



Data BRIEF

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Supply or Demand:

What Accounts for Declining Female Work Participation Rate in Rural India?

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Introduction

The past three decades have seen the advent of major transformations in the Indian economy. While the economy has achieved average growth rates of 5–9 per cent, education has risen sharply for both men and women, fertility rates have declined, and infrastructure facilities, particularly access to electricity, cooking gas and piped water, have improved. All these factors are expected to reduce the demand for women's time spent in domestic chores and increase their opportunities for paid work. Paradoxically, however, the National Sample Surveys document a substantial decline in women's Work Participation Rates (WPRs), particularly for rural women. The statistics presented below



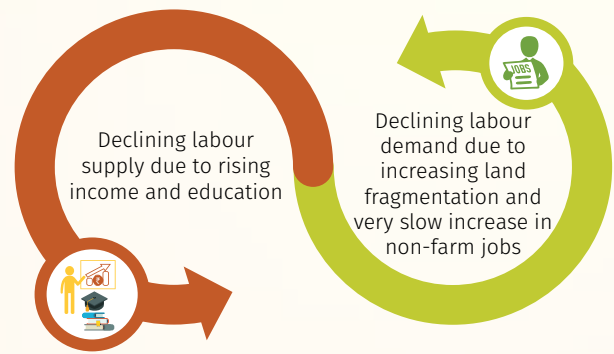
show that much of this decline is located among poor and less educated women. When women are presented with greater work opportunities through an improved transportation infrastructure or better implementation of the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), they take advantage of these opportunities.

Declining work participation in India

Figure 1 documents women’s WPRs between 1993–94 and 2011–12 for urban and rural women. These figures are based on principal as well as subsidiary work status. The principal status captures workers who were employed for at least 90 days in the prior year, while the secondary work status captures work participation for at least 30 days in any subsidiary activity for women whose primary activity is domestic work for the 12 months preceding the survey.

Figure 1 indicates that while women’s WPRs have fluctuated within a relatively narrow range for urban women, the corresponding WPRs for rural women have shown a relatively sharp decline from 328 per 1000 women in 1993–94 to 248 in 2011–12.

The two sets of explanations offered for these trends have diametrically opposite policy implications, delineated as follows: (1) Growing household incomes reduce the reliance on women’s income and women with higher levels of education may be more likely to focus on caring for their children and supervising their studies.

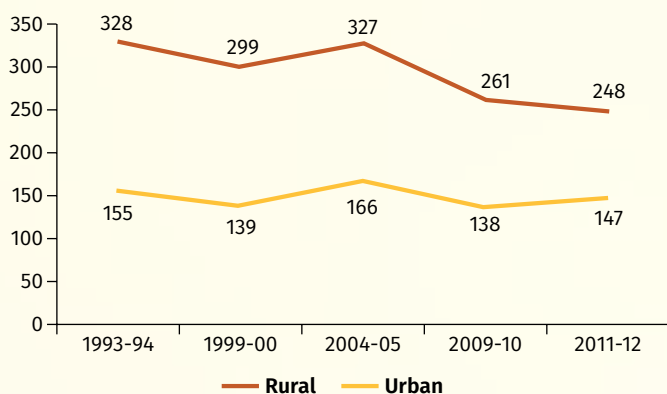


These factors may result in women voluntarily withdrawing from the workforce. (2) Declining farm sizes and crowding in agriculture reduce the demand for women’s labour in agriculture and a slow increase in non-farm work makes it difficult for women to find work. The former is a function of household choices and outside the purview of public policy, whereas the latter process may be amenable to policy interventions.

Competing expectations

Below we examine empirical evidence for each of these explanations and find that the decline in work participation is located largely among rural women from poor households and those with low levels of education. Moreover, increasing work opportunities are associated with a growth in women’s non-farm work.

Figure 1: Trends in Women’s Work Participation Rates per 1000 Women



Source: Calculated from various rounds of National Sample Surveys.

Note: The WPR is defined as Usual Principal Status plus Subsidiary Status.

Data Sources

National Sample Surveys: The National Sample Surveys (NSS) conducted by the National Sample Survey Organisation (NSSO) have for long provided data on employment and unemployment and serve as a basis for much of the policy discussion. NSSO collects information about primary activity status for all individuals focusing on main activity lasting for 3 months or more in the preceding year. Data for subsidiary activity lasting 30 days or more is also available. Typically these primary and subsidiary activities are combined to arrive at the Work Participation Rates (WPRs). In addition, the NSSO collects data on activities performed in the week preceding the survey, which is considered to be a somewhat more sensitive measure of employment since it is based on time allocation in recent past.

Since 1999–2000, the NSSO employment–unemployment questionnaire has included an abridged consumption expenditure schedule, allowing us to correlate women’s WPRs with household income.

India Human Development Survey: The India Human Development Surveys (IHDS), conducted in two waves in 2004–05 and 2011–12, are part of the first nationally representative longitudinal study in India where the same households were interviewed at two points in time. Employment questions in the IHDS are asked in a different way from those in the NSSO in order to capture work in household farm and business better. For example, for families that own a farm, IHDS asks who works on the farm with a probe to ensure that no women or children are missed. The IHDS employment data thus indicates a higher WPR for women than its NSSO counterpart, although the work participation rates for men are similar in both surveys. The IHDS also collects data on income, allowing us to examine women’s WPRs at different levels of household income. Further, IHDS allows us to examine changes in work participation for women across different patterns of economic transformation.

Decline in women’s work participation is concentrated in rural India

Rural women are more likely to participate in the labour force than urban women, possibly because they have greater opportunities for self-employment in family farms and in caring for livestock. However, trends based on the NSS data show that urban women’s work participation rates have increased slightly from 139 per 1000 in 1999–2000 to 147 per 1000 in 2011–12. In contrast, the corresponding WPRs for rural women have declined substantially from 299 per 1000 to 247 per 1000 over the same period.

Declining agricultural work opportunities may be largely responsible for this fall in WPRs. The size of agricultural landholdings has declined with concomitant divisions in families. According to the Agricultural Census, the average farm size fell from 1.23 hectares in 2000–01 to 1.15 hectares

“Rising school enrolment alone cannot explain the decline in women’s work participation.”

in 2010–11. Increasing mechanisation has also possibly led to a decline in the demand for agricultural wage labour.

Rising educational enrolments do not explain the decline in women’s employment

It is sometimes argued that rising school enrolment may explain the decline in women’s work participation with young women probably preferring to continue in school instead of joining the workforce. However, the age-specific WPRs presented in Figure 2 do not support this interpretation.

Secondary school enrolment has increased sharply and may well account for the withdrawal of young women from the workforce. As regards women past this age, that is, women in their late 20s and 30s, the work participation has increased for urban women while it has declined for rural women. The decline in WPR for rural women affects women at all ages, suggesting a deeper transformation than would be implied by the trade-off between the time spent in school and the time spent working. However, since school enrolment may be a factor in women’s work participation, in the subsequent discussion we focus only on women aged 25–64 years.

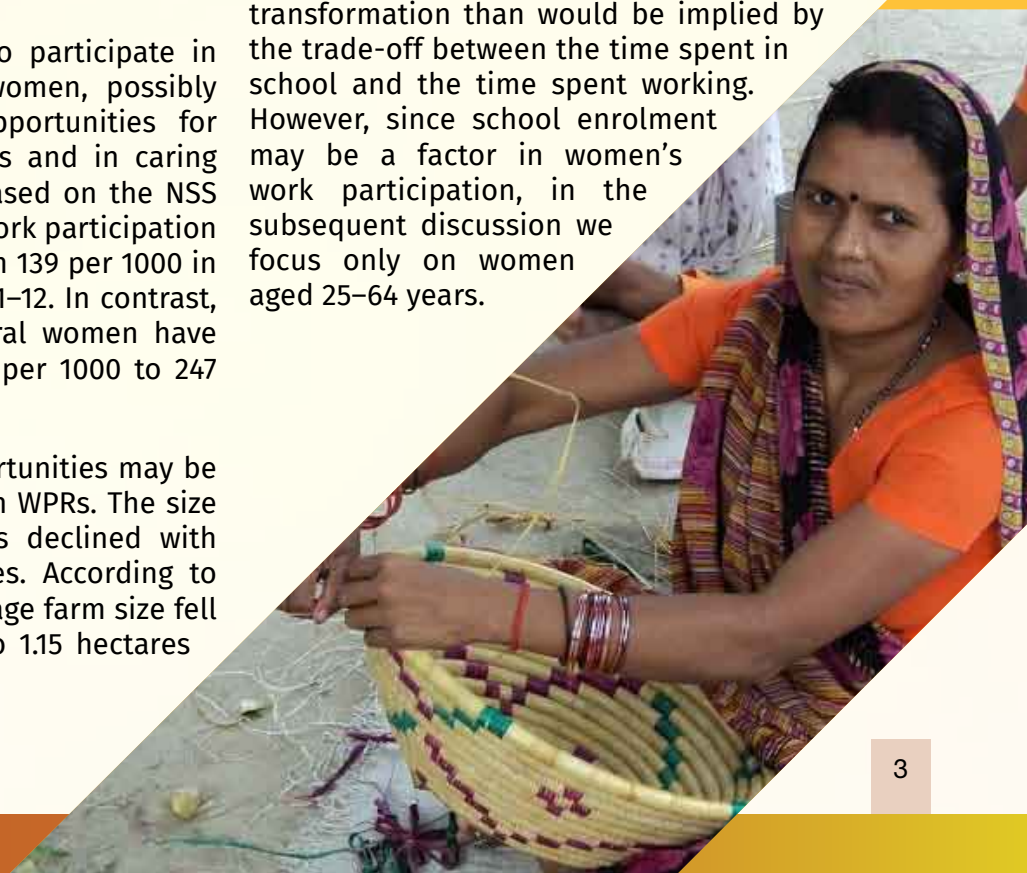
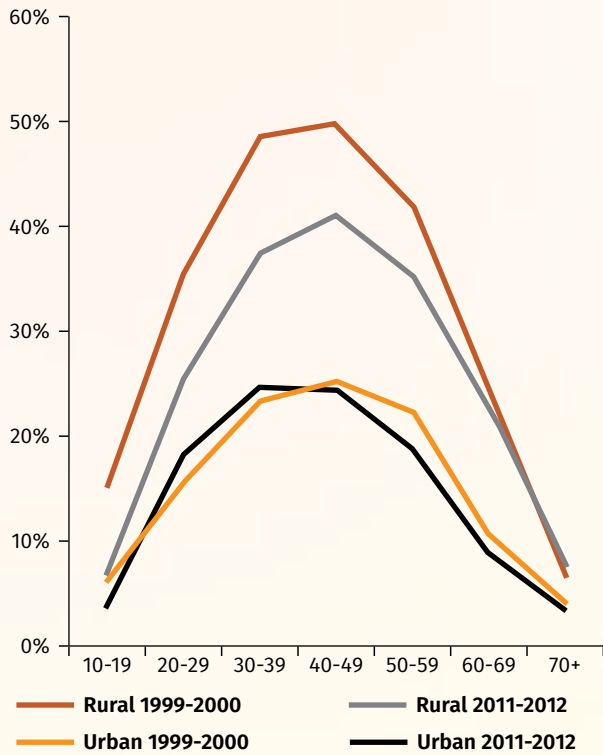


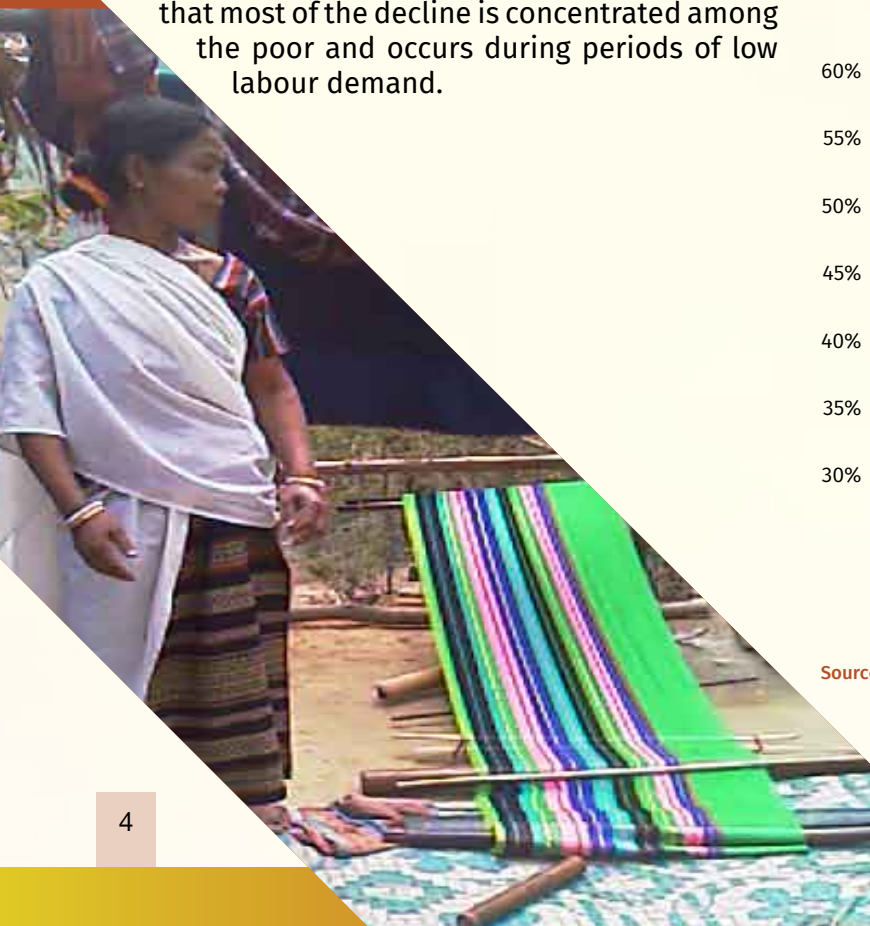
Figure 2: Changes in WPRs at Different Ages for Rural and Urban Women between 1999–2000 and 2011–12



Source: Authors' calculations from National Sample Survey Rounds 55 and 68. WPR refers to the Current Weekly Status.

Poverty rather than wealth is associated with declining female employment

The supply side arguments suggest that women from wealthy households are withdrawing from the labourforce. However, empirical evidence indicates that most of the decline is concentrated among the poor and occurs during periods of low labour demand.



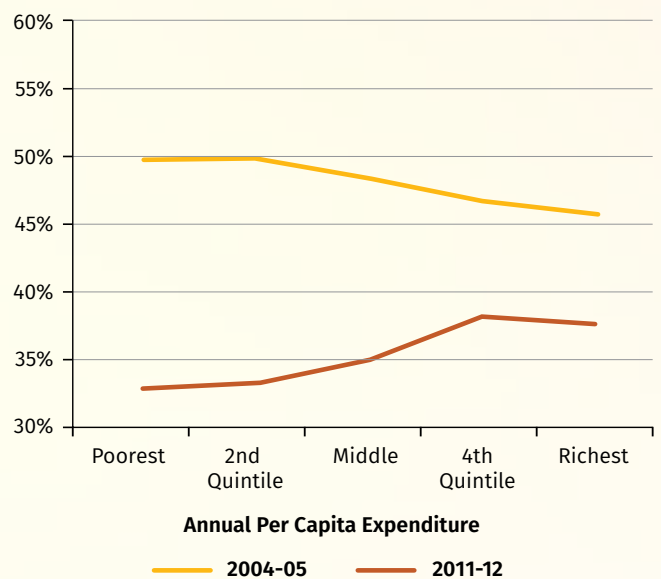
1. Decline in women's work participation is located mainly among poor households

At any given point in time, women from households wherein other household members have higher levels of income are less likely to work than women from poorer households. This may suggest that rising incomes are responsible for women's withdrawal from the labour force.

However, cross-sectional relationships do not account for secular changes. Over time, the decline in women's work participation is located largely in poor households. Both NSSO and IHDS data corroborate this finding.

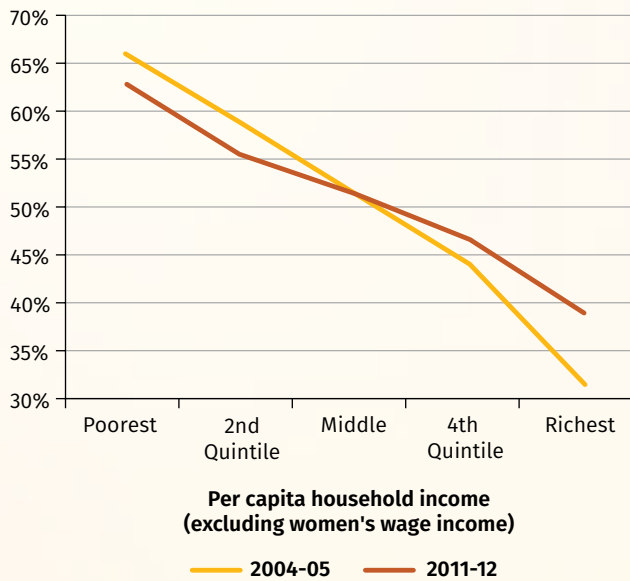
The NSSO's measure of household economic status, that is, the monthly per capita consumption expenditure, is somewhat weaker since it includes contributions of women's own earnings; the IHDS data on income, on the other hand, excludes women's own wages. The NSSO data shows that the decline in women's work participation is greatest for the poorest consumption quintile (Figure 3). IHDS data also show that most of the decline in women's WPR is located among low-income households whereas women's WPR has increased at upper income levels (Figure 4). This observation applies to all types of work including household farm work as as paid work.

Figure 3: Percentage of Women Participating in the Workforce by Monthly per Capita Expenditure Quintiles for Rural Women Aged 25-64 Years



Source: Authors' calculations from National Sample Survey Rounds 55 and 68. WPR refers to the Current Weekly Status.

Figure 4: Percentage of Women Participating in Workforce by Per Capita Household Income for Rural Women Aged 25-64 Years

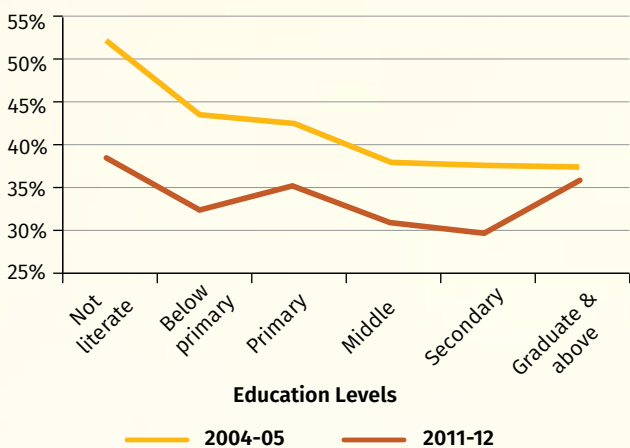


Source: Authors' calculations from India Human Development Survey Waves 1 and 2. Work status signifies the annual work participation for at least 240 hours. Income excludes women's own wage income.

2. Decline in women's work participation has taken place mostly among women with less than primary education

Education and women's work participation in India exhibit a U-shaped relationship. Uneducated women and women with college degrees are most likely to be employed, particularly in most recent data. However, rising education explains only a small proportion of the decline in women's work participation as most of the decline is located among women with less than primary education (Figure 5).

Figure 5: Percentage of Rural Women Aged 25-64 Years Participating in the Workforce by Education



Source: Authors' calculations from National Sample Survey Rounds 61 and 68. WPR refers to the Current Weekly Status.

“The decline in women’s work participation is largely a rural story.”

Women Take Advantage of Expanding Work Opportunities

1. A significant proportion of women who are not employed would like to work

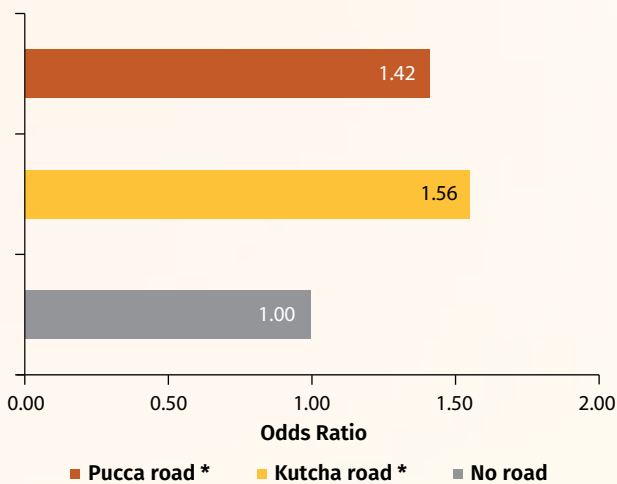
Both the NSS and IHDS record a great willingness to work on the part of women currently not employed. NSS data from 2011-12, reported by Moore et al. (2018), reveal that more than 30 per cent of the women engaged in domestic duties would like to work. IHDS data show that 65 per cent of women who are not currently working would like to work if they could find suitable work. Almost all these women also reported that their families would be willing to let them work.

2. Road construction leads to increased non-farm work for women

Roads provide opportunities to travel to nearby villages and towns for work. The IHDS surveys find that the construction of either a kutcha or a pucca road increases the odds of women's participation in non-farm work by 1.5 and 1.4 times, respectively (Figure 6). Men were also seen to benefit from road construction but women's gains were higher. These analyses control for caste, education, family income, and other background factors.

“How can we encash the gender dividend without bringing more women into the ambit of employment?”

Figure 6: Odds of Engaging in Non farm Work for Rural Women Aged 25-59 Years between 2004-05 and 2011-12 by Changes in Transportation



Source: Lei, Desai and Vanneman, 2017.

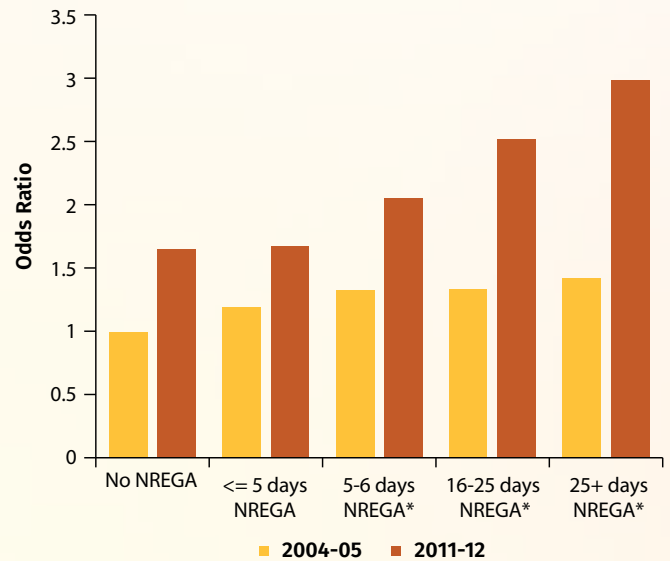
Note: * Statistically significant differences.

3. Introduction of MGNREGS increased women’s participation in wage work in villages with strong implementation of the scheme

Introduced in 2006, MGNREGS created new opportunities for women to obtain manual work on demand close to their homes. Any rural household is entitled to 100 days of work on demand. Since the male and female wages under the scheme are the same, many households choose to have females participate in MGNREGA while men seek higher salaries elsewhere. However, implementation of this aspect of the scheme is uneven due to various bureaucratic hurdles. A difference-in-difference analysis shows that holding background characteristics such as age, education, caste/religion, land ownership

and state of residence constant, villages that provide a higher number of MGNREGS work days per household see a greater increase in women’s participation in wage work. The difference in wage work between waves 1 and 2 of IHDS is statistically insignificant for villages where either no NREGS work was performed or the work was of such a low intensity that less than five days of work was available per household (Figure 7).

Figure 7: Increase in Odds of Undertaking Wage Work by NREGA Work Availability between 2004-05 and 2011-12



Source: Desai (2018). Based on comparisons between the same villages between waves 1 and 2 of IHDS. The number of days of NREGS work has been obtained by using the number of days of work performed as listed in administrative records divided by the village population from Census 2011. Tamil Nadu and Puducherry have been excluded due to missing administrative data.

Note: * Statistically significant differences.

“Declining women’s work participation stems from fewer work opportunities for poor and less educated women.”



Conclusion

The declining WPR for rural women appears to be associated with crowding of women in agriculture where land fragmentation has led to a reduction in both the size of farms as well as the demand for labour, be it household members or agricultural labourers. The decline in female employment is mostly reported for the least educated and poorest women. In areas where alternative job opportunities become available to women, either through public works programmes or through their increased ability to commute to nearby towns and larger villages, women's participation in paid work seems to increase. Hence, in order to reap the gender dividend, India needs to focus on augmenting women's economic participation by not only facilitating creation of new jobs for women but also offering them greater access to existing jobs. Only sustained efforts in these areas can help India combat its alarmingly low female WPRs and ensure an equitable gendered distribution of work.

FURTHER READING

Chatterjee, E., Desai, S., and Vanneman, R. (2018). "Indian Paradox: Rising Education, Declining Women's Employment." *Demographic Research*, 38, 856-875.

Desai, S. (2018). "Do Public Works Programs increase Women's Economic Empowerment? Evidence from Rural India." *India Human Development Survey Working Paper No. WP2018-02* on <https://ihds.umd.edu>.

Klasen, S., and Pieters, J. (2015). "What Explains the Stagnation of Female Labor Force Participation in Urban India?" *The World Bank Economic Review*, 29(3), 449-478.

Lei, L., Desai, S., and Vanneman, R. (2017). "Village Transportation Infrastructure and Women's Non-agricultural Employment in India: The Conditioning Role of Community Gender Context." *India Human Development Survey Working Paper No. WP2017-02* on <https://ihds.umd.edu>. Forthcoming, *Feminist Studies*.

Moore, C., Fletcher, E. K., and Pande, R. (2018). "Women and Work in India: Descriptive Evidence and a Review of Potential Policies." Paper presented at the *India Policy Forum*, New Delhi: National Council of Applied Economic Research.



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