

# Gender and the Demographic Dividend

Karen Oppenheim Mason, Ph.D.  
East-West Center  
5 June 2007

## Outline

1. Gender & family systems – a few basics
2. What role might gender play in the demographic dividend?
3. What is the evidence about gender and the demographic dividend?

## Gender & family systems – a few basics

### Human family systems

- The family is the basic human adaptation enabling the evolution of large brains, language and complex social organization
- Key features:
  - Long term pair-bonding of males and females
  - An economic division of labor between males and females
- Family systems take many specific forms, but a gender division of labor is a central feature of all forms
  - Rules of descent, residence & marriage vary but roles & rights are always gender differentiated

## Gender systems

- Refers to the socially prescribed roles & rights of women and men
- Culturally agreed on and enforced, so it's a feature of groups
- Important for the DD are restrictions on women's freedom of movement, ability to operate in public venues (e.g., schools, factories), and ability to make decisions within the household & family

What role might gender play in the demographic dividend?

## Two possible roles of gender systems in the DD

1. Gender systems directly determine whether or how rapidly the DD occurs (fertility decline)
2. Gender systems mediate the impact of the DD on economic growth

### Gender & fertility decline

- Standard hypothesis: women's empowerment or autonomy provokes or accelerates fertility decline during the demographic transition
- Evidence is mixed
- Education is strongly related to fertility levels and fertility decline, and some evidence suggests this occurs because of education's empowering effects on women
- But findings from surveys using relatively direct measures of empowerment are complex

## Illustration from 5-country study

- Surveys of married women ages 19-39 interviewed in 1993-94 from 56 purposively chosen communities in five Asian countries,
  - Pakistan, India (Uttar Pradesh & Tamil Nadu), Malaysia, Thailand & the Philippines
- Economic power = women's say in making major purchases & ability to make minor personal purchases without permission
- Fertility power = women's a say in fertility and contraceptive decisions
- Permission scale = number of places women can go to without permission
- Intimidation question=whether women say they are afraid to disagree with husband for fear he will become angry at them
- Husband beats wife=just what it sounds like!

## Community-level regressions: wants no more children

	Standar- dized <sup>a</sup>	Country controlled
Economic power	6.12*	7.15
Fertility power	25.65**	34.44*
Permission scale	6.57**	10.47**
Intimidation question	-18.77	-55.73*
Husband beats wife	-16.38	9.68

a—Standardized for parity and age, their squares & cubes. N=56.

## Community-level regressions: wants no more children

	Standar- dized <sup>a</sup>	SES controlled <sup>b</sup>
Economic power	6.12*	7.54*
Fertility power	25.65**	31.58*
Permission scale	6.57**	12.38**
Intimidation question	-18.77	2.48
Husband beats wife	-16.38	46.64*

a—Standardized for parity and age, their squares & cubes. N=56.

b—Controls are community means on wife's education, husband's education and household wealth (goods owned).

## Individual-level regressions: net impact of fertility power on wants no more children

Total sample	.19**
Pakistan	.13
Uttar Pradesh	.22 <sup>+</sup>
Tamil Nadu	.18
Malaysia	.13
Thailand	.27**
Philippines	.14*

All results control for parity, age, wife's education, husband's education, household wealth (goods owned) and community.

## Impact of gender on the translation of age structure into economic growth

- The level of female labor supply will directly affect the extent to which age structure change produces a life-cycle surplus
- Higher female labor supply means more life-cycle surplus
- Changes in women's lives associated with the DD may also deepen human capital and contribute to savings and investment

## Five possible effects

1. Where gender systems are non-restrictive, female education levels may rise during the DD, thereby deepening human capital
2. Where gender systems are non-restrictive, female labor force participation (flfp) may rise during the DD, thereby increasing total productivity
3. Where gender systems are non-restrictive, investments in children's human capital may increase because of women's propensity to make this investment
4. Where gender systems are non-restrictive, household savings/investments may increase because of women's possible propensity to save (maybe)
5. Where female education & flfp rise, upward intergenerational transfers may decline, thereby providing an incentive to accumulate assets to fund old age consumption

## 1. DD and rising female education

- Fertility decline reduces the value of girls' domestic labor (fewer siblings to care for)
- Rising income & smaller family size also reduce the need to ration investments in children within households (a well-established finding)
- So parents are more willing to invest in girls' schooling (unless gender norms seclude young women)
- Rising educational levels of both sexes encourage later age at marriage
- Later age at marriage allows parents to reap the monetary rewards of investing in girls' schooling
- So where girls' freedom of movement is not severely restricted, the DD encourages greater investments in female education
- Deepening of human capital in turn increases worker productivity

## 2. DD and rising female labor supply

- Low fertility greatly reduces the number of years that mothers' have dependent children in their care
  - so the percentage of women's lives available for labor force participation rises (especially with rising life expectancies)
- Better educated workers can command higher wages, hence increase in female schooling tends to make their labor force participation more attractive
- Once low fertility cohorts reach working age, labor force growth slows, wages rise, and more women are attracted into the work force
- All these processes increase total labor supply
- But all depend on a gender system that does not severely restrict women's freedom of movement

### 3. Gender differences in propensity to invest in children's human capital

- Studies from a variety of settings show that women's income is more likely to be spent on children's health, nutrition and schooling than is men's income
  - Studies include Bangladesh, Brazil, Canada, Cote d'Ivoire, Ethiopia, Indonesia, South Africa, Taiwan and the U.S.
- So rise in flfp during the DD may encourage greater investments in children's human capital (daughters' and sons'), which in turn contributes to economic growth
- But this effect depends on whether women are able to determine how their money or the household's money is spent, i.e., on a gender system that gives wives some degree of economic autonomy or power

#### An example: Grameem Bank results<sup>a</sup>

	Male loans	Female loans
Boys in school	.07	.61
Girls in school	.30	.47
Boy's nutrition	-2.98	14.19
Girl's nutrition	-4.92	11.63

a—Percentage change in child outcomes associated with a 10% increase in borrowing by male versus female household members, controlling for per capita spending, net worth, contraceptive use and recent fertility.

Source: S. Khandker, *Fighting Poverty with Microcredit*, Oxford University Press, 1998.

#### 4. Are women more likely than men to save or invest for old age?

- One reason might be women's greater economic insecurity in old age
- Gender biases in the ownership of land and real estate undermine women's ability to fund old age support from accumulated wealth
- So with rise in flfp, women may be more inclined to save or invest for their retirement than men are
- Households may also see women's earnings as "extra" income and may be more inclined to save or invest such income than an equal amount earned by the husband

#### Land ownership in Latin America

<u>Country/year</u>	<u>Women</u>	<u>Men</u>	<u>Couple</u>
Brazil, 2000	11.0	89.0	--
Mexico, 2003	22.4	77.6	--
Nicaragua, 1995	15.5	80.9	3.6
Paraguay, 2001	27.0	69.6	3.2
Peru, 2000	12.7	74.4	12.8

Source: C.D. Deere & M. Leon, 2003, "The gender asset gap," *World Development* 925.

## 5. Upward intergenerational transfers

- The propensity to save for old age may be undermined by upward intergenerational transfers, either familial or state provided
- Intergenerational co-residence tends to break down with rising female education and flfp
- Daughters-in-law are less available to care for elderly parents when they are working
- So rising flfp may undermine upward transfers (although increased incomes may help to fund such transfers)
- If upward transfers are undermined, propensity to save for old age will increase, thereby helping to fund economic growth

What is the evidence about gender and the demographic dividend?

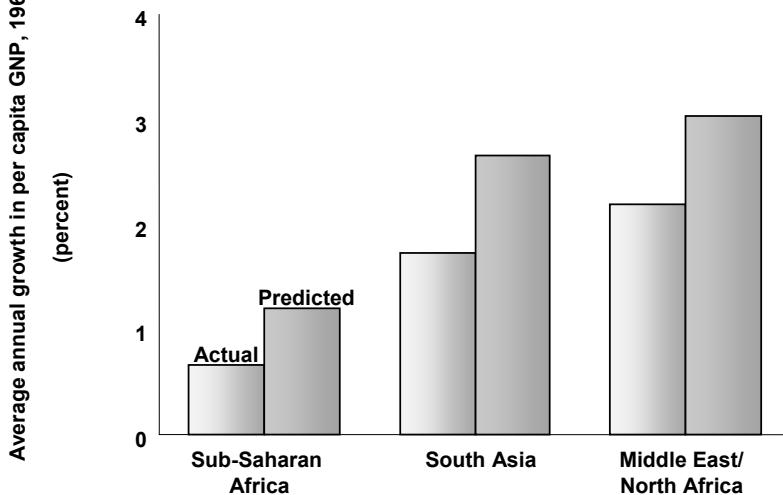
## General picture

- Much evidence that gender equality contributes to economic growth (see World Bank, *Engendering Development*)
- But little evidence on the extent to which gender is important in creating a demographic dividend
- Will review some of the general evidence, contrasting what has happened in East Asia and the Middle East/North Africa, which are regions with distinctive gender systems

## The gender gap in schooling and economic growth

- Country-level, regression-based growth models suggest that closing the gender gap in schooling enhances growth in per capita income
- Study commissioned by the World Bank for *Engendering Development* found strong impacts of the education gap on growth:

### **Simulated impact on economic growth of reducing the gender gap in schooling**

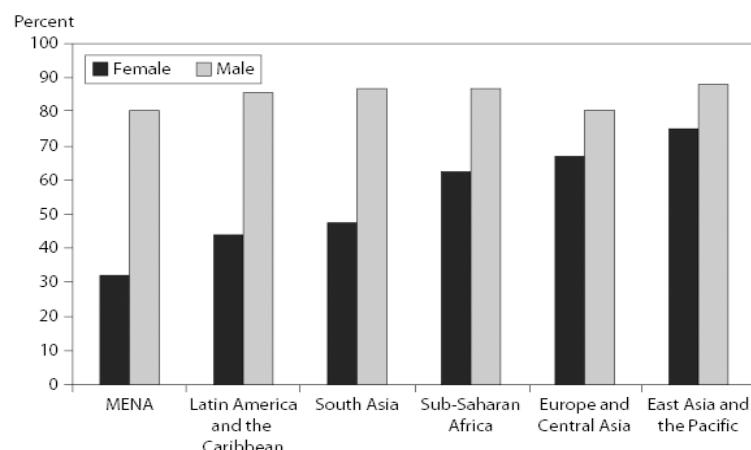


### **The gender gap in labor force participation and economic growth**

- A similar regression analysis for countries in the Middle East/North African (MENA) region found that rising flfp would increase average household incomes
- Countries in this region have reduced the gender gap in schooling and have begun the fertility decline
- But flfp rates remain low, especially relative to what one expects on the basis of female education and fertility

FIGURE O.3

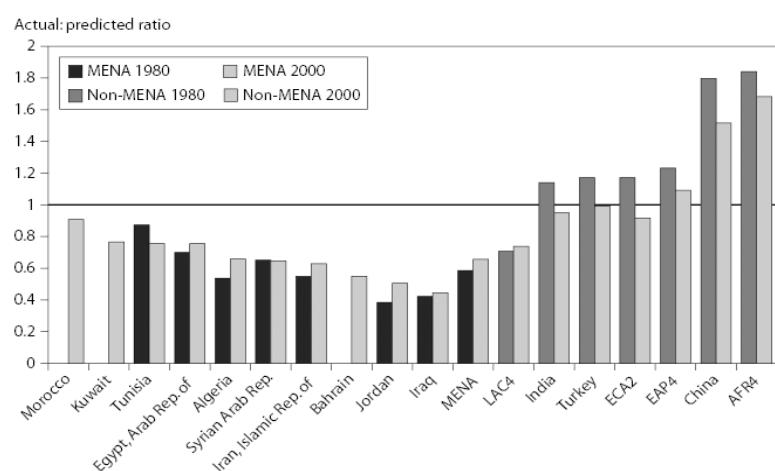
**Male and Female Labor Force Participation, by Region, 2000**



Source: ILO 1996; United Nations 2002.

FIGURE 3.3

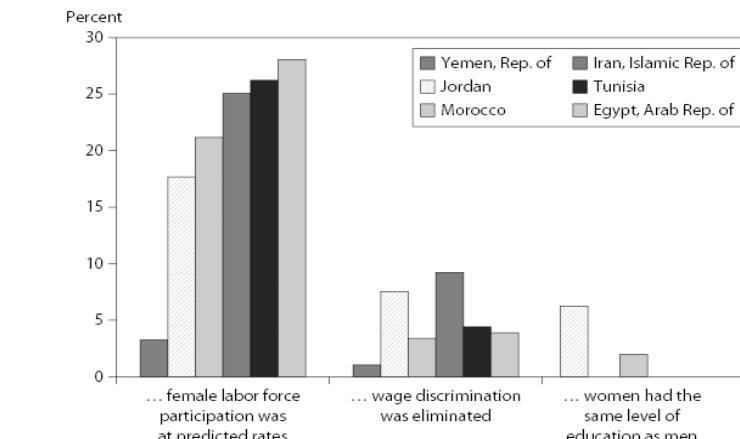
**Ratio of Actual to Predicted Female Participation in the Labor Force in MENA and Selected Countries and Regions, 1980 and 2000**



Note: AFR4 = Cameroon, Ghana, Kenya, and Senegal; EAP4 = Indonesia, Malaysia, the Philippines, and Thailand; ECA2 = Hungary and Poland; and LAC4 = Argentina, Brazil, Chile, and Mexico. Bahrain and Kuwait estimates are based on total female participation in the labor force (which includes foreign workers).

Source: World Bank staff estimates.

**FIGURE 3.8**  
**Potential Increases in Average Household Income If ...**

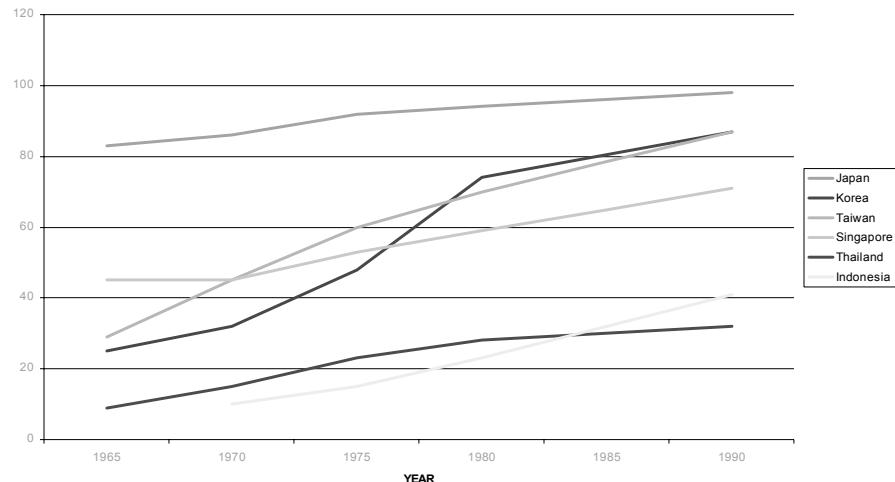


Source: World Bank staff calculations based on World Bank household and labor force surveys.

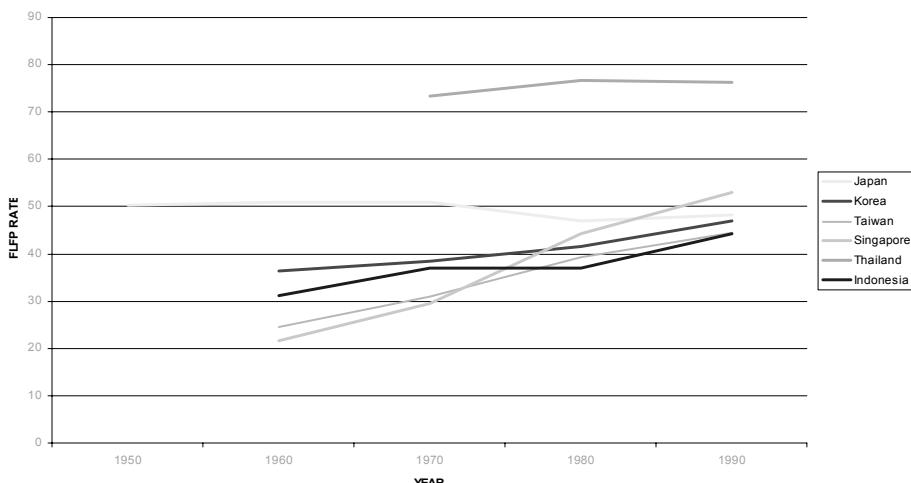
## The East Asian experience

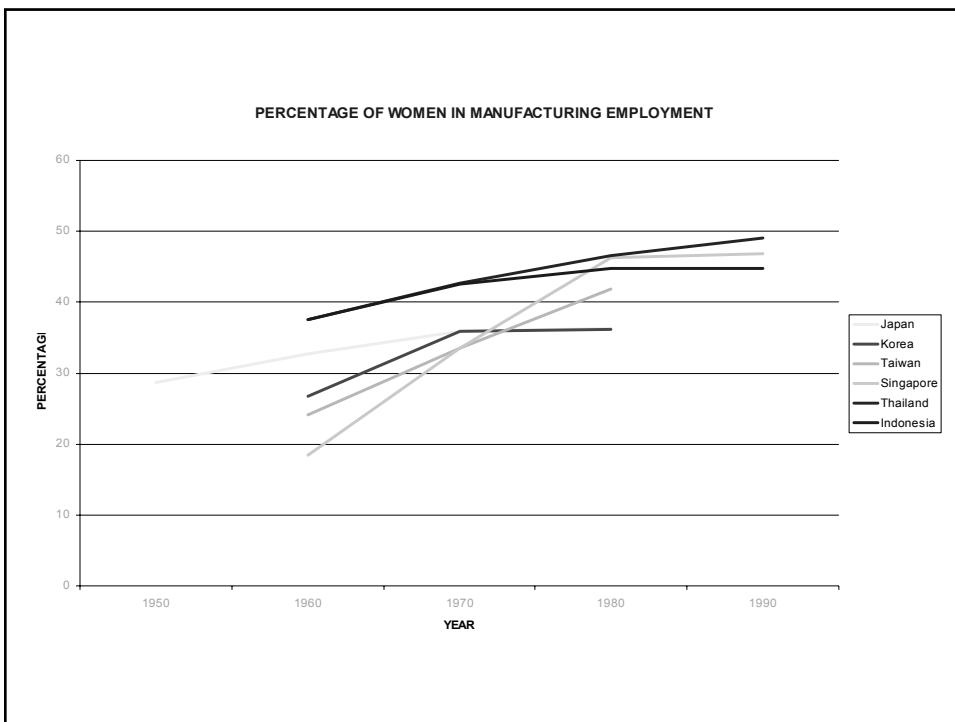
- The DD accounts for a substantial portion of East Asia's rapid economic growth, 1960-1997
- And gender systems are consistent with the idea that fewer restrictions on women enhance the economic impact of the DD
- Primary schooling was already at parity in 1960 in most countries of the region
- And the gender gap in secondary schooling was reduced or closed by 1990
- Also, flfp rates rose, especially in manufacturing

PERCENTAGE OF SECONDARY SCHOOL AGED FEMALES ENROLLED IN SECONDARY SCHOOL



FLFP WOMEN 15+ BY YEAR





“It is difficult to imagine East Asia’s labor-intensive, export-led industrialization occurring without the efforts of female workers, whose labor fueled the growth in manufacturing and helped to moderate wage growth.”

John Bauer 2001, pp. 366-7

## Savings & investment propensities: a research idea

- Household surveys provide information on aggregate saving/investment at best, so allocation to male vs. female household members is impossible
- Could ask, however, whether total household saving/investment varies systematically by the sex-age composition of working household members (net of total household income)
- At a given level of household income, do those households with working women save more or less than those without working women? Do they invest more/less in children's education?
- Endogeneity problems are obvious, but worth trying

The end