

Determinants of Female Autonomy across Indian States

Sudatta Banerjee and Amrita Roy

Abstract—This paper analyzes the condition of female autonomy and its determinants across states in India. The study relates to the year 2005-06 across states in India and uses National Family Health Survey 3 (NFHS-3) data. The results suggest that women autonomy which is one important reflector of development of a country is mostly dependent on social factors. Social backwardness and religious conservativeness have reduced the strength of decision making power of women compared to men in India. The results also indicate that rise in household income might lead to increase in the level of female autonomy.

Index Terms—Gender, female autonomy, JEL codes: J16.

I. INTRODUCTION

Observing the importance of gender equality in the development of the society and economy, empowerment of women in the developing countries is getting increasing attention over time. One of the key aspects to empower women is to increase their autonomy in all aspects of decision making, from access to sources of livelihood, education and health, as well as to social, economic and political participation without discrimination. Reference [1] defines female autonomy as “the capacity to manipulate one’s personal environment. Autonomy indicates the ability-technical, social, and psychological - to obtain information and to use it as a basis for making decisions about one’s private concerns and those of one’s intimates” (p. 45). Female autonomy in simple terms indicates the decision making power of the women within the household relative to their husbands’. Along with the direct benefit of their increased status in the society, there are several positive side effects associated with female autonomy, like reduction of fertility and infant mortality rates, improvement of sex ratio, betterment of child health and education etc. At the same time, violence against women gets limited when women have more power and in this sense society becomes much more balanced. So, female autonomy is very much associated with development of a country. Reference [2] cited the World Bank and UN studies to note that “The 2009 World Survey on the Role of Women in Development [3] verifies that there are positive multiplier effects for overall social and economic development when women, in the same extent as men, access economic and financial resources”.

Given the positive impacts of female autonomy for the entire society, it is important for us that we study the main

important factors explaining female autonomy in India. The aim of this paper is to analyze the condition of female autonomy and find its determinants across states in India. There exist a large number of studies ([2], [4]-[6]) which have analysed female autonomy in India from different aspects. But all of these studies have either studied the issue of female autonomy for only one state or region or has compared two completely different places in terms of culture and tradition. In this paper, we are looking at the aggregate picture and trying to find out the main factors defining female autonomy in India. We have used National Family Health Survey 3 (NFHS-3) data for the present analysis. Thus this study relates to the year 2005-06 across states in India. Section II discusses some selective indicators of female autonomy. Section III analyses the probable determinants of female autonomy used in this study. Section IV gives the regression results and Section V discusses the concluding remarks.

II. FEMALE AUTONOMY ACROSS INDIAN STATES

Autonomy indicators should mirror the level of control that women possess over themselves, their bodies, their incomes and in conducting their lives [7]. Based on these criteria, we have chosen some selective indicators to reveal the level of female autonomy across Indian states.

- 1) *Employment rate of married women*: Greater access to labour market is considered to be one of the crucial determinants of female autonomy [8]. In India, around 43 percent of currently married women (employed in the past twelve months and aged 15-49) are employed and among them around 64 percent are earning cash as seen in Figures 1 and 2 respectively. Employment rate of currently married women significantly varies across states. In Delhi, Haryana, Punjab, Assam and Tripura employment rate among married women is significantly low (less than 30 percent) compared to Arunachal Pradesh, Chhattisgarh and Manipur (more than 65 percent). Work participation among women is generally not encouraged in the northern states due to reasons of social status [7]. Again, the percentage of currently married women earning cash among those employed varies from a high 95 percent in Delhi to a low 33 percent in Himachal Pradesh.
- 2) *Control over cash earnings*: Monetary independence is a significant aspect of female autonomy. In India, according to reports of currently *married* women with earnings, 81 percent of them alone or jointly decide how their own earnings are used as seen in Figure 3. This percentage turns out to be 68 when the decision is regarding the husbands’ income as seen in Figure 4. Control over women’s own cash earnings is highest in

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Manipur (96 percent) and lowest in Andhra Pradesh (69 percent). On the other hand, the percentage of women who alone or jointly decide how the husbands' income is to be used is highest in Nagaland (94 percent) and lowest in Tripura (50 percent).

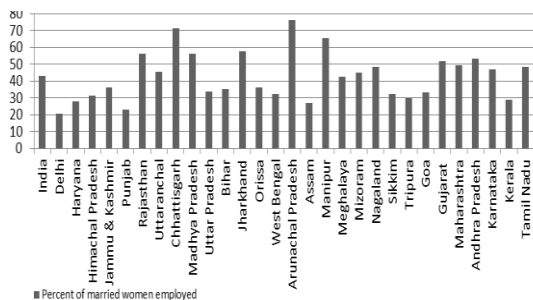


Fig. 1. Percentage of currently married women who are employed. Source: National family health survey 3.

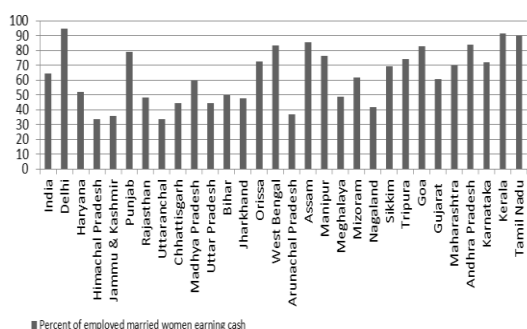


Fig. 2. Percent of employed married women earning cash. Source: National family health survey 3.

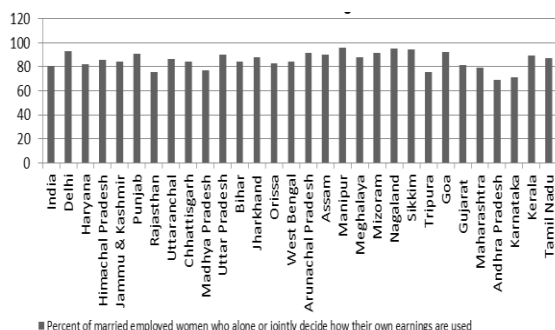


Fig. 3. Percent of married employed women who alone or jointly decide how their own earnings are used. Source: National family health survey 3.

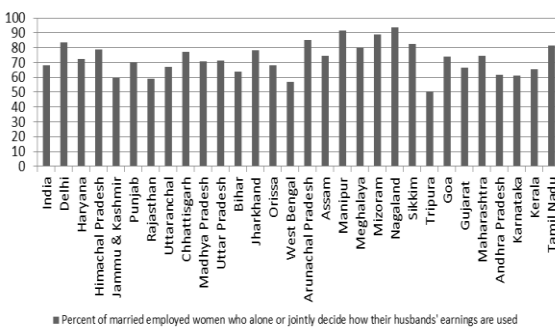


Fig. 4. Percent of married employed women who alone or jointly decide how their husbands' earnings are used. Source: National family health survey 3.

3) *Women's participation in decision making:* There are some aspects of family decision making like own health care, making daily and major household purchases and

socialization (visits to her family or relatives) in which women should participate equally like men. It is reported in NFHS-3 [9] that only 37 percent of women participate in all of these four decisions in India as seen in Figure 5. Whereas more than 20 percent of women do not participate in any of these four decisions. Participation rates of women in these decision makings are relatively high in the northeastern states compared to other regions.

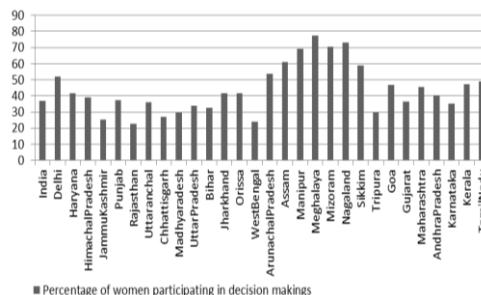


Fig. 5. Percentage of women participating in decision making. Source: National family health survey 3.

4) *Women's access to money and credit:* Access to financial resources gives an edge to women to empower themselves. NFHS-3 gives data related to whether women have any money of their own and whether they own a bank or savings account which they can alone decide how to use. In India these figures are 45 percent and 15 percent respectively, which is evidently quite low as seen in Figures 6 and 7 respectively. For some states (Mizoram and Kerala), the proportion of women who have some access to money that they can themselves decide how to use, are as low as 20 percent, whereas for some states (Jharkhand and Karnataka) this proportion is more than 60 percent. In terms of women's ownership of bank or savings account, proportions are quite low across all the states, only in Goa 42 percent of women own a bank or savings account which they themselves use.

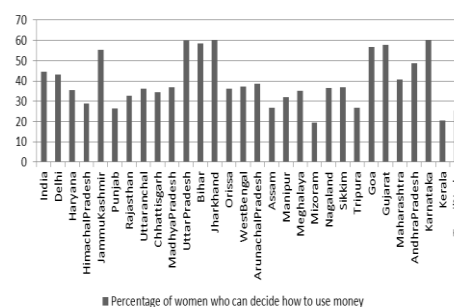


Fig. 6. Percentage of women who can decide how to use money. Source: National family health survey 3.

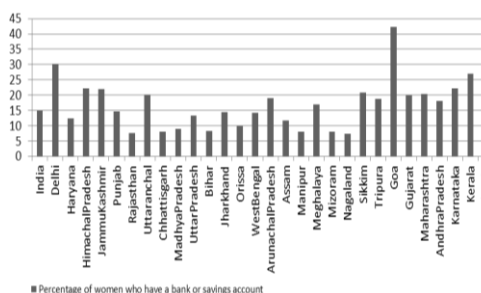


Fig. 7. Percentage of women who have a bank or savings account. Source: National family health survey 3.

5) *Attitude toward refusing sexual intercourse with husband*: Another very important indicator of female autonomy is the extent of their control over refusing sexual intercourse with their husbands' and this has a significant implication in terms of health and demographic outcomes. A woman is justified in refusing sexual intercourse with her husband if she knows her husband has a sexually transmitted disease, or she knows that her husband has sexual relations with *other* women, or she does not have the consent. In India, the percentage of women who agree to all these specified reasons is 68 and the percentage of women who agree to none of the specified reasons is 13. The proportion of women who believe that they are justified in refusing sexual intercourse with their husband varies from 42 percent in Tripura to 87 percent in Sikkim as seen in Figure 8.

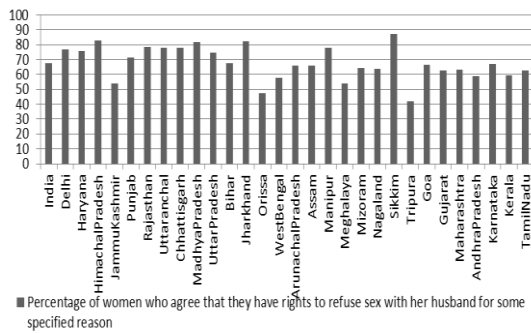


Fig. 8. Percentage of women who agree that they have rights to refuse sex with her husband for some specified reason. Source: National Family Health Survey 3.

III. DETERMINANTS OF FEMALE AUTONOMY ACROSS STATES IN INDIA

There are many factors which determine female autonomy. We can summarize these factors in two broad categories, economic and social. The economic factors considered in this study are women employment rate and household income levels. The social factors considered are religion, scheduled caste and scheduled tribe population, proportion of female headed households and literacy rates.

We have analyzed here, the relationship between female autonomy and the above mentioned economic and social factors across the 29 states in India¹, with reference to the year 2005-06. Here, we have included six indicators of female autonomy: 1) percentage of women who alone or jointly with their husband decide how their own earnings are used (X_1), 2) percentage of women who alone or jointly with their husband decide how their husbands' earnings are used (X_2), 3) percentage of women participating in decision making² (X_3), 4) percentage of women's access to money that they can decide how to use (X_4), 5) percentage of women who have a bank or savings account that they themselves use (X_5), and, 6) percentage of women who agree that a wife is

justified in refusing sexual intercourse with her husband³ (X_6).

To represent women employment rate, we have considered the percentage of married women (aged 15 to 49) reported as employed in the last 12 months in 2005-06. Per capita net state domestic product for the year 2005-06 is used as a proxy for household level income⁴ and for the purpose of our exercise we have used the natural log values of per capita net state domestic product. In case of religion, we have considered the proportion of Hindus and Muslims in total population for every state, based on 2001 census. At the same time, we have also considered the proportion of scheduled caste and scheduled tribe population for each state, based on 2001 census. As it is natural to expect that decision making power for women is more for female headed households compared to the male headed ones, we have included the percentage of households headed by females among total number of households across each state, based on 2001 census. In case of literacy rates we have included both the percentage of female and male literate persons again based on 2001 census.

TABLE I: REGRESSION RESULTS

Dependent Variables	Independent variables								R ²	
	% of married women employed	Female literacy rate	male literacy rate	log of per capita net state domestic product	% of Hindus	% of Muslim	% of SC	% of ST		% of female headed households
X1	-0.16 (0.22)	-0.35 (0.42)	0.51 (0.33)	-1.76 (0.69)	-0.27* (0.00)	-0.25* (0.05)	-0.37 (0.12)	-0.16 (0.12)	0.02 (0.96)	0.52
X2	0.07 (0.72)	-0.01 (0.99)	0.13 (0.87)	0.91 (0.88)	-0.22 (0.12)	-0.44* (0.03)	-0.49 (0.16)	-0.11 (0.44)	-0.38 (0.46)	0.55
X3	-0.14 (0.46)	0.89 (0.16)	-1.15 (0.14)	-2.57 (0.69)	-0.11 (0.41)	-0.45* (0.02)	-1.00* (0.01)	-0.08 (0.56)	-0.04 (0.94)	0.78
X4	-0.15 (0.53)	-0.87 (0.27)	0.01 (0.99)	10.64 (0.19)	0.05 (0.76)	0.05 (0.83)	-0.74* (0.08)	-0.12 (0.48)	0.16 (0.79)	0.51
X5	-0.13 (0.19)	-0.20 (0.52)	-0.01 (0.99)	13.71* (0.00)	0.04 (0.56)	0.09 (0.28)	-0.4* (0.02)	-0.08 (0.28)	0.68* (0.01)	0.80
X6	0.03 (0.90)	-1.07 (0.17)	1.45 (0.13)	-2.14 (0.78)	-0.34* (0.05)	-0.55* (0.02)	-0.25 (0.54)	-0.33* (0.07)	-0.17 (0.77)	0.40

Note: * implies significant at 1 percent level of significance, ** implies significant at 5 percent level of significance and # implies significant at 10 percent level of significance. The values in the brackets report the corresponding p-values.

X_1 - % of women who alone or jointly with their husband decide how their own earnings are used, X_2 - % of women who alone or jointly with their husband decide how their husbands' earnings are used, X_3 - % of women participating in decision making, X_4 - % of women's access to money that they can decide how to use, X_5 - % of women who have a bank or savings account that they themselves use, X_6 - % of women who agree that a wife is justified in refusing sexual intercourse with her husband.

We have used simple ordinary least square method to estimate the relationships⁵. The data sources for the variables used here are NFHS-3⁶, Census of India 2001 [10], and few

³ Refusal of sexual intercourse when a woman knows her husband has a sexually transmitted disease, or she knows that her husband has sexual relations with other women, or she does not have the consent.

⁴ The per capita net state domestic product of Jammu & Kashmir and Nagaland refers to the year 2004-05 due to data unavailability in 2005-06.

⁵ We have also tested for heteroscedasticity, using Breusch-Pagan / Cook-Weisberg test for heteroskedasticity and in our analysis heteroscedasticity does not appear as a problem. The number of observation is 29 in each estimation.

⁶ We should note here that the social and personal issues discussed here are very much sensitive in nature and bias might remain in the answers of those specific family related questions. Individuals may be hesitant in honestly answering about topics that are "taboo" in society.

¹ 29 states include National Capital Territory of Delhi.

² Decisions regarding own health care, daily and major household purchases, visits to her family and relatives.

other organizations⁷.

IV. REGRESSION RESULTS

Regression results regarding the relationships between the various indicators of female autonomy and all the economic and social factors chosen in this analysis are reported in the Table I.

We can see from the regression results that all the indicators of female autonomy chosen here are not explained by the same economic and social factors considered in this analysis. If we consider the determinants of female autonomy under these two broad heads (economic and social factors), it is clearly visible that the social factors are the main determining factors to explain female autonomy.

Among all the regression equations, only in case of percentage of women who have a bank or savings account that they themselves use, log of per capita net state domestic product is the only economic factor which turns out to be positively significant and the coefficient is significantly high i.e., 13.71. This may be quite obvious to think that one should have enough cash at hand to indulge in operating her own bank or savings account.

At the same time it is seen that among the social factors, percentage of Muslims and percentage of SC population are negatively significant in most of the cases. These results are similar to the findings of NFHS-3 report where it has been reported that decision making power of women are lower for the Muslims and SC population compared to others. Our findings are also consistent with [2] in this respect. Whereas in case of two indicators of female autonomy i.e., percentage of women who alone or jointly with their husband decide how their own earnings are used and percentage of women who agree that a wife is justified in refusing sexual intercourse with her husband, both the Hindu and Muslim populations are negatively (significantly) associated.

It is interesting to see that along with household income (represented by per capita net state domestic product), percentage of female headed household also has a positive significant impact on percentage of women who have a bank or savings account that they themselves use. Since in a female headed household major decisions including dealings of money are handled by women, it is expected that they have a bank or savings account of their own which they themselves use.

V. CONCLUDING REMARKS

Our results suggest that women autonomy which is one important reflector of development of a country is mostly dependent on social factors. Social backwardness and religious conservativeness have reduced the strength of decision making power of women compared to men in India. Rise in household income may increase the level of female autonomy.

It is surprising to see that female employment rate and female literacy have no impact on autonomy as none of these variables has appeared as significant in our results. These

may be due to data constraints (as we have data available only for one year i.e., 2005-06 for the dependent variables considered here). At the same time, states in India are heterogeneous in nature in terms of geography, environment, community, tradition and culture which are likely to have a significant effect on the nature of existing female autonomy in a particular state. We could have used dummies for every state to control for those state specific effects. Since, our data set was small, we could not include those state specific dummies in our model. Examining the data over some years (while controlling for the other effects) may improve the results, which may be our future endeavor.

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⁷Central Statistical Organization : <http://mospi.nic.in> and www.indiastat.com