

# The Decline in the Labour Force Participation of Rural Women in India: Taking a Long-Run View

Amaresh Dubey (JNU), Wendy Olsen (University of Manchester) and Kunal Sen (University of Manchester)

MARCH 2015

PAPER FOR S R SANKARAN INTERNATIONAL CONFERENCE - *Labour and Employment Issues in the Context of Emerging Rural-Urban Continuum: Dimensions, Processes and Policies*

**PRELIMINARY. PLEASE DO NOT CITE WITHOUT PERMISSION.**

## **Abstract:**

The significant fall in the labour force participation of rural women between 2004 and 2011 has been an issue that has generated considerable academic interest. In this paper, we look at thirty years of comparable NSS data from 1983 to 2011 of rural women's participation in the labour force using a variety of definitions of female labour force participation that capture both market and non-market work. We find that the sharp drop in female labour force participation (FLP) in 2004-2011 occurs in both narrow and wide definitions of FLP. We observe that the largest drop occurs in illiterate unmarried women in labourer households. We do not find any geographic concentration of the decline in FLP. We also observe that in some categories of economically active women, the decline in FLP had started much earlier, in the 1980s, suggesting that for these women, secular factors of FLP were at work. We do not find any evidence of a substitution of non-market work for market work. Our analysis highlights the somewhat contradictory behaviour of RLFPR across different definitions and time periods, and across different correlates of female labour force participation, and suggests that more complex factors are at work than has usually been discussed in the literature.

## **I. INTRODUCTION**

A puzzle about India's economic development path has been the low rate of female labour force participation in spite of several decades of high economic growth. The experience from other countries suggest that the combined effect of economic growth, rising education levels among women, and falling fertility rates leads to increasing participation of women in the labour force. India's rate of economic growth has averaged over 6 per cent since 1991, female literacy rates have increased from 53.7 per cent in 2001 to 64.5 per cent in 2011, and total fertility rate has fallen from 3.71 in 1990 to 2.50 in 2012. In spite of this, female workforce participation rates fell from 33.1 per cent in 1977-78 to 26.1 per cent in 2009-10 for rural females and from 15.6 per cent in 1977-78 to 13.8 per cent in 2009-2010 (using employment in principal and subsidiary status, see Himanshu (2011)). South Asia's female labour force participation is one of the lowest in the world, but even by South Asia's dismal record in female labour force participation, India's experience in this regard has been abysmal (South Asia's average participation rate for females is 35 per cent, see World Bank (2012)). Particularly striking has been the decline in the female labour force participation rate from 33.3 per cent in 2004-05 to 26.5 per cent in 2009-10 (Himanshu 2011).

A large literature has examined recent trends in rural female labour force participation (RLFPR) in India (Himanshu 2011, Mazumdar and Neetha 2011, Hirway 2012, Klasen and Pieters 2012, Neff et al. 2012, Neetha 2014). There seems to be no consensus, however, on what explains the recent decline in RLFPR. One view stresses the role of education, with women in rural areas are now pursuing higher education and are therefore simply not available for the labour force (Chowdhury 2011; Rangarajan et al. 2011). A second view highlights a possible “income effect”. Arguing that household incomes could have risen in rural areas due to higher wage levels which have taken the pressure off women to seek distress employment in times of economic hardship (World Bank 2010; Himanshu 2011; Rangarajan 2011, Neff et al. 2012). A third view argues that the decline in women’s LFPR is due to an overall decline in or absence of short and long term employment opportunities in rural areas (World Bank 2010; Chowdhury 2011; Mazumdar and Neetha 2011). A fourth view argues that the decline of rural female LFPR could be due to cultural factors and social constraints which might come to the fore with rising incomes or limited employment opportunities (see Das 2006; Olsen and Mehta 2006; Chowdhury 2011). It could even be that women’s nonwork status is a growing source of household dignity or honour (Olsen and Mehta, 2007) but the evidence does not cast light directly on that.

In this paper, we contribute to the literature on the recent decline in rural female labour force participation in two ways. Firstly, we suggest that how you define women’s work matters in understanding the evolution of RLFPR over time, and argue that we need to work with different definitions of female labour force participation that can capture both paid and unpaid work to understand patterns and trends in RLFPR. Secondly, we take a long-run view of RLFPR, over three decades, to understand whether there are long-run forces at work, or whether changes in the RLFPR can be explained by more contemporaneous events. To do this, we create comparable definitions of RLFPR and its determinants over the NSS rounds of 1983-84, 1993-94, 2004-05 and 2011-12. We then examine the patterns in RLFPR and its correlates over the period 1983-2011.

Our main findings are as follows: a) the behaviour of RLFPR using the medium definition shows a long-term decline that predates the 2000s. We do not observe a similar long-term decline using the narrow and wide definitions, suggesting that the determinants of declining self-employment for rural women may not be the same as that for wage work and non-market work; b) we see a clear decline in RLFPR using the narrow and wide definitions in 2004-2011, especially among unmarried women in landless and the poorest households, across all social groups; c) at the other end of the spectrum, we see a fall in RLFPR among more educated women, and d) we see no clear substitution for non-market work from market work over time, indicating that the lack of employment opportunities for women cannot be seen as the main driver of declining RLFPR.

The rest of the paper is organised in four sections. Section II discusses the conceptual basis of measuring women’s work and the implications this has for measuring RLFPR. Section III provides a brief discussion of the correlates of RLFPR, as a prelude to the empirical analysis. Section IV examines the NSS data and provides an analysis of patterns and trends in RLFPR over 1983-2011. Section IV concludes.

## I. MEASUREMENT CATEGORIES FOR LABOUR FORCE PARTICIPATION

Alternative definitions of labour force participation matter for development both in themselves, as indicators of women's roles in the economy, and also because they lead toward a better understanding of possible segmentation of labour markets and the interweaving of informality, domestic work, and what is termed here as 'extra-domestic work' – that which creates commodities or provides services otherwise also produced in the economy, but on a subsistence basis or using home-based production methods. The extra-domestic tasks are typically ignored in labour studies but we show advantages to exposing them.

In this section we set out the way our dependent variables are measured, which is innovative (following J. Rodgers, 2012).

### *The Categorisation of Labour Force Participation*

When analysing Indian households, the labour market part of the puzzle can be seen in one of two ways: either people offer their 'supply of labour' independently of the demand for labour (we'll call this the modernization approach), or the supply and demand for labour are partly overlapping due to farming and the informal parts of the labour market. The latter could be called the peasant economics approach (Ellis, 1993). Even in the modernization approach, once gender issues are introduced, the moral economy of work decisions is complex, because each person's supply of labour can contribute to household income and thus reduce the need for others to work outside the house (Rodgers, 2012). Ellis showed that when intrahousehold work is valued, as in farming and micro-enterprises, the substitution effects have an important part in each individual's apparent supply of labour outcome. Even in Ellis' models, the total supply of labour must be seen to include both unremunerated farming labour and small enterprises, as well as working outside the house. The farm or the shop or trading activity can use 'unpaid helpers' or informally arranged co-entrepreneurship, and thus take up labour time, creating a demand for labour simultaneously with making decisions to supply this latter. This more complex approach is superior to making false assumptions that the economy is fully modernised. The modernised approach would separate the breadwinner (who is in the labour market) from the demand for labour, and the rest of the family (who are construed as non-earners) from the supply of labour. Overall, the peasant economics approach (also known as the new home economics) is preferable.

Using such a conceptual framework to measure labour time, we can define narrow labour as the supply of labour onto markets where the demander is outside one's own household (which is not exactly the definition used by Rodgers, 2012: 2). Our narrowest definition (LFP1) includes casual paid daily labour ("kuulie") and salaried employment. At the other extreme, as 'wide' we are able to define labour most widely to include informal sector work, unpaid family helpers, farming work, and extradomestic work (defined below), using the label LFP3 for wide labour. In between, LFP2 is familiar to western labour specialists, because it includes self-employment of the respondent. Ambiguities around the definition of self-employment have made this category under-report women's remunerated market-related work.

Table 2 shows an even more finely-grained breakdown. See also Figure 1 in which the three main definitions are depicted as concentric circles for 2011/12. Within the narrow categorisation, which includes employees and salaried

workers, casual labour, and labour done under the national employment guarantee scheme (Figure 1, first circle), the salaried part can be discerned in Table 1, first row.

**Table 1. All-India Labour Force Participation, 1983-2012**

% of Adults		1983	1993-94	2004-05	2011-12
		<b>FEMALES</b>			
Narrow Labour Force (Casual and Employees)	RURAL	23.5	24.0	21.5	17.5
	URBAN	12.8	13.1	12.9	11.9
Medium Labour Force (Includes Self-Employment)	RURAL	35.4	32.7	30.6	24.7
	URBAN	19.9	20.4	20.4	18.4
Wide Labour Force (Includes Extra-domestic Work and Unpaid Helpers)	RURAL	68.8	71.2	70.1	64.8
	URBAN	36.0	37.9	39.3	36.6
<b>MALES</b>					
Narrow Labour Force (Casual and Employees)	RURAL	42.9	45.0	43.4	43.4
	URBAN	48.8	47.5	44.8	45.9
Medium Labour Force (Includes Self-Employment)	RURAL	81.0	77.6	76.5	74.5
	URBAN	79.2	76.4	75.8	74.6
Wide Labour Force (Includes Extra-domestic Work and Unpaid Helpers)	RURAL	91.0	89.8	88.5	83.7
	URBAN	84.5	82.5	82.2	79.7

Source: 38<sup>th</sup>, 50<sup>th</sup>, 61<sup>st</sup>, and 68<sup>th</sup> Rounds, Employment and Unemployment Survey, National Sample Survey of India.

Data obtained via the NSSO website ([www.mospi.in](http://www.mospi.in)). This table is All-India adults age 14+.

Some controversies must be attacked head-on. First, a person having a subsidiary occupation but no principle occupation is included as active according to their subsidiary work. The subsidiary work is counted here even if it takes up less than six months of their year. The NSS EUS used a one-year recall in all the Rounds from 1983. The minimum standard we use to count work into all our definitions is at least one hour of work, following the ILO definitions of work. Thus the work recorded here is consistent with ILO's approach.

Secondly, a person's work could be misrepresented by their household's main respondent. The reports given by a household head, or whoever else might respond on behalf of the whole household, may involve some subjective approximation of what roles take up their time. This approximation may use typical category labels, like 'housewife'. That is why we need the 'wide' definition so badly. On the other hand it also implies an admitted weakness in the accuracy and comparability of the household NSS EUS records.

Thirdly, the work recorded under our 'wide' measure may significantly understate the actual work done.

Extradomestic work refers to that work done outside all the existing remunerated categories, yet still done in such a way that either subsistence or saleable goods are obtained. These goods include services like teaching (tutoring) and sewing, but we have left out child care. Extradomestic work is not meant to include all the socially reproductive activities. It responds to what is known in lay terms as 'work'. We have made a concession in not recording time spent on cooking, building houses, sweeping, child care and so on, which are also work. There is low status accorded to child care and cooking, as well as cleaning, in Indian homes. However, using this NSS data we cannot highlight this work as there is no record of it. Even so, a huge amount of work emerges under the wide heading and we hope to offer some insights by using this new headcount of 'wide' workers. It includes effectively *housewives who also did work outside the home, not for direct remuneration*.

In between narrow and wide, we define LFP2 as a medium measure of work participation.<sup>1</sup> LFP2 is not meant as the perfect or ideal measure. It is meant to capture a halfway point between the two useful extremes of measurement. LFP2 omits the extradomestic work which some would call subsistence labour. One reason is that extradomestic work was defined by NSS to arbitrarily include many activities undertaken by women and children, but the NSS ignored the reproductive work done by men, such as collecting firewood, boiling sugar, building houses or walls, cooking, or child care, because men were considered breadwinners *a priori*. Only women without a principle occupation were invited to state which of ten extradomestic tasks they had engaged in (see Table 1 and Figure 2). The recall period was a year. The coverage was patchy. Questions were answered yes/no, not in terms of days worked.

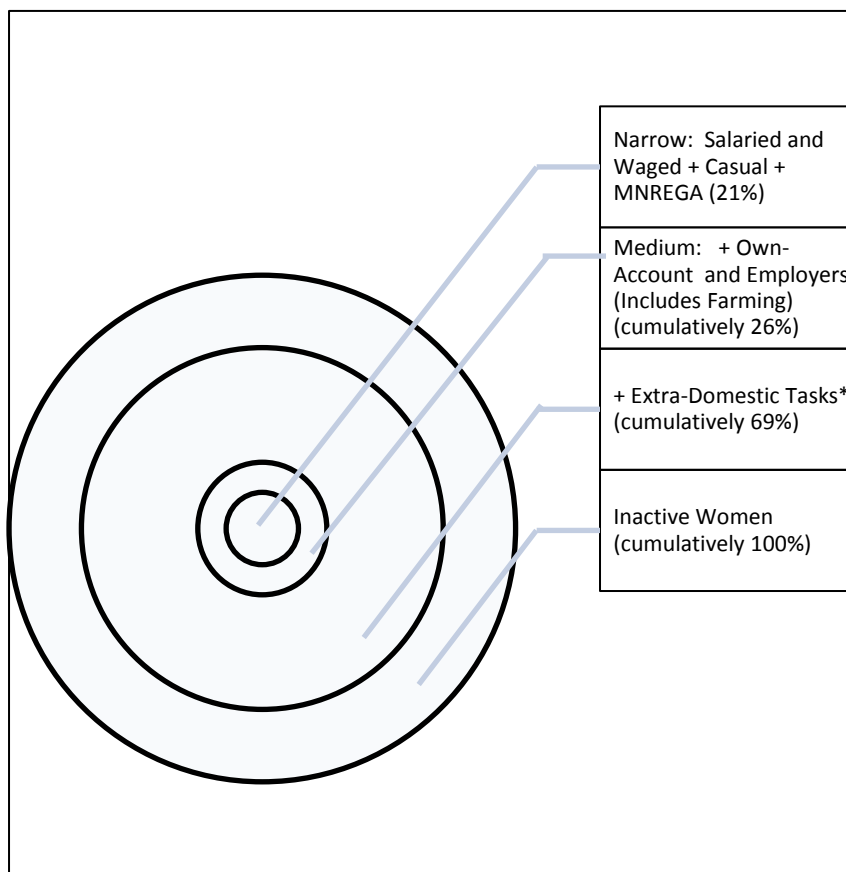
In LFP2, the medium measure of work, we include farming work and all other self-employment, if declared as self-employment, but we omit unpaid family helpers.

Figure 1 illustrates the extent of LFP1, 2 and 3 work using a headcount approach for India in 2011/12.

---

<sup>1</sup> All our calculations of LFPR are done using principal and subsidiary status.

**Figure 1: Narrow and Wide Concepts of Indian Labour Force Participation (Rural and Urban Combined)**



Source: NSS UES Survey data, 2011/2. Authors' own calculations, including principal and subsidiary occupational status, as explained in the paper. Adults age 14+.

Table 2 illustrates the finer grained division of workers into the six narrowest and widest categories, and shows the proportions lying in each group for rural women only. One reason why LFP1 includes casual work is that the amount of salaried work for rural women is so small (2% of women in 2011/2012).

**Table 2: Rural India, Female Labour Force Participation, Competing Definitions**

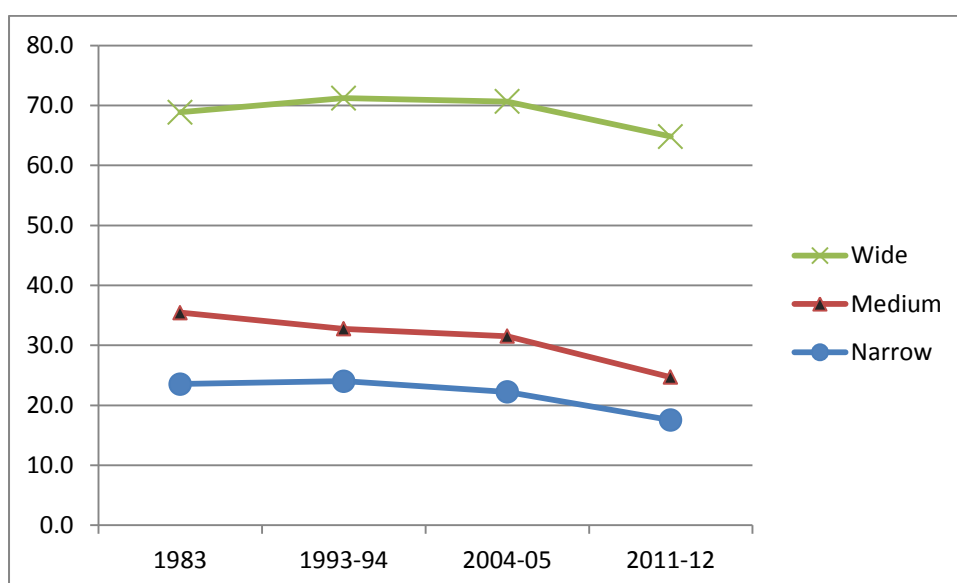
% of Women	1983	1993-94	2004-05	2011-12	Column Percentage of Workers, 1983	Column Percentage of Workers, 2011/2012
Salaried Work and Employees Only	1.5%	1.4	2.0	2.2	0.7	1.3
That + Casual Labour (Narrow Def'n, LFP1)	23.5	24.0	22.2	17.5	11.5	10.6
That plus those Unemployed	24.0	24.5	23.3	18.2	11.7	11.0

That plus those Self-Employed (Medium Def'n, LFP2)	35.4	32.7	31.5	24.7	17.2	15.0
That plus those who worked as "helper in household enterprise"	52.1	51.3	52.7	37.5	25.4	22.7
That plus extra-domestic duties (EDD) (Wide Def'n, LFP3)	68.8	71.2	70.7	64.8	33.5	39.3
Total					100.0	100.0

Source: 38<sup>th</sup>, 50<sup>th</sup>, 61<sup>st</sup>, and 68<sup>th</sup> Rounds, Employment and Unemployment Survey, National Sample Survey of India. Data obtained via the NSSO website ([www.mospi.in](http://www.mospi.in)). This table is All-India rural only, and is women adults age 14+.

Figure 2 shows change over time in these for rural women since 1983. Using the medium definition (which also includes self-employment), RLFPR had started declining from the early 1980s. Using the medium definition, RLFPR fell steadily from 35.4 per cent in 1983 /84 to 24.7 per cent in 2011/12. However, in the case of the narrow and wide definition, the fall in RLFPR occurs only in 2004-2011.

**Figure 2: Historic Female Labour Force Participation in Rural India**



Source: 38<sup>th</sup>, 50<sup>th</sup>, 61<sup>st</sup>, and 68<sup>th</sup> Rounds, Employment and Unemployment Survey, National Sample Survey of India. Rural resident adult women age 14+. See rows 2, 4 and 6 of Table 2.

We were able to link up the surveys consistently for the following years: 38<sup>th</sup> Round in 1983, 50<sup>th</sup> Round in 1993, 61<sup>st</sup> Round in 2005, and 68<sup>th</sup> Round in 2011/12.

**Table 3: Simplified Concepts of Narrow, Medium and Wide Work in India**

Narrow	Regular salaried labour, wage labour, and casual wage labour both private and in public works	31, 41, 51 in figure *
Medium	The above, plus those declaring unemployed, self-employed.	Also includes 81, 11
Wide	The above, plus helper in household enterprise and those doing extra-domestic duties (EDD).	Also includes 21, 93, conditional on >0 performance of EDD.

Note: the term extra-domestic duties appears in Olsen and Mehta, 2006 and 2007. The following work is included in extra-domestic duties, which are only recorded among those without other statuses, 'more or less regularly carry out during the last 365 days' any of: 1. maintenance of kitchen gardens, orchards, etc.; work in household poultry, dairy, etc; collection of fish, small game, wild fruits, vegetables, etc. for household consumption; collection of firewood, cow-dung, cattle feed, etc, for household consumption; husking of paddy for household consumption; grinding of foodgrains for household consumption; preparation of gur (sugar) for household consumption; preservation of meat and fish for household consumption; making baskets and mats for household use; preparation of cow-dung cake for use as fuel in the household; sewing, tailoring, weaving, etc., for household use; and tutoring of own children or others' children free of charge. Source: 38<sup>th</sup> Round questionnaire, Section 10, Unemployment & Employment Survey, National Sample Survey of India. Obtained via the NSSO website ([www.mospi.in](http://www.mospi.in) or [http://mospi.nic.in/Mospi\\_New/site/inner.aspx?status=3&menu\\_id=36](http://mospi.nic.in/Mospi_New/site/inner.aspx?status=3&menu_id=36)), accessed Dec. 2014. A recent report, NSS (2012), at URL [http://mospi.nic.in/Mospi\\_New/upload/nss\\_report\\_559\\_10oct14.pdf](http://mospi.nic.in/Mospi_New/upload/nss_report_559_10oct14.pdf), Accessed 2014, shows how the resulting data are currently presented.

### Figure 3: Work Status Labels Used In 1983 and Pursuant Surveys by NSS India

*"...worked in h.h. enterprise (self-employed): own account worker -11, employer-12, worked as helper in h.h. enterprise (unpaid family worker) -21; worked as regular salaried/ wage employee -31, worked as casual wage labour: in public works -41, in other types of work -51; did not work but was seeking and/or available for work -81, attended educational institution -91, attended domestic duties only -92, attended domestic duties and was also engaged in free collection of goods (vegetables, roots, firewood, cattle feed, etc.), sewing, tailoring, weaving, etc. for household use -93, rentiers, pensioners, remittance recipients, etc. -94, not able to work due to disability -95, others (including begging, prostitution, etc.) -97."*

Source: Taken verbatim from the 38<sup>th</sup> Round questionnaire, Section 10, Unemployment & Employment Survey, National Sample Survey of India. Obtained via the NSSO website ([www.mospi.in](http://www.mospi.in) or [http://mospi.nic.in/Mospi\\_New/site/inner.aspx?status=3&menu\\_id=36](http://mospi.nic.in/Mospi_New/site/inner.aspx?status=3&menu_id=36)), accessed Dec. 2014. See for example a recent report, NSS (2012), at URL [http://mospi.nic.in/Mospi\\_New/upload/nss\\_report\\_559\\_10oct14.pdf](http://mospi.nic.in/Mospi_New/upload/nss_report_559_10oct14.pdf), Accessed 2014.

### III. Determinants of Female Labour Force Participation in Rural India

In this section, we briefly discuss the literature on the determinants of RLFPR in India. In a standard model of labour supply, an increase in the wage rate of women workers could lead to an increase in their supply of labour, due to the



substitution of work for leisure (Klasen and Pieters 2012). However, an increase in wages could also lead to an income effect where women may decrease labour supply with increase in household incomes as their wages increase. An increase in non-labour household income could also have a similar negative effect on female labour supply. A number of authors have pointed to the existence of an income effect on women's LFP. Olsen and Mehta (2006) for example find that economic poverty made female labour force participation more likely. Similarly, Srivastava and Srivastava (2010, see also Himanshu 2011: p. 47) argue that the female LPR increases in times of distress, i.e. when there is a "perceived fall in the reservation income of the household", ie the level below which they work and above which the woman will be inactive. Rangarajan et al. (2011: p. 70) assume that this might be either because agriculture has become drought resilient, the MGNREGA scheme has managed to provide supplementary jobs, or the real wages have gone up. The income effect can hence also work the other way: With higher incomes when households escape poverty there could be a tendency of women to withdraw from the labour force to attend domestic duties (Rangarajan et al. 2011). In India this latter effect can be enhanced through sanskritisation: the process by which low income households emulate high-income Hindu lifestyles (Olsen & Mehta 2007).

Educational levels of women are also considered to be an important determinant of female labour force participation. A well-known hypothesis in the literature on female labour force participation is the feminisation U-curve hypothesis – in the early stages of development, male educational levels rise faster than female educational levels, so women's wages and opportunities for work change relatively slowly while unearned income rises faster. Participation is further reduced by social stigma associated with women working outside of the home. Later on, as women's education rises as well, and there is an erosion of the social stigma associated with women working, female labour force participation increases. This leads to a U curve in female labour force participation rate over time. (Goldin 1994, 2012) Education has been proposed as one of the explanations for the decline in the rural female LFPR. It is assumed that more women in rural areas are now pursuing higher education and are therefore not available for work (see Himanshu 2011, Rangarajan et al. 2011). Chowdhury (2011) however questions this explanation and puts forward the arguments that the overall employment situation for women has not improved and that the rural female LFP has declined for all ages above the age of 15 and not only for those in the age group of 15-24. Further, Kingdon and Unni (2004) find that women's education has an U shaped relationship with wage work participation and that only schooling beyond the junior/middle level enhances their wage work participation.

Changes in the RLFPR can also be explained by the structure of the rural economy (Harriss-White 2003). Due to the stronger competition with men, with a rising population, women might have even less employment opportunities and might be forced out or drop out of the labour force altogether. Moreover supply side factors such as social factors disadvantaging certain social groups (such as women or lower caste groups) in the labour market might be at work. Work tasks for example are traditionally assigned along gender lines. In agriculture women undertake most tasks except ploughing which traditionally has remained a male domain. If a task is performed by women, then it is perceived as socially less valuable (Banerjee 1995), which has an effect on the wage levels. Women are paid much lower wages compared to men and are often forced to work as unpaid family workers. Mazumdar and Neetha

(2011) argue that the period of deindustrialisation between 1999 and 2005 led to the decline of non-agricultural employment opportunities of women.

Finally, a number of authors have pointed out that there are cultural and social barriers which prevent women from entering and remaining in the labour force. India is a dominantly patriarchal society where the existing gender roles and norms where it is honourable for women to confine themselves to the reproductive role and to household duties (see e.g. Olsen and Mehta 2007). It could hence be argued that income alone is not sufficient in explaining the decline in rural women's LFP, but income in conjunction with social /cultural norms. The argument is that certain cultural factors and social constraints might come to the fore with rising incomes (see Das 2006; Olsen and Mehta 2006; Chowdhury 2011). We investigate the role of each of these factors in explaining patterns of RLPFPR using narrow, medium and wide definitions of female labour force participation in the next section.

#### IV. Patterns and Trends in Rural Female Labour Force Participation Over Time

We now examine patterns in RLFPR using the narrow, medium and wide definitions, and for various correlates of the female labour force participation, for the NSS rounds of 1983, 1993/94, 2004/05 and 2011/12. We also present the share of women in the labour force each category considered for 1983 and 2011, to provide magnitudes of the importance of these categories in overall RLFPR.

##### *Marital Status*

Table 4 and Figure 4 shows that the shrinkage of women in the labour force is relatively steep for women in the premarital stage of their life course, across all three definitions of RLFPR. However, there is a large decline in RLFPR for currently married women (who form the bulk of women in the economically active age group) from 2004 to 2011 for the narrow and medium definitions of LFP, less so for the wide definition. Interestingly, the RLFPR of widowed women has increased from 32.8 per cent in 1983 to 35.1 per cent in 2011.

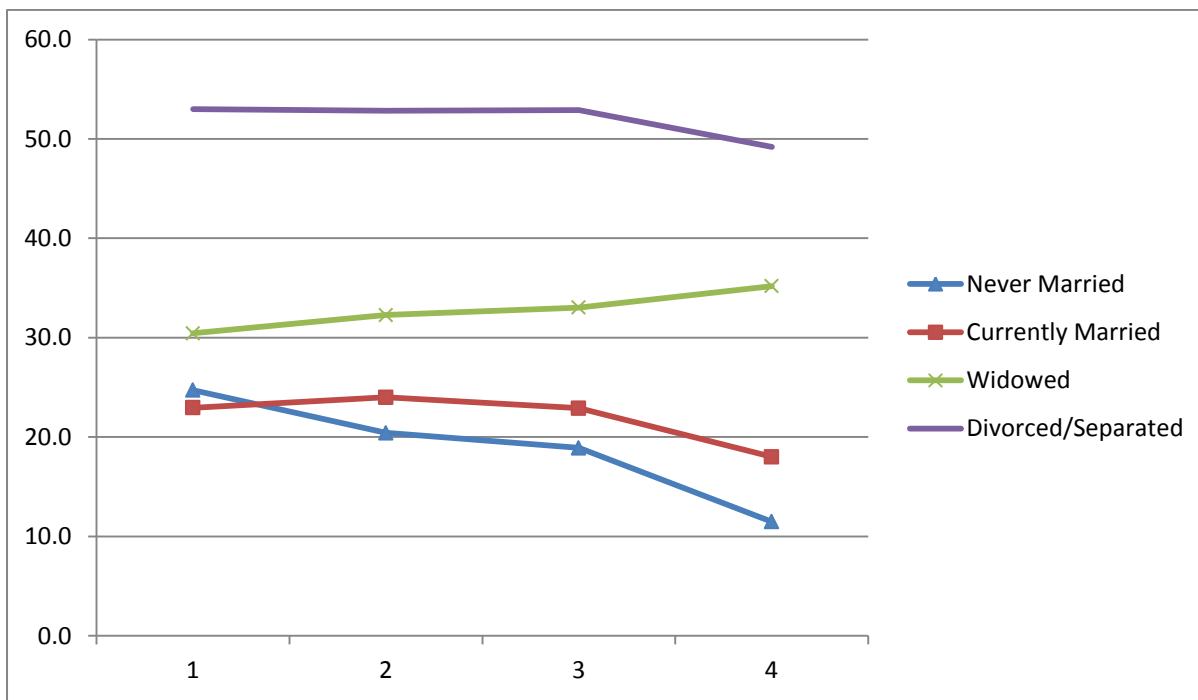
**Table 4: RLFPR by Marital Status, Rural Women**

	1983	1993-94	2004-05	2011-12	Share of Numerator in Total for LFP2, LFP4, LFP6, 1983	Share of Numerator in Total, for LFP2, LFP4, LFP6 2011-12
LFP1						
Never Married	21.6	18.0	15.5	9.2	9.4	9.0
Currently Married	22.8	23.8	22.2	17.7	75.9	76.3
Widowed	30.4	32.2	32.8	35.1	14.7	13.4
Divorced/Separated	NA	52.4	51.9	47.0	0.0	1.3
Total	23.5	24.0	22.2	17.5	100.0	100.0
LFP2						

Never Married	32.7	24.3	23.0	<b>13.5</b>	9.5	<b>9.4</b>
Currently Married	34.2	32.2	31.2	<b>24.8</b>	75.7	<b>76.0</b>
Widowed	46.4	47.2	49.0	<b>49.5</b>	14.9	<b>13.5</b>
Divorced/Separated		60.7	63.6	<b>62.9</b>	0.0	<b>1.2</b>
Total	35.4	32.7	31.5	<b>24.7</b>	100.0	<b>100.0</b>
LFP3						
Never Married	60.5	52.6	47.8	<b>32.1</b>	9.0	<b>8.5</b>
Currently Married	70.3	74.2	75.0	<b>71.8</b>	80.0	<b>83.9</b>
Widowed	66.8	70.7	70.9	<b>67.9</b>	11.0	<b>7.0</b>
Divorced/Separated		84.6	84.8	<b>82.6</b>	0.0	<b>0.6</b>
Total	68.9	71.2	70.7	<b>64.8</b>	100.0	<b>100.0</b>

Source: our estimates

**Figure 4: Marriage and Labour Participation Over Time, Rural India, 1983-2011**



Note: 1:38<sup>th</sup>, 2:50<sup>th</sup>, 3: 61<sup>st</sup>, and 4: 68<sup>th</sup> Rounds,

Source: 38<sup>th</sup>, 50<sup>th</sup>, 61<sup>st</sup>, and 68<sup>th</sup> Rounds, Employment and Unemployment Survey, National Sample Survey of India, women in rural areas, age 14+. This figure uses the official definition of being in the labour force. This variant is above 'narrow' but below our 'medium' definition. The definition used here is: All women working as employees, casual labour or MNREGA, or unemployed. The time periods are as shown in the tables.

#### *Social Group*

The labour force participation of ST and SC women are higher than that of women in non ST/SC households (Table 5). However, we observe that there has a long-term decline in RLFPR for ST and SC women over 1983-2011, for all definitions of labour force participation. However, for non SC-ST women, the decline across the three definitions is mostly observed in 2004-2011. Since ST and SC households are among the poorest among rural households, the long-term decline in their labour force participation is surprising, and suggests that non-income factors may be at work in explaining this decline, possibly related to lack of adequate employment opportunities for these women.

**Table 5: RLFPR by Social Group, Rural Women**

	1983	1993-94	2004-05	2011-12	Share of Numerator in Total for LFP2, LFP4, LFP 6, 1983	Share of Numerator in Total for LFP2, LFP4, LFP 6, 2011-12
LFP1						
ST	40.5	40.8	38.6	29.6	17.6	18.2
SC	39.2	37.2	32.8	24.5	31.4	28.3
Others	16.9	17.8	16.7	13.6	51.0	53.5
Total	23.5	24.0	22.2	17.5	100.0	100.0
LFP2						
ST	49.4	47.8	45.6	35.7	14.3	15.6
SC	48.3	44.2	40.8	31.0	25.7	25.5
Others	30.0	27.2	26.7	21.1	60.0	58.8
Total	35.4	32.7	31.5	24.7	100.0	100.0
LFP3						
ST	83.3	85.8	84.3	78.5	12.4	13.1
SC	78.2	78.9	75.5	69.1	21.4	21.6
Others	64.3	66.9	67.2	61.4	66.2	65.3
Total	68.9	71.2	70.7	64.8	100.0	100.0

Source: our estimates

### *Religion*

There are large differences in labour force participation of rural women by religion, with Hindu and Christian women more likely to be in the labour force than Muslim women (Table 6). However, we see that much of the decline in labour force participation in 2004-2011 has happened among Hindu and Christian women, as well as with women from other religions (not Hindu-Muslim-Christian). We do not observe a similar decline among Muslim women. We also observe that by 2011, there is a narrowing of the difference in participation rates of women from Hindu and Christian women on one hand and Muslim women on the other, when we consider the wide definition of labour force participation. This suggests that while Muslim women do not take part as much as women of other religions in market work, there is little difference between Muslim women and women of other religions in participation in non-market work (that is, work as unpaid helpers or extra-domestic work).

**Table 6: RLFPR by Religion,  
Rural Women**

	1983	1993-94	2004-05	2011-12	Share of Numerator in Total for LFP2, LFP4, LFP 6, 1983	Share of Numerator in Total for LFP2, LFP4, LFP 6, 2011-12
LFP1						
Hindu	24.9	25.6	24.3	18.9	90.5	89.8
Muslim	11.7	10.4	8.1	8.3	4.6	5.6
Christian	27.0	25.5	18.7	20.6	2.8	2.3
Others	17.3	19.4	18.7	14.7	2.2	2.3
Total	23.5	24.0	22.2	17.5	100.0	100.0
LFP2						
Hindu	36.3	33.9	32.9	25.4	87.4	85.8
Muslim	22.5	18.2	17.9	17.8	5.8	8.5
Christian	49.9	42.6	36.3	31.8	3.5	2.6
Others	39.9	34.5	38.2	28.2	3.3	3.1
Total	35.4	32.7	31.5	24.7	100.0	100.0
LFP3						
Hindu	70.0	72.4	72.0	65.8	86.9	84.8
Muslim	54.5	58.6	59.1	58.4	7.2	10.6
Christian	67.5	65.8	67.4	64.0	2.4	2.0
Others	81.0	79.4	75.4	62.5	3.5	2.6
Total	68.9	71.2	70.7	64.8	100.0	100.0

Source: our estimates

### *Education*

As observed in previous studies, we see a clear U shaped relationship between educational level and RLFPR. More importantly from our point of view, we see that that largest decline in labour force participation in 2004-2011 has occurred among illiterate women and women educated at secondary schooling level and above. There is less evidence of a decline in RLFPR among women educated at “intermediate” levels. We also observe that if we use the wide definition of labour force participation, the decline in 2004-2011 among illiterate women is less sharp than for women educated at secondary schooling and above.

**Table 7: RLFPR by Education, Rural Women**

	1983	1993-94	2004-05	2011-12	Share of Numerator in Total for LFP2, LFP4, LFP 6, 1983	Share of Numerator in Total for LFP2, LFP4, LFP 6, 2011-12
LFP1						
Illiterate	26.7	28.8	28.1	22.9	89.2	58.1
Upto Primary	13.5	15.7	17.9	17.4	8.2	21.9
Middle	6.5	9.1	11.7	11.0	1.3	9.3
Sec or High. Sec	11.0	9.4	10.3	8.5	1.0	7.7
Grad. or above	18.8	23.8	21.4	19.8	0.3	2.9
Total	23.5	24.0	22.2	17.5	100.0	100.0
LFP2						
Illiterate	38.0	37.1	36.9	30.4	84.4	54.8
Upto Primary	27.4	25.6	27.1	24.4	11.0	21.8
Middle	20.1	17.3	21.0	17.5	2.6	10.5
Sec or High. Sec	26.6	20.0	21.4	14.8	1.6	9.6
Grad. or above	38.3	44.8	41.4	31.2	0.4	3.3
Total	35.4	32.7	31.5	24.7	100.0	100.0
LFP3						
Illiterate	73.0	77.6	79.0	77.3	83.3	53.1
Upto Primary	58.0	64.2	68.0	66.8	12.0	22.8
Middle	43.4	47.8	55.2	52.7	2.9	12.0
Sec or High. Sec	44.7	44.1	48.3	39.9	1.4	9.9
Grad. or above	62.3	65.6	60.1	56.0	0.3	2.2
Total	68.8	71.2	70.7	64.8	100.0	100.0

Source: our estimates

#### *Household Size*

Household size can be seen as a proxy for caring/domestic work responsibilities for women as there may be less possibilities to work in larger households (Table 8). We find that this is the case with women in larger households less likely to work, under all definitions of labour force participation. We find that there has been a long-term decline in RLFPR for women in households of all sizes using the medium definition of labour force participation for 1983-2011. However, for the narrow and wide definitions, the decline in labour force participation is most clearly observed in 2004-2011, and this is true for women in household of all sizes.

**Table 8: RLFPR by Household Size, Rural Women**

	1983	1993-94	2004-05	2011-12	Share of Numerator in Total for LFP2, LFP4, LFP 6, 1983	Share of Numerator in Total for LFP2, LFP4, LFP 6, 2011-12
LFP1						
Less than 3	38.4	40.1	36.5	29.7	11.1	13.9
3 to 5	29.4	28.2	25.6	19.4	48.5	59.2
More than 5	17.5	17.4	16.3	12.4	40.4	26.8
Total	23.5	24.0	22.2	17.5	100.0	100.0
LFP2						
Less than 3	54.0	51.8	48.3	38.3	10.4	12.8
3 to 5	41.3	37.8	36.3	27.2	45.3	59.2
More than 5	28.9	24.8	23.8	18.1	44.3	28.0
Total	35.4	32.7	31.5	24.7	100.0	100.0
LFP3						
Less than 3	76.1	79.4	76.5	71.5	7.5	9.1
3 to 5	72.2	73.5	72.0	65.9	40.7	54.6
More than 5	65.6	67.7	68.3	61.8	51.7	36.4
Total	68.8	71.2	70.7	64.8	100.0	100.0

Source: our estimates

#### *Poverty and Land Ownership*

We find that women in households at the bottom quartile of the monthly per capita expenditure (MPCE) distribution are more likely to work than women in richer households for all three definitions of labour force participation (Table 9). As before, we see a long-term decline in labour force participation of women across all four quartiles of the MPCE definition for the medium definition. For the narrow and wide definition, the fall in RLFPR occurred mostly in 2004-2011, and this is most pronounced for women in the poorest households.

As with poverty status, we see a long-term decline in RLFPR using the medium definition for households across all sizes of land cultivated (Table 10). Again, we observe the highest decline in labour force participation among women in landless households using the narrow and wide definitions in 2004-2011.



**Table 9: RLFPR By Real Monthly Per Capita Expenditure (MPCE), Rural Women**

	1983	1993-94	2004-05	2011-12	Share of Numerator in Total for LFP2, LFP4, LFP 6, 1983	Share of Numerator in Total for LFP2, LFP4, LFP 6, 2011-12
LFP1						
Bottom Quartile	33.9	33.4	28.4	20.7	36.5	36.2
Lower Bottom Quartile	25.5	24.5	22.8	17.3	26.4	26.5
Lower Top Quartile	20.5	21.0	18.0	16.9	21.0	22.4
Top Quartile	14.5	16.0	14.4	13.7	16.2	14.9
Total	23.5	24.0	21.5	17.5	100.0	100.0
LFP2						
Bottom Quartile	42.9	39.2	34.9	25.7	30.7	32.0
Lower Bottom Quartile	35.8	32.2	30.9	23.9	24.5	26.1
Lower Top Quartile	32.5	30.6	27.8	24.6	22.1	23.1
Top Quartile	30.6	28.3	27.5	24.1	22.7	18.7
Total	35.4	32.7	30.6	24.7	100.0	100.0
LFP3						
Bottom Quartile	74.2	75.9	74.5	69.1	27.3	32.7
Lower Bottom Quartile	68.8	72.6	72.4	66.5	24.3	27.7
Lower Top Quartile	67.8	69.6	68.3	64.1	23.7	23.0
Top Quartile	64.7	66.0	63.4	56.3	24.7	16.6
Total	68.8	71.2	70.1	64.8	100.0	100.0

Source: our estimates

**Table 10: RLFP By Land Cultivated, Rural Women**

	1983	1993-94	2004-05	2011-12	Share of Numerator in Total for LFP2, LFP4, LFP 6, 1983	Share of Numerator in Total for LFP2, LFP4, LFP 6, 2011-12
LFP1						
Landless	38.2	29.0	29.1	19.9	52.4	3.1
<=.5	29.2	29.2	22.2	14.6	12.7	25.6
>.5 & <=2	20.7	22.8	19.5	14.5	18.0	39.5
>2 & <=5	14.2	15.1	13.9	11.0	11.5	23.7
More Than 5	7.0	7.1	7.1	6.9	5.3	8.1
Total	23.5	18.3	16.7	12.5	100.0	100.0
LFP2						
Landless	46.0	37.2	35.9	25.8	41.9	2.5
<=.5	43.4	40.1	35.4	24.6	12.6	26.8
>.5 & <=2	34.5	33.4	29.9	22.5	20.0	38.2
>2 & <=5	27.2	23.9	22.4	17.1	14.7	22.9
More Than 5	21.7	15.4	14.5	13.0	10.9	9.6
Total	35.4	27.7	26.3	20.2	100.0	100.0
LFP3						
Landless	70.2	69.4	66.4	54.7	32.9	1.6
<=.5	69.5	75.1	70.8	64.4	10.4	21.2
>.5 & <=2	69.4	73.0	74.1	69.3	20.7	35.5
>2 & <=5	66.8	70.7	72.7	67.3	18.6	27.3
More Than 5	67.6	72.0	72.4	64.5	17.5	14.4
Total	68.8	72.1	72.5	66.7	100.0	100.0

Source: our estimates

#### *Number of Children in Household*

Caring for young children is seen as an important reason why women do not participate in the labour force. While women in households with more than two male and two female children are less likely to work than those in households with one or less male and female child, we do not see any significant difference in the rate of decline of labour force participation of women in households with no children as compared to households with one or more child (female or male). Nor do we see any observable differences in rates of change in labour force participation among women in households with and without children for all three definitions of labour force participation (Tables 11 and 12)

**Table 11: RLFPR By No of Male Children, Rural Women**

	1983	1993-94	2004-05	2011-12	Share of Numerator in Total for LFP2, LFP4, LFP 6, 1983	Share of Numerator in Total for LFP2, LFP4, LFP 6, 2011-12
<b>LFP1</b>						
No Male Child	25.9	25.8	23.3	18.4	48.3	58.9
Single Male Child	23.6	23.5	22.1	16.8	31.8	27.4
Two Male Children	20.9	21.7	20.9	17.2	14.9	11.6
More Than two Male Children	15.8	16.0	16.2	10.7	5.1	2.1
<b>Total</b>	<b>23.5</b>	<b>24.0</b>	<b>22.2</b>	<b>17.5</b>	<b>100.0</b>	<b>100.0</b>
<b>LFP2</b>						
No Male Child	37.8	34.6	32.9	25.6	46.8	58.3
Single Male Child	35.5	32.1	31.4	24.0	31.8	27.8
Two Male Children	33.0	30.8	29.7	24.1	15.6	11.5
More Than two Male Children	27.2	23.8	23.2	16.8	5.9	2.4
<b>Total</b>	<b>35.4</b>	<b>32.7</b>	<b>31.5</b>	<b>24.7</b>	<b>100.0</b>	<b>100.0</b>
<b>LFP3</b>						
No Male Child	69.2	70.5	69.7	63.4	44.1	54.9
Single Male Child	69.3	72.1	71.2	65.7	31.9	29.0
Two Male Children	69.1	72.3	72.4	67.9	16.8	12.4
More Than two Male Children	64.5	70.2	72.9	70.3	7.2	3.7
<b>Total</b>	<b>68.8</b>	<b>71.2</b>	<b>70.7</b>	<b>64.8</b>	<b>100.0</b>	<b>100.0</b>

**Table 12: RLFPR by Number of Female Children, Rural Women**

	1983	1993-94	2004-05	2011-12	Share of Numerator in Total for LFP2, LFP4, LFP 6, 1983	Share of Numerator in Total for LFP2, LFP4, LFP 6, 2011-12
<b>LFP1</b>						
No Female Child	25.2	25.0	22.6	17.6	51.8	62.3
Single Female Child	23.7	23.4	22.5	18.0	31.0	26.1
Two Female Children	20.6	22.8	20.9	17.4	12.6	9.1
More Than two Female Children	16.7	18.9	18.9	13.0	4.6	2.5
Total	23.5	24.0	22.2	17.5	100.0	100.0
<b>LFP2</b>						
No Female Child	37.1	33.6	32.3	24.7	50.7	62.0
Single Female Child	35.6	32.3	31.3	25.3	30.9	26.1
Two Female Children	32.5	31.9	29.6	24.7	13.2	9.2
More Than two Female Children	28.7	27.3	27.7	20.2	5.2	2.7
Total	35.4	32.7	31.5	24.7	100.0	100.0
<b>LFP3</b>						
No Female Child	68.8	70.7	69.4	63.0	48.4	60.3
Single Female Child	69.9	71.7	71.8	66.8	31.2	26.2
Two Female Children	68.3	72.9	72.9	70.2	14.3	10.0
More Than two Female Children	65.2	70.3	74.2	68.0	6.1	3.5
Total	68.8	71.2	70.7	64.8	100.0	100.0

Source: our estimates

#### *Household Occupational Type*

Female labour force participation is the highest among wage labour households, whether agricultural or non-agricultural labour (Table 13). We see the largest drop in RLFPR among these households for 2004-2011 for all definitions of labour force participation. On the other hand, we see a slight increase in the RLFPR of households in the Others category, which are the richest households in the rural sector (Gang et al. 2008).

**Table 13: RLFPR By Household Type, Rural Women**

	1983	1993-94	2004-05	2011-12	Share of Numerator in Total for LFP2, LFP4, LFP 6, 1983	Share of Numerator in Total for LFP2, LFP4, LFP 6, 2011-12
LFP1						
SENA	10.2	10.0	8.5	7.4	5.0	6.9
AL	55.7	56.1	55.0	41.5	67.3	46.4
OL	36.5	36.0	30.7	22.7	9.4	16.8
SEA	7.8	7.7	7.9	8.6	15.0	18.4
Others	9.2	12.3	10.4	15.1	3.2	11.5
Total	23.5	24.0	22.2	17.5	100.0	100.0
LFP2						
SENA	26.2	22.8	21.1	17.9	8.5	11.9
AL	60.7	59.8	60.2	45.8	48.8	36.3
OL	47.7	46.1	42.2	30.3	8.2	15.9
SEA	23.2	17.9	17.8	15.7	30.0	24.0
Others	19.9	22.5	20.1	21.9	4.6	11.9
Total	35.4	32.7	31.5	24.7	100.0	100.0
LFP3						
SENA	62.5	63.2	63.0	58.1	10.4	14.6
AL	79.7	82.0	81.8	72.9	32.9	22.0
OL	71.0	73.1	69.7	68.2	6.3	13.7
SEA	67.2	70.5	72.4	67.5	44.6	39.3
Others	48.0	52.4	48.1	50.3	5.7	10.4
Total	68.9	71.2	70.7	64.8	100.0	100.0

Note: SENAs: self employed, non-agriculture; AL: agricultural labour; OL: other labour; SEA: self employed, agriculture; Others: Miscellaneous.

Source: our estimates

#### *Differences in RLFPR across States*

Finally, we examine whether there are clear regional differences in RLFPR (Table 14). We find that there is no clear regional pattern emerging – while there has been a decline in RLFPR using the medium and wide definitions for most states in 2004-2011, the rate of decline does not differ by region. This suggests that there are no regional factors at work in explaining the decline in RLFPR using the narrow and wide definitions in 2004-2011 and using the medium definition over the entire period. It is more likely that household specific factors are at work to explain the decline.

**Table 14: RLFPR By States, Rural Women**

	1983	1993-94	2004-05	2011-12	Share of Numerator in Total for LFP2, LFP4, LFP 6, 1983	Share of Numerator in Total for LFP2, LFP4, LFP 6, 2011-12
LFP1						
Andhra Pradesh	46.3	48.9	41.5	39.7	17.1	17.7
Arunachal Pradesh	0.0	4.5	6.5	4.5	0.0	0.0
Assam	10.3	12.9	9.9	6.4	1.0	1.1
Bihar	20.4	17.2	12.1	5.5	9.4	3.8
Goa	18.3	21.1	15.4	20.5	0.1	0.1
Gujrat	26.6	28.9	29.9	18.1	4.9	4.5
Haryana	10.1	10.8	8.4	5.8	1.0	0.7
Himachal Pradesh	2.6	3.2	5.8	18.5	0.1	0.9
Jammu & Kashmir	1.0	2.7	2.4	3.7	0.0	0.2
Karnataka	32.5	33.5	41.3	20.8	7.1	5.8
Kerala	19.9	15.9	17.7	20.4	3.5	3.9
Madhya Pradesh	32.4	32.5	36.2	23.8	10.6	11.1
Maharastra	43.9	45.4	41.2	29.7	14.7	12.6
Manipur	2.0	4.2	4.4	22.1	0.0	0.3
Meghalaya	19.2	11.1	13.7	28.2	0.2	0.4
Mizoram	6.3	1.8	5.7	20.6	0.0	0.1
Nagaland	NA	3.7	3.1	2.2	0.0	0.0
Orissa	25.0	26.0	23.0	14.6	5.1	3.7
Punjab	4.7	5.0	5.3	7.7	0.5	1.0
Rajasthan	10.1	9.9	10.9	21.9	2.1	7.0
Sikkim	6.3	9.9	11.2	38.4	0.0	0.1
Tamil Nadu	40.1	42.4	39.5	40.2	11.8	12.3
Tripura	5.4	8.7	6.7	26.0	0.1	0.6
Uttar Pradesh	8.4	8.4	7.3	6.1	5.8	6.1
West Bengal	13.3	13.8	11.3	12.1	4.7	5.7
Andaman & Nicobar	8.4	10.9	11.6	16.2	0.0	0.0
Chandigarh	0.0	7.5	0.7	5.6	0.0	0.0
Dadra & Nagar Haveli	36.3	31.5	32.5	17.3	0.0	0.0
Delhi	5.2	3.4	1.1	20.0	0.0	0.1
Lakshadweep	NA	6.1	0.3	13.8	0.0	0.0
Pondicheri	34.8	30.1	37.5	20.8	0.1	0.1
Total	23.5	24.0	22.2	17.5	100.0	100.0
LFP2						
Andhra Pradesh	53.4	56.2	50.1	45.7	13.1	14.5
Arunachal Pradesh	100.0	56.0	57.1	36.1	0.0	0.2
Assam	17.2	19.3	12.9	9.8	1.2	1.2
Bihar	27.9	20.0	15.3	8.1	8.5	4.0

Goa	42.0	31.6	24.8	25.1	0.2	0.1
Gujrat	36.1	38.6	38.3	24.7	4.4	4.3
Haryana	18.9	24.3	28.3	15.8	1.3	1.4
Himachal Pradesh	35.0	23.9	34.7	46.1	0.8	1.5
Jammu & Kashmir	15.5	26.9	7.4	17.0	0.4	0.7
Karnataka	43.6	44.5	50.9	27.5	6.3	5.5
Kerala	48.0	34.8	41.3	33.5	5.7	4.6
Madhya Pradesh	36.0	35.8	39.3	26.6	7.8	8.8
Maharastra	56.3	51.8	46.1	33.6	12.5	10.1
Manipur	27.8	26.3	27.5	33.1	0.1	0.3
Meghalaya	58.8	42.6	28.7	35.6	0.3	0.4
Mizoram	17.4	16.9	19.3	30.5	0.0	0.1
Nagaland	NA	18.9	28.7	29.4	0.0	0.1
Orissa	29.9	31.4	31.7	20.7	4.0	3.7
Punjab	36.6	22.8	31.1	24.3	2.5	2.1
Rajasthan	42.2	30.2	25.0	33.2	5.9	7.6
Sikkim	34.3	27.5	17.3	43.3	0.0	0.1
Tamil Nadu	53.8	53.3	53.8	46.7	10.5	10.2
Tripura	9.2	12.0	15.8	36.5	0.1	0.6
Uttar Pradesh	17.4	16.4	15.4	13.9	8.0	9.8
West Bengal	26.2	21.3	21.5	23.6	6.1	7.9
Andaman & Nicobar	12.3	37.7	22.9	27.9	0.0	0.0
Chandigarh	8.6	19.4	1.9	7.1	0.0	0.0
Dadra & Nagar Haveli	45.1	39.4	39.1	18.8	0.0	0.0
Delhi	8.2	12.2	1.1	20.0	0.0	0.1
Lakshadweep	NA	30.2	17.0	25.3	0.0	0.0
Pondicheri	51.8	35.1	48.4	23.0	0.1	0.1
Total	35.4	32.7	31.5	24.7	100.0	100.0
LFP3						
Andhra Pradesh	76.0	79.7	72.5	65.6	9.6	7.9
Arunachal Pradesh	100.0	74.0	71.3	64.2	0.0	0.1
Assam	52.0	55.9	59.9	66.6	1.8	3.2
Bihar	61.2	59.7	62.7	63.4	9.6	11.7
Goa	67.3	56.7	35.5	42.6	0.2	0.1
Gujrat	75.0	75.1	76.5	62.6	4.8	4.2
Haryana	88.2	87.3	75.5	63.1	3.1	2.1
Himachal Pradesh	84.7	88.7	84.0	78.6	1.0	1.0
Jammu & Kashmir	82.9	89.6	59.0	55.2	1.0	0.8
Karnataka	68.4	73.6	77.4	55.0	5.1	4.2
Kerala	55.6	47.9	50.6	45.7	3.4	2.4
Madhya Pradesh	76.2	80.3	79.0	77.9	8.5	9.9
Maharastra	78.3	79.3	73.0	60.3	9.0	6.9
Manipur	64.0	60.8	61.9	54.7	0.2	0.2
Meghalaya	74.1	79.8	78.3	70.3	0.2	0.3
Mizoram	85.3	67.7	73.9	75.3	0.1	0.1
Nagaland	NA	73.1	79.4	68.6	0.0	0.1
Orissa	58.2	63.1	67.6	60.2	4.1	4.1

Punjab	86.9	80.3	74.4	60.4	3.1	2.0
Rajasthan	77.0	86.8	84.5	75.5	5.6	6.6
Sikkim	61.7	52.8	61.7	73.8	0.0	0.1
Tamil Nadu	76.6	77.3	77.1	59.8	7.7	5.0
Tripura	17.1	24.2	23.0	54.3	0.1	0.3
Uttar Pradesh	61.6	64.6	66.1	65.2	14.5	17.5
West Bengal	60.6	70.1	71.6	71.9	7.2	9.1
Andaman & Nicobar	77.5	77.3	53.6	60.5	0.0	0.0
Chandigarh	72.4	39.8	68.4	38.9	0.0	0.0
Dadra & Nagar Haveli	87.1	86.4	91.4	87.9	0.0	0.0
Delhi	73.0	49.1	29.6	31.0	0.1	0.1
Lakshadweep	NA	33.1	20.2	54.4	0.0	0.0
Pondicheri	68.6	70.1	60.6	36.5	0.1	0.0
Total	68.8	71.2	70.7	64.8	100.0	100.0

Source: our estimates

### *A Summary*

There are four main findings from this section: a) the behaviour of RLFPR using the medium definition shows a long-term decline that predates the 2000s. We do not observe a similar long-term decline using the narrow and wide definitions, suggesting that the determinants of declining self-employment for rural women may not be the same as that for wage work and non-market work; b) we see a clear decline in RLFPR using the narrow and wide definitions in 2004-2011, especially among unmarried women in landless and the poorest households, across all social groups; c) at the other end of the spectrum, we see a fall in RLFPR among more educated women, and d) we see no clear substitution for non-market work from market work over time, indicating that the lack of employment opportunities for women cannot be seen as the main driver of declining RLFPR.

## **V. CONCLUSIONS**

The labour force participation of rural women in India has been historically low, in comparison to other developing countries. The already low rate of rural female labour force participation took a turn for the worse in 2004-2011. In this paper, we look at thirty years of comparable NSS data from 1983 to 2011 of rural women's participation in the labour force using a variety of definitions of female labour force participation that capture both market and non-market work. We find that the sharp drop in female labour force participation (FLP) in 2004-2011 occurs in both narrow and wide definitions of FLP, but that there is a long-term decline in FLP of rural women using the medium definition that takes into account market work (wage work and self-employed) but not non-market work (extra-domestic work and unpaid helpers). We observe that the largest drop occurs in illiterate unmarried women in labourer households. We do not find any geographic concentration of the decline in FLP. The long-term decline in self-employment in rural women (the medium definition) suggests that more secular factors of FLP were at work, and not necessarily linked to economic reforms or more recent changes in the rural structure of the economy. Our analysis highlights the somewhat contradictory behaviour of FLP across different definitions and time periods, and across different correlates of female labour force participation, and suggests that more complex factors are at work



than has usually been discussed in the literature. Our task in future research is to examine more systematically what these factors may be.

## References

- Abraham, V.J. (2009): "Employment Growth in Rural India: Distress-Driven?", *Economic & Political Weekly*, 18<sup>th</sup> April.
- Banerjee, N. (1995): Sexual Division of Labour. Myths and Reality in the Indian Context, in Bagchi, J. (Ed.): *Indian Women. Myth and Reality*, Hyderabad: Sangam Books.
- Breman, J. (2007): "The Poverty Regime in Village India", *Oxford University Press*
- Census of India 2011 (2011): "Provisional Population Totals Paper 1 of 2011", Government of India, Chapter 5.
- Chowdhury, S. (2011): "Employment in India: What Does the Latest Data Show?", *Economic & Political Weekly*, 6<sup>th</sup> August.
- Das, M.B., (2006): "Do Traditional Axes of Exclusion Affect Labour Market Outcomes in India", *Social Development Papers South Asia Series*, Paper No.97.
- Drèze, J. & Srinivasan, P.V. (1997): "Widowhood and Poverty in Rural India", *Journal of Development Economics*, Vol.54 p.217-234.
- Frank Ellis (1993), *Peasant Economics*, 2<sup>nd</sup> ed. Wye Studies in Agricultural and Rural Development. Cambridge: CUP.
- Gang, Ira N., Kunal Sen, and Myeong-Su Yun, 2008. Poverty In Rural India: Caste And Tribe, *Review of Income and Wealth*, 54:1, 50-70.
- Goldin, C. (1994) "The U-Shaped Female Labor Force Function in Economic Development and Economic History", NBER Working Paper, #4707, April. National Bureau of Economic Research: Cambridge, Mass.
- Goldin, C. (2014) "A Grand Gender Convergence: Its Last Chapter", *American Economic Review*, 104(4): 1091–1119. <http://dx.doi.org/10.1257/aer.104.4.1091>
- Government of India (2006): "Social, Economic and Educational Status of the Muslim Community of India".
- Harriss-White, B. (2004): "India Working: Essays on Society and Economy", *Cambridge University Press*
- Himanshu (2011): "Employment Trends in India: A Re-examination", *Economic & Political Weekly*, 10 September. [http://mospi.nic.in/Mospi\\_New/upload/nss\\_report\\_559\\_10oct14.pdf](http://mospi.nic.in/Mospi_New/upload/nss_report_559_10oct14.pdf), accessed Dec. 2014.
- Jeffrey, C., Jeffery, R. & Jeffery, P. (2004): "Degrees without Freedom: The Impact of Formal Education on Dalit Young Men in North India", *Development and Freedom* Vol. 35(5) 963-986
- Kannan, K.P., and Raveendran, G. (2012): Counting and Profiling the Missing Labour Force, *Economic and Political Weekly*, 11<sup>th</sup> February.
- Klasen, S. and J. Pieters (2012), *Push or Pull? Drivers of Female Labour Force Participation during India's Economic Boom*, IZA working paper no. 6395.
- Kingdon, G, and J, Unni (2001), "Education and Women's Labour Market Outcomes in India", *Education Economics*, Vol. 9(2), pp. 173-194.
- Mazumdar, I. & Neetha, N. (2011): "Gender Dimensions: Employment Trends in India, 1993-94 to 2009-10", *Economic & Political Weekly*, 22<sup>nd</sup> October.
- National Sample Survey (1984) 38<sup>th</sup> Round questionnaire, Section 10, Unemployment & Employment Survey, National Sample Survey of India. Obtained via the NSSO website ([www.mospi.in](http://www.mospi.in) or [http://mospi.nic.in/Mospi\\_New/site/inner.aspx?status=3&menu\\_id=36](http://mospi.nic.in/Mospi_New/site/inner.aspx?status=3&menu_id=36)), accessed Dec. 2014.
- NSS (2012), at URL [http://mospi.nic.in/Mospi\\_New/upload/nss\\_report\\_559\\_10oct14.pdf](http://mospi.nic.in/Mospi_New/upload/nss_report_559_10oct14.pdf), Accessed 2014.
- National Sample Survey (various years), 38<sup>th</sup>, 50<sup>th</sup>, 61<sup>st</sup>, and 68<sup>th</sup> Rounds, Employment and Unemployment Survey, National Sample Survey of India. Data obtained via the NSSO website ([www.mospi.in](http://www.mospi.in))
- Olsen, W.K. and Smita Mehta (2007) "A Pluralist Account of Labour Participation in India", chapter in *Workers' Participation in Management: An Introduction*, eds. Debdatta Gupta and Sanjeev Kumar Singh, Delhi: Icfai University Press, December, 2007. (The full version is accessible at URL <http://www.gprg.org/pubs/workingpapers/pdfs/gprg-wps-042.pdf>, "A Pluralist Account of Labour Participation in India", W.K. Olsen and S. Mehta, Global Poverty Research Group Working Paper 42, 2006.)
- Olsen, Wendy, and S. Mehta (2006) "The Right to Work and Differentiation in Indian Employment", *Indian Journal of Labour Economics*, 49:3, July-Sept., 2006, pages 389-406.
- Rangarajan, C., Padma Iyer Kaul & Seema (2011): "Where Is the Missing Labour Force?" *Economic & Political Weekly*, 24<sup>th</sup> September.
- Rodgers, J.(2012). *Labour Force Participation in Rural Bihar: A Thirty-Year Perspective Based on Village Surveys*, IHD working paper 04/2012. Delhi: Institute for Human Development, URL [http://www.ihdindia.org/PDFs/Labour\\_Force\\_Participation\\_in\\_Rural\\_Bihar\\_A\\_Thirty-Year\\_Perspective\\_based\\_on\\_Village\\_Surveys.pdf](http://www.ihdindia.org/PDFs/Labour_Force_Participation_in_Rural_Bihar_A_Thirty-Year_Perspective_based_on_Village_Surveys.pdf), accessed Dec. 2014.
- Srinivasan, T.N. (2010): "Employment and India's Development and Reforms", *Journal of Comparative Economics*, Vol.38 p.82–106.

- Srivastava, N. & Srivastava, R. (2010): “Women, Work, and Employment Outcomes in Rural India”, *Economic & Political Weekly*, 10<sup>th</sup> July.
- World Bank (2010): *India’s Employment Challenge. Creating Jobs, Helping Workers*, The World Bank, New Delhi: Oxford University Press.
- World Bank (2012): *Gender Equality and Development*, Washington D.C., The World Bank.