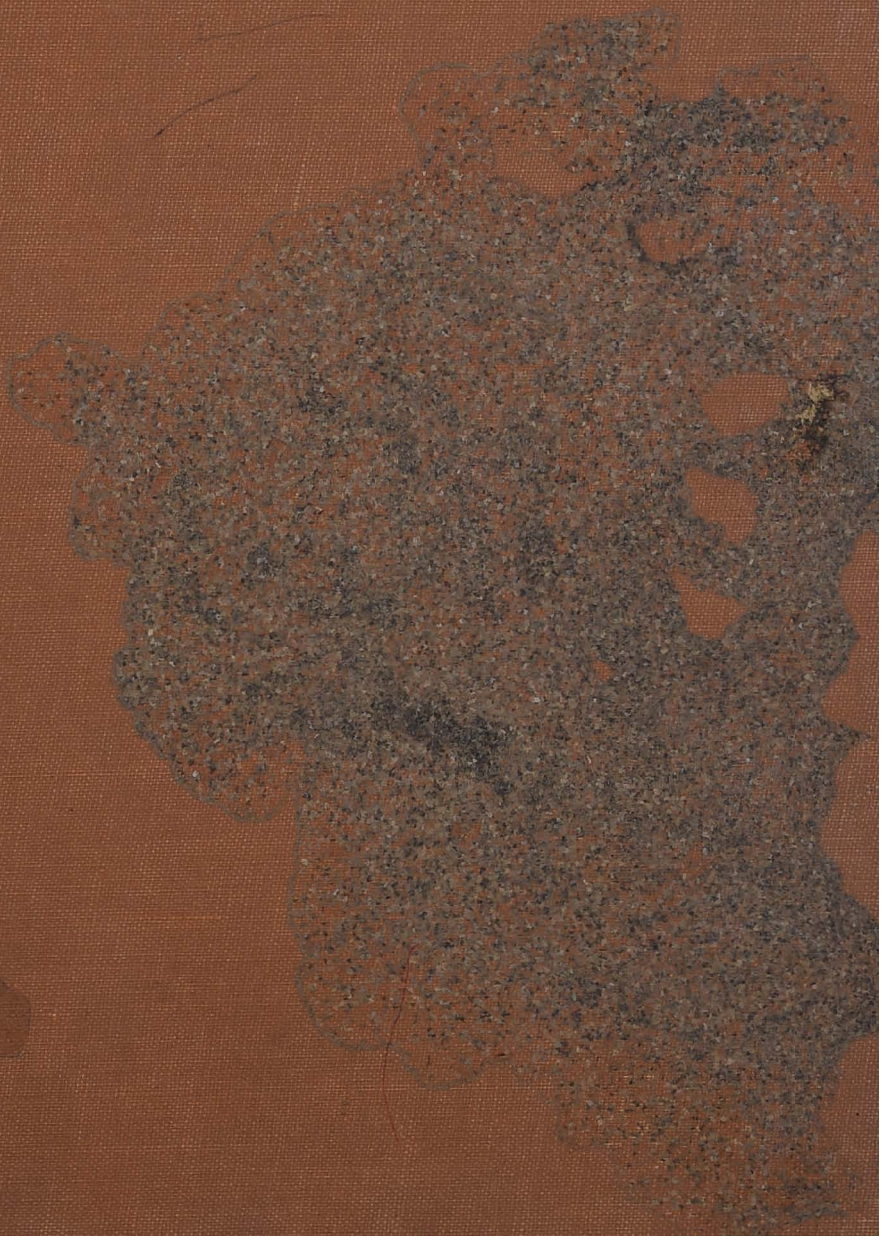
GOVERNMENT OF MADRAS DEPARTMENT OF EMPLOYMENT AND TRAINING



GOVERNMENT OF MADRAS

DEPARTMENT OF EMPLOYMENT AND TRAINING

EMPLOYMENT OF APPRENTICED CRAFTSMEN IN MADRAS STATE

A STUDY

Issued by
The Director of Employment and Training
(State Employment Market Information Unit)
Madras-6.

1968

TABLE OF CONTENTS

APPENDIX

-ooOoo-

K.M.L.CHHABRA, I.A.S.,
Director of Employment and Training,

20, Rutland Gate,
Madras-6,
3rd February, 1968.

PREFACE

The Apprentices Act, 1961, became operative in 1963. Fortunately, this programme represents a national consensus and has had ready acceptance by the employers. It is widely accepted that skill-wealth made to such close tolerances demanded by each industry can seldom be secured otherwise.

Madras State, as the others in the country, has implemented the programme since 1963. The number of apprentices in Madras State has grown steadily over the years, thanks to the willing co-operation of the employers. What was first a token or a trickle in 1963 has swelled to seven times to-day. The number of apprentices positions now is well over 3,000 spread over 146 industries and 40 trades. That is no mean achievement considering the several difficulties that our economy has been facing. Proposals are ready to step up the intake. Undoubtedly, India's economy and this State do depend on the development of a broad spectrum of skills.

Optimal utilisation is an exercise in keeping demand and supply in balance - supply should reckon with both quantity and quality. Only in a climate of acceptance and absorption can there be adequate motivation. Such a motivation can be best inculcated and easily promoted through sound personnel management practices. The problem is how to relate apprentice-ship training intake to probable job-positions in industry and in establishment. This is indicative of the need for plant-level manpower-planning and forecasting, atleast of medium time range.

It is conceded that costly skills such as the apprenticed craftsmen possess, need to be immediately utilised at levels most appropriate to their skills and training. It would be a costly luxury, if they are either misutilised or left idle. One of the immediate problems here is not so much as to find apprenticed craftsmen jobs, but the types of jobs that will make the most of their skills. This, no doubt, is a complex one, but can and should be resolved. Presently, apprentices are found in all levels of employment, without any definite entry-positions. Probably this is largely because of the occupational organisation of our industry. It will be worthwhile, in my view, to review industry organisational structure and provide well-marked positions suited to the skills. In this context, I may mention the journeyman position in western countries which provides not only a ready-made and appropriate entry position for successful apprentices, but also the needed linkage between apprentices and the manning structure.

Now that we are on the threshold of expanding the programme, it will be rewarding to take a good look at our past performance and refine future action on our experience. A dynamic programme such as this cannot be just routine. It should meet both time and place utility. It is to provide an understanding of the programme that this study was made. It has been useful because it served to confirm some already known facts and also brought to surface some new problems. I earnestly hope that this study will be found useful by everyone interested in the socio-economic growth of the State.

K.M.L. CHHABRA

EMPLOYMENT OF APPRENTICED CRAFTSMEN IN MADRAS STATE

GENERAL:

1. Of all possible methods of training young men to become skilled workers apprenticeship programme is undoubtedly the best. While institutionalising skill or craft training has its advantages as a formalised technique of skill formation, by itself it is just another school but with a different accent and emphasis. Particularly in a situation like ours, where the centuries of backwardness will have to be telescoped in-to decades of rapid economic growth to make any appreciable impact on the standard of living of the people, the imperative need is to create such skill-wealth that will have immediate and ready application in enlarging national income and commonweal. This is true of every country, developed as well as developing; it is much more relevant to developing countries like India. It is in this context that apprentice training as distinguished from formal industrial school training gains meaning. Apprenticeship is a system of related technical training (schooling) and on-the-job experience. These two parts are of equal importance and are organically combined, each will coordinate and supplement the other. Skill through 'feel' of job and schooling is the heart of apprenticeship.

HISTORY OF APPRENTICESHIP:

2. The concept of apprenticeship is as old as civilization. The craftsman in India until the turn of the thirties this century, and to a small but significant extent, even today, learns the job 'at the feet of the master' over a long period of time. Such a procedure is meant to produce an artist than an artisan; the process is certainly too sophisticated for the age of mass-production through assembly-line, with its reference to external markets with cash nexus than internal consumption with barter deal. Ancient Rome and Greece had similar arrangements. Today apprenticeship has gained a new meaning and dimension, consistent with the social changes that hinge on science and technology. The system, as we know it, however, developed in the middle ages when skilled workers organised themselves into guilds for self-protection. The credit for a formal organisation of apprenticeship as a method of training, goes to the English guilds. They developed elaborate rules and procedures regulating the relationships between apprentices and master-craftsman, with details as to how the apprentice should be trained.

3. Apprentices, in India, in the modern sense of the term, is largely a British concept accommodated to Indian conditions. There were no powerful guilds as in Britain to regulate the apprentices. Even so, the concept caught on and to some extent met the skill-needs of the country. But as the Indian Society moves on from tradition to modernisation, the old traditional concept had to be changed. And change it did. The Indian "Apprentices Act of 1961" is the formal basis of a silent revolution which combines social values with economic realities in a stable manpower calculus.

.....2.

DEFINITION OF APPRENTICE:

4. What is apprenticeship and who is an apprentice? According to an American author an apprentice "means a worker who is engaged under direct journeyman supervision and according to a prescribed or traditional series of work processes graded to coincide with increasing trade maturity, in learning a skilled occupation that requires, during the learning process, several years of reasonably continuous employment prior to the time that the worker may be considered a qualified journeyman. In general, apprenticeship is legally recognised only if recorded in a written contract, indenture or agreement in which, in return for services rendered, the employer promises to teach the worker the processes of the trade. The terms of an apprenticeship agreement usually include specific reference, to the duration of apprenticeship, period, a progressive scale of wages, and the nature of the processes to be taught. Frequently the agreement also specifies the amount and nature of related schooling in vocational subjects, in which the worker shall engage during the apprenticeship period".

5. The Apprentices Act 1961 defines an apprentice as "a person undergoing apprenticeship training in a designated trade in pursuance of a contract of apprenticeship". An apprentice for purposes of this Act shall not be "less than 14 ~~the~~ years of age" and should satisfy such standards of education as may be prescribed". The chief features of apprenticeship, therefore, are (i) a contractual agreement which (ii) incorporates standards of training.

APPRENTICES IN MADRAS STATE:

6. Madras State, along with others in the country grounded the programme. The number of apprentices trained so far is as follows:

1964	..	63
1965	..	134
1966	..	283

Because of the ever-increasing demand for skilled craftsmen the programme is getting expanded steadily. It is worthwhile, therefore to evaluate the State's performance in this regard, which may provide some guidelines for future and further efforts in an important segment of human capital formation. Accordingly the Director of Employment and Training, Madras formulated a plan of evaluation which has resulted in this study.

SCOPE AND AIM OF STUDY:

7. This study, limited as it is, covers the successful apprentices in the years 1964 and 1965. Apprentices covered in this study relate to such of those who are 'indentured' under the Apprentices Act 1961. A listing of these apprentices was secured from the files of the State Apprenticeship Advisor in the Directorate of Employment and Training, Madras. In all, there were 197 successful apprentices covering 11 trades. They were all addressed to complete and return a pretested and simple questionnaire (appendix 1).

.....3.

Being a"mail approach", only 117 out of 197 apprentices addressed responded to the enquiry. A percentage of the completed questionnaire was also checked through personal visits so as to ensure against response bias. The survey was grounded in April 1967. Field work was completed by August 1967. Thus the position revealed in this study refers to June-August 1967. As no aptempt was made to follow-up the non-respondees, it is not possible to affirm that the pattern of behaviour was the same for the entire population. Though this may be a limitation, the favourable response situation lends support to the view that the findings in this study by and large, can be generalised without any serious distortion.

AGE-GROUP OF APPRENTICES:

8. As already stated 117 out of 197 (59.4%) successful apprentices addressed had responded to the enquiry. An Agewise distribution and by trades of these respondees is as follows:

TABLE: APPRENTICES - AGE AND TRADEWISE DISTRIBUTION.

Trade.	Age-group in years				
	Below 25.	25-29	30 and more.	N.A.	Total.
Fitter	18	24	1	-	43
Turner	9	16	-	-	25
Machinist	1	2	-	-	3
Sheetmetal	1	1	-	-	2
Wireman	3	-	-	-	3
Pattern-maker	1	2	-	1	4
Blacksmith	3	1	-	-	4
Carpenter	7	3	-	-	10
Electrician	3	3	-	-	6
Moulder	5	9	1	1	16
Welder	-	1	-	-	1
Total	51	62	2	2	117
%	(43.6)	(53)	(1.7)	(1.7)	(100.0)

At the time of survey, majority of the apprentices (53%) was in the age-group 25-29, followed by less-than 25 years group (43.6%). Together they constituted as much as 97% of successful apprentices in the years 1964 and 1965. Tradewise a little over a third of these apprentices was fitter, about a fifth, turner, an eighth, moulders and a twelfth carpenter. These four trades aggregaged four-fifths of the apprentices surveyed.

.....4.

GENERAL EDUCATION OF APPRENTICES:

9. A little less than a fourth of the apprentices have passed S.S.L.C. (matriculation) and a little less than three fourths has passed IV form (two grades less than matric) but not S.S.L.C. Only a small percentage relates to III form (VIII Standard). The distribution of apprentices by educational groups is as follows:

TABLE:2: APPRENTICES BY EDUCATIONAL STANDARDS

Trade.	III Form (IV Form failed)	IV Form passed but not SSLC.	S.S.L.C.	Total.
Fitter	1	32	10	43
Turner	-	19	6	25
Machinist	-	2	-	2
Wireman	1	-	2	3
Patternmaker	-	2	2	4
Blacksmith	-	4	-	4
Carpenter	2	8	-	10
*Electrician	-	1	5	6
Moulder	1	15	-	16
Welder	-	1	-	1
Total	5	86	26	117
Percentage	4.3	73.5	22.2	100.0

*Prescribed educational qualification is S.S.L.C.

It is interesting to note that about a fourth of fitter and turner, two thirds of wireman and five sixths of electrician apprentices is S.S.L.C. Generally high school educated apprentices dominate everyone of the trades. The educational background of the apprentices appear to be quite satisfactory.

BASIC TRADE TRAINING OF APPRENTICES:

10. All these apprentices, excepting one solitary exception in carpentry are reported to have had institutional training in the apprenticed trade. As such these apprentices have a sound theoretical background in their respective trades.

TIME-LAG BETWEEN BASIC TRADE TRAINING AND APPRENTICING:

11. It is not always that a person passing the prescribed trade test in an Industrial Training Institute opts for apprenticeship. Some try for immediate employment. Some do join as apprentices straightaway. It is seen that generally a third of them (39) have joined the programme within 1-3 and slightly more within 3-6 months of passing the Industrial Training Institute trade test. It would appear that 7 out of 10 of the Industrial Training Institute trained persons join the apprenticeship programme within 6 months of passing out of Industrial Training Institute. About 18% of the respondees did not furnish the information. The following table shows the distribution of apprentices by grades and 'time-lag' in joining the programme.

.....5.

TABLE:3: APPRENTICES - TIME LAG BETWEEN PASSING INDUSTRIAL TRAINING INSTITUTE TEST AND JOINING THE APPRENTICESHIP PROGRAMME.

Trade.	Time lag in months.						
	Less than one.	One but less than 3.	3 but less than 6.	6-11	1 year and above.	N.A.	Total.
Fitter	-	14	15	5	1	8	43
Turner	1	11	7	2	-	4	25
Machinist	-	-	3	-	-	-	3
Sheetmetal	1	-	1	-	-	-	2
Wireman	-	1	1	-	-	1	3
Pattern Maker	-	1	1	-	-	2	4
Blacksmith	1	2	1	-	-	-	4
Carpenter	-	-	4	1	1	4	10
Electrician	1	3	2	-	-	-	6
Moulder	-	7	7	-	-	2	16
Welder	-	-	1	-	-	-	1
Total	4	39	43	8	2	21	117

The above analysis reveals that generally no Industrial Training Institute trained person joins the scheme within a month of passing and bulk of them do not wait beyond 6 months to join the apprenticeship programme. It may thus be said that there seems to be a continuity between the institutional and in plant training. This is a welcome fature.

ACTIVITY STATUS - CONCEPTS USED:

12. With the general background of the apprentices thrown it may be pertinent to ascertain the activity status of these successful apprentices. Activity status for purposes of this study are (i) employed, (ii) unemployed and (iii) unemployed but not available for work. Employed, as used in this study, refers to wage and salaried employment as well as self employment. Anyone gainfully occupied for pay or profit is treated as employed. Unemployed refers to involuntary idleness. Unemployed but not available for work relates to those who are not seeking employment and therefore are not to be treated as unemployed; cenventionally and technically they are outside the labour force.

ACTIVITY STATUS OF APPRENTICES:

13. Available information shows that none of the 117 successful apprentices covered by this study is outside the labour force. It is seen that 70% of the apprentices is employed and the balance of 30% unemployed. The follows is a tradewise distribution of apprentices by their activity status:

.....6.

TABLE:4: APPRENTICES BY ACTIVITY STATUS AND TRADES

Trade.	Employed.	Unemployed.	Not in labour force.	Total.
Fitter	36	7	-	43
Turner	19	6	-	25
Machinist	3	-	-	3
Sheetmetal	2	-	-	2
Wireman	2	1	-	3
Patternmaker	3	1	-	4
Blacksmith	2	2	-	4
Carpenter	5	5	-	10
Electrician	3	3	-	6
Moulder	7	9	-	16
Welder	1	-	-	1
Total	83	34	-	117
Percentage	(70.0)	(30.0)	-	(100.0)

Welder, machinist and sheet metal apprentices are all employed; the proportion of employed among fitter and turner is five sixths and three fourths respectively. For other trades the ratio of employed to the number of apprenticed workers in these trades varies from 44.1% for moulders to 25% for pattern markers.

14. Unemployment was highest for moulders (75%). It was relatively less for fitters (16%) and turners (25%). It is seen that out of 34 reported unemployed blacksmiths, carpenters, electrician and moulders accounted for as many as 19 or 56% of all unemployed. Available data do not permit a probe in depth of the problem of unemployment among the apprentices. Probably a complex of factors are involved in it. Some of them are mobility, personal preferences, wage expectations, beside, socio economic stands. A further study on these lines may be rewarding.

EMPLOYMENT:

15. As already stated, 83 of these apprentices are employed. Employment status is a composite of several facets, chief among which are employee (paid employment) and self employment (on own account). As much as 98% of the employed is reported to be employee status, self employment being negligible. Following is a tradewise distribution of employed apprentices by employment status.

.....7.

TABLE:5: APPRENTICES BY EMPLOYMENT STATUS

Trade.	Employee.	Self-employed.	Total.
Fitter	35	1	36
Turner	19	-	19
Machinist	3	-	3
Sheet-metal	2	-	2
Wireman	2	-	2
Patternmaker	3	-	3
Blacksmith	2	-	2
Carpenter	4	1	5
Electrician	3	-	3
Moulder	7	-	7
Welder	1	-	1
Total	81	2	83

Only one fitter out of 36 and one carpenter out of 5 employed was in self-employment. Data available shows that for apprentices paid employment is almost the only channel of utilisation and few; if any one interested in any other form of being gainfully occupied.

TIME-LAG IN SECURING FIRST EMPLOYMENT:

16. How soon after completing apprenticeship do they secure employment? Have they to wait long before being employed? Available data shows that about 45% of the employed apprentices secured their first employment within 3 months of passing, 6% between 3-5 months and 18% between 6-11 months. About 13% of the employed had a waiting period of a year to two. Nearly 13% of the employed did not furnish this information. None of the employed had to wait over two years to secure their first placement. The distribution of employed apprentices by 'time-lag' and by trades is as follows:

TABLE:6: EMPLOYED APPRENTICES - TIME-LAG IN SECURING FIRST EMPLOYMENT

Trade.	Time in months						
	0-3	3-5	6-11	12-23	24 & over.	NA.	Total
Fitter	15	1	7	4	-	9	36
Turner	8	2	5	2	-	2	19
Machinist	3	-	-	-	-	-	3
Sheetmetal	2	-	-	-	-	-	2
Wireman	1	-	-	1	-	-	2
Patternmaker	2	-	-	1	-	-	3
Blacksmith	2	-	-	-	-	-	2
Carpenter	1	-	1	1	-	2	5
Electrician	3	-	-	-	-	-	3
Moulder	1	2	1	2	-	1	7
Welder	-	-	1	-	-	-	1
Total	38	5	15	1	-	14	83

.....8.

It may be seen that machinist, sheetmetal, Blacksmith and electrtian apprentices secured almost immediate employment for others the average time-lag was between 6 to 23 months, particularly for moulders and carpenters.

INCOME-RANGE:

17. One of the dimensions of employment is the income-earnings accruing to the job-holder in the exercise of his/her skill. Reasonable wage, salary or income for job is therefore relevant in assessing employment. How much do the apprentices earn? Reports received from the employed apprentices show that 50% of them has a monthly income range of Rs.100-299 and a little over 30% Rs.200-299, though about 10% is in less than Rs.99/- range and 4% in Rs.300 and above range. A tradewise distribution of employed apprentices by income range is as follows:

TABLE:7: EMPLOYED APPRENTICES BY INCOME RANGE

Trade	Income range in Rs. per month:					
	0-99	100-199	200-299	300 and above.	N.A.	Total.
Fitter	4	14	13	3	2	36
Turner	2	11	6	-	-	19
Machinist	-	2	1	-	-	3
Sheetmetal	-	1	1	-	-	2
Wireman	1	1	-	-	-	2
Patternmaker	-	1	2	-	-	3
Blacksmith	-	2	-	-	-	2
Carpenter	1	2	1	-	1	5
Electrician	1	2	1	-	-	3
Moulder	1	5	1	-	-	7
Welder	-	1	-	-	-	1
Total	9	42	26	3	3	93

Relatively fitters, however turners and machinists employed enjoy a better income-range. For all trades Rs.100-199 range is most common, the next higher slab not without significance. It will be seen that Rs.100-299 range covers nearly 82% of all employed apprentices, considering the state of the employment market and the job experience of the apprentices the income range, of for him in general, may be considered satisfactory.

INDUSTRY-OCCUPATIONAL DISTRIBUTION:

18. An analysis of the employed craftsmen by industry-attachment may be useful in indicating the direction of skill-utilisation. A detailed Industry-cum-Occupational distribution of the employed apprentices may be seen in the annexure to this study. The following table shows the dispersion of the employed skills by mining, manufacturing, transport technical education and others.

.....9.

TABLE:8: EMPLOYED APPRENTICES BY BROAD SEGMENTS OF EMPLOYMENT.

Trade.	Mining.	Manufacturing.	Transport.	Technical Education.	Others.	Total.
Fitter	3	20	-	8	5	36
Turner	-	11	1	4	3	19
Machinist	-	1	-	2	-	3
Sheetmetal	-	1	-	1	-	2
Wireman	-	1	-	1	-	2
Patternmaker	-	2	-	1	-	3
Blacksmith	-	1	-	-	1	2
Carpenter	-	2	1	1	1	5
Electrician	-	2	-	1	-	3
Moulder	-	6	-	1	-	7
Welder	-	-	1	-	-	1
Total	3	47	3	20	10	83
Percentage.	(3.6)	(57.8)	(3.6)	(24.0)	(12.0)	(100.0)

It would appear manufacturing employment accounts for and has absorbed the bulk of these skills; it is as high as about 58%. A little less than a fourth of these employed are in technical education/training, public utility like transportation and other channels are of less significance to these skills.

TRAINING-EMPLOYMENT RELATIONSHIP:

19. Having considered as to where these skills are employed, it may be worthwhile to study as to how they are employed. In other words are these employed in the same skills and related areas or in areas not relevant to them? For purposes of this analysis, craft instructor is treated as an appropriate occupation. Following is such an analysis:

TABLE:8: EMPLOYED APPRENTICES - TRADEWISE DISTRIBUTION OF EMPLOYMENT BY BROAD OCCUPATIONS.

Trade.	Number employed as				
	Same trade.	Related trade.	Craft instructor.	Other trade.	Total.
Fitter	26	3	7	-	36
Turner	14	3	2	-	19
Machinists	1	-	2	-	3
Sheetmetal	1	-	1	-	2
Wireman	1	-	-	1	2
Patternmaker	2	-	-	1	3
Blacksmith	2	-	-	-	2
Carpenter	4	-	-	1	5
Electrician	2	-	1	-	3
Moulder	7	-	-	-	7
Welder	1	-	-	-	1
Total	61	6	13	3	83
Percentage	(73.5)	(7.3)	(15.6)	(3.6)	(100.0)

Almost 90% of the employed apprentices is either in the same trade as craftsman or as instructor; craftsman trade account for as high as 74% of all employed. About 7% of these apprentices is in related occupations. Hardly 4% is found in trades not wholly appropriate, such as workshop attendants. What it may mean is that whole 7% of skills is underemployed, only an insignificant proportion of them is not properly placed.

JOB FITMENT:

20. An attempt was made to cross-check the utilisation data presented above through an analysis of the contents of the job in which they are employed and relate them to the training gained. It would appear that about 55% of the skills are engaged in job of exact fit; about 22% of skills was in jobs reported to demand higher and 20% lower skills than these persons have. A tradewise distribution of the employed by skill demands of actual jobs held may be seen below:

Table:9: EMPLOYED APPRENTICES ¾ JOB SUITABILITY:

Trade.	Job requires skills				
	More.	Less.	Same.	N.A.	Total.
Fitter	8	9	19	-	36
Turner	3	4	11	1	19
Machinist	-	-	2	1	3
Sheetmetal	1	-	1	-	2
Wireman	-	1	1	-	2
Patternmaker	2	1	-	-	3
Blacksmith	1	1	-	-	2
Carpenter	1	1	2	1	5
Electrician	1	-	2	-	3
Moulder	1	-	6	-	7
Welder	-	-	1	-	1
Total	18	17	45	3	83
Percentage	(21.7)	(20.5)	(54.3)	(3.5)	(100.0)

The above analysis shows that job is perfect ~~as~~ almost ~~as~~ in regard to welder, moulder, machinist, electrician. It is reasonably satisfactory in regard to turner, fitter, patternmaker and Blacksmith seem to be not too satisfactory. Available information does not permit any firm conclusions except providing some guidelines as to the profitable need for a closer study of jobs, recruitment and training methods.

JOB SATISFACTION:

21. An attempt was made to ascertain the reactions of the employed based on their experience of the job. They were asked to report their job satisfaction under three broad subjective heads: (i) like the job, (ii) indifferent and (iii) dislike the job. The analysis revealed that 65% of the employed are satisfied with the job they hold, about 25% indifferent to and hardly 10% disliked their jobs. The related data is as follows:

.....11.

TABLE:10: EMPLOYMENT APPRENTICES - JOB SATISFACTION.

Trade.	Likes.	Indifferent.	Dislike.	Total.
Fitter	25	10	1	36
Turner	11	4	4	19
Machinist	3	-	-	3
Sheetmetal	1	1	-	2
Wireman	-	1	1	2
Patternmaker	1	2	-	3
Blacksmith	1	-	1	2
Carpenter	2	2	1	5
Electrician	3	-	-	3
Moulder	6	1	-	7
Welder	1	-	-	1
Total	54	21	8	83
Percentage	(65.0)	(25.30)	(9.7)	(100.0)

Job satisfaction appears to be most among welder, machinists, electricians and moulders; reasonably satisfactory among turners and fitters. Job dissatisfaction was noticed among turners. The data presented are based on subjective impressions of workers and as such required to be interpreted with caution.

UNEMPLOYMENT:

22. In an earlier section of this study, it was indicated that 34 out of 117 or 30% of apprentices who responded to the enquiry were found to be unemployed at the time of the survey. Further investigations revealed that not all the 34 successful apprentices were unemployed right through but 11 of them had previous spells of employment. These 11 persons gave the following reasons for the jobs held. They were:

Reasons.	Number left.	Percentage.
i. Low salary	2	18.2
ii. Want of vacancy	7	63.6
iii. Health grounds	2	18.2
Total	11	100.0

It would appear that one in six who quit the job was for inadequate remuneration and a similar proportion on health grounds. Very nearly two in three who left were for lack of jobs. The following table shows the 11 persons who had previous spells of employment by reasons for quitting jobs and by trades.

.....12.

TABLE:11: UNEMPLOYED APPRENTICES WHO HAD PREVIOUS SPELLS OF EMPLOYMENT BY TRADES AND BY REASONS FOR QUITTING JOBS.

Trade.	Total unemployed.	Reasons for leaving			
		Low salary.	Want of vacancy.	Health ground.	Total.
Fitter	7	2	1	-	3
Turner	6	-	-	1	1
Blacksmith	2	-	1	--	1
Carpenter	-	-	2	1	3
Electrician	3	-	1	-	1
Moulder	9	-	2	-	2

The turnover appears to be significant for fitters, Blacksmiths and carpenters. Available information seems to indicate the existence of certain non-economic and personal factors, besides some market forces that hamper the orderly absorption of the skills more than mere demand function. A detailed probe in this direction may throw considerable light on skill utilisation problems in depth and degree.

FINDINGS:

23. To sum up, the 117 indentured apprentices who as per the Apprentices Act 1961 responded to the enquiry (about 57% of those addressed) successfully completed their training, either in 1964 or 1965. They were trained in one or the other of 11 trades. All these persons have a sound general educational background; about 75% of them have 9-10 years and 22% 11 years of schooling. Less than 5% have 8 years of schooling. Besides this broad and sound schooling everyone of them have qualified in their respective trades from the Industrial Training Institutes. Their competence, therefore, is established. Their age groups also supports their general maturity; 53% of them is between 25_29 years and 44% less than 25 years of age. They are thus among the nation's most vigorous and productive labour force, besides being skilled. However, the study revealed that only 7 out of 10 of them are employed and the rest not employed. As much as 98% of them was in paid employment and self employment seems to be of marginal significance. While a little less than 50% of them secured employment within 3 months of completing apprenticeship, about 30% had to wait for 3-11 months; about 80% found placement within a year. Income-range for the employed skills has also been found to be generally satisfactory - a little over 80% was in Rs. 100-299 range. The lower income was not significant. In terms of employing segments, 58% was employed in manufacturing and 24% in technical training/education which pattern appears to be satisfactory. Excepting 11% of the employed, the rest of them was engaged in occupations quite appropriate to their trade competence. Even the 11% was in related trades and cannot therefore be ruled out as inappropriate. A little over 50% of the employed are in jobs where their skills was an exact-fit. A fifth, however, appear to be in jobs which are more demanding in skill and another fifth in jobs with less skill demand. But considering the fact that the

.....13.

income-range is not very different among them, it would be reasonable to infer that this not too objective reaction to jobs may not be free from certain subjective bias not entirely unrelated to personality factors. That such an assumption is not entirely without basis in fact may be seen, that about 65% of the employed reported full job satisfaction as against about 10% reporting definite dislike for the job. Of the 30% reported unemployed among the succesful apprentices, about 10% had previous spells of employment of varying duration. It is significant out of those unemployed as much as 36% left the job on their own, either for better pay or on grounds of health. Thus the proportion of unemployed among apprentices who had not any job from the date of completing apprenticeship to the time of this study is less than 20%. While these are aggregates, employment or unemployment is sum of parts. The behaviour of the segments that make the mosaic is more important. It is seen from the study that the utilisation or otherwise of the different skills are not uniform and vary over a wide spectrum. It is interesting to note that generally metal trades, barring moulding have had a better showing. Machinist, Sheet-metal and Welder trades are fully utilised, fitter and turner trailing behind. It is only in the case of other trades that the problem of utilisation shows up some disconcerting trends. Out of the 34 reported unemployed, as many as 21 or 62% relate either to - electrical trades like electrician and wireman or to pattern-maker, carpenter, blacksmith and moulder. Particularly, moulder, blacksmith and carpenter skills unemployed account for as high as 47% of all unemployed. Thus, the problem of skill-utilisation is essentially a problem limited to these six trades.

CONCLUSION:

24. It is observed that utilisation of apprenticed craftsman skills was 70% though another 10% has had intermittent employment. The unutilised proportion of such skills appears to be anything between 20 to 30%, even if allowance is made for intermittent engagements. This is by no means significant. Could it be that the apprentice-output is in excess of market demand for such skills? or such demand-deficiency relates to certain trades only and not all the trades apprenticed? Can it be said that the standards of training has not significant impact on the problem of utilisation? - Taking the last first, employers who were contacted are almost unanimous in their view that the apprenticeship standards prescribed are satisfactory, though some of them preferred a little more flexibility in curricula and a minimum of 11 year-schooling with greater emphasis on science and mathematics. Much as these criticisms are relevant, it may be said, by way of extenuation rather than explanation, that the programme is comparatively recent and young. The apprenticeship council at the State and national levels, representing all interests, including industries, are engaged in a continuing review of the programme. As the programme gains momentum, these points will get solved. For example, boys with 11 years of schooling are increasingly entering on apprenticeship. It is now 25% of all apprentices. In days to come, this percentage is most likely to go up. It is only a question of time.

25. Normally full utilisation of apprentices should be easy and immediate, because apprentice-positions are directly related to specific demands in the foreseeable future. Thus, demand-deficiency may not be a serious handicap.

.....14.

But in practice it is seen that 20-30% of apprenticed skills are reported to be idle. This percentage of unutilised apprenticed skills is an aggregate. Analysis has shown that the idle capacity is not uniform for all trades; it varies. It was seen that six trades - electrial and wood-working, besides blacksmithy and moulding - accounted for 20% of the idle capacity. In other-words, metal-trades have an unutilised capacity of no more than 10%, which rate may not be at all abnormal under present conditions. Thus, it would appear that the unutilised capacity of apprenticed skills is segmental than global. If this assessment is true and acceptable, apprentice-efforts needs to be a bit more selective in trades. These trades, where a skill-surplus is noticed, appear to be trades where market-supply has more than one feeder line. The supply of electrician and wireman, blacksmith and moulder, carpenter and pattern-maker, it is known, is through many formal and informal efforts in the market. There are several private trade schools, informal training programmes who develop such skills, whose standards are variable. Thus in these trades where the channels of supply are not limited, the apprentices have a highly competitive market, with the wage structure usually depressed by skills where education and training rated lower. In such a situation, it is not unusual to find a surplus capacity. Available data show that apprentice-ship in trades where local efforts and practices are spread over a wide field, may have to be cautious.

26. It has been mentioned earlier that normally apprentices are tailor-made to meet a specific demand in the foreseeable future. Implicit in this procedure is the presence of pragmatic demand-forecast for skills, by types and numbers, in each industry and plant. This is part of manpower or personal planning at plant/industry level. While some plants have reasonable arrange-ments for personnel forecasts, it is yet to gain universal adoption in the economy as a whole. In a situation where technological changes are expected and indeed welcomed in the larger interests of economic growth, the absence of some forecasting arrangements may generally generate some imbalances in supply and demand. It is a well-accepted practice in advanced countries like U.K. and U.S.A. where apprenticeship is a significant source of skill development and supply, to regulate its intake and output by relating them to the number and type of 'journeyman' positions in the plant or industry. "A journeyman", 'according to the Dictionary of Occupational Titles (U.S.A.)" is a general term applied to a worker who has served a specified period of time as an apprentice in learning a trade or craft; may be designated according to type of work performed as journeyman-carpenter, journeyman-plumber." The criticality in this self-regulating arrangement is that - 'journeyman' is a flexible element in the manning matrix which is well identifiable and provides a critical measure to balance skill-development and utilisation, avoiding wastage. To what extent the current industry-occupational pattern can be re-structured to provide for clearly identificable journeyman positions for the immediate absorption of apprentice studies is a matter largely for the industry to decide. At the same time, the advisability to develop internal links between skill-development and utilisation at plant levels in the interests of production and productivity is an exercice not without relevance. It is highly probable that a flexible link in the occupational structure may minimise manpower imbalances and at the same time promote better utilisation of costly skills.

27. In fine, it can be said that apprenticeship is a programme with a future and full of potentialities, provided it is informed and flexible. Future efforts in this direction may need to be one of cautious optimism.

-oOo-

SURVEY OF APPRENTICED CRAFTSMEN IN MADRAS STATE.

QUESTIONNAIRE

1. GENERAL IDENTIFICATION PARTICULARS:

1.1. Name:

1.2. Address:

1.3. Age(Completed years):

2. EDUCATION AND TRAINING:

2.1. Highest general educational qualification:

2.2. Technical education/training and apprenticeship:

Sl. No.	Institution/ Establishment.	Years studied From	To	Examination /Test passed.	Trade.	Year passed.
1						
2						
3						
4						

3. ACTIVITY STATUS:

ARE you currently --

i. Employed YES/NO

ii. Unemployed but willing and seeking work YES/NO

iii. Not seeking work YES/NO

4. IF EMPLOYED, ARE YOU AN --

i. Employer .. .. .. YES/NO

ii. Employee .. .. .. YES/NO

iii. Self-employed .. .. .. YES/NO

Contd...

5. EMPLOYMENT RECORD:

Sl. No.	Name of Establishment.	Occupation/ Position.	JOB DESCRIPTION i.Machines worked ii.Materials used iii.Products made iv.Tolerance worked	Employed From	Employed To	Wages/ Salary.	Reason for leaving.

6. JOB SATISFACTION (Tick appropriate box):

i. I like my job: .. .. ☐

ii. Job is tolerable: .. .. ☐

iii. Job not satisfactory: .. .. ☐

7. SKILL DEMAND OF JOB:(Tick appropriate box):

i. Demands more skill than mine: .. ☐

ii. Demands less skill than mine: .. ☐

iii. Appropriate to my skill: .. ☐

ANNEXURE: INDUSTRY-OCCUPATIONAL DISTRIBUTION OF EMPLOYED APPRENTICES.

Industry.	Fitter.	Turner.	Machinists.	Sheet metal.	Wireman.	Pattern maker.	Blacksmith.	Carpenter.	Electrician.	Moulder.	Welder.	Total.
Mining Lignite	3	-	-	-	-	-	-	-	-	-	-	3
Sugar milling	-	-	-	-	-	-	1	-	-	-	-	1
Cotton spinning and weaving.	-	-	-	-	1	-	-	-	-	-	-	1
Coated Abrasives	1	-	-	-	-	-	-	-	-	-	-	1
Steel Rolling	2	2	-	-	-	-	-	1	-	1	-	6
Ordnance Equipment	1	-	-	-	-	-	-	-	-	-	-	1
Metal Boxes	1	-	-	-	-	-	-	-	-	-	-	1
Machine Tools	1	-	-	-	-	2	-	-	-	-	-	3
Electrical machinery	4	-	-	-	-	-	-	-	-	-	-	4
Storage Battery	-	1	-	-	-	-	-	-	-	-	-	1
Railway Engineering works.	-	-	-	-	-	-	-	-	-	1	-	1
Auto Assembly	1	2	-	-	-	-	-	-	-	-	-	3
Auto Spares	6	3	-	1	-	-	-	-	1	1	-	12
Repairs -Motor Vehicles	-	-	-	-	-	-	-	1	-	3	-	4
Bicycles	3	2	1	-	-	-	-	-	1	-	-	7
Surgical instruments	-	1	-	-	-	-	-	-	-	-	-	1
Rail Transport	-	-	-	-	-	-	-	1	-	-	1	2
Bus transport	-	1	-	-	-	-	-	-	-	-	-	1
Local body	1	-	-	-	-	-	1	-	-	-	-	2
Technical Training Institutions	8	4	2	1	1	1	-	1	1	1	1	20
Others	4	3	-	-	-	-	-	1	-	-	-	8
Total	26	19	3	2	2	3	2	5	3	7	1	83