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## What Do We Miss on Women’s Employment in Survey Data?

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*Women’s participation in work turns out to be much higher than usually estimated when modifications are made to the questions asked in surveys, the time period covered and, most important, who is asked (man/woman) about work. A report from one survey.*

The issue of low levels of women’s workforce participation rate (WPR) in India has come to occupy a central place in academic and policy circles (Klasen and Pieters 2015; Deshpande and Singh 2021; Mehrotra and Sinha 2017; Desai and Joshi 2019). There are several reasons cited for the low levels of participation by women, including supply-side constraints such as the burden of care, mobility restrictions, and norms, and demand-side issues such as the lack of good jobs.

Besides these factors, a longstanding concern among feminists has been the inadequacy of labour statistics in capturing the many forms of women’s work. This year’s Economic Survey, in what was probably the first time, highlighted several important issues to do with the measurement of women’s work in India (Government of India 2023: Box VI.2, 160-62). Broadly, the Survey identifies three issues with existing methods of measuring women’s work—the use of overly broad categories; the reliance on a single question to provide employment information; and the distinction between employment and work.

In this article, we address some of these questions around measurement based on findings from the [India Working Survey that we conducted in the states of Karnataka and Rajasthan](#) during February and March 2020 to study the role of social identities in the labour market. One of the objectives of the survey was to understand how the measurement of women’s work was influenced by the way in which questions were asked and whom they were being asked to.

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In every household in our sample, we spoke to one randomly selected man and one woman. We were able to interview nearly 6,000 respondents from about 3,400 households. To understand how the framing of questions and the identity of respondents influenced estimates of the employment rate, we introduced two tweaks to the survey design.

### How Is It Being Asked?

The first tweak we introduced was experimenting with different ways of asking for employment information. The International Labour Organisation’s 19th International Conference of Labour Statisticians (ICLS) identifies an individual as “employed” if he or she has engaged in any of the following activities for at least an hour in the last week for pay or profit—business, including farming or other self-employment, unpaid work in the family business/farm/livestock, wage or salaried work, paid apprenticeship or internship, and small-scale production of goods and services for sale.

Most labour force surveys in India typically ask one question to gauge an individual’s employment status. The government’s Periodic Labour Force Survey (PLFS), in collecting employment status information, first establishes whether a person is employed or not for the majority of the year (when the reference period is a year) or for at least one hour in the reference period (when the reference period is a week or a day). Once an individual is identified as employed, he or she is asked if they work for a salary, a wage, or are self-employed.

However, unless specific activities are called out, it is likely that women’s employment may not be effectively captured. For many women, their primary work status within the household is that of a home-maker. It is only with further probing that women often recognise and reveal the multiple economic activities they may be involved in.

For instance, Deshmukh et al. (2021) find that asking women about their activities rather than status (employed or not) significantly increased employment estimates. Additionally, Muller and Sousa (2020) find women apply far more stringent definitions when identifying employment compared to men. Rather than asking a single question, we therefore asked individuals about each of the

different kinds of activities identified by the ICLS (Table 1). This was in keeping with the methodology detailed by the ILO (Benes and Walsh 2018) where it experimented with different sequencing of questions across several developing country contexts.

<b>Table 1: Employment-related Questions Asked of 'India Working Survey' Respondents</b>	
<b>Employment Category</b>	<b>Employment Questions</b>
Self-employment	Last week, did you do any kind of business, farming, or other self-employed activity to generate income even if only for one hour?
Contributing family worker	Last week, did you assist in a business/farm/livestock of a household or family member without pay even only for one hour?
Wage work (casual/salaried)	In the last week, did you work for a wage, salary, commission, or any payment in kind even if only for one hour?
Apprentice/intern	In the last week, did you work for pay as an apprentice, intern, or trainee even if only for one hour?
Small-scale production	Last week, did you engage in the small-scale production of goods or services at home that were exchanged for cash or kind even if only for one hour?
Unpaid volunteer	Last week, did you work as an unpaid volunteer or do any kind of unpaid social work even if only for one hour?
<b>Note:</b> All respondents were 18 years or above.	

We also had a recovery question to help respondents recall any employment activities through the week that they may have missed. “Did you miss out reporting any work activities that led to you earning an income, or helping household members with an activity that generates an income even if only for one hour?” This was important because the nature of employment in India leads to multiple informal arrangements, making it difficult for respondents to recall their activities fully.

To compare the effectiveness of these detailed questions with that of a single question, we ran two smaller experimental arms of the survey alongside the main survey. That is, in one sample, A, individuals were asked a single question about the entire week, and in the other sample, B, individuals were asked a single question about each day of the week.

Comparing the main survey with sample A, we get an understanding of what moving from a single question to a detailed weekly question implies in terms of estimates of the rate of employment. And, comparing A and B, we get an idea of how shifting from a one-week reference period to a daily reference period changes estimates.

### **Who Is Being Asked?**

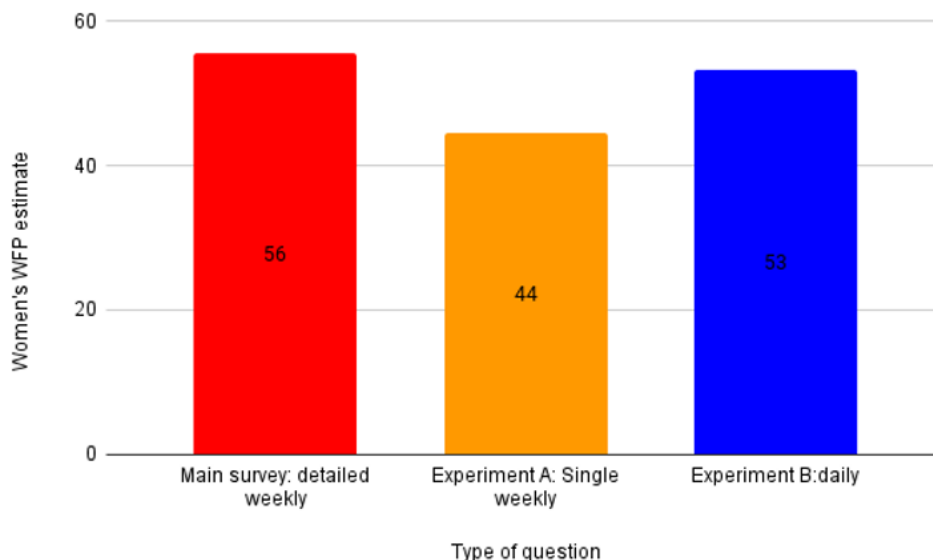
The second tweak we introduced had to do with the respondent’s choice. If our randomly selected male-female pair happened to be a spousal couple, we asked them to report on not just their own economic activities, but also those of their spouse. So, for every man (woman), we could estimate self-reported employment rates and proxy-reported employment rates.

### **What Did We Find?**

When we asked respondents a single question about their status in the last week (Experiment A), the women’s employment rate was around 44% (Figure 1). However, moving from a single weekly question to detailed questions about the week (main survey) increased employment estimates significantly by 12 percentage points to 56%.

At the same time, detailed questions about each day of the week increased employment estimates by 9 percentage points (53%) compared to a single weekly question. We found no difference in the estimates of men’s employment across the three formats with employment rates ranging between 82% and 87%.

**Figure 1: Comparing Women’s Employment Estimates in Response to Different Types of Questions**



What about the identity of the respondent? We found that when men reported about themselves, the estimated employment rate was about 77% (Table 2). And, when women reported about their husbands, the estimates were similar, at about 79% (the over-reporting by women was not statistically significant).

However, when women reported about themselves, we arrived at a women’s employment rate of about 63%. Now, when men were asked to report on their wives' employment, the corresponding estimate of employment rate was only 58%. Men significantly under-reported women’s employment by nearly 5 percentage points.

The IWS survey allows us to see what kinds of activities are being under-reported. Interestingly, we find that it is women’s wage work and work as contributing family workers that are consistently under-reported by men. Self-employment, on the other hand, is over-reported with more men reporting their wives in self-employment than the women themselves. This happens because men identify women as self-employed while those same women see themselves as contributing family workers.

	Men			Women		
	Self	Proxy	Difference	Self	Proxy	Difference
<b>WFP (%)</b>	76.90	78.66	-1.76	63.23	57.85	5.38***
<b>LFPR (%)</b>	79.72	81.48	-1.76	69.49	63.84	5.65***
<b>UR (%)</b>	3.54	3.43	0.11	9.01	5.86	3.15

**Note:** 18 years and above, rural sub-sample only.

However, there is no significant mismatch in the reporting of unemployment status for men and women. This suggests that while men may not fully comprehend the nuances of women’s various economic activities, they were able to understand when women were unemployed and available for work. Possibly, women looking for work could be observed by all members of the household, making for more accurate reporting by men.

## Implications for estimates of women's work and labour force surveys

Clearly, the framing of questions, the reference period, and the identity of the respondents influence estimates of women's employment. It may not be possible for national-level labour force surveys to collect information on employment by speaking to multiple respondents within households. But the IWS experience suggests even small changes could yield dividends.

Well-trained enumerators typically probe before recording employment status when surveys have a single question to record employment status. However, incorporating a few questions that call out specific activities alongside the existing single question can better capture the multiple activities that women engage in. Further, adding recovery questions can also improve the accuracy of reporting of economic activity.

On the demand side, several studies find that women's employment has been negatively affected by the peculiar structural transformation of the Indian economy, which bypassed manufacturing, a traditional engine of women's employment.

Finally, despite measurement accounting for some of the low levels of estimated employment rates of women, we reiterate that it is only one of the reasons. The declining trend in women's employment cannot be explained by measurement issues alone since the questions have been unchanged over the years. As highlighted at the beginning, demand and supply side issues remain important reasons behind the low participation rates.

The PLFS 2020-21 asked individuals who were out of the labour force why they could not work. [About 43% of the women attributed it to childcare and domestic work](#). But these constraints were applicable to only 1.5% of men. A key reason why men were not in the workforce was continuing education.

On the demand side, several studies find that women's employment has been negatively affected by the peculiar structural transformation of the Indian economy, which bypassed manufacturing, a traditional engine of women's employment (Lahoti and Swaminathan 2016, Mehrotra and Parida 2019). A question to ask our policy makers is what concrete steps have been taken to encourage women to participate in the labour market?

Government intervention must be multi-pronged, targeting the market and society. Using a mix of policies, governments can incentivize employers in the formal and informal sectors to hire women and provide support services to free up women's time. Most critically, one must encourage a mindset in our society that acknowledges the unfair burden of care on women and values women's economic empowerment as a basic right.

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*All views are personal.*

### References:

Benes, E. and Walsh, K. (2018): "Measuring Employment in Labour Force Surveys: Main Findings from ILO LFS Pilot Studies", ILO Statistical Methodology Series, Geneva.

Desai, S. and Joshi, O. (2019): "The Paradox of Declining Female Work Participation in an Era of Economic Growth", Indian Journal of Labour Economics, 62, pp. 55-71.

Deshmukh, N., Desai, S., Pramanik, S. and Tiwari, D. (2020): "Improving the Measurement of Women's Work: Sensitivity of Work Participation Rates to Survey Design", NCAER National Data Innovation Centre Measurement Brief 2020-1. <https://wedge.umd.edu/improving-measurement-womens-work-participation-sensitivity-work-participation-rates-survey-design>

Deshpande, A. and Singh, J. (2021): "Dropping Out, Being Pushed Out or Can't Get In? Decoding Declining Labour Force Participation of Indian Women", Economics Discussion Paper 6, Ashoka University, July.

[https://dp.ashoka.edu.in/ash/wpaper/paper65\\_0.pdf](https://dp.ashoka.edu.in/ash/wpaper/paper65_0.pdf)

Lahoti, R. and Swaminathan, H. (2016): “Economic Development and Women’s Labour Force Participation in India”, *Feminist Economics*, 22 (2): pp. 168–95

Mehrotra, S. and Parida, J. K. (2019): “India’s Employment Crisis: Rising Education Levels and Falling Non-Agricultural Job Growth”, Centre for Sustainable Employment, Working Paper No. 23, Azim Premji University, Bangalore.

Mehrotra, S. and Sinha, S. (2017): “Explaining Falling Female Employment during a High Growth Period”, *Economic and Political Weekly*, 52 (39).

Muller, Miriam and Sousa, Liliana D. (2020): “‘She Helps Me All the Time’: Underestimating Women’s Economic Engagement in Rural Honduras”, Policy Research Working Paper No. 9217, World Bank, Washington, DC.  
<https://openknowledge.worldbank.org/handle/10986/33638>

Government of India (2023): *The Economic Survey 2022-2023*, Department of Economic Affairs, Ministry of Finance, New Delhi.  
<https://www.indiabudget.gov.in/economicsurvey/doc/echapter.pdf>