Exigency to Redesign Policy Initiatives Improving Female Labor Supply in Urban India

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Abstract

Purpose : The paper aimed to investigate female participation in paid employment across states in urban regions of India. We examined whether supply-side issues were the primary cause of the low and stable female participation rate in urban areas using data from the Indian Human Development Survey II (2011–2012).

Methodology : We employed logistic regression to examine the influence of supply-side determinants on women's participation in paid employment in metropolitan areas because the dependent variable is dichotomous. For analysis, Stata18 was utilized.

Findings : It was found that only 22–23% of females participated in paid employment activities despite urban residence. The participation of married females across the working age group of 25–59 years was the lowest compared to unmarried females, separated/divorced, and widowed. The participation of graduate females in states with high urbanization rates was lower.

Practical Implications : We recommended that legislators concentrate on creating laws that offer high-quality employment opportunities to women with a range of educational backgrounds and skill levels. Traditional social conventions that discourage women from pursuing job possibilities can be changed with the support of a shift in family beliefs around gender roles. Encouraging more female participation may require reducing the care load by offering reasonably priced childcare facilities.

Originality : The present paper has highlighted the stagnation of female participation in the labor market in urban regions of India, which has not been extensively covered in the broader literature.

Keywords : female participation, labor market, urban regions, low level

JEL Classification Codes : J08, J11, J12, J13, J17

Paper Submission Date : January 10, 2024 ; Paper sent back for Revision : March 6, 2024 ; Paper Acceptance Date : May 25, 2024

The low supply of urban female laborers is an intriguing feature of the Indian labor market as higher economic growth coupled with urbanization, rising literacy rates, and falling fertility rate is expected to provide higher gender-neutral job opportunities. Despite strong growth rates over the last two decades, the global female labor force only accounts for 47.4% of the labor force (ILO-modeled estimates for females belonging to the age group 15+) as compared to 72% of the male labor force. According to the World Economic Forum's (WEF) 2023 Global Gender Gap Index (GGGI) study, India is ranked 127th out of 146 nations. According to the Gender Gap Index, India is ranked sixth out of nine Southern Asian nations. Apart from India,

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the group for Southern Asian countries, according to the WEF, comprises Bangladesh, Bhutan, Sri Lanka, Nepal, Maldives, Pakistan, Iran, and Afghanistan. Bangladesh is far ahead of the other nations in the Southern Asian group, ranking first in the region and 59th globally. In descending order, the countries are Bhutan, Sri Lanka, Nepal, Maldives, India, Pakistan, Iran, and Afghanistan. In terms of GGGI, Afghanistan is ranked 146th, Iran is ranked 143rd, and Pakistan is ranked 142nd out of 146 countries worldwide.

The Gender Gap Index is based on four crucial sub-indices that include indicators that measure the overall index. The four sub-indices are the Economic Participation and Opportunity Index, Educational Attainment Index, Health and Survival Index, and Political Empowerment Index. India has improved its overall ranking (127th) by improving its sub-indices of the Political Empowerment Index and Educational Attainment Index as compared to prior years. However, India ranks 142nd in terms of the Economic Participation and Opportunity Index and the Health and Survival Index, which is miserably low and a cause of concern. It is intriguing to observe that despite advancements in educational attainment, India scores poorly on one of the crucial indexes related to employment: Economic Participation and Opportunity. Higher levels of education are associated with an increase in female labor supply. However, Kanjilal-Bhaduri and Pastore (2018) found that the relationship between educational attainment and female labor market returns to education is insignificant and low at lower levels of education using the Employment Unemployment Survey (EUS) of 2011–2012. Desai and Joshi (2019) suggested that rising education may explain some decline in the work participation of females. Females belonging to the younger cohort, below the age of 25 years, who devote a significant amount of time to pursue education may find it challenging to take up employment opportunities. However, their findings based on IHDS I (2004–2005) and IHDS II (2011–2012) highlighted that the decline in work participation rates is not limited to young females. Females aged 25–59 years have also experienced a substantial decrease in work participation, especially in rural areas.

This fall in female labor supply within the working age group was explained by rising household income that reduced the household's reliance on female income. Ghai (2018) asserts that rising household income is a dominant factor that increases the opportunity cost of domestic activities for females. The less the dependence on female income, the lesser the necessity for females to participate in paid employment activities. Additionally, women replace paid work with household chores when household incomes are higher, which may indicate a stronger social standing within the household. Marital status and childcare are two more important factors that discourage women from pursuing paid career options.

Bhalotra et al. (2023) highlighted the presence of a substantial trade-off between fertility and female labor force participation in developing countries such as India, especially within the younger cohort of females with greater labor market opportunities. Das and Žumbytė (2017) emphasized that caring for younger children and the effects of motherhood are two significant barriers that prevent women from entering the workforce. The competing factors of paid work and child-rearing lead to constant trade-offs, resulting in low female participation. Their study highlights a normative pressure of motherhood on labor market outcomes, especially in urban regions of India. The limited availability of childcare facilities also hinders the participation of females in paid full-time jobs as females, especially in urban areas. This may be explained by the decline in intergenerational cohabitation in urban regions where families have become nuclear.

Klasen (2019) suggested that public or subsidized childcare is much more limited, particularly in low-income countries, than in developed countries, which may hinder female employment. The paper highlights that female labor participation in urban regions has stagnated for years due to several interlinked supply-side factors. The key objectives of the paper are as follows:

↳ To study the association of education and household income on female labor supply despite urban residence.

↳ To study marital status and motherhood's association with female labor supply in urban regions.

↳ To study the association of religion and social group on female employment.

Literature Review

Female labor supply is a multi-dimensional issue that comprises several interlinked factors that affect female participation in paid employment. The phenomenon of female labor supply has been explained primarily by supply-side factors. These factors include factors that act as enablers, such as education level, and disablers, such as higher household income and marriage. Higher educational attainment is associated with an increase in female labor supply. According to Chatterjee et al. (2018), Desai and Joshi (2019), and Ghai (2018), the female labor supply in India is low and static despite rising educational levels. Klasen and Pieters (2015) highlighted stagnancy in urban female labor participation in India across all educational levels among the working age group of 20–59 years. They asserted the demand and supply factors responsible for declining female labor force participation in urban India between 1987 and 2009. Their analysis highlights low participation rates among graduate females, particularly in the services sector. Despite consistently rising educational attainment levels and economic development, the participation rate of females in the working age group in urban regions has stagnated over more than a decade in the range of 22–23% between 1999 and 2012.

Higher household income emerges as a significant deterrent in the participation of females in paid employment activities. Afridi et al. (2019) suggested the presence of income effect on female participation rates that operate when household income increases, which causes females to withdraw from the labor force to take up domestic duties. They highlighted household wealth as another channel that contributes to low participation rates. The study suggests that a rise in the relative female incomes and higher education are insufficient to increase female participation due to the interplay of supply-side factors such as higher household incomes and social norms that push females to make domestic duties their uppermost priority (Desai & Joshi, 2019). Moreover, Klasen and Pieters (2015) explained that the decline in female participation is partly due to the income and education effects. Their findings suggested the existence of a U-shaped relation between per capita monthly expenditure (a proxy for income) and female labor supply. It indicates that females from the highest and lowest income groups participate the most in the labor market.

Das et al. (2015) highlighted the dampening effect of income on female employment using household-level data from India's National Sample Survey (NSS) Organization's five rounds of Employment and Unemployment Surveys (EUS) from 1993 to 2012. Marriage, in the case of females, usually results in their migration, additional responsibilities in the form of elderly care, child care, and unpaid domestic chores that limit the economic opportunities of females. Kapsos et al. (2014) explained the labor force participation of females mainly in the context of education level, marital status, and fertility rate. Das and Žumbytė (2017), Fernández (2013), and Klasen and Pieters (2015) suggested that motherhood imposes a penalty on females, especially with younger children.

Women are expected by society to prioritize taking care of their children. According to Khan (2018), religion has a complicated role and has a more negative impact on Muslim women's employment. Jayachandran (2020) found that social and religious norms may act as barriers to equal representation of females in the labor market.

Sample and Descriptive Statistics

The present study uses the second wave of IHDS data to examine the relationship between supply-side factors and female participation in urban regions. The IHDS data are a nationally representative sample of 42,152 households. It covers 384 districts, 1,503 villages, and 971 urban blocks. It offers modules related to health, education, employment, marriage, gender relations, economic status, social capital, and other issues. However, for the present analysis, we restrict our sample only to urban regions of India across all the states and districts covered by IHDS. In all, we consider 34 states and 234 districts for our analysis.

The list of all Indian towns and cities from the 2001 Indian Census served as the basis for the urban sample.

However, some states and territories were combined to draw the samples. Towns with probability proportionate to their population were selected from the 2001 Census list. The IHDS households are uniquely identified by combining and concatenating the State, District, and PSU: village/neighborhood codes, household ID, and split household ID. The data have been assembled in 14 datasets, including individual, household, eligible women, etc. We use the DS3 eligible women questionnaire for our analysis, which belongs to IHDS II (2011–2012). The survey methodology used in this module of IHDS comprises face-to-face interviews of females regarding health, education, fertility, family planning, marriage, and gender relations in the household and community. We have selected only those samples comprising females from urban regions who fall in the working age group, i.e. (21–59 years). The study attempts to capture the relationship between supply-side factors such as age, household income, quintiles, education, marital status, number of children under 14 years, religion, and social groups. In all, the sample comprises 23,334 samples. Within states, a high percentage of the sample belongs to Uttar Pradesh (8.06%), followed by Karnataka (7.91%), Maharashtra (7.67%), West Bengal (7.38%), Tamil Nadu (6.54%), and Rajasthan (5.99%). Table 1 summarizes the response and explanatory variables used in the present study. The response variable, i.e., female labor participation (FLP), is a dichotomous variable with two categories: females working and those not working. The set of explanatory variables includes seven categorical variables with varying numbers of categories. *Age* as a categorical variable includes five categories ranging from 24 to 55 years and above.

Table 1. *List of Variables Used in the Logistic Model*

Variables	Categories	Description
Female Labor Participation	Dummy variable = 0	Not Working
	Dummy variable = 1	Working
Age Categories	Dummy variable = 1	Below 25 years
	Dummy variable = 2	25–35 years
	Dummy variable = 3	36–45 years
	Dummy variable = 4	46–55 years
	Dummy variable = 5	55 years and above
Education	Dummy variable = 1	Illiterate
	Dummy variable = 2	Primary
	Dummy variable = 3	Secondary
	Dummy variable = 4	Higher Secondary
	Dummy variable = 5	Graduate and above
Income	Dummy variable = 1	Lowest Income
	Dummy variable = 2	Low Income
	Dummy variable = 3	Middle Income
	Dummy variable = 4	Higher Income
	Dummy variable = 5	Highest Income
Marital Status	Dummy variable = 1	Married
	Dummy variable = 2	Unmarried
	Dummy variable = 3	Widowed
	Dummy variable = 4	Separated or Divorced
Number of Children	Dummy variable = 0	No Children
	Dummy variable = 1	One Child
	Dummy variable = 2	Two Children

		Dummy variable = 3	3 Children and above
Religion		Dummy variable = 1	Hindu
		Dummy variable = 2	Muslim
		Dummy variable = 3	Christian
		Dummy variable = 4	Others
Social Group		Dummy variable = 1	General
		Dummy variable = 2	OBC
		Dummy variable = 3	Dalit
		Dummy variable = 4	Adivasi
		Dummy variable = 5	Backward Muslim
		Dummy variable = 6	Others

The variable *education* has been categorized into five categories: illiterate, primary, secondary, higher secondary, and graduate and above. Females who are post-graduate are subsumed in the graduate category as they comprise a small percentage. The variable *Income group* also comprises five categories, namely the poorest income group, poor income group, middle-income group, higher income group and the highest income group. *Marital status* includes four categories: unmarried, married, divorced or separated, and widowed. To study the association between mothers of younger children and labor force participation, the sample has been restricted to include children below 14 years of age. This enables us to understand how child-bearing and child-rearing impinge females in the working age group from participating in the workforce. *Religion* has been classified into four categories: Hindu, Muslim, Christian, and Others. The variable *Social Group* includes the general category, other backward classes (OBCs), Dalit, Adivasi, backward Muslim and others.

Table 2 represents the descriptive statistics of employment status and individual characteristics for females for various categories of covariates. Within the sample, we find that overall, 23.22% of females have reported working, while 76.78% have reported not working. The sample consists of a significant percentage (68.38) of married females; however, only 22.04 have reported to be working. Females aged 36–45 years have the highest percentage (31.45%) of participation in the labor market, followed by 25–35 years (25.23%). With increasing age, the participation of females decreases. The low participation of females within the age group 24 and below may explain the engagement of these females in pursuing their further education.

Table 2. *Sample Characteristics with Respect to Employment Status (%)*

	All Females	**Employment Status**	
		Not Working	**Working**
Total	100	76.78	23.22
Age Cohort			
Below 24	20.63	86.27	13.73
25–35	26.97	74.77	25.23
36–45	21.56	68.55	31.45
46–55	16.12	72.53	27.47
55 and above	14.73	83.88	16.12
Education Category			
Illiterate	30.26	69.78	30.22
Primary	28.91	79.71	20.29
Secondary	13.69	84.22	15.78

Higher Secondary	13.21	84.39	15.61
Graduate and above	13.93	71.39	28.61
Income Category			
Lowest Income	39.71	73.98	26.02
Low Income	37.38	79.40	20.6
Middle Income	16.36	79.86	20.14
Higher Income	3.90	74.95	25.05
Highest Income	2.64	2.25	3.93
Marital Status			
Married	68.38	77.96	22.04
Unmarried	16.44	79.19	20.81
Widowed	11.19	68.8	31.20
Separate or Divorced	3.99	69.1	30.90
Number of Children			
No Children	38.04	75.04	24.96
One Child	24.35	77.56	22.44
Two Children	21.54	78.79	21.21
Three Children and above	16.07	77.03	22.97
Religion			
Hindu	76.51	75.79	24.21
Muslim	16.88	82.73	17.27
Christian	3.36	68.33	31.67
Others	3.25	78	22
Caste			
General	27.47	81.20	18.80
OBC	30.53	73.89	26.11
Dalit	18.11	72.59	27.41
Adivasi	3.65	62.87	37.13
Backward Muslim	16.63	82.81	17.19
Others	3.62	74.91	25.09

A majority of working-age group females who belong to secondary (84.22%) and higher secondary (84.39%) educated females are found to be out of the labor market. A significant portion of the sample's female graduates (71.39%) are found to be unemployed out of the total (13.93%). In other words, it means that despite urban residence and possessing the highest level of education, only 28.61% of the working age group are participating in employment-related activities. Married females account for the highest percentage (68.38%) within the different categories of the variable marital status. It can also be observed that among the unmarried females, who account for a 16.44% share of the sample, only 20.81% have reported working. If we compare the participation of females in paid work across religions, we find that a high percentage of Hindu females (75.79%) were found to be not working. The next section elaborates on the methodology used for analyzing the data and examining the significant association between participation and females and socio-demographic factors.

Methodology

We attempt to analyze the participation of females in the labor market. FLP as the dependent variable, along with the plausible determinants using the basic form of binary logistic regression, has been represented below:

$$\pi_{ij} = \ln\left[\frac{\pi_{ij}}{1 - \pi_{ij}}\right] \tag{1}$$

where $x'ij$ is a vector of predictors for π_{ij}, α_{ij} is constant, and β is a vector of corresponding regression coefficients. The equation is a general form of a binary logistic regression model with i individuals in j groups across s states. The j groups are the different categories of the explanatory variables included in the analysis. Our estimation equation is as follows:

$$\Pr(FLP_\ell) = \alpha_j + \beta_j X_{qi} \tag{2}$$

where FLP is the dependent variable, $\ell,$ that comprises females who are employed ($Y = 1$) and unemployed females ($Y = 0$). α_{ij} is constant, β_j is a vector of regression coefficients, and X_{qi} is the vector of explanatory variables that predict the probability of females being in or outside the labor force. We disaggregate determining factors of female labor supply that comprise age, education, household income, marital status, number of children, religion and social group, and use the following logistic regression for studying the effects of determinants on dependent variable FLP.

$$\Pr(FLP_\ell) = \alpha_{sj} + \beta_1 * Education_i + \beta_2 * Age_i + \beta_3 * Income\_Quintile + \beta_4 * Marital\ Status_i + \beta_5 * Child_i + \beta_6 * Religion_i + \beta_7 * Social\_Group_i + error\ term_i \tag{3}$$

Equation (3) includes explanatory variables estimating female labor force participation with reference categories (base categories). The following are the hypotheses for the present study.

⮫ **H_{01} :** There is no association between education level and female employment.

⮫ **H_{1A} :** There exists an association between education level and female employment.

The H_{01} examines the relationship between education level and labor force participation of Indian females, which is found to be U-shaped. We reject the null hypothesis (H_{01}) and confirm that the level of education and female employment share a U-shaped relationship.

⮫ **H_{02} :** There is no association between household income and female employment.

⮫ **H_{2A} :** There exists an association between household income and female employment.

H_{02} examines the relationship between household income and female employment. We reject the null hypothesis (H_{02}) to confirm a strong negative relationship between higher household income and female employment.

⮫ **H_{03} :** There is no association between marital status and female employment.

⮫ **H_{3A} :** There exists an association between marital status and female employment.

H_{03} examines the relationship between females' marital status and their potential burden of additional responsibilities that may lead to their non-participation in the labor market. We reject the null hypothesis (H_{03}) to confirm a robust negative relationship between marriage and female employment.

↳ **H₀₄ :** Young children and female employment are not associated.

↳ **H₄ₐ :** There exists an association between younger children and female employment.

H_{04} studies the relationship between females' having younger children and their participation in the labor market. We reject the null hypothesis (H_{04}) and confirm that having younger children restricts females' participation in the labor market.

↳ **H₀₅ :** There is no association between religion and female employment.

↳ **H₅ₐ :** There exists an association between religion and female employment.

H_{05} studies the relationship between religion and female participation in the labor market. We fail to reject the null hypothesis (H_{05}) and find that no significant relationship exists between religion and female employment.

↳ **H₀₆ :** No association between social groups and female employment exists.

↳ **H₆ₐ :** There exists an association between social groups and female employment.

H_{06} studies the relationship between social groups and female participation in the labor market. We reject the null hypothesis (H_{06}) and find a significant relationship between social groups and female participation in the labor market.

The above six hypotheses explain the relationship between supply-side factors that may deter females from participating in the urban labor market. We analyzed the data using the STATA 18 software and used a margins plot to study the interaction effects of supply-side factors on female employment in urban regions.
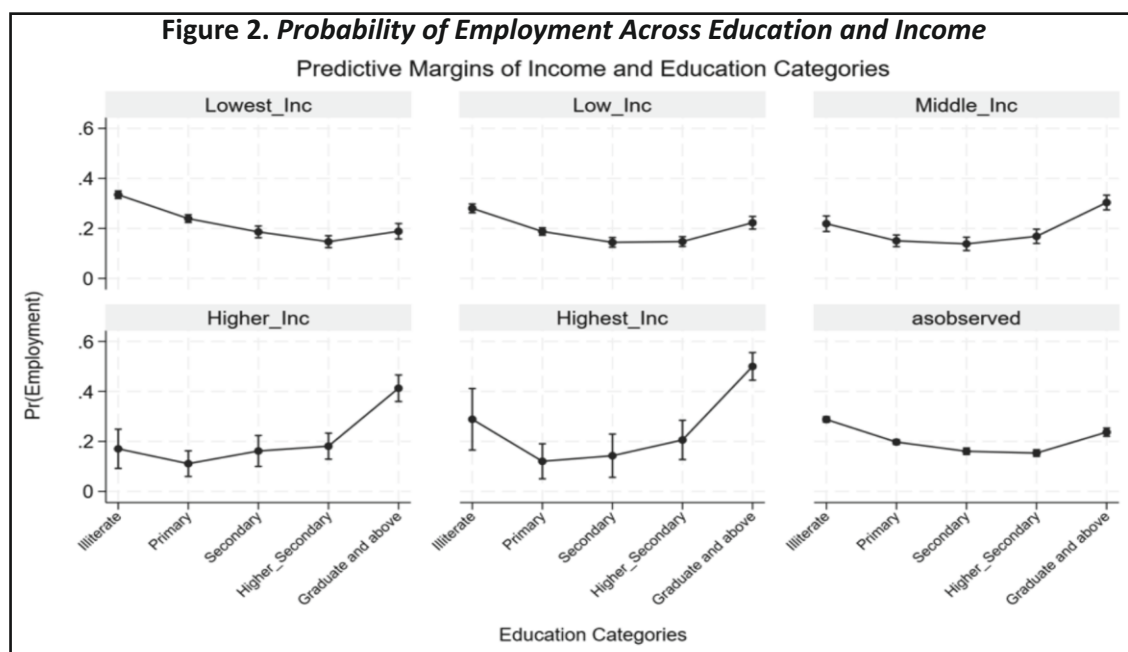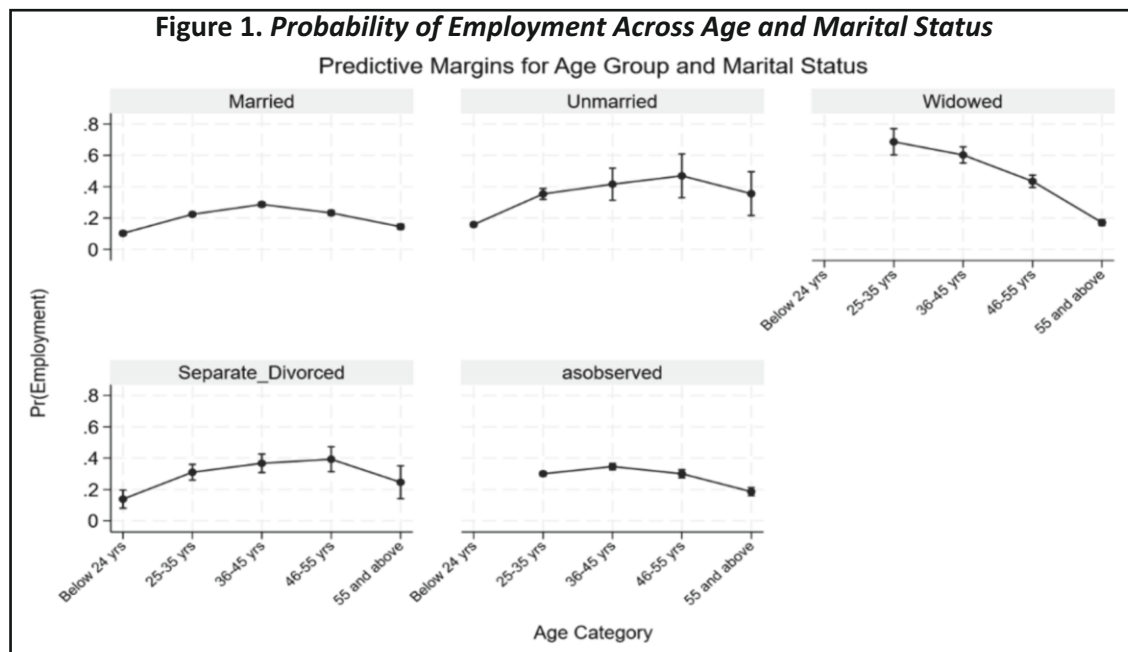
Analysis and Results

In this section, we present the analysis to study the relationship between the supply-side factors on female labor participation. The results of the logistic regression are presented in Table 3. The regression results for each covariate are mentioned in Table 3 with the reference (base) category. Figure 1 displays how the interaction between age group and marital status of females affects the probability of participation of females in the workforce. Although females within the age group 36–45 years have the highest participation rates, as indicated in Table 2, an interaction between age groups and marital status provides additional insights. We find that age group as a factor shares an inverted U-shape relationship with female employment, which is also consistent with the findings of the study by Andres et al. (2017). However, as observed in Figure 1, in the case of married females, the curve is somewhat flatter across all the age groups. This indicates that marriage as a factor affects female employment negatively across age groups. With increasing age, the participation of unmarried females increases and falls only after 55 years of age. Widowed females have a higher probability of participating in the labor

Table 3. *Results of Logistic Regression*

Pr (Employment)	1 Coef.	2 Robust Std. Error
Educational_Cat		
(Ref. Cat = Illiterate)		
Primary	–0.5340***	0.0622
Secondary	–0.7830***	0.9204

	(1)	(2)
Higher Secondary	–0.7606***	0.1032
Graduate	–0.1021	0.1291
Age_Cat		
(Ref. Cat = Below 25 years)		
25–35 years	0.9424***	0.0899
36–45 years	1.1927***	0.0974
46–55 years	0.8454***	0.1406
55 years and above	–0.1561	0.1536
Income Quintile		
(Ref. Cat = Lowest)		
Lower Income	–0.2165***	0.0659
Middle Income	–0.2346***	0.0757
Higher Income	–0.0885***	0.1175
Highest Income	0.5254	0.1061
Marital_Cat		
(Ref. Married)		
Unmarried	0.5241***	0.0984
Widowed	0.7547***	0.1021
Separated / Divorced	0.5033***	0.1702
No. of Children		
(Ref. Cat = No Children)		
One Child	–0.1554***	0.0436
Two Children	–0.2334***	0.0626
Three Children and above	–0.1428	0.0775
Religion_Cat		
(Ref. Cat = Hindu)		
Muslim	–0.4721	0.4153
Christian	0.1661	0.2072
Others	–0.2522	0.1352
Social_Group		
(Ref. Cat = General)		
OBC	0.4068***	0.0635
Dalit	0.4439***	0.0932
Adivasi	0.8102***	0.0964
Backward Muslim	0.2738	0.3798
Others	0.4416***	0.1781
Observations		23334
Wald X^2(26)		11109.92
Pseudo R^2		0.070

Note. Covariates include age, education, household income, marital status, number of children, religion and social group category. Columns (1) and (2) are the estimation results of the logit model and the robust standard errors clustered at the State level, respectively. * $p < 0.05$, ** $p < 0.01$, and *** $p < 0.001$.

Figure 1. *Probability of Employment Across Age and Marital Status*

Predictive Margins for Age Group and Marital Status

Figure 2. *Probability of Employment Across Education and Income*

Predictive Margins of Income and Education Categories

market when young, and this declines steeply with increasing age. In the case of separated or divorced females, female participation in the labor market increases steadily till 45–55 years and falls after that. In addition to age, education level has a significant impact on women's labor market involvement (Desai & Joshi, 2019; Tayal & Paul, 2021).

Figure 2 represents the interaction between education and household income. We find that with an increase in the level of education in the lower-income groups, the participation of females in the labor market decreases. There are only marginal increases with the highest level of education. It could indicate that the returns of education on female employment are insignificant in lower-income groups. However, within the two highest income groups, we find a steep increase in the participation of females with a graduate level of education. Klasen

(2019) suggested a strong U-shaped relationship exists between education and female participation rates in developing countries such as India, Jordan, Indonesia, and Sri Lanka, with high participation rates at low education (illiterate) and highest levels of education (graduate and above). However, in India, the U-shape has grown shallow due to females with the highest education levels, i.e., graduates and above, participating the most in labor markets.

It indicates graduate females' strong and lasting attachment to the labor market. Figure 3 represents the participation of graduate females across Indian states, primarily in the urban regions. Our findings reveal that graduate females from Delhi, Tamil Nadu, Karnataka, and Kerala participate the most in the labor market. The other states with higher participation of female graduates include Rajasthan, Uttar Pradesh, West Bengal, Punjab, and Andhra Pradesh. However, it is interesting that despite high urbanization rates, Gujarat, Himachal Pradesh, and Maharashtra exhibit lower participation of graduate females.

Similarly, among the east Indian states, Arunachal Pradesh, Meghalaya, and Assam record higher participation of graduate females than Mizoram, which has a high urbanization rate. It could indicate that urbanization and the highest level of education do not necessarily lead to higher levels of female employment.

Figure 3. *Probability of Employment of Graduate Females Across Indian States*

Figure 4. *Probability of Employment Across Marital Status and Number of Children*
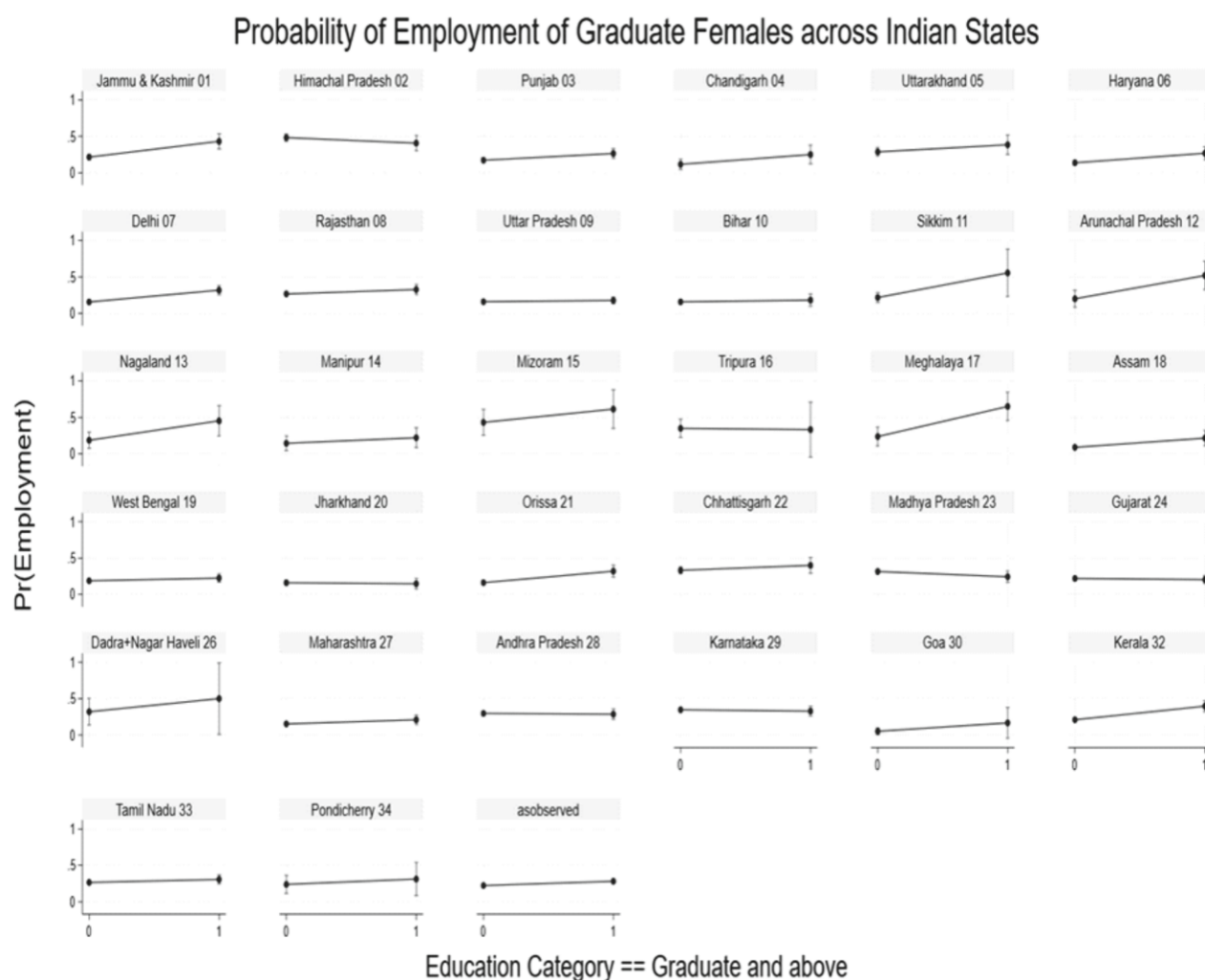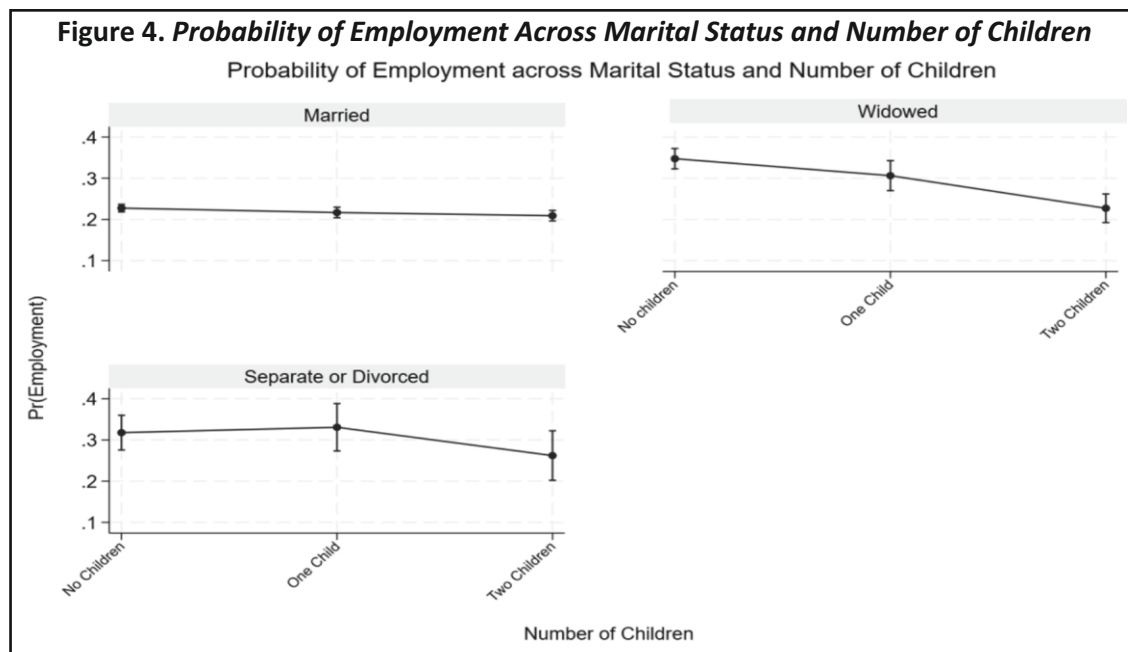
Thus, we reject the H_{01}, which examines the increase in female employment with increasing levels of education. The regression results presented in Table 3 indicate that the graduate level of education does not significantly influence the participation of females in paid employment activities. We also reject the H_{02} and find that household income negatively influences female employment.

One important element affecting women's work is their marital status (Fernández, 2013; Klasen & Pieters, 2015). We discover that married women, who make up the majority of the sample, are the least likely to engage in the workforce. However, females who are widows are the most likely to participate in the labor market, with a significant beta coefficient (0.75), followed by unmarried females (0.52). Reed (2020) suggested that widows are more than twice as likely to be employed in a salaried job relative to married females of any age group. Figure 4 represents that margins plot employment across marital status and number of children. The plot reveals that married females already have a lower participation rate, which may be attributed to additional household duties post-marriage.

The interaction between marital status and the number of children indicates that the presence of younger children restricts females from participating in the labor market. We can observe a steady decrease in participation in the case of married females with one young child followed by two younger children.

However, in the case of widowed females, we observe that the presence of one child decreases participation and then a steep decline with the presence of two younger children. In the case of separated or divorced females, a decrease is visible only with two children. Our findings reveal that the presence of one child negatively affects female participation with a negative beta coefficient of –0.15 and with a significant p-value. With an additional child, i.e., two children, the beta coefficient decreases to –0.23 with a significant p-value compared to females with no children (refer to Table 3).

This indicates that childcare potentially restricts female participation in the labor market. Thus, we reject H_{03} and H_{04} and suggest that marriage and the presence of younger children negatively affect females' participation in paid employment-related activities. Our findings reveal that females belonging to the religious category of Muslim are least likely to participate in the labor market. In contrast, females belonging to the religious category of Christian are most likely to participate in the labor market as compared to the base category of Hindu females. However, religion is not a significant predictor of female employment. Among the social groups, females in the general category participate the least in the labor market. However, Adivasi females are the most likely to

participate in the labor market, followed by females belonging to Dalit and OBC social groups. Social groups play a significant role in explaining female participation in the labor market.

Discussion

This paper utilizes IHDS II survey data to examine the factors that deter female participation. It is found that urban female participation is low due to several interlinked factors that keep females out of the workforce. The paper's findings reveal the strong negative influence of household income, marriage and child-rearing on female participation in the labour market. Jayachandran (2020) found that social norms related to gender act as barriers to equal representation of females in the labor market and suggests that a shift in social norms in developing countries like India through government policy interventions could improve female labor market outcomes. Parvathy and Kavitha (2023) asserted that unfavorable individual and household characteristics push females to perform unpaid family chores that reduce the hours available for paid employment. They suggest affordable child care and elderly care facilities may aid in increasing the work participation of females.

The mere feminization of the workforce does not imply the economic well-being of females. The quality of employment would reflect the status of females in the labor market. Policymakers should focus on devising policies that ensure quality jobs are accessible to females across different education levels and skill sets. Achieving the goal of providing quality jobs would require a deeper understanding of the demand and supply dimensions of the labor market in India. The present situation highlights a lack of policies, especially in urban regions of India, such as MNREGA in rural India, to improve the female labor supply. Klasen (2019) suggested that developing countries should focus on creating jobs that educated females prefer to curb the drop in female participation in undesirable employment due to improved household conditions as the economy grows. Traditional social conventions that discourage women from accessing employment possibilities can be changed with the support of changing family attitudes regarding gender roles. Reducing the care load through affordable daycares may be essential to promoting greater female participation. Consequently, a number of effective tactics are needed to boost female participation.

Authors' Contribution

Dr. Diya Devare conceived the idea and developed a quantitative method for the empirical study. The data were analyzed on STATA 18 by Dr. Diya Devare using commands to generate logistic regression results and their graphical representation. Dr. Savita Kulkarni verified the analytical methods and supervised the study. Dr. Savita Kulkarni also made revisions and provided suggestions to enrich the manuscript's content. Dr. Diya Devare wrote the manuscript in consultation with Dr. Savita Kulkarni.

Conflict of Interest

All authors whose names appear on the submission:

✤ Made substantial contributions to the conception or design of the work, the acquisition, analysis, interpretation of data, or the creation of new software used in the work.

✤ Drafted the work or revised it critically for important intellectual content.

✤ Approved the version to be published.

✤ Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part are appropriately investigated and resolved.

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