Chapter 6

Socio Economic structure of Manipur

6.1 Introduction

A high rate of unemployment exists in Manipur, particularly among the educated youth. The state is seriously affected by unemployment in general and educated unemployment in particular. It adversely affects the society of Manipur in various ways. The consequence of the unemployment is its detrimental effect on the individuals as well as the society. The rise of crimes, social unrest and violence are positively related to unemployment in general. According to Freeman and David (1982), one of the most important determinants of youth employment is the strength of the economy as a whole. If there is a downturn in the economy the youth are the ones, most adversely affected. Many studies have shown that young people are usually more vulnerable and hit harder by the recessions relative to their adult counterparts (O'Higgins, 2010; Choudhry et al., 2012; Bruno et al., 2014).

The potential job seekers can face employment insecurity and instability due to the lack of demand for workers, search and matching inadequacy, and mismatch between the aspirations of the educated and the suitable employment opportunities. In addition, to a significant extent, poor quality of education may also lead to high levels of educated unemployment and underemployment (Stiglitz, 1975). Thus, such mismatches in demand and supply among different segments in the economy can lead to educated unemployment especially amongst the youth. The phenomenon of educated unemployment has potential to influence policy makers into claiming that the share of the budget going into educating the workforce could be better utilised in creation and sustenance of job-creating productive programmes. Long periods of educated unemployment related to structural problems of the economy can have far reaching social costs and in the short term it can also lead to direct economic cost of loss of productivity for the respective nation. Socio-economic factors play a significant role in the mismatch between demand for and supply of educated labour in addition to the problem that lies in over-education due to faulty assumptions of the labour market. The Indian economy continues to face a perennial unemployment problem like other developing nations, despite the presence of a large volume of sub-standard and informal employment. (Bairagya, 2015)

According to Dev and Venkatarayana (2011) the youth population is one main source of economic growth for India. "Increase in the share of youth population due to demographic dividend or the 'youth bulge' seems to be one of the sources of future economic growth in India. The proportion of people in the age-group 15-24 years has increased over time. Although with increase in school and college enrolment rates, the proportion of youth in the labour force has been declining, their high proportions in the labour force indicate that the problem of youth unemployment and underemployment would remain a serious policy issue for many more years to come in India. The demographic dividend or 'youth bulge' is expected to increase the working age group and reduce the dependency ratio. In other words, the bulge in the working population will lead to acceleration in growth."

However, recent studies have shown that the poor employability of the workforce due to deficit in educational attainment and health may hamper the advantages due to demographic dividend according to Chandrasekhar et al (2006).

According to Population Census of 2011 and NSS data these are some characteristics of youth in India. The data has been updated from Dev and Venkatarayana, (2011) by author however the characteristics as explained remain the same. The major characteristics at All India are both an area of concern and an opportunity.

a) Size of the youth population- According to 'World Population Prospects: The 2015 revision' Population Database of United Nations Population Division, India has the world's highest number of 10 to 24-year-olds, with 242 million—despite having a smaller population than China, which has 185 million young people. As per India's Census 2011, Youth (15-24 years) in India constitutes one-fifth (19.1%) of India's total population.

b) Human Capital of the Youth: Literacy and Educational Levels- The literacy rate for age groups 15-19 and 20-24 are 88.8% and 83.2% respectively according to 2011 census.

The report by Ministry of Statistics and Programme Implementation (MOSPI) stated that in 2014-15, 79% (271.72 lakhs) students are enrolled in Under Graduate level., 11% students (38.5 lakhs) are enrolled in Post Graduate level.

c) Employment and unemployment: As per rounds from NSSO reports the All India Labour force participation rate (LFPR) (rural) for the age groups 15-29 were 54.7% for male and 18.1 % for female and for urban for the same age groups 56.0% were for male and 13.4% for female. The rural females youth were seen to be higher in labour force. The unemployment rate for males for the age group of 15-29 years in rural was 6.1% whereas total was only 2.2%. Similarly for females for the age group of 15-29 years in rural was 7.7% and total was 2.8%. The urban also showed that 8.9% of male youths were unemployed compared to 3.2 of the total unemployed and same goes for female youths with a massive 15.8% unemployed as compared to 6.7% total.

NSS results show that despite low unemployment rates in Manipur, compared to all India average, youth unemployment rate has remained higher in the 15-29 years groups. From table 6.1 it can be inferred that the unemployment rates in Manipur are higher than All India for various age groups more in urban regions for every category. The situation in rural areas is equally alarming for the youth, though the situation is somewhat better for all of Manipur.

Year/Region	Male		Female	
July2011- June 2012	15-29 Years	Total	15-29 Years	Total
Rural	6.1	2.2	7.7	2.8
Urban	8.9	3.2	15.8	6.7

Table 6.1: The Youth unemployment rate in rural and urban

Source: Youth in India, 2017, Mospi.

The problem is of alarming proportions in urban Manipur where unemployment rates are almost double than that of all India and there is also higher rate of unemployment in the youth even in the case of all India.

Measures of Unemploy	Urban					Rura	ıl			
-ment	15-19	20-24	25-29	15-29	All*	15-19	20-24	25-29	15-29	All*
CDS	176 (175)	289 (156)	279 (75)	278 (120)	74 (55)	68 (147)	160 (109)	98 (71)	118 (101)	34 (57)
CWS	167 (152)	285 (142)	276 (65)	274 (107)	72 (44)	47 (111)	153 (82)	78 (45)	102 (73)	29 (34)
Usual principal status	100 (127)	285 (123)	263 (56)	262 (92)	76 (38)	43 (78)	126 (59)	73 (24)	91 (49)	39 (23)
Usual principal status and subsidiary	158 (145)	291 (137)	280 (62)	280 (102)	71 (34)	85 (105)	165 (76)	115 (34)	130 (65)	26 (17)

 Table 6.2: Youth unemployment rate in Manipur (2011-12)

Note: The figures in parenthesis are All India figures. * denotes the working age of 15-65 years

Source: NSS reports of 68th round

These considerations prompted us to concentrate on educated youth of age groups between 18 to 35. Educated unemployed overlapped with these age groups of youth where unemployment problem was highly acute.

The employment opportunities in Manipur are scarce. The unemployment situation in the urban areas of the state is much more severe than that of rural areas. As the state lacks in terms of organised industrial and service the formal employment scenario is bad. Therefore the youth in the state exhibit high preference for government employment which is more of a permanent nature and in the formal sector. In the intermittent period youth are on look out for informal sector jobs in business establishments. Self employment is another way out, but not everyone has the means and capabilities. Hence the registrations in unemployment exchanges are huge and the backlog is also very high.

The current chapter is arranged as follows. Introduction is followed by outline of Employment Exchanges in Manipur in section 6.2. Section 6.3 presents with the sample frame work for drawing the primary data for detailed analysis of unemployment situation in Manipur. The hypothesis to be tested in this chapter are presented followed by

techniques used for analysing primary data. The results and discussion is presented in section 6.4.

6.2 Employment Exchanges in Manipur

There are 21 Employment Exchanges for giving employment assistance to the job seekers of the state. The data are occasionally published in seven groups viz under matric, matriculate, PUC/Intermediate/Higher Secondary, Graduate, Post-graduate and Diploma holders & Engineering technology. Graduate and postgraduate are further categorized into arts, science, commerce, engineering, medical, veterinary, agriculture, law ,education and others. The consolidated number of persons in the Live Register of all Employment Exchanges in Manipur stood at 7,51,376 as on 31st March, 2016. However for the state of Manipur the notified vacancies are very limited. The maximum was 2081 in the year 2012-13 as against 5.1 lakh at All India level. This displays the status of employment scenario in Manipur. The table 6.2.1 show that for every vacancy notified there is huge number of applicants. The year 2014-15 showed for one post there were approximately 1144 persons competing for the job. This ratio is high for all the years which reflects the status of Manipur. This ratio is only the overall average, however when one takes into consideration specific qualification and required experience the figures change.

Year	Persons registered during the year	Registrants on the live register	Vacancies notified	Total registered/ Vacancies notified
2010-11	16057	689119	1096	1:629
2011-12	22059	710399	1365	1:520
2012-13*	35573	689555	2081	1:331
2013-14*	15794	701987	1428	1:492
2014-15	23861	725529	634	1:1144
2015-16	26272	751376	940	1:799

Table 6.3: Statistics on Registrants in the Employment Exchanges of Manipur

Note: N.A. denotes Not available, *All India vacancies notified in 2013 was 5.1 lakh and in 2014 was 7.6 lakh.

Source: Author's computation from Manipur state unit information by Employment exchange, Govt. Of Manipur and Employment Exchange Statistics, 2016

The study is focussed on the educated youth, therefore, the data under consideration is entirely based on sample frame drawn from employment exchanges in the four valley districts of Manipur. Majority of the people of Manipur live in the valley districts. The Hindu Meiteis, Muslims and Tribals live in the valley. Hindu Meitei and Muslim settlements are rare in hills due to existing land regulations. Besides, settlements in hills are spread over a vast and sparsely populated area. The diversity in population and experience has prompted us to examine the issues with respect to the valley districts. Employment service in Manipur was established in Manipur in 1957. By December 2016, there were 21 employment exchanges in Manipur with each of the districts hosting an employment exchange and some districts had sub centres too.

Registration in employment exchange is valid for 3 years unless it is revalidated. Those who have completed 18 years of age can only register for work however there is no maximum age limit. A candidate can register the name only in the Employment Exchange, under the jurisdiction of which one resides. At the time of registration, inter alia, the person has to produce Certificates/mark-sheets of educational qualifications/ experience certificates issued from Manipur. This rules out illiterates and outsiders registering in the exchange. Employment Exchanges usually give platform for vacancies of provisional nature in Government/ Quasi Government institutions. Employment Exchanges also takes care of Permanent vacancies of Government/Quasi/government institutions which do not come within the purview of Public Service. Private Employment Exchanges to fill the vacancies in their firms. All establishments in public sector and all establishments in the private sector where 25 or more persons are employed are supposed to notify vacancies through employment exchange.

Employment Exchanges provide only employment assistance on the basis of qualification, experience, age etc. and sponsor the names of registered applicants in the ratio 1:20 against the vacancies notified by the Employer strictly in order of merit and seniority and as per reservations. A candidate will be considered if he or she fulfils the essential qualification, prescribed for the post. Candidates are also encouraged to enhance their employability by undergoing further training.

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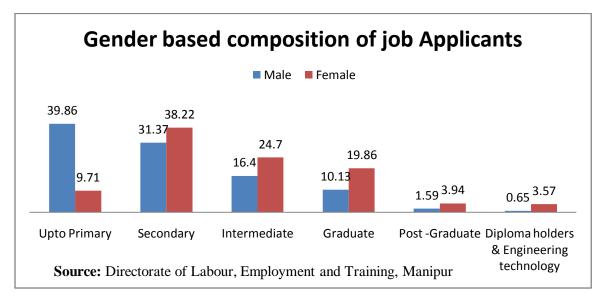
The live registers of employment exchanges in Manipur have 64% of applicants with education upto secondary level. Graduates and post graduates formed around 15 percent and 19 percent are HSC. The table no. 6.4 shows that males percentage of applicant at the lower level of education are higher than female whereas in higher education level female applicants are higher. It implies that males enter the job market out of necessity. Female with only higher education normally tend to register with employment exchanges. At an aggregate level the male participation in the labour market is higher than that of females.

Level of education	Percentage of registered applicants by gender				
	Male	Female	Total		
Upto Primary	39.86	9.71	31.08		
Secondary	31.37	38.22	33.36		
Intermediate/Higher	16.40	24.70	18.82		
Secondary					
Graduate	10.13	19.86	12.96		
Post -Graduate	1.59	3.94	2.28		
Diploma holders &	0.65	3.57	1.50		
Engineering					
technology					
Total	100	100	100		

Table 6.4: Distribution of registered applicants in the Live Register of EmploymentExchanges by Education in Manipur (Dec.2015)

Source: Directorate of Labour, Employment and Training, Manipur





From the figure 6.1 it can be seen that highest number of male applicants had education upto primary within group which imply that most of the respondents never did matriculation. Being male members in the family they had to drop out of their education in search of jobs to financially assist the family or they are in the working age. The female counterpart had highest share in upto secondary. Throughout the qualification level of the female category had higher share except in upto primary group. This may imply that they were not considered as the sole bread earner. They were given the opportunity to educate themselves if the family had sufficient income. The distribution presented in the above table hides more than it reveals. The absolute registrations of males is many fold of that of females. Percentage distribution only gives partial information.

According to a report by National Career Service (NCS) GOI on employment exchange, the number of job seekers was highest in Tamil Nadu (79.91 lakh) followed by West Bengal (76.72 lakh), Uttar Pradesh (68.56 lakh), Maharashtra (38.21 lakh) and Kerala (37.32 lakh) in 2014. The Number of vacancies notified to the Employment Exchanges during the year 2014 were maximum in Gujarat (3.4 lakh) followed by Maharashtra (3.2 lakh), Tamil Nadu (0.19 lakh) Kerala (0.13 lakh) and Haryana (0.11 Lakh). The vacancies notified varied between across the states. The ratio of vacancies to registered is 1:421 for Tamil Nadu and 1:287 in Kerala. These figures show that the situation in Manipur is much more adverse.

Of the three major sources viz the national sample survey, the employment exchange and the labour bureau, the quinquennial NSS results have been more widely used in policy analysis at all levels. Since 1972-73, NSS provides four measures of employment viz usual status, usual status adjusted, current weekly status and daily status. The labour bureau statistics became available only from 2010 when it was entrusted with the task of conducting annual employment –unemployment survey. The first survey was conducted in 28 states/UTs covering 300 districts in the country. It now covers all districts in the country. It provides usual principal status and usual principal status and subsidiary unemployment . Though employment exchange data are based on job search, one important criterion for being in the labour force, it is not updated regularly leading to contamination of the live register by persons who are already employed. Vacancies notified through the employment exchanges are few and there is no mechanism to update the status of the applicant on continual basis.

6.3 The Primary data and Hypothesis to be tested

A random sample of 300 respondents was taken from the frame provided by Employment Exchanges of Imphal West, Imphal East, Bishnupur and Thoubal in July 2014 with the purpose of analysing the employment trends in Manipur. In the final analysis due to non response and partial response only 271 respondents were considered for analysis (Table 6.5). Out of the 271 respondents 125 were employed by the time of survey but were looking for better opportunities and 146 were unemployed. Based on the survey in this chapter, the socio, economic characteristics and educational background of the respondents is analysed. Types of jobs and job search method of the respondent is analysed. Various hypothesis pertaining to the respondents and their characteristics are tested.

District	Sample size proposed	Number of respondents (Final Sample size)	Serial number of questionnaire
	proposed	Sample size)	questionnaire
Imphal East	84	79	1-79
ImphalWest	95	88	80-167
Bishnupur	44	38	168-205
Thoubal	78	66	206-271
Total of 4			
districts	300	271	

 Table 6.5: Distribution of sample from the regions of Manipur

6.3.1 Brief introduction about the sample

As mentioned earlier from the 300 sample, 271 respondents were considered for analysis. At the time of survey out of the 271 respondents 125 respondents were engaged in economic activities which bear rewards in money or kind. Out of the total respondents, 103 are female and 168 are male. The female respondents consist of 73 unemployed and 30 employed and the male respondents consist of 73 unemployed and 95 employed.

According to Religion Census 2011, the majority of the population in Manipur are Hindu and Christian, however the 4 districts of Manipur i.e. Imphal East, Imphal West, Thoubal and Bishnupur considered for sampling have Hindu as majority. Random sampling is based on the enrolment in employment exchange in these districts. Out of the 271 respondents, 242 respondents are Hindu, 20 Christian and 9 Muslim. Out of the 242 Hindu 128 are unemployed and 114 are employed. Christian respondents have 14 unemployed and 6 employed, 4 unemployed and 5 employed among Muslim respondents.

Looking at the nativity, 191 respondents are from rural and 80 respondents are from urban regions. Rural areas consist more number of Joint family respondents (140) and less Nuclear family respondents (51). Male consist of 119 and female 72 from rural and it is 49 male and 31 female from urban areas. Given below is the table showing the gender and the qualification of the respondents. Larger proportion of female respondents have higher education as it is observed that greater proportion highly educated female registered in the employment exchange which imply lower educated females have not come forward for registration. Whereas in case of males, larger proportion from lower educational qualification have registered. The reason being that for male members of the family the urgency to get employed is evident in Indian conditions as they are sole bread winners in most situations.

Gender	Qualification					
	9 th to 10 th	11 th to 12 th	Diploma	Graduation	Post	Total
					Graduation	
Female	12 (11.65)	5 (4.85)	2 (1.94)	35 (33.98)	49 (47.97)	103 (100)
Male	59 (35.11)	8 (4.76)	11 (6.54)	68 (40.47)	22 (13.09)	168 (100)
Total	71 (26.19)	13 (4.79)	13 (4.79)	103 (38.00)	71 (26.19)	271 (100)

 Table 6.6: Gender and qualification of the respondents

Note: The figures in the parenthesis are in percentage

The average age of respondents is 27.62 years and the model age group is 26-28 which is 18.4 percent of the sample. This shows that the larger proportion of youth are looking for jobs. Years of education for the respondents are given in Table 6.7 below. It was found that larger proportion of respondents who had lower years of education were employed indicating that they accept available jobs and exhibit less preferences. On the contrary, more educated exhibit preferences for certain occupations and types of jobs, thus exhibit high unemployment rates in the short run. This could imply the higher educated respondents wait for better and suitable job. The analysis of their job search strategies and coping strategies can yield interesting results.

Years of education	Unemployed	Employed	Total
9 to 10 years	29	42	71
11 to 12 years	5	8	13
13 years	5	8	13
14 to 15 years	60	43	103
17 to 18 years	47	24	71

 Table 6.7: Years of education and the employment status

6.3.2 Brief overview of the districts

According to the Census 2011, Manipur has population of 28.56 Lakhs, which is an increase from figure of 22.94 Lakhs in 2001 census. Manipur has a total population of 2,855,794 of which male and female are 1,438,586 and 1,417,208 respectively as per 2011 census. In 2001, total population was 2,293,896 in which males were 1,161,952 while females were 1,131,944. The total population growth in this decade was 24.50 percent while in previous decade it was 30.02 percent. The population of Manipur constitutes just 0.22 percent of India in 2001 and in 2011 census increased to 0.24 percent.

Imphal West

The Imphal West District falls in the Category of Manipur valley region. It is a small valley at the centre of Manipur surrounded by Plains of other districts. The State Capital, Imphal city, is the nodal functional centre of this district.

In 2011, Imphal West had population of 517,992 of which male and female were 255,054 and 262,938 respectively which results to sex ratio of 1031 per 1000 males. The population density is 998 per sq. Km. Literacy rate is 86.08 with male as high as 92.24% and female is 80.17%. According to the report of 2011 Population Census, in Imphal West, 62.33 percent lives in urban regions of district. Sex Ratio in urban region of Imphal West district is 1042 per 1000 male as per 2011 census data. It is an urban district with centres of business and state administration.

Imphal East

In 2011, Imphal East had population of 456,113 of which male and female were 226,094 and 230,019 respectively. Population density is 643 per sq.km and sex ratio of 1017 per 1000 males. The literacy rate is 81.95%. Manipuri meiteis or Hindu constitutes the highest with 60.27% followed by Muslims at 17.58% and Christians at 6% and the rest constituting of around 15% of the population. 59,83% of the population is in rural areas and the rest 40.17% in urban areas. Agriculture is the main occupation of the people living in this district. It is not yet commercialized in large scale due to inadequate irrigation facilities, lack of improved farming techniques. Unfortunately there are no major industrial activities except cottage and small scale industries. The industrial activities are mostly concentrated in Small Sector Industries, cottage and house-hold sectors. such as economic activities like agriculture, handloom, wool-knitting, cane and bamboo works, pottery, black smith and carpentry, retail trade/ small business. (Government of Manipur, 2018)

Bishnupur

Bishnupur district is bounded on the North by Imphal West District, on the South by Churachandpur district, on the East by Imphal East and Thoubal districts. According to Census 2011 Bishnupur has population of 237,399 with growth from last decade as 13.93%. Sex ratio is 999 per 1000 males and literacy rate is 75.85%. The Manipuris Meiteis mostly Hindu constitute the largest population followed by tribals (mostly Christian) and Meitei Pangal (Manipuri Muslims). The area is mainly rural with 63.14 % and 36.86% as urban.

The main occupation is in agriculture. There are only handloom and related industries which are constituting the industrial units.

Thoubal

In 2011, Thoubal had population of 422,168 of which male and female were 210,845 and 211,323 respectively which results into sex ratio of 1002 per 1000 males. In 2011 census density of Thoubal district is 821 people per sq. km. Male literacy is 85% and female is 64.09. Out of the total Thoubal population for 2011 census, 35.85 percent lives in urban regions of district where the rest of 64.15% lives in rural regions. Religion wise Meitei Hindus constitutes 63.28% of the population followed by the Muslims at 25.42% and others including Christians at 11%. The main source of livelihood for the population is from the primary sector. The handloom and cottage industries constitutes the bulk of industrial units.

These four districts represent the state of Manipur and its diversity. The level of urbanisation the activities performed across the state are captured. The type of economic activities performed both agricultural and non-agricultural are represented. The social profile of the population is represented through the sample drawn from these four districts. The intention of the researcher is to draw a representative sample of the situation in Manipur state.

The sample drawn is representative and information pertaining to 271 respondents is collected by canvassing questionnaires. Information as pertaining to socio-economic background, educational and experience is collected. The variables are used for further analysis in testing of relations and hypothesis proposed.

To capture and examine the socio economic structure of Manipur the various variables are used and their brief description is provided in the table below. These variables capture different dimensions of the respondents and their background. Some of the variables are quantitative like income, education, age and some of qualitative in nature, e.g. experience, skill level, location and gender. At times a variable can act as proxy to others. Some are dummy variables too are used for analysis.

Variables	Description		
Employment status	The respondent is a person either		
	employed=1 or unemployed=0 (based on		
	UPSS and UPS definition of NSSO)		
Gender	Sex of the respondents i.e. male=1 or		
	female=0.		
Location	The place where the respondent resides		
	which is either rural=0 or urban=1 based on		
	the definition by Census India,2011.		
Income of the family	Monthly income reported by all the family		
	members (in Rs) at 2014 prices.		
Income of the respondent	Monthly income of the respondent (in Rs)		
Types of jobs	Formal=1 and informal=0 (Jobs based on		
	the definition provided by the NSSO.)		
Qualification	Educational qualification of the respondent		
	in terms of degrees that one holds		
Head's qualification	Educational qualification of Head of the		
	Family		
Years of education	Years of schooling and higher education		
	completed by the respondent.		
Head's years of education	Years of schooling and higher education		
	completed by the head of the family.		
Female headed household	Those respondents whose head of the house		
	is a female. (yes= 1, no=0)		
Age	Age of the respondent (years)		

 Table 6.8: Description of the variables selected and their measurement

Head's age	Age of the head of the family of a respondent
Family Size	Number of family members in the respondent's family including infants.
Type of Family	Either nuclear family =1 or join family =0 (based on the definition of Census India, 2011.)
Head's job	Type of job of the head of the family $formal = 1$ or $informal = 0$.

6.3.3 Hypothesis used for analysing respondents' data

The following are the hypothesis tested based on the responses of 271 respondents who were surveyed. The hypothesis formulated are based on economic literature and structure of the economy.

- The gender of the respondent has significant impact on their employment status.
- The employment status of a respondent is influenced by the area or location of residence.
- The age and experience of a person determine the probability of employment.
- The educational qualification and skill level is a major factor in determining employability of a respondent.
- There exist a significant and positive correlation between the employment status of a respondent and the educational qualification of the head of the family.
- The employment status of a respondent is significantly influenced by the occupation of the head of the family.
- There is a higher chance of a person to be unemployed larger the family size.
- The employment status of a respondent is influenced by the gender of the head of the household.

- The family background of the respondent can influence the search strategy of the respondent.
- The level of education of the respondent has significant impact on their earning capacity.
- Employment in formal sector has significant impact on the earning capacity of the respondent.

6.3.4 Techniques used for analysing respondents' data

As stated earlier a random sample of 300 respondents from four Employment exchanges of Manipur have been selected and questionnaires canvassed. Out of these, 271 respondents have given complete information. Therefore for this study, the data collected from these 271 respondents have been analysed in sufficient detail. This analysis helps the researcher in drawing specific inferences pertaining to Manipur's employment scenario. The detailed results are presented in this chapter and in the subsequent chapter.

The respondents' data have been analysed using various techniques according to the type of data and variables. The respondents consist of employed but seeking better job at time of interview and those by the time of interview and those who were unemployed. The variables are then analysed in relation to the employment status. As the data consist of dichotomous as well as continuous variables diverse techniques were used to analyze data. For continuous variables summary statistics such as Arithmetic Mean were calculated along with Standard deviation. There were calculations of coefficient of variation to compare the extent of variations across the variables. To test for difference between means Z-test was used.

For limited variables and dichotomous or dummy variables the techniques used was chisquare test. To calculate the chi-square, these variables were cross tabulated against the employment status. This is done to test for homogeneity or heterogeneity.

In addition, correlation analysis is taken up. Simple frequency distribution reveal the patterns and can be used to present data. In the subsequent chapter regression techniques

of both bivariate and multivariate are used. The method of PCA is used for further analysis. A brief explanation of χ^2 test and Z test used is presented below.

Chi-square distribution has number of applications. χ^2 is $\Sigma_i^n Z_i^2$, i.e. it is a cumulative of square of standard normal distribution. Hence it is a continuous distribution. However for analyzing grouped data and discrete data the Pearsons approximation is used widely. It is also used extensively when the variables under consideration are multinomial binary and/or qualitative.

Therefore χ^2 distribution can be used for testing qualitative data (categorical variable) in its Pearson's approximation form, hence for non-parametric tests.

The Pearson's approximation of χ^2 is also termed as discrete approximation of $\chi^2 = \Sigma_i^n Z_i^2$.

The Pearson's approximation is as under

$$\chi^2 = \Sigma \frac{(fo - fe)^2}{fe}$$

where fo is the observed frequency, fe is the expected frequency, and Σ is the notation for sum of values.

According to the χ^2 statistic, we can conclude the following.

- If there is a large difference between the observed and expected values, then the value of the χ^2 will be large, and the data would not support the null hypothesis.
- If there is a small difference between the observed and expected values, then the value of the χ^2 will be small, and the data will support the null hypothesis.

However Pearson's chi square test reliability is questioned as the distribution becomes more discrete when degree of freedom is one. So Yates' Correction is typically used in χ^2 analysis when degree of freedom is one. There are certain amount of disagreement surrounding the use of Yates' Correction. Some statisticians argue that expected frequencies lower than five should trigger the use of Yates' Correction, others use 10 as the cut point, and still others argue that Yates' Correction should be used in all 2 x 2 contingency tables. These issues are touched upon in Brown (1988, pp. 190-191) and Hatch and Lazaraton (1991, pp. 404-406), and are discussed in depth in some of the old tried-and-true nonparametric statistics books (Siegel, 1956; Conover, 1980).

Yates correction is applied by subtracting 0.5 from the numerical difference between the observed frequencies and expected frequencies. The χ^2 formula with the .5 subtraction:

$$\chi^2_{Yates} = \Sigma \frac{(|fo-fe|-0.5)^2}{fe}$$

After χ^2 for further analysis Cramer's V is used to check the strength of the association between variables.

Cramér's V ranges in number between 0 and 1 and it indicates how strongly two categorical variables are associated. To know if 2 categorical variables are significantly associated, the first option is to have the chi-square (χ^2) independence tested. A significance level close to zero means that variables are very likely to be completely associated in population. However, this does not necessarily mean that the variables are **strongly associated**; a weak association in a large sample size may also result in p = 0.000. Therefore to check the strength of the association Cramer's V is being used.

Cramér's V is a measure that *does* indicate the strength of the association, it is defined as

$$\Phi_{\rm c} = \sqrt{\frac{\chi^2}{N(k-1)}}$$

where

- Φ_c denotes Cramér's V;
- χ^2 is the Pearson chi-square statistic from the aforementioned test;
- N is the sample size involved in the test and
- k is the lesser number of categories of either variable.

Z-test has wide applications and is widely used in hypothesis testing. Z distribution is also termed as standard normal distribution. This is a large sample continuous distribution.

$$Z = \left(\frac{Xi - u}{\sigma}\right) \sim N(0, 1)$$

This formula is modified and used for testing under various conditions, e.g.

(a) One sample (b) Two sample (c) Large and Small sample. In case of small sample students t-distribution is used. Here Z distribution is used to test the difference between two sample means.

The other test in the following tables consist of testing the mean difference of two samples. To identify the distinguishing characters of socio and economic background of employed and unemployed respondents means were estimated on different variables for each group of respondents. Differences in values of means were examined for statistical significance by using the Z-test described below:

Z= $[(\bar{X}_1 - \bar{X}_2)/SE_{(\bar{X}_1 - \bar{X}_2)}] \sim N(0,1)$

Where, \overline{X}_1 = mean value of the variable of the employed respondents.

 \overline{X}_2 = mean value of the variable of unemployed respondents.

 $SE_{(\bar{X}1-\bar{X}2)}$ is standard error

The difference between means is given below

$$SE_{(\bar{X}1-\bar{X}2)} = [(S_1^2/n_1) + (S_2^2/n_2)]^{1/2}$$

where S_1 and S_2 are the standard deviations of the employed and the unemployed respondents respectively and n_1 and n_2 are the number of employed and unemployed respectively.

Chi-squared test which looks at whether or not there is a relationship between two categorical variables, but this doesn't make an allowance for the potential influence of other explanatory variables on that relationship.

6.4 Results and Discussion

The empirical findings of the socio economic background of the respondents. The respondents are divided into employed and unemployed respondents and the relationship with the variables viz. gender, area of residence, head of the family educational qualification as well as their occupation are examined. Table 6.9 shows that employment status and the gender of the respondents are dependent and significant with chi square value of 18.23 which is statistically significant as P-value is less than 0.0001. Cramer's V was 0.267 which explains that if the respondent was a male then it had higher chances that the respondent was employed. The employment status and the area of the residence of the respondent are dependent as χ^2 value of 4.12 at 5% level significant. The respondents who were from the urban area tend to be employed more than the rural areas. The reason is due to urgency of getting a job. It is found that many of those who were employed were in informal sector. The employment status and the educational qualification of the respondent as well as head of the family are found to be dependent as χ^2 values are high and statistically significant. The higher the education had higher chance of the respondent to be employed. However the employment status and the educational qualification of the head of the family is statistically significant at 10%. The head of the family's occupation, the type of family (nuclear or join) and the female headed household were not statistically significant with the employment status of the respondent. In these cases the variables do not exhibit dependence as the χ^2 values are low and statistically not significant. It can be inferred that they are independent. The educational qualification of the respondent is formed to dependent on the gender of the respondent and occupation of the head of the household. In both these cases the χ^2 value is high and statistically significant.

Dependent	Independent	χ ² value	(χ^2) p-value	Cramer's V
variable	variable			
Employment status	Gender	18.233 ^a	<0.0001**	0.267
Employed=1,				
Unemployed=0				
	Area of residence- rural=0, urban=1	4.122 ^a	0.042*	0.131
	Educational qualification of the respondent	12.469	0.006**	0.215
	^b Head's educational qualification	10.495	0.105	0.197
	^b Head's occupation	5.108 ^a	0.024*	0.118
	Family size	13.319	0.206	
	Type of family, Nuclear=1 and Join=0	0.026 ^a	0.873	0.018
	Female headship, Yes=1, no=0	1.201 ^a	0.273	0.082
	Religion, Hindu=1, Christian=2, Muslim=3	2.509	0.285	0.096
Gender- male=1,	Qualification of the	44.459	<0.001**	0.405
female=0	respondent			
Head's	Qualification of the	11.531	0.009**	0.197
occupation-	respondent			
formal=1,				
informal=0				

 Table 6.9: The Employment status and socio economic background of the respondents

Note: * denotes significance at 5% level and ** denotes significance at 1% level of significance. b denotes the head of the family of a respondent, a denotes Yates correction is done when degrees of freedom is one.

On the other hand the gender of the respondent and the educational qualification was statistically significant and it can be found that larger proportion of male exhibited at lower levels of education and the female respondents had larger proportion at higher levels of education. It is shown in the table 6.10 The proportion of female respondents with graduation and post graduation are higher than their male counterparts.

Gender of the	Qualification of the respondent				Total
respondent	9 th to 10 th	Diploma	Graduation	Post-Graduation	
Female	12	7	35	49	103
Male	59	19	68	22	168
Total	71	26	103	71	271

Table 6.10: Gender and the educational qualification of the respondents

Table 6.11 presents the socio-economic differences across employed and unemployed respondents. The means age of employed is found to be significantly higher than that unemployed as the difference is significantly high and found to be statistically significant. The Z-value between means is found to be 6.208 statistically significant at 1% level (p-value is 0.0001). Employed members are from larger sized families than the unemployed. It is found that the years of education of the unemployed is higher and significant. This depicts that educated unemployment mean income of families of employed than unemployed respondents. This also reflects the better economic status of families with employed respondents.

Variable	Mean	Mean X ₂	Z test (p-value)
	$X_1(employed)$	(unemployed)	
Age of the respondents	29.96	25.6	6.208 (0.00001)
Family size of the respondents	5.60	5	2.265 (0.0235)
Years of education	13.248	14.414	3.411 (0.0006)
*Head of the family's years of education	10.08	11.30	-2.397 (0.0165)
Family Income	26368	22699.6	2.688 (0.0072)

 Table 6.11: Socio economic characteristics background of employed and unemployed respondents- Test of equality

Note: * Head of the family of a respondent

Table 6.12 shows the different categories of respondents which were employed during the time of interview. Out of 271 respondents 125 are employed. In table 6.3.5 analysis pertains to these respondents only. They were asked to state their monthly income and therefore by classifying them into different groups the z test difference for two means were analysed to find if the wages were different and statistically significant.

The formal respondents' salary were significantly higher than the informal respondents' salary. For graduate and higher the salary is significantly higher than non- graduate. The case was also similar for ages upto 25 years from the 26 years and above. The gender based income differential was not statistically significant. In can be inferred from table 6.12 that respondents working informal sector, educated and having greater experience better in terms of their earning capacity. Though the results showed that female have higher salary (due to the registration bias), it is not statistically significant.

Monthly Income of the	Mean X ₁	Mean X ₂	Z test (p-value)
respondents by category			
Formal (X_1) / Informal (X_2)	17,922	10,984	3.608 (0.0003)
Male (X_1) /Female (X_2)	12,316	14,860	-1.203 (0.2288)
Graduate and plus (X ₁)/	15,474	9,984	4.338 (0.0001)
Non graduate(X ₂)			
Age upto 25 years(X_1)/ 26	10,460	13,706	-2.391 (0.0168)
years and above (X ₂)			

 Table 6.12: Mean monthly income differentials by characters of the employed respondents

Source: Computation from the Primary survey

The job scenario changes with time and the status of respondents under consideration. The status of the respondent has impact on their behavioural patterns and search strategies. In this section an attempt is made to analyse the behaviour by gathering information pertaining to the job satisfaction, migration, search strategy coping strategies of the respondents both employed but on look out for better opportunities and unemployed.

The job scenario with respect to the respondents' point of view differ from the employed to the unemployed respondents. Table 6.13 shows some choices of the employed respondents. Around 78 percent of the employed respondents were not satisfied with their job. Around 73 percent of employed are willing to move out of district for better pay but less keen to move out of state.

The larger proportion of unemployed respondents approximately 95 percent were willing to work outside the district of their residence if given a good pay and secured job. However when it came to willingness to work outside the state of residence, the respondents had a lower response, which meant they preferred working near the place of their residence.

Question	Response			
	Yes	No	Total	
Satisfaction of the current	28(22.4)	97 (77.6)	125	
job for those who are already				
employed				
Willing to work outside the	91(72.8)	34 (27.2)	125	
district for the employed for				
better pay				
Willing to work outside the	47 (37.6)	78 (62.4)	125	
state for the employed for				
better pay				
Migrated in search of job for	18 (14.4)	107 (85.6)	125	
those who are employed				
Willing to work outside the	138 (94.5)	8 (5.5)	146	
district for the				
unemployment				
Willing to work outside the	75 (51.4)	71 (48.6)	146	
state for the unemployed				
Migrated in search of job for	18 (12.3)	128 (87.7)	146	
those who are unemployed				

 Table 6.13: The choice of the employment and migration for the employed and unemployed

The search strategy in table 6.14 shows the different ways a respondent whether the unemployed as well as for those who are already employed is searching for job. There are also cases for those who are already employed and are not looking for any other job. Those respondents were asked to give the mode of search strategy while they were unemployed and they were also asked about the details of getting the current job. Only 2

persons out of 125 employed respondents have reported to have got job through employment exchange. Open competition leads the mode of getting a job and the advertisement of competition were mainly received from newspaper advertisement. Most of the respondents have used multiple sources as search strategy. The strategies are quite different for employed looking for better employment and that of unemployed.

The unemployed in order of preference used (a) Newspaper advertisement (96%) (b) Employment news (68%) (c) Competitive exams (55%) in that order. Family and friends networks (contacts) is also an important source of job search.

In case of employed the search means are (a) Newspaper advertisement (33%) (b) Open competition and examinations (30%) and (c) Family and friends networks (26%). However unemployed show greater activity, which is quite natural.

Search strategy of the		Response
Unemployed	Yes	No
Employment news	100 (68.5)	46(31.5)
Newspaper advertisement	141 (96.6)	5 (3.4)
Competitive exams	81 (55.5)	65 (44.5)
Family and friends contact	47 (32.2)	99 (67.8)
Further study yet searching	28 (19.2)	118 (80.8)
Search strategy of the	Yes	No
employed		
Employment news	10(8.0)	115(92.0)
Newspaper advertisement	41(32.8)	84(67.2)
Competitive exams	3 (2.4)	122 (97.6)
Family and friends contact	3 (2.4)	122 (97.6)
For those who got employed		
Through open competition	37 (29.6)	88 (70.4)

Table 6.14: Search strategy of the employed and unemployed respondents**

Through contacts friends	33 (26.4)	92 (73.6)
and family		
Through Employment	2 (1.6)	123(98.4)
exchange		
Die and Harness*	1 (0.8)	124 (99.2)

Note: *It is the job transferred to the son or daughter of the employee due to death on service **The search strategy can be multiple for a respondent.

The table 6.15 shows the search strategy matrix of all the respondents which includes those already employed. They were asked about their strategy of searching for jobs too along with the unemployed respondents. This table shows the combination of most used strategy to find jobs. Majority of the respondent had searched for jobs in newspaper advertisement and employment news. The diagonal line shows the number of respondents using each search strategy. Searching by reading newspaper advertisement is the highest (atleast 67 percent of the respondents depended on newspaper advertisement for job search), followed by searching by reading employment news. Further studying to get a job is the lowest of them all.

Table 6.15:	Search strategy	matrix of	jobs for	the respondents.

Search strategy	Search by employment news	Search by newspaper advertisement	Search by friends and family	Appearing competitive exam	Further study
Search by employment news	110	108	26	69	24
Search by newspaper advertisement	108	182	49	83	28
Search by friends and family	26	49	50	24	10
Appearing competitive exam	69	83	24	84	21
Further study	24	28	10	21	28
Total	337	450	159	281	111

Note: Total consist of several choices that a respondent made as a respondent can have multiple mode of search strategies.

A pictorial figure is presented below of the same as table above.

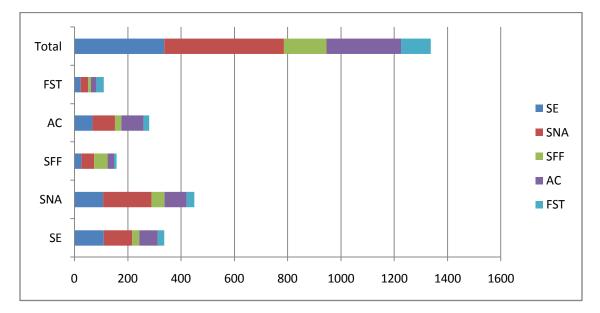


Figure 6.2: Search strategy of the respondents

Note: A respondent can have multiple mode of search strategies.

SE- Search by employment news, SNA- Search by newspaper advertisement, SFF-Search by friends and family contact, AC- Appearing competitive exam, FST-Further study

In table 6.16 the various ways of getting a job for those who are already employed is shown. It gives the insight of means of getting jobs overall and which type is more used by the respondents. According to study it has been found that open competition was the highest and the second most used means were the help of contacts. The family and friends contact seems to be one leading key to getting a job. Even among employed, the response is incomplete as only 74 have given response, however this data is representative of the trend.

Types of getting a job	Number of respondents	Percent
Open Competition	37	29.6
Through Contacts	33	26.4
Employment exchange	2	1.6
Regularisation	1	0.8
Die and harness*	1	0.8

Table 6.16: Means of getting the job for the employed respondents

Note: * It is the job transferred to the son or daughter of the employee due to death on service

Source: Author's data and calculations

In table no. 6.17 the data shows that job expectation of the employed respondents based on their experience and perception. It can be seen that most of the respondents stated that the job market had been deteriorating during 2013-14. However those who were unemployed felt that the job market had been improved and they were waiting for the right job. On the contradictory these unemployed were voluntarily looking for job but not getting as they are looking for better jobs. They believed that the mismatch of jobs will be solved sooner. This may be due to less urgency or the necessity of the respondents who were employed. As mentioned earlier the people wait for public sector jobs which are more secured jobs. Thus the marked results are mixed and appear differently for various aspirants.

Employment status	Job Expectations				
	Improved Deteriorated Can't Say				
Employment	8	71	46		
Unemployment	79	48	19		

Table 6.17: Job expectations and the employment status of the respondents

Source: Author's data and calculations

The table 6.18 shows the wages of the formal job on average were higher than the informal however the variation was more in the formal than informal. It can be because of the difference in the wages of the private formal sector and the public formal sector

job. According to a study by Glinskaya and Lokshin (2005) of India's wage differential among the workers, it has been found that the public formal sector workers had 62% to 105% range of higher wages than the private formal sector workers. It can be seen that only 25% of those employed are in the formal sector.

Table 6.18: Average	Wages	and it	s dispersion	of the	e employed	respondents	by
sectors of employment	t						

Types of	No. of	Mean	Median	Mode	S.D.	C.V
Job	respondent					
Informal	90	10,984.44	10000	15000	5,186.58	47.21
Formal	35	17,922.86	15000	12000	10,906.13	72.70
All Types	125	12,927.2	12000	15000	7,855.25	60.76

Note: S.D stands for standard deviation and C.V stands for coefficient of variance. C.V= $(x/\sigma) * 100$ where \bar{a} stands for mean and σ stands of standard deviation. **Source:** Author's data and calculations

The table 6.19 presents the coping strategy of the respondents who were unemployed. These respondents were depended on family or doing some part time irregular job and are assisting their family business. They were ready to work on a regular job of their preference if they were given. Those who were depended on their family were the ones who were not getting the right job of their preference. Some of them have taken up further studies for higher degree, however if any job of their preference were available they were ready to opt for the job.

Assisting in retail shops, working under a self employee were the highest with 21.9 percent however they did help on part time basis and were not working as full time. Most of the cases were such that they were helping their friends or relatives, and no fix wages was demanded. Thus they were giving some experience and preparing for market demand of future.

Coping Stategy	Number of respondents	Percent
Financially Depended on	23	15.8
family		
Assisting in retail shop	32	21.9
Contractual embroidery	21	14.4
Home tutor	35	24
Assisting in workshop	6	4.1
Assisting in farming	11	7.5
activities		
Event management work	8	5.5
Contractual Mason	4	2.7
Assisting family business	6	4.1

Table 6.19: Major Coping strategy reported by the unemployed respondents

Note: Major coping strategy denotes the maximum time spent on that particular mode of coping.

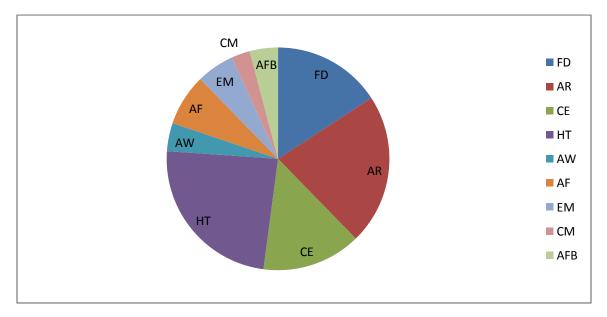


Figure 6.3: Major Coping strategy reported by the unemployed respondents

Note: FD- Financially depended on family, AR- Assisting in retail shop, CE- Contractual embroidery, HT-Home tutor, AW- Assisting in workshop, AF- Assisting in farming activities, EM- Event management work, CM- Contractual Mason, AFB- Assisting family business

The table 6.20 shows the reason for quitting the previous jobs. Low salary was one of the biggest reason for informal sector and for formal sector the reasons were the highest in other reasons which is personal and undisclosed and not related to the given options. Most of the respondents who quit jobs are from informal sector. Very few have reported to have quit formal jobs.

		Quit last employment due to						
Type of	Low	ow Unpleasant Harsh Health Non-availability *Other						
work	salary	Workplace	Employer	hazard	of benefits	reasons		
Formal	9	1	00	01	01	15		
Informal	84	11	19	06	03	40		
Total	107	13	31	07	04	61		

Table 6.20: Reasons for quitting previous job by the sectors of employment

Note: * Other reasons are personal and wanted not to be disclosed. Each respondent can have multiple reasons to quit the last employment.

6.5 Summary and Conclusion

- The educated youth unemployment is much more serious in Manipur than All India.
- The group of people who register to the employment exchanges in Manipur are from diverse social background but it is found that there is no significant difference in their family income.
- Larger proportion of people who had schooling upto 10 years were employed which imply the urgency to get a job. In higher education the chances are that the person is still unemployed and looking for a suitable job is high.
- Being male had a higher tendency to be employed because of the family responsibility and the urgency. It is found that the most of the employed were not satisfied with their job because of low salary and harsh working conditions.

- More urban respondents were seeking job in the market as self employment was less unlike in rural regions.
- The chances are that head of the family working in formal sector with secured job and better pay enables the respondents to seek better job and focus more on higher education.
- Female labour force participation rate is lower than male. Greater proportion of females with higher education register in unemployment exchange than those with lower education levels as they seek jobs in the formal markets.
- Higher the age of the respondent there is greater chance that the respondent is employed. There were high proportion of respondents in the age group 20-26 with higher educational qualification, looking more for suitable jobs.
- The wage differential was higher amongst formal public and private workers than the informal workers. The public formal sector workers were paid much higher than the private formal workers.
- The wage differential is significant between graduate and above workers and above respondents and non graduate respondents, with former drawing higher.
- Even though the gender had some influence on being employed the wage differential between male and female is not significant statistically.
- The major reason for quitting earlier job is mostly low wages. It is similar in for informal as well as formal sectors.
- Since most of the unemployed were educated, one of the major coping strategy reported is home tutor i.e. teaching the school students at home etc.