

Reconsidering Women's Work in Rural India

Analysis of NSSO Data, 2004–05 and 2011–12

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The most recent data gathered by the National Sample Survey Office on work participation for women in India reveal a sharp decline, primarily due to the NSSO's conventional measures not accounting for economic activities undertaken by women for the benefit of households. Alternative definitional approaches to the production boundary, such as the Indian System of National Accounts and the United Nations System of National Accounts, somewhat better account for unpaid work by women for households' own consumption. An analysis of data from the part of the NSSO schedule on employment and unemployment (for 2004–05 and 2011–12) that enquires about various activities undertaken by individuals who report performing household activities as their principal activity, reveals a less dramatic decline than that presented by the more conventional measure of work participation. This finding contributes to a significant rethinking of how rural women's contributions to economic activities for their own households can be better recognised through data.

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[I]f a man marries his housekeeper or his cook, the national dividend [income] is diminished.

(Pigou 1920: 32)

The declining participation of women in work is a well-established trend in India for the past three decades, except for 2004–05 when participation in work showed an increase for rural and urban women on the 1999–2000 levels (Table 1). The phenomenon of declining work participation, along with overall improvements in the economic status of households, leads some scholars to hypothesise that women are withdrawing from menial, lowly paid and undignified work, as their male counterparts start to earn income that can sustain livelihoods with minimal necessities, a consequence of high wage rates for men.

Two unusual things were witnessed in the data from rounds of the National Sample Survey Office (NSSO) employment and unemployment survey since 1999–2000 (55th round). First, in 2004–05 (61st round), the work participation of rural and urban women increased by 2–3 percentage points over 1999–2000, which was contrary to the declining trend since 1983 (38th round). Second, there was a massive decrease (12 percentage points) in work participation of rural women between the 2004–05 and 2009–10 surveys. Such a decline was unprecedented in history. From 2009–10 (66th round) to 2011–12 (68th round), the work participation of rural women decreased by 2 percentage points while for urban women it increased by 1 percentage point.

Table 1: Working Age (15–59 Years) Women's Work Participation, 1999–2000 to 2011–12

	1999–2000	2004–05	2009–10	2011–12
NSSO survey round number	55th	61st	66th	68th
Rural (%)	48.3	51.2	39.2	37.0
Urban (%)	20.9	24.0	19.8	20.9
Total (%)	41.0	43.9	33.6	32.2

Source: Rawal and Saha (2015).

The increase in women's participation in 2004–05 and the massive decrease in the next round (2009–10) puzzled many observers of the Indian labour market, and discussion regarding this continues in the *Economic & Political Weekly*. The predominant explanation is the "supply side effect," that is, the voluntary withdrawal of rural women from the workforce resulting from the improving economic status of the poorest segment of the population (Gandhi et al 2014; Abraham 2013; Thomas 2012; Himanshu 2011; Rangarajan et al 2011). This hypothesis interprets the current situation in India as part of a U-shaped relationship between women's labour force participation and economic development (Mammen and Paxson 2000; Goldin 1994).

Another set of studies support this argument indirectly by showing that social and cultural barriers to women's labour force participation in patriarchal societies start emerging as people rise above subsistence-level living, such as what is currently experienced by households with low socio-economic status (Abraham 2013; Neff et al 2012; Chowdhury 2011; Olsen 2006).

However, recognising the decline in rural women's participation in work as voluntary casts doubt on well-established results in the literature showing that the interests of men and women belonging to the same household often differ significantly, particularly in decisions that can increase the economic autonomy of women (Sinha 2012; Agarwal 1985). Importantly, in most cases, the respondents who divulge information to enumerators regarding women's work are men, and responses tend to reflect their perspective. A few scholars, thus, attribute the decline in women's participation in work to the lack of availability of work in rural areas (Chatterjee et al 2015a, 2015b; Chand and Srivastava 2014; Rodgers 2012; Kannan and Raveendran 2012; Hirway 2012).

However, one would expect the fall in work participation of rural women due to lack of work opportunities to be reflected in an increase in the proportion of women who consider themselves unemployed, which is not the case. Nevertheless, V Rawal and P Saha (2015) maintain that due to the NSSO's definitional restrictions, non-working women get classified as principal domestic duty performers, when, in fact, they have the desire and are willing to work. To classify someone as unemployed under the NSSO, he or she must be looking/available for work for at least six months during the survey year. Since most women spend their time on domestic duties when not working, domestic duty (status codes 92 and 93) becomes their principal activity and they are considered to be out of the labour market.

Our focus is on rural women's work participation. We specifically examine details of the 2004–05 and 2011–12 data to determine if massive changes in rural women's participation were concentrated among specific groups, that is, age categories, social groups, economic status, etc. The next section defines the concepts used in this article. The rest of the article analyses the changes in rural women's work participation by sector of activity for social, economic and spatial groups.

Data and Concepts

The NSSO's usual activity status (principal and subsidiary) relates to the activity status of a person during the 365-day reference period preceding the date of the survey. If a person spends the majority of the year on a particular activity (that is, major time criterion), then, that activity (economic or non-economic) is classified as the usual principal activity status of the individual. If that activity is economic, the individual is considered a worker. If a non-worker undertakes economic activity according to their subsidiary status (minor time criterion), subject to the condition that it is not less than 30 days during the reference year, they will also be considered as a worker. For subsidiary status, however, only economic activity is considered. Thus, ironically, a non-worker (according to their

principal status) who is seeking work at the level of a minor time criterion or as their subsidiary status, will not be considered unemployed, because seeking work under subsidiary status is not economic activity.

Worker-to-population ratios (work participation rates) are used, rather than the absolute number of persons in different categories of workers, to analyse the dynamics of women's work participation. This is mainly due to the criticism that using projected population estimates, calculated by applying ratios derived from the NSSO to population figures from the census, assumes that non-coverage of some of the population by the NSSO surveys (for example, in difficult-to-reach hilly regions like the northeastern states) is purely random, and that there is no systematic difference between the employment structure of the excluded and included areas in the NSSO survey (Rawal and Saha 2015). This assumption may be highly restrictive.

Importantly, instruction manuals provided by the NSSO to its field staff do not clearly distinguish between two codes that relate to domestic duties, that is, 92 and 93 (Rawal and Saha 2015). Code 92 represents those engaged in domestic duty only, and code 93 represents those who combine domestic duty with the free collection of goods (food, fuel or fodder) or other economic activities to obtain various commodities for household use. We treat these two categories as one category for all discussions.

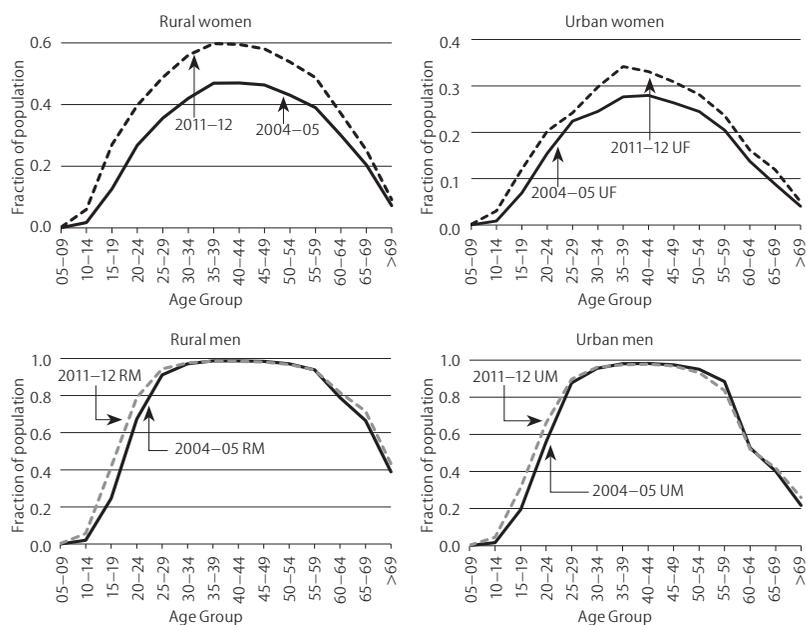
Decline in Rural Women's Work Participation

Figure 1 (p 47) plots workforce participation by age groups for four subpopulations. The aggregate decrease mainly comes from a decline in the work participation of rural women and a marginal decline in that of urban women. There was no perceptible decrease in participation of men (rural or urban). Men's participation for working age (15–59) groups is almost 100% in both rural and urban areas for both years. Women's participation peaked at around 64% in 2004–05 for the 35–39 age group, while the participation rate for the same group in 2011–12 decreased to 48%.

Our purpose here is to identify which particular groups among rural women experienced larger decreases in their workforce participation. Rural women experience the sharpest decline in workforce participation rates (Figure 1). The participation of the working age group (15–59) decreased from 52.5% to below 39%. Table 2 (p 47) shows that no other group faced such a massive decline.

Table 2 provides an overview of the distribution of working age rural women for 2004–05 and 2011–12 by sector and type of involvement in the workforce. In 2004–05, about 43% of working age rural women were involved in agriculture, of which about two-thirds were self-employed, that is, were farmers or cultivators. However, in 2011–12 only about 28% were involved in agriculture, a decline of about 15 percentage points. Again in 2011–12, about two-thirds of working age rural women involved in agriculture were working as cultivators. It is clear that the decline in rural women's participation in agriculture happened with the same intensity for casual and

Figure 1: Workforce Participation by Different Groups in 2004–05 and 2011–12



Source: Calculated from NSSO 61st and 68th rounds, Schedule 10, unit-level data.

Table 2: Overview of Working Age (15–59 Years) Rural Female Work Participation by Employment Status and Sector in 2004–05 and 2011–12 (%)

Year	Worker	Self-Employed	Regular Employed	Casual Employed	Un-Employed	Not Labour	Total
2004–05	Agriculture	27.35	0.22	15.25	n/a	n/a	42.83
	Other	5.05	1.78	1.80	n/a	n/a	8.63
	Not working	n/a	n/a	n/a	1.00	47.54	48.54
	Total	32.40	2.00	17.06	1.00	47.54	100.00
2011–12	Agriculture	17.79	0.18	9.80	n/a	n/a	27.77
	Other	4.09	2.03	3.26	n/a	n/a	9.39
	Not working	n/a	n/a	n/a	0.66	62.19	62.85
	Total	21.88	2.21	13.07	0.66	62.19	100.00

n/a refers to not applicable.

Source: Calculated from NSSO 61st and 68th rounds, Schedule 10, unit-level data.

self-employed workers. A very small proportion of rural women were involved in non-farm activities (8%) in 2004–05, which marginally increased in 2011–12 (9%). Therefore, a very small part of the total decline in rural women’s participation in the farm sector was absorbed by the non-farm sector.

Activity-wise distribution in agriculture (2004–05):

As noted, close to 43% of all working age rural females were involved in agriculture and 9% were involved in the non-farm sector. The remaining 47% were not working. A large majority, 83% of working age rural females within the farm sector were involved in grain production (48% self-employed and 35% as casual workers). Close to 15% of working age rural females who were working in the farm sector were also involved in animal husbandry, and almost all were self-employed. The remaining 2% of working age rural females in the farm sector were doing various other activities, such as fishing and logging.

Activity-wise distribution in agriculture (2011–12):

Close to 28% of all working age rural women were involved in agriculture and 9% were involved in the non-farm sector. The remaining

63% were not working. A large majority, 85% of working age rural females who were working in the farm sector were involved in grain/crop production (51% were self-employed and 34% were casual workers). Close to 12% working age rural females in the farm sector were involved in animal husbandry, and almost all of them were self-employed. The remaining 6% of working age rural females involved in the farm sector were engaged in various other activities, such as fishing and logging.

It is wise to bear in mind that a large majority (about 90%) of rural women work in agriculture. Further, a large number of those working in the agriculture sector are involved in grain production (usually over 80%) and animal husbandry (usually about 10%–15%).

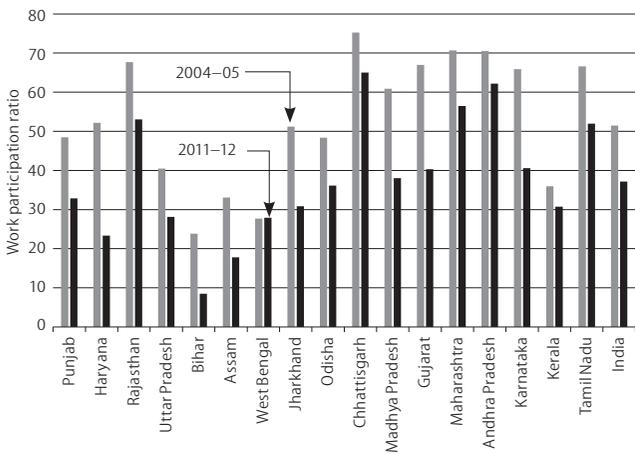
The NSSO shows that a very small proportion of people are unemployed, that is, available/looking for work. This is because the NSSO applies a very strict definition to unemployment, as mentioned before. The census, however, has a less stringent definition and reports much higher unemployment in rural areas (close to 9% of working age rural women and more than 10% of working age urban women in the 2011 Census).

Recent literature has highlighted that the aforementioned decline in work participation was mainly among poor rural women. To identify particular segments within the rural women’s population where participation declined particularly rapidly, we look at rural women’s participation in work in 2004–05 and 2011–12 by social group and economic status in major Indian states.

Rural women’s work participation by social group is highest for Adivasis, followed by Dalits and non-Muslim Other Backward Classes (OBCs), and then “others.” The decline in work participation in the farm sector was the sharpest for Adivasis, Dalits and non-Muslim OBCs, a decrease of 20, 17 and 16 percentage points, respectively, from the 2004–05 level (Table 3, p 48). Muslims have the lowest participation in agriculture. However, their participation in the non-farm sector is highest and increased further in 2011–12. Thus, the decline in work participation was highest for women in socially disadvantaged groups. Looking at work participation of women by economic status, measured in terms of quintiles of monthly per capita consumption expenditure, we find that the decline was highest for the lowest quintiles, that is, the poorest 20% (Table 3).

When one looks at statewise participation of rural women in work, we find that rates in states with the lowest participation, such as Bihar and Assam, have further declined, as shown in Figure 2 (p 48). The only state where work participation of women in rural areas did not decline is West Bengal. Nevertheless, work participation in the farm sector did decline even there, though this was compensated in full by an increase in work participation in the non-farm sector, which is contrary to national trends. Only West Bengal was successful in compensating the

Figure 2: Statewise Work Participation of Rural Women in 2004–05 and 2011–12 (%)



Sources: Calculated from NSSO 61st and 68th rounds, Schedule 10, unit-level data.

loss of jobs in the farm sector with a gain in jobs in the non-farm sector. From these observations, a significant portion of job losses in the farm sector has affected the poorest rural women in India. Notably, participation rates have also declined for higher quintiles, but were not as sharp as for socially and economically disadvantaged groups.

Another factor that may be important for gradation in work participation is village size, as emphasised by U Chatterjee et al (2015a, 2015b). Availability of non-farm activities is positively related to the level of urbanisation or scale of population that lives in a particular area. The NSSO has a variable called substratum, which roughly captures the rank of a village (in terms of population, from smallest to largest) in a given district, which we can use as a crude measure of village size. From the

Table 3: Work Participation of Rural Women (15–59 Years) (%)

	2004–05		2011–12		Change		Total
	Farm	Non-farm	Farm	Non-farm	Farm	Non-farm	
Social groups							
Scheduled Tribes	65.50	7.38	45.03	9.93	-20.47	2.55	-17.92
Scheduled Castes	45.67	8.83	29.16	10.71	-16.51	1.88	-14.63
Non-Muslim Other							
Backward Classes	45.63	8.76	29.23	8.98	-16.4	0.22	-16.18
Muslim Other							
Backward Classes	20.48	10.03	12.64	8.93	-7.84	-1.10	-8.94
Muslims	16.95	11.03	11.24	14.18	-5.71	3.15	-2.56
Others	36.02	7.75	23.05	7.07	-12.97	-0.68	-13.65
Total	42.83	8.63	27.77	9.39	-15.06	0.76	-14.30
Quintile (Economic status)							
Q1 (Poorest 20%)	52.45	10.52	30.64	8.32	-21.81	-2.20	-24.01
Q2	45.75	9.28	26.58	8.27	-19.17	-1.01	-20.18
Q3	42.76	8.79	28.01	9.11	-14.75	0.32	-14.43
Q4	37.95	7.71	28.70	10.01	-9.25	2.30	-6.95
Q5 (Richest 20%)	34.93	6.80	25.42	10.83	-9.51	4.03	-5.48
Total	42.83	8.63	27.77	9.39	-15.06	0.76	-14.30
Village size							
1 (Smallest village)	49.78	6.30	30.72	7.41	-19.06	1.11	-17.95
2	44.61	7.66	27.43	8.44	-17.18	0.78	-16.40
3	41.39	8.90	26.90	9.40	-14.49	0.50	-13.99
4	38.54	10.44	25.30	12.69	-13.24	2.25	-10.99
5 (Largest village)	29.01	14.00	21.88	16.67	-7.13	2.67	-4.46
Total	42.83	8.63	27.77	9.39	-15.06	0.76	-14.30

Sources: Calculated from NSSO 61st and 68th rounds, Schedule 10, unit-level data.

last panel of Table 3 (village size), it is evident that the proportion of female workers has decreased sharply in smaller villages. In larger villages, the proportion of women doing non-farm jobs increased from 2004–05 to 2011–12. In larger villages, a significant part of the reduction in farm sector participation was compensated by an increase in participation in the non-farm sector. For example, large villages (village categories 4 and 5) experienced close to 2.5% increase in non-farm participation, while smaller villages (village categories 1 to 3) had a less than 1% increase. It is quite plausible that smaller villages have less ability to generate non-farm activities, meaning loss of farm-based jobs rendered women from smaller villages out of work.

Additionally, it is more difficult for women to work outside their locality than it is for their male counterparts, for example, due to an increase in unitary family systems in villages of India, working age women of households often have to look after their children, and quite often, women’s movement out of their village is considered “unsafe.”

Given that the rising burden of expenditure on non-food essentials is forcing rural populations to spend less on food, the possibility that women stop working or looking for work is highly implausible (Basole and Basu 2015). Additionally, our preceding empirical discussion clearly identified that the sharpest reduction in work participation occurred among socially and economically marginalised groups. This reduction is likely to be largely involuntary. It is also likely that even when women report domestic duty as their principal activity, they undertake activities that contribute to the economic well-being of the households, such as collecting food, fuel and fodder, stitching and weaving, poultry and animal husbandry, and teaching their own or others’ children. As per the NSSO definition, people who do such activities for their own household’s use are classified as non-workers.

The classification issue is critically important when we examine underlying changes in work participation rates of women in different rounds of NSSO surveys. Hirway (2012) and Rawal and Saha (2015) point out that a sizeable portion of rural and urban women are actually home-based subsidiary workers, which is ignored by NSSO estimates. Also, women’s unemployment rates could actually be much higher than those shown by the NSSO. This is because many more women might be willing to work, but due to non-availability of paid work they begin to economically contribute to their households within their own capacity for subsistence.

The NSSO has a specific block of questions for individuals who report household activities (activity status codes 92 and 93) as their principal activity, which is basically a set of follow-up questions about activities undertaken and aspirations for participating in the labour market in the near future. In the next section, we use these follow-up questions to develop alternative estimates of workforce participation of women in rural and urban areas, based on the definition of production boundary¹ by the Indian System of National Accounts (ISNA), and as recommended by the United Nations System of National Accounting (UNSNA).

Modifying Estimates

A more appropriate way to account for women's participation in the workforce, or more broadly in the labour force, would be to take into account the contribution to the production of goods and services for households' own consumption by individuals who are not part of the workforce, as per conventional NSSO usual status. Hirway (2012) emphatically argues for considering people involved in such activities as workers. Using time use surveys as justification, she argues that most home-based workers are involved in three to five activities that contribute to the economic well-being of the household. N Banerjee (2006), in a survey of 27 villages in West Bengal, found that the median household in the sample had three working members and seven occupations. Additionally, she found that even when a household had farmland, they spent only 40% of their working time on farming activities. Such a diversified portfolio of activities is pursued by rural poor households to insulate against the risk of livelihood losses.

Table 4: Activities Covered in Follow-up Questions to Individuals Principally Engaged as Domestic Workers and Classification by Indian and UN Definitions of Production Boundary

Serial No	Description of Activity	Included in Production Boundary	
		ISNA	UNSNA
1	Maintenance of kitchen garden	Yes	Yes
2	Working for household poultry, dairy, etc	Yes	Yes
3	Free collection of eatables	Yes	Yes
4	Free collection of fuel for household use	Yes	Yes
5	Paddy husking	No	Yes
6	Grinding foodgrains	No	Yes
7	Preparation of molasses (jaggery)	No	Yes
8	Making baskets and mats	No	Yes
9	Making dung cakes	No	Yes
10	Sewing, tailoring, weaving	No	Yes
11	Tutoring own or other's children free of charge	No	No
12	Bringing water from outside	No	Yes

Sources: NSSO (2013: D15, 2014a: D15, 2014b: D15).

Table 5: Distribution of Working Age (15–59 Years) Women by Different Types of Activities in Which They Are Usually Engaged (%)

Usual (Principal + Subsidiary) Status (original NSSO codes)	2004–05			2011–12		
	Rural	Urban	Total	Rural	Urban	Total
Self-employed own account or employer (11+12)	8.01	5.75	7.41	6.74	5.34	6.32
Helper in household enterprise (21)	24.25	5.43	19.21	15.11	3.44	11.60
Regular worker (31)	1.98	8.83	3.82	2.19	9.22	4.31
Casual worker (41+51)	16.91	4.03	13.46	12.96	2.87	9.92
Proportion of workers (11+12+21+31+41+51)	51.15	24.04	43.90	37.00	20.87	32.15
Unemployed: available/ seeking work (81)	1.30	2.09	1.51	0.82	1.32	0.97
Proportion of labour participation (11+12+21+31+41+51+81)	52.45	26.13	45.41	37.82	22.19	33.12
Attending educational institution (91)	5.55	11.21	7.07	9.66	13.74	10.89
Usual domestic duty performer (92+93)	40.52	60.93	45.98	51.16	62.43	54.55
Others (begging and prostitution) not part of the labour force (97)	1.48	1.73	1.55	1.36	1.63	1.44
Proportion of non-labour (91+92+93+97)	47.55	73.87	54.60	62.18	77.80	66.88
Total	100.00	100.00	100.00	100.00	100.00	100.00

Sources: Calculated from NSSO 61st and 68th rounds, Schedule 10, unit-level data.

A Banerjee and E Duflo (2012: 142–43) argue that when working harder and longer will not aid in recovery from negative shocks (such as drought for farmers), the best bet is to limit exposure to risk by building a diversified portfolio of activities. Therefore, ignoring such activities leads to massive underestimation of women's work participation, but more importantly makes it difficult for us to understand labour market and survival strategies adopted by the poor. B Agarwal (1985) discusses various factors that bias data collection in surveys on employment, making women's work invisible. In this section we contribute to existing literature by developing a conservative estimate of such workers.

Table 4 lists specific activities that principal domestic workers are asked about. Notably, limiting the follow-up questions on economic activities to domestic workers (codes 92 and 93) results in conservative or truncated estimates of workforce participation. It is likely that individuals who are students (code 91), rentiers and remittance recipients (94), not working due to disability (95), and others, which include beggars and prostitutes (97), on the basis of their principal activity status, can also contribute to economically important activities for households (Hirway 2012).

According to the ISNA, activities relating to agricultural production—such as the maintenance of the kitchen garden, work in household poultry or dairy, free collection of agricultural products for household consumption, that is, activities with serial numbers 1 to 4 in Table 4—should be counted within the production boundary (NSSO 2014b: 23). Thus, individuals involved in activities 1 to 4 of Table 4 should be included in the workforce according to the ISNA definition; if a woman does any one of these activities on a regular basis for household use, she will be considered part of the workforce.

However, the UNSNA has a broader range of activities that are classified within the production boundary (United Nations Statistical Commission 2009), as depicted in Table 4, although it is not as broad or as exhaustive as it could be. It is clear from the above that services provided by individuals for household consumption, such as tutoring of children for free, are not counted in the definition, even if they bring economic benefits to households.

Our next step is to develop alternative estimates of female workforce participation on the basis of alternative definitions by the ISNA and UNSNA, so as to recognise the economic contribution of women who are otherwise counted out of the labour force/workforce.

Clearly, some proportion of women classified by the NSSO as “usual domestic duty performers” (Table 5) will be considered part of the workforce by the ISNA and UNSNA production boundary definitions. In addition to the ISNA and UNSNA definitions, we use a third restrictive measure to classify “usual domestic duty performers” as workers, that is, regularly performing at least three activities listed in Table 5 in the UNSNA production boundary during the previous 365 days. One can argue that considering just one activity from the list might not be appropriate, as the time required for just one activity may not be sufficient to qualify them as a usual worker. To

circumvent this problem, we adopt a restrictive definition of a worker, where they contribute year-round to at least three activities on a usual basis.

We estimated workforce participation (as a percentage of the population) from the reference point of NSSO's conventional definition of work participation given in Table 5. The proportion of workers among working age rural women reached up to 84% in 2004–05 and 75% in 2011–12, according to the UNSNA definition (Table 6). Numbers remain high even when we employ a very restrictive definition, requiring the performing of at least three activities on a regular basis—68% in 2004–05 and 57% in 2011–12. The estimates of workforce participation by the ISNA definition lie between these two results. By all these measures, the NSSO is consistently overlooking activities that should be counted as work.

There is another category of workers that remains unremunerated, but is counted as workers: “helpers in household enterprise” (status code 21). Home-based workers and self-employed helpers in household enterprises do not differ much in the nature of their work and pay. Both categories of worker should be considered unpaid labourers in the economy. Thus, if we combine these two categories, we get an estimate of the proportion of working age women who work as unpaid family labour in the economy (Table 7).

Once we account for the range of economic activities that women perform exclusively for their household's use, the prevalence of unpaid labour among rural working age women increases from 15% (as per the NSSO measure) to between 35% and 53% in 2012, depending on where we set our production boundary. In 2004–05, the prevalence of unpaid family labour by rural women was higher by the NSSO's conventional measure than in 2011–12, being 24%, up from 15% in 2011–12, a gap of 9 percentage points. This gap in the proportion of unpaid family workers between the two periods reduces significantly depending on the alternative definitions of the production boundary (Table 7), between 4 and 6 percentage points.

We noted previously that according to the NSSO measure, rural women's work participation declined the most, but the

Table 6: Proportion of Workers among Working Age Women Population by Definitions of Production Boundary (%)

Definition of Production Boundary	2004–05			2011–12		
	Rural	Urban	Total	Rural	Urban	Total
Conventional NSSO approach	51.15	24.04	43.90	37.00	20.87	32.15
ISNA approach	71.93	29.81	60.66	63.28	28.17	52.71
UNSNA approach	84.03	54.00	76.00	75.06	45.17	66.05
Performing at least three activities of UNSNA	68.10	28.31	57.45	57.22	24.17	47.45

Sources: Calculated from NSSO 61st and 68th rounds, Schedule 10, unit-level data.

Table 7: Proportion of Unpaid Family Workers among Working Age Women by Definitions of Production Boundary (%)

Definition of Production Boundary	2004–05			2011–12		
	Rural	Urban	Total	Rural	Urban	Total
Conventional NSSO approach	24.25	5.43	19.21	15.11	3.44	11.60
ISNA approach	45.03	11.20	35.97	41.39	10.74	32.16
UNSNA approach	57.13	35.39	51.31	53.17	27.74	45.50
Performing at least three activities of UNSNA	41.20	9.70	32.76	35.33	6.74	26.90

Sources: Calculated from NSS 61st and 68th rounds, Schedule 10, unit-level data.

rate of decline reduces significantly once we account for productive activities by women for their households' own use. By the NSSO's conventional measure, working age rural women's participation declined from 51% in 2004–05 to 37% in 2011–12, a decline of 15 percentage points (Table 5). After accounting for women's household activities as per the ISNA definition, the decline was 9 percentage points; as per the UNSNA definition, the decline was also 9 percentage points; and as per the definition of a minimum of three UNSNA activities, the decline was 11 percentage points.

By the NSSO measure, a large proportion (9 percentage points) of the total decline (14 percentage points) in rural women's work participation comes from a decline in the proportion of rural women working as unpaid helpers in family enterprises—from 24% in 2004–05 to 15% in 2011–12 (Table 5). In our view, the decline in this category is only an apparent decline rather than any real decline, because, as we have shown, women continue to do unpaid productive activities for households' use. Given the similarity in the nature of activities performed and the absence of remuneration for self-employed helpers in household enterprises and home-based workers, it is quite likely that enumerators would have difficulty determining the correct box to tick on survey forms. This would not matter much if both categories were counted as part of the workforce, but one category is and one is not. In this context it

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is also important to note that the increase in self-employed women between 1999–2000 and 2004–05 was primarily for “unpaid family workers” (code 21) in NSSO surveys (Mazumdar and Neetha 2011).

If we consider that the real decrease in work participation was between 9 and 11 percentage points, as alternative estimates suggest, then a major part of that decline (4 percentage points) is accounted for by increased participation in education. The proportion of working age rural women attending educational institutions increased by 4 percentage points, from 6% in 2004–05 to 10% in 2011–12 (Table 5). The remaining decline in women’s work participation, 5 to 7 percentage points between 2004–05 and 2011–12, can be explained by a decline in the number of casual workers by 4 percentage points (from 17% in 2004–05 to 13% in 2011–12) (Table 5), and a decline of about 4 percentage points in the number of self-employed domestic unpaid workers, as per our revised estimates. In summary, the real decline in women’s participation between 2004–05 and 2011–12 was 5 to 7 percentage points, not 14 percentage points as shown by the NSSO measure.

All three alternative definitions of workforce participation previously discussed ignore economically productive services provided by women for household use, accounting only for goods. Certain services are definitely economic: teaching one’s own or others’ children for free could cost money; caring for the elderly might otherwise require a hired nurse; breastfeeding can alternatively be provided by hiring a wet nurse, and so on. Most of the services provided by women for households’ own use can be bought from the market, particularly in a modernised economy, and the value of it should be imputed for the purpose of national accounts. In principle, women’s work and contribution is much larger than even the alternative estimates of work participation provided above.

Additionally, the confusing “others” category, largely consisting of people involved in begging and prostitution—under which 1%–2% of working age women are classified in rural as well as urban areas—is not counted as part of the workforce by any definition, probably for moral reasons. It is quite possible that even students spend a lot of time on activities that contribute to economic benefits for households.

It is difficult to reaffirm the view that women have voluntarily withdrawn themselves from the workforce. What is more likely to have happened is that the availability of farm-based work has experienced gradual decline, in which the mechanisation of agriculture has played a significant role. Meanwhile, alternative opportunities in the non-farm sector have hardly increased in rural areas. Therefore, women left with no opportunities for paid work instead begin to focus on activities within households to help their households economically. This claim is supported by studies that evaluate the impact of the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) on employment and social security of women in rural India. M Azam (2012) claims that the decline in work participation of rural women in MGNREGA districts was lower compared to non-MGNREGA districts. L Zimmermann (2013) shows that the employment impacts of the MGNREGA were

particularly high for districts that were rated as high-risk or had deficient rainfall. It is, therefore, more likely that the non-availability of casual farming jobs has pushed women into home-based economic activities.

Conclusions

Experts have expressed concern on the dramatic decrease in work participation of rural women in existing data. An alternative estimate of workforce participation that captures women’s economic contribution to households to a greater extent would greatly help solve this gap in knowledge. This article shows that once we account for economic activities performed by women who report domestic duties as their principal activity, the decrease in workforce participation would not be as large as it appears from the conventional NSSO measure. Towards this goal, this article has generated revised estimates using part of the follow-up questionnaire administered by the NSSO to individuals who report domestic duties as their main activity. From revised estimates of workforce participation of rural women, the decline in workforce participation is aligned with the long-term trend once we account for women’s increased participation in education. These revised estimates also reveal that the proportion of unpaid family work among rural women is much higher than what is reported by the NSSO.

The dominant argument in literature, that the supply-side effect—that is, the voluntary withdrawal of women from the workforce—explains the decline in work participation of rural women is less likely to be true. Rather, the mechanisation of agriculture has likely contributed to an ongoing decrease in the availability of farm-based work, which has not been offset by increases in the availability of non-farm-based work, leading to women focusing on economic activities within their households.

Two issues emerge as policy lessons. First, it is important to consider home-based workers as part of the labour force, not only as a matter of principle, but also for the purpose of understanding the dynamics of the labour market, as the women’s labour force is a highly flexible component of the labour market. It is principally due to classification difficulties that the flexible nature of this segment of the labour market is not well understood and continues to elude observers’ understanding.

Second, there is a need to promote the availability of non-farm jobs at a local (panchayat) level if the government wants to reduce the prevalence of unpaid family labour among women—as is currently done by schemes like the MGNREGA, albeit with limited impact. It is critically important that the policy explicitly recognises the intra-household conflict between men and women—particularly regarding the economic autonomy of women—to arrest the long-term decline in women’s participation. Only then can the government justify women-centred public programmes, like incentivising entrepreneurship, upgrading skills and training activities, and increasing the availability of credit for small-scale start-ups. In summary, the thrust should be to alter the role of rural women, from self-employed unpaid family helpers to self-employed workers or casual wage workers.

NOTE

1 In the national income accounting field, a "production boundary" defines what counts and what does not count as work. Not all production is counted as part of the national income. Only those productions that are listed or included in the production boundary are counted as part of the national income and, therefore, only people involved in these productions are considered workers. People involved in production or activities not listed in the production boundary are not counted as workers.

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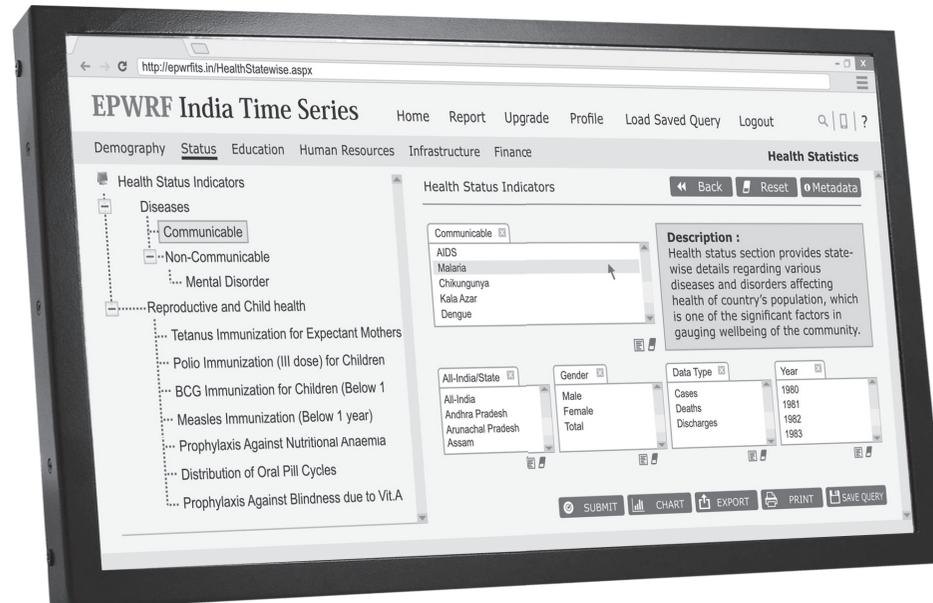
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