

Who takes over when men move out of farming?

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A number of studies suggest that women's participation in wage work increases their bargaining power within the household but not if their work is limited to family farming or other household enterprises (Agarwal, 1997). Unfortunately, often women are faced with a difficult choice (Desai & Jain, 1994), whether to increase their independent income or to augment family income by ensuring that both men and women participate in activities where they have comparative advantage with men engaging in wage work (where gender inequalities are greater) and women participating in family farming (where gender inequalities in returns to labor are lower or non-existent).

This paper will examine this trade-off by evaluating changes in family labor supply decisions in the context of changing labor markets in India. Recent economic growth, particularly growth in construction industry, combined with crowding in agricultural sector has led to significant movement of men away from farming into non-farm labor (Lanjouw & Murgai, 2007). This paper examines changes in labor inputs to family farms to explore who takes over the farm work when men leave family farm for other opportunities. We will explore the evidence for intra household labor distribution on family farms and feminization of agriculture.

The data for this analysis comes from two rounds of India Human Development Survey (IHDS). IHDS is a panel data set covering over 42,000 households located in rural as well as urban India. The data for the first wave of IHDS was collected in 2004-05. The second wave of the survey was carried out in 2011-12.

A total of 25,111 men were surveyed in both waves, who were aged 18 and above, living in rural India and who were married in the first wave. 22,747 or 90.59% undertook some work. 13,463 or 53% took up some work on family farms. We will focus on this group.

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Figure 1: Men who worked only on family farms in wave 1 and diversified in wave 2

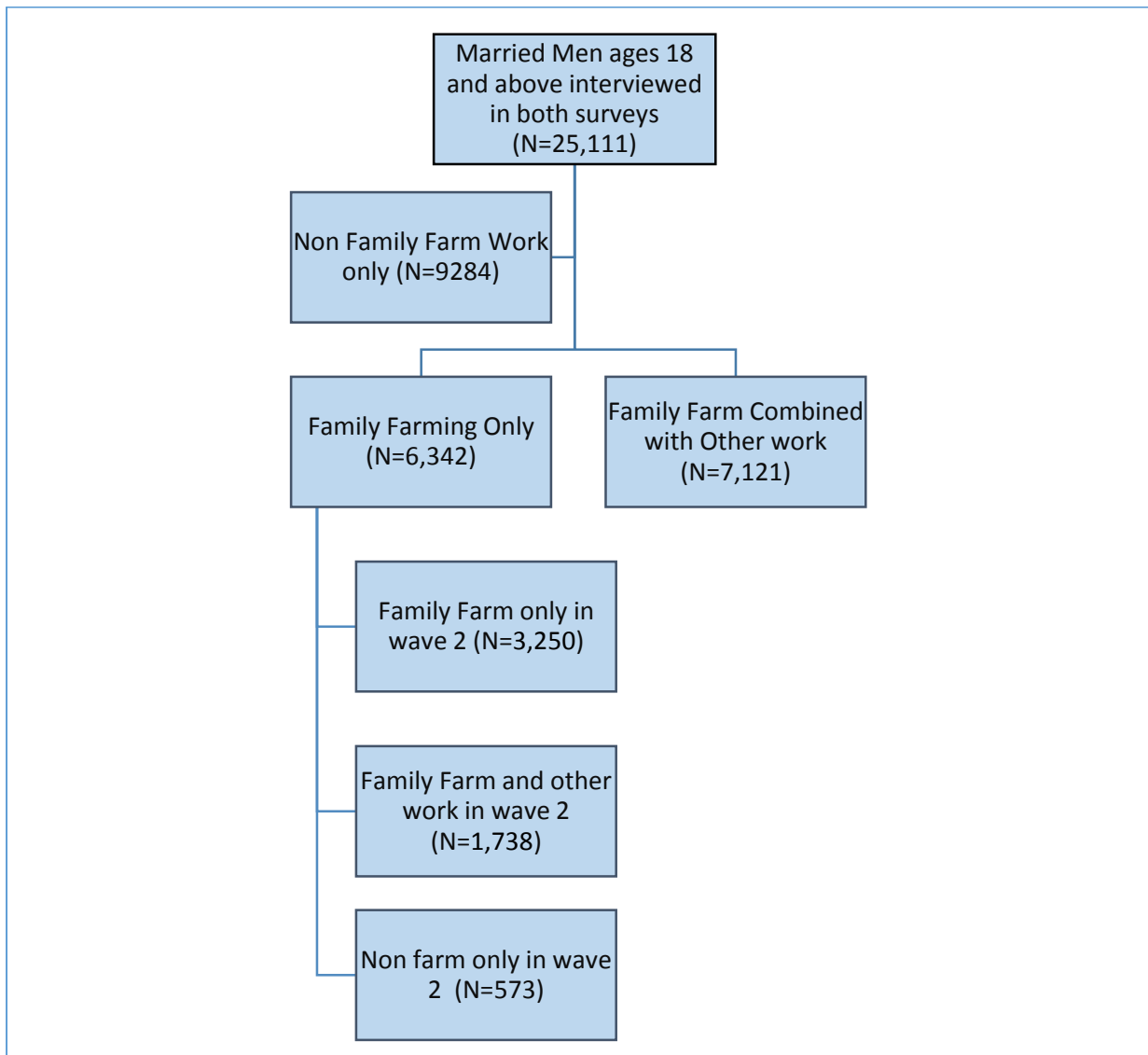
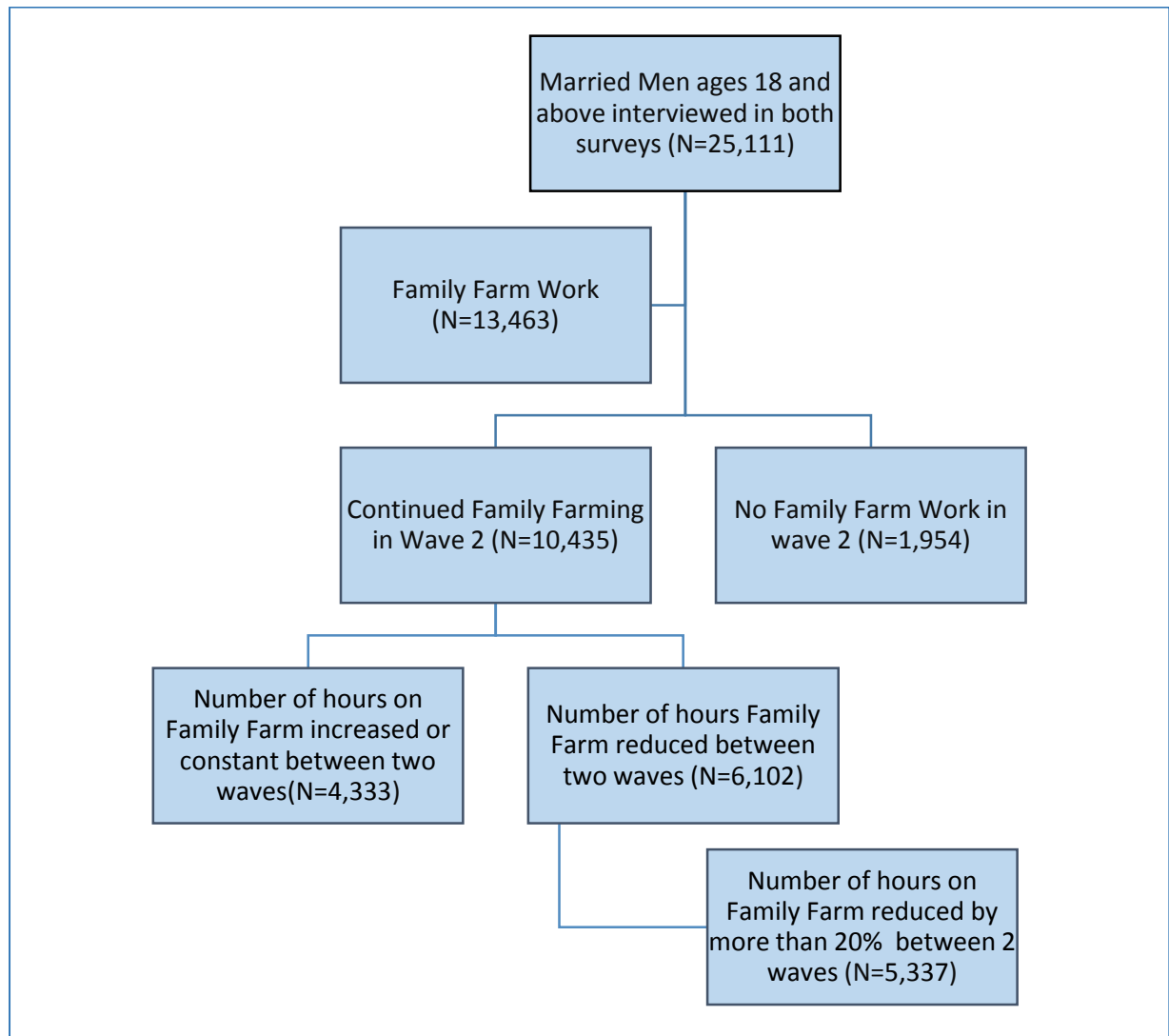


Figure 1 looks at men who exclusively worked on Family farms during wave 1 but diversified into other 6,342 or 47.11% of those who worked on family farms worked only on their family farms in wave 1. 781 or 12.31% dropped out of the labor force while 5,561 remained in the workforce. The data shows that there is a diversification away from working in family farms. 1,738 or 27.40% of the 6,342 men who worked only in family farms diversified into other activities in the second wave. 573 or 9.04% gave up working on family farms while being active in the workforce.

Although the proportion of men working on household farms has not greatly reduced the number of hours being put in a year has greatly reduced. This has meant that men are diversifying into other activities. Figure 2 shows that a large proportion of men have reduced the hours that they put in throughout the year for family farm related activities. Of the 13,463 men who worked on family farms in the first wave, 10,453 or 77.51% worked in family farms in wave 2 as well. Of these men, 5,337 or 51.15% reduced the hours put in throughout the year by over 20%. This is a substantial drop.

Figure 2: Men with number of hours on Family Farm reduced by more than 20% between 2 waves



When men’s engagement with family farm decreases, how do families cope? Does rising income with non-farm opportunities allow women in these families to withdraw from the labor force themselves or are they forced to take over for their husbands? To what extent families move out of farming and to what extent men’s labor is replaced by women? Do these processes differ between areas where gender norms are more relaxed and women’s participation in non-farm work is high as opposed to areas where gender norms are more restrictive and/or women’s non-farm opportunities are low in any case. These are some of the central questions this paper tries to answer.

Prima facie evidence of women’s work participation rates for families where husbands move away from farm activities suggests increasing engagement in farm work by wives. 28.20% of wives whose spouses diversified into other activities took up Family Farm Work for the first time in the second wave. 22.75% of wives the men who reduced their hours is Family Farm Work by over 20% worked for the first time in the second wave.

We explore these linked labor force participation decisions between husbands and wives using bivariate probit models. Extensive research on modelling joint labor supply decisions of husbands and wives exists (Lundberg 1988; Huffman 1989). However, few studies take into account the cultural context in which these decisions are being made. Two aspects of Indian society are of particular relevance to this analysis: (1) Labor market opportunities in non-farm work for rural women

are limited. Options available to rural men such as work in transportation sector, construction sector and semi-skilled occupations is not easily available to women. Uneducated rural women usually work as farm laborers, while highly education rural women work as government employees (e.g. nurse midwife, pre-school teacher). But women with moderate levels of education find few jobs suitable to their skillset (Chatterjee, Desai, & Vanneman, 2018). Thus, reeducation in farm hours by husbands may well bring them into the labor force. (2) Cultural norms vary considerably across the country with women's physical mobility being highly limited in north-central India. While mobility restrictions influence women's ability to find non-family work, they tend to have lower influence on work on family farms. These two factors suggest that substitution between husbands and wives in farm work may be higher in areas with fewer job opportunities and greater restrictions on women's mobility. The IHDS provides rich contextual data allowing us to explore variations in family labor supply decisions across different regions.

References

- Agarwal, B. (1997). "Bargaining" and Gender Relations: Within and Beyond the Household. *Feminist Economics*, 3(1), 1-51. doi:10.1080/135457097338799
- Chatterjee, E., Desai, S., & Vanneman, R. (2018). Indian paradox: Rising education, declining womens' employment. *Demographic Research*, 38, 856-875.
- Desai, S., & Jain, D. (1994). Maternal Employment and Changes in Family Dynamics: The Social Context of Women's Work in Rural South India. *Population and Development Review*, 20(1), 115-136.
- Huffman, W., & Lange, M. (1989). Off-Farm Work Decisions of Husbands and Wives: Joint Decision Making. *The Review of Economics and Statistics*, 71(3), 471-480. doi:10.2307/1926904
- Lundberg, S. (1988). Labor Supply of Husbands and Wives: A Simultaneous Equations Approach. *The Review of Economics and Statistics*, 70(2), 224-235. doi:10.2307/1928306
- Lanjouw, P., & Murgai, R. (2007). *Poverty decline, agricultural wages, and non-farm employment in rural India : 1983-2004*. Retrieved from Washington D.C.: