

Chapter IV

Structure of Women's Work Participation Rates in Darjeeling

4.1. INTRODUCTION

Labour supply plays a very important role in the economic development of any nation. “A robust and ample labour force promotes development, and development in turn, feeds back on labour market conditions” (Atal, 2017). Economists mention two important features to be of prominence during the modernisation of a country's labour market. Firstly, as stated by Lewis “surplus labour” from the traditional sector basically the agricultural sector is transferred to the modern industrial sector and the industrial sector expands. Secondly, with modernization of the labour market, the skill and educational levels of the workforce show improvement as new industries emerge which “demand higher labour skills” (Thomas, 2012). Thomas' study mentions that the process of modernisation of India's labour force has begun, albeit a little late, which is evident in the movement of the labour force away from agriculture since 2009-10, and also in significant improvement in the educational level of the workforce in the country. Nonetheless, given the slow rate of growth of employment in the non-agricultural sector, decline in the size of the manufacturing workforce in the country between 2004-05 and 2009-10, and withdrawal of women from the labour force on a large scale, the modernisation of the labour market continues to be a major challenge for India's progressive transformation (*ibid*).

Any discussion on the labour force of an economy requires defining the labour force and the labour force participation rate. The 68th Round of the National Sample Survey (NSS) on employment and unemployment in India defines labour force as that part of the population which supplies or is willing to supply labour for pursuit of economic activities for the production of goods and services and therefore includes ‘employed’ and ‘unemployed’ persons/person-days. Labour-force participation rate (LFPR) may be defined as the proportion of persons/person-days in the labour-force to the total persons/person-days with the ratios being given in per 1000 of persons/person-days (GoI, 2013). The report further states that being dynamic and multidimensional; the activity participation of the people varies over regions, education, age, gender, industry and occupational categories (*ibid*). Contrary to activities such as unpaid household work, volunteer work, education, or retirement, the labour force participation decision may be regarded as a decision to participate in paid activities in the labour market (Benjamin, Gunderson and Riddell, 1998). This therefore means that

important sections of the population, particularly the women engaged in unpaid family work or domestic activities and contributing significantly to the country's production are excluded from the labour force (Psacharopoulos and Tzannatos, 1989). Changes in the labour force participation decision has important and far reaching effects on the economy as it influences the size and composition of the labour force which affects growth, unemployment rates along with occupational and sex composition of the labour force; which in turn affects relative wages, demands for unionization, day care, and equal pay and equal employment opportunity legislation (Benjamin et.al., 1998).

In India there are two sources of data on employment available at the national level - the decennial Census data and the various quinquennial rounds of the National Sample Survey (NSS). Taking data from the two sources the present chapter presents an analysis of female labour force/work participation rates for the district of Darjeeling. At the outset the chapter presents a discussion on female labour force/work participation rates for India and West Bengal using NSS data to have an understanding of the situation of female employment in the country and the state. This is followed by an analysis of work participation rates for Darjeeling district using Census data for the period 1991-2011. The analysis is intended to highlight the trends and patterns of women's employment in the district to understand women's situation.

4. 2. INDICATORS OF EMPLOYMENT- ANALYSIS OF NSS DATA

4. 2.1. Labour Force Participation Rates (LFPR)

In India the primary source of various indicators of the labour force at national and state levels is the all India Employment and Unemployment Surveys conducted by the National Sample Survey Office (NSSO). Taking large samples of households, NSS surveys on employment and unemployment are being conducted quinquennially since 1972-73 when the 27th Round (October 1972- September 1973) was undertaken and the ninth quinquennial survey was undertaken in the NSS 68th Round (July 2011-June 2012). The main objective of these surveys, as mentioned in the NSS reports is to obtain estimates of level parameters of various characteristics of employment and unemployment at national and State/UT level which are necessary for planning, policy formulation and decision making at various levels, both within and outside the government (GoI, 2013). In the NSS the employment and unemployment indicators are measured according to three different approaches, viz. *usual status* (US) which has a reference period of one year, *current weekly status* (CWS) which has a reference period of one-week and *current daily status* (CDS) which is based on the daily

activity pursued by individuals on each day of the reference week. In US and CWS, the labour force indicators are measured in persons while in CDS it is measured in person-days. The activity status is determined on the basis of major time criterion in the US approach while both in CWS and CDS, it is determined on the basis of priority-cum-major time criterion. For usual status approach, the indicators are measured for the usual principal status (known as *usual status (ps)*) and usual status taking principal and subsidiary activity together (known as *usual status (ps+ss)*) (*ibid*).

The Indian labour market is characterized by low labour force participation rates and low work participation rates, especially for females. As estimated by the NSS 68th Round, among a population of 1,227 million as on 1st January 2012, out of which 68.56 percent reside in the rural areas and 31.44 percent in the urban areas, only 483.7 millions entered the labour force according to the *usual status (ps+ss)* which gives a labour force participation rate of only 39.5 percent. Among the 483.7 million people in the labour force, 351.3 million (72.6 percent) are males and the remaining 132.4 million (27.4 percent) are females, giving a male labour force participation rate (LFPR) of 55.6 percent and female LFPR of 22.5 percent according to the *usual status (ps+ss)*. The workforce in the *usual status (ps+ss)* as on 1st January 2012 stood at 472.9 million giving a work participation rate of 38.6 percent, with the rates for males and females being 54.4 and 21.9 percent respectively; while the absolute number of unemployed was 10.8 million giving an unemployment rate of 22 percent with the male and female unemployment rates being recorded at 21 percent and 24 percent respectively.

The Labour Force Participation Rates (LFPR) per 100 persons according to the different activity status for the different rounds of NSS is shown in Table 4.1. The NSSO data for 2011-12 shows that according to the *usual status (ps+ss)*, the labour force participation rate is almost 40 percent out of which the rate for the rural areas is 41 percent and for urban areas 37 percent. For rural males the rate is about 55 percent against 25 percent for rural females. In the urban areas the rates for males and females were 56 and 16 respectively. It can be seen that the rates for females are much lower than the rates for males. It is also clear that the LFPRs for the females in the rural areas is almost half the LFPRs of the males, while in the urban areas the LFPRs for the females is even less than half of that for the males. While the rates for the urban females have shown a revival in 2011-12, the rates for the rural females have been declining continuously since 2004-05. This feature of decline in rural female LFPRs has been reported by several studies and has been a subject of much discussion among scholars (Chowdhury, 2011; Mazumdar and Neetha, 2011; Rangarajan, Kaul and

Seema, 2011; Neff, Sen and Kling, 2012; Mahapatro, 2013; Sanghi, Srijia and Vijay, 2015). Termed as “defeminisation of labour force” this decline has been identified as the single most important component that accounted for the decline in aggregate labour force during the period 2004-05 to 2009-10 as pointed out by several studies (Abraham, 2013).

Table 4.1: Labour Force Participation Rates (LFPR) per 100 persons (all ages) India, 1993-94 to 2011-12.

NSS Rounds	50th (1993-94)	55 th (1999-00)	61 st (2004-05)	66 th (2009-10)	68 th (2011-12)
Rural Males					
Usual Status (ps)	54.9	53.3	54.6	54.8	54.7
Usual Status (ps+ss)	56.1	54.0	55.5	55.6	55.3
CWS	54.7	53.1	54.5	54.8	54.5
CDS	53.4	51.5	53.1	53.6	53.4
Rural Females					
Usual Status (ps)	23.7	23.5	24.9	20.8	18.1
Usual Status (ps+ss)	33.0	30.2	33.3	26.5	25.3
CWS	27.6	26.3	28.7	23.1	21.5
CDS	23.2	22.0	23.7	19.7	18.0
Urban Males					
Usual Status (ps)	53.8	53.9	56.6	55.6	56.0
Usual Status (ps+ss)	54.3	54.2	57.0	55.9	56.3
CWS	53.8	53.9	56.6	55.6	56.1
CDS	53.2	52.8	56.1	55.0	55.5
Urban Females					
Usual Status (ps)	13.2	12.6	14.8	12.8	13.4
Usual Status (ps+ss)	16.5	14.7	17.8	14.6	15.5
CWS	15.2	13.8	16.8	14.1	14.8
CDS	13.2	12.3	15.0	12.9	13.6

Source: GoI, 1997, 2000, 2006, 2011, 2013(NSS 50th, 55th, 61st, 66th and 68th Rounds on Employment and Unemployment). Note: CWS-Current Weekly Status, CDS- Current Daily Status.

Given the fact that the decline of more than 21 million in the female workforce more than offset the 22.3 million increase in the male workforce during the period 2004-05 and 2009-10, there has been a new and increased urgency to understand the gender dimensions of employment trends in India (Mazumdar and Neetha, 2011). Since the workforce is a part of the labour force and consists of those who are seeking jobs including the employed as well as the unemployed, changes in the labour force are “bound to have an impact” on the workforce (Rangarajan et. al., 2011). Although scholars have cited several reasons for the decline in the female labour force participation rates, no single factor can satisfactorily explain it since it is complex outcome of the simultaneous effect of several factors (Sanghi et. al., 2015).

Mazumdar and Neetha (2011) note that the low LFPR of women is the result of neglecting women's unpaid work in the NSS data which gives a somewhat skewed picture of women's employment in the country. Besides, the study also mentions that less attention is paid to specifying and enumerating women's paid employment and advocates the need to do so. It is also believed that more women especially in the rural areas are opting out of the labour force in pursuit of education leading to a decline in labour force participation rates (Rangarajan, 2011; Himanshu, 2011), although Chowdhury (2011) argues that it is doubtful as to whether this can be put forward as an explanation for a fall in the female LFPR because unlike for men where the decline has been observed for the age groups 15-19 and 20-24, the LFPR for women has decreased for all ages above the age of 15. In view of the sharp increase in LFPRs in the previous period (2004-05) being attributed to distress employment (Abraham, 2009), the decline in the following periods could indicate decline in the distress and "return to normality" (Himanshu, 2011). With increase in household income as a result of increasing real wages and improved income-earning opportunities for male members of the family (Rangarajan et. al., 2011; Thomas, 2012); agriculture being more drought resistant and public works programmes like NREGA providing supplementary jobs (Himanshu, 2011; Rangarajan et. al., 2011) women who were previously in the labour force may opt out to attend to domestic duties (Rangarajan et. al., 2011; Thomas, 2012; Abraham, 2013). This is the income effect leading to a decline in the participation rates for women. The decline in women's labour force participation has also been attributed to decline or absence of short and long term employment opportunities in rural areas especially in the non-farm sector (Chowdhury, 2011; Sanghi et. al., 2015) and cultural and social factors (Chowdhury, 2011). Chowdhury (2011) argues that as a consequence of the financial crisis of 2008 which adversely affected India's exports, many women working in these export industries may have been out of their jobs and could not be re-absorbed in the labour market. He further argues that with a fall in overall employment opportunities in the economy, women more than men may have been pushed out of their jobs due to social orthodoxy (*ibid*). Neff et. al. (2012) however believe that although social and cultural barriers restrict women's entry into the labor force in India, there is no support for such amplifying effects and may thus not be an important factor in explaining the decline in rural LFPRs. It has been mentioned by Sanghi et. al. (2015) that an increase in rural incomes may cause women to withdraw from the labour market as they would now be unwilling to take up casual work with low remuneration as such jobs may not be according to their preferences. Further, since women have low skills, rural non-farm sector jobs are also limited which also leads to their non-participation in the labour

market. Though several explanations have been put forward for the decline in the rural LFPRs, an important characteristic of female employment that emerges from this phenomenon is that the decline may be an indication that women's income is still a supplementary, short-term and part-time source and not a part of the mainstream (Rangarajan, 2011).

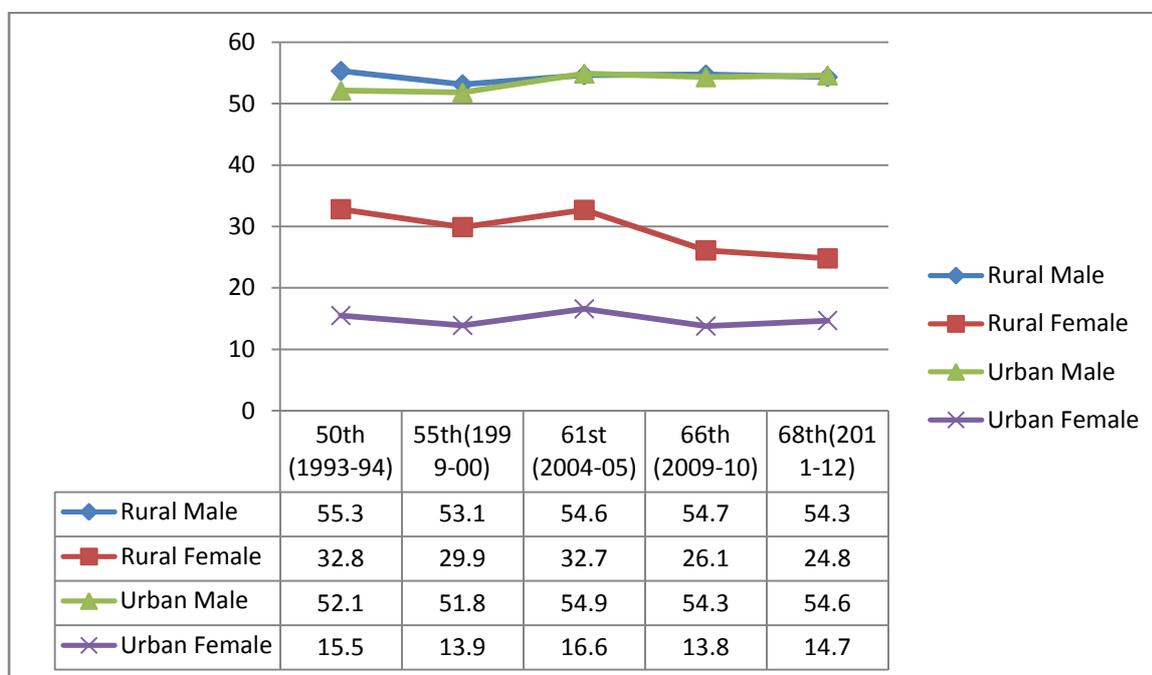
4.2.2. Work Participation Rates (WPR)

Employment is a crucial tool for reducing poverty and enhancing women's status (Srivastava and Srivastava, 2010). It is usually measured in terms of Work Participation Rates (WPRs) for various segments of the population which shows the proportion of the working population to the total population of any region and is an important indicator of development since it shows the size of the population who are working or employed. A higher WPR is generally regarded as an indicator of well being of any region. On the contrary, a higher WPR in poor regions indicates distress and poverty rather than improved well being. For women this may lead to increase in "drudgery" (*ibid*). Hence it is important to take into consideration the qualitative aspect of WPR in terms of the nature, pattern and duration of employment, the conditions of work and the wages (Awasthi, 2012, p. 100). The WPR is determined by a variety of factors including age and sex composition, attitude towards and availability of work etc. and show significant variations between different countries and different time periods within the same country (Das and Bhumali, 2011, p. 108).

According to the *usual status (ps+ss)*, the work force includes (a) the persons who worked for a relatively long part of the 365 days preceding the date of survey and (b) those persons from among the remaining population who had worked at least for 30 days during the reference period of 365 days preceding the date of survey (GoI, 2013). The trend in Work Participation Rates (WPRs) for workers by sex and residence in India and West Bengal according to the *usual status (ps+ss)* for the different NSS Rounds is shown in the Figures 4.1 and 4.2 respectively.

As in most of the countries of the world, especially developing countries, the WPRs for the females is much lower than the WPRs for males in India and West Bengal as is clear from Figures 4.1 and 4.2. A primary reason for this is due to the fact that much of the work that women do is unpaid and hence invisible in employment statistics. According to the 68th Round of NSS data for 2011-12, the male WPRs for rural and urban areas were 54.3 percent and 54.6 percent respectively; and the female WPRs for the same were 24.8 percent and 14.7 percent respectively. In West Bengal the rates for males were 58.6 percent and 60.2 percent in rural and urban areas respectively, whereas for the females the rates were 18.9 percent and

17.4 percent respectively. A comparison of the WPRs for West Bengal with all India level shows that though the rates for males are higher in the state in both rural and urban areas, the rates for females are lower than the all India level except for urban females in the last two NSS Rounds.

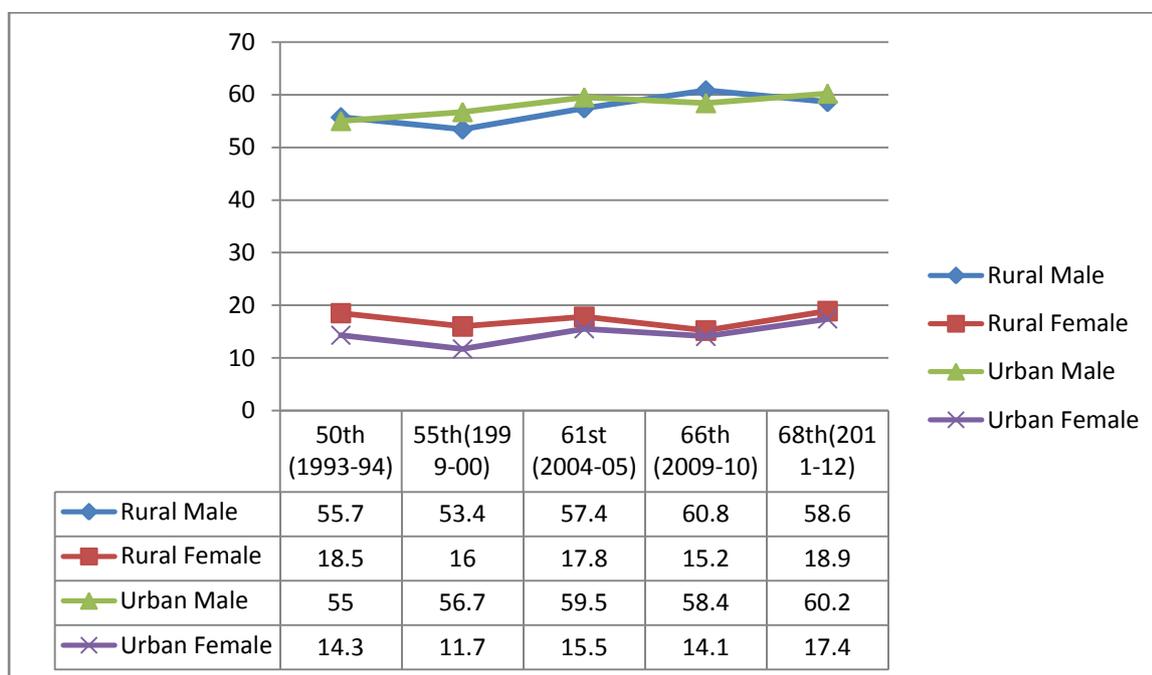


Source: GoI, 1997, 2000, 2006, 2011, 2013(NSS 50th, 55th, 61st, 66th and 68th Rounds on Employment and Unemployment).

Figure 4.1: Trends in Work Participation Rates (WPR) according to Usual Status (ps+ss) by Sex and Residence, India, 1993-94 to 2011-12

For India while the rates for males, both rural and urban are more or less the same and do not show much variation for the period 2004-05 to 2011-12, the same cannot be said about female WPRs. The rates for females in rural areas are higher than that for urban areas indicating that more women in rural areas participate in economic activities as compared to urban areas. The picture is the same for West Bengal although the rural-urban difference in female WPRs is not as much as it is for all India. A possible explanation for the higher participation rates in the rural areas could be the higher levels of poverty in rural areas which push women into the workforce as pointed out by several studies (Bhati & Singh, 1987; Nayyar, 1987). Higher participation by women in rural areas is also explained by the fact that in the rural areas women can easily find work in family farms or household industry located close by as compared to the urban locations where work opportunities may be located at large distances from the home which restricts their work participation (Gulati, 1975). Urban

women’s work participation may also be restricted by the family structure in the urban areas where there is a lower possibility of getting assistance from older family members vis-s-vis the rural areas where the joint family system is still in prevalence (Visaria, 1983).



Source: GoI, 1997, 2000, 2006, 2011, 2013(NSS 50th, 55th, 61st, 66th and 68th Rounds on Employment and Unemployment).

Figure 4.2: Trends in Work Participation Rates (WPR) according to Usual Status (ps+ss) by Sex and Residence, West Bengal, 1993-94 to 2011-12

Figures 4.1 and 4.2 also reveal that the WPRs have declined for all groups between 1993-94 to 1999-2000 thereafter which the rates have increased during 2004-05 for all groups. This increase in employment and the WPRs in the 61st Round (2004-05) for all groups and especially for females which was largely due to expansion of unpaid labour and self employment (Mazumder and Neetha, 2011) and has been termed as “distress employment” (Himanshu, 2011) or “distress related feminization of work” (Abraham, 2009). The same trend is observed in West Bengal except for urban males which have shown an increase in WPRs during the said period. Though the rates have remained almost steady for the male workers in the subsequent periods (2009-10 and 2011-12), the rates for females, especially in rural areas have shown a sharp decline in 2009-10 which continued even in the ensuing period (2010-11), though the rates picked up for urban female workers. In West Bengal however, though the rates have declined between 2004-05 and 2009-10 for females both in rural and urban areas, the rates have picked up in the subsequent period i.e. 2011-12.

4.2.3. Employment by Status

Another important aspect of employment is the status of the workforce. According to the NSS, employment status of the workforce can be of three types-self-employed, regular and casual. Regular paid employment is generally considered secure as compared to the other two. In the self-employed category certain types of employment may be irregular, uncertain and inadequate. On the other hand, casual employment is uncertain both in terms of duration and the income level (Awasthi, 2012, p. 118). Most of the employment in this sector is in the unorganised informal sector.

Table 4.2: Percentage Distribution of Employment by Usual Status (ps+ss), India and West Bengal by Sex and Residence, 1993-94 to 2011-12

Employment Status and Year	Rural Males	Rural Females	Urban Males	Urban Females	Rural Males	Rural Females	Urban Males	Urban Females
	India				West Bengal			
Self Employed								
50 th (1993-94)	57.7	58.6	41.7	45.8	54.7	59.0	37.4	36.4
55 th (1999-00)	55.0	57.3	41.5	45.3	49.2	62.4	43.1	43.6
61 st (2004-05)	58.1	63.7	44.8	47.7	53.4	61.0	44.7	52.4
66 th (2009-10)	53.5	55.7	41.1	41.1	45.2	50.9	47.3	51.6
68 th (2011-12)	54.5	59.3	41.7	42.8	43.1	57.5	44.8	46.2
Regular Workers								
50 th (1993-94)	8.5	2.7	42.0	28.4	10.3	7.3	47.6	44.1
55 th (1999-00)	8.8	3.1	41.7	33.3	7.5	5.1	39.9	40.1
61 st (2004-05)	9.0	3.7	40.6	35.6	7.3	8.3	37.3	36.7
66 th (2009-10)	8.5	4.4	41.9	39.3	8.3	8.9	37.1	36.2
68 th (2011-12)	10.0	5.6	43.4	42.8	8.2	10.3	37.5	40.4
Casual workers								
50 th (1993-94)	33.8	38.7	16.3	25.8	35.0	33.7	15.0	19.5
55 th (1999-00)	36.2	39.6	16.8	21.4	43.3	32.5	17.0	16.3
61 st (2004-05)	32.9	32.6	14.6	16.7	39.3	30.7	17.9	10.9
66 th (2009-10)	38.0	39.9	17.0	19.6	46.4	40.3	15.6	12.1
68 th (2011-12)	35.5	35.1	14.9	14.3	48.6	32.2	17.7	13.5

Source: GoI, 1997, 2000, 2006, 2011, 2013(NSS 50th, 55th, 61st, 66th and 68th Rounds on Employment and Unemployment).

A look at the percentage distribution of employment by status into self-employed, regular and casual workers (Table 4.2) reveals a higher proportion of females in the self-employed category both for rural and urban areas. More than half of the total workers are in the self-employed category for rural females both at the all India level and for West Bengal. The fact that the increase in female WPRs in the 61st round (2004-05) was largely due to increase in self-employment is evident from Table 4.2. In the category of self-employment however,

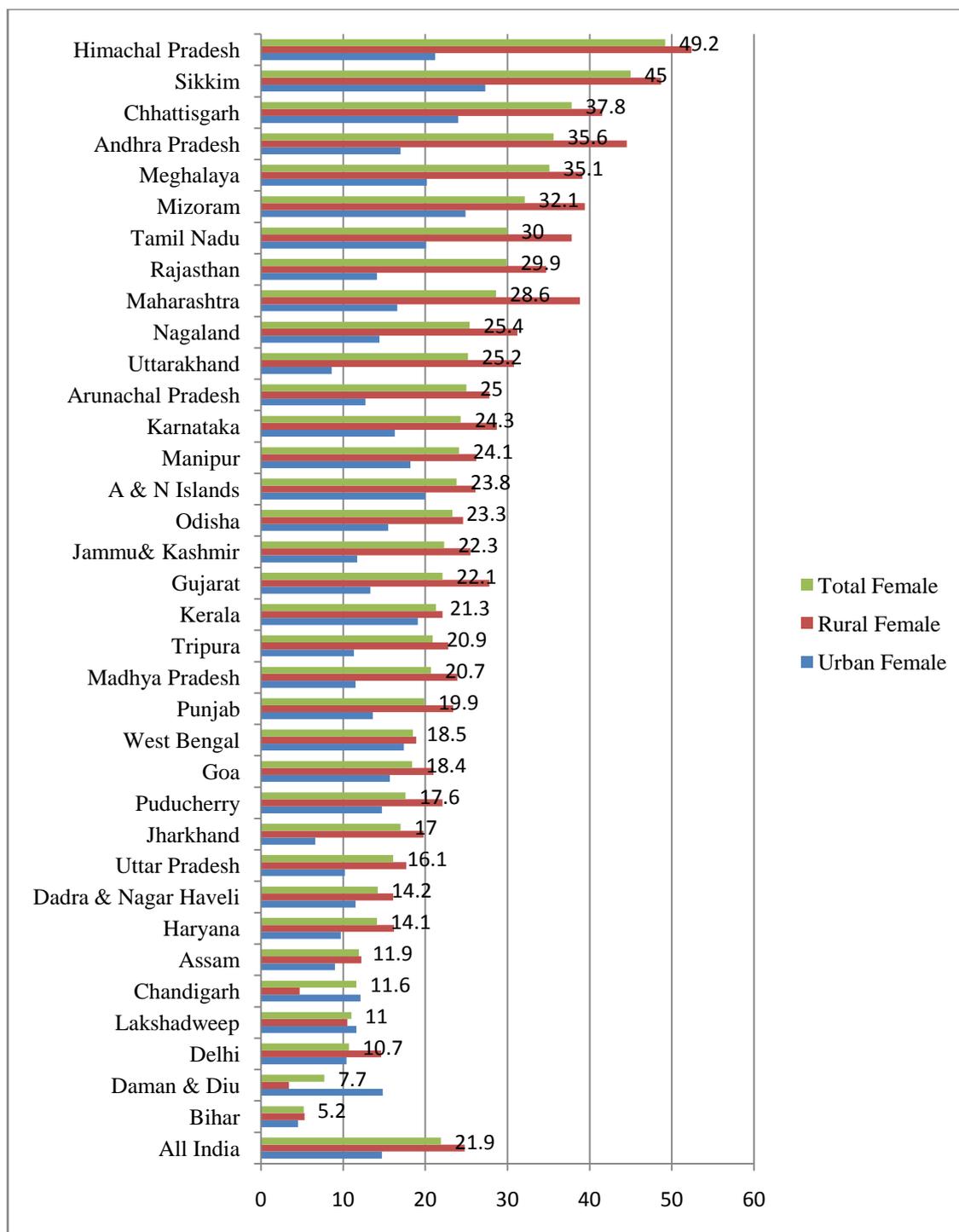
most of the jobs are in the unorganised sector which may not be adequately remunerative (Rangarajan et. al., 2011). Hence a decline in the female WPRs in this sector is desirable which occurred in the 66th Round. In the category of regular workers, which is a proxy for the organised sector, the percentage of rural females is less than the percentage of their urban counterparts and the percentages are lower for the females as compared to the males. However, an increase in the proportion of female WPRs in both rural and urban areas among regular workers is observed over the different Rounds. Among the casual workers, the reverse is true. The rates are higher for the rural females vis-a-vis the urban females and the rates for females are higher vis-a-vis the males in most of the rounds. All these point to the temporary nature of women's work, especially in rural areas which is an obvious indication of the nature and quality of their work.

4.2.4. State Wise Female Work Participation Rates

The male and female WPRs are not uniform and show wide variations across regions, states, districts and social groups (Krishnaraj and Kanchi, 2009). A state level analysis of WPRs especially female WPRs would therefore provide a better understanding of these variations. While analyzing the trends and structure of employment at the all India level most of the studies take into account only 15 major states in the country. In the present study however, all the states and Union territories have been considered to portray the true picture of the variations. The female WPRs for the different states and Union Territories according to the *usual status (ps+ss)* as per the 68th Round (2011-12) of the NSS arranged in descending order is shown in the Figure 4.3. It can be seen that the highest female WPR is observed in Himachal Pradesh (49.2 percent) and the lowest in Bihar (5.2 percent). The figure also shows the female WPRs for rural and urban areas. It can be seen that the female WPRs for the rural areas are higher than for the urban areas for all the states with the exception of the Union Territories of Chandigarh, Lakshadweep and Daman and Diu.

The states having female WPRs higher than the all India average are the northern states of Himachal Pradesh, Chattisgarh, Rajasthan, Uttarakhand and Jammu Kashmir; the western states of Gujarat and Maharashtra; the eastern state of Orissa; the north-eastern states of Sikkim, Meghalaya, Mizoram, Nagaland, Arunachal Pradesh and Manipur; the southern states of Andhra Pradesh, Tamil Nadu and Karnataka and the Union Territory of Andaman and Nicobar Islands. West Bengal occupies the 23rd rank with female WPR of 18.5 percent which is lower than the all India average of 21.9 percent.

Scholars have pointed out different factors to explain the inter-state variations in female WPRs. The inter-state variations in rural female WPRs may be attributed to dissimilar



Source: Computed from GoI, 2013 (NSS 68th Round data on Employment and Unemployment)

Figure 4.3: Worker Population Ratio (per 100) for Female Workers according to Usual status (ps+ss) for States and UTs by Residence, NSSO 68th Round (2011-12)

patterns of usage of female labour in different types of cultivation (Ghosh and Mukhopadhyay, 1984). The rice growing states show higher female WPRs as rice cultivation requires relatively more intensive use of female labour for activities like transplanting,

weeding, threshing etc., as compared to the dry land crops like wheat or millets which are irrigated and require more physical labour (Bardhan, 1974 cited in Ghosh and Mukhopadhyay, 1984; Krishnaraj and Kanchi, 2009). This may be helpful in explaining the higher female WPRs in rice growing states of Maharashtra, Orissa and the north-eastern and southern states; and the lower female WPRs in wheat growing states of Punjab and Haryana in the present analysis. However, West Bengal despite being a rice producing state shows low female WRRs which, according to Nayyar (1987) can be explained by non-economic factors. Female WPRs have also been linked inversely to household income and landlessness of the rural households in that agricultural prosperity and higher productivity agriculture induce withdrawal of female labour and greater poverty draws them into the workforce (Reddy, 1979; Nayyar, 1987). In some states socio cultural factors may lead to an under estimation of women's work despite their high involvement in productive work (Nayyar, 1987). Ghosh and Mukhopadhyay (1984) mention that in West Bengal, except among the tribals and the scheduled castes, there is an under reporting of many of the post harvest jobs which are often done exclusively by women due to "tradition bound cultural inhibitions" where social status prevents women from being considered as workers.

According to Nayyar (1987) the rural female WPRs in India are determined by economic factors such as poverty and landlessness and socio-cultural factors. Other factors like literacy, education and demographic compulsions do not affect rural female WPRs, and may be significant only at higher levels of development (*ibid*). Gulati's (1975) study however showed that the per capita income, cropping pattern, literacy, male participation rates, proportion of scheduled caste and tribe and sex ratio do not significantly influence inter-state variations in female participation rates noticeably, the reason for which she herself attributes to using aggregative data.

4.3. WORK PARTICIPATION RATE (WPR) IN DARJEELING DISTRICT- ANALYSIS OF CENSUS DATA

The concepts of work and worker have been used differently in different census years. The reference period for a person to be treated as a worker has also varied. In 1961 and 1971 Census years, the total population was classified into two mutually exclusive groups-workers and non-workers. In 1981 there were three mutually exclusive groups, i.e. main and marginal workers and non-workers. This was a major departure from the earlier Censuses. In 1981 Census anyone who has done any work at all during the last one year is a worker. The definition of work used in 1971 Census as participation in any economically productive

activity either in physical or mental remained more or less the same in 1981. The 2001 Census has defined work as participation in any economically productive activity with or without compensation, wages or profit and may be physical and/or mental in nature. It includes not only actual work but also effective supervision and direction of work along with part time help or unpaid work on farm, family enterprise or in any other economic activity. Everybody who is engaged in activities as defined above or are engaged in cultivation or milk production even solely for domestic consumption are considered as workers. Reference period for determining a person as worker and non-worker is one year preceding the date of enumeration (Census, 2001). In the 2001 Census activities for domestic consumption such as cultivation and milk production were termed as “work”. This was an improvement over the previous Censuses as it helped to capture women’s economic activities better. According to the Census main workers are those workers who worked for 6 months or 183 days or more i.e. the larger part of the reference period preceding the enumeration and marginal workers are those who worked for less than 6 months or 183 days i.e. for the smaller part of the reference period preceding the enumeration.

4.3.1. District Wise Work Participation Rates

Table 4.3 shows the Work Participation Rates for total, main and marginal workers by sex and residence for West Bengal and the different districts for 2011. West Bengal has one of the lowest female WPRs in the country (GoWB, 2004, p. 90). According to Census 2011 it ranked 25th out of 29 states for female WPRs with 18.08 per cent, lower than the all India average of 25.52 per cent. A look at the district wise WPRs reveals that the WPRs for the males are higher than that for the females for the total and main workers category as well as for the rural and urban areas. For the marginal workers too, the rates for the males are higher except for Jalpaiguri, Koch Bihar, Uttar Dinajpur, Dakshin Dinajpur, Maldah, Puruliya and Paschim Medinipur. The highest male WPR was observed in Hugli (60.88 percent) while the lowest was in Darjeeling (51.17 percent). On the other hand the district with the highest female WPR was Puruliya (31.29 percent) and the lowest female WPR was Nadia (11.48 percent). The district of Puruliya also has the highest male and female marginal WPRs as also the highest WPR for rural females. The district is a part of the Red Corridor region experiencing Naxalite-Maoist insurgency and also suffers from high levels of illiteracy, poverty and overpopulation. Poverty and the problem of insurgency may help to explain the high female WPRs in the district as females increase their participation in the labour market under economic distress or male outmigration in search of employment opportunities or due to insurgency.

While almost all the districts with the exception of Uttar Dinajpur have shown an increase in male WPRs for the period 2001-11, the same cannot be said about the female WPRs. The female WPRs have declined in several districts including the state as a whole. The districts which have registered a decline in overall female WPRs for the period 2001-11 are Jalpaiguri, Koch Bihar, Uttar and Dakshin Dinajpur, Maldah, Birbhum, Nadia, Bankura and Puruliya.

Table 4.3: WPRs for Total, Main and Marginal Workers by Sex and Residence, West Bengal and Districts, 2011

Districts	Total		Main		Marginal		Rural		Urban	
	M	F	M	F	M	F	M	F	M	F
Darjiling	51.17	22.44	42.29	15.01	8.88	7.43	50.27	26.01	52.55	16.93
Jalpaiguri	55.03	22.31	46.50	12.25	8.53	10.05	54.15	25.05	57.37	14.97
Koch Bihar	58.24	20.67	51.66	9.98	6.58	10.69	58.42	21.43	56.61	14.18
Uttar Dinajpur	51.55	18.96	44.41	9.31	7.15	9.64	51.48	19.84	52.10	12.41
Dakshin Dinajpur	58.28	24.84	49.88	12.07	8.40	12.76	58.46	25.96	57.16	18.09
Maldah	52.96	23.30	41.53	10.28	11.43	13.02	52.95	23.68	53.04	20.84
Murshidabad	54.74	17.38	45.83	10.34	8.91	7.04	55.26	14.19	52.57	30.24
Birbhum	57.50	17.64	43.87	7.43	13.63	10.20	57.69	17.93	56.17	15.65
Bardhaman	57.81	16.48	46.35	8.75	11.45	7.73	60.56	19.05	53.70	12.56
Nadia	58.56	11.48	52.95	7.59	5.61	3.89	58.37	9.37	59.07	16.88
North 24 Parganas	57.53	12.81	51.39	8.68	6.14	4.12	58.86	12.75	56.53	12.85
Hugli	60.88	16.24	51.99	9.29	8.89	6.95	62.48	17.78	58.36	13.77
Bankura	57.17	23.62	41.46	8.77	15.71	14.85	57.27	24.29	56.00	16.28
Puruliya	53.52	31.29	32.95	8.38	20.58	22.90	54.03	33.99	50.09	12.57
Haora	59.91	13.69	52.16	8.17	7.75	5.53	60.72	13.65	59.44	13.72
Kolkata	59.93	17.91	54.92	13.19	5.02	4.73	-	-	59.93	17.91
South 24 Parganas	56.46	15.24	41.90	6.39	14.56	8.85	56.10	15.53	57.53	14.41
Paschim Medinipur	58.43	25.87	41.63	8.89	16.79	16.98	58.96	27.47	54.56	14.47
Purba Medinipur	57.65	15.99	38.03	5.15	19.62	10.83	58.16	16.74	53.82	10.21
West Bengal	57.07	18.08	46.31	9.01	10.76	9.07	57.19	19.35	56.84	15.35
CV	4.94	26.12	12.68	25.06	43.60	48.02	24.93	39.80	5.02	27.39

Source: Compiled from Census of India, 1991-2011 (Census of India website-www.censusindia.gov.in).

Note: M-Male, F-Female. CV- Coefficient of Variation.

The Coefficients of Variation for the male and female WPRs indicates greater variability for the female WPRs as compared to male WPRs across the districts. This may be

attributed to the multiplicity of factors affecting female work participation rates which may be economic and non-economic as opposed to men for whom economic factors are the primary determinants of participation in economic activities. It also indicates that factors affecting female participation rates are region specific and cannot be generalised over all the districts. The focus of employment policies for women should therefore be region specific and should take into account the problems of female employment of individual districts.

4.3.2. Growth of Workforce

There has been a steady increase in the number of workers during 1991-2011 in India, West Bengal and the Darjeeling district as can be seen from Table 4.4. The number of workers in the district was 4,44,847 in 1991 and this increased to 6,83,726 in 2011. Accordingly, the number of male workers have also increased from 3,20,142 in 1991 to 4,79,586 in 2011; and the number of female workers from 1,24,705 in 1991 to 2,04,140 in 2011.

Table 4.4: Number of Total workers (main+marginal) Darjeeling district, West Bengal and India, 1991-2011

Years	Darjeeling District			West Bengal			India		
	Person	Male	Female	Person	Male	Female	Person	Male	Female
1991	444847	320142	124705	21914774	18251919	3662855	314131370	224363807	89767563
2001	569442	402970	166472	29481690	22388044	7093646	402234724	275014476	127220248
2011	683726	479586	204140	34756355	26716047	8040308	481888868	331939875	149948993

Source: Compiled from Census of India, 1991-2011 (Census of India website-www.censusindia.gov.in)

In view of the economic reforms undertaken in the country during the 1990s and 2000s and a high rate of economic growth, it is not unreasonable to expect a high growth in workforce too during the same period. However, it should be noted that the growth of the workforce is limited by the growth of the population (Venkatanarayana and Naik, 2017). It would therefore be worthwhile to make a comparison between the population growth rates and the growth rates of workers to understand the changes in the worker population ratio or the Work Participation Rates (WPR). For this, Compound Annual Growth Rates (CAG) of total population and total workforce has been used (Table 4.5).

Table 4.5 clearly shows a deceleration in the growth rate of total population and the workforce during the period 1991-2011 for the district, state and the country as a whole. The deceleration in the workforce may partly be attributed to the deceleration in population growth and partly to the fact that the younger population may be withdrawing from or delaying their entry into the workforce in pursuit of higher education (*ibid*). For the district, the growth of workforce exceeds the growth of population which implies increase in the

WPRs over the entire period for both male and female workers. For the state and the country however, the growth of population exceeds the growth of female workforce during the period 2001-2011 which indicates declining WPRs. The high growth rate of female workforce during the period 1991-2001 could be due to better enumeration of women's economic activities in the 2001 Census. It could also mean that more women may be entering the workforce as a result of certain incentives provided to them which may not be possible for men as the rates for men are already saturated (*ibid*).

Table 4.5 also reveals that the rate of growth of marginal workers is higher than the rate of growth of main workers with the exception of the state and the country for female category of workers between 2001-2011. For the district it can be observed that the main female workers category registered negative growth rate during the period 1991-2001. Though the rate of growth for the main workers picked up in the 2000s as compared to the previous decade, the rates are still low compared to the rates for the marginal category. This is an indication of the casualisation of the female work force.

Table 4.5: Compound Annual Growth Rate of Population and Workforce, Darjeeling District, West Bengal and India, 1991-2011

Census Years	Darjeeling District			West Bengal			India		
	Person	Male	Female	Person	Male	Female	Person	Male	Female
Total Population									
1991-2001	2.16	2.03	2.29	1.65	1.56	1.74	2.06	2.03	2.10
2001-2011	1.39	1.21	1.57	1.31	1.22	1.40	1.64	1.59	1.70
Total Workers									
1991-2001	2.50	2.33	2.93	3.01	2.06	6.83	2.50	2.06	3.55
2001-2011	1.85	1.76	2.06	1.66	1.78	1.26	1.82	1.90	1.66
Main Workers									
1991-2001	0.89	1.23	-0.06	1.13	0.81	3.13	0.91	0.80	1.26
2001-2011	1.07	0.99	1.32	1.10	1.07	1.28	1.48	1.30	2.06
Marginal Workers									
1991-2001	29.95	33.67	27.27	17.09	27.13	12.78	12.21	29.13	7.87
2001-2011	5.23	6.62	3.76	3.45	5.70	1.24	2.95	5.35	1.09

Source: Compiled from Census of India, 1991-2011 (Census of India website-www.censusindia.gov.in)

4.3.3. Work Participation Rates by Residence

From Table 4.6 it can be seen that the WPR for the district of Darjeeling is lower than the state average except in 1991, and the district and the state averages are both lower than that for the entire country. The WPR for total workers in the district was 37.02 percent as against 38.08 percent in the state and 39.80 per cent for the entire country according to the 2011

Census data. The rates for male and female workers in the same year were 51.17 percent and 22.44 percent respectively in the district. The corresponding figures for state were 57.07 and 18.08 percent respectively, and for the all India level they were 53.26 and 25.52 percent respectively. The female WPR in the state was only 18.08 percent in 2011 which is much below the all India average and the average for Darjeeling district. In fact the district average is better than the state average for all three census years for total and main female workers. For marginal workers, both male and female, the district average is lower than the state and the all India average.

A comparison of the WPRs for male and female workers reveals lower WPRs for female workers for total and main category of workers. The WPRs for marginal workers on the other hand reveals higher rates for females as compared to males except in 2011. This shows that there are more marginal workers among the women as compared to men, which clearly implies greater marginalisation of the female workforce though the picture may be changing since 2011.

Table 4.6: Work Participation Rates for Total, Main and Marginal Workers, Darjeeling District, West Bengal and India, 1991-2011.

Census Years	Darjeeling District			West Bengal			India		
	Person	Male	Female	Person	Male	Female	Person	Male	Female
Total Workers									
1991	34.22	47.13	20.09	32.19	51.40	11.25	37.46	51.55	22.25
2001	35.39	48.51	21.38	36.77	53.99	18.32	39.10	51.68	25.63
2011	37.02	51.17	22.44	38.08	57.07	18.08	39.80	53.26	25.52
Main Workers									
1991	33.71	46.77	19.42	30.23	50.66	7.96	34.10	50.93	15.93
2001	29.76	43.23	15.38	28.72	47.01	9.12	30.43	45.13	14.68
2011	28.85	42.29	14.57	28.14	46.31	8.56	29.94	43.83	14.34
Marginal Workers									
1991	0.51	0.35	0.68	1.96	0.74	3.29	3.36	0.62	6.32
2001	5.63	5.28	6.00	8.05	6.98	9.21	8.67	6.55	10.95
2011	8.17	8.88	7.43	9.94	10.76	9.07	9.85	9.42	10.31

Source: Compiled from Census of India, 1991-2011 (Census of India website-www.censusindia.gov.in).

It can be seen from Table 4.7 which shows the WPRs for rural and urban areas, that the WPRs for the rural female workers are higher as compared to the urban female workers. This could be explained by the fact that women in rural areas due to poverty have to work harder compared to their urban counterparts which leads to higher WPRs for rural women. For the male workers however, the urban WPRs are higher than the rural WPRs for the district

whereas the figures for the state and the country reveal higher rural WPRs for males except in 2011 where the rates for urban males are slightly higher than for rural males for India. A plausible explanation for this could be that Darjeeling district being a hill region primarily is characterised by out migration of the male workforce to the urban areas in search of better employment opportunities leaving the women folk behind. This may be substantiated by the higher rates for male main urban workers as compared to male main rural workers.

Table 4.7 Work Participation Rates for Total, Main and Marginal Workers by Sex and Residence, Darjeeling district, West Bengal and India, 1991-2011

	Darjeeling District			West Bengal			India		
	Person	Male	Female	Person	Male	Female	Person	Male	Female
Total Rural Workers									
1991	36.17	46.77	24.82	33.18	52.09	13.07	39.99	52.48	26.67
2001	37.04	47.92	25.65	37.90	54.09	20.86	41.75	52.11	30.79
2011	38.30	50.27	26.01	38.73	57.19	19.35	41.83	53.03	30.03
Rural Main Workers									
1991	35.54	46.39	23.93	30.61	51.18	8.74	35.69	51.76	18.57
2001	29.71	41.31	17.57	27.89	45.76	9.08	30.87	44.31	16.65
2011	27.62	38.71	15.79	26.52	44.03	7.75	29.49	41.63	15.84
Rural Marginal Workers									
1991	0.62	0.38	0.88	2.57	0.91	4.33	4.29	0.72	8.10
2001	7.33	6.61	8.09	10.01	8.33	11.78	10.88	7.79	14.14
2011	10.68	11.55	9.79	12.21	13.16	11.21	12.34	11.39	13.33
Total Urban Workers									
1991	29.78	47.92	8.89	29.59	49.64	6.21	30.17	48.94	9.17
2001	31.94	49.72	12.16	33.85	53.74	11.57	32.25	50.60	11.88
2011	35.05	52.55	16.93	36.69	56.84	15.35	35.31	53.76	15.44
Urban Main Workers									
1991	29.54	47.62	8.72	29.23	49.34	5.79	29.50	48.59	8.13
2001	29.87	47.14	10.66	30.84	50.15	9.21	29.29	47.19	9.42
2011	30.75	47.76	12.69	31.61	51.18	10.28	30.95	48.65	11.04
Urban Marginal Workers									
1991	0.25	0.31	0.18	0.36	0.31	0.41	0.68	0.35	1.04
2001	2.07	2.58	1.51	3.01	3.59	2.36	2.96	3.41	2.46
2011	4.30	4.79	3.80	5.08	5.66	4.46	4.36	5.11	3.56

Source: Compiled from Census of India, 1991-2011 (Census of India website-www.censusindia.gov.in).

Another distinguishing feature is the high rates for rural and urban female workers for the total and main workers category in the district as compared to the state average. The rates are even higher than the all India average for the rural female main workers category except in 2011, and for the urban female main workers. The difference between the female WPRs in the district and the state is more pronounced for the rural areas than for the urban areas. This

may be an indication of higher WPRs for rural women in the hill and mountain areas as compared to the lowland areas which has been substantiated by several studies as mentioned in the earlier chapters.

The WPRs in the district increased over the entire period 1991-2011, though the increase was more during the 2000s as compared to the decade of the 1990s. For the male workers the increase was more during the 2000s whereas for the females the increase was more during the previous decade. For the state and the country the WPRs show an increasing trend between 1991-2011 with the exception of female WPRs showing a slight decline during the period 2001-2011. The WPRs for the rural and urban areas also exhibit an increasing trend. For the state and the country however, the rural female WPRs show a marginal decline in 2011 as compared to 2001. There is a larger increase in the WPRs in the urban areas as opposed to the rural areas.

The WPRs for main workers shows a declining trend except for the state where female WPR has shown a slight increase in 2001. The decline is sharper for females as compared to the males between 1991-2001 as compared to the subsequent decade for the district. Location wise, the WPRs for the main workers in rural areas show a declining trend with the exception of West Bengal for female workers which show a slight increase during the period 1991-2001. For the urban areas, on the other hand the main WPRs show an increasing trend with the increase being more for the females.

The WPRs for marginal workers on the other hand shows an increasing trend. However, in the state and the country the marginal female WPR has shown a slight decline in 2011. Though the increase in the marginal WPRs is higher for the males as compared to the females, the rate of increase is very high for both males and females. There has been a sharp increase in marginal WPRs during the decade of the 1990s as compared to the subsequent decade. In the district during the 1990s the increase was more in the rural areas but the trend reversed in the following decade. For the state and the country too, the increase in marginal WPRs is more pronounced for the urban areas during the 2000s. This is an indication of the increasing informalisation of the urban workforce.

The declining main WPRs and the increasing marginal WPRs implies that the proportion of workers engaged as main workers are continuously decreasing whereas those engaged as marginal workers are continuously increasing indicating a trend towards marginalisation of the workforce. A comparison of main and marginal WPRs also reveals that the increase in total WPRs is due to increase in marginal WPRs since the main WPRs are showing a declining trend for male and female workers. Also the increase in marginal WPRs

in the urban areas may point to the fact that the rural populaces who migrate to the urban areas find employment in the urban informal sector as marginal workers.

4.3.4. Industrial Classification of Workers

The industrial classification of workers shows us the categorization of the country's workforce into different occupations. A study of the occupational structure is significant since the occupational structure changes with the process of economic development. Traditionally, the different occupations have been classified into three sectors- primary, secondary and tertiary. The primary sector includes agriculture and allied activities, the secondary sector includes industry and the tertiary sector includes services. In the initial stages of development there is high dependence and high concentration of the workforce in the primary sector. As national income rises and development takes place there is an occupational shift towards the secondary sector. In the later phase of development as national income rises further, there is again an occupational shift towards the tertiary sector. Thus with economic development there is a gradual shift of the working population from agricultural activities towards non-agricultural activities and from industry to services. There is however debate among scholars as to whether this shift away from agriculture can be considered as a positive structural change. Unni (1989) mentions that Vaidyanathan (n. d) and Visaria (1984) have pointed out that the ability of the agricultural sector in India to absorb labour and provide livelihood to the rural population has reached a saturation point which causes the excess labour in the rural areas to look for alternative employment in the rural non-farm sector. The shift away from agriculture thus cannot be termed as a structural change (cited in Unni, 1989). However, Sanyal (1986) has pointed out in his study that historically, the developed countries such as U.K., U.S.A., Japan, France, West Germany, Sweden and U.S.S.R. have observed a shift in the working population from primary to secondary activities in the process of their economic development.

In recent Indian Census a four-fold classification of the workforce has been adopted and workers are classified as Cultivators, Agricultural Labourers, Household Industry and Other Workers. To study the changes in the occupational structure firstly an analysis of the changes in the share of non-agricultural workforce is done followed by analysis of the industrial classification of workers in the different census years. The definition of the four categories of workers according to the Census (2011) is as mentioned below.

Cultivator: A person who is engaged in cultivation of land either owned, held from Government or from private persons or institutions for payment in money, kind or share; or is involved in supervision or direction in cultivation may be termed as a cultivator.

Agricultural Labourers: A person who is engaged on another person's land in lieu of wages which may be in money, kind or share, and has no risk in cultivation and no right of lease or contract on land is termed as an agricultural labourer.

Household Industry Workers: An industry which is carried out by one or more household members within the home or village in rural areas and only within the confines of the house where the household lives in urban areas is defined as Household Industry. Most of the workers in the household industry are members of the household and the industry is not organized on the scale of a registered factory.

Other Workers: The Other Workers (OW) category includes all those workers who are not included in the above three categories i.e. cultivators, agricultural labourers or workers in Household Industry. This category includes workers such as government employees, teachers, factory and plantation workers, those engaged in trade and commerce, business, banking, construction, political or social work, entertainment artists, priests etc.

In the 1981, 2001 and 2011 Census the workers were divided into the four industrial categories mentioned above. In the 1991 Census the main workers were divided into nine industrial categories. They were: (1) Cultivator; (2) Agricultural Labourer; (3) Livestock, Forestry, Fishing, Hunting, Plantations, Orchards and Allied activities; (4) Mining and Quarrying; (5) Manufacturing, Processing, Servicing and Repairs (a) Household Industry (b) Other than Household Industry; (6) Construction; (7) Trade and Commerce; (8) Transport, Storage and Communications and (9) Other Workers. For purpose of comparison, the categories (3), (4), (5)(b), (6), (7), (8) and (9) have been clubbed together for the 1991 Census data to obtain the workers in the Others category.

Table 4.8 shows the absolute number of different categories of workers in the district for 1991-2011. It can be seen that the number of cultivators has declined continuously since 1991 for both male and female workers. 33,453 male farmers and 22,989 female farmers in the main category moved away from self cultivation during 1991-2011. However during the same period there was an addition of 12,356 male farmers and 9,418 female farmers in the marginal category. The reasons for the shifting of the workforce from self cultivation could be the increasing costs of cultivation and the decline in profitability (Venkatanarayana and Naik, 2017).

The increase in the number of marginal cultivators however, could not offset the decline in the number of main cultivators leading to a decline in the number of total cultivators. Interestingly the number of agricultural labourers on the other hand has shown an

increase for both male and female workers during the same period. During 1991-2011 around 3,157 male and 8,644 female agricultural labourers entered the workforce.

Table 4.8: Number of Workers by Industrial Categories, Darjeeling District, 1991-2011

Categor	Total Workers			Main Workers			Marginal Workers		
	1991	2001	2011	1991	2001	2011	1991	2001	2011
Census Years									
Cultivators									
Person	11084	88194	76178	10842	68665	51984	2420	19529	24194
Male	75791	57871	54694	75085	50347	41632	706	7524	13062
Female	35055	30323	21484	33341	18318	10352	1714	12005	11132
Agricultural Labourers									
Person	54240	58350	66041	51782	31288	32087	2458	27062	33954
Male	37211	35990	40368	36571	23877	23372	640	12113	16996
Female	17029	22360	25673	15211	7411	8715	1818	14949	16958
Household Industry									
Person	2787	15852	16579	2722	10937	10517	65	4915	6062
Male	2086	9880	10667	2057	7810	7863	29	2070	2804
Female	701	5972	5912	665	3127	2654	36	2845	3258
Others									
Person	27697	40704	52492	27531	36796	43826	1656	39085	86661
Male	20505	29922	37385	20402	27707	32347	1034	22153	50383
Female	71920	10781	15107	71298	90885	11479	622	16932	36278

Source: Compiled from Census of India, 1991-2011 (Census of India website-www.censusindia.gov.in).

Though there has been a decline in the main category of agricultural labourers, those in the marginal category has shown an increase. There has thus been a reshuffling of workforce within the agricultural sector from cultivators to agricultural labourers. Subba (1985) in his study of the change in agrarian relations in the Darjeeling hills mentions that the category of agricultural labourers was not noticed till the Census of 1941. It was recorded for the first time only in 1951 and has been found to be growing steadily since 1961 and in 1971 Census assumed a prominent place even in the hill areas of Darjeeling. He further notes that this increase in the number of agricultural labourers was observed all over the country, and was the result of the non-agricultural sector's inability to absorb the agricultural population. This is true of the Darjeeling hill economy as well where scope for employment diversification outside agriculture especially development of heavy industries is not viable and no serious attempt has been made for development of small scale industries. Further, the agricultural sector itself is characterised by low employment capacity due to difficult terrain, altitude, uneconomic land holdings etc. Agricultural diversification towards cultivation of spices, medicinal plants, sericulture, floriculture etc. has also not been successful at the mass level.

Uneconomic size of the holdings due to disintegration of joint families, impact of urbanization and modernisation, migration etc. have also contributed to the growth of agricultural labourers in the Darjeeling hills (Subba, 1985, pp. 78-80).

Household industry has also shown an increase for both male and female workers during 1991-2011. However for females there has been a slight decline during 2011 for total and main category. There has however been an addition in the marginal category for both males and females. For the workers in the Others category there has been continuous addition of workers, both males and females in the main as well as marginal category.

A look at the Compound Annual Growth Rates (CAGR) for different categories of workers during 1991-2011 (Table 4.9) reveals that the growth rate of cultivators was negative for both males and females during the nineties and the 2000s. During the 2000s the female cultivators declined at rates faster than the male cultivators. The main cultivators also show a negative growth rate during both the decades though the rates declined in the 2000s albeit marginally for female main workers.

Table 4.9: Compound Annual Growth Rates of Different Categories of Workers, Darjeeling District, 1991-2011

Category	Total Workers		Main Workers		Marginal Workers	
	1991-2001	2001-2011	1991-2001	2001-2011	1991-2001	2001-2011
Census Years						
Cultivators						
Person	-2.26	-1.45	-4.47	-2.74	23.22	2.17
Male	-2.66	-0.56	-3.92	-1.88	26.7	5.67
Female	-1.44	-3.39	-5.81	-5.55	21.49	-0.75
Agricultural Labourers						
Person	0.73	1.25	-4.91	0.25	27.11	2.29
Male	-0.33	1.15	-4.17	-0.21	34.19	3.44
Female	2.76	1.39	-6.94	1.63	23.45	1.27
Household Industry						
Person	18.99	0.45	14.92	-0.39	54.12	2.12
Male	16.83	0.77	14.27	0.07	53.23	3.08
Female	23.89	-0.1	16.74	-1.63	54.8	1.36
Others						
Person	3.93	2.58	2.94	1.76	37.18	8.29
Male	3.85	2.25	3.11	1.56	35.86	8.56
Female	4.13	3.43	2.46	2.36	39.15	7.92

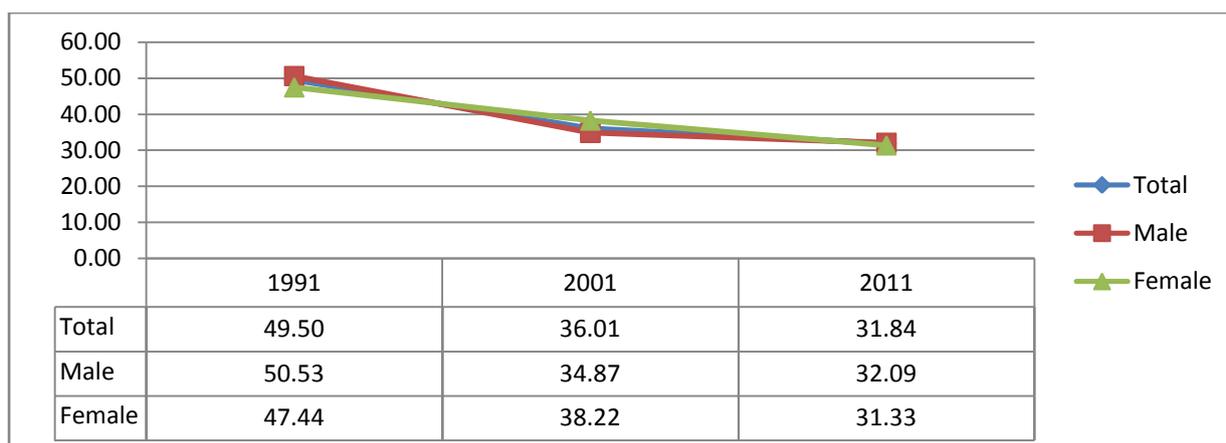
Source: Compiled from Census of India, 1991-2011 (Census of India website-www.censusindia.gov.in).

However, the marginal cultivators category reveals that the growth rate is positive for male and female workers during the nineties. The rates declined in the 2000s and were negative for females. This reveals that though there has been decline in the growth rate of main cultivators

there has been an increase in marginal cultivators for both males and females especially in the decade of the nineties.

Agricultural labourers show a negative growth rate for males during the nineties but positive growth rates for females though the rates declined in the 2000s. For males the rates were positive in the 2000s. The main workers category shows negative growth rates during the nineties which picked up in the 2000s, though the rates were still negative for males. For the marginal workers category the rates were positive and high during the nineties which declined in the next decade. On the whole, female agricultural labourers grew at rates more than male agricultural labourers during both the decades which is an indication of women's declining status in agriculture. For the household industry the rates were positive during the nineties for both males and females which declined in the next decade and were negative for females. The main and marginal categories both show positive rates during the nineties which declined in the 2000s. The rates for marginal workers are higher than for main workers and the rates for females higher than for males during the nineties. The growth rates for workers in the Others category are positive during both decades but lower in the 2000s for both males and females, with the rates for females being higher than that for males. The positive growth rates in the household industry and the Others category indicates a shift of the workforce from agriculture to non-agriculture probably due to the declining profitability of agriculture and the fact that it involves more physical labour. However, since the growth in the marginal category is manifold in contrast to growth in the main category, it causes concern regarding the quality of non-farm employment available especially in rural areas.

The declining importance of the agricultural sector in the district can be seen from Figure 4.4. The figure shows that the percentage of total workers engaged in agriculture has shown a steady decline over the period 1991-2011. In 1991 almost half the male workforce (50.53 percent) and a little less than half of the female workforce (47.44 percent) in rural areas was engaged in agricultural activities. These percentages declined over the years and in 2011 the rates were 24.37 per cent and 31.33 per cent respectively. The decline has been more prominent for the rural males. The declining rates are an indication of the declining importance of the agricultural activities in the region. This calls for intervention and policy initiatives to enquire into the causes of the shift from agriculture to non-agriculture along with suitable measures to make agriculture more remunerative by exploring the potential of the region for diversification towards non-traditional farming.



Source: Compiled from Census of India, 1991-2011 (Census of India website-www.censusindia.gov.in).

Figure 4.4: Percentage of Rural Workers in the Agricultural Sector, Darjeeling District, 1991-2011

The industrial classification of total workers as shown in Table 4.10 reveals that the highest share is of Others category of workers and the lowest share is of household industry indicating that household industry is not well developed in the region. In 1991 the share of household industry was very insignificant but in the following decade its share increased, but again declined in 2011.

Table 4.10: Percentage Distribution of Workers, Darjeeling District, 1991-2011

Category	Total Workers			Main Workers			Marginal Workers		
	1991	2001	2011	1991	2001	2011	1991	2001	2011
Census Years									
Cultivators									
Person	24.92	15.49	11.14	24.74	14.34	9.76	36.67	21.56	16.04
Male	23.67	14.36	11.40	23.63	14.02	10.50	29.31	17.15	15.69
Female	28.11	18.22	10.52	27.67	15.30	7.58	40.91	25.69	16.46
Agricultural Labourers									
Person	12.19	10.25	9.66	11.82	6.53	6.02	37.25	29.87	22.51
Male	11.62	8.93	8.42	11.51	6.65	5.90	26.57	27.62	20.42
Female	13.66	13.43	12.58	12.62	6.19	6.38	43.39	31.99	25.08
Household Industry									
Person	0.63	2.78	2.42	0.62	2.28	1.97	0.98	5.43	4.02
Male	0.65	2.45	2.22	0.65	2.17	1.98	1.20	4.72	3.37
Female	0.56	3.59	2.90	0.55	2.61	1.94	0.86	6.09	4.82
Others									
Person	62.26	71.48	76.77	62.82	76.84	82.25	25.09	43.14	57.44
Male	64.05	74.26	77.95	64.21	77.16	81.62	42.92	50.51	60.52
Female	57.67	64.77	74.00	59.16	75.90	84.09	14.84	36.23	53.65

Source: Compiled from Census of India, 1991-2011 (Census of India website-www.censusindia.gov.in).

But the share is still very small compared to the other categories of workers indicating a need to develop the same for augmenting income especially of rural households. The highest percentage of workers in the Others category is attributed to the presence of workers in plantation crops like tea, cinchona etc. The share of cultivators and agricultural labourers is showing a declining trend for both male and female workers. The share of household industry increased in 2001 followed by a decline in 2011. On the other hand the share of Others category of workers is showing an increasing trend. This clearly shows that the non-agricultural activities are gaining more importance over non-agricultural activities. It can also be seen that more women are engaged in agricultural activities i.e. as cultivators and agricultural labourers and less in the Others category. Women engaged in household industry are also higher than men except in 1991. The rates for the marginal workers are higher than for main workers for all categories except the Others workers category.

4.3.5. Age Specific Work Participation Rate

Among a total of 12,21,869 persons in the working age group i.e. 15-59 years, in the district in 2011, almost half of them were males and the other half females. However, only about 31 percent of the females chose to work as opposed to the males among whom almost 72 per cent were classified as workers. However, the female workers in this age group constituted almost 98 per cent, the highest proportion of total female workers. The age specific work participation rates for the district shows an increase in WPRs with increase in age group, the rates reaching a peak level for the 40-49 age group and declining thereafter for both males and females in rural and urban areas. For females this may be a suggestion of re-entry or late entry of a section of females who may have been pre occupied in child rearing and other household responsibilities (Reddy, 1979).

From Table 4.11 it can be seen that for the rural males there has been a decline in the WPRs for almost all age groups between 1991 and 2001 except for the age groups 30-39, 60+ and the group for which age is not stated. For the rural females there has been an increase in WPRs for the age groups 40-49, 50-59, 60+ and age not stated during 1991-2001. In the subsequent decade the WPRs in all age groups have declined for both males and females in rural areas.

The decline in the WPRs for the child workers (age groups 5-14) and the young workers (15-19) is a welcome trend since these are the school going age groups. Hence, decline in WPRs for these groups could imply increased participation in educational institutions though this needs to be substantiated by relevant data and further analysis.

Table 4.11: Age Specific Work Participation Rates by Sex and Residence, Darjeeling District, 1991-2011

Age Group	5-14	15-19	20-24	25-29	30-39	40-49	50-59	60+	ANS
Rural Males									
1991	3.79	37.09	65.98	82.43	89.81	91.37	85.49	50.80	18.00
2001	3.22	28.03	61.84	81.64	90.02	91.06	85.27	52.66	53.09
2011	2.47	23.00	57.88	80.37	89.71	90.94	83.17	45.51	51.35
Rural Females									
1991	3.26	24.17	36.13	44.08	49.59	49.34	41.50	16.51	10.12
2001	2.62	17.38	32.42	40.67	49.51	52.92	44.06	20.25	30.44
2011	1.81	11.58	26.29	38.97	48.94	50.64	42.27	17.90	27.54
Urban Males									
1991	2.55	21.09	46.89	75.63	89.42	89.86	82.86	41.11	9.59
2001	2.50	17.13	46.92	73.65	88.43	92.27	87.33	44.52	25.81
2011	2.90	17.31	48.61	76.81	89.27	92.01	86.14	39.85	45.59
Urban Females									
1991	2.28	5.55	6.93	11.93	19.05	19.30	13.01	5.74	1.54
2001	2.37	6.58	9.81	15.46	21.11	25.38	21.99	8.73	12.34
2011	2.29	6.95	14.74	23.40	28.52	30.07	26.34	10.37	18.44

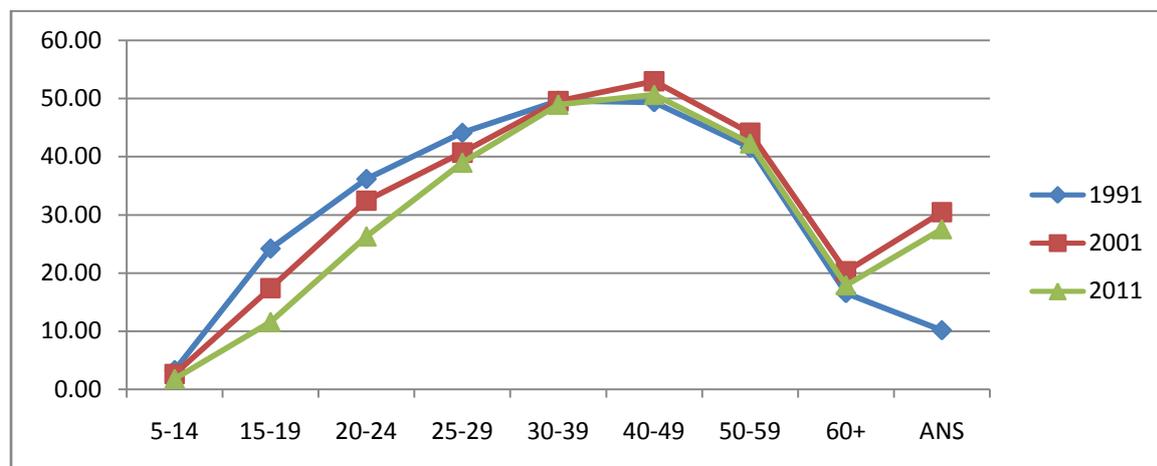
Source: Compiled from Census of India, 1991-2011 (Census of India website-www.censusindia.gov.in).

Note: ANS-Age Not Stated

Declining WPRs in rural areas for both males and females could imply decreasing employment opportunities in rural areas. For the urban males there has been a decline in WPRs for 5-14, 15-19, 25-29 and 30-39 age groups during 1991-2001. In the following decade, the WPRs for the 5-14 and 15-19 age group has increased which could again be due to decrease in population in this group. Decline in WPRs has also been observed in the 40-49, 50-59 and 60+ age groups during 2001-2011. The picture for the urban females is however different. The WPRs for all the age groups have increased during both the decades with the exception of the age group 5-14 which shows a slight decline during 2001-2011.

Higher levels of female education in the urban areas or more employment opportunities could be the reason for the increasing rates of WPRs in the urban areas. However, in view of the rising importance of the urban informal sector which provides temporary jobs with no social security it is important to consider the nature and type of employment being generated in the urban areas. The WPRs for main and marginal categories reveals that the WPRs for marginal workers in the urban areas have increased more than the WPRs for the main workers for males in both decades and during 2001-2011 for urban

females which clearly points toward the nature of employment being generated in the urban areas.



Source: Compiled from Census of India, 1991-2011 (Census of India website-www.censusindia.gov.in). Note: ANS-Age Not Stated

Figure 4.5: Age-Specific Work Participation Rates for Rural Females, Darjeeling District, 1991-2011.

From the age specific WPRs for rural females in the district as shown in Figure 4.5 it can be seen that the participation rates increase with increase in age, reaches a peak, thereafter which the rates show a decline. It can be seen that the highest participation rates have been observed for the age groups 30-39 and 40-49 years. This clearly depicts the life cycle effects of age on female WPRs wherein women of child bearing and child rearing age show lower WPRs being burdened by these responsibilities. As children grow older women may re-enter the labour market shown by higher WPRs for the age groups 30-39 and 40-49 years. In the later years of their life women may again withdraw from the labour market.

4.3.6. Education and Work Participation Rates

The relationship between female labour force participation (FLFP) and educational attainment is not a simple one. Although theoretically a positive correlation has been postulated between levels of education and FLFP, complex patterns between the two have been revealed by empirical studies in the Third World countries (Nam, 1991). Chaudhry, Khan and Abella (1987) postulate that there are two ways in which labour force participation rates may be influenced by the level of education. Firstly, higher level of education implies more time being spent in educational institutions lowering the participation rates. On the other hand the higher educational level lowers the social barriers a person has to cross which improves the prospects of securing productive jobs with higher wages. This is particularly true in the case of females, as being educated makes them equal to educated males in terms of

wage payment, and both factors taken together indicate a curvilinear relationship between participation rates and level of education (Chaudhry et.al., 1987).

Table 4.12: Work Participation Rates by Level of Education, Darjeeling District, 2001-2011

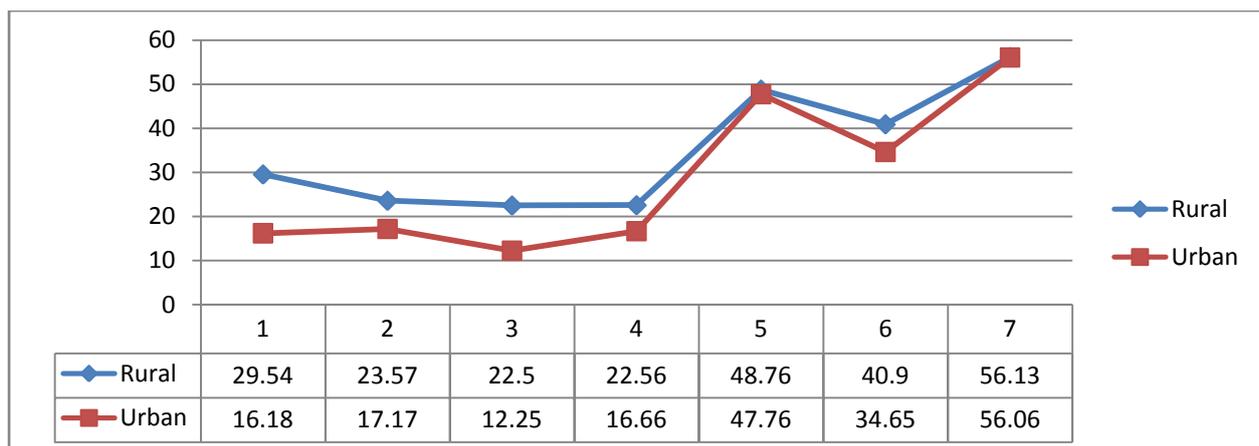
Level of Education	2001				2011			
	RM	RF	UM	UF	RM	RF	UM	UF
1	39.39	28.86	32.94	12.34	42.36	29.54	32.09	16.18
2	52.42	22.12	54.13	12.09	53.28	23.57	56.77	17.17
3	48.96	20.85	44.28	7.96	52.05	22.50	47.86	12.25
4	60.91	22.04	59.74	12.70	52.28	22.56	60.48	16.66
5	79.77	51.61	76.21	29.02	59.50	48.76	66.99	47.76
6	75.60	34.67	76.84	30.62	68.27	40.90	76.63	34.65
7	85.56	55.81	81.28	39.51	69.67	56.13	73.90	56.06

Source: Compiled from Census of India, 2001-2011 (Census of India website-www.censusindia.gov.in).

Note: 1-Illiterate, 2- Literate, 3-Literate but below matric/secondary,4- Matric/secondary but below graduate, 5- Technical diploma or certificate not equal to degree, 6- Graduate and above other than technical degree, 7- Technical degree or diploma equal to degree or post graduate degree. R-Rural, U-Urban, M-Male, F-Female.

As mentioned in Chapter II, certain studies postulate female education to influence female labour supply positively (Psacharopoulos, and Tzannatos 1989; Nam, 1991; Hafeez and Ahmad, 2002; Lisaniler and Bhatti, 2005) whereas others report a negative association between the two (Jehan, 2000), while still others show evidence of a non-linear, sometimes U-shaped relationship especially in developing countries (Verick, 2014). Some studies also point out to no marked relationship between the two (Gulati, 1975; Mon, 2000). Reddy (1979) points out a strong J-shaped relationship between level of education and female participation in India with higher participation rates for uneducated women in poor subsistence economies due to economic compulsion, and lower rates for women with middle or high school education. As level of education increases beyond high school, higher wages may induce better educated women to participate in the labour force.

The WPRs for the district for the years 2001 and 2011 as shown in Table 4.12 reveals that the same pattern as observed in Reddy's (1979) study can be observed with regard to female participation rates. The WPRs for the illiterate females is higher than for those with middle school education in both rural and urban areas in both the Census years.



Source: Compiled from Census of India, 2011 (Census of India website-www.censusindia.gov.in).

Note: 1-Illiterate, 2- Literate, 3-Literate but below matric/secondary,4- Matric/secondary but below graduate, 5- Technical diploma or certificate not equal to degree, 6- Graduate and above other than technical degree, 7- Technical degree or diploma equal to degree or post graduate degree.

Figure 4.6: Female Work Participation Rates by Level of Education, Darjeeling District, 2011.

Thereafter with increase in level of education the WPRs increase reaching peak level for those with technical diploma or certificate not equal to degree, with the exception of urban females in 2001 which shows a continuous increase in WPRs with increase in level of education. The WPRs again decline for ordinary graduates but rise steeply for those with technical degree or diploma equal to degree or post-graduate degree. It can also be observed that the rural urban gap in WPRs which is high for illiterate females and those with low level of education has narrowed down for higher levels of education in 2011. For males on the other hand the WPRs increase with increase in the level of education. The relationship between female WPRs and the level of education as shown in Figure 4.6 points to a more or less J- shaped relationship with illiterates having a higher WPR in comparison to literates up to secondary level of education. The WPR then increases for those with technical education, declines for graduates and then rises for those with technical degree. Similar pattern is observed in rural and urban areas with rural rates being higher than urban rates.

4.3.7. Work Participation Rates by Marital Status

Marital status is an important factor determining the participation of women in the labour force (Mon, 2000; Lisaniler and Bhati, 2005; Chaudhary and Verick, 2014). Being married is expected to decrease the chances of women's participation in the labour market, since being married not only influences a woman's decision making ability but also increases the value of non-market activities i.e. the unpaid reproductive tasks which restrain women's

participation in the labour market (Lisaniler and Bhati, 2005). Due to the prevalence of patriarchal family structures in Indian society, married women are expected to show lower participation in labour market activities as compared to single women (Panda, 1999 cited in Chaudhary and Verick, 2014).

Table 4.13: Female Work Participation Rates by Marital Status, West Bengal and India, 1991-2001.

West Bengal										
Marital Status	Total		Main		Marginal		Rural		Urban	
	1991	2001	1991	2001	1991	2001	1991	2001	1991	2001
Never Married	4.09	6.52	3.11	3.24	0.99	3.29	4.32	6.46	3.45	6.69
Married	17.46	27.57	11.86	12.77	5.60	14.80	21.15	33.00	7.73	13.73
Widowed	16.45	24.51	12.81	16.16	3.64	8.34	17.82	26.23	12.36	20.26
Divorced/Separated	43.21	54.98	36.15	35.78	7.06	19.20	44.29	56.82	37.57	49.19
India										
Marital Status	Total		Main		Marginal		Rural		Urban	
	1991	2001	1991	2001	1991	2001	1991	2001	1991	2001
Never Married	6.72	7.52	4.92	3.66	1.81	3.86	7.89	8.64	3.46	4.55
Married	36.09	41.54	25.40	23.85	10.69	17.68	43.35	50.89	13.72	16.76
Widowed	27.03	30.70	21.44	20.65	5.59	10.05	30.08	33.69	17.21	22.73
Divorced/Separated	59.82	60.90	51.15	41.93	8.67	18.97	64.11	65.13	43.32	48.75

Source: Compiled from Census of India, 1991-2001(Census of India website-www.censusindia.gov.in).

Table 4.13 shows the female WPRs for West Bengal and India for the years 1991 and 2001. The table reveals that the highest work participation has been observed for the divorced/separated category whereas the lowest is for the never married category in both the Census years 1991 and 2001 for India and the state of West Bengal. The married category shows a higher participation rate than the widowed. Currently married women are generally supported by their spouses in comparison to the divorced/separated women who generally do not receive any maintenance and therefore show higher participation rates (Visaria, 1983). The relatively higher work participation for the widowed could be explained by the fact that most of them, especially the younger widows may not have any grown up member to look after them (*ibid*).

4.4. CONCLUSION

A discussion on labour force/work participation rates is significant as changes in the labour force participation decision has important and far reaching effects on the economy through its

influence on the size and composition of the labour force which affects growth and unemployment rates along with occupational and sex composition of the labour force. Although women, especially in rural areas are involved mostly in unpaid activities much of which is not recorded in national income data, the figures for labour force/work participation rates are nevertheless important indicators of women's participation in economic activities. Notwithstanding the various biases and limitations of labour force statistics as pointed out by several scholars, they serve as a guide in understanding the trends and patterns of women's work and the fluctuations that occur during the process of a country's structural transformation.

An analysis of the statistics on labour force participation of women according to the different NSS rounds reveals low rates of participation for women vis-a-vis men at the all India level. Not only are the rates for women low, they show a declining trend since 2004-05 more particularly in the rural areas. Such withdrawal of women from the labour force is a cause of concern and needs to be analysed carefully in view of the fact that women's participation in economic activities is a complex outcome of socio-economic and cultural factors. In the Indian context women's economic participation is responsive to economic stimuli in that their participation in the labour force tends to increase in times of economic distress. Taking into account the fact that women are burdened with domestic responsibilities they generally take up part time or casual jobs, a fact which is further reinforced by their lower levels of education and skills.

West Bengal has one of the lowest female work participation rates in the country (GoWB, 2004, p. 90), and it ranked 25th out of 29 states in 2011 for female WPRs with 18.08 percent, lower than the all India average of 25.52 percent. In West Bengal, the district of Darjeeling ranked 6th out of its nineteen districts according to the Census 2011 figures with a female WPR of 22.4 percent. Analysis of WPRs for the district reveals higher rates for rural females in comparison to those in urban areas indicating higher work burden for the rural women. An increasing trend towards casualisation of the workforce, both male and female has also been observed as marginal category workers have registered significant growth rates during the period under analysis along with increasing WPRs. Within the agricultural sector although an increase in growth of agricultural labourers accompanied by a decline in cultivators has been observed, the general trend is a shift towards non-agricultural work as revealed by the declining proportion of rural workers in agriculture. The life cycle effects of age on female WPRs is also observed from the age specific WPRs wherein women of child bearing and child rearing age show lower WPRs being burdened by these responsibilities.

The age specific WPRs were found to reach a peak during the middle age group of 30-49 years. The relationship between female WPRs and the level of education points to a more or less J- shaped relationship with illiterates having a higher WPR in comparison to literates up to secondary level of education. The WPR then increases for those with technical education, declines for graduates and then rises for those with technical degree. Similar pattern is observed in rural and urban areas with rural rates being higher than urban rates.

From the analysis it thus becomes clear that the employment in the rural areas is still largely in the agricultural sector which is by and large seasonal in nature, though a shift towards secondary and tertiary activities has been observed. Given a higher proportion of the female workforce still engaged in the primary sector in the district of Darjeeling, policy measures to improve women's status in agriculture through gender specific policy measures becomes imperative. Diversification of agriculture to make agriculture more remunerative along with developing the non-farm rural sector to increase rural employment opportunities in the region seems to be the need of the hour.

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