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The Other Half of the Demographic Dividend

SONALDE DESAI

University of Maryland and National Council of Applied Economic Research

SONALDE DESAI: sonalde.desai@gmail.com

India is unlikely to realise its “demographic dividend” to the fullest extent unless significant strides can be made to increase women’s labour force participation through an increase in employment opportunities and a reduction in labour market disadvantages.

Starting with the legendary debate between Marx and Malthus, economists have been divided into two camps when it comes to viewing the relationship between population growth and economic growth. The population “pessimists” have argued that rapid population growth inhibits development by reducing capital per worker and dampening productivity (Cassen 1994). The population “optimists” have argued the opposite, that rapidly expanding population can increase human and intellectual capital and furnish expanding markets, leading to economic growth (Kelley and Schmidt 1996; Johnson and Lee 1986). In recent years, a third approach has emerged which suggests that population size is less important than population composition. Building on the experiences of the east Asian economies, this line of research argues that fertility decline leads to reduction in the number of children and increases the ratio of workers to non-workers for a few decades. Over this period, countries will need to spend less on education and other services for the non-workers, while enjoying the productivity and the savings boost provided by a large proportion of working age population. Dubbed the “Demographic Dividend”, this phenomenon has often been seen as a reward for fertility reduction (Bloom et al 2003).

In the Indian policy discourse, another aspect of the demographic dividend has drawn considerable attention. Analysts of the Indian age structure gleefully note that rapid fertility reduction through a stringent one-child policy has led to sharp changes in China’s age structure. While resulting in short-term benefits through smaller child populations, over the medium term it will lead to a population pyramid in which a large number of elderly will be supported by a smaller base of working age population, resulting in a high dependency ratio. In contrast, having experienced a slower fertility decline, India will have a smaller dependency ratio and will reap the benefits of the demographic dividend (James 2008), particularly if the nation chooses to invest in skill development of this young population (Chandrasekhar et al 2006).

Banking on the Dividend

The much-trumpeted expectations of a demographic dividend suggest that with a rapidly ageing population, China will lose its competitive edge to India with a shrinking working age population left to support a large number of elderly. Population projections suggest that the dependency ratio, the ratio of the non-working age population to the working age population is likely to go from 0.39 in 2001 to 0.50 in 2030 for China, with the reverse trend, from 0.55 to 0.48 for India.¹

¹Author’s calculations

However, this naïve discourse ignores striking differences in women's labour force participation between India and China. Indian women are far less likely to participate in the workforce than Chinese women. For example, for women aged 15 and above, the International Labour Organisation (ILO) estimates show 68.9% of Chinese women in the labour force compared to 34.2% of Indian women are in the workforce. Some of this may be due to certain types of home-based activities for Indian women not being counted in labour market statistics. However, even generous estimates of women's work participation show the Indian women substantially lagging behind the Chinese women in work participation. A nationally representative survey titled India Human Development Survey (IHDS) 2004–05 documents that even extensive probing regarding farming and care of the livestock only raises rural women's work participation rates (WPRs) from 32.6% documented in the National Sample Survey (NSS) to 38.4% (Desai et al 2010). While Indian and Chinese men exhibit similar wprs, Table 1 (p 12) compares age-specific WPRs in 2005 for Chinese women using the ILO data and for Indian women using the IHDS data. The results show Indian women in almost all age groups substantially lagging behind their Chinese counterparts.

This suggests that if we rely simply on age distribution differences to calculate the dependency ratios for non-working age population to working age population (Figures 1a and 1b), the Indian advantage will become apparent after 2030 with a dependency ratio of 0.48 compared to 0.50 for China. However, if we take differences in WPRs into account, in 2030, the Chinese dependency ratio will be about 0.89 compared to 1.26 for India.² This striking difference hardly provides a reason to be sanguine about the potential for realising the demographic dividend.

Trends in Female WPRs

This discussion of differences in the dependency ratio between India and China rests on the assumption that the low female WPR in India would continue. To what extent is this a realistic assumption, given rapid economic growth? Economic growth is associated with rising female education levels and falling fertility, both of which have been shown to be associated with higher female labour force participation rates in other countries (Presser and Sen 2000; Mason 1995).

However, there are a number of reasons to be less optimistic about the growth in women's WPRs. Following the classic work of Esther Boserup, a number of writers have noted the U-shaped relationship between economic development and women's labour force participation (Boserup 1970; Goldin 1995; Pampel and Tanaka 1986). Economic growth is associated with a declining importance of agriculture, an area where women are often concentrated, resulting in declining rates of female labour force participation until economic growth is strong enough to generate alternate employment opportunities. While rising education and declining fertility both generate conditions that would theoretically increase female labour supply (Becker 1993), in practice, data often fail to confirm these expectations. In societies dominated by extended families and women's concentration in self-employment, children do not form a strong barrier to labour force participation as they do in industrial societies (Lloyd 1991; Desai and Jain 1994).

²These dependency ratios are calculated by the author using the United Nations Population Projections, ILO labour force statistics for China and IHDS labour force statistics for India. Population projections for 2030 are based on UN population projections, available at <http://www.census.gov/ipc/www/idb/informationGateway.php>. The labour force participation rates for China are obtained from ILO statistics available at <http://kilm.ilo.org/KILMnetBeta/default2.asp>. The labour force participation rates for India are obtained from IHDS survey. Since the IHDS records higher labour force participation rate for women and about the same for men as the NSS, these calculations understate India's WPR dependency ratio compared to NSS and as such, offer conservative estimates of India's disadvantage compared to China

Moreover, education in India appears to be associated with *lower* rather than higher WPRs (Das and Desai 2003). Part of this may be because educated women are more likely to be married to men with higher incomes, but even controlling for income of the husband and other household members, Table 2 (p 12) based on the IHDS documents a consistent decline in WPRs with education until past secondary education. The absence of skilled work preferred by educated women may be partially responsible for this negative relationship. The increase in employment for women with higher secondary and college education, especially in urban areas, suggests that a greater availability of suitable white-collar and salaried employment could lead to increased female labour force participation (Desai et al 2010), although at best this seems to counter-balance the initial decline with primary and post-primary education.

Apart from the absence of appropriate employment, gender discrimination in earnings may also play a role in reducing female employment. The IHDS also documents that when women are employed in wage or salaried work, the urban women earn only 68 paisa per rupee earned by men and rural women earn even less, only 54 paisa (Desai et al 2010).

So if we must rely on increasing labour force participation to realise the demographic dividend we are dreaming of and gender inequalities in labour market opportunities persist, what can be done to increase women's labour force participation? Historically, government employment has shown lower gender discrimination than private sector work. In the public sector, women earn 73 paisa for a rupee earned by a male compared to 53 paisa in the private sector (Desai et al 2010). However, substantial growth in government employment seems unlikely. The National Rural Employment Guarantee Act, by equalising men's and women's wages is providing a useful service but it cannot overcome broader labour market discrimination, particularly for educated women. This suggests that the much-trumpeted demographic dividend is likely to be far smaller than anticipated unless significant strides can be made to increase women's labour force participation through an increase in employment opportunities and reduction in labour market disadvantages.

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Figure 1a: Naive Dependency Ratio – India 2030

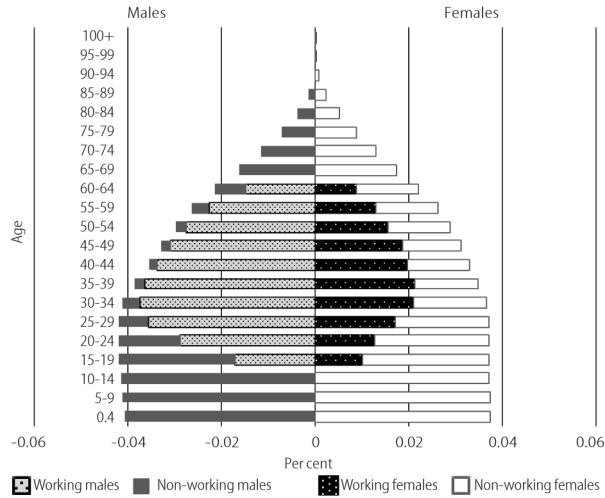


Figure 1b: Naive Dependency Ratio – China 2030

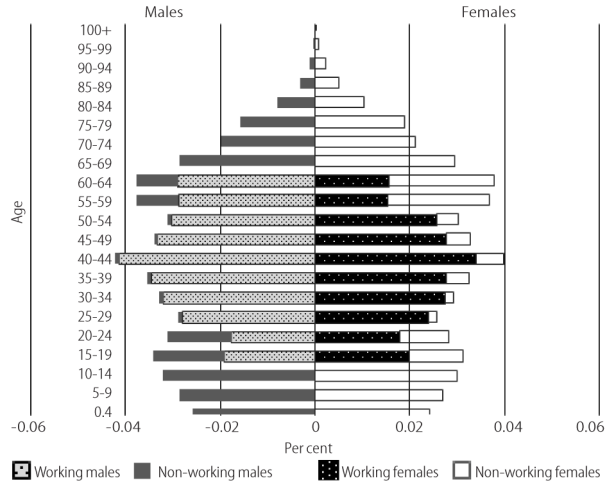


Figure 1.
 Figure 1a. Naive Dependency Ratio – India 2030
 Figure 1b. Naive Dependency Ratio – China 2030

Table 1

Women's Work Participation Rates by Age (%)

Age	India	China
15-24	30	64
25-34	51	94
35-54	60	85
55-64	57	42

Table 2

Women's WPRs by Education and Household Income* (in %)

	Women's Education					
	None	School Education			12 and Some College	Graduate
		1-4	5-9	10-11		
Rural						
Lowest quintile	81	79	70	59	(NA)	(NA)
2nd quintile	74	72	67	61	(NA)	(NA)
3rd quintile	72	58	59	51	(NA)	(NA)
4th quintile	67	56	50	39	46	53
Highest quintile	65	58	45	43	36	46
Urban						
Lowest quintile	62	60	51	36	(NA)	(NA)
2nd quintile	45	31	30	28	(NA)	(NA)
3rd quintile	39	34	23	23	27	46
4th quintile	27	23	16	13	20	27
Highest quintile	19	17	11	9	14	23

NA – Not available due to small sample size.

* Household income excludes women's own earnings.

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