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ABSTRACT

Accounting for Differences in Female Labor Force Participation between China and India

Although, the male labor force participation rate is comparable in China and India, female labor force participation rate remains very low in India. In this paper, we examine the factors responsible for the difference in female labor force participation rate between the two countries by carrying out decomposition exercise at three points of time covering two decades. We find that the differences in female labor force participation rate are not explained by the differences in characteristics across the two countries in each of the three year studied. The differences in returns to these characteristics explain most of the differences in participation rate.

JEL Classification: J16, J82

Keywords: female labor force, China, India, oaxaca-blinder decomposition

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1 Introduction

China and India are two most populous countries in the world with combined population of 2.7 billion in 2016 that is more than one-third of the world's total population (World Development Indicators). Since 1980, both China and India have achieved remarkable rates of economic growth and poverty reduction, and the emergence of China and India as major forces in the global economy has been one of the most significant economic developments of the past quarter century (Bosworth and Collins, 2008). The similarities between these two countries on economic growth front also extend to the male labor force participation rate which remains higher than the rate for the world or OECD countries (Figure 1). In contrast, the female labor force participation rate (FLFPR, henceforth) in both countries differ dramatically. While FLFPR in China is higher than the FLFPR for the world or OECD countries, the Indian FLFPR remains comparatively very low. (Figure 2). Although there exists literature for both countries that focuses on the declining trend in FLFPR witnessed in recent decades in each of the country individually (e.g., Afridi et al., 2017; Hare, 2016; and Klasen and Pieters, 2015), there exists no study that compares the FLFPR between the two countries.[1] Given the difference in the development stages of these two countries, it will be useful to examine what factors drive differences in FLFPR between the two countries.

In this paper, we decompose the differences in FLFPR between the two countries using nationally representative household surveys at three points of time covering over two decades to understand the factors responsible for the differences. Our paper contributes to the limited literature that compares different outcomes between China and India (Bosworth and Collins, 2008; Bargain et al., 2009; and Hnatkovska and Lahiri, 2016). Bosworth and Collins (2008) examine sources of economic growth in the two countries, comparing and contrasting their experiences over the past 25 years. Bargain et al. (2009) compare wage differentials between

[1] Klasen et al. (2019) use comparable microdata from eight low and middle-income economies—Bolivia, Brazil, India, Indonesia, Jordan, South Africa, Tanzania, and Vietnam—to examine female labor force participation. They also decompose the difference in female labor force participation between each of the seven countries with Brazil.

wage earners living in urban China and urban India. Hnatkovska and Lahiri (2016) compare urbanization, structural transformation and urban-rural disparities between China and India.

We find that differences in characteristics of women between China and India do not explain observed gaps in the FLFPR. Instead, the returns to covariates account for majority of the gaps in participation in each of the three years studied.

The paper is organized as follows. Section 2 describes the data and construction of variables. Section 3 states the empirical framework, while section 4 presents the results. Section 5 concludes.

2 Data

We use nationally representative household surveys from both China and India. For China, we use three rounds of China Household Income Project (CHIP) collected in 1988, 2002, and 2008. For India, we use three rounds of large-scale Employment and Unemployment schedule data collected by National Sample Survey Organization (NSSO) in 1987, 2004-05, and 2009-10.[2] We compare Chinese CHIP 1988, 2002, and 2008 with Indian NSS 1987, 2004-05, and 2009-10 rounds, respectively.[3]

Both CHIP and NSS provide levels of education. CHIP data classify education in following categories---below primary, primary (6 years of education), junior secondary (9 years of education), senior secondary (12 years of education), and tertiary. The Indian NSS data classify education in below primary, primary (5 years of education), middle (8 years of education), secondary (10 years of education), senior secondary (12 years of education), and tertiary. Since the levels of education capture the skill differences more closely than years of schooling, we re-categorize the education levels to attain some uniformity across both coun-

[2]There are five rounds of available CHIP data collected in 1988, 1995, 2002, 2008 and 2013. For India, NSSO collects large-scale surveys every five year. There are seven rounds of available NSS data collected in 1983, 1987-88, 1993-94, 1999-00, 2004-05, 2009-10, and 2011-12. We choose the three rounds for each country based on whether surveys are available for both countries in close time gap.

[3]Bargain et al. (2009) who study the wage gap between Urban China and Urban India also use NSS and CHIP data. They compare CHIP 1988, 1995, and 2002 with NSS 1987, 1993-94, and 2004.

tries. We define five education categories: below primary, primary, secondary (for India, it contains both middle and lower secondary, i.e., either 8 or 10 years of education; for China it contains junior secondary, i.e. 9 years of education), higher secondary, and tertiary.[4] We also restrict our sample to women in age group 25-64 to avoid counting women who are still in school. Moreover, since the determinants of labor force participation may have differential impacts across rural and urban areas, we carry out our analysis separately for urban and rural areas.

Table 1 provides the descriptive statistics of the sample used in this paper. The FLFPR is lower in urban compared to rural areas in both countries, and china FLFPR is much higher than India across the sample years for both rural and urban areas. The female population has better education distribution in China for both urban and rural areas. As far as age structure of women is concerned, a larger fraction of women in India is in younger age cohort (25-34 age group) in recent data. Household size in rural areas is more or less comparable in the 1987 data between china and India, however, over time, the household size for rural China shrink considerably creating a large gap with rural India. Urban Indian households are larger than Urban Chinese households in all three data. Moreover, Indian households contain a larger number of children.

3 Empirical Framework

Our interest lies in examining the factors driving the differences in FLFPR between China and India. The standard Oaxaca-Blinder (OB) decomposition technique is a popular tool for analyzing differences in average. The standard assumption in OB decomposition is that the outcome variable Y is linearly related to the covariates, X, and the error term ε is

[4] The 1987 Indian data do not distinguish between lower and higher secondary (10 or 12 years). Hence, for 1987 secondary contains middle education, lower and higher secondary for India (8, 10, or 12 years of education) while it contains both junior and higher secondary for China (9 or 12 years of education).

conditionally independent of X:

$$Y_{c,i} = \beta_{c,0} + \sum_{k=1}^{K} \beta_{c,k} X_{c,ki} + \varepsilon_{c,i} \quad where\ c = China\ (CHN),\ or\ India\ (IND) \tag{1}$$

where $Y_{c,i}$ is a binary indicator that takes a value of one if woman i residing in country c is in labor force, X is the vector of covariates that contains women's own characteristics—indicators for education levels and indicators for age groups, and family circumstances captured by indicators for highest education of male member, household demographics such as household size and number of 0-7, and 8-17 year old children.[5]

The overall difference in FLFPR between China and India can be written as:

$$\Delta = \bar{Y}_{CHN} - \bar{Y}_{IND}$$

$$= \underbrace{\left\{ (\hat{\beta}_{CHN,0} - \hat{\beta}_{IND,0}) + \sum_{k=1}^{K} \bar{X}_{CHN,k} (\hat{\beta}_{CHN,k} - \hat{\beta}_{IND,k}) \right\}}_{unexplained} + \underbrace{\left\{ \sum_{k=1}^{K} \left(\bar{X}_{CHN,k} - \bar{X}_{IND,k} \right) \hat{\beta}_{IND,k} \right\}}_{explained} \tag{2}$$

where $\hat{\beta}_{c,0}$ and $\hat{\beta}_{c,k}$ are estimated intercept and slope coefficients, respectively, of the regression models for groups $c = CHN, IND$.[6] As documented in the literature, the decomposition in equation (2) is not invariant to the choice of counterfactual, hence, we present decomposition results using the coefficients for China and India as weights, separately. Moreover, to facilitate the interpretation and ensure comparability, we perform all decompositions with the same reference group across the years, and our reference group consists of similar educated individuals in both countries.[7]

[5]The necessity to use a common set of covariates in OB decomposition prevent us from using few country-specific variables such as caste and state for India or ethnicity and province for China. Household income is another explanatory variable used in the literature to explain female labor force participation, however, while the NSS data report household consumption, the CHIP data report income raising issue of comparability.

[6]In the literature, the explained effects are also referred as endowment effects, covariate effects, or composition effects. Similarly, the unexplained effects are also referred as coefficient, price, or structural effects.

[7]While the detailed "explained effects" are not affected by the choice of the reference group, the detailed "unexplained effects" differ by the choice of reference group as different parts of the effects are hidden in the intercept (Fortin, Lemieux, and Firpo, 2011).

4 Results

In Table 2, we present determinants of female labor force participation (FLFP, henceforth) in both countries for the three years. For rural China, education seems to have either no impact or positive impact on the FLFP with the exception in 2002, where FLFP is marginally higher for lower education groups compared to the excluded secondary group. In contrast, Indian rural FLFP clearly demonstrates a U-shaped relation with education. Compared to the excluded group, i.e. women with secondary degree, which is at the middle of educational distribution, the probability of FLFP is higher at the lower and top end of the educational distribution. The impact of education on FLFP is much stronger in Urban China showing a monotonous increase in probability of FLFP with education. For Urban India, FLFP maintains a U-shaped relation, where the probability of FLFP is higher for below primary and tertiary educated women compared to the excluded secondary educated group.

The highest level of education of adult male residing in the household seems to have negative effect on FLFP in urban India. For example, in 2008, FLFPR is 11 percentage points less if highest male education is tertiary compared to if highest male education is secondary. In contrast to urban India, there is no apparent effect of male education on FLFP in the urban China. In rural India, we also find that presence of higher educated male in the household reduces the FLFP. For Rural China, although there is no relation between FLFP and education of co-resident male member in the 1987 data, the 2002 data shows that presence of lower educated male member increases FLFP but presence of higher educated male member (higher secondary and above) has no effect compared to presence of a secondary educated male member. If one can consider education of male member as a proxy for economic status of the household, this suggests income effect is at work in India. Klasen and Pieters (2015) also find that a higher education level for male in the household has a negative effect on female participation in India, and suggest the presence of a social stigma associated with educated husbands to have working wives.

Age of women also seems to have significant effects on the FLFP. It is worth noting that age effects are capturing the cohort effects. Not surprisingly, the women in older age group (55-64) are less likely to participate in labor force compared to excluded group (45-54). The striking result is the difference in the propensity to participate in labor force among younger group (25-34). For China, young cohorts are much more likely to participate in labor force compared to the excluded group. In contrast, young cohort in rural India is less likely to participate. For urban India also, we find that young cohort is less likely to participate in 1987, while they are marginally more likely to participate in 2002, and there is no significant difference in 2008. Being single has opposite effects on labor force participation in these two countries.

As evident from Table 1 and Table 2, there exists differentials in characteristics between two countries, and the importance of those characteristics in terms of driving labor force participation differ between the countries. We move to OB decomposition that decomposes the gap in FLFPR into explained and unexplained effects. The columns 1, 2, and 3 of Table 3 present the decomposition results for three years for rural areas, while columns 4, 5, and 6 present the decomposition results for three years for urban areas. The columns with subhead (a) use $\bar{X}_{IND}\hat{\beta}_{CHN}$ as counterfactual, while columns with subhead (b) use $\bar{X}_{CHN}\hat{\beta}_{IND}$ as counterfactual.

We first start with rural results. Majority of the difference in FLFPR between the countries remains unexplained, and this is true using both counterfactuals. The positive value of the explained effect suggests that if Chinese women have the same regression coefficients as Indian women, i.e., the impact of the characteristics on their LFP decision were identical to Indian women, Chinese FLFPR in 2008 should only be marginally higher than Indian FLFPR due to better characteristics. However, in 2008 the difference in characteristics only explains 3.3 or 9.4 percentage points gap in rural FLFPR between the two countries depending on the weight used which are just 7 or 20 percent of the gap witnessed. The rest of the gap between FLFPR remain unexplained. Results are similar for both 1987 and 2002 with the exception that the covariate effect is small and not statistically significant for 2002 data. Klasen et al. (2019) who decompose the gap in FLFPR between each of the seven country—Bolivia, Brazil, India, Indonesia, Jordan, South Africa, Tanzania, and Vietnam-- and Brazil also find that differences in the observed characteristics of women and their households cannot account for the wide variation in FLFP between countries. Instead, most of the between-country differences result from variation in the returns to those characteristics and other unobservable factors.

The positive unexplained (or coefficient) effect implies that if both Chinese and Indian women were to have the same characteristics so that any difference in participation between the two countries would be due only to differences in the regression coefficients, e.g., differential impact of characteristics on participation decision, the FLFPR in rural China would have been 42.4 percentage points higher than rural India (column 3a) in 2008. Further disaggregating the two effects, differences in educational distributions contribute to explained differences. In the coefficient effect, the differences in intercept between the two countries remain most important. The effect of the constant term overwhelmingly favors Chinese women. It is important to point out that the constant term captures the difference in LFP of the excluded group. Moreover, the constant terms may also be picking up the gap between Chinese and Indian women that is not attributed to explanatory variables. The coefficient effect for education variables is negative suggesting that if education distributions would be similar between these countries, Chinese FLFPR would be lower. It is important to note that labor participation in rural India exhibit a strong U-shaped relation with education, while labor force participation in rural China exhibits either a weak or monotonous increasing relation with education.

The decomposition results for urban areas are very similar to rural areas with the exception of 2008, where the covariate effect in urban areas is close to zero. This suggests that characteristics in urban India and Urban China are more or less similar, and the big gap in FLFPR witnessed is entirely due to the coefficients. Further disaggregating the explained effect suggests that Chinese women have higher participation because of better education distribution but that is compensated by the Indian advantage in the age structure resulting in no explained effect.

To summarize, we find across years, regardless of rural and urban sample, most FLFPR differential remains unexplained. Bargain et al. (2009) who examine the wage gaps between Urban China and Urban India also find that majority of the wage gap remained unexplained.

5 Conclusion

In this paper, we examine the differences in female labor force participation between China and India at three points of time covering two decades. Our decomposition exercise suggests that majority of the gap witnessed is because of the coefficient effect. Unfortunately, the large coefficient effect driving FLFPR difference across the two countries does not pinpoint the reasons behind the differential impacts. For example, from our analysis we could not answer why one observe a U-shaped relation in labor participation and education in India while a positive association in China. We can only speculate that probably social norms and limited demand for middle educated workers play a role in suppressing labor force participation for secondary graduate women compared to low educated women.[8] From the policy perspective, only improvement of women's labor market characteristics in India will likely to be insufficient in raising female labor force participation rates unless the demand side and social barriers are also addressed.

[8] China and India differ in terms of manufacturing base. In 2008, manufacturing contributed to 32.1 percent of Chinese GDP, while share of manufacturing in India was only 17.1 percent. About 29 percent of Chinese manufacturing employment were women in 2008, while only 15 percent of Indian manufacturing employment were women in 2008 (World Development Indicators). Manufacturing sector employs a larger number of workers with intermediate levels of education. Lack of opportunities for intermediate levels of education might be one of the potential reason for relatively lower propensity to participate in labor force for women with intermediate levels of education in India.

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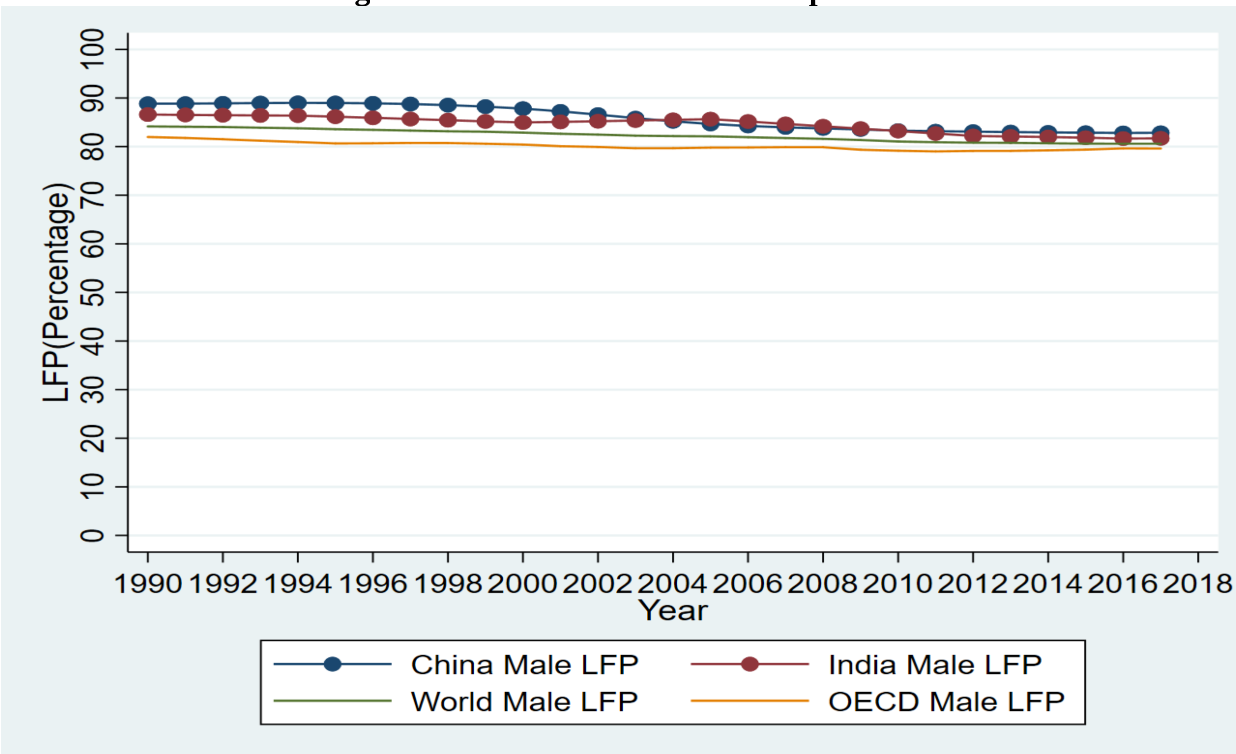
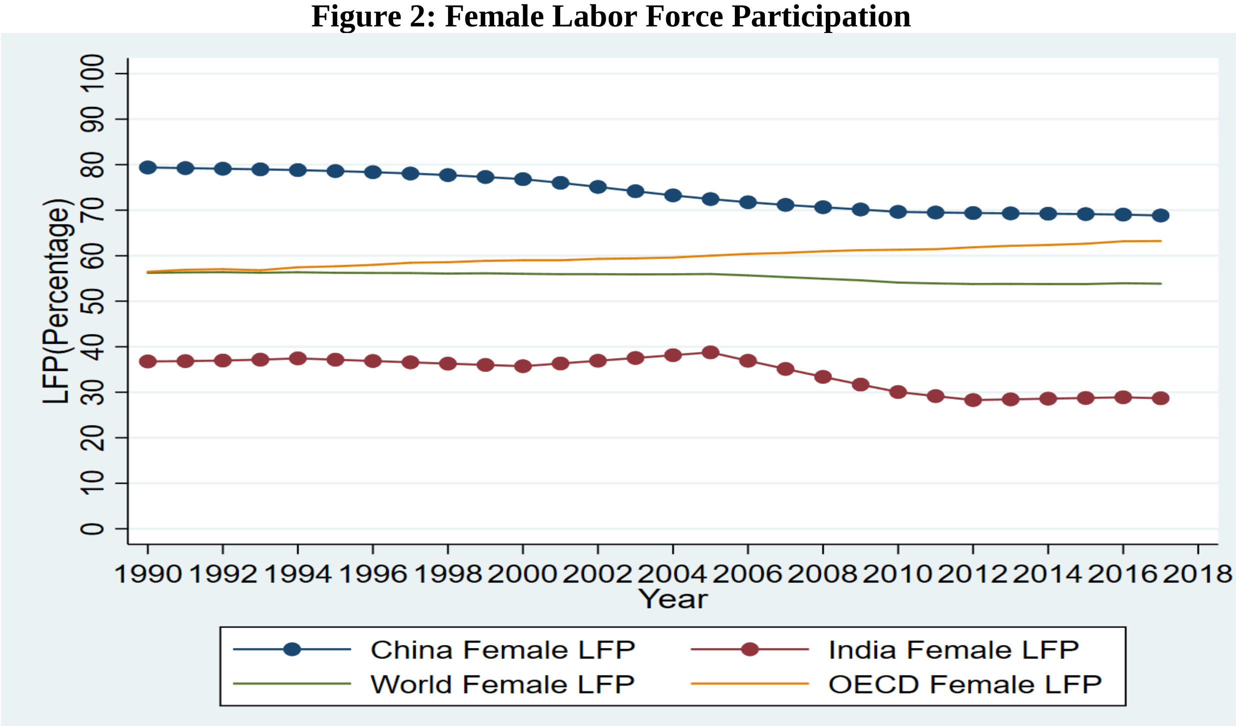
Figure 1: Male Labor Force Participation



Source World Development Indicators.

Figure 2: Female Labor Force Participation



Source: World Development Indicators

Table 1: Descriptive statistics

	Rural						Urban					
	1988		2002		2008		1988		2002		2008	
	(1)	(2)	(3)	(4)	(5)	(6)	(1)	(2)	(3)	(4)	(5)	(6)
	China	India	China	India	China	India	China	India	China	India	China	India
Labor force Participation	0.90	0.42	0.80	0.44	0.81	0.35	0.84	0.21	0.66	0.24	0.64	0.20
	(0.30)	(0.49)	(0.40)	(0.50)	(0.39)	(0.48)	(0.37)	(0.41)	(0.47)	(0.43)	(0.48)	(0.40)
Below primary	0.50	0.88	0.25	0.75	0.12	0.68	0.08	0.57	0.02	0.39	0.01	0.34
	(0.50)	(0.32)	(0.43)	(0.43)	(0.33)	(0.47)	(0.27)	(0.50)	(0.12)	(0.49)	(0.11)	(0.47)
Primary	0.29	0.06	0.31	0.10	0.37	0.12	0.17	0.14	0.08	0.12	0.07	0.12
	(0.45)	(0.24)	(0.46)	(0.30)	(0.48)	(0.32)	(0.38)	(0.35)	(0.26)	(0.33)	(0.26)	(0.32)
Secondary	0.20	0.05	0.35	0.11	0.40	0.16	0.67	0.22	0.31	0.27	0.27	0.28
	(0.40)	(0.48)	(0.49)	(0.25)	(0.37)	(0.42)	(0.47)	(0.46)	(0.45)	(0.43)	(0.44)	(0.46)
Higher secondary			0.08	0.02	0.09	0.03			0.39	0.08	0.37	0.11
			(0.28)	(0.14)	(0.29)	(0.16)			(0.49)	(0.28)	(0.48)	(0.31)
Tertiary	0.01	0.00	0.01	0.01	0.02	0.02	0.07	0.07	0.21	0.13	0.28	0.17
	(0.08)	(0.07)	(0.09)	(0.11)	(0.14)	(0.13)	(0.26)	(0.25)	(0.40)	(0.34)	(0.45)	(0.37)
Highest male education												
Below primary	0.08	0.45	0.02	0.30	0.01	0.22	0.02	0.20	0.00	0.12	0.00	0.09
	(0.28)	(0.50)	(0.13)	(0.46)	(0.10)	(0.42)	(0.13)	(0.40)	(0.06)	(0.32)	(0.05)	(0.29)
Primary	0.26	0.18	0.11	0.17	0.13	0.16	0.08	0.16	0.03	0.11	0.04	0.09
	(0.44)	(0.39)	(0.32)	(0.38)	(0.34)	(0.36)	(0.27)	(0.36)	(0.18)	(0.31)	(0.19)	(0.28)
Secondary	0.63	0.29	0.55	0.34	0.53	0.40	0.68	0.43	0.22	0.33	0.17	0.33
	(0.48)	(0.50)	(0.50)	(0.47)	(0.48)	(0.49)	(0.47)	(0.41)	(0.38)	(0.50)	(0.48)	(0.47)
Higher secondary			0.27	0.09	0.25	0.12			0.37	0.17	0.32	0.18
			(0.45)	(0.28)	(0.43)	(0.32)			(0.48)	(0.37)	(0.47)	(0.38)
Tertiary	0.01	0.04	0.03	0.07	0.07	0.07	0.19	0.18	0.36	0.25	0.43	0.29
	(0.08)	(0.19)	(0.18)	(0.25)	(0.26)	(0.26)	(0.39)	(0.38)	(0.48)	(0.43)	(0.50)	(0.45)
Age group: 25-34	0.33	0.38	0.25	0.37	0.20	0.35	0.31	0.39	0.20	0.36	0.23	0.36
	(0.47)	(0.48)	(0.43)	(0.48)	(0.40)	(0.48)	(0.46)	(0.49)	(0.40)	(0.48)	(0.42)	(0.48)
Age group: 35-44	0.36	0.27	0.31	0.30	0.33	0.30	0.35	0.29	0.32	0.31	0.27	0.30

	(0.48)	(0.45)	(0.46)	(0.46)	(0.47)	(0.46)	(0.48)	(0.45)	(0.47)	(0.46)	(0.44)	(0.46)
Age group: 45-54	0.22	0.31	0.28	0.21	0.20	0.21	0.25	0.34	0.29	0.20	0.20	0.21
	(0.41)	(0.46)	(0.45)	(0.41)	(0.40)	(0.41)	(0.43)	(0.47)	(0.45)	(0.40)	(0.40)	(0.41)
Age group: 55-64	0.09	0.14	0.13	0.14	0.19	0.15	0.10	0.13	0.14	0.13	0.20	0.14
	(0.29)	(0.35)	(0.34)	(0.35)	(0.39)	(0.35)	(0.30)	(0.33)	(0.35)	(0.33)	(0.40)	(0.34)
Number of children (8-17)	1.25	1.38	0.80	1.24	0.57	1.16	0.64	1.31	0.39	1.05	0.28	0.93
	(1.08)	(1.31)	(0.90)	(1.30)	(0.77)	(1.27)	(0.79)	(1.31)	(0.53)	(1.22)	(0.49)	(1.15)
Num of children under 7	0.62	1.31	0.29	1.05	0.38	0.85	0.32	1.11	0.16	0.80	0.21	0.68
	(0.85)	(1.34)	(0.53)	(1.26)	(0.62)	(1.12)	(0.50)	(1.28)	(0.37)	(1.11)	(0.42)	(0.99)
Household size	5.28	5.96	4.34	5.61	4.32	5.26	3.65	5.85	3.16	5.34	3.19	5.00
	(1.72)	(2.95)	(1.33)	(2.80)	(1.47)	(2.51)	(1.04)	(2.76)	(0.85)	(2.66)	(0.96)	(2.41)
Not married			0.04	0.13	0.04	0.12			0.07	0.15	0.10	0.14
			(0.21)	(0.33)	(0.20)	(0.33)			(0.26)	(0.36)	(0.30)	(0.35)
Observations	9,821	85,652	10,129	85,378	8,976	64,318	8,616	42,820	6,999	46,245	5,101	42,873

Note: Standard deviation in parenthesis. 1988 refer to CHIP (NSS) 1988 (1987); 2002 refer to CHIP (NSS) 2002 (2004-05); and 2008 refer to CHIP (NSS) 2008 (2009-10). For the 1988, secondary education includes higher secondary. Marital status is not available for 1988 CHIP data.

Table 2: Determinants of Female Labor Force Participation (25-64)

	Rural						Urban					
	1988		**2002**		**2008**		**1988**		**2002**		**2008**	
	(1)	(2)	(3)	(4)	(5)	(6)	(1)	(2)	(3)	(4)	(5)	(6)
	China	India	China	India	China	India	China	India	China	India	China	India
Highest education: (Secondary excluded)												
Below primary	-0.039***	0.132***	0.024**	0.107***	-0.011	0.065***	-0.194***	0.019***	-0.175***	0.066***	-0.055	0.033***
	(0.009)	(0.008)	(0.011)	(0.006)	(0.015)	(0.006)	(0.012)	(0.006)	(0.038)	(0.005)	(0.048)	(0.005)
Primary	-0.014	0.009	0.029***	0.012*	-0.018*	0.033***	-0.110***	-0.050***	-0.079***	0.029***	-0.048**	0.016**
	(0.009)	(0.010)	(0.010)	(0.007)	(0.010)	(0.007)	(0.008)	(0.007)	(0.019)	(0.007)	(0.022)	(0.007)
Higher secondary			0.025*	0.091***	0.036**	0.049***			0.156***	0.132***	0.068***	0.049***
			(0.015)	(0.013)	(0.015)	(0.012)			(0.011)	(0.008)	(0.013)	(0.007)
Tertiary	-0.057	0.127***	-0.024	0.192***	0.039	0.172***	0.048***	0.239***	0.246***	0.238***	0.199***	0.186***
	(0.037)	(0.027)	(0.046)	(0.016)	(0.030)	(0.015)	(0.011)	(0.009)	(0.015)	(0.007)	(0.016)	(0.006)
Highest male education: (Secondary excluded)												
Below primary	0.017	0.073***	0.060**	0.035***	-0.085**	0.027***	-0.024	0.136***	0.009	0.092***	0.030	0.069***
	(0.011)	(0.004)	(0.030)	(0.004)	(0.041)	(0.005)	(0.022)	(0.006)	(0.080)	(0.007)	(0.097)	(0.007)
Primary	-0.009	0.040***	0.034***	0.016***	0.005	0.023***	0.017	0.055***	0.029	0.069***	0.027	0.064***
	(0.007)	(0.005)	(0.013)	(0.005)	(0.013)	(0.006)	(0.010)	(0.006)	(0.027)	(0.007)	(0.029)	(0.007)
Higher secondary			0.007	-0.051***	-0.045***	-0.045***			-0.006	-0.082***	0.030**	-0.075***
			(0.009)	(0.006)	(0.010)	(0.006)			(0.012)	(0.006)	(0.015)	(0.006)
Tertiary	-0.062	-0.099***	0.014	-0.123***	-0.011	-0.106***	0.022***	-0.071***	-0.001	-0.112***	0.009	-0.113***
	(0.038)	(0.009)	(0.022)	(0.008)	(0.017)	(0.008)	(0.007)	(0.006)	(0.013)	(0.006)	(0.015)	(0.006)
Age groups: (45-54 age group excluded)												
25-34	0.072***	-0.012**	0.075***	-0.007	0.096***	-0.050***	0.240***	-0.053***	0.271***	0.022***	0.278***	0.001
	(0.010)	(0.005)	(0.012)	(0.005)	(0.013)	(0.006)	(0.009)	(0.006)	(0.016)	(0.006)	(0.017)	(0.006)
35-44	0.064***	0.034***	0.070***	0.031***	0.080***	0.022***	0.202***	0.001	0.240***	0.049***	0.307***	0.035***
	(0.009)	(0.005)	(0.012)	(0.005)	(0.012)	(0.006)	(0.008)	(0.006)	(0.014)	(0.006)	(0.016)	(0.006)
55-64	-0.196***	-0.145***	-0.191***	-0.143***	-0.112***	-0.139***	-0.529***	-0.065***	-0.402***	-0.107***	-0.424***	-0.105***
	(0.012)	(0.006)	(0.013)	(0.006)	(0.012)	(0.006)	(0.011)	(0.007)	(0.015)	(0.007)	(0.015)	(0.007)
Num of children (8-17)	0.002	0.017***	-0.009	0.002	-0.009	-0.011***	0.036***	0.003*	0.033***	0.009***	0.027*	-0.001
	(0.004)	(0.002)	(0.006)	(0.002)	(0.007)	(0.002)	(0.005)	(0.002)	(0.012)	(0.002)	(0.014)	(0.002)

Num of children	0.002	0.015***	-0.034***	-0.024***	-0.035***	-0.006**	-0.012	-0.009***	0.007	-0.022***	-0.026*	-0.023***
under 7	(0.005)	(0.002)	(0.009)	(0.002)	(0.009)	(0.003)	(0.008)	(0.002)	(0.016)	(0.003)	(0.016)	(0.003)
Household	-0.002	-0.029***	0.016***	-0.009***	0.002	-0.012***	0.002	-0.013***	-0.014**	-0.006***	-0.003	-0.008***
size	(0.002)	(0.001)	(0.004)	(0.001)	(0.004)	(0.001)	(0.003)	(0.001)	(0.006)	(0.001)	(0.006)	(0.001)
Not married			-0.074***	0.123***	-0.151***	0.199***			-0.007	0.239***	-0.018	0.238***
			(0.019)	(0.005)	(0.020)	(0.006)			(0.019)	(0.006)	(0.018)	(0.006)
Constant	0.901***	0.414***	0.711***	0.419***	0.819***	0.392***	0.748***	0.278***	0.514***	0.181***	0.497***	0.213***
	(0.014)	(0.010)	(0.017)	(0.008)	(0.018)	(0.008)	(0.012)	(0.008)	(0.021)	(0.007)	(0.023)	(0.007)
Observations	9,821	85,652	10,129	85,378	8,976	64,318	8,616	42,820	6,999	46,245	5,101	42,873
R-squared	0.078	0.054	0.048	0.045	0.051	0.049	0.544	0.061	0.362	0.103	0.444	0.097

Note: Standard deviation in parenthesis. ∗ $p < 0.10$, ∗∗ $p < 0.05$, ∗∗∗ $p < 0.01$. 1988 refer to CHIP (NSS) 1988 (1987); 2002 refer to CHIP (NSS) 2002 (2004-05); and 2008 refer to CHIP (NSS) 2008 (2009-10). For the 1988, secondary education includes higher secondary.

Table 3: Oaxaca-Blinder Decomposition of Female Labor Force Participation (25-64)

	Rural						Urban					
	1988		2002		2008		1988		2002		2008	
	(1a)	(1b)	(2a)	(2b)	(3a)	(3b)	(4a)	(4b)	(5a)	(5b)	(6a)	(6b)
Difference	0.479***	0.479***	0.365***	0.365***	0.456***	0.456***	0.627***	0.627***	0.422***	0.422***	0.436***	0.436***
(China-India)	(0.003)	(0.003)	(0.004)	(0.004)	(0.005)	(0.005)	(0.004)	(0.004)	(0.006)	(0.006)	(0.007)	(0.007)
Explained	0.018***	0.087***	-0.013	0.016	0.033***	0.094***	0.080***	0.160***	0.090***	0.194***	-0.010	-0.014
	(0.005)	(0.011)	(0.012)	(0.023)	(0.012)	(0.024)	(0.011)	(0.021)	(0.022)	(0.043)	(0.021)	(0.043)
Unexplained	0.461***	0.391***	0.378***	0.349***	0.424***	0.362***	0.547***	0.467***	0.332***	0.228***	0.446***	0.450***
	(0.006)	(0.011)	(0.012)	(0.024)	(0.013)	(0.024)	(0.011)	(0.021)	(0.022)	(0.043)	(0.022)	(0.042)
Detail Explained :												
Education	0.012***	0.072***	-0.005	0.038***	0.004	0.032**	0.093***	0.194***	0.135***	0.239***	0.060***	0.098***
	(0.002)	(0.006)	(0.005)	(0.010)	(0.007)	(0.015)	(0.006)	(0.012)	(0.014)	(0.029)	(0.016)	(0.032)
Education: Male	-0.005	0.011	-0.018**	-0.020	0.013	0.037**	0.003	0.037***	-0.005	0.035*	0.002	0.039**
	(0.004)	(0.009)	(0.009)	(0.017)	(0.009)	(0.018)	(0.004)	(0.008)	(0.010)	(0.019)	(0.009)	(0.018)
Age structure	0.012***	0.014***	-0.006***	-0.015***	-0.017***	-0.036***	0.004	0.001	-0.046***	-0.088***	-0.073***	-0.137***
	(0.001)	(0.002)	(0.002)	(0.003)	(0.002)	(0.004)	(0.003)	(0.006)	(0.004)	(0.007)	(0.005)	(0.009)
Household demographics	-0.001	-0.009	0.010	-0.010	0.021***	0.021*	-0.019**	-0.072***	0.005	-0.011	0.001	-0.024
	(0.003)	(0.006)	(0.007)	(0.014)	(0.005)	(0.011)	(0.008)	(0.016)	(0.015)	(0.031)	(0.013)	(0.026)
Not Married			0.006***	0.023***	0.012***	0.040***			0.001	0.020***	0.001	0.010***
			(0.002)	(0.003)	(0.002)	(0.003)			(0.001)	(0.003)	(0.001)	(0.002)
Detail Unexplained:												
Education	-0.154***	-0.213***	-0.064***	-0.107***	-0.060***	-0.089***	-0.142***	-0.243***	-0.105***	-0.208***	-0.033*	-0.070**
	(0.011)	(0.014)	(0.010)	(0.015)	(0.012)	(0.019)	(0.008)	(0.014)	(0.016)	(0.030)	(0.018)	(0.033)
Education: Male	-0.033***	-0.049***	0.025**	0.027	-0.021**	-0.045**	-0.022***	-0.055***	0.026**	-0.013	0.047***	0.009
	(0.006)	(0.010)	(0.010)	(0.018)	(0.010)	(0.019)	(0.006)	(0.010)	(0.012)	(0.020)	(0.012)	(0.019)
Age structure	0.033***	0.031***	0.035***	0.043***	0.073***	0.092***	0.114***	0.116***	0.112***	0.154***	0.138***	0.202***
	(0.007)	(0.007)	(0.008)	(0.010)	(0.009)	(0.010)	(0.007)	(0.009)	(0.010)	(0.013)	(0.011)	(0.014)
Household demographics	0.127***	0.135***	0.116***	0.136***	0.048***	0.048**	0.127***	0.180***	0.003	0.019	0.046	0.071*
	(0.011)	(0.013)	(0.017)	(0.022)	(0.016)	(0.019)	(0.017)	(0.025)	(0.031)	(0.045)	(0.028)	(0.040)
Not Married			-0.025***	-0.042***	-0.043***	-0.071***			-0.037***	-0.056***	-0.036***	-0.045***
			(0.003)	(0.004)	(0.003)	(0.004)			(0.003)	(0.005)	(0.003)	(0.004)
Constant	0.488***	0.488***	0.292***	0.292***	0.428***	0.428***	0.470***	0.470***	0.333***	0.333***	0.284***	0.284***
	(0.017)	(0.017)	(0.019)	(0.019)	(0.019)	(0.019)	(0.015)	(0.015)	(0.022)	(0.022)	(0.024)	(0.024)
Observations	95,473	95,473	95,507	95,507	73,294	73,294	51,436	51,436	53,244	53,244	47,974	47,974

Note: Standard deviation in parenthesis. $* \; p < 0.10$, $** \; p < 0.05$, $*** \; p < 0.01$.