). Orientation training to both the categories of students was demanded by majority of the respondents. This would as commented by them bridge the gaps existing between classrooms and work place. The establishment of information centres at places away from the Universities were demanded by 75% of the respondents of both the courses of study. The dissemination of news about Specialised courses and demands in the job market were inadequate and rural based students were especially unable to avail the benefits.

The state government and the Universities should devise strategies to amend the system of education with introduction of modern sciences and creation of facilities for practice and pre-service training.

CHAPTER - I

1. INTRODUCTION

Universities, Colleges and special institutions in the country have increased to about four-folds more than they were in the beginning of 20th century. In the same manner, the disciplines of study multiplied. The level of education was designed high ; but the core courses under a discipline of study might structurally remain perhaps at the same number and content. And, the courses under are either electives integrated with and, or derived from the core courses of the existing discipline. They are many in number and diverse in content. Their integration is conspicuously at post graduate level of education. In recent times, one could observe a radical take-off from the main disciplines which have been in existence for decades in many of the universities/colleges/institutions. The take-off yield new disciplines. These new disciplines have been approved by the competent bodies in the university structure and classified as special courses of study or Specialised courses.

There were 197 Universities in India in 1993-94 as per the Annual Report 1993-94. All of them are receiving grants from University Grants Commission (UGC) and the state and central governments. The directions of the UGC on all academic matters and the guidelines of the respective governments on affairs related to administration are to be necessarily complied with by the Universities. Higher education in Indian Universities has been given due importance by the apex bodies (e.g. National Planning Commission, Department of Education in the Govt of India, UGC, Central and State Councils for Higher Education, All India Council for Technical Education, etc.). Education is a core sector to generate scientific and technical manpower in the country consonant with socio economic developmental programmes planned for a time frame.

National policies on education are enunciated by the government from time to time. Several commissions and committees were appointed by the government since the inception of UGC. Till 1986, major themes of the commissions were focused on expansion of existing academic programmes and strengthening the Universities. The growth rate of production of University educated youths increased to several folds. Unemployment of the graduates became rampant. It was in 1986 when a national educational policy was drafted to mend the disturbing factors including unemployment, and socio-economic

ills linked to weak policies on education. Vocationalisation of education at the University level and introduction of special academic programmes in the existing Universities which are employment- biased were emphasised.

1.1 HIGHER EDUCATION SYSTEM AND SPECIALISED COURSES

Many Universities added new disciplines. The curricula were restructured to form new courses of study. They were by and large blend of conventional and modern subjects. A good number of such courses were specialised courses. They are identified in all areas of study. Engineering and technology, physical and chemical sciences, life sciences, animal health sciences, social sciences etc. yielded to scores of specialised courses. They are tailored to meet the emerging demands for scientists and engineers/technologists. Shrivastava (1993) discussed in detail on the available technical manpower at PG level in India and attempted to forecast their demand. The total manpower need at PG level would be around 21336 by the middle of 1990s. The need for drawing new strategies to increase the manpower in emerging disciplines and withdrawing the old traditional PG courses were stressed by him. Philip and Hans (1995) reiterated the need for internationalism in higher education since the nations operate in a global economy. India being a reservoir of scientific man-power recognised this mandatory need and authorised institutions/ Universities to introduce academic programmes of special character. Chitra Naik (1995) visioned that higher education should reach out to the common people to help them meet their overall needs in a fast changing socio-economic situation. And, the system should be materially changed so as to give no room for social and economic capital. Equal opportunity should be ensured to all deserving ones irrespective of their origins and classes.

New educational policy of India-1992 clearly defines the importance of higher education. Higher education provides people with an opportunity to reflect on the critical social, economic, cultural, moral and spiritual issues facing humanity. It contributes to national development through dissemination of the specialised knowledge and skills (Tripathi, 1995).

1.2 SPECIALISED COURSES AND EMPLOYMENT OPPORTUNITIES

The restructuring of the existing programmes of study at University level and creation of new courses of study have been discussed extensively on several occasions in

several fora by persons of eminence in education, management and administration. Need to link industry with University and computer aided management of work force and materials of production and communication are spelt by elites of education. To give meaning to the above, a few universities and technical educations have established linkages with industries not only for widening the scope of disciplines of study but also for creating venues for employment of students having specific speciality and skill. Yet, there is enough scope for similar linkage between universities and employment sectors including industries, banks, government departments and other services to benefit the non-engineering graduates. In the name of job oriented courses, special courses of study were introduced by the universities during the recent decades and as a result, enrolment in such courses registered a phenomenal number which accounts to about 40% of hundred and odd disciplines of sciences (e.g. physical chemical and life sciences, health sciences, commerce, management etc.). The increase in disciplines along with increase in enrolment take away 0.6% of GNP and 40% of the expenditure incurred on education. It is estimated that about Rs.10,000 is spent annually on a student of higher education. This should be more in creating an engineer or doctor. The outputs of expensive education should reflect in productivity coupled to employment of the graduates at UG and PG level.

1.3 NEED FOR ASSESSMENT OF SPECIALISED COURSES FOR THEIR POTENTIAL FOR EMPLOYMENT

The evaluation of the specialised courses started with objectives largely related to employment and production of goods and services has not been given as much stress as it demands. In the absence of such evaluation, there is a glut of graduates with specialised courses. Unemployment mounts year after year.

Therefore, it was felt necessary that a detailed study should be undertaken to initially assess the extent to which special courses of study bear relevance to employment of the beneficiary students. And the study should help in scanning the social and economic profile of their beneficiaries and identify the social and economic capital, if any. The

Shrivastava J.P (1993) Need for Restructuring of Post Graduate Education in India. Indian Journal of Technical Education, 16,1 pp14-28. Philip .G.Altbach and Hans Dewit (1995), International Higher Education, University News April 1995 pp 3-4.

Chitra Naik (1995), Higher Education and Values University News, April, 10, pp 14-17, P.B.Tripathi, Higher Education system in India University News Feb. 6, 1995, pp 11-13

Department of Science and Technology, Govt. of India while recognising the needs of such study sponsored to University Students Advisory Bureau (USAB), University of Madras, a study entitled " A Comparative Study of Specialised and Conventional Post Graduate Courses in Universities of Tamil Nadu"

1.4 OBJECTIVES OF THE STUDY

The objectives of the study were broad and carefully chosen for drawing meaningful inferences. They were as follows.

- a) Enumeration of the Specialised courses introduced in universities of TamilNadu state in the last one decade and identification of socio economic factors influencing the alumni to opt the study of such specialised courses;
- b) Assessment of employment opportunities availed by the graduates of specialised courses and the socio economic benefits to them,
- c) Analysis of the jobs held by the graduates of specialised courses for their relevance to the education obtained through the universities.

The study included the graduates of conventional courses. This was to enable the study team to understand the relative potency of the conventional courses as for job potential is concerned. The above objectives were held for the purpose of the study.

1.5 SCOPE OF THE STUDY

In order to achieve the objectives of the study as outlined above, relevant data were collected from various sources, viz., universities, departments of education and employment in the government, colleges and institutions etc, where at such specialised courses of study are offered. Personal communication with candidates who underwent special courses and are placed currently in various agencies was arranged. And, efforts were made to assess the impact of Specialised courses on employment potential relative to that of conventional courses.

The interpretations of the results of the study were largely carried out with necessary statistical methods and computational aids. The conclusions of the study were arrived at with significant observations made during the course of investigation and for achieving the objectives of the study. The references were indicated for their sources.

1.6 METHODOLOGY

There are 15 Universities in the state of Tamil Nadu. They were established in different periods. The University of Madras is the oldest of all founded in Tamil Nadu and one among the first three Universities to be established in the country in the year 1857. The Universities which have in their academic programmes such specialised courses were alone taken for the current study.

The year of establishment of the universities in Tamil Nadu was not set out as one among the criteria in selection of study area. The specialised courses were identified with the universities and the periods of their introduction were considered. However, the time span for which data were collected was set to 12 years (i.e 1980 - 1992). In case the year of commencement fall earlier to 1980, the relevant data were gathered with effect from 1980. Also the specialised courses which were introduced at any time during 1980-1992 were taken into account ignoring the length of time of their introduction.

All the fifteen Universities were corresponded requesting for annual reports, bulletins, catalogues, calenders etc., to identify the specialised courses offered by them. As far as possible, the reports of the Academic Councils/Boards of Studies of the respective Universities were requested for understanding the background scenerio which caused introduction of the specialised courses of study.

The data for the number of scholars who chose to undergo special courses and conventional courses were obtained directly from the universities. The responses received from the Registrars/Deans of Academic Councils and Heads of the departments were alone considered so as to ensure authenticity. The intention was to obtain relevant data for a period of 12 years. It was observed that about 80 specialised courses were introduced in the Universities of Tamil Nadu, during 1980-1992; However, only 45 Specialised courses and 16 conventional courses have alone been covered. Because they were new and emerging disciplines. Special courses are offered by 10 universities. They are found under different disciplines. Considering an average intake of 10 students for each of the special courses per year, approximately 4500 students ought to have been admitted over a decade of time. Hence, it was decided to cover randomly atleast 15% of the total number of students admitted in special courses, So as to size the sample in reasonable proportion.

Collection of data required for the study was by personal visits to the campuses. The responsible officials including the Registrar, Dean of Academic Affairs and Heads

of the Departments in the universities and of the offices of employment and training in the Government of Tamil Nadu were approached to gain access to the live registers of admission and employment. In case no information was available with the above sources, efforts were made to contact the students by mail. The employment sectors viz., industries, national laboratories, departments in the governments, etc. were also requested to furnish information about employees who have undergone special courses at any time between 1980 and 1992 in Universities of Tamil Nadu.

In order to maintain uniformity in the substance of questions to be posed to various personnel of the universities and amongst the students, a questionnaire was framed. The questions were so structured that socio economic and academic components related to students departments, curricula, employment prospects etc., were reflected. The model of the questionnaire is found in Appendix I.

The responses of all the concerned sources, viz., Universities, laboratories, Industries, Directorate of Employment and Training students etc. were compiled in a fashion that outputs of the study could match with the objectives of the study. All the data were critically examined to correlate the components with the anticipated outputs and draw meaningful inferences.

1.7 LIMITATIONS OF THE STUDY

- a) The probable number of candidates who could have come out with Masters degrees in specialised courses during 1980-1992 were about 3000. And, the same number could be possibly from amongst those with Masters degrees in conventional courses. However, the time constraints and other practical difficulties forced to choose a sample of 400 each from specialised courses and conventional courses.
- b) Both the specialised and conventional courses were not introduced at one time in all the universities and hence the policies of the universities and governments on education and employment changed.
- c) The responses from the employers were not received in sizable number. The informations were scanty and non-uniform.

CHAPTER - II

2.1 PHASES OF STUDY FOR EXECUTION OF PROJECT

The study was undertaken in three phases. This was to facilitate validation of data obtained at one stage of investigation and organisation of the findings conformal with to the data collected in the successive stages of investigation.

- Phase I** - The primary data collection directly from the universities
- Phase II** - Selection of sample of students and analysis of their distribution amongst various Specialised courses and conventional courses.
- Phase III** - Interviewing of the Heads of the Departments and students for identifying directly their national/regional relevance and the prospects with regard to educational employment.

PHASE - I

Relevant documents of the University Grant Commission (UGC) and the records available with the Department of Education in the Government of Tamil Nadu were reviewed for the number of Universities and their accreditation by UGC for receiving grants and aids for introducing special courses. Also the communication to the Universities requesting for information related to specialised and conventional courses of study available with them was made so as to consolidate the number of universities offering special courses. Table I presents the list of specialised courses and the period during which they were instituted in the identified universities.

As found in table-1, there are nine Universities in Tamil Nadu which offer specialised courses under different disciplines. The number of specialised courses taken up for the study was 45. Over 75% of the identified courses came under the physical, chemical and life sciences and engineering and technology while the rest come under social sciences. It is found that there is a long list of special courses in the engineering and technology. Courses under disciplines including physics, chemistry and life sciences are more or less evenly distributed amongst the universities. Anna University is the only one technical University out of the nine universities covered under this study. It was a wide range of special courses in engineering and technology. University of Madras and Bharathidasan university have identical courses and perhaps in the same number.

TABLE - 2.1

List of Specialised Courses and their period of introduction in Universities in Tamil Nadu

Sl. No.	Courses of study	Universities *									
		I	II	III	IV	V	VI	VII	VIII	IX	X
1.	Bio Chemistry	-	-	1988	-	1987	1968	-	-	-	-
2.	Applied Physics	-	-	-	-	1986	-	-	-	-	-
3.	Analytical Chemistry	-	-	-	-	-	1962	-	-	-	-
4.	Environmental Chemistry	-	-	-	-	-	1982	-	-	-	-
5.	Energy	-	-	-	-	-	-	1991	-	-	-
6.	Electrical Science	-	-	-	-	1988	-	-	-	-	-
7.	Industrial Chemistry	1985	-	-	-	-	-	-	-	-	-
8.	Applied Microbiology	-	-	-	-	1990	1990	-	-	-	-
9.	Environmental Science	-	-	-	1990	1984	-	-	1990	-	-
10.	Wild Life Biology	-	-	-	-	1980	-	-	-	-	-
11.	Diary Science	-	-	-	-	-	-	-	-	1958	-
12.	Marine Biology	-	-	1960	-	-	-	-	-	-	-
13.	Plant Science	-	-	-	1989	-	1988	-	-	-	-
14.	Medical Physics	-	1981	-	-	-	-	-	-	-	-
15.	Forensic Science	-	-	-	-	-	1975	-	-	-	-
16.	Anatomy	-	-	-	-	-	1989	-	-	-	-
17.	Social Work	-	-	-	-	1982	-	1969	-	-	-
18.	Physiology	-	-	-	-	-	1989	-	-	-	-
19.	Rehabilitation Science	-	-	-	-	1983	-	-	-	-	-
20.	Animal Husbandary Economics	-	-	-	-	-	-	-	-	1990	-
21.	Animal Husbandary Extension	-	-	-	-	-	-	-	-	1990	-
22.	Communication	-	-	-	1987	-	-	-	-	-	-
23.	Journalism	-	-	-	-	-	1975	-	-	-	-

Cont.....

Sl. No.	Courses of study	Universities *									
		I	II	III	IV	V	VI	VII	VIII	IX	X
24.	Econometrics	-	-	-	-	-	1978	-	-	-	-
25.	Mathematical Economics	-	-	-	-	-	-	1975	-	-	-
26.	Town Planning	-	1964	-	-	-	-	-	-	-	-
27.	Labour Management	-	-	-	-	-	1988	-	-	-	-
28.	Corporate Secretaryship	1986	-	-	-	1992	-	-	-	-	-
29.	Finance Control	-	-	-	-	-	-	1991	-	-	-
30.	Hospital Management	-	-	-	-	-	-	1987	-	-	-
31.	Geology	-	-	1968	-	-	-	-	-	-	-
32.	Applied Geology	-	-	-	-	1983	-	-	-	-	-
33.	Remote Sensing	-	1982	-	-	-	-	-	-	-	-
34.	Archeology	-	-	-	-	1959	-	-	-	-	-
35.	Anthropology	-	-	-	-	1976	-	-	-	-	-
36.	Architecture	-	1987	-	-	-	-	-	-	-	-
37.	Bio-Technology	-	-	-	-	-	1988	-	1987	-	-
38.	Environmental Toxicology	-	-	-	-	-	1982	-	-	-	-
39.	Energy Engineering	-	1989	-	-	-	-	-	-	-	-
40.	Urban Engineering	-	1970	-	-	-	-	-	-	-	-
41.	Ceramic Engineering	-	1990	-	-	-	-	-	-	-	-
42.	Foot Wear Engineering	-	1987	-	-	-	-	-	-	-	-
43.	Leather Technology	-	1980	-	-	-	-	-	-	-	-
44.	Textile Technology	-	1945	-	-	-	-	-	-	-	-
45.	Laser & Electro Engineering	-	1967	-	-	-	-	-	-	-	-

NOTE : * Universities

I ALAGAPPA UNIVERSITY

III ANNAMALAI UNIVERSITY

V BHARATHIDASAN UNIVERSITY

VII MADURAI KAMARAJ UNIVERSITY

IX TAMIL NADU VETERINARY AND ANIMAL SCIENCE UNIVERSITY

II ANNA UNIVERSITY,

IV BHARATHIAR UNIVERSITY,

VI MADRAS UNIVERSITY,

VIII TAMIL NADU AGRICULTURAL UNIVERSITY

X IIT

The introduction of special courses in universities of Tamil Nadu state seemed to have taken place in the last 20 years. Majority of these courses were introduced in 1980s, while some special courses were existing earlier to 1982. However, all the new and seemingly emerging disciplines in the name of special courses were covered in this study.

PHASE - II

The number of students admitted in each of the specialised courses varied from university to university. And similar observations were made with respect to the courses of study too. Some courses register a large number of students while some do not; it is worth mentioning that some courses introduced in later periods could accommodate more number of courses.

Table 2.2 presents the population of the students who were admitted in special courses offered by the nine universities during a decade of time. It is known that a total of 6196 students reported to have been admitted in 45 special courses of study offered by the nine universities.

In the Table 2.2 it is seen that some specialised courses with enrolment exceeding 200 students during the period 1980-1992 included Bio chemistry, Applied Physics, Marine Biology, Social work, Rehabilitation Science, Journalism, Econometrics, Mathematical Economics, Town Planning, Geology and Archeology. The courses of study which have low enrolment included Energy Science, Anatomy, Physiology, Animal Husbandry Economics, Animal Husbandry Extension, Finance control, Energy Engineering, Ceramic Engineering, etc. The main reason for the less enrolment is that these courses are being offered selectively by a few Universities. For example, Energy Engineering and Ceramic Engineering are offered only by Anna University and Animal Husbandry Economics and Animal Husbandry Extension are offered only by Tamil Nadu Veterinary and Animal Sciences university. Anna University and Madras University offer more number of specialised courses when compared to other universities. There were 6196 students who went through specialised courses in 12 years offered by nine universities.

In the process of sampling the students of special courses, it was felt that direct contact with all the 6196 students would benefit the investigating team. When, the heads of departments were unable to locate them, however, the whereabouts of the past student

TABLE - 2.2
Enrolment of Students In specialised courses in
Tamil Nadu Universities during 1980-1992

Sl. No.	Courses of study	Universities *										TOTAL
		I	II	III	IV	V	VI	VII	VIII	IX	X	
1.	Bio Chemistry	-	-	140	-	75	144	-	-	-	-	359
2.	Applied Physics	-	-	-	-	240	-	-	-	-	-	240
3.	Analytical Chemistry	-	-	-	-	-	120	-	-	-	-	120
4.	Environmental Chemistry	-	-	-	-	-	60	-	-	-	-	60
5.	Energy	-	-	-	-	-	-	10	-	-	-	10
6.	Electrical Science	-	-	-	-	60	-	-	-	-	-	60
7.	Industrial Chemistry	140	-	-	-	-	-	-	-	-	-	140
8.	Applied Microbiology	-	-	-	-	12	32	-	-	-	-	44
9.	Environmental Science	-	-	-	24	128	-	-	10	-	-	162
10.	Wild Life Biology	-	-	-	-	180	-	-	-	-	-	180
11.	Diary Science	-	-	-	-	-	-	-	-	60	-	60
12.	Marine Biology	-	-	300	-	-	-	-	-	-	-	300
13.	Plant Science	-	-	-	30	-	32	-	-	-	-	62
14.	Medical Physics	-	110	-	-	-	-	-	-	-	-	110
15.	Forensic Science	-	-	-	-	-	144	-	-	-	-	144
16.	Anatomy	-	-	-	-	-	24	-	-	-	-	24
17.	Social Work	-	-	-	-	200	-	220	-	-	-	420
18.	Physiology	-	-	-	-	-	12	-	-	-	-	12
19.	Rehabilitation Science	-	-	-	-	255	-	-	-	-	-	255
20.	Animal Husbandary Economics	-	-	-	-	-	-	-	-	10	-	10
21.	Animal Husbandary Extension	-	-	-	-	-	-	-	-	10	-	10
22.	Communication	-	-	-	60	-	-	-	-	-	-	60
23.	Journalism	-	-	-	-	-	300	-	-	-	-	300

Cont.....

Sl. No.	Courses of study	Universities *										
		I	II	III	IV	V	VI	VII	VIII	IX	X	TOTAL
24.	Econometrics	-	-	-	-	-	300	-	-	-	-	300
25.	Mathematical Economics	-	-	-	-	-	-	240	-	-	-	240
26.	Town Planning	-	240	-	-	-	-	-	-	-	-	240
27.	Labour Management	-	-	-	-	-	120	-	-	-	-	120
28.	Corporate Secretaryship	150	-	-	-	20	-	-	-	-	-	170
29.	Finance Control	-	-	-	-	-	-	20	-	-	-	20
30.	Hospital Management	-	-	-	-	-	-	75	-	-	-	75
31.	Geology	-	-	420	-	-	-	-	-	-	-	420
32.	Applied Geology	-	-	-	-	108	-	-	-	-	-	108
33.	Remote Sensing	-	120	-	-	-	-	-	-	-	-	120
34.	Archeology	-	-	-	-	240	-	-	-	-	-	240
35.	Anthropology	-	-	-	-	144	-	-	-	-	-	144
36.	Architecture	-	100	-	-	-	-	-	-	-	-	100
37.	Bio-Technology	-	-	-	-	-	48	-	60	-	-	108
38.	Environmental Toxicology	-	-	-	-	-	100	-	-	-	-	100
39.	Energy Engineering	-	30	-	-	-	-	-	-	-	-	30
40.	Urban Engineering	-	120	-	-	-	-	-	-	-	-	120
41.	Ceramic Engineering	-	20	-	-	-	-	-	-	-	-	20
42.	Foot Wear Engineering	-	50	-	-	-	-	-	-	-	-	50
43.	Leather Technology	-	60	-	-	-	-	-	-	-	-	60
44.	Textile Technology	-	120	-	-	-	-	-	-	-	-	120
45.	Laser & Electro Engineering	-	180	-	-	-	-	-	-	-	-	180
	Total											6196

NOTE : * Universities

I ALAGAPPA UNIVERSITY

III ANNAMALAI UNIVERSITY

V BHARATHIDASAN UNIVERSITY

VII MADURAI KAMARAJ UNIVERSITY

IX TAMIL NADU VETERINARY AND ANIMAL SCIENCE UNIVERSITY

II ANNA UNIVERSITY,

IV BHARATHIAR UNIVERSITY,

VI MADRAS UNIVERSITY,

VIII TAMIL NADU AGRICULTURAL UNIVERSITY

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as furnished by the incumbents of the departments were helpful to contact them by mail. With all efforts the team, addresses for 986 students could be had. Which is 17.3% of 6196 students who have passed out during the past twelve years (1980 -1992). This was presumed to be a good size for the purpose of study.

All of them were from specialised courses. A difficulty arose in fixing the number of students from each discipline to be contacted by mail or personal interview. From table - 2.3 anyhow, specialised courses under engineering and technology were fairly represented. The noticeable reasons are that universities do not track the records of outgoing students.

PHASE - III

The investigation was designed to obtain all relevant informations from the students who have successfully completed their courses. The details regarding the courses and the employment potential of the special courses and the conventional course formed the primary information. To facilitate the convenience of the students in responding to queries and to formulate a meaningful mode of interpretation, a questionnaire was cast. A trial circulation of the questionnaire was made to a group of students who were accessible to a project team. It was observed that some questions could not be answered readily by all of them. Hence it was necessary to revise the pattern. The revision was effective to the extent that many of them could find responses.

All the 986 students were contacted by mail. This was to save time and complete the investigation within the targetted time frame. It was unfortunate that only 248 students responded within a month time from the date of despatch of the questionnaire. There were several cases for the non receipt and non-return of the questionnaire. There were 37 cases for return of the questionnaires labelled “ addressee not available”. Further reminders were sent to another lot of 580 students. As a result, 70 responses could be had. In the total of 318 responses, 14 were found to be incomplete. Thus, only 304 out of 986 responded to questionnaire sent by mail over a period of two to three months. This was found to be a small size for study when there were 6196 students who underwent the special courses. It was therefore necessary to visit some cities and towns which were shown to be nearer to the hometowns. These visits resulted in additional 70 questionnaires duly responded.

TABLE - 2.3
DISTRIBUTION OF STUDENTS AGAINST
SPECIALISED COURSES OF STUDY CHOSEN FOR SAMPLING

Sl. No.	Courses of study	Universities *										TOTAL
		I	II	III	IV	V	VI	VII	VIII	IX	X	
1.	Bio Chemistry	-	-	24	-	12	23	-	-	-	-	59
2.	Applied Physics	-	-	-	-	37	-	-	-	-	-	37
3.	Analytical Chemistry	-	-	-	-	-	21	-	-	-	-	21
4.	Environmental Chemistry	-	-	-	-	-	12	-	-	-	-	12
5.	Energy	-	-	-	-	-	-	5	-	-	-	5
6.	Electrical Science	-	-	-	-	11	-	-	-	-	-	11
7.	Industrial Chemistry	21	-	-	-	-	-	-	-	-	-	21
8.	Applied Microbiology	-	-	-	-	5	7	-	-	-	-	12
9.	Environmental Science	-	-	-	6	17	-	-	5	-	-	28
10.	Wild Life Biology	-	-	-	-	31	-	-	-	-	-	31
11.	Diary Science	-	-	-	-	-	-	-	-	11	-	11
12.	Marine Biology	-	-	41	-	-	-	-	-	-	-	41
13.	Plant Science	-	-	-	6	-	7	-	-	-	-	13
14.	Medical Physics	-	18	-	-	-	-	-	-	-	-	18
15.	Forensic Science	-	-	-	-	-	24	-	-	-	-	24
16.	Anatomy	-	-	-	-	-	8	-	-	-	-	8
17.	Social Work	-	-	-	-	25	-	31	-	-	-	56
18.	Physiology	-	-	-	-	-	5	-	-	-	-	5
19.	Rehabilitation Science	-	-	-	-	28	-	-	-	-	-	28
20.	Animal Husbandary Economics	-	-	-	-	-	-	-	-	6	-	6
21.	Animal Husbandary Extension	-	-	-	-	-	-	-	-	5	-	5
22.	Communication	-	-	-	12	-	-	-	-	-	-	12
23.	Journalism	-	-	-	-	-	41	-	-	-	-	41

Cont.....

Sl. No.	Courses of study	Universities *										
		I	II	III	IV	V	VI	VII	VIII	IX	X	TOTAL
24.	Econometrics	-	-	-	-	-	39	-	-	-	-	39
25.	Mathematical Economics	-	-	-	-	-	-	35	-	-	-	35
26.	Town Planning	-	35	-	-	-	-	-	-	-	-	35
27.	Labour Management	-	-	-	-	-	19	-	-	-	-	19
28.	Corporate Secretaryship	20	-	-	-	8	-	-	-	-	-	28
29.	Finance Control	-	-	-	-	-	-	5	-	-	-	5
30.	Hospital Management	-	-	-	-	-	-	14	-	-	-	14
31.	Geology	-	-	61	-	-	-	-	-	-	-	61
32.	Applied Geology	-	-	-	-	18	-	-	-	-	-	18
33.	Remote Sensing	-	21	-	-	-	-	-	-	-	-	21
34.	Archeology	-	-	-	-	31	-	-	-	-	-	31
35.	Anthropology	-	-	-	-	24	-	-	-	-	-	24
36.	Architecture	-	18	-	-	-	-	-	-	-	-	18
37.	Bio-Technology	-	-	-	-	-	7	-	12	-	-	19
38.	Environmental Toxicology	-	-	-	-	-	17	-	-	-	-	17
39.	Energy Engineering	-	10	-	-	-	-	-	-	-	-	10
40.	Urban Engineering	-	21	-	-	-	-	-	-	-	-	21
41.	Ceramic Engineering	-	6	-	-	-	-	-	-	-	-	6
42.	Foot Wear Engineering	-	10	-	-	-	-	-	-	-	-	10
43.	Leather Technology	-	12	-	-	-	-	-	-	-	-	12
44.	Textile Technology	-	17	-	-	-	-	-	-	-	-	17
45.	Laser & Electro Engineering	-	21	-	-	-	-	-	-	-	-	21
	Total											986

NOTE : * Universities

I ALAGAPPA UNIVERSITY

III ANNAMALAI UNIVERSITY

V BHARATHIDASAN UNIVERSITY

VII MADURAI KAMARAJ UNIVERSITY

IX TAMIL NADU VETERINARY AND ANIMAL SCIENCE UNIVERSITY

II ANNA UNIVERSITY,

IV BHARATHIAR UNIVERSITY,

VI MADRAS UNIVERSITY,

VIII TAMIL NADU AGRICULTURAL UNIVERSITY

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TABLE - 2.4

Distribution of Students of conventional courses of study admitted and chosen for sampling

Sl. No.	Courses of study	Universities *					
		I	II	III	IV	V	TOTAL
1.	Physics	317	262	-	-	-	579
		53	44	-	-	-	97
2.	Chemistry	420	173	95	-	-	688
		70	32	15	-	-	117
3.	Botany	118	-	163	-	-	281
		21	-	23	-	-	44
4.	Zoology	102	93	-	97	-	292
		15	18	-	21	-	54
5.	Mathematics	286	215	194	-	-	695
		49	40	33	-	-	122
6.	Economics	178	163	-	-	87	428
		21	28	-	-	15	64
7.	Statistics	137	-	-	-	-	137
		45	-	-	-	-	45
8.	History	215	198	112	-	-	525
		32	31	27	-	-	90
9.	Geography	145	-	-	-	-	145
		23	-	-	-	-	23
10.	Sociology	239	212	268	-	-	719
		45	40	39	-	-	124
11.	Physiology	168	-	-	-	-	168
		26	-	-	-	-	26
12.	Psychology	152	138	97	-	-	387
		24	18	12	-	-	54
13.	Political	164	-	-	-	-	164
		23	-	-	-	-	23
14.	Tamil	228	276	-	-	-	504
		31	45	-	-	-	76
15.	English	179	168	-	-	-	347
		28	19	-	-	-	47
16.	Hindi	96	-	-	-	-	96
		13	-	-	-	-	13
17.	Telugu	83	-	-	-	-	83
		10	-	-	-	-	10
Total Number of Graduates							6238
Total Number of Address Received							1029

I Madras University
 III Kamaraj University
 V Bharathidhasan University

II Annamalai University
 IV Bharathiar University

The reasons for the poor responses from the students were traced and are as below :

- migration to other cities and towns
- Indifference to respond
- non-receipt of questionnaire

Anyhow, 400 out of 986 students responded to the questionnaires. It was felt that further efforts could not bear fruits and hence the size of the sample was limited to 400 which is about 40% of 986.

It was felt logical to evaluate the job-prospects due to specialised courses with reference to available job potential attributed to the conventional courses. Therefore, a search was thrown to collect data on the students who registered for conventional courses. The same Universities which offer both the conventional courses and special courses and the Universities which offer only special courses were covered in this phase of the study. The same questionnaire with all the components of details as for special courses were presented to those who graduated in conventional courses.

Practical problems as encountered in the first and second phases of the study were experienced. Table 4 presents the details including the number of students and the Universities against conventional courses identified with them. The addresses of 1029 students were furnished by the heads of the departments although the actually registered candidates were 6238. The data are valid for 1980 - 1992. The number of students considered for comparison was intentionally limited to 400 as the study was concerned with special courses. This was for a reason that the population of students of conventional courses was closely equal to that of special courses, although the rules and guidelines in admitting students for special and conventional courses differ from university to university.

CHAPTER - III

SOCIO-ECONOMIC PROFILE OF STUDENTS

3.1 NATIVITY

Higher education in Universities or institutions in India as prevailed in the minds of the public and even amongst educated elites working in the government or private institutions is the privilege of the urban-based youths. The popular perceptions are that the facilities for education, access to informations and awarness on value of education are available to urban-based parents and youths. And, the rural and semi urban based citizens do not have the advantages as enjoyed by the urban-based citizens. Thus, there are distinct barriers in communication and facilities. One could observe that the Urban-based youths outnumber their counterparts living in rural areas in having secured admissions in both specialised and conventional courses. Table 3.1 presents the number of students distributed among urban, semi-urban and rural centres. The data included the percentage distribution among specialised and conventional courses.

3.1.1 Specialised Courses :

The table 3.1 presents the pattern of distribution of the respondents who underwent specialised and conventional courses of study at UG and PG levels. It could be glaringly seen that the urban-based respondents constituted to 69.3% of 400 surveyed in this study. The semi-urban based respondents were deplorably low in number 41 out of 400. The respondents declaring themselves as hailing from rural centres have better represented in specialised courses of study than the semi urban- based respondents.

While considering the disciplines of study, representation of the respondents from Urban centres was seen high. In the discipline of engineering and technology 60 out of 76 respondents were from urban centres. The urbanites topped in life sciences by representing 88.5% of the 45 respondents. There was over 80% of representations in the medical and economical sciences and commerce. Similar pattern of representation has been manifested in other disciplines too. The observations on the nativity of the respondents who underwent specialised courses of study revealed that the urban-based UG and PG youths are undoubtedly more in number than others. They should have availed all the advantages as stated in the above sections.

Table 3.1
Nativity of Respondents
a. Specialised courses

Sl. No.	Courses of Study	Nativity						Total No. of Respondents (a+b+c)	Total % (a+b+c)
		URBAN (a)		SEMI URBAN (b)		RURAL (c)			
		No. of Respondents	%	No. of Respondents	%	No. of Respondents	%		
1	Physical Sciences & Chemical Sciences	43	51.8	24	28.9	16	19.3	83	100.0
2	Life Sciences	40	88.9	2	4.4	3	6.7	45	100.0
3	Engineering & Technology	60	78.9	2	2.6	14	18.4	76	100.0
4	Medical Sciences	28	70.0	2	5.0	10	25.0	40	100.0
5	Veterinary Sciences	5	31.3	0	0.0	11	68.8	16	100.0
6	Earth Sciences	23	57.5	4	10.0	13	32.5	40	100.0
7	Economic Sciences	14	87.5	0	0.0	2	12.5	16	100.0
8	Management & Commerce	26	83.9	1	3.2	4	12.9	31	100.0
9	Social Sciences	26	66.7	6	15.4	7	17.9	39	100.0
10	Communication	12	85.7	0	0.0	2	14.3	14	100.0
Total		277		41		82		400	

b. Conventional Courses

Sl. No.	Courses of Study	Nativity						Total No. of Respondents (a+b+c)	Total % (a+b+c)
		URBAN (a)		SEMI URBAN (b)		RURAL (c)			
		No. of Respondents	%	No. of Respondents	%	No. of Respondents	%		
1	Physical Sciences	34	58.6	10	17.2	14	24.1	58	100.0
2	Life Sciences	22	55.0	7	17.5	11	27.5	40	100.0
3	Mathematical Sciences	57	60.6	16	17.0	21	22.3	94	100.0
4	Social Sciences	82	66.1	13	10.5	29	23.4	124	100.0
5	Commerce	13	29.5	17	38.6	14	31.8	44	100.0
6	Languages	20	50.0	2	5.0	18	45.0	40	100.0
Total		228		65		107		400	100

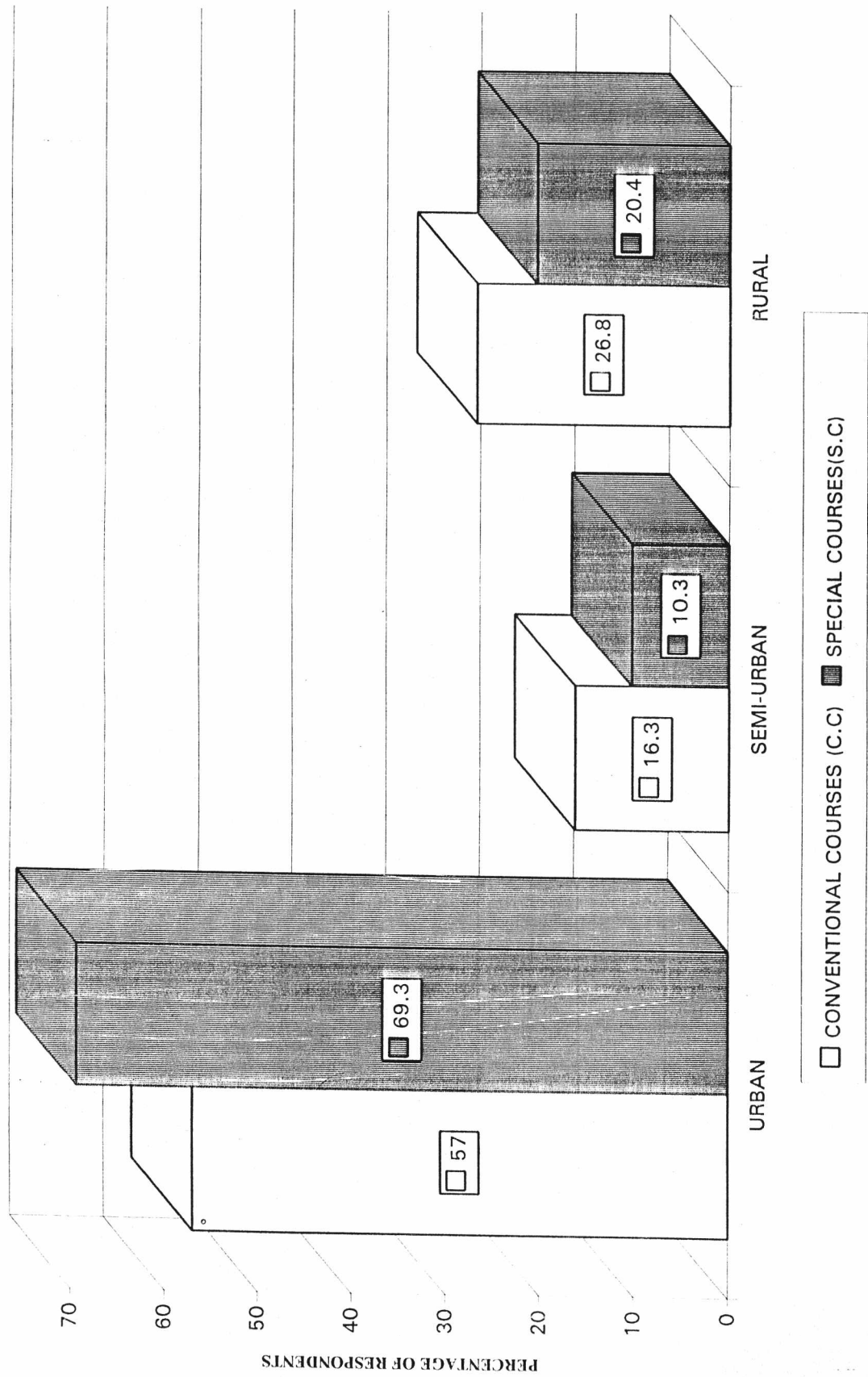


FIG 3.1 Nativity of Respondents

The semi-urban based youths are seemingly disadvantageous sections. They could neither avail the advantages of the urban environment nor be acceptable to rural environment. The number of respondents was 10% of 400 sampled for this study. They had scored badly in representations too in the six disciplines. The only discipline where in representation figured by 28.9% of the total of 83 was physical and chemical sciences. The next to mention were social sciences (15.4% of 39) and earth sciences (10% of 40). The other disciplines economics and veterinary sciences did not have representations from the semi-urban centres. The engineering and medical sciences which were found to be highly potential for jobs and earnings were credited poorly by the semi-urban students with major in specialise courses.

The rural centres though handicapped with several facilities for communication were found to be moderate in recording graduates and post graduates in specialised disciplines. The rural based respondents out numbered even the urban based respondents in having undergone specialised course of study under veterinary sciences. And their distribution in other disciplines was not much visible but better identified than the respondents of the semi-urban centres.

The observations lent scope to conclude that rural-based youth could find more representation in specialised courses of study provided their accessibility to information centres like University Students Advisory Bureaux (USAB) in the Universities, libraries, mass media etc, is ensured. The current level of representation in higher education is in no way comparable with the size of rural population in the country.

It is recommended that the colleges and schools in rural and semi urban centres should equip themselves with informations related to special courses of study and prerequisites for securing admission in such courses. Counselling cells in schools/colleges will be a tangible proposition.

3.1.2 Conventional Courses

The respondents who underwent courses of study under six disciplines considered in this study were as in the case of special courses were found to be identical in pattern of their distribution with respect to nativity (Table 3.1). Urban centres contributed more number of candidates to be admitted in conventional courses also. Rural centres came

next to urban centres. And semi-urban centres registered the least amongst the three categories of nativity.

The respondents citing themselves as of urban centres registered highest representation in social sciences (66% of 124). Barring the discipline of commerce, the others including physical sciences, life sciences and mathematical sciences, had urban-based respondents with not less than 50%. However, the number of respondents having gone through conventional courses is less than those who underwent specialised courses.

The semi urban centres behaved in the same manner in crediting respondents in the conventional courses as they did in the specialised courses. However, they recorded high representation in commerce (17 out of 44). Their candidature was low in other disciplines. Despite their low representation, their numerical number to be quoted in conventional courses was higher than that in special courses.

The respondents classified as rural based UG/PG youths were 107 out of 400 (26.8%) to be analysed for conventional courses. The pattern of their distribution amongst six disciplines is very similar to that against specialised courses. They spiked more responses for the commerce discipline than that of urban-based respondents. The discipline, "language" attracted the rural youths with 45% of 40 responses.

A broad conclusion could be made that urban - based respondents availed to maximum extent facilities for securing admission in both the conventional and specialised courses. It is recommended that centres of counselling and guidance could be created in rural and semi-urban areas to motivate the students from rural and semi-urban centres. These centres could be brought under the administrative control of universities and supported financially by UGC or Ministry of Human Resource Development, Govt. of India.

3.2 FAMILY SIZE

The population of the country is reported to increase at the rate of 1.9% per year as per census of India 1991. The problems associated with rise in population are many, one among them is education. Govt. of India's eighth plan recognises the need to improve literacy. Allocation of funds from national budget for general and professional education has been substantial in the last few decades. Employment of the educated youth is a special

Table 3.2 : DISTRIBUTION OF RESPONDENTS ACCORDING TO THE FAMILY SIZE

Sl. No.	FAMILY SIZE	Specialised Course		Conventional Course		TOTAL	
		No. of Respondents	%	No. of Respondents	%	No. of Respondents	%
1	Two	10	58.8	7	41.2	17	100.0
2	Three	52	57.8	38	42.2	90	100.0
3	Four	167	49.1	173	50.9	340	100.0
4	Five	134	54.5	112	45.5	246	100.0
5	Six & More	37	34.6	70	65.4	107	100.0
	TOTAL	400	-	400	-	800	-

consideration to the government. Vocationalisation of education and entrepreneurial development, self employment etc. are also given due importance by the government.

The size of the family of respondents has no correlation with admission in both the conventional and specialised courses. This observations reveals that the families with four members were more in number to contribute graduates of both special and conventional courses. This revelation is unique and could draw the attention of universities. The wards of teachers, scientists, engineers and doctors were seen more in the specialised courses. On the other hand, the rural based repondents were few in number to be seen in special courses. Hence it is very difficult to draw a conclusion with the set of abservations found in Table 3.2.

3.2.1 EDUCATIONAL LEVELS OF PARENTS

University education has been popularly believed to be the premise of the elitists in the country. Elitism is referred to accomplishments in education socio-economic status in the society and direct or indirect association with the institutions of the government. The elitism in education is a non quantifiable asset which may breed elitism. In otherwords education of parents is available for inheritance and enjoyment by the children. It is therefore felt necessary to analyse in the study whether the education of parents has any correlation with the education of the children and this is held applicable to conventional and specialised courses of study.

The educational levels of parents were classified into categories, Viz.,

1. No Formal Education
2. Elementary Education
3. Secondary Education
4. Higher secondary education
5. Professional education
6. University degrees Bachelor/Master of arts and sciences and
7. Ph D degrees in arts/sciences engineering/medicine/ law etc.,

The number of disciplines with the special and conventional courses is the same as in the earlier sections. The size of the sample was 400 in each of them and there were 10 disciplines with special courses and 6 disciplines with conventional courses (table 3.3).

3.2.2 Specialised Courses

As seen in table 3.3 and the parents of the children of specialised courses of study were distinctly seen with two levels of education, one at the exit of school and the other at the exit of universities. Higher secondary and advanced degree holding parents constituted to 27.5% and 28.3% respectively of 400 responses. Similarly professional degrees and university degrees in liberal arts and general sciences constituted to 11.5% and 12.5% respectively, the remaining 20 % of respondents have parents with no formal education. It is in any case evident that parents with education above higher secondary have played their role as counsellors, decision makers and guides to acquire special education and secure employment for their wards.

The responses from the students of physical and chemical sciences were 83 in number. The students with parents whose educational levels falling above higher secondary constituted to about 75% of 83. The highest education attained by the parents did not correlate with the number of students. This could be due to the fact that the students exercised their own discretion in selection of the courses and the background environment in schools and colleges could have given them confidence. The same analogy could be applied to the respondents whose parents were higher secondary or university graduates. These students were self-guided and determined to choose the courses of study of their choice.

Table 3.3

(a) Educational Levels of Parents of Students of Specialised Courses

Sl No	Courses of Study	NO FORMAL EDUCATION		ELEMENTARY		SECONDARY		HIGHER SECONDARY		PROFESSIONAL LAW/MED/ENGG		UNDER / POST GRADUATE		RESEARCH DEGREES		TOTAL	
		No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%
1	Physical Sciences & Chemical Sciences	7	8.4	10	12.0	5	6.0	22	26.5	7	8.4	15	18.1	17	20.5	83	100.0
2	Life Sciences	3	6.7	0	0.0	2	4.4	10	22.2	9	20.0	7	15.6	14	31.1	45	100.0
3	Engineering & Technology	3	3.9	6	7.9	3	3.9	20	26.3	2	2.6	6	7.9	36	47.4	76	100.0
4	Medical Sciences	2	5.0	2	5.0	2	5.0	17	42.5	4	10.0	4	10.0	9	22.5	40	100.0
5	Veterinary Sciences	0	0.0	0	0.0	5	31.3	5	31.3	0	0.0	0	0.0	6	37.5	16	100.0
6	Earth Sciences	1	2.5	5	12.5	3	7.5	18	45.0	1	2.5	2	5.0	10	25.0	40	100.0
7	Economic Sciences	0	0.0	2	12.5	2	12.5	3	18.8	7	43.8	0	0.0	2	12.5	16	100.0
8	Management & Commerce	0	0.0	1	3.2	0	0.0	8	25.8	5	16.1	7	22.6	10	32.3	31	100.0
9	Social Sciences	7	17.9	7	17.9	3	7.7	3	7.7	7	17.9	7	17.9	5	12.5	39	100.0
10	Communication	0	0.0	2	14.3	0	0.0	4	28.6	2	14.3	2	14.3	4	28.6	14	100.0
	Total	23		35		25		110		44		50		113		400	

Table 3.3
(b) Educational levels of Parents of Respondents of conventional courses

Sl No	Courses of Study	NO FORMAL EDUCATION		ELEMENTARY		SECONDARY		HIGHER SECONDARY		PROFESSIONAL LAW/MED/ENGG		UNDER / POST GRADUATE		RESEARCH DEGREES		TOTAL	
		No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%
1	Physical Sciences	5	8.6	6	10.3	2	3.4	19	32.3	6	10.3	2	3.4	18	31.0	58	100.0
2	Life Sciences	4	10.0	3	7.5	1	2.5	11	27.5	9	22.5	1	2.5	11	27.5	40	100.0
3	Mathematical Sciences	7	7.4	8	8.5	6	6.4	28	29.3	8	8.5	10	10.6	27	28.7	94	100.0
4	Social Sciences	6	4.8	19	15.3	5	4.0	52	41.2	4	3.2	6	4.8	32	25.8	124	100.0
5	Commerce	4	9.1	5	11.4	1	2.3	14	31.3	4	9.1	5	11.4	11	25.0	44	100.0
6	Languages	2	5.0	15	37.5	1	2.5	7	17.5	1	2.5	4	10.0	10	25.0	40	100.0
	Total	28		56		16		131		32		28		109		400	100

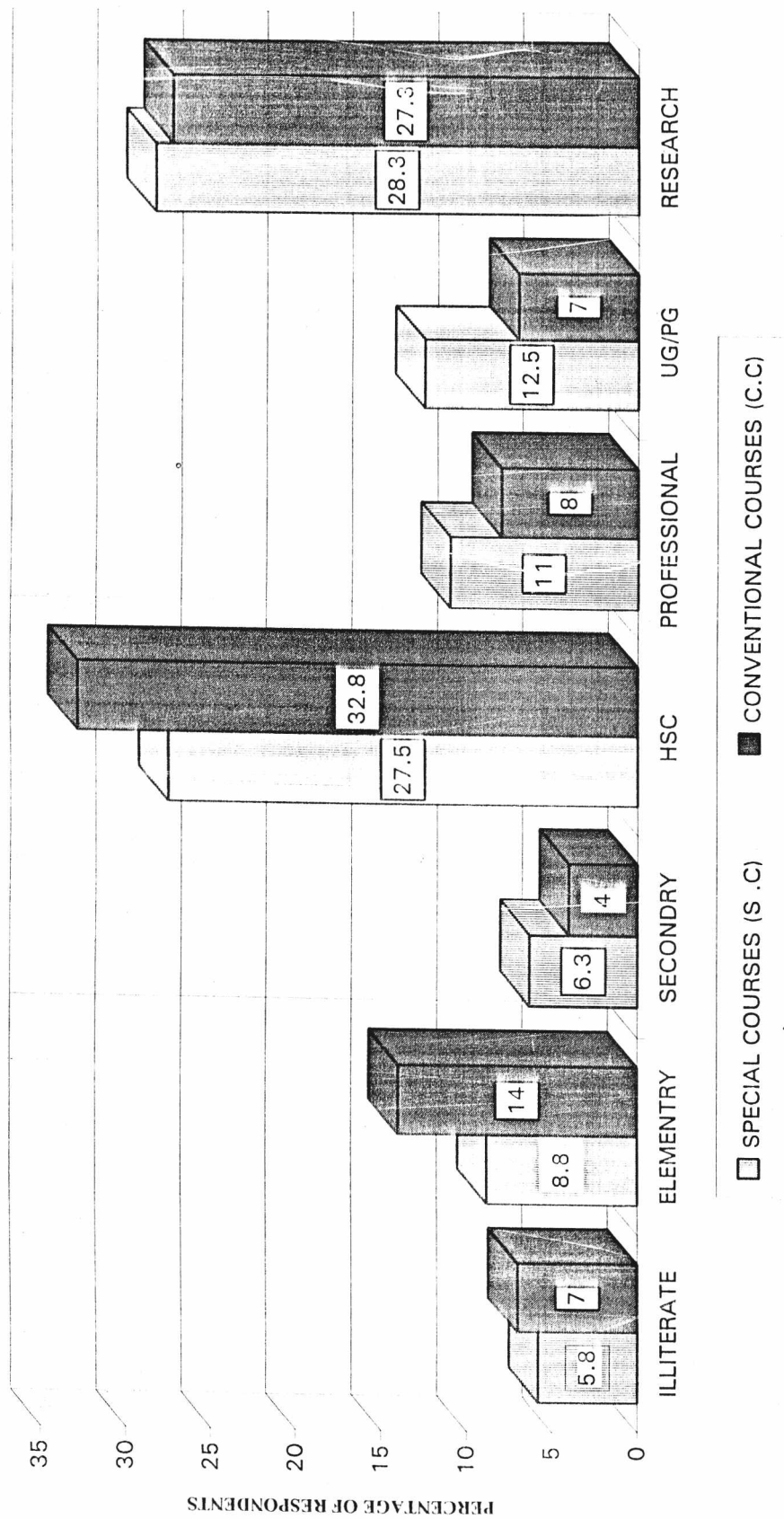


FIG 3.2 Educational Levels of the Parents of the Respondents

The disciplines including life sciences and engineering and technology were indicative of the scenario as for physical and chemical sciences. However the parents of the respondents with highest qualification seemed to have had some role in the choice of courses of study by their children. The income position of the highly qualified parents could have added to strengthening of the confidence amongst the respondents whose choice of study was in professional courses of special nature. The same trend prevailed amongst the respondents belonging to medical sciences veterinary sciences and earth sciences.

The disciplines including veterinary sciences, economic sciences, management and commerce, communication were predominantly occupied by the children of educated elites. The responses were significantly different from the wards of professional degree holding parents.

The respondents whose parents were higher secondary qualified or advanced degree holders are more in number and fairly distributed amongst all disciplines. The highest university degree of the parents is source of strength and inspiration to the students of special courses. The knowledgeable and better informed parents seemed to have played significant role in directing their wards to select special courses of study at UG and PG levels.

It is observed that the respondents who address them as children of illiterate or elementary education holders are few in numbers and their representation in the specialised courses were deplorably small. It is therefore recommended that special cells or orientation programmes need be created in colleges and these will assist those students with illiterate or less literate parents in order that they might join with the children of the educational elites.

3.2.3 Conventional Courses

The pattern of distribution of responses received from the students of conventional courses of study under varied disciplines are presented in table 3.3b The higher secondary education qualified parents were cited to be 32.8% of 400 respondents. And, the next fell on parents 27.3% with the highest university degrees. Surprisingly, the parents with no formal and elementary education were cited by 21% of the sample of 400.

The discipline social sciences appeared to have attracted more number of students whose parents studied upto higher secondary level, and, they were 52 out of 124 respondents. The respondents bracketed within the disciplines of mathematical sciences, life sciences and physical sciences contained the respondents very much in the same ratio and were the wards of parents of higher secondary and advanced degree holders.

The inferences drawn with the observations for educational qualification of parents of the responded students are as below :

- a) There is no definite correlation between parents education and choice of courses of study by students who underwant conventional courses at bachelors or masters degree level. At any rate the distinct observation could be that the children of illiterate and elementary school educated parents did not find reasonable representation in the conventional courses too.
- b) The higher secondary educated parents who also had brief exposure to univerties but been informed of the value of education through personal experience are able to counsel the students in their choice of study. They seemed to have strived to gather information and passed on the same to their wards.
- c) The parents with advanced degree holders are examples by themselves to their wards. They were sources of admiration and beacons to direct their wards for suitable course of study. However their wards have access to information sources and are confident in their strength.

3.3 OCCUPATIONAL STATUS OF PARENTS

3.3.1 Specialised Courses

It was discussed in the earlier sections that counselling by parents motivated the students to join the special courses under various disciplines. Education and social status of parents have been able to create awareness amongst the students to choose courses of study with promises for jobs and salaries after the completion of studies. Similarly, the occupation of the parents is assumed to be an influencing factor which prompted the students to opt special courses in universities and colleges. The occupations of the parents of the respondents referred to in this study ranged from agriculture, employment in government and private sectors, scientists/technologists/teachers in private and public

sectors, self employed in the occupations like law/medicines/engineering and business to retirement from occupations of all kinds.

Table 3.4 presents the responses as received from students whose parents are occupied in professions and services. It is generally observed that the children of learned parents were found in special courses. Learned parents are those who are and have been engaged to teaching, research and self employed (e.g law, medicine engineering etc.)

The respondents whose parents were occupied with research, teaching and other intellectual areas were 226 out of 400 covered in this study. The percentage share of such parents in service and retired was observed to be the same (28% and 28.5%) the respondents who declared that their parents are agriculturists were 73 out of 400, this came next to the category of educated elites. The other occupations were distributed in percentages varying between 7.5 and 10.

The agriculturist parents were cited by respondents in disciplines of physical and chemical sciences, earth sciences, engineering and technology and social sciences in various percentages. There was marginal representation for agriculturist parents in disciplines including medical sciences (2.5%) management and commerce (3.2%) and communication (14.3%) in numbers indicated against these disciplines.

The respondents as children of government employees were found in engineering and technology (10/76) physical sciences (5/83) and social sciences (6/39). There were no responses at all for some disciplines viz., life sciences, economic sciences, and communication. This gives rise to a conclusion that the parents in government services are keen to direct the children to seek admissions in discipline capable of fetching jobs immediately after graduation and the aptitude and achievement of the respondents might perhaps be secondary importance.

The teacher/scientists parents were rated by respondents belonging to all the 10 disciplines covered under the study. Physical and chemical sciences were much sought after. The discipline next to the former was management and commerce. There was no reference from respondents for communication. The above observations lent to conclude that teacher parents, were keen to choose courses of study under disciplines which were either directly biased to jobs or fetch good income after completion of study.

Self-employed parents of the respondents appeared to have engineered their wards to choose courses of study under discipline for which responses were more in number of (11/76). Respondents who are children of self-employed were not observed with some disciplines e.g., veterinary sciences, earth sciences, economic sciences, management, commerce, and communication. These are the disciplines demanding from students high level of initiatives and self determination in securing jobs with high income.

The following inferences are drawn out of the observations on parental occupations and selection of courses of study under specialised disciplines.

- a) The occupations of parents of the children who were graduates in specialised courses of study do not correlate well for drawing meaningful conclusions. There are diverse responses with reference to a specific discipline which is found to have bearing with occupation of parents.
- b) The responses from the wards of parents occupied with services including researches, teaching and self employment indicate that employment after graduation is a primary interest. And,
- c) The self-employed professional parents (lawyers, medicos, engineering and technology and businessmen) showed marginal or no interest in special courses under social and economic sciences.

3.3.2 Conventional Courses

The questionnaire calling for information on occupations of the parents of the respondents and size of sample for study were identical with those circulated amongst the respondents of special courses of study Table 3.4b. The intention of the study was to compare the economic background of the parents of the conventional courses with that of special courses.

The number of responses referring to parents who were retired personnel from the government and private services were 126(31.5% of 400). As in the category of parents of respondents of special courses next to retired parents came teachers/scientists and agriculturists in the descending order.

Table 3.4
b. Occupations of Parents of Respondents of Conventional courses.

SI No	Courses of Study	AGRICULTURE		SERVICE GOVT./PRIVATE		TEACHERS/ RESEARCH		PROFESSIONAL LAW/MED/ENGG		BUSINESS		RETIRED		TOTAL	
		No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%
1	Physical Sciences	6	10.3	4	6.9	15	25.9	8	13.8	10	17.2	15	25.9	58	100.0
2	Life Sciences	11	27.5	6	15.0	5	12.5	3	7.5	2	5.0	13	32.5	40	100.0
3	Mathematical Sciences	24	25.5	8	8.5	18	19.1	6	6.4	6	6.4	32	34.0	94	100.0
4	Social Sciences	14	11.3	5	4.0	46	37.1	0	0.0	12	9.7	47	37.9	124	100.0
5	Commerce	16	36.4	6	13.6	9	20.5	1	2.3	6	13.6	6	13.6	44	100.0
6	Languages	16	40.0	1	2.5	2	5.0	2	5.0	6	15.0	13	32.5	40	100.0
	Total	87		30		95		20		40		126		400	

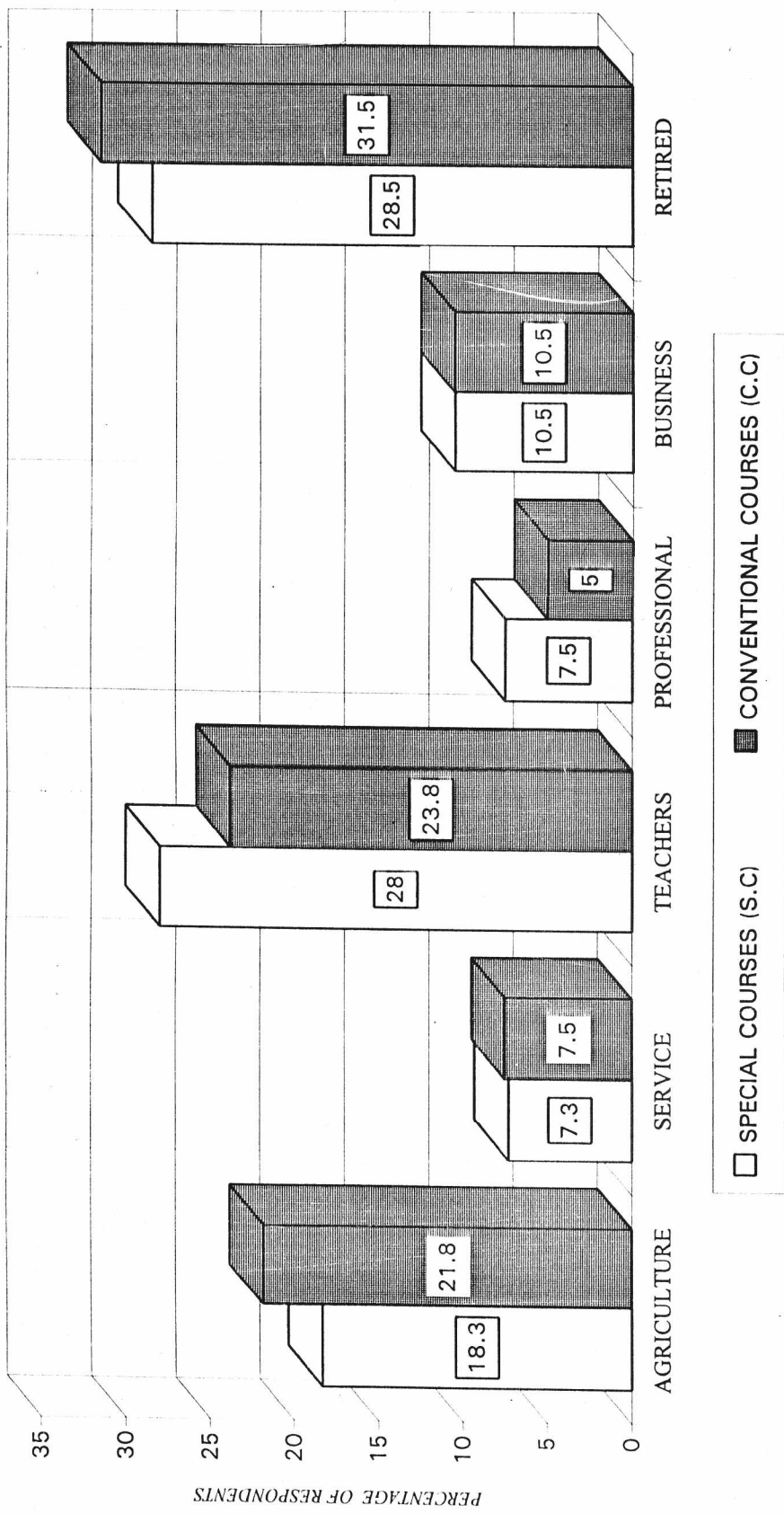


FIG 3.3 Occupations of Parents of Respondents

Agriculturist parents were cited in large number by the respondents belonging to disciplines viz., mathematical sciences, commerce, social sciences, language and life sciences. There is no correlation between parents occupation and choice of study as reported by the respondents of life sciences. However, there seemed to be less number of agriculturist parents in the special courses than that in conventional courses.

The government employees and those working in private enterprises were referred by the respondents of all disciplines, But, they were small in number. Their distribution was more or less even irrespective of the disciplines of study. The respondents belonging to languages cited their parents as employees of the government/private sector (1 out of 40).

The educated elites and those intimately connected with education were the teachers, scientists, engineers, medicines etc. There were good number of citations particularly from respondents belonging to social sciences, mathematical sciences and physical sciences. The responses from other category of disciplines were low. The general observation is that the parental occupation has no distinct relation with courses of study the wards chose. It was anticipated that teachers children might aim for specialised courses. Contrarily, the respondents were not seen in large number even amongst the disciplines closer to special courses.

The lowest number of responses was recorded for parents who were self employed. They were only 10 out of 400. Similar observations were made with businessmen parents. In both the cases, percent distribution of students against all the disciplines was even but low varying from 5% to 8%.

The wards of retired employees seemed to be high in social sciences (37 out of 124) and next (32 out of 124) was against mathematical sciences. The glaring observation is that retired employees were able to scheme for the future of the wards better than any category of parents. There were marginal responses from amongst the students of special courses having low potential for jobs.

It is generally observed that there is no direct relevance nor correlation between parents' occupation/education and choices of study by their children.

3.4 PATTERN OF INCOME DISTRIBUTION OF PARENTS OF STUDENTS OF SPECIALISED AND CONVENTIONAL COURSES

3.4.1 Specialised courses

The income of the parents is a direct measure for assessing the number of students admitted in universities. It is indirectly prompting the children to aspire for higher education. Because economic status enables mobility, promotes desire to acquire education and secure jobs with decent income. By and large, education and employment are the necessities for both the categories including high and low income families. The monthly income pattern of parents of the special course respondents is presented in table 3.5a.

It could be seen that 39% of the 400 responses received from the graduates with special courses seemed to have the parents having more than Rs 5000 and above and 23% below Rs 1000 p.m. The remaining 38% of the parents of the respondents is distributed more or less evenly (20% registered for income between Rs 1000 and Rs 2500 and 18% for Rs 2500 and Rs 5000)

It appears that the parents with monthly income of Rs 5000 and above contribute 39% of the graduates with specified courses. Higher percentage of students are from upper income groups of families.

The discipline like engineering and technology for which responses were received contained 61.8% of the parents with monthly income over Rs 5000. Similarly, the responses from graduates of social sciences were found small (39 out of 400) in number but over 50% of 39 had their parents with income over Rs 5000 and above. Same is true with economic sciences also.

The respondents coming from economically weaker sections whose parents income did not exceed Rs 1000 pm was 92 in number constituted to 23% of 400 respondents. Surprisingly, they were found in discipline of physical and chemical sciences. It was 83 of which 13 happened to be the wards of lower income earning parents. There were 17 respondents belonging to the discipline of engineering and technology. It was 22.4% of 76. The distinct observation and perhaps worth mentioning information was that the discipline veterinary sciences had 10 respondents who were the sons of parents with monthly income less than Rs 1000. It is discussed else where that all the veterinary graduates have been able to secure jobs with income more than Rs 4000 p.m.

Table 3.5

(a) Monthly Income of Parents of Respondents of Specialised Courses

Sl No	Courses of Study	BELOW Rs. 1000		BETWEEN Rs. 1000 - 2500		BETWEEN Rs. 2500 - 5000		ABOVE Rs. 5000		TOTAL	
		No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%
1	Physical Sciences Chemical Sciences	13	15.7	17	20.5	28	33.7	25	30.1	83	100.0
2	Life Sciences	9	20.0	5	11.1	12	26.7	19	42.2	45	100.0
3	Engineering & Technology	17	22.4	7	9.2	5	6.6	47	61.8	76	100.0
4	Medical Sciences	7	17.5	15	37.5	11	27.5	7	17.5	40	100.0
5	Veterinary Sciences	10	62.5	4	35.0	1	6.3	1	6.3	16	100.0
6	Earth Sciences	23	57.5	8	20.0	3	7.5	6	15.0	40	100.0
7	Economic Sciences	2	12.5	1	6.3	2	12.5	11	68.8	16	100.00
8	Management & Commerce	7	22.6	5	16.1	3	9.7	16	51.6	31	100.0
9	Social Sciences	3	7.7	10	25.6	5	12.8	21	53.8	39	100.0
10	Communication	1	7.1	8	57.1	2	14.3	3	21.4	14	100.0
	Total	92		80		72		156		400	100

Table 3.5
b. Monthly Income of Parents of Respondents of conventional courses

Sl No	Courses of Study	BELOW Rs. 1000		BETWEEN Rs. 1000 - 2500		BETWEEN Rs. 2500 - 5000		ABOVE Rs. 5000		TOTAL	
		No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%
1	Physical Sciences	11	19.0	13	22.4	9	15.5	25	43.1	58	100.0
2	Life Sciences	11	27.5	12	30.0	6	15.0	11	27.5	40	100.0
3	Mathematical Sciences	26	27.7	26	27.7	14	14.9	28	29.8	94	100.0
4	Social Sciences	29	23.4	41	33.1	18	14.5	36	29.0	124	100.0
5	Commerce	13	29.5	9	20.5	14	31.8	8	18.2	44	100.0
6	Languages	14	35.0	18	45.0	4	10.0	4	10.0	40	100.0
	Total	104		119		65		112		400	100

The observations reveal that the respondents who were the sons of parents with income less than Rs 2500 have undergone special courses and are employed, and these parents are agriculturists.

The general conclusion is that respondents from upper middle income groups found more representation in conventional science disciplines. The middle income groups had limited representations in all the disciplines. The respondents said to be wards of lower income earning parents seemed to have no options to any courses.

3.4.2 Conventional Courses

As discussed with the observations under the specialised courses, the trend in the percentage of responses from respondents appears to be similar to the respondents of conventional courses. The parents income do not directly reflect the nature of courses of study undertaken by the graduates. However, table 3.5b presents some data for discussions and meaningful interpretation.

The parents with income less than Rs 1000 p.m were reported by 104 respondents . This is 26% of the sample of 400. Six disciplines of conventional courses were represented by these graudates respondents. Social sciences figured as a major discipline to protect the interests of 29 respondents. This is 23.4% of 124 respondents. The discipline mathematical sciences was to have 27.7%. This is close to the percentage responses stated against life sciences. Similar responses for all the disciplines have been received. They varied from 10% to 13%. A single discipline with a total of 40 responses gained 35% in favour of respondents who were the sons of economically poor parents.

It is generally observed that parents with income less than Rs 1000 pm have had no special options to admit their wards in disciplines which are popular, and rare and could accommodate a few students.

The responses from the respondents whose parents income was between Rs 1000 and Rs 2500 did not vary in composition very much form those whose parents income did not exceed Rs 1000 p.m. There was marginal variation in percentage responses against all disciplines. Therefore, the interpretation as found under the above catagory holds good.

The wards of parents whose income was between Rs 2500 and Rs 5000 p.m seemed to have concentrated in some disciplines. They were mathematical sciences,

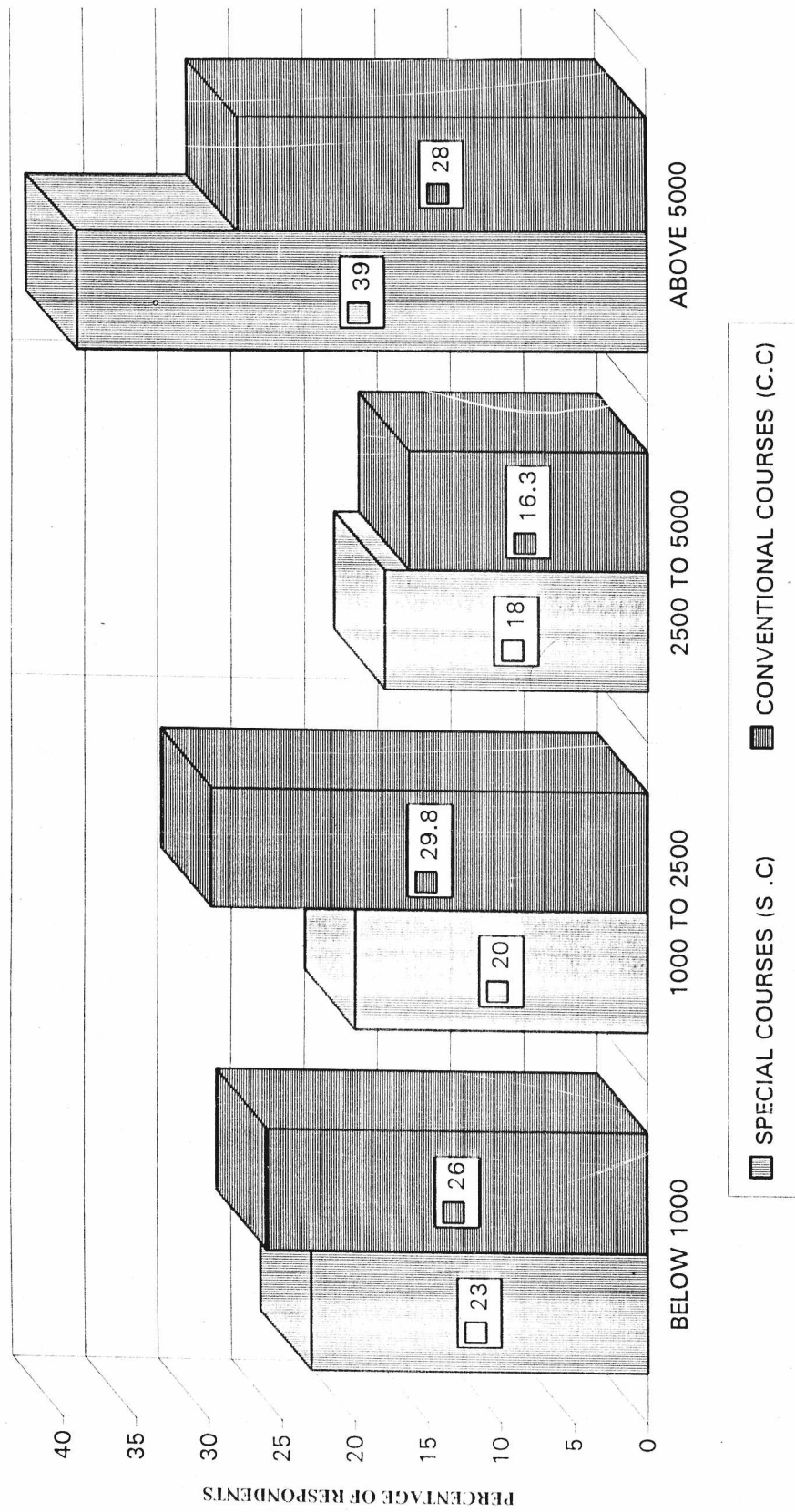


FIG : 3.4 Monthly Income of Parents

social sciences and commerce. Mathematical sciences ranked top amongst these three disciplines with 14.9% recorded observations. The other two disciplines were marginally represented by wards of parents with income of Rs 2500 - Rs 5000 p.m. The general observation is that middle income group parents had less interests in courses of study of common nature than the ones with scope for securing jobs.

The upper middle income groups with monthly income exceeding Rs 5000 as seen in table 5.5a were referred to by 112 respondents. Barring 12 out of 112 the respondents were found to be distributed in four disciplines and they are social sciences, mathematical sciences, life sciences and physical sciences. Mathematical sciences alone accounted for 25 graduates out of 58 (43.1%) the other three disciplines had about 29% on average. Commerce and language were not significant to these parents.

CHAPTER - IV

SOCIO ECONOMIC AND ATTITUDINAL ASSESSMENT OF STUDENTS OF SPECIALISED COURSES

The graduates (UG level) sought admissions in both specialised and conventional courses with counselling and guidance from parents, teachers, friends and relatives. They were placed after completion of study, in employment sectors through various agencies within and outside universities. The jobs which came first were generally accepted by them. However, there were declines. Some jobs were found satisfactory to the graduates. While some were not. Preferences to jobs were linked to aptitude of the graduates and the salaries received by them. The relevance of the subjects of study mattered in selection of jobs. The major concepts of the respondents on the above two aspects were related to restructuring of the specialised courses in particular and conventional courses in general. Pre-service training and orientation of subjects related to felt needs were remarked. Despite all the weakness in the curricula and inadequacy in contents of the subjects of special nature, more than 50% have been able to secure jobs immediately after the completion of study while the rest could secure jobs in a time span of 1 to 2 years. There were cases for unemployment which was bound to a few disciplines containing conventional courses. Self employment amongst the respondents of specialised courses was marginally seen.

4.1 MEDIUM OF INSTRUCTION IN HIGHER SECONDARY EDUCATION

The medium of instruction is generally English in higher education in Tamil Nadu in the disciplines of sciences and engineering. Nevertheless other disciplines like economics, commerce, communication, etc. are also taught in English. The prequalification for seeking admission in bachelors degrees in arts, sciences, commerce, legal studies, engineering, technology, medical sciences, veterinary sciences, etc. is pass in the higher secondary school education. The pre requisite in joining post-graduate courses is a creditable pass in any one of the disciplines as prescribed by the universities. At any rate, the entrants to universities need be equipped with the skill in English language, since the medium of instruction is obligatorily English.

It is seldom reasonable to believe that the students admitted in university classes possess adequate skill in English language for communication.

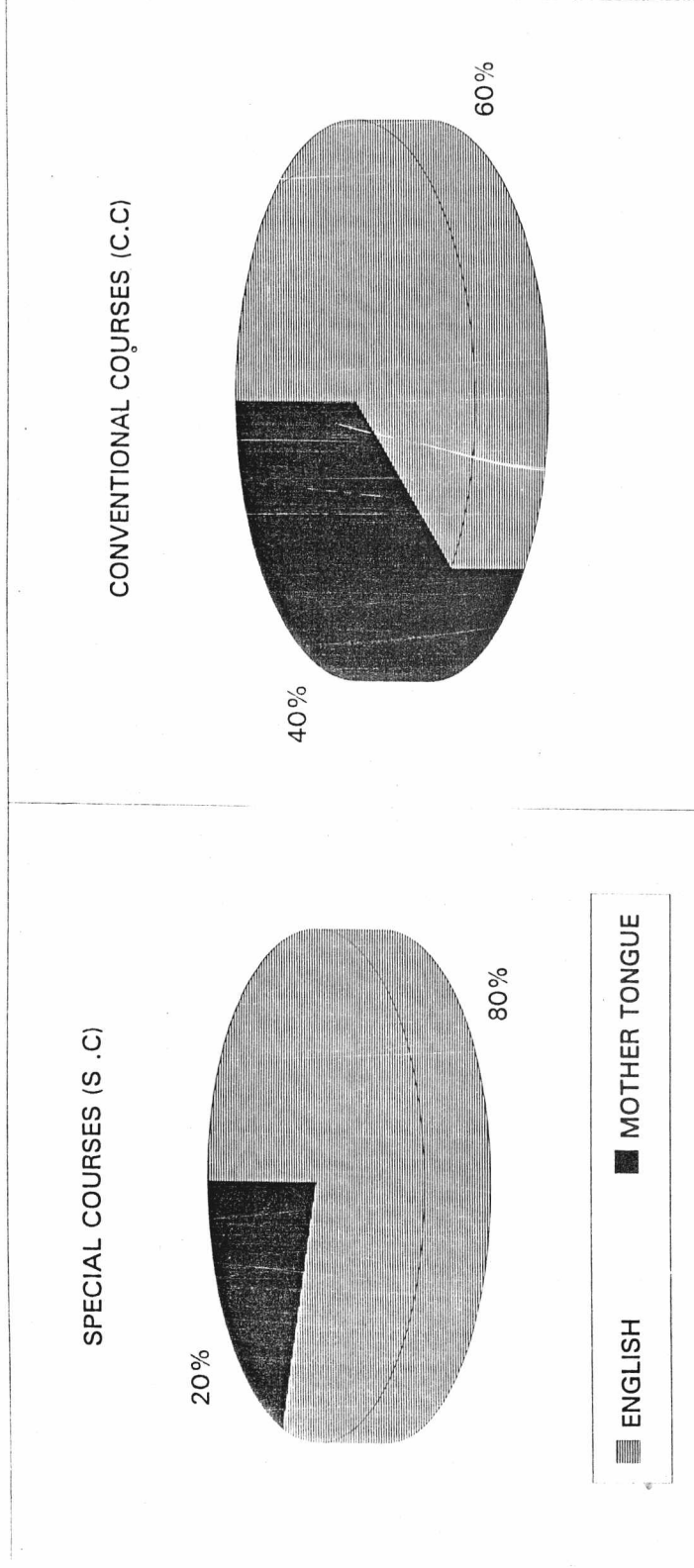


FIG 4.1 Medium of Instruction

Learning English language through courses for one or two years of the study programme and pass in it are made compulsory for those students admitted in bachelor's degree in arts, sciences, commerce etc. The students of engineering, medicines, technology, veterinary sciences etc., have to learn English merely to develop skill for writing scientific essays and articles within a period not exceeding one year of the study programme. There are some specialised courses in bachelors degree level. Such courses include medicines, engineering technology etc. There are conventional courses in other disciplines (i.e arts and sciences, law etc.)

The scope of this study is primarily to cover specialised courses of study. They may be at the level of bachelor's degrees and post graduate degrees. The conventional courses of study covered in the scope of this study are generally at the level of post graduate degrees in both the categories of study. The higher secondary education is the threshold point.

The medium of instruction in higher secondary schools of Tamil Nadu is both English and any one of the indian languages. Tamil is the popular medium of instruction to teach all the subjects except English. English is taught as one among several other subjects in schools and is made instructional medium in higher education and hence is the need for students to possess proficiency in it.

The figure 4.1 presents the observations on medium of instruction in higher secondary school education for all the 400 respondents each under specialised and conventional courses of study. It could be seen that 321(80.3%) respondents having studied special courses had English as the medium of instruction in higher secondary schools. The remaining 19.8% of the respondents learnt all the subjects in Tamil in schools.

The respondents of the conventional courses who had English as medium of instruction in schools constituted to 60.5% of 400 sampled for this study. While the remaining 39.5% had Tamil as medium in school education. The inferences over the observations are drawn as follows:

- a) The specialised courses are professional and for biased to reading subjects largely found in English language. Hence, the inclination amongst those who had skill for communication in English was found high to opt specialised courses.

- b) The conventional courses of study did demand proficiency in English language for communication. The percentage composition of English medium respondents in conventional courses is found lower than that of those in special courses and did not stand as a barrier in prosecuting higher education in universities.
- c) The learning of English by the graduates of conventional courses was for a period of more than one year in curricula of basic degrees. This was an advantage to them to learn advanced courses in sciences. On the other hand, the graduates of special courses demonstrated aptitude to learn English in short span and pursue special courses of study in universities.

4.2 COUNSELLING AND GUIDANCE IN SELECTION OF COURSES

Counselling and guidance to the students on academic affairs and employment opportunities have gained considerable importance in the last two decades. It is particularly true in case of special courses offered in the universities. Universities and colleges have shown special importance to counselling on academic matters. For examples University Students Advisory Bureau (USAEB) in universities employ professionally qualified and experienced teachers and experts to guide students on not only academic affairs but also employment matters. University Employment Information Guidance Bureau (UEIGBB) in every university have been in existence for some time. There are many self styled guidance personnel offering on fees counselling service on all aspects. Nowadays information explosion has no boundary and takes place in all modes of mass media. Parents are informed of what universities offer as special programmes for study.

The employment sectors release advertisements and announcements indicating their demands on persons with special qualifications. The informations reach in a big way to all irrespective of the geographical location. Thus, direct and indirect counselling through teachers and friends and mass media is available to the students.

As seen in table 4.1 parents were able to counsel their wards to larger extent than any other sources. About a third (36%) of special course students responded to say that they were counselled by parents. These observations led to a conclusion that the parents have had informations on emerging courses of study and conventional courses. The sources of information to them could be due to their active interests to explore the scope for their

Table 4.1
(a) Source of Guidance for choice of subjects under specialised courses

SI No	Courses of Study	PARENTS		TEACHERS		FRIENDS		MEDIA		NO GUIDANCE		TOTAL	
		No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%
1	Physical Sciences Chemical Sciences	45	54.2	14	16.9	9	10.8	0	0.0	15	18.1	83	100.0
2	Life Sciences	29	64.4	9	20.0	0	0.0	1	2.2	6	133	45	100.0
3	Engineering & Technology	13	17.1	36	47.4	20	26.3	1	1.3	6	7.9	76	100.0
4	Medical Sciences	9	22.5	10	25.0	17	42.5	1	2.5	3	7.5	40	100.0
5	Veterinary Sciences	3	18.8	10	62.5	3	18.8	0	0.0	0	0.0	16	100.0
6	Earth Sciences	6	15.0	16	40.0	15	37.5	1	2.5	2	5.0	40	100.0
7	Economic Sciences	8	50.0	3	18.8	3	18.8	0	0.0	2	12.5	16	100.0
8	Management & Commerce	4	12.9	10	32.3	0	0.0	0	0.0	17	54.8	31	100.0
9	Social Sciences	17	43.6	16	41.0	0	0.0	0	0.0	6	15.4	39	100.0
10	Communication	10	71.4	4	28.6	0	0.0	0	0.0	0	0.0	14	100.0
	Total	144		128		67		4		57		400	

Table 4.1
b. Sources of Guidance for choice of Subjects under Conventional courses

Sl No	Courses of Study	PARENTS		TEACHERS		FRIENDS		MEDIA		NO GUIDANCE		TOTAL	
		No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%
1	Physical Sciences	36	62.1	21	36.2	0	0.0	1	1.7	0	0.0	58	100.0
2	Life Sciences	27	67.5	4	10	1	2.5	5	12.5	3	7.5	40	100.0
3	Mathematical Sciences	60	60.8	21	22.3	7	7.4	1	1.1	5	5.3	94	100.0
4	Social Sciences	73	58.9	33	26.6	2	1.6	0	0.0	16	12.9	124	100.0
5	Commerce	26	59.1	12	27.3	2	4.5	1	2.3	3	6.8	44	100.0
6	Languages	37	92.5	2	5.0	0	0.0	0	0.0	1	2.5	40	100.0
	Total	259		93		12		8		28		400	

wards education and career development. The experience and their personal awareness were major reasons.

While analysing the discipline of study, counselling on physical and chemical sciences registered atop of all the other disciplines. Next came life sciences. Amongst 83 students of the above disciplines, 45 had the counsel from parents. Engineering and technology registered fairly high responses and next to this was physical sciences. The students of social sciences under special courses of study seemed to have availed the counselling from parents.

There were 17 out of 39 responses positively indicating the counselling by parents for choosing the specialised courses. The number was not significant in the size of 400 students of specialised courses. Considering the intake of students under disciplines including social sciences and communication the responses as counselling by parents is found to be significant (Table 4.1).

The observations on counselling by parents to the students of conventional courses are similar to those under specialised courses. The maximum number of responses was received from the students of the disciplines of social sciences (28.2%) and mathematical sciences (23.2%). The other e.g., physical sciences, life sciences, languages and commerce followed in decreasing order. It is presumed that the conventional courses having been introduced several decades ago in the universities and well exposed to both students and parents, the counselling by parents in selection of course of study was not found to be important.

Counselling by teachers in selection of courses of study under specialised courses and conventional courses seemed to have fair bearing. The teachers have been responsible to influence or counsel 23.3% of 400 students sampled for the purpose of the study in selection of courses of study under conventional disciplines. In case of counselling by teachers for choosing specialised courses 128 out of 400 responded for being benefitted by teachers. The above observations were obvious. Specialised courses could better be addressed by teachers than parents or any source, because, the courses are of special nature and offered by them. Moreover the admissions are indirectly controlled by teachers.

As could be seen in Tables 4.1a and b, teachers had major role in selection of physical sciences and social sciences as courses of study at the level of post graduate

education. There were 124 students under conventional social sciences who responded to questions on counselling.

Thirty three out of 124 cited teachers as their counsellors. The physical sciences and mathematical sciences seemed to have the same rating of counselling by teachers.

The teachers were found to have rendered counselling in selection of courses under engineering and medical sciences. The level of education in these disciplines is at bachelors degree. The youths were from higher secondary schools. The high responses for these courses of study seemed to be obvious. Both the teachers and parents were responsible to counsel these students in their choice of courses of study.

Counselling from friends is marginal in both the specialised and conventional courses. It was anticipated that the influence of friends could have helped in selection of courses of study in the discipline of conventional courses because, there is an established knowledge of the courses for their importance and relevance to jobs and higher education. But only 7 out of 94 responses from amongst 400 students of conventional courses responded to say that they had counselling from students. and mathematical sciences alone were cited.

In the case of specialised course, counselling from friends was referred to the disciplines viz engineering and technology, medical sciences and earth sciences. The recorded percentage of responses were marginal (< 4%) even when they were compared with 76 students out of 400 students sampled for the study.

Media were analysed as the source of influence or having helped the students to choose courses of study at PG/UG level in Universities/ Colleges. These were for the reasons that advertisements appeared in news media in general and TV. occasionally. The news about the programmes of study appear in national weekly employment news. The Association of Indian Universities (AIU) highlights the new and special programmes of study. Aspiring learners and job seekers are assumed to have access to these media. Surprisingly, there were no references from student respondents to the effect that media could help them in selection of the courses of study.

There were cases when responses like no guidance in selection of course of study were given. Fifty seven responses out of 400 had informed of no guidance. This is 14.3%

of the sample. Barring veterinary sciences under specialised courses and physical sciences under conventional courses, the rest of the discipline were cited for no guidance. No guidance implies self interest. This is discussed under the motivational attributes. Students of Chemical/Physical sciences were found to be self informed. Fifteen out of 83 responses belonged to these disciplines. Under specialised courses, and social sciences under conventional courses were chosen by 16 out of 124 students who responded for their own decision. The students of post graduate classes in the conventional and specialised courses are by and large self informed. There was no need of sources for counselling.

4.3 MOTIVATION FOR SELECTION OF COURSE OF STUDY

The normal consideration in selection of a course of study at post graduate level for adult students aged above 20 and immediately after obtaining a basic degree in Sciences, engineering and social sciences could be their aptitude developed by self and/or induced by others. Aptitude by self is by and large based on achievement in basic degrees. Also, it could be due to introspection on career development. The persuasion by others could be for various reasons. (eg., Career opportunity for special courses, special considerations likely to be shown to a section of students e.g., scholarships, guarantees for employment/apprenticeship, higher studies/ training abroad, assurances for jobs in a regional development sector (eg., industry, laboratory, entrepreneurship reservations in admissions, etc.)) The others include parents, friends, teachers and counsellors for education and employment attached to Universities, and private agencies and mass media (radio, T.V, news, paper etc.) The questionnaire contained many of the above points. Job-potential is one point which is an understanding through prospectus of Universities, and direct addressal by teachers. The personal concepts of the students on the subjects under special courses coupled to performance could prevail over other points. Popularity of the special courses and conventional courses appear to be a common feature. It is by personal association with specialists, knowledge gained through students, parents, teachers and understanding of self to fit into course. Self interest is the composite of the former two. The sole decision is by the individual. Friends including classmates, seniors, teachers etc, within the campus and/or some one who are chosen mentors could be responsible for selection of the Specialised and conventional courses. It could also be that individual could have generated interests by socio-economic status of friends who underwent special or conventional courses. The table 4.2 presents the motivational attributes for selection of conventional and special courses. Job potential is attached to special and conventional courses and was found to be high response.

justified. Also, the responses of special course students who cited self-interest were largely from engineering disciplines.

The students of conventional courses were not decisive on anything linked to specific employment or higher academic programmes. Interpersonal communication amongst the students of science and engineering is found to have influence in their academic pursuits. The level of communication was seen more amongst the conventional course students (42.3%). It was 26.8% amongst the students of special courses. The obvious reasons could be that more number of students of conventional courses are in the universities and hence is more interactions.

The special courses are few in number and planned for specific objectives set by the heads of the departments. This has resulted in limited interactions amongst the students who joined special courses. On the whole, it appears that jobs after studies irrespective of the disciplines and special courses surfaces atop. The popularity for special courses for their job potential and/or special significance does not appear to be a motivational factor. It might perhaps be that job potential as may be the feelings amongst students in general could be a short term trend. Self-interest did appear to be a major reason for opting specialised course of study at the post graduate level. It is more visible among the conventional course students than amongst the students of special courses. Perhaps, it could be that awareness on special courses is yet to be built amongst students. This agrees with the total numbers of students registered with conventional and special courses is more or less the same. It could also be that the special courses are yet to be established with necessary outfits like library, laboratory etc., which are visible marks in an institution.

4.4 CHANNELS OF EMPLOYMENT

The popular channels of employment for the university graduates include the offices of the Directorate of Employment Exchanges, in the State and Central Administration, and Public Service Commissions (PSC) of the States and Union of India. It is also commonly found that the Scientific Departments in the Government of India, Universities, National Laboratories, Autonomous Bodies under the administrative control of the State and Central Governments, Public and Private Sectors, etc., recruit the university graduates by open advertisements. There are some Non-Governmental Organisations (NGO) established by individuals or groups with the generic title like "Man-Power Development

Corporations”/ “Employment Bureau”etc. In addition to the above mentioned offices and Commissions. There are some establishments with the universities themselves with the specific objectives of helping the students secure jobs in public sector undertakings. There is no restriction for private sector undertakings for seeking the assistance of the Universities in supplying to them qualified scientists, and engineers, health specialists, etc.,

The State of Tamil Nadu, has sub-offices within the Directorate of Employment and Services exclusively for graduates of sciences and engineering. These offices register the names of the graduates who file their application with them. The level of employment and the disciplines of study, the applicants claim are recorded. As and when the calls from various agencies are received by these such offices the candidates with appropriate qualifications are directed to approach the agencies for the jobs referred to by the Directorate of Employment. There is however no binding on the employment Directorate for guaranteeing placement to the applicants within a time span and for specific jobs.

Public Service Commission (PSC) of Tamil Nadu State advertises sporadically for various positions available with the State Government Departments. Criteria set by PSC in recruiting graduates are general complying with the policies of the state government. The candidates with special degrees in sciences, engineering etc., are to compete with others. There is no guarantee for jobs to all the qualified candidates at any time.

Union Public Service Commission (UPSC) advertises for various posts, some posts are meant for scientific personnel while some serve for technical personnel. As in the case of SPC, the criteria for recruitment are in accordance with the national policies on employment, Hence, there is no guarantee for jobs to all the qualified candidates.

There are some channels within the universities. They are (a) University Students Employment Information Guidance Bureau (USEIGB) and (b) University Students Advisory Bureau (USAB). These agencies render assistance to the students by way of disseminating information and guiding them on employment opportunities in public and private sector undertakings. They are purely information resources.

News media (dailies, weeklies and monthlies) bring out vacancy positions in various sectors of employment. Employment News is the Government-authorised medium for

releasing advertisements not only on employments but also on educational opportunities to the aspirants. Thus, one could observe existing channels under the Government and universities for assisting the graduates to secure jobs, commensurate with educational qualifications. It was one among the objectives of the study to identify the channels which helped the respondents of both the conventional and specialised courses of study.

Fig. 4.2 presents the observations of the study on channels through which the respondents were able to secure employment. About 40% of the respondents of the specialised course were successful in securing jobs through EEs. Amongst 400 respondents of the conventional courses, 38.5% were successful in getting jobs through EEs.

The PSCs and UPSC conduct competitive examinations (CE). These examinations benefit all the qualified graduates of arts, sciences, engineering, technology, etc. The advertised posts are specific in nature of duties. The employing agencies/departments are not purely governmental. The quasi-governmental sectors are also included. These examinations helped to greater extent the respondents of conventional courses than those of the specialised courses. More than 40% of the respondents of the conventional courses were benefitted by the competitive examinations of SPC and UPSC.

Direct Recruitment (DR) had helped largely the respondents of the specialised courses. The largest beneficiaries were engineers amongst the specialised courses. The next to follow engineers were graduates of commerce, life sciences, physical and chemical sciences and health sciences. The visible reasons were obviously due to the placement divisions of the professional colleges. They were responsible for inventing the prospective employment sectors and organising interviews for the graduates at the close of the study period. It is strongly felt that the universities could create placement divisions equipped with qualified counsellors and guides to benefit students of conventional courses.

Self-Employment amongst the respondents of the conventional and specialised courses could also be seen in Fig 4.2 The channel(s) which helped them to become self-employed persons could not be specified. Because, some of the respondents of the specialised courses were trained and motivated by banking sectors, and financial institutions. It was also observed that the respondents had the benefit of the businesses owned by parents, relatives and friends. The percentages of self-employed graduates of specialised and conventional courses were 24.0% and 8% respectively.

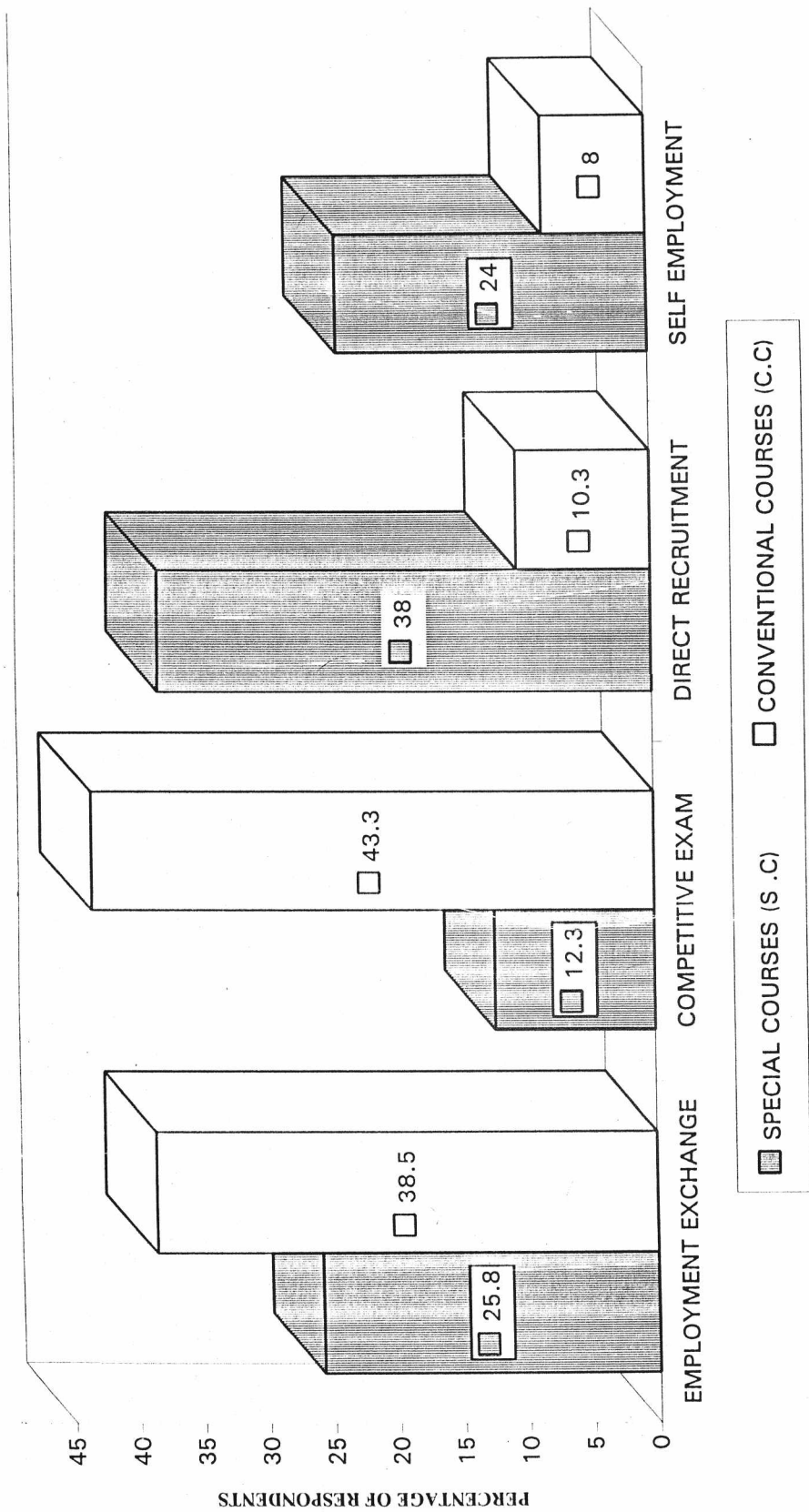


FIG 4.2 Employment Channels

The channels of employment have no doubt helped the respondents to some extent. As remarked by many of the respondents about the skill development through practice right in the universities, a large percentage of the respondents could have been turned out with jobs. Competitions among the talented youths start at the time of admissions and do end even after obtaining jobs. The special courses are helpful to them in claiming jobs. They are merely licences. The depth of knowledge in special subjects and its application to the real situation could be obtained only when subjects of study with contents required for capability building are taught in the universities.

The research organisations under Council for Scientific and Industrial Research (CSIR) Indian Council for Agricultural Research (ICAR) and Indian Council for Medical Research (ICMR) and other sectors Banking Service Recruitment Board (BSRB), Service Selection Board (SSB) Indian Agricultural Commissions (IAC) etc., need talented graduates. The level of information obtained at bachelors and masters degrees was inadequate and hence, the percentage of respondents employed in scientific departments is low. The channel for entry into these organisations is direct recruitment and indirect entry through competitive examinations conducted by UGC, CSIR, ICAR and IAC.

The personal observations made in this study and remarks of the respondents emphasise some points for consideration of the educational authorities.

- (a) Pre-training and coaching of the students of Pre-final classes of bachelors degree and final year students of masters degree classes need to be organised for a duration ranging from two weeks to four weeks. The venue could be industries, national laboratories and professional development societies. This form of training and coaching will prepare the students for competitive examinations, impart interview skill development, and help the students gain confidence in themselves.
- (b) Periodical Review of the trends in employment opportunities exclusively for benefitting the graduates of specialised courses is to be done. This is in an effort to create scientific and technical man power with adequate skill. This review exercise could be entrusted to the University Students Advisory Bureaus/Placement Divisions.

4.5 INTERMISSION BETWEEN GRADUATION AND PLACEMENT

The higher education in Indian Universities has become in the last few decades, an expensive commitment to both the government and the parents. The returns after completion of the education are obviously obtaining jobs with reasonable income commensurate with the level of education and training which the students receive. The courses of study under a group of disciplines specially structured and introduced in the universities upon emerging demands placed by the employment sectors and with the foreseeable prospects for some courses in employment market are important to the students and parents. The intermission between the time of receiving degrees and accepting placement is as important as the nature of courses. Because, delay time means cost. In order to obviate and to reduce the cost of time, universities organise interviews between graduates and the prospective employers through placement cell or division. Where there exist no such arrangements, the employment and training department in the Central/State Administration and/or University Students Employments Information Guidance Bureau (USEIGB) help the graduates in one way. The graduates of some disciplines are successful while some fail in securing employment in time. The time varies between a few weeks and few years. It is therefore necessary to observe the lag period in securing employment by students of both special and conventional courses.

Table 4.3 presents the pattern of distribution of respondents of specialised courses for the wait period from the date of commencement to the date of securing employment. Over 60% of 400 respondents stated that they were able to secure jobs immediately after graduation in the respective disciplines. There were 112 respondents to add that they had to wait for one year to find jobs. The lag period extended to two years for 32 respondents. The worst of the lot of 400 could find job in 2-5 years this was less than 5% of 400.

When an analysis was made to isolate the disciplines which enabled the respondents to secure jobs immediately the disciplines explicitly promising for jobs. Communication helped 92.9% of the 14 students. There was only one who was to wait for more than two years or more. It could be concluded that a discipline which is close to the mass media and thereafter to the public is promising jobs immediately after completion of the study.

Veterinary sciences as a discipline of special study was chosen by a marginal group of students. All the 16 could get jobs in one year time. They were as found in the previous sectors the wards of low income parents majority of whom were from rural centres.

Table 4.3

(a) Wait Period of the Respondents of Specialised Courses in securing jobs.

Sl No	Courses of Study	ON COMPLETION		ONE YEAR		1-2 YEARS		2-5 YEARS		TOTAL	
		No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%
1	Physical Sciences Chemical Sciences	49	59.0	24	28.9	8	9.6	2	2.4	83	100.0
2	Life Sciences	34	75.6	5	11.1	1	2.2	5	11.1	45	100.0
3	Engineering & Technology	37	48.7	35	46.1	4	5.3	0	0.0	76	100.0
4	Medical Sciences	29	72.5	3	20.0	3	7.5	0	0.0	40	100.0
5	Veterinary Sciences	14	87.5	2	12.5	0	0.0	0	0.0	16	100.0
6	Earth Sciences	16	40.0	16	40.0	8	20.0	0	0.0	40	100.0
7	Economic Sciences	11	68.8	3	18.8	1	6.3	1	6.3	16	100.0
8	Management & Commerce	20	64.5	11	35.5	0	0.0	0	0.0	31	100.0
9	Social Sciences	24	61.5	8	20.5	7	17.9	0	0.0	39	100.0
10	Communication	13	92.9	0	0.0	0	0.0	1	7.1	14	100.0
	Total	47		112		32		9		400	

Table 4.3
(b) Wait Period of the Respondents of conventional courses in securing jobs.

Sl No	Courses of Study	ON COMPLETION		ONE YEAR		1-2 YEARS		2-5 YEARS		ABOVE 5 YEARS		TOTAL	
		No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%
1	Physical Sciences	27	46.6	16	27.5	8	13.8	5	8.6	2	3.4	58	100.0
2	Life Sciences	30	75.0	4	10.0	0	0.0	4	10.0	2	5.0	40	100.0
3	Mathematical Sciences	44	46.8	18	19.1	20	21.3	8	8.5	4	4.3	94	100.0
4	Social Sciences	80	64.5	8	6.5	12	9.7	12	9.7	12	9.7	124	100.0
5	Commerce	15	34.1	12	27.3	4	9.1	11	25.0	2	4.5	44	100.0
6	Languages	16	40.0	2	5.0	8	20.0	9	22.5	5	12.5	40	100.0
	Total	212		60		52		49		27		400	

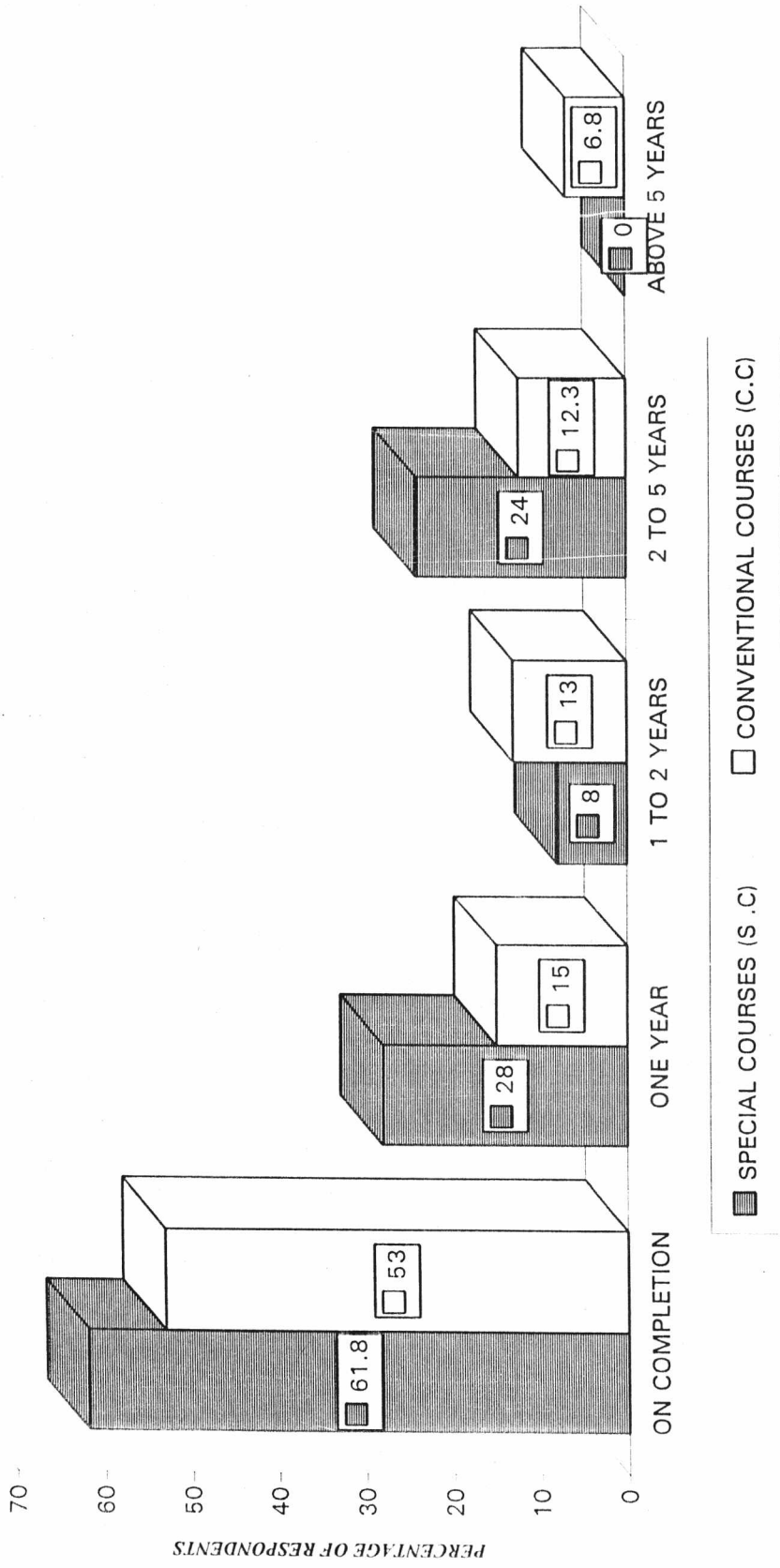


FIG 4.3 Wait Period of Respondents in securing Jobs

Fourteen out of 16 were able to secure jobs immediately after completion of the study.

Medical sciences seemed to be job potential next to veterinary sciences. There were 40 respondents of whom 29 got jobs immediately after completion of the study. The remaining were able to find jobs in two years, life sciences were described to be the disciplines promising less opportunity than others for jobs, in the observations, 39 out of 45 respondents got jobs within one year. Only 5 had to wait for more than two years. This lent to conclude that popularity of the courses did not reflect in job market.

CHAPTER - V

ASSESSMENT OF EMPLOYMENT AND EARNING POTENTIAL OF SPECIALISED AND CONVENTIONAL COURSES

The graduates of specialised courses were observed to have more advantages in employment market, than those of the conventional courses. Direct recruitment through competitive examinations, campus recruitment and self employment for the specialised courses are the advantages which are not available to conventional courses. The decision makers in education, administration and the university management could not be contented with mere magnitude of the job-potency of the courses.

5.1 WAGE POTENTIAL PROSPECTS

The pattern of distribution of monthly income of the students of specialised courses and the status of employment were discussed in the above section. The specialised courses which have direct relevance to employment included chemical sciences, engineering and technology, earth sciences, medical sciences, economical, management, and commerce, and communication. These courses are specifically designed by the universities to supply immediate manpower to the needy sectors of development. They do not possess significantly curricular link with the conventional courses. This is characterised by the mode of selection of students for specialised courses. For example, there is no rigid rule on basic qualification. The students of few disciplines can seek admission to specialised courses. The aptitude and skill are the criteria for admission. On the other hand, conventional courses at post graduate degree level demand basic degree in a discipline to which the students seek admission. However, the students of both conventional and specialised courses add to the scientific man-power and have caused expenditure to the universities. Hence, the comparison is warranted to assess the employment and income potentials of both the category of students (Table 5.1a and b). It is also aimed to evaluate the impact of specialised courses on conventional courses with regard to employment.

Six disciplines under conventional courses were considered for analysis. These courses have some identity with special courses. There are some exceptions in a few conventional disciplines. For example, mathematical sciences and languages do not appear under special courses. Physical sciences and commerce are found in the list of specialised courses. The responses on income as presented in table 5.1a and b are exclusively for

Table 5.1

(a) Monthly Income of the Respondents of specialised courses

(Salaries in rupees)

Sl No	Courses of Study	BELOW 2500		2500 - 4000		ABOVE 4000		RESEARCH STIPENDARY		RESEARCH NONSTIPENDARY		TOTAL	
		No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%
1	Physical Sciences Chemical Sciences	13	15.7	7	8.4	32	38.6	15	18.1	16	19.3	83	100.0
2	Life Sciences	12	26.7	8	17.8	24	53.3	1	2.2	0	0.0	45	100.0
3	Engineering & Technology	6	7.9	8	10.5	62	81.6	0	0.0	0	0.0	76	100.0
4	Medical Sciences	6	15.0	12	30.0	20	50.0	0	0.0	2	5.0	40	100.0
5	Veterinary Sciences	0	0.0	0	0.0	16	100.0	0	0.0	0	0.0	16	100.0
6	Earth Sciences	2	5.0	10	25.0	27	67.5	1	2.85	0	0.0	40	100.0
7	Economic Sciences	11	68.8	1	6.3	4	25.0	0	0.0	0	0.0	16	100.0
8	Management & Commerce	7	22.6	3	9.7	20	64.5	1	3.2	0	0.0	31	100.0
9	Social Sciences	22	56.4	13	33.3	4	10.3	0	0.0	0	0.0	39	100.0
10	Communication	2	14.3	0	0.0	12	85.7	0	0.0	0	0.0	14	100.0
	Total	81		62		221		18		18		400	

Table 5.1

(b) Monthly Income of the Respondents of conventional courses

(Salaries in rupees)

Sl No	Courses of Study	BELOW 2500		2500 - 4000		ABOVE 4000		RESEARCH STIPENDARY		RESEARCH NONSTIPENDARY		TOTAL	
		N.R	%	N.R	%	N.R	%	N.R	%	N.R	%	N.R	%
1	Physical Sciences	6	10.3	5	8.6	30	51.7	14	24.1	3	5.2	58	100.0
2	Life Sciences	2	5.0	3	7.5	15	37.5	6	15.0	14	35.0	40	100.0
3	Mathematical Sciences	18	19.1	11	11.7	54	57.4	7	7.4	4	4.3	94	100.0
4	Social Sciences	19	15.3	57	46.0	48	38.7	0	0.0	0	0.0	124	100.0
5	Commerce	7	15.9	8	18.2	27	61.4	2	4.5	0	0.0	44	100.0
6	Languages	4	10.0	3	7.5	20	50.0	13	32.5	0	0.0	40	100.0
	Total	56		87		194		42		21		400	

conventional courses under six disciplines.

Over 80% of the students were found to be employed. And, 10.5% of the students were engaged to researches with stipends, only 5.3% remained unemployed. It appears that the conventional courses ensure equally job opportunities. Another distinct observation is that conventional courses promote higher studies like research at advanced level.

It could be seen that there were 194 (48.5%) respondents to declare that their monthly income was more than Rs 4000. The percentage of similar earning respondents of specialised courses was 55.3%. The relative merit is attributed high to special courses for the reason that they are of recent origin and tailored to fetch the students jobs. Immediately after their completion of the courses. However, the conventional courses are potential resources bases for large scale employment and encouraging higher studies.

Amongst 56 (14%) of the respondents earning Rs 2500 and less per month the disciplines of mathematical and social sciences figure more with percentage composition of 19.1% and 15.5% respectively. Contrarily, there were sizable number of them earning more than Rs 2500 per month amongst 94 responses received from mathematical sciences, 57.4% were reported to earn more than Rs.4000 and only 11.7% with income between Rs.2500 and Rs.4000.p.m. The respondents from the category of social sciences were 124 in number who earned more than Rs.4000 pm. And 57 out of 124 reported their monthly earnings between Rs.2500 and Rs.4000. The discipline mathematical sciences contributed at least 7.4% researchers where as social sciences did not contribute.

The disciplines of physical sciences seemed to be fairly potential for jobs and researches but not matching with mathematical sciences although they are kins in the realm of science. There were 58 responses which is 14.5% of 400 sampled for the study.

More than 50% of 58 respondents earned Rs. 4000 pm. which is close to the percentage of the respondents identified with mathematical sciences.

The discipline, life sciences containing courses of conventional types appeared to be weaker than other sciences with regard to their potential for jobs. Only 40 responded. Fourteen out of 40 remained unemployed and six were engaged to research with stipend.

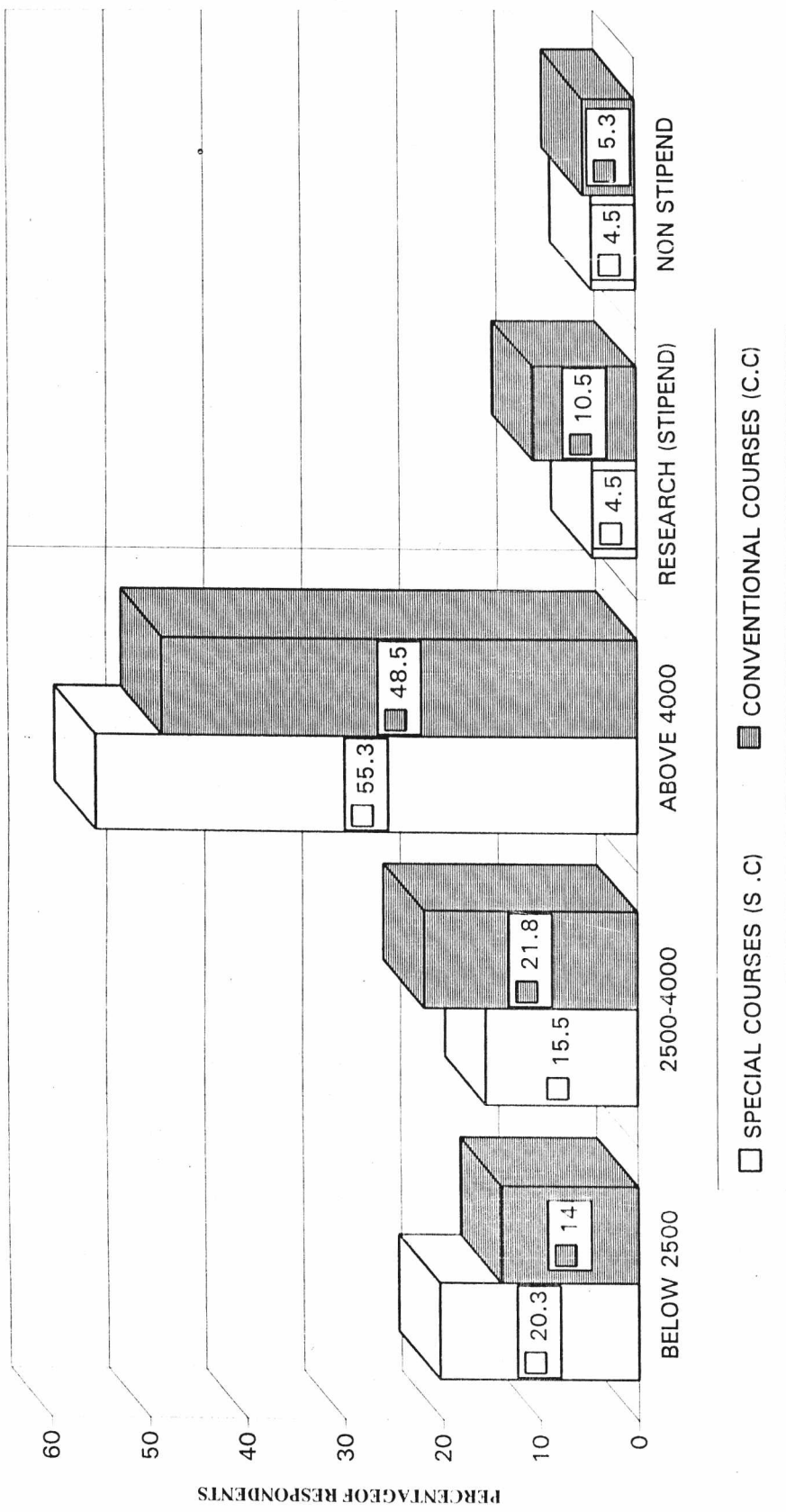


FIG 5.1 Monthly Income of the Respondents

15 (37.5%) earned monthly salary of Rs.4000 and above. Three earned monthly Rs. 2500-Rs.4000. Only two respondents said that they could not make income over Rs. 2500 pm.

Commerce and Language are non-science disciplines. They have been conventional disciplines for periods longer than science disciplines. Yet, they have gained in the course of time potential to fetch jobs in addition to opening scope for advanced studies. Forty four out of 400 respondents were commerce students. Thirty five were on jobs fetching a monthly income ranging from Rs.2500 to 4000. There were no unemployment. Over 60% of the 45 earned more than Rs.4000 p.m. and about 20% between Rs.2500 and 4000 p.m.

As in the case of commerce, languages as a discipline do not have direct relationship with any of the above science disciplines. Only 40 (10% of 400) responded. Surprisingly 50% of them earned more than Rs.4000 and above pm; Three of them were reported to have monthly income in the range of Rs.2500- 4000 and only four with monthly income less than Rs.2500.

General inferences out of observations on pattern of income earned by both the respondents of conventional and special courses are as below

- (a) The special courses are more job-oriented than conventional courses. As a result, the jobs are available to students of special courses and the income levels of such students are more than that of the conventional courses.
- (b) Unemployment amongst the students of life sciences registers high. This is substantiated with the responses received from those who have gone through conventional courses of study.

The employment potential to the students of specialised courses of study under the discipline of life sciences is fairly high. The period of introduction of these courses has been in the past 10 years. And, yet the income through direct employment seemed to be higher than those students who underwent conventional courses.

The present level of employment and earning capacity of the students of conventional courses might be due to their acquiring additional qualification after post graduation. This is signified with the responses that high percentage of such students are found in research works with stipends.

- (c) The Non-Science disciplines like commerce, languages, communication etc., register higher percentage of employment with monthly earning exceeding Rs. 4000 than some of science disciplines under both conventional and specialised courses of study. This is to throw evidence that the curricula for these disciplines have been revised and structured to meet the demands of employment market.

It is recommended that the disciplines of special nature seemingly weaker in job and earning potential need special attention of universities and university Grant Commission(UGC).particularly with respect to syllabus and the facilities created for them. May be that they are introduced to meet short term needs. But the fact that they should become base for advanced studies and the teachers of the department should sustain more attention to the subjects cannot be ignored.

5.2 COURSES OF STUDY AND THEIR RELEVANCE TO JOBS

Universities offer courses of study under different diciplines. They are divided in range and varying in nature of contents. Some are conventional while some are non conventional. The conventinal courses of study are to impart education on the basic sciences which may open new frontiers commensurate with recent developments in science and technology. They branch out in the course of time to development of new areas of study. These areas are termed specialised courses. Speciality is in other words an off take from the conventional courses. They are biased to a set of objectives. Amongst many of the objectives, employment after education forms the core. This is in a sense that specialised courses are biased to employment of specific nature, the conventional courses are however broad-based and tailored to meet more than one type of employment.

The relevance of course of study and the employment remain a topic to be discussed in detail under different contexts. However, the higher education in universities and institutions are argued to be relevant to the social cultural and economic contexts. The specialised courses are for instance, termed to be need-based and constructed with units of study closely related to the demands in the employment market. The graduates with educational qualifications at under graduate and post graduate levels are generally interested in securing employment claiming their speciality. Majority of them accept jobs which come to them immediately after completion of their study. The jobs may be or may not be relevant to their subjects of study. They may continue to perform their duties

Table 5.2
COURSES OF STUDY AND THEIR RELEVANCE TO JOBS
a. Specialised Courses

Sl No	Courses of Study	RELATED		NOT RELATED		TOTAL	
		No. of Respondents	%	No. of Respondents	%	No. of Respondents	%
1	Physical Sciences & Chemical Sciences	82	98.8	1	1.2	83	100.0
2	Life Sciences	45	100.0	0	0.0	45	100.0
3	Engineering & Technology	76	100.0	0	0.0	76	100.0
4	Medical Sciences	40	100.0	0	0.0	40	100.0
5	Veterinary Sciences	16	100.0	0	0.0	16	100.0
6	Earth Sciences	40	100.0	0	0.0	40	100.0
7	Economic Sciences	11	68.8	5	31.3	16	100.0
8	Management & Commerce	31	100.0	0	0.0	31	100.0
9	Social Sciences	39	100.0	0	0.0	39	100.0
10	Communication	12	85.7	2	14.3	14	100.0
	Total	392		8		400	

b. CONVENTIONAL COURSES

Sl No	Courses of Study	RELATED		NOT RELATED		TOTAL	
		No. of Respondents	%	No. of Respondents	%	No. of Respondents	%
1	Physical Sciences	53	91.4	3	8.6	58	100.0
2	Life Sciences	32	80.0	8	20.0	40	100.0
3	Mathematical Sciences	82	87.2	12	12.8	94	100.0
4	Social Sciences	53	42.7	71	57.3	124	100.0
5	Commerce	32	72.7	12	27.3	44	100.0
6	Languages	30	75.0	10	25.0	40	100.0
	Total	282		118		400	

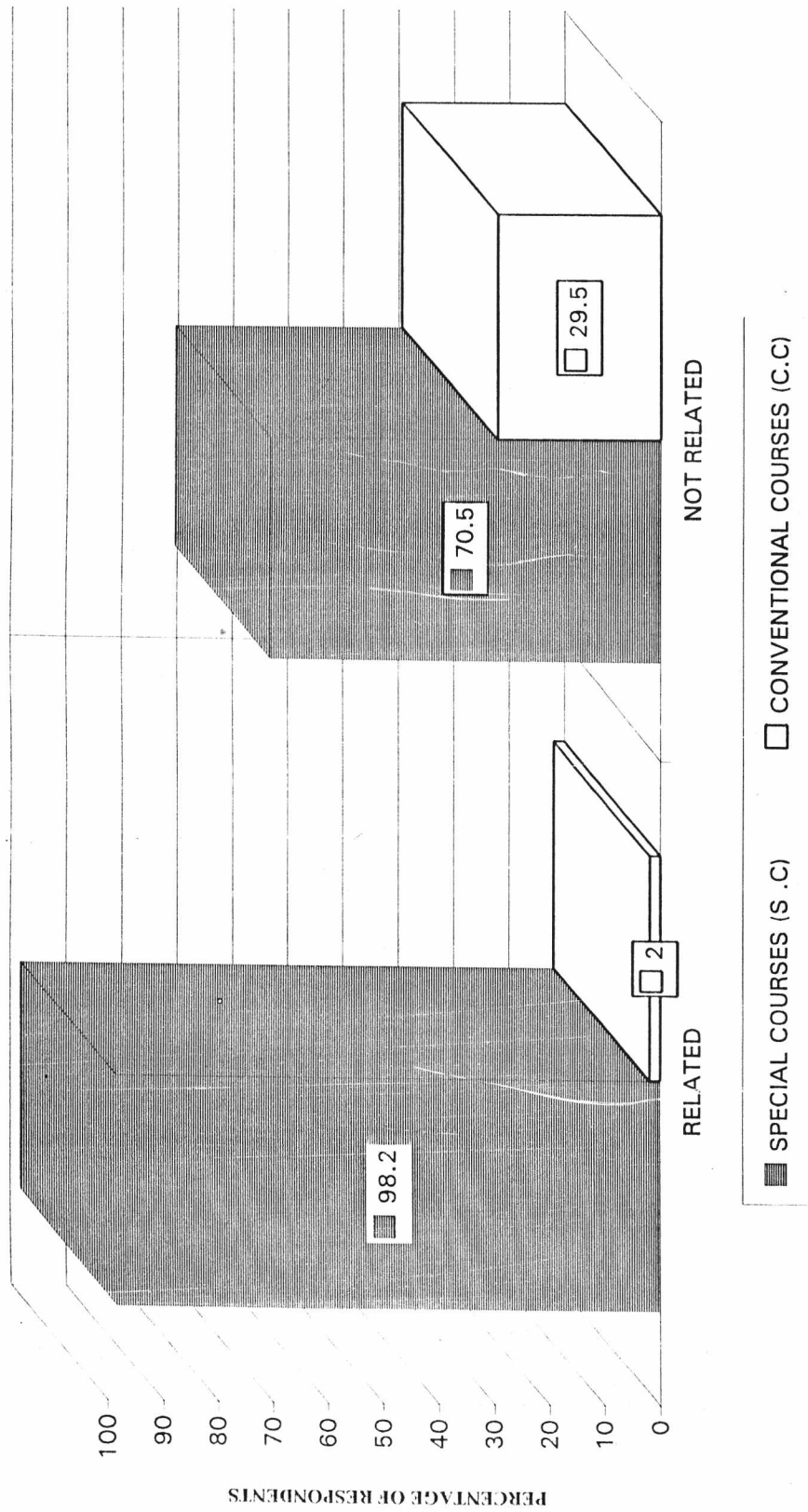


FIG 5.2 The Relevance of the Subject Studied and Placement

with the emoluments paid to them. However, their satisfaction on the jobs depends on their knowledge gained through courses of study in the universities. It is therefore felt necessary to make an assessment amongst the students of specialised and conventional courses, the level of satisfaction on the jobs and their personal views on the relevance of subjects of study to the nature of jobs.

5.2.1 Specialised Courses

The same sample of students (400 in number) were requested to respond to the questions related to job satisfaction and relevance of the subjects to their jobs (Table 5.3). The responses reflect that the specialised courses have direct relevance to the jobs. Anyhow, there are few disciplines which do not seem to be relevant. In the above table, one could find that 98% of the 400 respondents expressed that the courses of study were relevant to the job. Only 2% of 400 respondents differed

This 2% of the respondents were amongst the disciplines, viz physical and chemical sciences (1.2% of 83 respondents) economic sciences(31.3% of 15 respondents) and communication (14.5 of 14 respondents) these disciplines are at any rate not directly oriented to specific jobs. Also the graduates having specialised in these disciplines seemed to be not particular about the jobs. Securing jobs might be their prime motive.

The observations revealed explicitly that the specialised courses bear job-potential and ensure jobs to a great extent. It is to be noted that there have been lag periods between the time of graduation and obtaining jobs even by the graduates of special disciplines. This lag period did not however exceed more than one year.

5.2.2 Conventional Courses

The respondents who underwent conventional courses reacted to the question of relevance of their study to jobs. The responses were different from those of specialised courses (Table 6.2a). Amongst 400 responses, 70.5% were to register that courses of study were relevant to the jobs only 29.5% of them were to respond that the courses of study were irrelevant.

An analysis was made to identify the disciplines which did not have relevance to the jobs. The disciplines social sciences topped the list in the category of non relevance.

Seventy one out of 124 respondents reported in this manner. This is a high percentage (57.3%). The actual number of respondents from social sciences on job is however unknown. It was discussed earlier that intermission between the time of graduation and that of obtaining jobs for those of social sciences varied from 2 to 5 years. The time lag coupled to the low level of relevance of the courses of study to jobs might have prompted the respondents to stress so. Commerce as a conventional discipline was reported by 27.3% of 44 respondents to have weak relevance to the jobs.

There were similar responses found in all the disciplines. But the percentage of responses for non or less relevance of courses of study to jobs was less than 10%.

The relevance of courses of study was positively responded by the graduates of science disciplines. Also the sciences with application of physics and mathematics were found to have strong relevance to the jobs. The percentage of positive responses varied from 80 to 91.4.

The observations led to conclude that specialised courses of study are more relevant to jobs than conventional courses.

5.3 OPINION OF THE RESPONDENTS ON APPLICATION ORIENTATION OF THE COURSES OF STUDY

The universities introduce now and then new courses of study. There is a long process in formulating new courses. The members of teaching faculty of the departments pool their schemes to create new discipline or course of study under existing discipline(s). A draft syllabi is framed by them. A board of studies duly constituted by the syndicate of the university examine the syllabi and recommend to the academic council and further to the syndicate for approval of the course of study. The process though found to be acceptable to the highest bodies of the university, is not totally fool-proof. This is in the sense that there is little interaction with the prospective employment sectors even at the stage of formulation. The courses of study are announced. At one time, the students may avail the counselling of teachers of the department and read the prospectus. At times, parents counsel them. Relevance as meant by the students is theoretical base to understand the definitions of special topics. But, the real application of the theory in practice is seldom taught. The materials and methods and translation of the theory and topical experiments

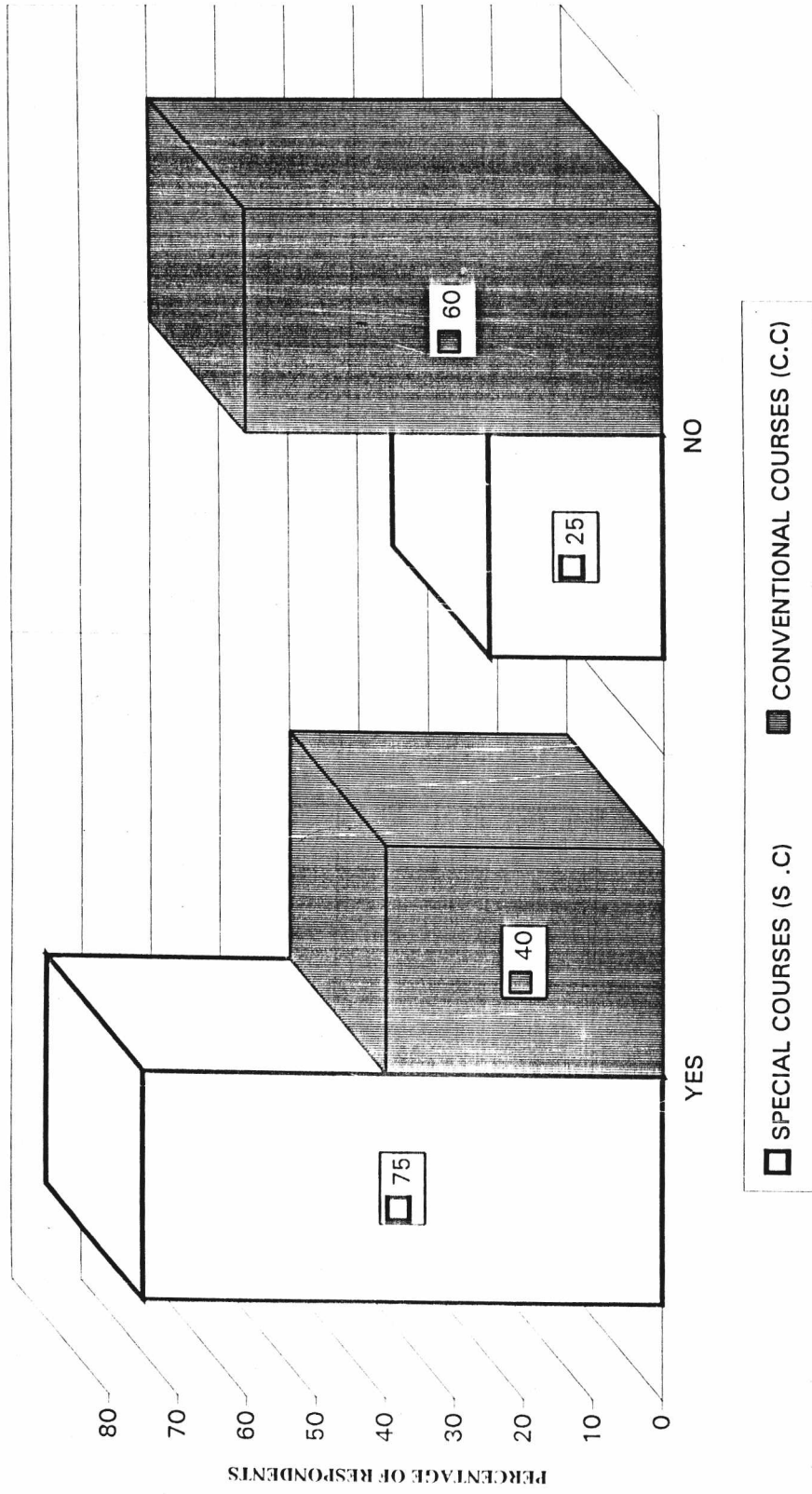


FIG 5.3 Application Orientation of the Courses

are precisely wanted by the respondents.

In table 5.3 presents the observations on the opinions of respondents of both the specialised and conventional courses. It appeared that a majority (77.8%) of 400 respondents of specialised courses expressed their satisfaction over the application of knowledge gained from the university teaching and training. These observations are obviously conforming with the curricula. For example, engineering and technology, veterinary and medical sciences, earth sciences, etc. contain a fair mix of theory and practice.

The satisfied respondents were able to see for themselves the fundamental outfits and assemblies of experimental subjects and experience through observations. Hence their satisfaction is justified.

Table 5.3
OPINION OF THE RESPONDENTS ON SYLLABUS

Courses of Study	Very much Satisfied		Satisfied		Not Satisfied		TOTAL	
	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%
Specialised Courses	74	18.5	186	46.5	140	35.0	400	100.0
Conventional Courses	41	10.3	161	40.3	198	49.5	400	100.0

There are respondents amongst the above category to express their dissatisfaction. This might be due to inadequate facilities for training in the universities. Inadequacy could compound with non-availability of experienced and qualified teachers, non availability of good workshop or laboratories and insufficient exposure of scholars to live situations. The segment of such respondents was 22.3%.

The respondents of conventional courses were to the opinion that the courses of study had no applications related to the jobs. They constituted to 68.2%. The remaining 31.8% agreed that their study programme had some gearing towards application to the jobs.

The general conclusion is that the universities do not seem to have adequate facilities to expose the respondents to areas where theory and practice are simultaneously applied. The facilities could be in terms of laboratories, libraries, workshops etc.

A suggestion could be made at this stage that the graduate students at UG and PG levels could be placed for a short duration in organisations which may eventually employ them. The exposure could be in the form of on site training in the premises of industries, research organisations and governmental departments. This training will give them an opportunity to learn by experience the theory. The live situation is seen and experienced.

The model of training of students of sciences and commerce by the University Students Advisory Bureau (USAB) of the university of Madras can be adopted by the other universities. The training programmes exclusively for the students of science and commerce are seldom considered important by most of the universities, USAB of university of Madras formulated a scheme a decade ago to expose the students of pre-final M.Sc/M.com and B.Sc classes to Industries and national laboratories. The exposure is for a period of one month. Stipends are paid to them in order to meet incidental expenditures during one month training. They gain strength and confidence indirectly. By working with the experienced staff, they could understand the relevance of the courses of study and the direct application of what they learn in the class rooms and laboratories. The above scheme could be adopted at the national level with involvement of the department of science and technology Govt of India. an euphoria industry- university interface is really brought true.

5.4 JOB SATISFACTION

In the earlier sections, various aspects related to job opportunities income earned through the jobs, time spent between graduation and obtaining jobs, relevance of the courses of study to jobs etc were discussed. The graduates of specialised courses responded positively to many of the questions. On the other hand, the graduates of conventional courses of study were found to have less opportunities in employment market than those of specialised courses of study. They had to wait for a period of one or more years in securing jobs. Also, the conventional courses were reported to have less relevance to jobs. The responses varied in percentage. Anyhow all surveyed graduates of both specialised and conventional disciplines were able to hold jobs within a period of 5 years from the time of receiving degrees.

The level of satisfaction of the respondents on the jobs held by them was considered in this study. This is because of the fact that there is large scale unemployment amongst

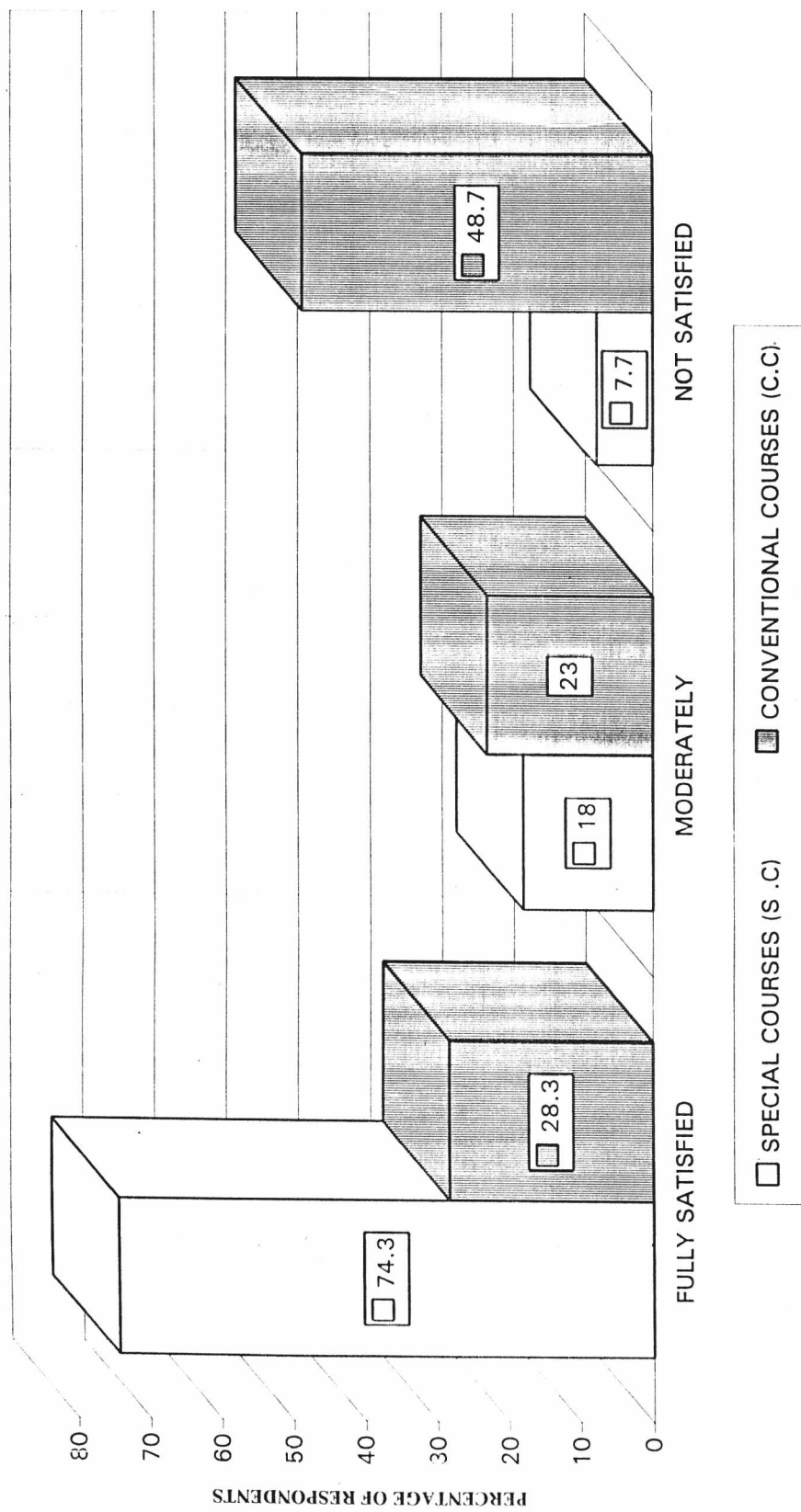


FIG 5.4 Job Satisfaction among the Respondents

the educated youth at least in the last two decades. Getting a job in time matters a lot to the graduates who went through Specialised and specialised courses at UG/PG levels. It is more so in the case of graduates of conventional courses.

The levels of satisfaction were classified into three categories. The first category was fully satisfied, the second moderately satisfied and the third not satisfied. The responses were computed in percent and the number of responses from the sample of 400 subjects. Fig. 5.4 presents the observations against level of satisfaction derived from the jobs.

It appears that 74.3% of 400 respondents of specialised courses were fully satisfied with the jobs held by them. And 18% of them could not say firmly on satisfaction on their jobs. A marginal percentage (<8%) appeared to be not satisfied.

It is interesting to observe that over 80% of the respondents of the specialised courses/disciplines agreed to the fact that jobs had relevance to the courses. On the contrary, nearly 25% of the 400 respondents expressed their partial or no satisfaction on the present jobs. It is therefore difficult to make any conclusive statement on job satisfaction.

The satisfaction on job might to some extent be referred to working environment and the emoluments for the type of jobs the respondents are to perform.

In case of respondents from conventional courses, job satisfaction seems to be a concern. About a third of them expressed their full satisfaction. It was about 50% of the 400 respondents expressing their dissatisfaction and the point of partial satisfaction was indicated by 23% of the respondents.

The general inferences are drawn as follow :

- a) The graduates of special courses were satisfied with the jobs to an extent of 75% and there is a need to bring up the satisfaction amongst them. This might be possible by amending the syllabi suitably to meet the needs of the employment market. It is found necessary to investigate in detail the working environment prevailing at the work place in an effort to identify the needs for upgrading their satisfaction at university level.

- b) The graduates of conventional courses do not seem to have job satisfaction. The grounds for dissatisfaction are to be investigated. Whether the dissatisfaction centres around the type of education and training in the university or the jobs held by them demand before hand special skill and aptitude are to be investigated.

5.5 JOB PREFERENCES AND ROTATION

It was discussed in the earlier sections that job-potential was high for the respondents of specialised courses. It was otherwise in case of those of conventional courses.

A sizeable number of respondents having mastered in specialised courses was able to secure jobs within one year after the completion of the study. It took more than one year for those having majored in conventional courses. The respondents had diverse socio-economic background. More than 50% of the respondents of both categories of the courses were wards of middle or low income groups of parents. They were also from families with size varying from four to six. Hence, the eagerness to accept the employment in time and need to work were the compulsory factors. However, there may be circumstances which might have forced the respondents to accept the first offer and reject the same within short period for some reasons. This means the prevalence of special preferences in the minds of the respondents and liberal and conducive environment for rotating the jobs.

Table 5.4 presents the observations on job preferences and the reasons for change of jobs. The surprising and perhaps relevant observations were that the respondents having majored in specialised courses accepted the immediate offer of jobs and continued to stay on the same. They were 312 out of 400 respondents. They did not intend to switch over to other jobs with other agencies. This gives rise to a conclusion that the jobs held by them were satisfactory in all respects. There could be no grounds like salary, job satisfaction, working environment etc. which could prompt them to change the jobs.

In the case of respondents having required in conventional courses, the percentage of acceptance of the first offer of jobs and continuance was 26.8%. and, the number of respondents who did not accept the immediate offer of jobs and decline the same was 293 out of 400 respondents. This was about three folds higher than that of the specialised courses. The trend in acceptance and rejection of the first jobs moved in the same proportion.

The reasons for declining the very immediate offer of jobs as found in the responses are many. They ranged from personal preferences, family commitment, and working environment, to low salary. It was found relevant to checklist the reasons with which the respondents had to decline the first offer of jobs.

In table 5.4 one could observe the registration of respondents against all the reasons as found above. There were 88 out of 400 respondents of specialised courses who did not accept the job which came first in hand. It was 42% out of 83 respondents who stated that they did not like the jobs. No other reasons were to be traced. These respondents were engineers and technologists. It is logical to reason that there are enough opportunities for them to find jobs suiting to their speciality.

Salary was one among the major reasons for declining the first jobs. This was responded by 38.6% of 83 graduates of specialised courses. The salary which was considered low by them was not matching with the salary of persons who did not go through any special study or training. Besides, the quality of life aimed by them demanded income exceeding Rs. 5000 pm. This reason resembled closely with the personal preference, but the count was on salary.

Family commitment was one among the reasons for declining the jobs by 12 out of 83 respondents. This is marginal. However, validity of the reasons need be established. They may be the eldest child in the families with size more than 4. The compulsion for their physical presence in the native district was ascribed. Marriage of the sisters, education of the younger ones and saving from the income by staying in the native district were some commitments given to the understanding of the team of investigators.

The environment in the work place was a concern to only 5 out of 83 respondents, and too much responsibility and odd and long hours of work were stated to be the major reasons.

The respondents having majored in conventional courses under various disciplines including life sciences, economical sciences, physical sciences, commerce etc., were able to secure jobs within two years from the date of graduation. The job potential was not as bright as for the graduates of specialised courses. A majority of them were urban based and the wards of middle income groups of families.

Yet, the occasions were prevalent for their dealing jobs which came first. The number of respondents to declare that they had to decline the jobs was 293 out of 400 sampled for this study. This was comparatively higher than that recorded for the graduates of specialised courses.

The low salary was the primary concern to 116 of 293 respondents. The jobs were available with low salary as concluded in the earlier sections. The conventional courses are broad-based and the graduates of these courses are not particular about the nature of jobs. Hence, the inclination for a particular jobs is less found amongst them. The aptitude to take up jobs with decent salary was high with them.

Table 5.4
JOB ROTATIONS AND PREFERENCES

Courses of Study	FIRST JOB		NOT FIRST JOB		TOTAL	
	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%
Specialised Courses	312	78.0	88	22.0	400	100.0
Conventional Courses	107	26.8	293	73.3	400	100.0

Family commitment was one reason which 97 out of 293 respondents cited in their responses. All the reasons and ascriptions given under the above sections are applicable.

Personal dislikes for the jobs are another reason. The dislikes were for performance of duties for which they were not educated and trained. Besides, the jobs offered to them were not considered to be white collared ones. They wanted positions which commanded social respect.

The distance of the work place from home towns, and the botheration of self-maintenance with limited resources were remarked by some respondents. There could be preferences other than the above. For example, anticipation of better jobs, staying within the state, etc , were some to mention.

The other reasons like non-conducive atmosphere in the work place, could not be cited as a compelling factor. Yet, the employment opportunity available and necessity for declining the first offer of job arose.

5.6 MARITAL STATUS

The present study was to cover a period of about 12 years (1980- 1992). The respondents were there who graduated in the course of time between 1980 and 1992. The more probable age of the graduates could be 18 years and above at the time of entry into specialised and conventional courses at undergraduate and post graduate level. And, they might have attained the age of 21 years and above when they completed the study. The age of 18 years qualifies them to be employed and the age of 21 years to be married. This means that the adults should support themselves and become part of the work force in country's developmental programmes.

Table 5.5
MARITAL STATUS OF RESPONDENTS

Courses of Study	Before getting placement		After getting placement		Unmarried		TOTAL	
	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%
Specialised Courses	69	17.3	134	33.5	197	49.3	400	100.0
Conventional Courses	155	38.8	79	19.8	166	41.5	400	100.0

The present study covered a sample of 400 respondents from amongst the graduates of specialised courses and 400 from amongst the graduates of conventional courses. All the 400 respondents from each category of courses seemed to have obtained degrees from the universities at a time commencing from 1982 and closing with 1990. Special efforts were made to screen the respondents who graduated earlier to 1980. Hence, the age groups of the respondents covered under this study were between 21 and 30.

It could be seen under various sections that respondents were occupied. Of course, a marginal percentage of the respondents of conventional courses seemed to be unoccupied. Occupations with sustainable income are considered, parameters for marriages. This is true more with the male graduates than with the female graduates. The socio-economic status of the parents and the circumstantial compulsions are determinants in the marriages of women graduates. It could be seen from the table 5.5 that more than 40% of the respondents of specialised courses were women and it was about one third of 400 respondents of conventional courses.

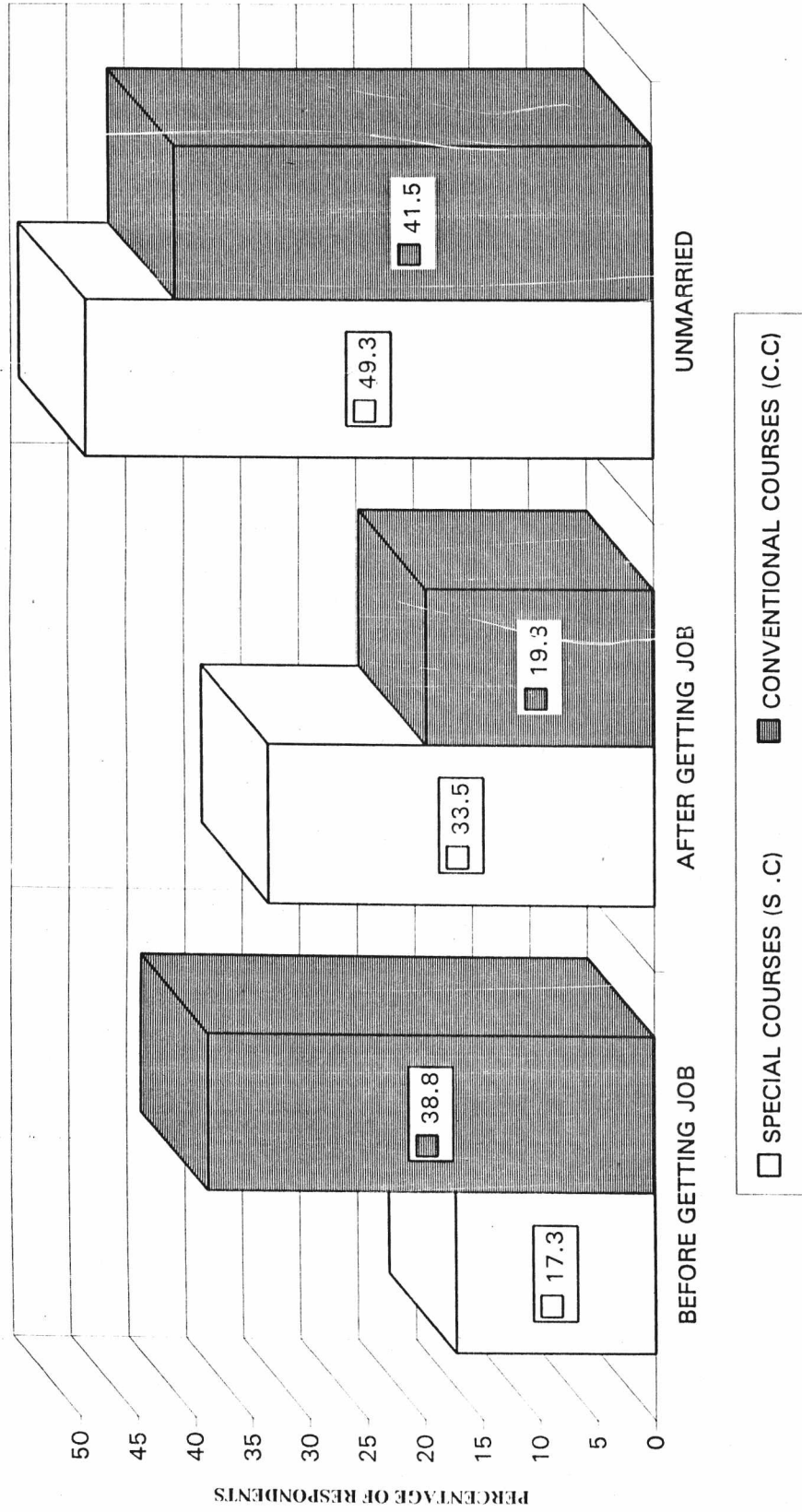


FIG 5.5 Marital Status of the Respondents

Table 5.5 presents data on marital status of the respondents covered under this study. The observations included marital status of the respondents before and after they secured employment. It is interesting to observe that 69 (17.3%) of 400 respondents of specialised courses married before they secured employment. These married respondents were by and large women. In the same manner, 155 (38.8%) of 400 respondents of the conventional courses were married before securing employment. These married respondents were largely women.

The observations on marriages before securing employment lent to conclude that marriage of the educated women graduate is a great concern to the individuals themselves and to the parents. Such respondents belonged to the families with monthly income exceeding Rs 5000 and above. It is significant to observe that the retired employees of the government and the self-employed persons are the parents of 69 respondents under specialised courses and 155 under the conventional courses. However, the time interval between the time of graduation and the time of marriage could not be precisely stated. Anyhow, from Table 5.5 it could be seen that the lag period until the time of securing jobs varied from few weeks to one year after graduation in the case of specialised courses. The lag period extended to 2 years in the case of respondents of conventional courses. Hence, marriages of the respondents could have taken place in a span of one to two years before they secured jobs.

The data on marital status of the respondents who secured jobs and were settled throws a revealing fact that respondents from among the specialised courses were married only after their employment. This is clearly 33.5% of 400 sampled for study. The personal interviews with the subjects and the reported responses confirmed that majority of them happened to be females and they were the wards of teachers scientists, engineers and doctors with monthly income of Rs 5000 and above. The nativity of such respondents appeared to reflect on their marital status. The rural based respondents who have specialised in engineering and technology veterinary sciences, medical sciences and economical sciences were to marry immediately after they found employment.

The male respondents under the groups of specialised and conventional courses did not seem to evoke interests in marriages. There was no relevance to the employment. As seen in table 5.5 about 50% of the respondents of specialised courses were found to be occupied with jobs in industries, research organisations (Universities / Laboratories) and

the governmental and non-governmental agencies. They had in hand professional experience over a period varying from 3 years to 10 years. Yet, the respondents were uncertain about marriage. Similar observations were found in the case of respondents belonging to conventional courses too. The reasons for the least concern or no concern for marriages ranged from social and cultural factors to economic status of the families of respondents.

Amongst the unmarried respondents under specialised courses, over 33.33% cited that they were yet to secure jobs with income sufficient to maintain family. About one fifth of the unmarried respondents from amongst specialised and conventional courses cited that their commitment to support the families. e.g. paying back loans for study, marriage of sisters, education of the younger ones etc was enormous. Such respondents were the wards of retired employees of the government. The other reasons placed by those who were engaged to research appeared to be genuine. This segment of respondents was marginal (< 15% each of specialised and conventional courses). They were mainly from semi-urban and rural centres. They were the wards of low and low - middle income groups of families. Stipends/Fellowship are the sole sources for boarding and lodging and study needs. They did not want to depend any more on parents and marriage was secondary importance. Primary interest was to earn Ph.D. Degree.

Above observations and critical analysis of the status of all the respondents hailing from rural semi-urban and urban centres and wards of parents with income varying from less than Rs 1000 to Rs 5000 and above, clearly throw some highlights reflective of their socio economic and cultural background. Jobs are available after completion of the study to those with speciality in sciences and professional courses.

Those who were engaged to researches as reported by some of the respondents could not be able to marry mainly due to financial reasons. Stipend money is the only source in order to promote researches in the specialised disciplines of study. Fellowship or stipendship should include supporting of spouse too. This will be an extension of special grant or aid offered to introduce special courses in the Universities.

CHAPTER - VI

GENERAL IMPRESSIONS OF THE RESPONDENTS ON SPECIALISED AND CONVENTIONAL COURSES

The policies of the government on education are being amended from time to time depending on emerging trends in national developmental programmes. National developmental programmes are multidimensional and multimode missions. The missions are launched with specific goals. The goals are to be achieved within a time frame varying from a period of one year to five years. In all such missions, a common element is human resource development (HRD). Human resource development encompasses a wide range of skills essentially required to achieve the goals of the missions. Generation of scientific and technical manpower is an important activity. This activity is to be entrusted to institutions at national and regional level. Regional level institutions are normally universities. Universities are thus known as reservoirs of scientific and technical manpower.

In the process of generating manpower, universities are bound to adjust themselves in response to the national needs. The adjustments are necessarily in the sphere of education and training. The old-fashioned education system is restyled to suit to the demand of the nation or a region. For example, a discipline of study which has served the needs of the past need be updated and / or ramified with addition or deletion of substances of the courses of study. The restyling may perhaps lead to creation of new disciplines. The new disciplines are made compact with a band of subjects tailored to meet time-bound targets. Nevertheless needs are not static and may continuously change. Hence, the subjects of disciplines are remoulded with topics closer to the objectives as set in the guidelines of educational policy. These are precisely termed as syllabi.

The syllabi of some courses of study become obsolete with time or might be inadequate in contents for immediate application. The obsolescence and upgradation of the syllabi are given consideration by the universities in accordance with their statutes.

The Universities consider such needs at a time. This time if scheduled in advance, will enable the teachers and students to go with the inapparent changes in needs. If not, newer needs might arise to increase the burdens on society. The burdens may reflect in low productivity of goods and services.

The present study covers the reasonable span of time (12 years) equivalent to two Five year Plans of India. There might have been more than one mission at national level during 1982-1992. Several national policies on education and development should have been announced by the governments. As a result, the universities have to create new outfits., For instance curricula of universities should have gone through changes.

The restructuring of the syllabi for the conventional courses could have been immediately done. Creation of new and specialised courses might have been effected. Thus, the demands and goals of the nation and national missions respectively have always been linked to universities.

These developments have been witnessed by the students and teachers of the universities. Teachers are normally the authors of courses of study. The beneficiaries of the courses of study are the students. Hence it is pertinent to call for the opinions of the respondents particularly on the syllabi of the conventional and specialised courses. These respondents were students of the universities and had spent at least for 5 years of their scholastic life in the premises of the universities.

The questionnaire was targetted to receive response as to whether the syllabi had any relevance to the time and professional needs.

Over 70% of the respondents from among the specialised courses of study expressed their satisfaction with the subjects. The subjects covered all important aspects applied to the type of jobs they held. There was however some difference even amongst them. This was reflected in 20% of the responses. The respondents were not to fully agree with what they commented. These responses appeared to satisfy the investigating team.

It was surprising to observe that about one third of the respondents were to stress that the specialised courses did not have subjects directly relevant to the application. They had to depend on their own strength to learn the relevant topics found in library materials. Another major weakness in the syllabi of the specialised courses as remarked by the respondents, was that many of the topics taught through the lecturer and practice were the same as those for conventional courses. The speciality was not distinguishable from the conventional courses.

The satisfaction and dis-satisfaction amongst the respondents of the specialised courses were more related to the syllabus. There is a need to frame the syllabus oriented to the speciality. As stated elsewhere, the specialised courses were derivatives of the conventional courses. Any how, the universities could make necessary changes in the syllabi in consultation with prospective employers and experts in the specific area. It is imperative for the universities to call for opinions of the agencies utilising the graduates of specialised courses.

In case of conventional courses, 50% of the respondents were not satisfied with the syllabi of subjects and desired that there must be changes in the curricula and syllabi of subjects taught in the universities. Some suggestions made by the respondents were that the subjects should contain topics on modern science and technology. These would enable them to perform well both in the interview and securing jobs. The change in pattern of examination was also suggested by them. This means that the respondents desire to have seminars, group discussions, term papers and objective evaluation of their achievement by their teachers. Credits for such evaluations should be added to the marks obtained in the semester / non semester examinations.

The above observations are important and form base for some actions by the universities. Syllabi for many of the subjects under conventional courses were framed some years ago. They need ramification consonant with the recent developments in science and technology. As for engineering and technology, medical and veterinary sciences, earth sciences, etc., the syllabi are satisfactory and at any rate laboratory practice is to be strengthened to expose them to the current science and technology.

6.1 FINDINGS OF THE STUDY

- I. The urban based youths outnumber their counter parts living in rural areas in having secured admissions in both specialised and conventional courses.
- II. The respondents from rural centres are better represented in specialised and conventional courses compared to respondents from semi urban centres.
- III. The wards of teachers, scientists and engineers are more admitted in specialised courses. The rural based respondents are more found in disciplines like veterinary and health sciences.

- IV. The parents with education above higher secondary level have played an important role as counsellors, decision makers and guides in the selection of courses for their wards.
- V. The disciplines including engineering and technology, medicine, management, commerce and communication were predominantly occupied by the children of educated elites.
- VI. The family income of the respondents of the specialised courses were found to be better when compared to the family income of the respondents of the conventional courses.
- VII. The respondents with better skill in communication in English were more found in specialised courses.
- VIII. Teachers and parents have played important roles compared to friends and media in counselling the respondents in the selection of the course of study.
- IX. The Public Service Commissions, Employment Exchanges and other competitive examinations have helped to a greater extent the respondents of conventional courses than those of the specialised courses in securing employment.
- X. Direct recruitment in companies, industries and research organisations had helped the respondents of the specialised courses in securing employment.
- XI. A discipline which is close to the mass media promise better job opportunities.
- XII. Medical Sciences seemed to be highly potential for employment. Life sciences were described to be the discipline promising less opportunity than other subjects for jobs.
- XIII. The income levels of the respondents of special courses are higher than the income levels of the respondents of conventional courses.
- XIV. The Non - Science disciplines like Commerce, Communication etc., register higher percentage of employment with monthly earning exceeding Rs.4000/- per month.
- XV. Higher percentage of students of conventional courses go for research works with or without stipends compared to students of conventional courses.

- XVI. About 98% of the respondents of the Specialised courses responded that the jobs they hold are closely related to the subjects they had studied in their masters degrees.
- XVII. About 30% of the respondents of conventional courses responded that the jobs they hold are not related to the subjects they studied in their masters degrees.
- XVIII The Specialised courses are more oriented towards employment of specific nature while conventional courses are broad based and tailored to meet more than one type of employment.
- XIX The respondents of specialised subjects like engineering and technology, veterinary sciences, medical sciences and earth sciences have expressed more job satisfaction as their subjects contain a fair mix of theory and practice, when compared to respondents of conventional courses.
- XX. More than 70% of the respondents having PG degrees in specialised courses were able to secure jobs within one year after the completion of their studies and it took more than two to three years for those having majored in conventional courses.
- XXI. The inclination for specific jobs is more found among the post graduates of specialised courses than among those of conventional courses.
- XXII. More than 75% of the respondents of specialised courses accepted the first offer of jobs and they did not opt for change of jobs, but more than 70% of the graduates of conventional courses declined their first offer for reasons like low salary, personal dislikes etc.

6.2 RECOMMENDATIONS

1. The colleges and schools in semi urban centres and rural centres, should equip themselves with information related academic programmes and employment opportunities.
2. Pre-training for pre-final classes of bachelors degree and final year students of masters degree classes need be organised in industries and national laboratories which would impart to students skill development and help them

gain self confidence in themselves.

3. The syllabi of the courses become obsolete with time or might be inadequate in contents for immediate application. Hence upgradation of syllabi should be done from time to time with the participation of the prospective employers.
4. Information centres and placement departments should form integral functionaries of all universities to encourage wide section of students to understand the value of academic programmes and availability of jobs to special courses of study and training.
5. There is a need to formulate and implement plans at national level for creation of scholarships or stipends sufficient to maintain spouse during advanced study leading to Ph.D/DSc.

APPENDIX - I

DEPARTMENT OF SCIENCE AND TECHNOLOGY
A COMPERITIVE STUDY OF SPECIALISE AND CONVENTIONAL
POST GRADUATE COURSES IN UNIVERSITIES OF TAMIL NADU
UNIVERSITY STUDENTS ADVISORY BUREAU
UNIVERSITY OF MADRAS
MADRAS - 600 005

QUESTIONNAIRE

(Please mark ✓ in appropriate place)

I PERSONAL DATA:

1. Name :
2. Sex :
3. Age (in years) :
4. Marital Status : Married
Unmarried

If married,

- a) when did you get married? 19
- b) Is your first job before your marriage? Yes
No

5. Nativity : Rural
Urban
Semi Urban

6. Address :
.....
.....
Pin :

7. Educational Qualification :

Course Studied	Major Subject	Year of Passing	Medium Eng/Tamil	Univeristy Studied
H.Sc/				
PUC				
U.G				
P.G				
M.Phil				
Ph.D				

II FAMILY DATA

8. Number of Family members :

Details about parents

Parent	Education	Occupation	Monthly Income (Rs)
Father			
Mother			

III COURSE DETAILS

(The questions in this section are related to your P.G course)

9. How did you come to know about your course ?

Through :

Parents

Teachers

Friends

Media.....

No Guidance

10. What is your motivation for choosing the course?

Job Potential

Popular

Self Interest

Friends

11. How was the decision taken for selection of the course?

Self

Parents

Relatives

12. What do you think about the course contents in your master's degree Programme?

Very Much Satisfactory

Satisfactory

Not Satisfactory

13. Was your Master's programme application oriented?

Yes :.....

No:.....

IV EMPLOYMENT DETAILS

14. Present Occupation

Year of joining	No. of years of service	Monthly Income(Rs.)	Organisation Govt/Priv/Research/Self Emp
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15. How did you secure the present job?

Through :

Employment Exchange :

Competative Examinations
of selcted bodies like

UPSC, TNPSC, BSRB, SSC, RRB, etc.,

Direct Recruitment

Self Employment

16. How long have you been waiting to get the present job?

- On Completion
- One Year
- 1-2 Years
- 2-5 Years
- 5 years and above

17. Is your present job related to the subjects you had studied?

- Yes No

18. What is your level of job satisfaction?

- Fully Satisfied
- Moderately Satisfied
- Not Satisfied

19. Is your present job the first one?

- Yes No

If no what are the reasons for declining the earlier offer(s)?

- Personal Dislike
- Family Commitment
- Work place not conducive
- Low salary

20. Which do you think that the Universities should concentrate on?

- Specialised Courses only
- Conventional Courses only
- Both Conventional &
Specialised courses

Place :

Date :

Signature

APPENDIX - II

List of Specialised Courses

I PHYSICAL SCIENCES & CHEMICAL SCIENCES

Applied Physics
Electrical Sciences
Laser & Electro Optics
Analytical Chemistry
Bio Chemistry
Industrial Chemistry
Environmental Chemistry

II LIFE SCIENCES

Applied Micro Biology
Marine Biology & Oceanography
Wild Life Biology

III ENGINEERING AND TECHNOLOGY

Energy Engineering
Urban Engineering
Ceramic Technology
Architecture
Town Planning
Leather Technology
Textile Technology
Foot Wear Technology
Bio Technology

IV MEDICAL SCIENCES

Medical Physics
Anatomy
Forensic Science
Environmental Toxicology
Physiology

V VETERINARY SCIENCES

Diary Sciences
Animal Husbandry Economics
Animal Husbandry Extension

VI EARTH SCIENCES:

Geology
Remote Sensing
Archeology
Applied Geology
Environmental Sciences

VII ECONOMIC SCIENCES

Econometrics
Mathematical Economics

VIII MANAGEMENT & COMMERCE

Labour Management
Hospital Management
Industrial Management
Corporate Secretaryship
Finance Control

IX SOCIAL SCIENCES

Social work
Rehabilitation Science
Anthropology

X COMMUNICATION

Journalism
Mass Communication

APPENDIX - III

List of Conventional Courses

I PHYSICAL SCIENCE

Physics
Chemistry

II LIFE SCIENCES

Botany
Zoology

III MATHEMATICAL SCIENCES

Mathematics
Economics
Statistics

IV SOCIAL SCIENCES

History
Geography
Sociology
Philosophy
Psychology
Political Science

V COMMERCE

VI LANGUAGES

Tamil Literature
English Literature
Hindi
Telugu

APPENDIX - IV

UNIVERSITIES IN TAMIL NADU AS ON 1993-94

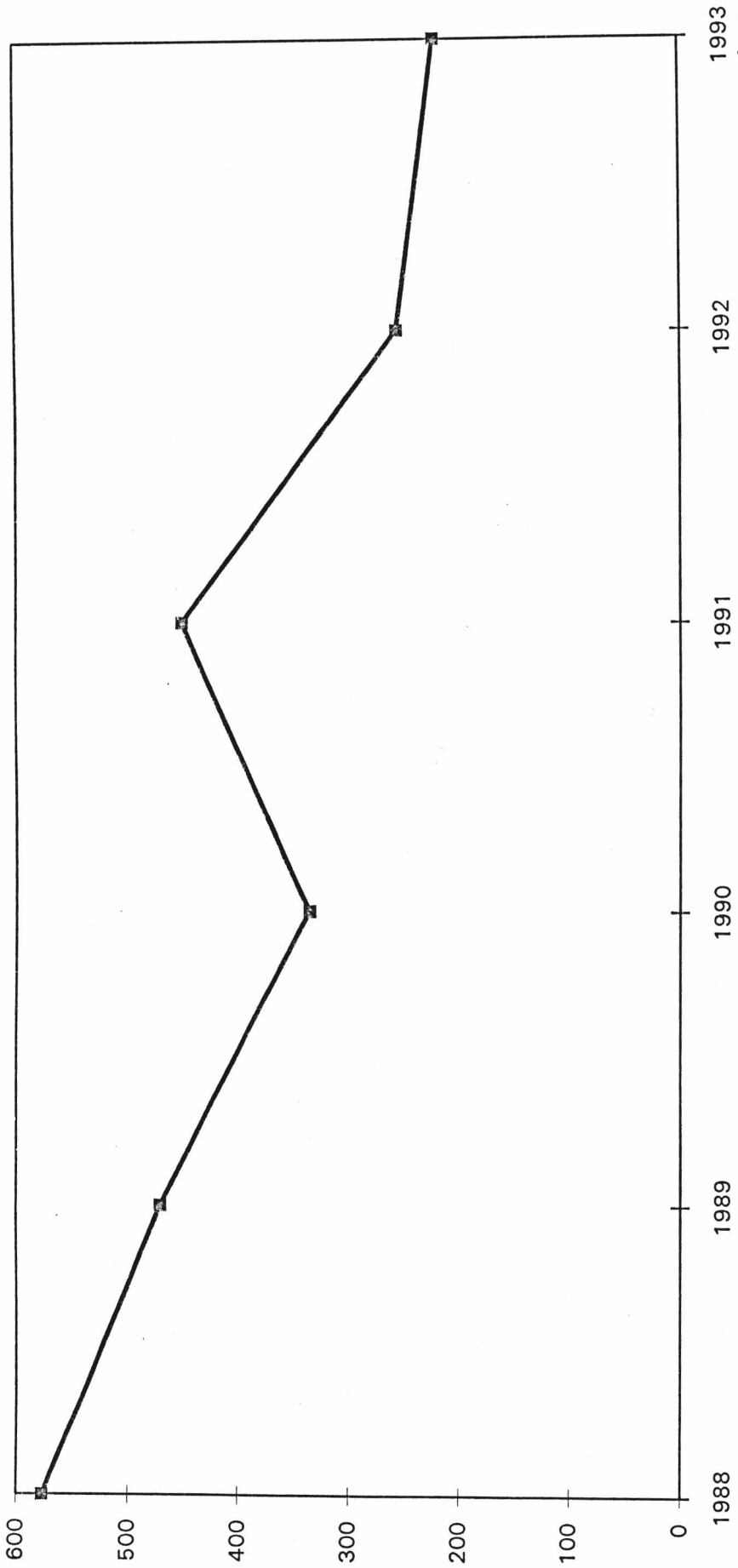
1.	Anna University	1978
2.	Annamalai University	1929
3.	Alagappa University	1985
4.*	Avinashilingam Institute for Home Science & Higher Education	1988
5.	Bharathiyar University	1982
6.	Bharathidasan University	1982
7.*	Gandhigram Rural University	1976
8.	Madurai Kamaraj University	1966
9.	Mother Teresa Women's University	1984
10.	Manonmaniam Sundaranar University	1990
11.	Tamil Nadu M.G.R. Medical University	1987
12.	Tamil University	1981
13.	Tamil Nadu Agricultural University	1971
14.	Tamil Nadu Veterinary & Animal Science	1990
15.	University of Madras	1857

* Deemed Universities

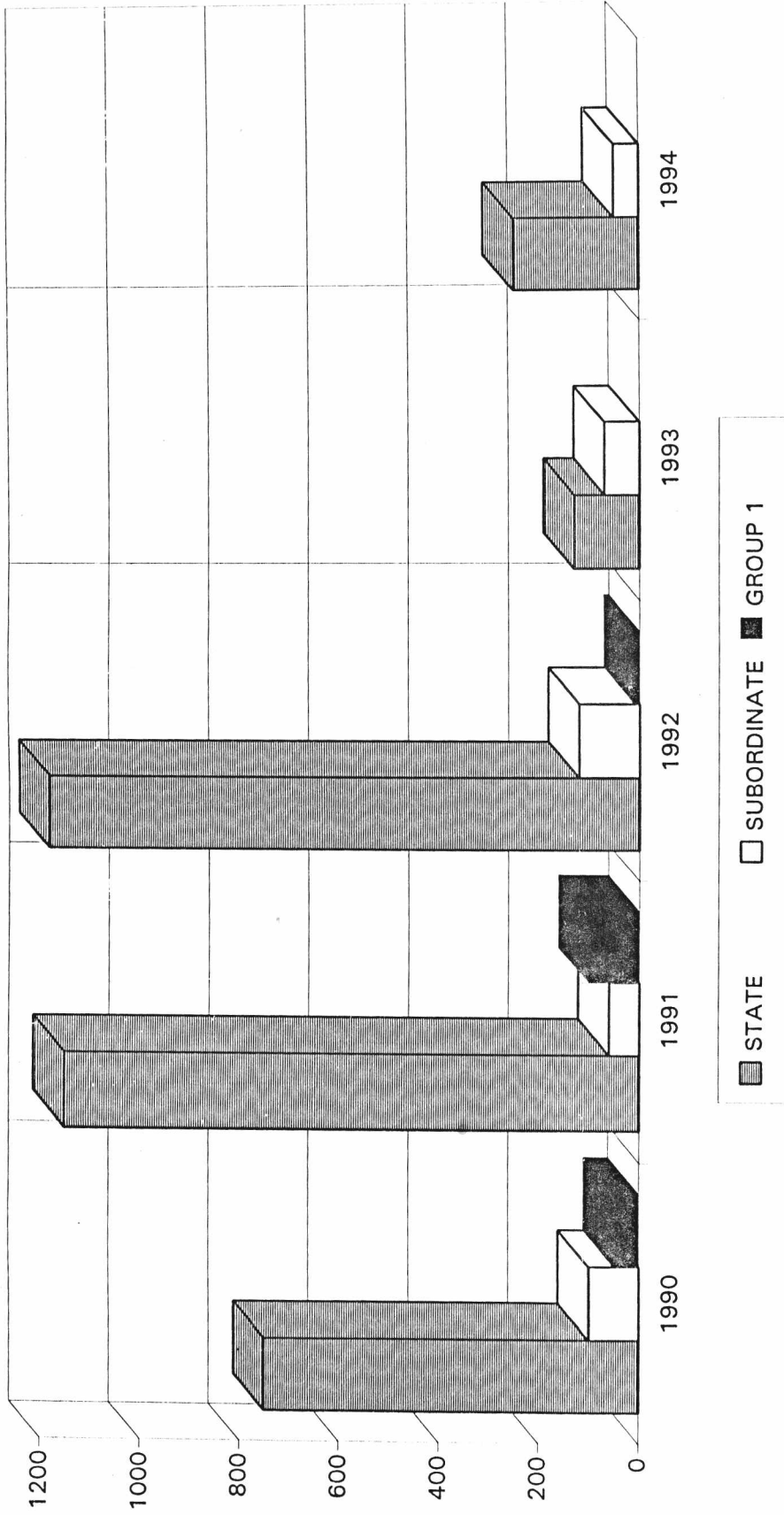
In Tamil Nadu, there are two Unitary Universities and they are Annamalai University and Mother Teresa University.

RECRUITMENT AGENCIES IN TAMIL NADU

The recruitment agencies in Tamil Nadu play an important role in the placement of graduates of Tamil Nadu. There are about nine recruiting agencies in Tamil Nadu. They are as follows :



Recruitment of P G Teachers by Teachers Recruitment Board, 1993
Source : Director of School Education, Government of Tamil Nadu



Recruitment through T N P S C

Source : T N P S C Records, 1994.

1. Tamil Nadu Public Service Commission (TNPSC)
2. Union Public Service Commission (UPSC)
3. Staff Selection Commission (SSC)
4. Banking Service Recruitment Board (BSRB)
5. Teachers Recruitment Board
6. Police Recruitment Board.
7. Man power Development Agencies (Private)
8. Directorate of Employment Exchanges.

APPENDIX - V

STUDENT ENROLMENT IN THE UNIVERSITIES - FACULTY-WISE 1989-90 TO 1993-94

Course of Study	1989-90	1990-91	1991-92	1992-93	1993-94
Arts (including oriental learning)	17,17,437	17,89,480	18,65,605	19,43,960	20,25,606
Science	8,34,087	8,69,119	9,03,776	9,41,734	9,81,287
Commerce	9,31,765	9,69,882	10,09,832	10,52,244	10,96,438
Education	95,979	99,613	1,06,055	1,10,509	1,15,151
Engineering / Technology	2,09,371	2,16,837	2,25,944	2,35,434	2,45,322
Medicine	1,42,270	1,50,458	1,56,777	1,63,362	1,70,224
Agriculture	45,229	46,908	48,908	50,962	53,102
Veterinary Science	10,957	11,063	11,550	12,035	12,541
Law	2,22,961	2,34,538	2,44,388	2,54,652	2,65,348
Others	36,822	37,349	38,272	39,881	41,556
Total	42,46,878	44,25,247	46,11,107	48,04,773	50,06,575

Source : Annual Report 1993-94, UGC

