CHAPTER - 3

DESCRIPTION OF OFFICIAL STATISTICS RELATED TO FEMALE EMPLOYMENT

3.1 Female Labour Participation from Census and NSSO Statistics

The statistics on female labour force participation in India are provided mainly by two sources, the Census and the National Sample Survey Office (NSSO). Decennial Censuses are the oldest data source on population characteristics from as early as 1901. Information on the magnitude, structure, and pattern of employment by sex is available from the Census; data on occupational distribution (up to three-digit classification)\(^8\) and age and education are also available. Details of employment for Scheduled Castes and Scheduled Tribes are available separately. Work on social and religious groups and the need to create interaction terms from these two variables in the thesis necessitated a look at this section of the Census data. Use of Census data is not ultimately made in the research work. It is based entirely on NSSO data.

Before 1981 Census defined a worker as ‘one who has worked and contributed to the economically productive activity, mentally or physically at any time preceding the date of enumeration’. The definition has undergone changes across the Censuses.

The 1981 Census, for the first time, classified workers into ‘main workers’ and ‘marginal workers’. If a person has worked for more than six months or 183 days in the preceding year, he/she is treated as a main worker. ‘Marginal worker’, on the other hand, is a person who has worked for some time but not for the major part of the year. A person is counted as worker, only if he/she contributes to economically productive, remunerative activity. The Census definition of work excludes the entire gamut of women’s non-market, but productive economic activities such as collection of fire wood, fishing, hunting and production of goods and services used for own household consumption. In developing countries like India, a significant proportion of goods and services is produced for self-consumption, an activity in which the contribution of women is very high. The Census estimates are thus not only biased against reckoning women’s role, but they also under-report women’s participation in economic activities.

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\(^8\) Disaggregated data on occupational structure
The National Sample Survey Organisation (NSSO) started its quinquennial sample surveys on employment and unemployment in 1972-73. The information provided by NSSO is much broader than that of the Census. NSSO gives data on the magnitude, pattern, and structure of employment by sex. The definition of ‘work’ itself is broader in the NSSO estimates and includes all market as well as non-market activities (such as for self-consumption) as ‘work’. Activities relating to the production of own assets such as building houses, construction of roads, wells, production of tools, and machinery are also counted as economic activity. Employment status is classified into three categories – Usual Status (US), Current Weekly Status (CWS), and Current Daily Status (CDS). In UPS estimates, the reference period is a year. Thus, a person is classified as ‘usual status employed’ if he/she has been in the labour force for more than six months preceding the date of survey. The Fiftieth Round of NSS has redefined the usual status employment as ‘a person who has been engaged in gainful economic activity for at least 92 of the 183 days when the person is in the labour force’. The reference period for CWS considers a person employed if he/she is employed at least for a day in that week. According to the CDS, a person is employed if he/ she has worked for at least four hours a day in that week.

The NSSO also categorises workers into ‘Principal’ and ‘Subsidiary’ corresponding to the main and marginal workers respectively in the Census. The definitions used in NSSO estimates cover a large section of women’s labour engaged in the production of goods for self-consumption; moreover, NSSO estimates include under economic activities the services of unpaid helpers in the farm while Census treats them as a separate group. The NSSO thus covers a wide spectrum of women’s activities and naturally gives higher estimates of female work participation than the Census estimates. From the 32nd round onwards NSSO introduced changes in the definition of work so as to capture the link between domestic work and economic contribution. Thus, all activities of household production for self-consumption, except the processing of primary commodities for self-consumption, are counted as work. This change has further increased the domain of female work that counts for economic activity. However, neither NSSO nor Census includes domestic, unpaid work such as child care, cooking, and other household workers in the definition of work (Lakshmy, 2002).

3.2 Other Sources

Apart from NSSO and Census, information on female labour in specific sectors are provided by sources such as Annual Survey of Industries (ASI), Rural Labour Enquiries, Agricultural
Wages in India, Occupational Wage Surveys of the Labour Bureau, Directory of Manufacturing Establishments (DME) Surveys, and Non-Directory Manufacturing Establishments (NDME) Surveys. All these data sources except the Labour Bureau, furnish information on the structure and pattern of women’s employment in the organised sector. Data on female employment in the unorganised sector are limited. And even in the case of data on employment in the organised sector, socio-cultural and other qualitative aspects of employment are not taken into account.

The above-mentioned limitations of the data source on female employment have to be borne in mind while analysing female labour force participation in India.

Labour statistics are collected, compiled and disseminated by several agencies and through several mechanisms in India (Papola, 2014). The Ministry of Labour and Employment (MoLE) has been traditionally the most important source of labour statistics. It has been collecting data on different dimensions of labour; first, on the basis of the periodical administrative reports and returns on over four dozen labour laws that it administers and implements. These laws relate to conditions of work, employment, wages and earnings, social security and trade unions and industrial relations. Some of them are also sector specific (e.g. mines, plantations, construction etc.) The Ministry also collects data through a number of regular, periodic and ad-hoc surveys and studies undertaken by its specialised statistical agencies, Labour Bureau. The Ministry of Statistics is the other major producer of labour statistics in India. It collects, compiles and publishes data through its two important offices, the Central Statistical Office (CSO) and the National Sample Survey Office (NSSO). Here, again, data are collected through regular, periodic and ad-hoc surveys.

3.3 Data Used For Analysis in Thesis

The data used for analysis in the thesis were collected as part of the all India quinquennial survey on Employment-Unemployment by National Sample Survey Office (NSSO). The NSSO carries out all India household survey programme on the subject of Employment and Unemployment every 5 years called the quinquennial rounds of EUS. A nationwide enquiry is conducted to generate estimates of various characteristics pertaining to employment and unemployment and Labour Force characteristics at the National and State levels. Information on various facets of employment and unemployment are collected through a schedule of enquiry (Schedule 10) adopting established concepts, definitions and procedures. Based on
the data collected during the entire period of survey, estimates pertaining to employment-unemployment in India along with various characteristics associated with them are presented in the reports. The conceptual framework for conducting such surveys is based on the recommendations of a Committee set up by the Planning Commission in the year 1970, “Expert Committee on Unemployment Estimates” (popularly known as the Dantwala Committee). The first survey on employment and unemployment was conducted during October 1972 – September 1973 {NSSO (2013, ii)}. Eight more such comprehensive surveys have been carried out by the NSSO since then; the last two, however, having been done with a gap of one year only viz. during July 2009 –June 2010 and July 2011 –June 2012 (Papola, 2014).

The NSSO data provides reliable estimates of persons who are not part of the labour force as a proportion of the total population. The actual number of persons in each activity status (such as being in the labour force, unemployed, not in the labour force due to old age and so on) can be estimated by multiplying these proportions obtained from the NSS with the total population figures available from the Census of India.

3.3.1 Objectives

The main objective of these surveys conducted by NSSO is to generate estimates of level parameters of various employment and unemployment characteristics at National and State level which are then used for policy and decision making by the government. Activity participation of people is dynamic and multi dimensional: it varies with region, age, education, gender, level of living, industry and occupational structure. Hence defining Labour force and measuring it is a critical issue. All of these aspects are captured in detail in the NSS surveys and estimates are generated for Labour Force Participation Rate (LFPR), Worker Population Ratio (WPR), Unemployment Rate (UR), Wages of Employees etc. The indicators of structural aspects of the workforce such as Status in Employment, Industrial Distribution, and Occupational Distribution are also derived from the survey.

3.3.2 Measures of employment

NSSO employs three different methods of determining the activity status of the persons. The first method identifies the Usual Principal Activity Status (called ‘Usual Principal Status’, UPS) of a person by using a reference period of 365 days preceding the date of survey. A person is considered as being in the Work Force if he/she is gainfully employed for a major
part of the preceding 365 days. The second method considers a reference period of one week (current weekly status) and the third method considers each day of the week (current daily status).

The NSSO has, over time, developed and standardised measures of employment and unemployment. Four different estimates of the Labour Force and Work Force are obtained based on the three approaches adopted in the survey for classification of the population by activity status viz: Usual Status, Current Weekly Status And Current Daily Status.

These are:

a. Number of persons in the labour/work force according to the ‘Usual Status’ (ps) i.e. by considering usual principal activity only.

b. Number of persons in the labour/work force according to the ‘Usual Status’ (ps+ss) i.e. by considering usual principal and subsidiary activity together.

c. Number of persons in the labour/work force according to the ‘Current Weekly Status’ approach &

d. Number of persons in the labour/work force according to the ‘Current Daily Status’ approach

3.3.3 Relevance of the different approaches for measurement of labour force and work force

In the usual status approach, the broad activity status of a person viz. employed, unemployed and ‘not in labour force’ is decided by major time criterion. In current weekly status and current daily status approach, the broad activity status of a person is decided by priority-cum-major time criterion where work activity gets priority over unemployment which in turn gets priority over ‘not in labour force activities’.

Usual Principal and Subsidiary Status (UPSS) have two components, viz.; Usual Principal Status and Subsidiary Status. It relates to the activity status of a person during the reference period of last 365 days preceding the date of survey. The activity status on which a person spent relatively longer time (major time criterion) is considered the Usual Principal Status (UPS). To decide the usual principal activity status of a person, a two-stage classification is used to determine the broad activity status, viz. employed, unemployed and out of labour
force within which, the detailed activity status is determined depending on the relatively longer time spent in the activities. Besides the usual principal activity status, a person could have pursued some economic activity for a smaller period, not less than 30 days. The status in which such economic activity is pursued is the ‘subsidiary economic status’ of that person. If these two are taken together, the measure of Usual Principal & Subsidiary Status (UPSS) i.e. Usual Status (US) is obtained.

Current Weekly Status (CWS) of a person is the activity status obtained for a person during a reference period of 7 days preceding the date of survey. According to this, a person is considered as a worker if he/she has performed any economic activity at least for 1 hour on any day of the reference week and is obtained on the basis of daily activities performed on each day of the reference period.

Current Daily Status (CDS) of a person is determined on the basis of his/her activity status on each day of the reference week using a priority-cum-major time criterion (day to day labour time disposition). A person is considered as working (employed) for the full day if he/she worked for 4 hours or more during the day.

Estimates of the workforce provided by UPSS give the maximum possible number of workers within a broad spectrum of definition. Hence it captures the chronic unemployment. Alternately, CWS measures seasonality of employment better. The difference between the unemployment rates based on UPSS and CWS give the measure of seasonal unemployment. CDS captures quality of employment better as it does not treat ‘the underemployment’ as ‘the employed’; hence effectively tackling the issue of disguised unemployment. Therefore, all the 3 approaches—UPSS, CWS and CDS are complementary to each other.

3.4 Sample Design

In the employment unemployment surveys, a stratified multi-stage sampling design is adopted by NSSO for selection of the sample units for rural as well as urban areas. The first stage units (FSUs) are the census villages (panchayat wards for Kerala) for rural areas and the NSSO Urban Frame Survey (UFS) blocks for urban areas. The ultimate stage units (USUs) are the households for both rural and urban areas. Hamlet-groups/sub-blocks constitute the intermediate stage whenever these are formed in the sample FSUs. For rural areas, the list of

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2001 census villages constituted the sampling frame for selection of sample FSUs for most of the states for the 61st round (2004-05) as well as the 68th round (2011-12). For the rural areas of Kerala, however, the list of panchayat wards was used as the sampling frame for selection of panchayat wards. For the urban areas, the latest lists of UFS blocks constituted the sampling frame for selection of sample FSUs. Within each district of a State/UT, two separate basic strata were formed for rural areas and urban areas. All rural areas of the district comprised rural stratum and all the urban areas of the district comprised urban stratum.

Within a district, if ‘r’ number of FSUs were allocated for a rural stratum, a total number of ‘r/2’ sub-strata were formed within that rural stratum for the 61st round and ‘r/4’ sub-strata were formed for 68th round. From each sub-stratum of the rural stratum of a district, two FSUs were selected with probability proportional to size with replacement (PPSWR), size being the population as per Population Census 2001. Within a district, if ‘u’ number of FSUs were allocated for an urban stratum, a total number of ‘u/2’ sub-strata were formed within that urban stratum. From each sub-stratum of the urban stratum of a district, two FSUs were selected with simple random sampling without replacement (SRSWOR). Within each sub-stratum, samples were drawn in the form of two independent sub-samples in both the rural and urban sectors. All households listed in the selected village/block/hamlet-groups/sub-blocks were stratified into three second stage strata (SSS). A total of 10 households were selected from each sample village/block for canvassing the employment and un-employment schedule. The sample households from each of the second stage strata were selected by SRSWOR. Next I present the sampling design for the two rounds studied in details in the thesis:

3.4.1 For the 61st Round (2004-05)

At the all-India level, a total number of 12788 FSU’s (8128 villages and 4660 urban blocks) was allocated for the survey and this was allocated to the different States and UTs in proportion to population as per census 2001 which was then allocated between rural and urban sectors in proportion to population as per population census 2001 with 1.5 weightage to urban sector. Within each of the rural and urban sectors of a State/UT, the respective sample size was allocated to the different strata in proportion to the stratum population as per census 2001. Out of the total number of 12788 FSU’s (8128 villages and 4660 urban blocks) selected for survey for the central sample, 12601 FSU’s (7999 villages and 4602 urban blocks) could be surveyed at the all-India level for canvassing Schedule 10. The number of households
surveyed was 1,24,680 (79,306 in rural areas and 45,374 in urban areas) and number of persons surveyed was 6,02,833 (3,98,025 in rural areas and 2,04,808 in urban areas).

3.4.2 For the 68th Round (2011-12)

Out of the total number of 12,784 FSUs (7,508 villages and 5,276 urban blocks) allotted for the central sample\(^{10}\), a total of 12,737 First Stage Units (7,469 villages and 5,268 urban blocks) were surveyed by NSSO at the all-India level for canvassing the Employment and Unemployment Schedule; Schedule 10 (based on which analysis has been done in the thesis). The number of households surveyed was 1,01,724 (59,700 in rural areas and 42,024 in urban areas) and number of persons surveyed was 4,56,999 (2,80,763 in rural areas and 1,76,236 in urban areas). For the rural sector, from each stratum/sub-stratum, required number of sample villages was selected by probability proportional to size with replacement (PPSWR), size being the population of the village as per Census 2001. Both rural and urban samples were drawn in the form of two independent sub-samples. All households listed in a village/UFS block where no hamlet group/sub-block formation was done, or the households listed in the two selected hamlet group/sub-blocks of the village/UFS block where hamlet-group/sub-block formation was done, constituted the sampling frame of households. All households listed in the selected village/block/hamlet-groups/sub-blocks were stratified into three second stage strata (SSS). A total of 8 households were selected from each sample village/block for canvassing the employment and unemployment schedule. The sample households from each of the second stage strata were selected by SRSWOR.

3.5 Concepts and Definitions

The definitions used in the thesis and which are common to both the rounds are as follows:

3.5.1 Activity status: It is the activity situation in which a person was found during a reference period with regard to the person's participation in economic and non-economic activities. According to this, a person could be in one or a combination of the following three broad activity statuses during a reference period:

(i) working or being engaged in economic activity (work) as defined above,

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\(^{10}\)The sample selected for NSS 68th round which was surveyed by NSSO is termed “Central sample”. As is usual in the regular NSS rounds, most States and Union Territories participated in the survey. The sample surveyed by State Government officials is termed as “State sample”. 

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(ii) being not engaged in economic activity (work) but either making tangible efforts to seek 'work' or being available for 'work' if the 'work' is available and

(iii) being not engaged in any economic activity (work) and also not available for 'work'.

Broad activity statuses mentioned in (i) and (ii) above are associated with 'being in labour force' and the last with 'not being in the labour force'. Within the labour force, broad activity status (i) and (ii) were associated with 'employment' and 'unemployment', respectively.

The detailed activity statuses under each of the three broad activity statuses (viz. employed, unemployed and not in labour force) and the corresponding codes used in the survey are given below:

<table>
<thead>
<tr>
<th>code</th>
<th>description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>working (or employed)</strong></td>
</tr>
<tr>
<td></td>
<td><strong>self-employed</strong></td>
</tr>
<tr>
<td>11</td>
<td>worked (self-employed) in household enterprises as own-account worker</td>
</tr>
<tr>
<td>12</td>
<td>worked (self-employed) in household enterprises as an employer</td>
</tr>
<tr>
<td>21</td>
<td>worked (self-employed) in household enterprises as helper</td>
</tr>
<tr>
<td></td>
<td><strong>regular salaried/wage employee</strong></td>
</tr>
<tr>
<td>31</td>
<td>worked as regular salaried/wage employee</td>
</tr>
<tr>
<td></td>
<td><strong>casual labour</strong></td>
</tr>
<tr>
<td>41</td>
<td>worked as casual wage labour in public works</td>
</tr>
<tr>
<td>51</td>
<td>worked as casual wage labour in other types of works</td>
</tr>
<tr>
<td></td>
<td><strong>not working but seeking/available for work (or unemployed)</strong></td>
</tr>
<tr>
<td>81</td>
<td>sought work or did not seek but was available for work (for usual status approach)</td>
</tr>
<tr>
<td></td>
<td><strong>neither working nor available for work (or not in labour force)</strong></td>
</tr>
<tr>
<td>91</td>
<td>attended educational institutions</td>
</tr>
<tr>
<td>92</td>
<td>attended to domestic duties only</td>
</tr>
<tr>
<td>93</td>
<td>attended to domestic duties and was also engaged in free collection of goods (vegetables, roots, firewood, cattle feed, etc.), sewing, tailoring, weaving, etc. for household use</td>
</tr>
<tr>
<td>94</td>
<td>rentiers, pensioners, remittance recipients, etc.</td>
</tr>
<tr>
<td>95</td>
<td>not able to work owing to disability</td>
</tr>
<tr>
<td>97</td>
<td>others (including beggars, prostitutes, etc.)</td>
</tr>
<tr>
<td>98</td>
<td>did not work owing to sickness (for casual workers only)</td>
</tr>
<tr>
<td>99</td>
<td>children of age 0-4 year</td>
</tr>
</tbody>
</table>

3.5.2 **Workers (or employed)**: Persons who were engaged in any economic activity or who, despite their attachment to economic activity, abstained from work for reason of illness, injury or other physical disability, bad weather, festivals, social or religious functions or other contingencies necessitating temporary absence from work, constituted workers. Unpaid
helpers who assisted in the operation of an economic activity in the household farm or nonfarm activities were also considered as workers. In the thesis, relevant activity status codes within 11 to 51 were assigned for workers. Workers were further categorized as self-employed (relevant activity status codes: 11, 12, 21), regular salaried/wage employee (relevant activity status codes: 31), and casual wage labour (relevant activity status codes: 41 and 51).

3.5.3 Seeking or available for work (or unemployed): Persons, who owing to lack of work, had not worked but either sought work through employment exchanges, intermediaries, friends or relatives or by making applications to prospective employers or expressed their willingness or availability for work under the prevailing conditions of work and remuneration, were considered as those who were ‘seeking or available for work’ (or unemployed). Activity status codes 81 was assigned for unemployed.

3.5.4 Labour force: Persons who were either 'working' (or employed) or 'seeking or available for work' (or unemployed) constituted the labour force. Persons with activity status codes 11-51 constituted the labour force.

3.5.5 Not in labour force: Persons who were neither 'working' nor 'seeking or available for work' for various reasons during the reference period were considered as 'not in labour force'. Persons under this category are students, those engaged in domestic duties, rentiers, pensioners, recipients of remittances, those living on alms, infirm or disabled persons, too young persons, prostitutes, etc. and casual labourers not working due to sickness. Activity status codes 91-95, 97 and 98 were assigned for persons belonging to category 'not in labour force'.

3.5.6 Self-employed: Persons who operated their own farm or non-farm enterprises or were engaged independently in a profession or trade on own-account or with one or a few partners were deemed to be self-employed in household enterprises. The essential feature of the self-employed is that they have autonomy (i.e., how, where and when to produce) and economic independence (i.e., market, scale of operation and money) for carrying out their operation. The remuneration of the self-employed consists of a non-separable combination of two parts: a reward for their labour and profit of their enterprise. The combined remuneration is wholly determined by the sales of output produced by self-employed persons.
3.5.7 Categories of self-employed persons: Self-employed persons were categorised as follows:

(i) own-account workers: those self-employed persons who operated their enterprises on their own account or with one or a few partners and who, during the reference period, by and large, ran their enterprise without hiring any labour. They could, however, have had unpaid helpers to assist them in the activity of the enterprise;

(ii) employers: those self-employed persons who worked on their own account or with one or a few partners and, who, by and large, ran their enterprise by hiring labour; and

(iii) helpers in household enterprise: those self-employed persons (mostly family members) who were engaged in their household enterprises, working full or part time and did not receive any regular salary or wages in return for the work performed. They did not run the household enterprise on their own but assisted the related person living in the same household in running the household enterprise.

3.5.8 Regular salaried/wage employee: These were persons who worked in others’ farm or non-farm enterprises (both household and non-household) and, in return, received salary or wages on a regular basis (i.e. not on the basis of daily or periodic renewal of work contract). This category included not only persons getting time wage but also persons receiving piece wage or salary and paid apprentices, both full time and part-time.

3.5.9 Casual wage labour: A person who was casually engaged in others’ farm or non-farm enterprises (both household and non-household) and, in return, received wages according to the terms of the daily or periodic work contract, was a casual wage labour.

3.6 Data Arrangement in the Thesis and Methods Used

The main data set used in the thesis is macro data from NSSO’s five Employment and Unemployment Surveys (EUS), obtained from the EUS Reports, covering the years 1993-94, 1999-2000, 2004-05, 2009-10, 2011-12. Stylised facts from all five survey rounds have been presented, while the empirical estimation and analysis of the determinants of labour force participation and the intersectionality of the variables affecting gender relations in
employment is conducted on the 61st (2004-05) and 68th (2011-12) rounds only. There is a difference of sample design in the 61st round, 2004-05 and the 68th round, 2011-12. Such an event may possibly affect the published results. Hence comparative analysis has not been attempted in the thesis. Endeavour has only been made to study the work force participation and the type of work being performed by women workers under both the rounds. The main focus of the thesis is to study the emergent gender relations in employment under the overlap of class, caste and community identity. All of the EUS rounds considered are quinquennial rounds, i.e large rounds of survey, held every five years.

For the econometric estimation Unit level data of both the rounds have been extracted from Schedule 10 using the software Stata12. Central Sample has been used throughout the study. Data arrangement being very specific to the sections which deal with the various aspects of the analysis of female employment issues have been explained in detail in the respective chapters.

Logistic regression methods have been used for estimation purpose, as the dependent variable takes up a binary or categorical value. Independent variables are either categorical or continuous. Method specification is unique to each chapter and has been detailed out accordingly in the respective chapter.

The next chapter does an exploratory overview of employment using data from NSS Reports for the years 1993-94 to 2011-12.