

Rising Education, Declining Female Employment: An Indian Paradox

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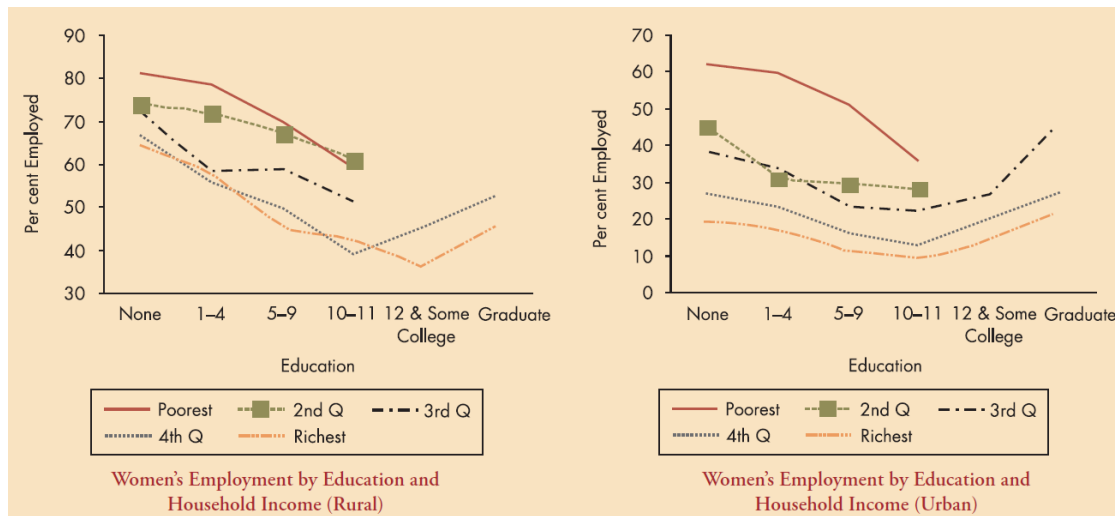
Introduction

Theories of human capital have emphasized the role of education in the emancipation of women and in improving their position in society. While it has been found that women's education impacts fertility and mortality rates and the health of children, it is also expected that it would lead to an increase in women's participation in the labor market. A number of studies in the developed world conform to this view (Cain, 1966; Tienda, Donato and Cordero- Guzman, 1992). Since education leads to higher wages, economic theory would predict that holding household income constant, the higher the education, the higher the likelihood of labor force participation by women.

Interestingly however, there are considerable differences in the relationship between women's work participation rate and education level around the world. In Peru, King (1990) reported that even though education and training gave a boost to the contribution of women in the labor market, education did not seem to increase women's labor force participation rate, in fact it could cause it to decline. On the other hand, in Ecuador, Jakubson and Psacharopoulos (1992) find that the predicted probability of labor force participation of a woman with 16 years of schooling (other traits unchanged) is 11% higher than that for a woman with no schooling. Again, reports from countries in South Asia have highlighted a negative relation between increased levels of education and an increase in women's workforce participation rate implying therefore that illiterate women are more likely to be employed than educated women (Sathar and Desai, 2000; Bordia Das and Desai, 2003). In India, a number of studies have reported a negative relationship between women's workforce participation and their education level, assuming other factors are unchanged (Kingdon and Unni (1997), Bordia Das and Desai (2003), Bordia Das (2006), Sundaram and Vanneman (2008)).

Kingdon and Unni (1997) observed a U-shaped relationship between education and women's wage- work participation, indicating that woman's wage- work participation increases only when they have completed schooling beyond junior/middle level. Desai et. al. (2010) also note that the labor force participation declines with education with an uptick in participation occurring only around college graduation. Moreover, this pattern is not simply due to assortative marriage patterns in which educated women marry into richer families and substitution effect may dominate the income effect. At all family income levels, increasing education is associated with lower female employment rates, at least for education levels below college graduation.

Figure 1: Women’s Labor Force Participation by Education and Income of Other Household Members



Source: Desai et al. 2010 based on IHDS-1 (2004-05) Data

How do we explain these counter intuitive results. It may be, as Arlene Leibowitz (1974) has argued that educated mothers are more productive in childrearing and hence the value of their time in home production is higher than that of less educated women. But if so, we should not see a U-shaped relationship and college graduates should be most likely to stay at home.

Bordia Das and Desai (2003) suggest two explanations that encompasses both cultural and structural factors. The first one is associated with “cultural factors” which indicates that women who come from families with higher social status tend to educate their daughters but don’t let them participate in the work force since female labor force participation tends to lower family social status. The second explanation refers to “structural factors” indicating lack of appropriate employment opportunities. While data constraints forced Bordia Das and Desai (2003) to examine these competing explanations indirectly, we have access to more suitable data that will allow for richer explanation.

Structural Explanation: Limited Employment Opportunities

Following Boserup’s (1970) observations about domestication of women in the process of economic development, some scholars have suggested U-shaped relationship between economic growth and women’s labor force participation (Forsythe et al. 2000). These arguments can also be extended to educational changes. Education may well lead to aspirations for non-manual jobs and in societies where educational growth outpaces structural transformation, women may be unable to find suitable jobs, resulting in their labor force withdrawal.

Cultural Explanations: Status Production

In contrast to this structural explanation that relies on demand for labor, a cultural explanation would suggest that education reflects many different aspirations on the part of parents and individuals. Ability to earn higher wages is only one of these. It also reflects a desire to improve one's social status. Desire to withdraw women from the labor force may be another aspect of gaining this social status (Srinivas 1977). These status considerations may persist in suppressing female labor force participation until women obtain high enough education to be able to obtain prestigious white collar jobs following college graduation.

Research Questions

Distinguishing between these two explanations is challenging. However, we argue that examining education-female labor force relationship across different social classes allows us to get a handle on which of these two explanations offer a better reflection of Indian social reality.

- 1.Caste:** People belonging to the upper caste perceive that their social status remains high if they keep the women confined within the household. Marital relations seem to be much more equal in the case of less "sankritised" lower caste people as compared to more "sankritised" upper caste people. (M.N. Srinivas (1966)). Women belonging to the lower castes, tend to have a higher mobility and have a higher rate of work participation, because they tend to be poor (Youssuf, 1974,Papanek 1988,Bordia Das and Desai 2003, Bordia Das, 2006). Thus, we hypothesize that the negative relationship between education and labor force participation will be strongest for the upper caste women and become weaker as one goes down the caste hierarchy.
- 2. Ownership of farm/business:** For women (and men) with modest education, few white collar jobs are available in India. Thus, if loss of social status associated with participation of women in manual labor (the only work available to women with rudimentary education) is the root cause of female labor force withdrawal, it may be less relevant when women are not working for an external employer but simply "helping out" on the family farm or in family business. Thus, we expect that the negative relationship between education and labor force participation will be less visible in households that own a farm or a business. In contrast, if women's frustrated aspiration for higher quality work is the cause of labor force withdrawal, it will occur for all women regardless of the kind of activities other members of the household engage in.

Data:

We use data from the India Human Development Survey 2005 (IHDS), which is a nationally representative sample of 41,554 households that are spread across all the States and union territories of India (except for Andaman Nicobar and Lakshadweep), 384 districts, 1503 villages and 971 urban blocks. These 41,554 households include 215,754 individuals. Other than the household questionnaire that was answered by the head of the household, who had

sufficient knowledge about the income, expenditure etc of the household (often a man), there were questionnaires on health and education, which were answered by women. The IHDS has collected data on income, consumption, employment, ownership of farm and non-farm business, fertility history, caste, religion, etc.

The estimates for women's work participation obtained by the IHDS are greater than both the Census and the National Sample Survey because special effort was made by the survey on obtaining information on women's work particularly in household enterprises such as farming, caring for livestock and small household businesses. .

As the figure 1 above indicates, IHDS data reveal that only a level of schooling beyond class 10 provides women an incentive to work. The above figure plots women's employment by their own education and quintiles of income of the family members other than the woman. From the figure it is seen that higher levels of other family income reduces a women's incentive to work. However, it can be observed from the figure that for all levels of income and irrespective of place of residence (rural or urban) women's work participation rate falls as the level of schooling rises from none to standard 10.

We will expand this description analysis in this paper using multivariate logistic regression model in which the dependent variable, women's labor force participation, will be regressed on a number of background factors as well as caste and ownership of farm/business by the household. Our analysis will involve women in the age group 25-55.

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