GOVERNMENT OF KERALA

A STUDY ON THE EMPLOYMENT TRENDS AMONG ENGINEERING GRADUATES ON THE LIVE REGISTER OF THE EMPLOYMENT EXCHANGES 1974

ISSUED BY
THE MAN POWER UNIT
BUREAU OF ECONOMICS AND STATISTICS, TRIVANDRUM.
MARCH 1976.

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C O N T E N T S

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I. INTRODUCTION

Technical man power like 'Engineering' plays a crucial role in the era of economic planning and development. A qualified Engineer is an asset to the nation. By the advent of planning in India, the availability of technical man power at the right time in sufficient numbers was keenly felt by the planners. There was awareness of the need for developing educational and training facilities in the country. A large number of Engineering Colleges was started throughout the country with a view to safeguard the supply of Engineers for the proper implementation of construction programmes connected with the planned development. Consequently there are at present six Engineering Colleges in Kerala with an annual intake capacity of 1012 for the degree classes. Three of these Engineering Colleges are run by the Government (one is Regional Engineering College) while the other three are under Private Management.

By the end of the Third Plan a peculiar situation arose which indicated an imbalance between the supply and demand of Engineers. In spite of job oriented programmes the out-turn of Engineering Graduates could not be balanced with the demand for them both in the Public and Private Sectors. Gradually the Engineering Graduates in Kerala had to face unemployment which began to increase rapidly. This is wastage of valuable human resources. It involves heavy public and private cost to turn out an Engineer. The severity of unemployment among the Engineers attracted the attention of authorities who were anxious to assess the intensity of unemployment from time to time.

In Kerala, the State is the biggest employer of

Engineers. Industries are not so developed as to absorb the bulk of the out-turn of Graduates from the Engineering Colleges. Under these circumstances a study to assess the intensity of unemployment among the Engineering Graduates assumes importance.

The man power planning unit of the Bureau of Economics and Statistics has undertaken such a study based on the enrolment of the 'Live Register' of the Employment Exchanges. Lack of reliable information regarding the level of unemployment among technically qualified persons has hampered the formulation of effective employment policies and man power planning. Much reliance has been placed on the limited data available at the Employment Exchanges. Bearing in mind the limitation of Employment Exchange records in respect of their capacity to reflect the state of unemployment at a point of time, the emphasis in this study has been placed primarily on the distribution pattern of the registrants and only marginally on their absolute numbers. One of the major limitations of the data available with the Employment Exchanges is that often a sizable proportion of the candidates registered with the Employment Exchanges are already employed and yet they keep themselves in the Live Register of the Exchange with the object of securing better employment.

II. OBJECT, SCOPE AND COVERAGE OF THE STUDY:

The problem of the educated unemployed especially those of the technically qualified persons is an integral part of the problem of the optimum utilisation of human resources. The object of this study is to assess the extent of unemployment among Engineers who are registrants in the Live Register of the Employment Exchanges. The study will throw light on the severity of unemployment among the Engineers and the important

characteristics of the unemployed personnel. The study mainly aims at determining the distribution of the unemployed engineers according to their fields of specialisation, duration of unemployment employment status of those who are employed at present and other related aspects. The results of the study may be useful for vocational guidance and future educational planning.

The study has covered all the engineering graduates who are on the live register of the employment exchange as on the end of November, 1974.

2) Sampling design.

A twenty percent sample of the registrants has been taken by the systematic sampling method, the registrants being arranged according to the date of registration. The engineers have been stratified as Civil, Mechanical, Electrical and others. There were 1448 registrants (engineers) on the live register of the employment exchange as on 30.11.1974 out of which 290 were selected for the purpose of the study.

3) Method of collection of data.

The selected engineers were contacted personally by the field staff of this Department and the required information was collected in a questionnaire designed for the purpose. A copy of the questionnaire used for the study is given in the Appendix.

The field work was supervised by the District Statistical Officers.

4) Reference period.

The reference period for the survey was fixed as December, 1974. Particulars of employment status of the registrants were however collected with reference to the week preceding the date of enquiry.

5) Limitations of the study.

Even though 290 engineers had been selected for the purpose of the study only 196 engineers could be contacted and the required information collected from them. This accounts near about 68 percent of the selectedsample. The rest of the engineers could not be contacted as they were neither available at the address obtained from the live register of the employment exchange nor their present where-abouts could be located within the stipulated time of the study.

III. RESULTS OF THE STUDY.

1) Registration.

According to the study, there were 1448 Graduate Engineers as job seekers on the rolls of the Employment Exchange as on 30.11.1974. There has been an increasing trend in the registration of the job seeking Engineers in the live register of the Employment Exchange over the past few years. This indicates that the level of unemployment among the engineering graduates has been going up. The following table indicates the increasing trend in the registration of engineering job seekers in the live register of the Employment Exchange. The data furnished relate to the total number of registrants as on 31-12 of every year, but the same for the year 1974, which is considered for the study is as on 30.11.1974.

Engineering job seekers on the Live Register as on 31-12 of every year

Year	Males	Females	Total
1970	1796	160	1956
1971	1915	151	2066
1972	1949	166	2115
1973	2025	110	2135
1974*	1381	69	1450

*data upto 30-11 only.

It is evident from the above table that the number of engineering job seekers is increasing every year but for the year 1974. This does not indicate a fall in the level of unemployment among the engineers in 1974. The data for the year is not complete and there might have been cancellations due to want of renewals in time and new registrations were yet to be made.

2) Composition of the registrants.

The engineering registrants considered for the study have been broadly classified into four categories viz. 1) Civil, 2) Electrical, 3) Mechanical and 4) others. The number of engineering personnel falling into each category of specialisation are furnished in the following table.

Distribution of registrants by specialisation.

Sl.No.	Category	Number
1.	Civil	35
2.	Electrical	73
3.	Mechanical	73
4.	Others	15
	Total	196

Of these 196 registrants who were personally contacted for the study 13 were females, their distribution according to specialisation being Civil Engineers - 3, Electricals - 5, Mechanical - 2 and other specialisation 3. This accounts for nearly 7 percent of the total registrants responded for the study which more or less corroborates with the percentage of female registrants every year on the live register of the Employment Exchange. The percentage registration of female engineers in the preceding years (1970-1973) varies between 6 to 8 percent of the total registrants on the live register.

Female Engineers in the Sample

	21-24	25-27	28 & Above	Total
Civil	1	2	-	3
Electrical	1	3	1	5
Mechanical	1	-	1	2
Others	-	2	1	3
Total	3	7	3	13

2 (a) Marital Status.

Ofthe 196 Engineering Graduates contacted for the study 31 were married and 165 were unmarried. ~~According~~ Among the 31 married, 24 were males and 7 were females. When expressed as percentages it is seen that 16% of the total registrants contacted are married. Among the female registrants 54% are married while the percentage of married males among the contacted male registrants works out to only 13.

Marital Status

Males		Females		Total	
Total	Married	Total	Married	Total	Married
183	24	13	7	196	31

3) Age and year of Passing of the registrants.

It is observed from the study that all the registrants contacted for the study, both males and females are above twenty years of age. Because of the school admission age and the number of classes to pass through it is not generally possible to come out of the Engineering College before one attains the age of 21. On an analysis

of the age composition of the contacted registrants, it is seen that 69 out of the 196 engineers belong to the age group 21-24 years which accounts nearly 35% while 83 Engineering Graduates come in the age group 25-28 years accounting 42% of the selected registrants. The remaining 44 persons are above 28 years of age which means 23% of the total registrants contacted for the study. The electrical and mechanical graduates account for nearly 75% of the total registrants contacted for the study.

Of all the persons considered for the study 54 persons took their degree in 1974 itself. This comes to nearly 28 percent of the contacted registrants. One hundred and eleven persons (57%) secured their engineering degree during the period 72-73 and 74 while 33% (65 persons) became degree holders during 1970 and 1971. Twenty registrants accounting nearly 10% of the registrants got their degree before 1970. The distribution of engineering job seekers according to age and year of passing has been depicted in the table provided in the Appendix.

Distribution of Engineering Job Seekers according to year of passing

Discipline	Persons contacted		Year of Passing (in percent				
			Before '70	1970	1971	1972	1973	1974
	No.	%						
1	2	3	4	5	6	7	8	9
Civil	35	18	5	14	26	20	9	26
Electrical	73	37	11	9	20	13	18	29
Mechanical	73	37	12	16	20	16	14	22
Others	15	8	6	20	7	7	7	53
Total	196	100	10	14	19	15	14	28

a call for interview so far. Only 82 persons, which works out to 42% of the contacted registrants have been called for interview upto and including the year 1974. The years 1973 and 1974 recorded the maximum number of interviews from among the Engineering Graduates who are registrants under consideration while it was very poor during the former years. Of the 39 registrants called for interview in 1974, 8 were Civil Engineers, 15 were Electricals, 13 were Mechanical hands and three were from other categories. This works out to 21% calls for Civil Engineers, 38% for Electricals, 33% for Mechanical hands and nearly 8% of the calls for other specialisations in the year 1974. Taking all the branches of specialisations together it is seen that 20% of the registrants under study was called for interview in the year 1974. Considering the specialisations separately we find that 23% of the Civil Engineers got their interviews call in 1974. Similarly 21% of the Electrical hands and 18% of the other Mechanical Graduates were called for interview in this contact. Twenty percent of other specialisations received interview cards this year.

Thirty nine percent of the Civil hands under study, the electricals, 68% of the Mechanical graduates of the other specialisations remained on the rolls of the live register without even a call for interview. The detailed table indicating the distribution of Engineering job seekers according to year of first registration and year of first call is furnished in the Appendix.

It is curious to note that only 11 percent of the registrants were called for interview during the same year of registration. Hence the vast majority of the registrants had to wait longer periods even for a call for interview.

Year of Registration	Registrants	No. called for interview
1970	19	3
1971	31	1
1972	35	2
1973	38	4
1974	67	11
Total	190	21

6 mployment.

The main objective of the present study is to assess the intensity of unemployment among engineering degree holders in the State. From the analysis of the data obtained by personal contact of the selected engineering registrants on the Live Register of the Employment Exchanges as on 30.11.1974, it is observed that only 52 persons out of the 196 contacted for the study were employed depicting as low a percentage as 26% employment. In other words, 74 percent of the Engineering Graduates contacted for the study remain unemployed. Thirty five persons out of the 52 employed which works out to 67% of the employees got their job only in 1974. Twenty of the registrants considered for the study acquired their degree before the year 1970 but only seven of them had secured job so far, two in the year 1973 and five in 1974. After years of waiting still 13 of them remain unemployed. The following table depicts the position correlating the year passing and the year of present employment.