# A COMPARATIVE ANALYSIS OF LOW AND DECLINING TRENDS OF FEMALE LABOUR FORCE PARTICIPATION IN RURAL UTTAR PRADESH AND WEST BENGAL 

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#### Abstract

Based on unit-level data of three rounds of the Employment-Unemployment Surveys $\left(68^{\text {th }}, 61^{\text {st }}\right.$ and $50^{\text {th }}$ ) and two rounds of the Periodic Labour Force (2017-18 and 2018-19) Surveys of the NSS, this paper examines trends in women's labour force and work force in the two Indian states of Uttar Pradesh and West Bengal since 1993-94. A comparative analysis of women's participation in the labour markets of the two Indian states shows the significance of occupational diversification in explaining the varying trends in the pattern of female employment. It explores the relevance of the nature of female employment in understanding the sustainability of such employment pattern as exists over time. Our paper highlights the extreme vulnerability attached to the self-employed status of women, be it in farm or non-farm work that women in rural U.P. and W.B. engage in and urges on the importance of publicly sponsored employment generation programmes like MNREGA as a viable alternative employment option, especially for women in rural areas. Given the abysmally low levels of participation of women in the labour markets of both U.P. and W.B., does the explanation lie in economic factors such as lack of jobs alone or do gender biased cultural norms also play a role? Our analysis suggests that it is a combination of both these factors to which a low and declining women's participation in labour markets must be attributed to.


Keywords: Rural labour market, Female labour force participation, Workforce participation, Rural non-farm employment, Pattern of Employment, Occupational Diversification.

## 1. Introduction

In a country where women constitute nearly 50 percent of the total population, the sharp and continuous decline in female labour force participation since 2004-05 is a cause of major concern. Compared to the global average of 47.3 in 2019, female labour force participation rate (FLFPR) at 23.6 in South Asia is one of the lowest in the world (WDI, 2019). India, the largest country in South Asia, had the lowest rate of female participation in the labour market among all the countries in the region. At 20.8, India ranks even below Pakistan and Afghanistan which had marginally higher FLFPRs of 21.7 and 21.8 in 2019 (Chart $\mathrm{A}_{1}$ ). What is even more worrying is that the female labour force to population ratio has been declining consistently in India (from an already very low base) since 2004-05, while in all other neighbouring countries, it has been either increasing or is constant (with the exception of Sri Lanka where the rate is much higher at 33.5 and the decline has been much slower than in India).

The adverse implications of such abysmally low participation rates of women in the labour market at both the macro and micro levels in a society have been widely documented (Kabeer, 2003). It has been noted that a rise in women's participation in economic activities with a package of pro-growth and pro-women policies can boost the growth rate by 2 percentage points over time (OECD, 2015). Female employment is crucial not just because of the positive effect it has on their own quality of life, but it also significantly improves the living standard of the entire household.

Most studies have explained declining female labour force participation rates by looking at allIndia trends. There is a vacuum of state level analysis on the subject. This paper seeks to examine women's participation in the labour markets of two Indian states of Uttar Pradesh (U.P.) and West Bengal (W.B.). Both U.P. and W.B. have consistently had lower than All-India average levels of female labour force participation rates over time (Table $A_{1}$ ). They rank among the lowest in the country in terms of FLFPR, especially in rural areas. Both states have a monthly per capita net state domestic product (averaged over the last nine years covering 2011-12 to 2019-20) of Rs. 3185 (U.P.) and Rs. 4944 (W.B.) that is below the All-India average of Rs. 6536 (RBI, 2019-20). In terms of other crucial socio-economic indicators such as poverty (SDG-1) and gender equality (SDG-5), both U.P. and W.B. lag behind the front-runners by a fair margin according to the Niti Ayog's Report on SDG India 2020-21. Yet, despite these apparent similarities, crucial differences exist in the trends and pattern of women's labour force and work force participation between the two states.

This paper, examining trends in female participation in the labour markets of rural U.P. and W.B., is based on an analysis of unit level data of three rounds of the EmploymentUnemployment Surveys $\left(68^{\text {th }}, 61^{\text {st }}\right.$ and $\left.50^{\text {th }}\right)$ and two rounds of the Periodic Labour Force (2017-

18 and 2018-19) Surveys of the NSS. It seeks to analyse trends in the pattern of female employment in rural U.P. and W.B. It explores the reasons behind the abysmal participation rates of women in the labour markets of both the states. How crucial is the diversification of employment in explaining the varying trends and pattern of female workforce in the two states over time? More specifically, how relevant is the nature of rural non-farm employment, especially for women, in explaining the sustainability of such employment as exists over time? Given the abysmally low FLFPRs of both U.P. and W.B., does the explanation lie solely in terms of economic factors or do gender biased cultural norms also play a role in constraining women from participating in paid work? These are some of the crucial issues that this paper will attempt to address.

The existing literature on the subject focuses mainly on four factors explaining the abysmally low and declining participation of women in the labour market of India. Firstly, there is a growing literature on the narrow and inadequate conceptualization of women's work by the official Indian data sources like the NSSO which results in underestimation of women's economic activities (Hirway, 2012; Deshpande and Kabeer, 2019; Desai and Joshi, 2019).

Hirway(2012) emphasizes on the underestimation of women's work by the NSS owing to the non-inclusion of economic activities (such as activities related to agricultural production, processing of primary products and other activities for own consumption) that are mostly performed by women. She highlights that though these activities are included in UN-SNA, the Indian System of National Accounts excludes them on the grounds that the participation of women in these activities is very marginal. In this regard, the importance of time-use surveys has been highlighted. ${ }^{1}$

Drawing on data collected through primary survey carried out in seven districts of West Bengal between July and September 2017 with a sample size of 3701 women and 1817 men, Deshpande and Kabeer (2019) have adopted a broader and more inclusive measure of women's labour force activity, relative to the definition used by the NSS. Using the conventional definition, they arrived at an estimate of FLFPR of 27.85 percent, compared to a much higher estimate of 52 percent when expenditure-saving was added to the conventional economic activity of women.

Similarly, Desai and Joshi's (2019) findings supplement those of Deshpande and Kabeer's (2019) whose conceptualization of women's work also suggests a narrow and somewhat inaccurate method of data collection by the NSSO which does not fully capture the true extent of work done by women. Their research has highlighted the heavily fragmented, informal and selfemployed nature of work that most women engage in, but which does not get captured even in

[^0]NSS' subsidiary status definition, if the activity does not meet the threshold of 30 days. For instance, their study has shown that if work participation rates (WPRs) were to be collected using time-use data, 58 percent (as opposed to only 25 percent using NSS methodology for 1999-2000) of the rural women in six states of Haryana, Madhya Pradesh, Gujarat, Odisha, Tamilnadu and Meghalaya for 1998-99 would be considered employed.

Secondly,_supply side optimistic explanations of declining FLFPR have emphasised on rising household incomes and rising levels of education (Desai and Joshi, 2019; Mehrotra and Sinha, 2017; Abraham, 2013; Srivastava and Srivastava, 2010). This emphasis on increasing enrolment rates of women in educational institutions as an explanation of their withdrawal from the labour market has however been contested by others on the grounds that the decline can be seen across all age groups and is not particularly restricted to women of school-going age-groups (Kannan and Raveendran, 2012; Desai and Joshi, 2019). For instance, Kannan and Raveendran (2012) point out that as much as 72 percent of the women who dropped out of the labour force were in the age group of 25 years and above. Desai and Joshi (2019) on the other hand point out that the sharpest decline in WPR is infact for rural women who are either illiterate or have less than primary education.

Thirdly, the pessimistic demand side interpretation of declining FLFPR suggests that it is the absence of suitable jobs rather than women's voluntary withdrawal from the labour market that accounts for the declining FLFPR (Kannan and Raveendran, 2019; Deshpande and Kabeer, 2019; Desai and Joshi, 2019; Menon, 2019).

Finally, the role played by social and cultural norms in shaping women's response to changing employment conditions has also been highlighted in the existing literature on the subject (Jayachandran, 2019; Deshpande and Kabeer, 2019). The interpretation of cultural norms which prevent women from participating in paid work outside of their homes varies widely in the existing literature on the subject. For instance, social and cultural norms that constrain women's employment have been perceived by some in terms of restrictions on women's mobility and their social interactions, concern for women's safety owing to the threat of sexual harassment in public spaces, intimate partner violence, lack of control over their earnings from paid work etc. (Jayachandran, 2019). Others have interpreted these norms in terms of the heavy burden of domestic duties and care for the old and young children that fall disproportionately on women and thus, keeps them away from the labour market (Deshpande and Kabeer, 2019).

This paper is divided into six sections. Section two examines the trends in female labour force and work force participation rates in rural U.P. and W.B. in relation to All-India. Section three analyses the employment pattern of rural women workers by industry. The category of farm and non-farm work of female employment has been looked at in section four. This is followed by an

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investigation into the plausible reasons in terms of both economic and non-economic factors that constrain women's participation in paid work. Finally, section six presents a few concluding remarks.

## 2. Trends and Distribution of Female Labour Force

## 2.1: Sectoral Distribution of Female Labour Force

A comparison of the sectoral distribution of female labour force between the two states reveals that U.P. is more rural than urban relative to West Bengal. Based on the data from PLFS 201819, we find that rural U.P. accounts for as much as 83.5 percent of the total female labour force, whereas this figure for W.B. and even India was lower at 63.1 and 72 percent respectively. This difference in the sectoral distribution of male labour force between U.P. and W.B. is not as stark as it is in the case of females. As much as 77 percent of the male labour force in U.P., 66 percent in W.B. and 68 percent in India are in the rural sector (Chart 1a).

Women constitute a mere 15.8 percent of the total (male + female) labour force in rural U.P. in 2018-19. This has almost reduced to half of what it was in 2004-05 (Table 1). Their share in the urban labour force is even less at just 11.1 percent in 2018-19. In Bengal, women's share in the rural labour force is marginally higher at 19.6 percent. This has declined from 23.2 in 1993-94 to 19.6 percent in 2018-19. Clearly, the decline in Bengal is not as sharp as it is in the case of U.P. The percentage share of women in the total rural labour force of both U.P. and W.B. is lower than the All-India average of 25.1 percent. Moreover, unlike in U.P., women's share in the urban labour force of Bengal has been continuously rising from 18.3 to 23.3 percent

between 1993-94 and 2018-19.In other words, women's share in the total urban labour force of Bengal is more than double of that in U.P.

### 2.2 Trends in Labour Force and Work Force Participation Rates

Table 2 shows the continuous decline, from already existing low levels, in female labour force and work force participation rates since 2004-05 in rural and urban areas of U.P. and India. In W.B., this decline can be seen from 1993-94 in rural areas, whereas urban areas have registered an increase from 2004-05 onwards.

So sharp has been the decline in women's labour force since 2004-05, especially in U.P., that by 2018-19, a mere 14.8 percent of women in rural U.P. and 20.9 in W.B., relative to 26.4 percent in India, were in the labour force. FLFPRs in urban U.P. and India are lower still at an abysmal 9.7 and 20.4 percent respectively, compared to the relatively higher rate of nearly 25 percent for urban W.B.

In absolute terms, the overall period between 2004-05 and 2018-19 saw a sharp decline in female labour force in rural U.P. from 15.5 to 8.5 million (Chart 1b). In W.B., this decline from 5.14 to 5.02 million was relatively modest, when compared even with the All-India decline from 120.65 to 84.1 million during this period. The gender gap in terms of labour force participation is evident from Charts 1 b and 1 c . While men's labour force never saw a decline in absolute terms, women on the other hand, registered a sharp and continuous decline after 2004-05 in U.P. and India, and after 2011-12 in W.B.

If we look at the percentage change in women's labour force over time, we find that after a rise in the initial period between 1993 and 2005, there is a decline in female labour force from 200405 onwards (Charts 1d and 1e). This decline is much sharper for women in rural U.P. than it is in rural Bengal. Female labour force declined by nearly 46 percent in rural U.P. compared to a 2.3 percent decline in W.B., and a 30 percent decline for All-India during 2004-05 and 2018-19. In U.P., a decline of 18 percent ( 2.03 to 1.7 million) could be seen in women's labour force in urban areas too, whereas both urban Bengal and India witnessed a rise by 71 ( 1.86 to 3.2 million) and 25 percent ( 26.2 to 32.7 million) respectively during this period.

What accounts for such a steep decline in female labour force in rural U.P. compared to Bengal in the period following 2004-05? Could such varying trends in female labour force participation between the two states be attributed to the differential pattern of employment? The next section analyses the pattern of female employment in the two states relative to All-India.

Table 2: LFPRs and WFPRs (Per 100) by UPSS, (15+ Age-group)

| Sex | Year | Rural |  |  | Urban |  |  | Rural |  |  | Urban |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | LFPR |  |  |  |  |  | WFPR |  |  |  |  |  |
|  |  | U.P. | W.B. | All- <br> India | U.P. | W.B. | All- <br> India | U.P. | W.B. | All- <br> India | U.P. | W.B. | All- <br> India |
| Female | 2018-19 | 14.8 | 20.9 | 26.4 | 9.7 | 24.8 | 20.4 | 14.6 | 20.6 | 25.5 | 9.2 | 23.8 | 18.4 |
|  | 2017-18 | 14.2 | 19.8 | 24.6 | 11.1 | 23.0 | 20.4 | 14.0 | 19.5 | 23.7 | 9.9 | 21.6 | 18.2 |
|  | 2011-12 | 27.4 | 26.4 | 35.8 | 14.7 | 22.9 | 20.5 | 27.2 | 25.8 | 35.3 | 14.2 | 21.4 | 19.5 |
|  | 2004-05 | 39.1 | 26.8 | 49.4 | 17.5 | 21.0 | 24.4 | 39.0 | 25.9 | 48.5 | 17.0 | 19.2 | 22.7 |
|  | 1993-94 | 34.7 | 29.1 | 49.1 | 16.2 | 21.9 | 23.8 | 34.6 | 28.6 | 48.7 | 16.1 | 18.6 | 22.3 |
| Male | 2018-19 | 74.0 | 83.0 | 76.4 | 70.6 | 77.1 | 73.7 | 70.5 | 79.9 | 72.2 | 62.9 | 73.0 | 68.5 |
|  | 2017-18 | 75.6 | 81.3 | 76.4 | 73.4 | 75.1 | 74.5 | 71.0 | 77.7 | 72.0 | 66.5 | 70.2 | 69.3 |
|  | 2011-12 | 81.5 | 85.0 | 81.3 | 77.6 | 77.8 | 76.4 | 80.7 | 82.9 | 79.9 | 74.4 | 74.4 | 74.1 |
|  | 2004-05 | 85.4 | 86.6 | 85.9 | 80.2 | 79.3 | 79.2 | 84.8 | 84.8 | 84.6 | 77.7 | 74.8 | 76.2 |
|  | 1993-94 | 88.4 | 89.7 | 87.6 | 79.0 | 81.5 | 80.0 | 87.6 | 88.1 | 86.4 | 76.4 | 76.3 | 76.8 |

Source: NSSO Various Rounds, Unit Level Data


Source: NSSO Various Rounds, Unit Level Data

Chart 1c: Rural Male Labour Force (in million) by UPSS (15+ Age-group)


[^1]
## Chart 1d: Percentage Change in Rural Female Labour Force



Source: NSSO Various Rounds, Unit Level Data

Chart 1e: Percentage Change in Rural Male Labour Force


Source: NSSO Various Rounds, Unit Level Data

## 3. Pattern of rural women's employment

In order to understand the decline in female labour force participation, we need to first and the foremost know where exactly are rural women employed and how has the pattern of employment been changing over time. In doing so, our focus will be on women in the rural sectors of U.P., W.B. and India.

### 3.1. Distribution of rural women workers by industry

Table 3.1shows the industry-wise distribution of rural women workers in U.P., W.B. and India.U.P. is marked by a near complete absence of women in rural industry and services. This is reflected in the fact that women's share of employment in rural industry is a mere 8.4 percent in 2018-19, while only about 10 percent are employed in services in the rural sector.

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Table 3.1: Distribution of Work force (in million) by Industry (UPSS; 15+ Age-group)

| Sex | Year | Agriculture <br> Activities $\boldsymbol{\&} \quad$ Allied |  |  | Industry |  |  | Services |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | U.P. | W.B. | AllIndia | U.P. | W.B. | AllIndia | U.P. | W.B. | AllIndia |
| Female | 2018-19 | $\begin{aligned} & 6.76 \\ & (81.2) \end{aligned}$ | $\begin{aligned} & 2.22 \\ & (44.9) \\ & \hline \end{aligned}$ | $\begin{aligned} & 57.61 \\ & (71.0) \end{aligned}$ | $\begin{aligned} & 0.70 \\ & (8.4) \\ & \hline \end{aligned}$ | $\begin{aligned} & 1.75 \\ & (35.3) \\ & \hline \end{aligned}$ | $\begin{aligned} & 12.39 \\ & (15.3) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.87 \\ & (10.4) \end{aligned}$ | $\begin{aligned} & 0.98 \\ & (19.8) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 11.11 \\ & (13.7) \\ & \hline \end{aligned}$ |
|  | 2017-18 | $\begin{aligned} & \hline 5.89 \\ & (75.0) \end{aligned}$ | $\begin{aligned} & \hline 2.42 \\ & (52.1) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 54.51 \\ & (73.2) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.93 \\ & (11.8) \end{aligned}$ | $\begin{aligned} & \hline 1.25 \\ & (27.0) \\ & \hline \end{aligned}$ | $\begin{aligned} & 10.19 \\ & (13.7) \end{aligned}$ | $\begin{aligned} & \hline 1.03 \\ & (13.2) \end{aligned}$ | $\begin{aligned} & \hline 0.97 \\ & (20.9) \end{aligned}$ | $\begin{aligned} & \hline 9.79 \\ & (13.1) \\ & \hline \end{aligned}$ |
|  | 2011-12 | $\begin{aligned} & \hline 10.69 \\ & (82.9) \\ & \hline \end{aligned}$ | $\begin{aligned} & 2.35 \\ & (41.9) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 73.43 \\ & (74.9) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 1.38 \\ & (10.7) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 2.50 \\ & (44.6) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 16.31 \\ & (16.6) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 0.82 \\ & (6.4) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 0.75 \\ & (13.4) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 8.24 \\ & (8.4) \\ & \hline \end{aligned}$ |
|  | 2004-05 | $\begin{aligned} & \hline 13.50 \\ & (87.1) \\ & \hline \end{aligned}$ | $\begin{aligned} & 2.95 \\ & (59.5) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 98.84 \\ & (83.4) \\ & \hline \end{aligned}$ | $\begin{aligned} & 1.20 \\ & (7.7) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 1.42 \\ & (28.7) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 11.81 \\ & (10.0) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 0.81 \\ & (5.2) \end{aligned}$ | $\begin{aligned} & 0.59 \\ & (11.8) \end{aligned}$ | $\begin{aligned} & \hline 7.83 \\ & (6.6) \\ & \hline \end{aligned}$ |
|  | 1993-94 | $\begin{aligned} & 10.02 \\ & (90.1) \end{aligned}$ | $\begin{aligned} & \hline 2.61 \\ & (60.0) \end{aligned}$ | $\begin{aligned} & \hline 82.48 \\ & (86.3) \end{aligned}$ | $\begin{aligned} & \hline 0.54 \\ & (4.9) \end{aligned}$ | $\begin{aligned} & 1.32 \\ & (30.5) \end{aligned}$ | $\begin{aligned} & \hline 7.75 \\ & (8.1) \end{aligned}$ | $\begin{aligned} & \hline 0.57 \\ & (5.1) \end{aligned}$ | $\begin{aligned} & \hline 0.41 \\ & (9.5) \end{aligned}$ | $\begin{aligned} & 5.33 \\ & (5.6) \end{aligned}$ |
| Male | 2018-19 | $\begin{aligned} & \hline 24.73 \\ & (57.6) \\ & \hline \end{aligned}$ | $\begin{aligned} & 9.94 \\ & (50.0) \end{aligned}$ | $\begin{aligned} & 125.87 \\ & (53.1) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 10.67 \\ & (24.8) \\ & \hline \end{aligned}$ | $\begin{aligned} & 4.99 \\ & (25.1) \end{aligned}$ | $\begin{aligned} & \hline 55.94 \\ & (23.6) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 7.56 \\ & (17.6) \end{aligned}$ | $\begin{aligned} & 4.94 \\ & (24.9) \end{aligned}$ | $\begin{aligned} & \hline 55.11 \\ & (23.3) \\ & \hline \end{aligned}$ |
|  | 2017-18 | $\begin{aligned} & 24.08 \\ & (56.6) \\ & \hline \end{aligned}$ | $\begin{aligned} & 9.75 \\ & (50.7) \\ & \hline \end{aligned}$ | $\begin{aligned} & 128.33 \\ & (54.9) \\ & \hline \end{aligned}$ | $\begin{aligned} & 10.91 \\ & (25.6) \\ & \hline \end{aligned}$ | $\begin{aligned} & 4.95 \\ & (25.8) \end{aligned}$ | $\begin{aligned} & 53.99 \\ & (23.1) \end{aligned}$ | $\begin{aligned} & \hline 7.53 \\ & (17.7) \end{aligned}$ | $\begin{aligned} & \hline 4.51 \\ & (23.5) \end{aligned}$ | $\begin{aligned} & 51.29 \\ & (22.0) \\ & \hline \end{aligned}$ |
|  | 2011-12 | $\begin{aligned} & 23.57 \\ & (57.3) \\ & \hline \end{aligned}$ | $\begin{aligned} & 10.79 \\ & (56.8) \\ & \hline \end{aligned}$ | $\begin{aligned} & 136.58 \\ & (59.3) \\ & \hline \end{aligned}$ | $\begin{aligned} & 10.87 \\ & (26.4) \end{aligned}$ | $\begin{aligned} & \hline 4.34 \\ & (22.8) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 50.58 \\ & (22.0) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 6.71 \\ & (16.3) \end{aligned}$ | $\begin{aligned} & \hline 3.86 \\ & (20.3) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 43.11 \\ & (18.7) \\ & \hline \end{aligned}$ |
|  | 2004-05 | $\begin{aligned} & 24.28 \\ & (66.1) \\ & \hline \end{aligned}$ | $\begin{aligned} & 11.0 \\ & (64.1) \end{aligned}$ | $\begin{aligned} & 142.60 \\ & (66.4) \end{aligned}$ | $\begin{aligned} & \hline 6.43 \\ & (17.5) \\ & \hline \end{aligned}$ | $\begin{aligned} & 2.40 \\ & (14.0) \end{aligned}$ | $\begin{aligned} & 33.70 \\ & (15.7) \\ & \hline \end{aligned}$ | $\begin{aligned} & 6.04 \\ & (16.4) \end{aligned}$ | $\begin{aligned} & 3.75 \\ & (21.9) \end{aligned}$ | $\begin{aligned} & 38.59 \\ & (18.0) \\ & \hline \end{aligned}$ |
|  | 1993-94 | $\begin{aligned} & 24.05 \\ & (76.1) \end{aligned}$ | $\begin{aligned} & 9.31 \\ & (64.7) \end{aligned}$ | $\begin{aligned} & 131.56 \\ & (73.7) \end{aligned}$ | $\begin{aligned} & 3.17 \\ & (10.1) \end{aligned}$ | $\begin{aligned} & 2.08 \\ & (14.5) \end{aligned}$ | $\begin{aligned} & 20.0 \\ & (11.2) \end{aligned}$ | $\begin{aligned} & 4.36 \\ & (13.8) \end{aligned}$ | $\begin{aligned} & 2.99 \\ & (20.8) \end{aligned}$ | $\begin{aligned} & 26.90 \\ & (15.1) \end{aligned}$ |

Source: NSSO Various Rounds, Unit Level Data. Figures within bracket represent percentage distribution of workforce by industry.

There is heavy concentration of female workers in agriculture and allied activities (AAA). The share of agriculture in total female workforce in the rural sector declined consistently from 90 to 75 percent between 1993-94and 2017-18. However, the most recent period between 2017-18 and 2018-19 has witnessed a substantial increase in the share of agriculture in female workforce in rural U.P. from 75 to 81.2 percent.

In sharp contrast to the case of U.P. and also in relation to All-India, we find that there is a substantial presence of women workers in rural industry and services in Bengal. While agriculture absorbs nearly 45 percent of the female workforce, the shares of rural industry and services in total female employment are substantially higher at 35.3 and 20 percent respectively in 2018-19. The percentage shares of agriculture, industry and services in total female workforce in rural Bengal remained roughly stable at around 60, 30 and 10 percent till 2004-05. Thereafter, there was a sharp increase in the share of rural industry from 29 to 45 percent between 2004-05 and 2011-12. This was accompanied by an equally sharp decline in the share of agriculture in total female workforce from 60 to 42 percent. The period after 2011-12 has once again seen an increase in the percentage of women workers in agriculture and a decline in industry.

At the All-India level, even though there has been a consistent decline in the share of agriculture in rural employment of women between 1993-94 and 2018-19, its share at 71 percent in 2018-19 is still very high, implying a dominance of agriculture in overall female workforce in rural India.

## 3.2: Pattern of rural women's employment within agriculture

In terms of percentage change of women's workforce employed in agriculture, the period between 1993-94 and 2004-05 saw an increase in women's employment in both the states as well as in rural India (Table 3.2). However, the increase of 35 percent was the sharpest in rural U.P., compared to 13 and 20 percent in rural W.B. and India respectively. If we look at the period between 2004-05 and 2017-18, we find that the decline in percentage terms was once again the sharpest in rural U.P. relative to Bengal and India. While U.P. witnessed a decline of 56 percent, there was a decline of 18 and 45 percent respectively in rural Bengal and India during this period. Our results from the latest round of the PLFS data in 2018-19 shows that even though there has been an increase in rural women employed in agriculture in U.P. from 2017-18, this increase has not been enough to reverse the long-term trend of decline witnessed between 200405 and 2017-18. Consequently, the period between 2004-05 and 2018-19 has seen a decline by nearly 50 percent, from 13.5 to 6.8 million, in women workers employed in agriculture in rural U.P. This decline was of the order of 25 percent, from 2.95 to 2.22 million, in Bengal and 42 percent, from 98.8 to 57.6 million, in India. In absolute terms, the latter period witnessed a decline of women workers in agriculture by 6.7, 0.7 and 41.2 million in rural U.P., W.B. and India respectively.

It has been argued that the decline in female employment in agriculture is due to increasing farm mechanization.

However, the consequences of mechanization have been borne disproportionately by women, especially in U.P., even as men have managed to retain their jobs. Table 3.2 shows the massive gender gap in employment pattern by industry. In U.P., while women have lost their jobs in agriculture by as much as 50 percent, men have registered a 2 percent increase during 2004-05 and 2018-19. Even in situations where men have also suffered a decline in employment in agriculture such as in W.B. and in India, the decline has much sharper for women compared to men (Charts 2a \& 2b).

Within AAA, the share of non-perennial crops is the highest in total women's employment ranging between 72 to 78 percent in 2018-19, followed by animal production, others and perennial crops (Table 3.3).

Table 3.3 highlights the massive decline, in absolute terms, in women's employment in nonperennial crops. Between 2004-05 and 2018-19, there was a loss of 4.6 million women for growing non-perennial crops in U.P. alone, as opposed to 0.5 million in W.B. and 35 million in India. Though there has been an increase in the share of 'others' category, it has clearly not been
enough to compensate the decline in women's employment in perennial crops on the one hand and in animal production on the other.

Table 3.2: Percentage Change in the Distribution of Workers by Industry
(UPSS; 15+Age-group)

| Sex | Period | Agriculture |  |  | Secondary |  |  | Services |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | U.P. | W.B. | All- <br> India | U.P. | W.B. | All- <br> India | U.P. | W.B. | All- <br> India |
| Female | 1993-94 to 2004-05 | 34.7 | 13.4 | 19.8 | 121.5 | 7.6 | 52.3 | 43.2 | 41.3 | 47.1 |
|  | 2004-05 to 2011-12 | -20.8 | -20.4 | -25.7 | 15.3 | 75.7 | 38.1 | 1.8 | 28.8 | 5.2 |
|  | 2011-12 to 2018-19 | -36.8 | -5.4 | -21.5 | -49.5 | -30.1 | -24.0 | 5.3 | 29.8 | 34.9 |
|  | 2004-05 to 2017-18 | -56.3 | -18.1 | -44.8 | -22.7 | -12.0 | -13.7 | 27.7 | 65.6 | 25.0 |
|  | 2004-05 to 2018-19 | -49.9 | -24.7 | -41.7 | -41.8 | 22.9 | 5.0 | 7.2 | 67.3 | 41.9 |
| Male | 1993-94 to 2004-05 | 1.0 | 18.2 | 8.4 | 102.6 | 15.3 | 68.4 | 38.5 | 25.6 | 43.4 |
|  | 2004-05 to 2011-12 | -2.9 | -2.0 | -4.2 | 69.0 | 80.6 | 50.1 | 11.2 | 2.7 | 11.7 |
|  | 2011-12 to 2018-19 | 4.9 | -7.9 | -7.8 | -1.9 | 15.1 | 10.6 | 12.6 | 28.2 | 27.8 |
|  | 2004-05 to 2017-18 | -0.8 | -11.4 | -10.0 | 69.5 | 106.3 | 60.2 | 24.8 | 20.2 | 32.9 |
|  | 2004-05 to 2018-19 | 1.9 | -9.7 | -11.7 | 65.9 | 107.8 | 66.0 | 25.3 | 31.7 | 42.8 |

Source: NSSO Various Rounds, Unit Level Data
Table 3.3: Pattern of employment of rural women (in million) within AAA by UPSS (15+ Age-group)

|  | Uttar Pradesh |  | West Bengal | All-India |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | $\mathbf{2 0 0 4 - 0 5}$ | $\mathbf{2 0 1 8 - 1 9}$ | $\mathbf{2 0 0 4 - 0 5}$ | $\mathbf{2 0 1 8 - 1 9}$ | $\mathbf{2 0 0 4 - 0 5}$ | $\mathbf{2 0 1 8 - 1 9}$ |
| A. Growing of non-perennial crops | 9.71 | 5.11 | 2.07 | 1.61 | 79.42 | 44.69 |
|  | $(71.9)$ | $(75.6)$ | $(70.1)$ | $(72.4)$ | $(80.4)$ | $(77.6)$ |
| B. Growing of perennial crops | 0.01 | 0.00 | 0.32 | 0.15 | 2.70 | 2.49 |
|  | $(0.1)$ | $(0.1)$ | $(10.8)$ | $(6.6)$ | $(2.7)$ | $(4.3)$ |
| C. Animal production | 3.76 | 0.97 | 0.32 | 0.29 | 15.42 | 6.45 |
|  | $(27.9)$ | $(14.4)$ | $(11.0)$ | $(13.1)$ | $(15.6)$ | $(11.2)$ |
| D. Others* | 0.01 | 0.67 | 0.00 | 0.18 | 0.49 | 3.70 |
|  | $(0.1)$ | $(9.9)$ | $(0.1)$ | $(7.9)$ | $(0.5)$ | $(6.4)$ |
| Total $\boldsymbol{A A A}$ | $\mathbf{1 3 . 4 9}$ | $\mathbf{6 . 7 6}$ | $\mathbf{2 . 9 5}$ | $\mathbf{2 . 2 2}$ | $\mathbf{9 8 . 8 2}$ | $\mathbf{5 7 . 6 1}$ |
|  | $\mathbf{( 1 0 0 . 0 )}$ | $\mathbf{( 1 0 0 . 0 )}$ | $\mathbf{( 1 0 0 . 0 )}$ | $\mathbf{( 1 0 0 . 0 )}$ | $\mathbf{( 1 0 0 . 0 )}$ | $\mathbf{( 1 0 0 . 0 )}$ |

*Others includes mixed farming, plant propgation and support activities to agriculture and post-harvest crop activities and hunting, trapping and related service activities. Figures within brackets denote percentage distribution of women workers within AAA.

The decline in employment in animal production is a trend that can be seen in rural India and it is particularly noticeable in U.P. This perhaps reflects the increasing mechanization of agriculture, especially in U.P., which has led to a decline in the use of draught animals and livestock in farming. Given the disproportionately large share of women workers employed in the
maintenance of draught and milch animals, this decline in female employment in animal production over time has therefore been discernable.

## 3.3: Pattern of rural women's employment within industry

Rural industry too has witnessed a steep decline throughout after 2011-12. In U.P., while the period between 1993-94 and 2004-05 saw a more than doubling of women's employment in rural industry from 0.54 to 1.20 million, the period after 2011-12 witnessed a sharp decline of 50 percent, from 1.4 to 0.7 million, in just seven years' time between 2011-12 and 2018-19 (Tables $3.1 \& 3.2$ ). As much as 25 percent of the decline occurred in a single year from 2017-18 to 201819 alone. Like in U.P., the contraction of female workforce in rural industry in Bengal too started from 2011-12. The period between 2011-12 and 2017-18 saw a 50 percent decline, from 2.5 to 1.25 million women employed in industry in Bengal. Though rural industry revived by nearly 40 percent between 2017-18 and 2018-19, the increase was not enough to offset the earlier decline. Consequently, the entire period between 2011-12 and 2018-19 saw a 30 percent decline, from 2.5 to 1.75 million women employed in rural industry in W.B.

As in agriculture, we see a huge gender gap in terms of employment of women and men even in rural industry. This is particularly true of the period after 2011-12 when industry witnessed a sharp contraction throughout and can be seen from Table 3.2 and Charts 2a \& 2b. This decline in rural industry following 2011-12 was due to the policy shock induced by demonetization carried out in November, 2016. While employment in rural industry fell for both men and women, the fallout was much worse for women, who suffered a decline in absolute terms.


Source: NSSO Various Rounds, Unit Level Data

Table 3.4 shows the dominance of manufacturing in terms of its share in total female employment in the secondary sector. Its share in both U.P. and Bengal is high at 82 and 90 percent, relative to the national average of 58 percent in 2018-19. There is a 47 percent decline, from 1.06 to 0.56 million women in manufacturing in U.P. between 2004-05 and 2018-19. Though there has been a marginal increase in female employment in construction from 0.10 to 0.11 million, it has clearly not been enough to offset the sharp decline in manufacturing. As a result, there has been an overall decline by 42 percent in women's employment in the secondary sector in rural U.P. between 2004-05 and 2018-19.

The contrast between U.P. and W.B. has already been pointed out while looking at the extent of female employment in the secondary sector in the two states. While U.P. absorbs a mere 8 percent of its women workforce in the secondary sector, this exceeds 35 percent in the case of W.B.

If we look at the trend of female employment within the secondary sector in rural Bengal, we find that initially, between 1993-94 and 2011-12, there was an increase from 1.3 to 2.5 million. Thereafter, the period between 2011-12 and 2017-18 saw the women workforce being reduced to half, from 2.5 to 1.25 million. This decline has mainly been on account of thesevere contraction in female employment in manufacturing, from 2.3 to 1.1 million. The most recent period between the two subsequent PLFS rounds however shows an increase in female workforce in both manufacturing and construction, leading to an overall increase in employment in the secondary sector in W.B. Despite this recent increase, the magnitude of women's employment in the secondary sector in 2018-19 at 1.75 million, still remains below the level of 2.5 million seen in 2011-12. Clearly, rural industry has not yet fully recovered even by 2018-19 from the adverse impact of demonetization.

Table 3.4: Distribution of Secondary sector rural female workers (in million) (UPSS; 15+ Age-group)

| Sex | Year | Manufacturing |  |  | Construction |  |  | Other Secondary activities |  |  | Total Secondary |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | U.P. | W.B. | All- <br> India | U.P. | W.B. | All- <br> India | U.P. | W.B. | All- <br> India | U.P. | W.B. | All- <br> India |
| Female | 2018-19 | $\begin{aligned} & \hline 0.56 \\ & (81.2) \end{aligned}$ | $\begin{aligned} & 1.57 \\ & (89.6) \end{aligned}$ | $\begin{aligned} & 7.21 \\ & (58.2) \end{aligned}$ | $\begin{aligned} & 0.11 \\ & (15.3) \end{aligned}$ | $\begin{aligned} & 0.16 \\ & (8.9) \end{aligned}$ | $\begin{aligned} & 4.88 \\ & (39.4) \end{aligned}$ | $\begin{aligned} & 0.02 \\ & (3.5) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.03 \\ & (1.5) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.3 \\ & (2.4) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.70 \\ & (100) \end{aligned}$ | $\begin{aligned} & 1.75 \\ & (100) \end{aligned}$ | $\begin{aligned} & 12.39 \\ & (100) \end{aligned}$ |
|  | 2017-18 | $\begin{aligned} & \hline 0.76 \\ & (82.3) \end{aligned}$ | $\begin{aligned} & 1.11 \\ & (88.9) \end{aligned}$ | $\begin{aligned} & \hline 6.05 \\ & (59.4) \end{aligned}$ | $\begin{aligned} & \hline 0.16 \\ & (17.4) \end{aligned}$ | $\begin{aligned} & \hline 0.08 \\ & (6.7) \end{aligned}$ | $\begin{aligned} & 3.99 \\ & (39.1) \end{aligned}$ | $\begin{aligned} & 0.003 \\ & (0.3) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.06 \\ & (4.4) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.15 \\ & (1.5) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.93 \\ & (100) \end{aligned}$ | $\begin{aligned} & 1.25 \\ & (100) \end{aligned}$ | $\begin{aligned} & 10.19 \\ & (100) \end{aligned}$ |
|  | 2011-12 | $\begin{aligned} & \hline 1.02 \\ & (74.0) \end{aligned}$ | $\begin{aligned} & \hline 2.34 \\ & (93.3) \end{aligned}$ | $\begin{aligned} & 9.44 \\ & (57.9) \end{aligned}$ | $\begin{aligned} & \hline 0.29 \\ & (20.9) \end{aligned}$ | $\begin{aligned} & \hline 0.17 \\ & (6.6) \end{aligned}$ | $\begin{aligned} & 6.52 \\ & (40.0) \end{aligned}$ | $\begin{aligned} & 0.07 \\ & (5.1) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.001 \\ & (0.04) \end{aligned}$ | $\begin{aligned} & 0.35 \\ & (2.2) \end{aligned}$ | $\begin{aligned} & 1.38 \\ & (100) \end{aligned}$ | $\begin{aligned} & 2.50 \\ & (100) \end{aligned}$ | $\begin{aligned} & 16.31 \\ & (100) \end{aligned}$ |


|  | 2004-05 | $\begin{aligned} & 1.06 \\ & (88.9) \end{aligned}$ | $\begin{aligned} & 1.39 \\ & (97.8) \end{aligned}$ | $\begin{aligned} & 9.71 \\ & (82.3) \end{aligned}$ | $\begin{aligned} & \hline 0.10 \\ & (8.3) \end{aligned}$ | $\begin{aligned} & \hline 0.03 \\ & (1.9) \end{aligned}$ | $\begin{aligned} & \hline 1.74 \\ & (14.7) \end{aligned}$ | $\begin{aligned} & 0.03 \\ & (2.8) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.005 \\ & (0.4) \end{aligned}$ | $\begin{aligned} & 0.36 \\ & (3.0) \\ & \hline \end{aligned}$ | $\begin{aligned} & 1.20 \\ & (100) \end{aligned}$ | $\begin{aligned} & 1.42 \\ & (100) \end{aligned}$ | $\begin{aligned} & 11.81 \\ & (100) \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1993-94 | $\begin{aligned} & 0.51 \\ & (95.2) \end{aligned}$ | $\begin{aligned} & 1.29 \\ & (97.7) \end{aligned}$ | $\begin{aligned} & \hline 6.60 \\ & (85.1) \end{aligned}$ | $\begin{aligned} & 0.02 \\ & (3.7) \end{aligned}$ | $\begin{aligned} & \hline 0.02 \\ & (1.8) \end{aligned}$ | $\begin{aligned} & \hline 0.76 \\ & (9.8) \end{aligned}$ | $\begin{aligned} & 0.01 \\ & (1.1) \end{aligned}$ | $\begin{aligned} & 0.01 \\ & (0.6) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.40 \\ & (5.2) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.54 \\ & (100) \end{aligned}$ | $\begin{aligned} & 1.32 \\ & (100) \end{aligned}$ | $\begin{aligned} & 7.75 \\ & (100) \end{aligned}$ |
| Male | 2018-19 | $\begin{aligned} & \hline 2.90 \\ & (27.2) \end{aligned}$ | $\begin{aligned} & \hline 2.02 \\ & (40.6) \end{aligned}$ | $\begin{aligned} & 17.30 \\ & (30.9) \end{aligned}$ | $\begin{aligned} & 7.56 \\ & (70.8) \end{aligned}$ | $\begin{aligned} & \hline 2.84 \\ & (57.0) \end{aligned}$ | $\begin{aligned} & \hline 36.67 \\ & (65.6) \end{aligned}$ | $\begin{aligned} & 0.21 \\ & (1.9) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.12 \\ & (2.4) \\ & \hline \end{aligned}$ | $\begin{aligned} & 1.97 \\ & (3.5) \\ & \hline \end{aligned}$ | $\begin{aligned} & 10.67 \\ & (100) \end{aligned}$ | $\begin{aligned} & 4.99 \\ & (100) \end{aligned}$ | $\begin{aligned} & 55.94 \\ & (100) \end{aligned}$ |
|  | 2017-18 | $\begin{aligned} & \hline 3.44 \\ & (31.5) \end{aligned}$ | $\begin{aligned} & \hline 2.03 \\ & (41.0) \end{aligned}$ | $\begin{aligned} & 17.90 \\ & (33.2) \end{aligned}$ | $\begin{aligned} & \hline 7.34 \\ & (67.3) \end{aligned}$ | $\begin{aligned} & \hline 2.85 \\ & (57.6) \end{aligned}$ | $\begin{aligned} & \hline 33.95 \\ & (62.9) \end{aligned}$ | $\begin{aligned} & 0.13 \\ & (1.2) \end{aligned}$ | $\begin{aligned} & 0.07 \\ & (1.4) \end{aligned}$ | $\begin{aligned} & 2.14 \\ & (4.0) \end{aligned}$ | $\begin{aligned} & 10.91 \\ & (100) \end{aligned}$ | $\begin{aligned} & 4.95 \\ & (100) \end{aligned}$ | $\begin{aligned} & 53.99 \\ & (100) \end{aligned}$ |
|  | 2011-12 | $\begin{aligned} & 3.46 \\ & (31.8) \end{aligned}$ | $\begin{aligned} & 2.31 \\ & (53.2) \end{aligned}$ | $\begin{aligned} & 18.60 \\ & (36.8) \end{aligned}$ | $\begin{aligned} & 7.13 \\ & (65.6) \end{aligned}$ | $\begin{aligned} & 1.94 \\ & (44.7) \end{aligned}$ | $\begin{aligned} & 30.02 \\ & (59.3) \end{aligned}$ | $\begin{aligned} & 0.28 \\ & (2.6) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.09 \\ & (2.1) \end{aligned}$ | $\begin{aligned} & 1.96 \\ & (3.9) \\ & \hline \end{aligned}$ | $\begin{aligned} & 10.87 \\ & (100) \end{aligned}$ | $\begin{aligned} & 4.34 \\ & (100) \end{aligned}$ | $\begin{aligned} & 50.58 \\ & (100) \end{aligned}$ |
|  | 2004-05 | $\begin{aligned} & 3.50 \\ & (54.4) \end{aligned}$ | $\begin{aligned} & 1.48 \\ & (61.8) \end{aligned}$ | $\begin{aligned} & 16.95 \\ & (50.3) \end{aligned}$ | $\begin{aligned} & 2.80 \\ & (43.5) \end{aligned}$ | $\begin{aligned} & 0.85 \\ & (35.4) \end{aligned}$ | $\begin{aligned} & 14.83 \\ & (44.0) \end{aligned}$ | $\begin{array}{r} 0.14 \\ (2.1) \\ \hline \end{array}$ | $\begin{aligned} & 0.07 \\ & (2.9) \\ & \hline \end{aligned}$ | $\begin{array}{r} 1.91 \\ (5.7) \\ \hline \end{array}$ | $\begin{aligned} & 6.43 \\ & (100) \end{aligned}$ | $\begin{aligned} & 2.40 \\ & (100) \end{aligned}$ | $\begin{aligned} & 33.70 \\ & (100) \end{aligned}$ |
|  | 1993-94 | $\begin{aligned} & 2.20 \\ & (69.3) \end{aligned}$ | $\begin{aligned} & 1.67 \\ & (80.4) \end{aligned}$ | $\begin{aligned} & 12.42 \\ & (62.1) \end{aligned}$ | $\begin{aligned} & 0.85 \\ & (26.7) \end{aligned}$ | $\begin{aligned} & \hline 0.36 \\ & (17.5) \end{aligned}$ | $\begin{aligned} & \hline 5.73 \\ & (28.6) \end{aligned}$ | $\begin{aligned} & 0.13 \\ & (4.1) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.04 \\ & (2.1) \\ & \hline \end{aligned}$ | $\begin{aligned} & 1.86 \\ & (9.3) \\ & \hline \end{aligned}$ | $\begin{aligned} & 3.17 \\ & (100) \end{aligned}$ | $\begin{aligned} & 2.08 \\ & (100) \end{aligned}$ | $\begin{aligned} & 20.0 \\ & (100) \end{aligned}$ |

Source: NSSO Various Rounds, Unit Level Data

### 3.3.1: Distribution of female workforce within Manufacturing

Given the disproportionately high share of manufacturing in total female workforce within the secondary sector, it would be interesting to look at exactly which manufacturing industries are the biggest employers of women in the two states. Table 3.5 shows the distribution of rural female workers within the manufacturing sector.

Table 3.5 throws up a number of interesting points. Firstly, there is a shift in female workers from textiles to wearing apparel in U.P. between 2004-05 and 2018-19. Women workers employed in textile industry suffered a massive decline of 68 percent, from 4.4 to 1.4 lakh during this period. This was accompanied by a more than doubling of women's employment in wearing apparel from 1.2 to 2.6 lakh. By 2018-19, wearing apparel industry employed nearly 37 percent of the female workers in the secondary sector and was the largest employer of women in rural U.P., after agriculture. However, barring wearing apparel, women's employment in tobacco and other industries too has declined sharply. As a result, as many as 5 lakh rural women lost their jobs in manufacturing industry, amounting to a decline of 47 percent in this period.

In Bengal, as noted above, the contraction in female workforce in rural manufacturing and hence, in rural industry started after 2011-12. The massive decline of women's employment from 13 to 5.5 lakh in tobacco industry is noticeable between 2011-12 and 2018-19. In percentage terms, there was a decline of 58 percent in female employment in tobacco industry alone in rural Bengal during this period. Despite the severe contraction, tobacco industry at 32 percent, still accounts for the largest share of female employment in the secondary sector in Bengal in 2018-19, followed by textiles. Though there has been some increase in women's employment in textiles, wearing apparel and other manufacturing industries in the recent period covering 2017-18 and

2018-19, it has clearly not been enough to offset the steep decline in female employment seen in manufacturing after 2011-12.

Table 3.5: Percentage distribution of rural female workforce within manufacturing (UPSS; 15+ Age-group)

|  | Textiles |  |  | Wearing apparel |  |  | Tobacoo |  |  | Other* |  |  | Total Manufacturing |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | U.P. | W.B. | All- <br> India | U.P. | W.B. | AllIndia | U.P. | W.B. | All- <br> India | U.P. | W.B. | All- <br> India | U.P. | W.B. | All- <br> India |
| $\begin{aligned} & 2018- \\ & 19 \end{aligned}$ | (25.0) | (27.1) | (16.3) | (45.6) | (8.8) | (29.6) | (16.8) | (35.3) | (25.3) | (12.6) | (28.8) | (28.7) | (100) | (100) | (100) |
| $\begin{aligned} & 2017- \\ & 18 \end{aligned}$ | (26.2) | (19.0) | (17.7) | (20.2) | (8.1) | (26.0) | (33.8) | (57.5) | (31.1) | (19.7) | (15.3) | (25.2) | (100) | (100) | (100) |
| $\begin{aligned} & \text { 2011- } \\ & 12 \\ & \hline \end{aligned}$ | (35.7) | (23.8) | (18.1) | (12.1) | (3.5) | (17.7) | (17.1) | (55.7) | (30.0) | (35.2) | (16.9) | (34.3) | (100) | (100) | (100) |
| $\begin{aligned} & 2004- \\ & 05 \\ & \hline \end{aligned}$ | (41.6) | (18.1) | (19.8) | (10.9) | (6.5) | (13.7) | (14.4) | (40.1) | (25.8) | (33.1) | (35.2) | (40.6) | (100) | (100) | (100) |
| $\begin{aligned} & 1993- \\ & 94 \end{aligned}$ | (35.0) | (19.5) | (27.7) | (3.5) | (1.2) | (1.4) | (12.7) | (25.6) | (26.9) | (48.8) | (53.7) | (43.9) | (100) | (100) | (100) |

Source: NSSO Various Rounds, Unit Level Data
Thus, a very sharp decline in agriculture, together with the near complete absence of rural industry and services, explains the steep decline in women's labour force and work force participation in rural U.P. The workers displaced by mechanization in U.P. agriculture have primarily been women, while men continue to retain their jobs. On the contrary, the relatively moderate trend of decline in rural Bengal can be explained in terms of a diversification of women's employment pattern, when compared to U.P. While industry too witnessed a decline particularly during 2011-12 to 2017-18, its recovery in the most recent period covering 2017-18 and 2018-19, has undoubtedly contributed to a relatively less severe decline in overall female employment in W.B. compared to U.P. This policy induced contraction in women's employment in rural industry in W.B., followed by its subsequent recovery, albeit modest, compels us to look into the nature of both farm and non-farm employment that rural women engage in.

## 4. Nature of women's employment

Women are primarily absorbed as self-employed workers in farm work. This trend has been increasing over time in rural U.P. As much as 87.3 percent of the female workers in farm work are self-employed in U.P in 2018-19 (Table 4.1). This percentage at 48.3 is much lower in W.B. and it is 68 percent in India. A substantial percentage of the women who are self-employed are infact registered as 'helpers' - 55 percent in U.P., 32 percent in W.B. and nearly 50 percent ( $49.2 \%$ ) in India. There has been a sharp increase in women as 'helpers' in farm work in Bengal from 19 to 32 percent between 2017-18 and 2018-19. Despite a consistent decline in women as
'helpers' since 2004-05, it is still the predominant category of employment for women in farm work in rural U.P. at 55.1 percent in 2018-19.

Table 4.1: Percentage distribution of female farm and non-farm workers by category of employment (UPS+SS; 15+ Age-group); Rural

| State | Category of employment | Farm |  |  |  |  | Non-farm |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & 1993- \\ & 94 \end{aligned}$ | $\begin{aligned} & \text { 2004- } \\ & 05 \end{aligned}$ | $\begin{aligned} & 2011- \\ & 12 \end{aligned}$ | $\begin{aligned} & 2017- \\ & 18 \end{aligned}$ | $\begin{aligned} & 2018- \\ & 19 \end{aligned}$ | $\begin{aligned} & 1993- \\ & 94 \end{aligned}$ | $\begin{aligned} & 2004- \\ & 05 \end{aligned}$ | $\begin{aligned} & 2011- \\ & 12 \end{aligned}$ | $\begin{aligned} & 2017- \\ & 18 \end{aligned}$ | $\begin{aligned} & \text { 2018- } \\ & 19 \end{aligned}$ |
| UP | 1.Own account worker | 19.6 | 16.6 | 24.3 | 29.3 | 31.8 | 30.6 | 30.7 | 29.1 | 30.8 | 34.0 |
|  | 2.employer | 0.5 | 0.3 | 0.8 | 0.5 | 0.4 | 0.1 | 0.0 | 0.0 | 0.3 | 0.0 |
|  | 3.Helper | 59.0 | 69.4 | 60.7 | 57.5 | 55.1 | 48.9 | 44.6 | 25.9 | 20.4 | 19.7 |
|  | Selfemployment $(1+2+3)$ | 79.1 | 86.2 | 85.8 | 87.3 | 87.3 | 79.5 | 75.3 | 55.0 | 51.5 | 53.8 |
|  | Regular employed | 0.2 | 0.2 | 0.0 | 0.0 | 0.1 | 6.0 | 12.4 | 22.5 | 30.7 | 37.1 |
|  | Casual labour | 20.7 | 13.6 | 14.2 | 12.7 | 12.5 | 13.9 | 12.3 | 22.6 | 17.8 | 9.1 |
|  | Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| WB | 1.Own account worker | 18.6 | 20.7 | 9.4 | 14.7 | 15.5 | 30.2 | 53.0 | 61.1 | 46.8 | 59.3 |
|  | 2.employer | 0.8 | 1.5 | 1.0 | 0.3 | 0.8 | 0.8 | 0.0 | 0.1 | 0.0 | 0.1 |
|  | 3.Helper | 34.5 | 30.8 | 24.2 | 18.9 | 32.0 | 27.7 | 19.7 | 12.6 | 11.8 | 7.2 |
|  | Selfemployment $(1+2+3)$ | 53.9 | 53.0 | 34.6 | 33.9 | 48.3 | 58.7 | 72.7 | 73.8 | 58.6 | 66.6 |
|  | Regular employed | 1.0 | 5.3 | 5.5 | 11.5 | 6.0 | 15.5 | 13.2 | 14.3 | 26.2 | 23.1 |
|  | Casual labour | 45.2 | 41.7 | 59.9 | 54.6 | 45.7 | 25.8 | 14.1 | 11.9 | 15.1 | 10.3 |
|  | Total | 100.1 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| All India | 1.Own account worker | 13.4 | 12.8 | 15.1 | 15.8 | 17.9 | 29.6 | 30.6 | 27.9 | 26.2 | 29.6 |
|  | 2.employer | 0.9 | 0.6 | 0.5 | 0.5 | 0.62 | 0.3 | 2.5 | 0.3 | 0.3 | 0.3 |
|  | 3.Helper | 43.9 | 51.0 | 48.7 | 48.6 | 49.2 | 29.3 | 28.3 | 15.8 | 11.3 | 9.5 |
|  | Selfemployment $(1+2+3)$ | 58.2 | 64.4 | 64.2 | 65.0 | 67.8 | 59.2 | 59.1 | 43.8 | 37.8 | 39.4 |
|  | Regular employed | 0.5 | 0.5 | 0.6 | 1.2 | 1.1 | 16.2 | 20.2 | 20.9 | 35.9 | 35.5 |
|  | Casual labour | 41.2 | 35.1 | 35.2 | 33.8 | 31.1 | 24.6 | 20.7 | 35.2 | 26.3 | 25.1 |
|  | Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.00 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Source: NSSO Various Rounds, Unit Level Data
Further, 12.5 percent of the women doing farm work in U.P. were employed as casual labourers, as opposed to nearly 55 percent in Bengal in 2017-18. Though the percentage of women working as casual labourers has declined to 46 by 2018-19 in Bengal, it is still substantially more than the comparable figure for U.P. which has been hovering around 12.5 percent.

The significant presence of women as casual labourers in farm work in W.B. and its marginal presence in U.P. is an obvious fallout of the structural differences in the pattern of landholding between the two states. Chakravarty (2020) argues that more women will work as casual
labourers in farm sector where there is a large proportion of landless poor. The variation in the extent of landlessness between these states is perhaps most stark in this regard. An independent estimate of the extent of landlessness in rural India shows that the proportion of landless households in W.B. agriculture is much higher when compared with U.P. (Rawal, 2008). Rawal estimates that the proportion of landless households in W.B. at 35 percent was more than double of that in U.P., where it was 16 percent in 2003. These estimates of landlessness are much higher when compared with the official estimates. However, even going by the official figures of 6.15 and 3.82 for W.B. and U.P. for the year 2003, the proportion of households that do not own any land (including homestead) is higher for W.B. relative to U.P., implying the presence of casual labourers to a larger extent in the former compared to the latter state. Table 4.2 shows that landlessness has been higher in W.B. relative to U.P. in all the rounds of NSSO under study. Not only is landlessness higher in W.B. compared to U.P., the average size of land owned and operated is also lower in the former than in the latter state.

Table 4.2: Landlessness and Average Area Owned and Operated

|  | Average area owned per household (ha.) |  |  |  | Average area operated per holding (ha.) |  |  |  | Percentage of landless households |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1992 | 2003 | 2013 | 2019 | 1992 | 2003 | 2013 | 2019 | 1992 | 2003 | 2013 | 2019 |
| Uttar Pradesh | 0.83 | 0.618 | 0.493 | 0.396 | 1.01 | 0.63 | 0.618 | 0.552 | 4.9 | 3.82 | 3.32 | 5.1 |
| West Bengal | 0.46 | 0.295 | 0.174 | 0.170 | 0.60 | 0.31 | 0.268 | 0.309 | 11.0 | 6.15 | 6.55 | 11.6 |
| All India | 1.01 | 0.725 | 0.592 | 0.512 | 1.34 | 0.74 | 0.869 | 0.833 | 11.3 | 10.04 | 7.41 | 8.2 |

Source: NSSO, Various Rounds
The percentage of self-employed women in non-farm work in rural Bengal has always been high. However, this has declined from around 73 to 74 percent between 2004-05 and 2011-12 to 59 percent by 2017-18 (Table 4.1). The most recent period between the two PLFS rounds has seen a rise in the percentage of self-employed women in rural non-farm employment to nearly 67 percent in 2018-19. The sharp decline in self-employed women in rural non-farm employment in Bengal between 2011-12 and 2017-18 can be attributed to the severe contraction of tobacco industry during this period. As already noted above, tobacco industry contracted sharply by 50 percent from 1.3 to 0.66 million between 2011-12 and 2017-18, and further to 0.55 million by 2018-19. Beedi manufacturing, accounting for more than 85 percent of the total female workforce employed in the tobacco industry, is highly labour-intensive and is dominated by
women. More than 70 per cent of the home-based beedi workers in West Bengal are women and 90 percent of the beedi work from rolling to packing is home bound. The massive decline in beedi manufacturing was mainly due to demonetization carried out in November 2016. Cash crunch due to demonetization affected the production of beedi, which has left many women jobless. Of all those women who lost their jobs in the tobacco industry during this period, those who had the option of turning to cultivation, actually did. Indeed, women workers in agriculture increased, albeit modestly, from 2.35 to 2.42 million in W.B. during this period. Those who could not, simply vanished from the labour market in the absence of suitable jobs.

The fact that women in rural non-farm work are primarily self-employed highlights their extreme vulnerability to the slightest of adversity faced by them. Self-employed categoryof women in non-farm work is probably not the best of sustainable and resilient options in the face of external or internal shocks. State-sponsored public employment programmes like MNREGA must be encouraged and expanded widely if at all this problem of low and declining FLFPR is to be addressed.

## 5. Gender biased cultural norms or lack of jobs as the explanatory factor?

Declining female labour force participation rates mean that women are withdrawing from seeking paid labour. If so, where have they all gone? Table 5.1 shows that as many as 92 to 95 percent of rural women across U.P., W.B. and India who were out of the labour force (codes 92 and 93) were engaged primarily in doing domestic work. Further, we find that most of those who were mainly attending to domestic work were doing so because there was no other member to carry it out.The disproportionate burden of domestic work that falls primarily on women is a reality that is true of almost all countries across the globe (Chart $\mathrm{A}_{2}$ ). After Mali in Africa and Pakistan in South Asia, India ranks a close third globally in terms of the female-to-male ratio of time devoted to unpaid care work. In India, women spend 9.83 times more time than men in unpaid care work and other domestic responsibilities, in sharp contrast to a mere 1.18 in Uganda, 1.3 in Denmark and 1.6 in the U.S. As argued by Deshpande and Kabeer (2019), it is in this sense that cultural norms constrain women's participation in paid work. Alternatively, it is "the cultural norm that places the burden of domestic chores almost exclusively on women" rather than the conventional sense of cultural norms understood usually in terms of the practice of veiling or adherence to Islam or other such factors that constrain women's mobility, that explain the declining female employment in rural India (Deshpande and Kabeer, 2019).

More importantly, despite their preoccupation in domestic work, as many as 38 percent of the women in rural U.P. and 42 percent in Bengal were 'willing to accept work if work is made available at their household' (Table 5.2). Of those willing to work, nearly 73 percent in U.P. and 77 percent in W.B. were willing to take up regular part time work despite their preoccupation
with domestic work. In other words, there is an overwhelming demand for work from women in rural areas.

Thus, evidence based on the official secondary data sources indicates that it is a combination of both the factors - viz., the gender biased cultural norm that places a disproportionately high burden of domestic work on women on the one hand and lack of suitable jobs, especially for women on the other, that explains the low and declining female presence in the labour markets of both U.P. and W.B.

That there is a huge unmet demand for work, especially for women in rural areas is supported by the fact that employment elasticity has been falling continuously in agriculture, manufacturing and services in both U.P. and W.B. and also in India (Table 5.3). This decline has been particularly sharp for Agriculture and Allied Activities, where the employment elasticity has turned negative. From a positive 0.42 and 0.44 between 1993-94 and 2004-05, it fell to a negative $0.39,0.36$ and 0.53 in U.P., W.B. and India during 2004-05 to 2018-19.Industry saw a rapid decline in employment after 2011-12. Not surprisingly then, we see the employment elasticity in industry turning from a positive 1.28 and 0.16 during 1993-94 and 2004-05 to a negative 0.25 and 0.03 between 2004-05 and 2017-18 in U.P. and W.B. respectively. India on the other hand, saw employment elasticity falling from 0.63 to -0.003 during this period. The employment elasticity has been falling in services too. As a result, the overall elasticity has been falling consistently everywhere, and particularly sharply in U.P. and India, with W.B. registering a moderate decline.

The declining employment elasticity of output reinforces the argument that it is the lack of any kind of jobs, let alone suitable jobs, especially for women, that explains the hopeless situation with regard to women's employment in the two states.

The need of the hour is therefore massive public investment in large-scale employment guarantee programmes such as MNREGA, if the problem of low FLFP is to be addressed and reversed. Moreover, a large-scale employment guarantee programme that is compatible with the heavy burden of domestic duties borne disproportionately by women and can only be provided by the state, must be prioritized. The crucial role played by a publicly provided employment guarantee programme such as MNREGA, especially for enhancing women's employment, has been highlighted by several scholars (Khera and Nayak, 2009; Ramnarain and Rao, 2020). The official data on MNREGA shows that it has been a highly successful employment generation programme, especially for women in rural areas. This is highlighted by the fact that women's share in total NREGA workers accounted for as much as 35 percent in U.P. and 48 percent in W.B., as opposed to 53.5 percent in India during2017-18 to 2019-20(Ramnarain and Rao, 2020).

Table 5.1: Percentage of rural women whose primary occupation was attending to domestic duties throughout the last 365 days and reason for spending most of the time on domestic duties almost through the last 365 days (UPSS; 15+ Age-group) (codes 92\&93)

|  | Uttar Pradesh |  |  | West Bengal |  |  | All India |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & 1993- \\ & 94 \\ & \hline \end{aligned}$ | $\begin{aligned} & 2004- \\ & 05 \end{aligned}$ | $\begin{aligned} & 2011- \\ & 12 \end{aligned}$ | $\begin{aligned} & 1993- \\ & 94 \end{aligned}$ | $\begin{aligned} & 2004- \\ & 05 \end{aligned}$ | $\begin{aligned} & 2011- \\ & 12 \end{aligned}$ | $\begin{aligned} & 1993- \\ & 94 \\ & \hline \end{aligned}$ | $\begin{aligned} & 2004- \\ & 05 \end{aligned}$ | $\begin{aligned} & 2011- \\ & 12 \end{aligned}$ |
| Primary Occupation attending to domestic duties/yes | 93 | 93 | 94.5 | 89 | 87 | 91.6 | 88.1 | 88.2 | 91.8 |
| Reason |  |  |  |  |  |  |  |  |  |
| No other member to carry out domestic duties | 49 | 50 | 50 | 53 | 56 | 62 | 55 | 55 | 60 |
| Cannot afford hired help | 4 | 4 | 7 | 11 | 12 | 16 | 6 | 7 | 9 |
| For social or religious constraint | 29 | 26 | 29 | 16 | 12 | 8 | 18 | 20 | 16 |
| Others | 18 | 19 | 14 | 20 | 20 | 14 | 21 | 18 | 15 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

Source: NSSO Various Rounds, Unit Level Data
Table 5.2: Percentage of rural women willing to accept work despite their preoccupation in domestic duties, if work is made available at their household and nature of work acceptable (UPSS; 15+ Age-group) (codes 92\&93)

|  | Uttar Pradesh |  |  | West Bengal |  |  | All India |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \hline 1993- \\ & 94 \\ & \hline \end{aligned}$ | 2004-05 | 2011-12 | $\begin{aligned} & \hline 1993- \\ & 94 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 2004- \\ & 05 \end{aligned}$ | $\begin{aligned} & \hline 2011- \\ & 12 \end{aligned}$ | $\begin{aligned} & \hline 1993- \\ & 94 \end{aligned}$ | $\begin{aligned} & \hline 2004- \\ & 05 \end{aligned}$ | $\begin{aligned} & \hline 2011- \\ & 12 \end{aligned}$ |
| Willing to accept work/yes | 33 | 36 | 38 | 32 | 40 | 42 | 30 | 33 | 34 |
| Nature of work acceptable |  |  |  |  |  |  |  |  |  |
| Regular full time | 16 | 13 | 22 | 17 | 19 | 21 | 21 | 23 | 27 |
| Regular part time | 79 | 83 | 73 | 78 | 76 | 77 | 74 | 72 | 68 |
| Ocassional full time | 2 | 1 | 4 | 1 | 1 | 0 | 2 | 2 | 2 |
| Occasional part time | 3 | 2 | 1 | 5 | 4 | 1 | 3 | 3 | 2 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

Source: NSSO Various Rounds, Unit Level Data
Table 5.3: Employment elasticity of output; Base year: 2011-12

| Time Period | Agriculture and Allied Activities |  |  | Manufacturing |  |  | Services |  |  | Overall |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | UP | WB | India | UP | WB | India | UP | WB | India | UP | WB | India |
| 1993-94 to 2004-05 | 0.42 | 0.44 | 0.42 | 1.28 | 0.16 | 0.63 | 0.60 | 0.36 | 0.44 | 0.55 | 0.28 | 0.37 |
| 2004-05 to 2011-12 | -0.50 | -0.56 | -0.50 | 0.89 | 2.10 | 0.54 | 0.16 | 0.21 | 0.22 | 0.13 | 0.32 | 0.06 |
| 2011-12 to 2018-19 | -0.31 | -0.27 | -0.58 | -0.29 | 0.07 | 0.08 | 0.18 | 0.39 | 0.30 | -0.12 | 0.12 | 0.00 |
| 2004-05 t0 2018-19 | -0.39 | -0.36 | -0.53 | 0.33 | 0.60 | 0.34 | 0.17 | 0.29 | 0.26 | 0.01 | 0.21 | 0.04 |

Source: RBI, Handbook of Statistics on Indian Economy, Various Issues.

## Concluding Remarks

A comparative analysis of female labour force and work force trends in U.P. and W.B. shows how diversification of occupational distribution of workforce resulted in only a moderate decline in women's employment in W.B., as opposed to a severe contraction in U.P. in the period following 2004-05. The noticeable presence of women in rural industry in Bengal whereas its near total absence in U.P., perhaps explains the relatively moderate trend of decline in female labour force and work force in Bengal, compared to U.P.

At the same time, our study while highlighting the significance of non-farm employment, also emphasizes on the need to focus on the nature of employment of non-farm work that rural women engage in. It shows the inadequacy of depending upon small-scale self-employment as a sustainable and viable option in the long run, especially in the face of adversity of the tiniest of kinds faced by them. It highlights the importance of publicly sponsored employment generation programmes like MGNREGA as a sustainable and resilient option against various shocksfaced by rural women as opposed to the much more vulnerable option of small-scale self-employment.

After all, with all the differences between Bengal and U.P. in the pattern of employment of women, one must not lose sight of the fact that both these states have historically had abysmal levels of participation by women in their labour markets and continue to do so. Given the lower than All-India average participation of women even in the relatively better performing state like Bengal, the explanation must be sought in the cultural norm that places a disproportionately higher burden of domestic work on women everywhere- be it Bengal or U.P.

More than anything else, our study suggests that though rural industry exists in Bengal to an extent, the nature of women's employment is such that it reflects more of a last resort option for them in the absence of better paid alternative jobs. There is therefore an urgent need to expand rural non-farm employment for women widely, in such a manner that it is compatible with the heavy burden of domestic duties that is borne essentially by them.

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## Appendix A:

## Chart $\mathrm{A}_{1}$ :



Source: NSSO Various Rounds, Unit Level Data

## Chart $\mathbf{A}_{2}$ :

Female-to-male ratio of time devoted to unpaid care work, 2014

Female to male ratio of time devoted to unpaid care work. Unpaid care work refers to all unpaid services provided within a household for its members, including care of persons, housework and voluntary community work.


Source: OECD Gender, Institutions and Development Database (2014) OurWorldlnData.org/women-in-the-labor-force-determinants/•CC BY

Table $\mathbf{A}_{1}$ : Female Labour Force Participation Rates per 1000 Persons by UPSS (ps+ss) for Major Indian States; All Ages

| States $\backslash$ Year | Female labour force participation rates per 1000 persons by UPSS (ps+ss); All Ages |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Rural |  |  |  |  | Urban |  |  |  |  |
|  | $\begin{aligned} & 1993- \\ & 94 \end{aligned}$ | $\begin{aligned} & 2004- \\ & 05 \end{aligned}$ | $\begin{aligned} & 2011- \\ & 12 \end{aligned}$ | $\begin{aligned} & 2017- \\ & 18 \end{aligned}$ | $\begin{aligned} & 2018- \\ & 19 \end{aligned}$ | $\begin{aligned} & 1993- \\ & 94 \end{aligned}$ | $\begin{aligned} & 2004- \\ & 05 \end{aligned}$ | $\begin{aligned} & 2011- \\ & 12 \end{aligned}$ | $\begin{aligned} & 2017- \\ & 18 \end{aligned}$ | $\begin{aligned} & 2018- \\ & 19 \end{aligned}$ |
| Andhra Pradesh | 521 | 485 | 448 | 390 | 374 | 207 | 232 | 180 | 251 | 217 |
| Bihar | 173 | 138 | 58 | 26 | 26 | 76 | 65 | 54 | 45 | 47 |
| Chhattisgarh | - | 455 | 416 | 396 | 392 | - | 185 | 252 | 235 | 222 |
| Gujarat | 397 | 428 | 279 | 172 | 193 | 148 | 155 | 135 | 127 | 135 |
| Haryana | 272 | 321 | 164 | 108 | 101 | 157 | 143 | 102 | 105 | 144 |
| Jharkhand | - | 313 | 204 | 109 | 155 | - | 137 | 73 | 108 | 93 |
| Karnataka | 432 | 462 | 289 | 219 | 220 | 191 | 192 | 171 | 181 | 161 |


| Kerala | 264 | 321 | 258 | 207 | 250 | 250 | 301 | 222 | 221 | 242 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Madhya <br> Pradesh | 411 | 366 | 239 | 259 | 233 | 148 | 156 | 119 | 157 | 136 |
| Maharashtra | 478 | 475 | 389 | 298 | 307 | 177 | 198 | 172 | 168 | 175 |
| Odisha | 319 | 351 | 251 | 152 | 192 | 161 | 202 | 158 | 134 | 161 |
| Punjab | 223 | 338 | 237 | 111 | 150 | 99 | 155 | 141 | 142 | 150 |
| Rajasthan | 458 | 407 | 349 | 217 | 263 | 163 | 188 | 144 | 108 | 125 |
| Tamil Nadu | 481 | 467 | 386 | 313 | 351 | 247 | 253 | 211 | 225 | 236 |
| Uttar <br> Pradesh | 219 | 241 | 178 | 97 | 107 | 103 | 120 | 106 | 82 | 73 |
| West <br> Bengal | 189 | 184 | 194 | 154 | 162 | 167 | 169 | 186 | 185 | 202 |
| All India | 330 | 333 | 253 | 182 | 197 | 165 | 178 | 155 | 159 | 161 |


[^0]:    ${ }^{1}$ Comparing the statistics on women's workforce based on time-use survey (1998-99) and NSSO (1999-2000) survey, Hirway estimated the women's workforce to be 58.2 based on TUS, whereas it was only 25.3 based on NSSO survey. See Hirway, 2012.

[^1]:    Source:NSSO Various Rounds, Unit Level Data

