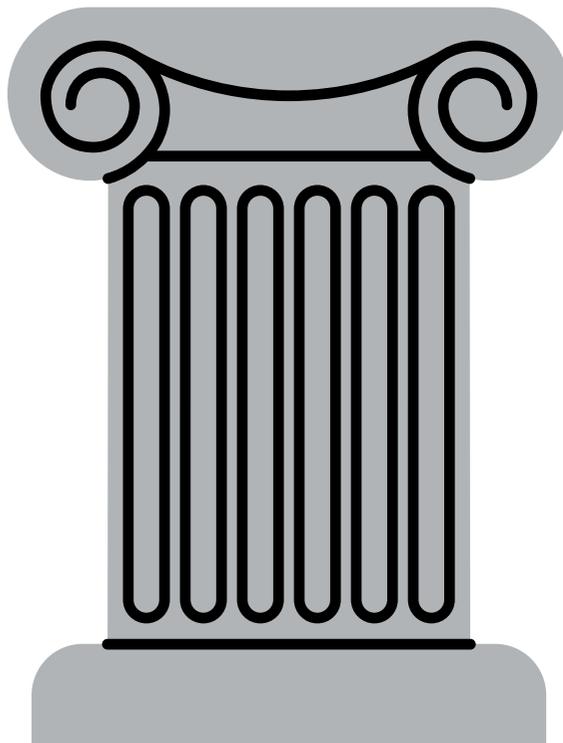
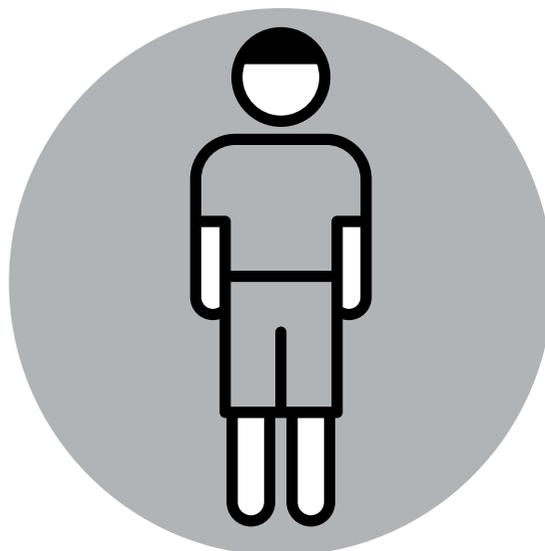
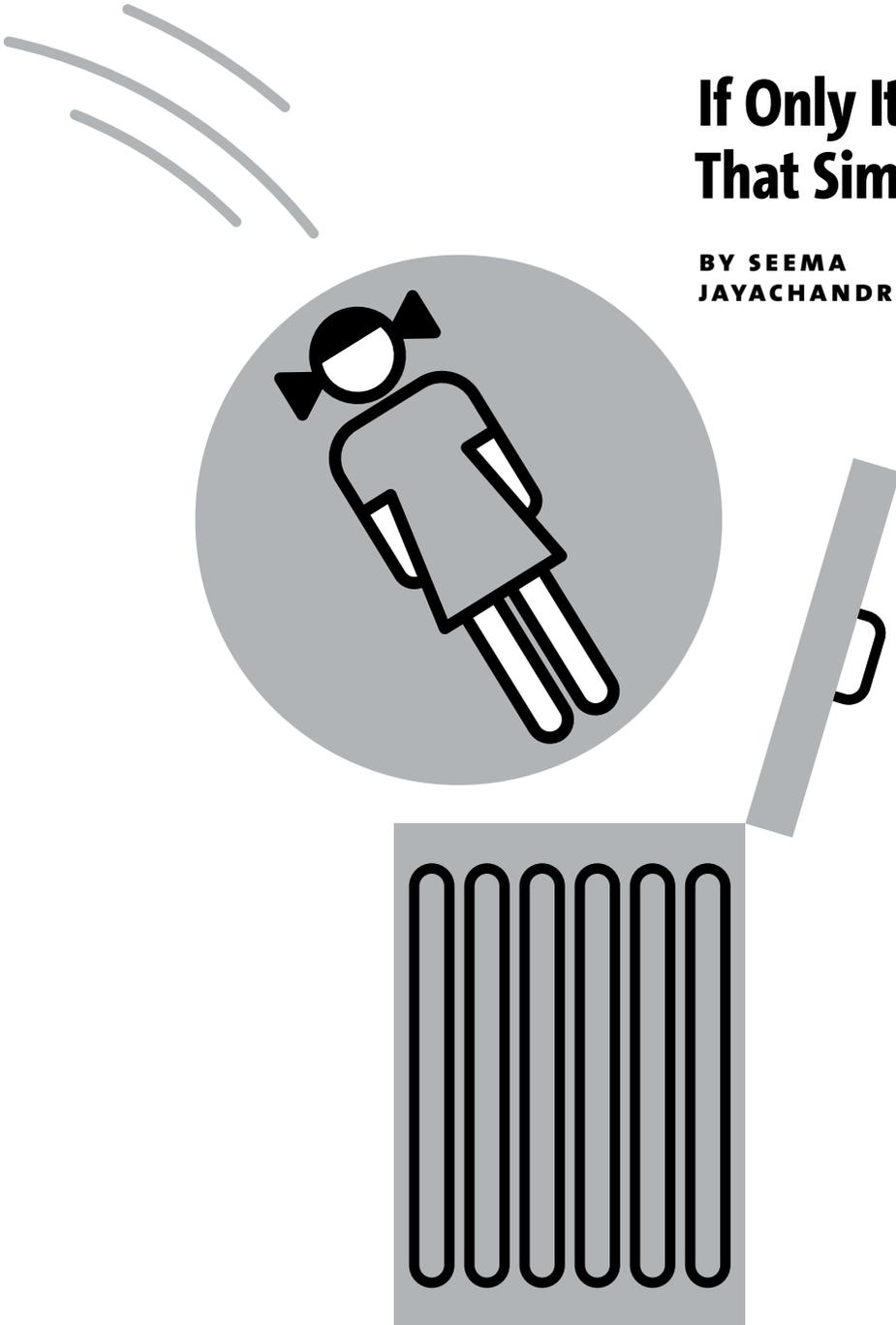


**Does Economic
Development
Mean Less
Discrimination
Against Women?**



If Only It Were That Simple...

BY SEEMA
JAYACHANDRAN



Women in richer countries generally have it better than women in poorer ones. That is stating the obvious, though perhaps it will seem less so when I add that this is true even when considering women's lives relative to those of men. The advantages men enjoy in terms of years of education, health, legal rights – even satisfaction with life as measured by surveys – all lessen as a country develops.

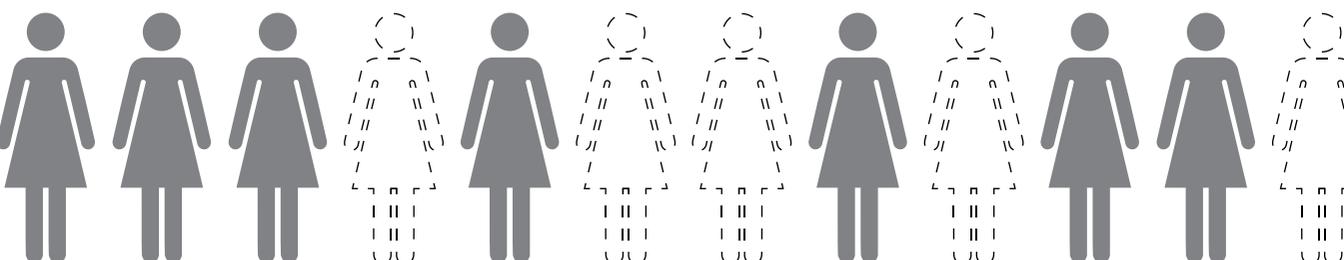
This makes it tempting to view improvements in gender rights as a simple progression. In the poorest countries, the reasoning goes, women have little power in the home or community. As a country develops, women are progressively empowered until they reach the state of their counterparts in the West, where the gender gap has been eliminated in education, if not in salaries. At the furthest point of evolution (so far, at least) are Scandinavian utopias, with their impressive rates of male dish-doing and diaper-changing.

Like most simplified models of the world, the idea that development will eradicate gender inequality is based on some facts, yet fails to account for others. The tidiness and optimism the model offers are apt to blind us to societal patterns in specific countries that buck the trend – with great detrimental effects on women and especially on girls. Indeed, this inclination to assume that development is the all-purpose fix distracts from the very real need to press for gender equality by other means.

In both graphs on the opposite page, the horizontal axis represents percapita GDP in purchasing power terms. Countries farther to the left are poorer, farther to the right, richer. In the left-hand graph, the vertical axis represents the male-to-female enrollment ratio – the gender gap – in higher education. Clearly, as countries develop, this gap narrows.

Similar descending lines, of varying steepness, would be apparent if we substituted any of a host of measures of female disempowerment, ranging from the social acceptance of domestic violence to attitudes toward women in the workplace. Women's health improves along with economic development, too; while women everywhere generally live longer than men, this advantage is smaller in poor countries. In short, according to most measures, women do better in relative terms as countries get richer.

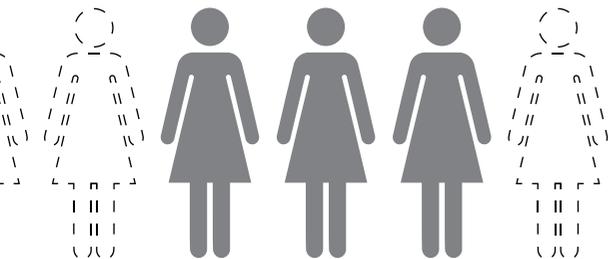
Now look at the graph on the bottom. Here, the vertical axis represents the male-to-female birth ratio. The line doesn't descend



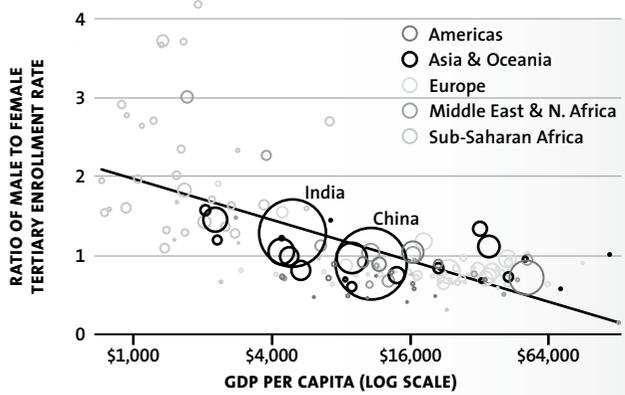
with wealth; it ascends. There is no biological reason that relatively more males are born in richer countries. Almost surely, this ratio is manipulated through sex-selective abortion; the smoking gun is that the abnormally high rate of male births is concentrated among couples whose children are all girls – that is, those most desperate to have sons.

The Nobel laureate Amartya Sen famously highlighted this problem in a 1990 essay, “More Than 100 Million Women Are Missing,” in which he found the phenomenon to be concentrated in East and South Asia. Since then, many studies have looked at the “missing women” problem and documented that the disappearance of females begins before birth through abortion and continues after birth through infanticide and disproportionate death rates among girls as families take better care of boys. One analysis showed that the pattern continues over the entire life span because women receive lower-quality care than men when ill.

The sex imbalance at birth is a troubling form of gender bias. The fact that it *increases*, on average, as countries grow richer is arguably more troubling and certainly does not square with our optimistic

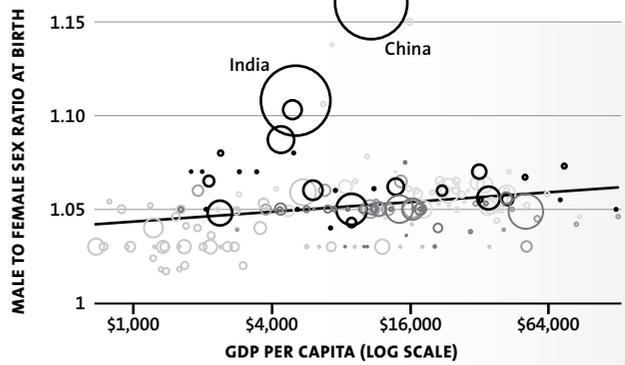


THE GOOD NEWS



NOTE: Size of bubbles represents relative size of population

THE BAD NEWS



SOURCE: The author

model of development inevitably empowering females – or, for that matter, with economic rationality. As girls become more educated, they have more capability to take care of their parents in old age, a role boys have typically played in many societies. When people have better ways to save as the financial sector develops, they have less reason to depend on their children as old age insurance, anyway. The “worth” of girls should increase, and there should be less reason to abort them. Obviously, there must be forces other than income shaping gender discrimination.

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Therefore, it's worth taking a harder look at our model of gender inequality as explained by underdevelopment, and asking if the countries that are poor today have characteristics and cultural beliefs that cause gender inequality to grow as they develop. And it is worth paying special attention to the measures that buck the trend of increasing female empowerment, such as the aforementioned birth ratios and, strikingly, women's participation in the labor force.

Does a country's low stage of development cause gender bias?

A large body of research has explored the ways in which low economic development can cause gender inequality. (I define development conventionally – higher household income, better physical infrastructure, more advanced technology, etc.) One strong pattern: as economies grow, they move away from agriculture and toward services, a broad category that encompasses everything from office work to education to tourism. Agriculture generally requires more physical strength than services, and in these sectors men have a comparative advantage. Women, for their part, have a comparative (though not necessarily an absolute) advantage in mentally intensive tasks. So relative female labor productivity (that is, the market value of an hour of work) might be expected to increase with development and, with it, female independence and empowerment.

Two decades ago, the economists Oded Galor and David Weil crafted a theoretical model of this phenomenon that predicted a virtuous circle, in which a higher female wage reduces fertility because having children en-

tails a greater amount of lost income. This slowdown in population growth increases the amount of capital (for example, equipment and financial assets) per person in the economy, which makes workers more productive, especially in mentally intensive work, fueling growth and pushing the female wage even higher.

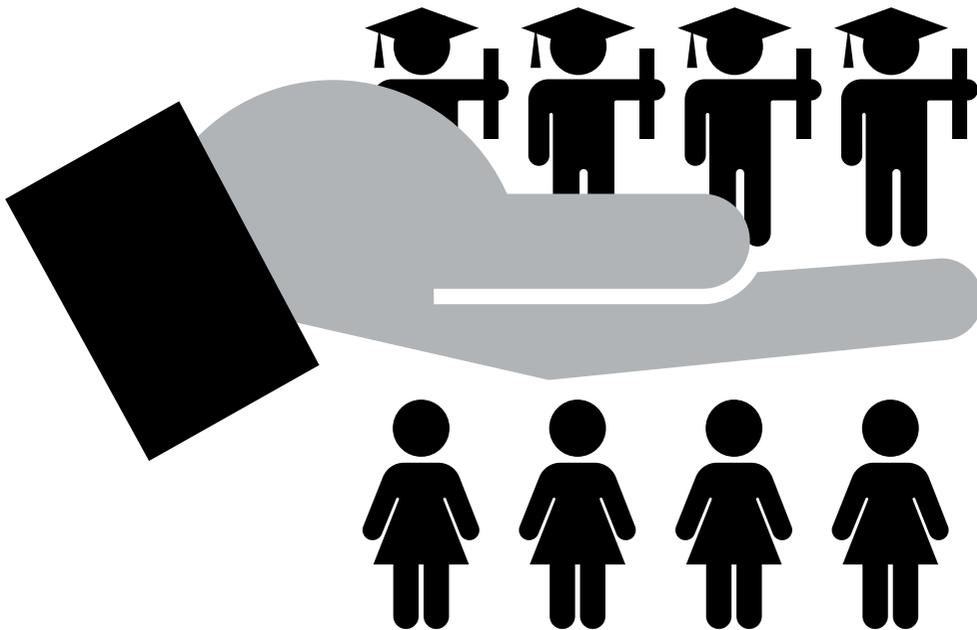
But before a country goes through that shift from agriculture to services, there are ways the “brawn-based” economy can reinforce gender gaps. For instance, if the main payoff for educating children is that they will earn a higher wage, the fact that boys have a greater chance of working could lead parents to invest more in their education. This is true of agricultural societies because, though they are brawn-based, there are still significant returns to schooling. Numeracy serves farmers well when they're selling crops at market, and analytical reasoning helps them figure out how much fertilizer to use with the new variety of seeds they've adopted. As brain-based sectors grow, girls' schooling should catch up.

Not only might strengthening women's employment opportunities erase girls' disadvantage in schooling, it might also undermine other forms of gender discrimination. When women earn more, they also have more say in household decisions. For example, if women are less keen to abort female fetuses than their husbands are, improvements in women's earnings could lead to fewer aborted girls and a less skewed sex ratio.

Another potential benefit: a reduction in domestic violence. A study in the United States looked at changes in women's earning potential arising from a growth spurt in female-dominated industries. It found that the narrower the gender wage gap, the less violence women suffer at home.

To examine this question of how the value of women's work influences gender gaps, the

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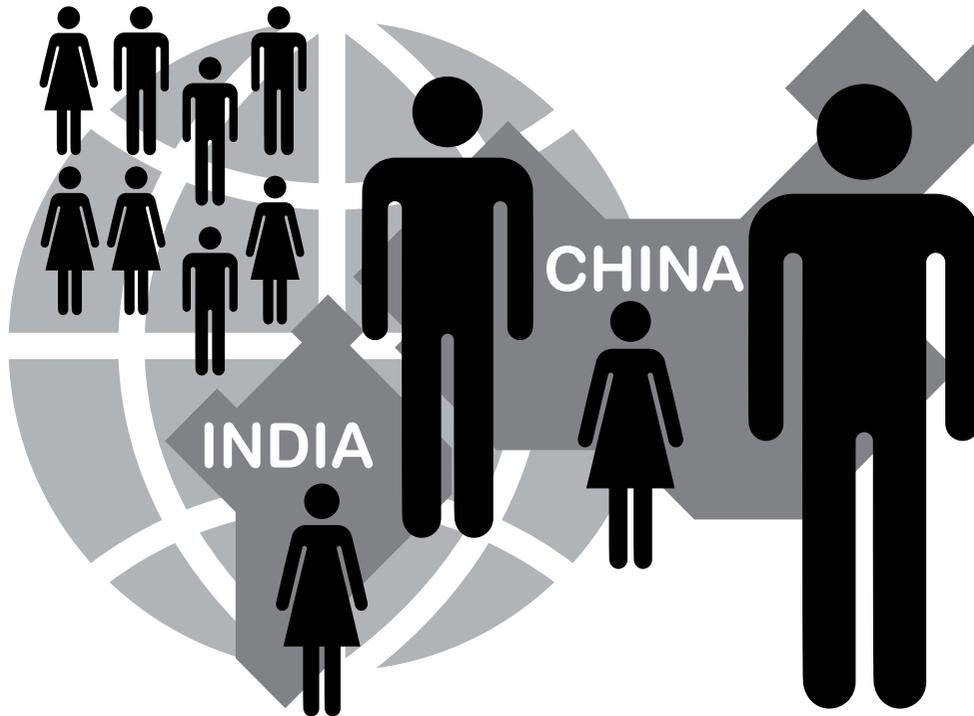


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economist Nancy Qian analyzed reforms in China in the late 1970s that made raising crops for market more lucrative. She started with the idea that women have a comparative advantage in picking tea leaves, which are delicate and grow on short bushes, whereas men's height and strength give them an advantage in picking fruit from trees. With that in mind, she compared the impact of the economic reforms in tea-growing regions, where female labor productivity should have especially risen, with regions specializing in fruit orchards, where male labor productivity should have risen most. And as one would predict, the data showed that in tea-growing regions the reforms led to fewer "missing" girls.

Other studies have used variation in farm tools of choice across countries (from brawn-requiring plows to woman-friendly hoes) and soil type in India (hard clay-rich soil is more suitable for men to plow) to make similar points. As women's labor becomes more valuable, gender gaps do, indeed, close.

Another near-universal pattern: as a country develops, families have fewer children. Low fertility is likely to be both a cause and effect of economic growth. But in any case, a "demographic transition" that begins with people living longer and proceeds to their having fewer children is part and parcel of development. The fact that fertility is lower in rich countries helps explain the smaller gender



gaps in education, health and the workplace.

High fertility reflects the desire for many children (for “old-age insurance” and other reasons) but is also due to limited access to contraceptives. A study analyzed the rollout of a large-scale family-planning campaign in Colombia in the 1960s and 70s; it found that access to contraception delayed the age of childbearing and increased how much education women attained, as well as their employment rate. This evidence, incidentally, is consistent with a U.S. study by Harvard’s Claudia Goldin and Lawrence Katz showing that access to oral contraceptives transformed the career opportunities of women, facilitating a move toward careers like law and medicine that require many years of upfront investment.

Childbearing is not only more common in developing countries, it is also more dangerous. The result of both of these factors is that 99 percent of the world’s maternal mortality (deaths during or shortly after pregnancy

from causes related to the pregnancy or birth) occurs in developing countries. Adriana Lleras-Muney (UCLA) and I analyzed a period of rapid decline in maternal mortality in Sri Lanka in the 1940s and 50s that was brought about by medical progress and improvements in the public health system. The longer a woman lives, the longer she has to accrue the benefits of an education. We hypothesized that this should raise the incentive for women to attend school. Sure enough, we found that the reduction in maternal mortality risk caused girls’ schooling to increase. We estimated that this accounted for one-third of the narrowing of the gender gap in education that occurred over the period.

Does culture in poor countries reinforce gender bias, independent of economic development?

The examples I’ve cited describe mechanisms that do not depend on cultural differences

between rich and poor countries but, rather, predict that gender bias will decline in any country as it develops. The richer countries are just further along. But other explanations do attribute gender gaps to cultural differences in today's poor countries. Lack of development still remains relevant even when beliefs and practices are at play – poverty often exacerbates the cultural forces that lead to favoritism toward males – and not all evidence fits neatly into this development-versus-culture taxonomy. Despite its imperfections, however, this line of thinking sheds light on whether development alone will eradicate gender inequality.

lives with or near the husband's parents. When a woman gets married, she essentially ceases to be a member of her birth family and joins her husband's. Under this system, parents potentially reap more of the returns to investments in a son's health and education because he will remain a part of their family. Thus, it might be economically rational for parents to seek more medical care for a sick son than a sick daughter.

A 2011 study identified 405 parents in India who had been advised that their children needed surgery to correct a congenital heart condition and checked on them one year later. Of the boys, 70 percent had undergone sur-

Compared with other countries, India and China have exceptionally male-skewed sex ratios. These two countries have huge populations – they contain a third of the earth's population – and so are the drivers of the phenomenon.

So, when it comes to gender inequality, are the poor different from the rich only in that they have less money? Clearly the answer is no, if the gender ratio at birth rises with wealth. Returning to the second graph on page 39, two features stand out. First, the sex ratio is more skewed in more developed countries. This across-country pattern mirrors the across-time fact that the sex ratio has worsened in China and India as the countries have grown richer. Second, compared with other countries, India and China have exceptionally male-skewed sex ratios. These two countries have huge populations – they contain a third of the earth's population – and so are the drivers of the phenomenon.

Several cultural factors in China and India lead families to prefer sons. One is *patrilocal-ity*, the practice by which a married couple

lives with or near the husband's parents. When a woman gets married, she essentially ceases to be a member of her birth family and joins her husband's. Under this system, parents potentially reap more of the returns to investments in a son's health and education because he will remain a part of their family. Thus, it might be economically rational for parents to seek more medical care for a sick son than a sick daughter.

Co-residence of adult sons and elderly parents is much more common in Asia, the Middle East and North Africa, the same places where larger-than-average gender gaps are observed. Several studies have shown that areas where patrilocal-ity is more widely practiced (for example, northern versus southern India) have higher male-to-female birth ratios.

Closely linked to patrilocal-ity is the fact that sons traditionally provide old-age support for their parents in many societies, including China and India. Avraham Ebenstein

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and Steven Leung investigated whether this explains the preferences for sons in China. They hypothesized that once the Chinese government instituted the Rural Old-Age Pension Program, parents would have a substitute source of old-age support, and thus their desire to have sons should abate. The data proved to be consistent with this hypothesis: households without sons were more likely to participate in the pension program, while access to the pension program was associated with a less-skewed sex ratio.

One reason for the very low FLFP in some countries is the risk associated with women’s ability to move about the community – both the objective risk of assault and the socially constructed risk to family honor.

Also entwined in this set of cultural practices is the *patrilineal* system, under which the family name and property pass to male descendants. Male land inheritance in particular is likely to strengthen gender gaps. For example, because widows in India traditionally do not inherit their husbands’ ancestral property, they rely on their sons as conduits for holding onto land and maintaining their living standards. This consideration might be one reason that mothers sometimes show as much preference for sons as fathers do.

A series of amendments to the law in the 1980s and 90s made daughters’ property rights status equal to that of sons in parts of

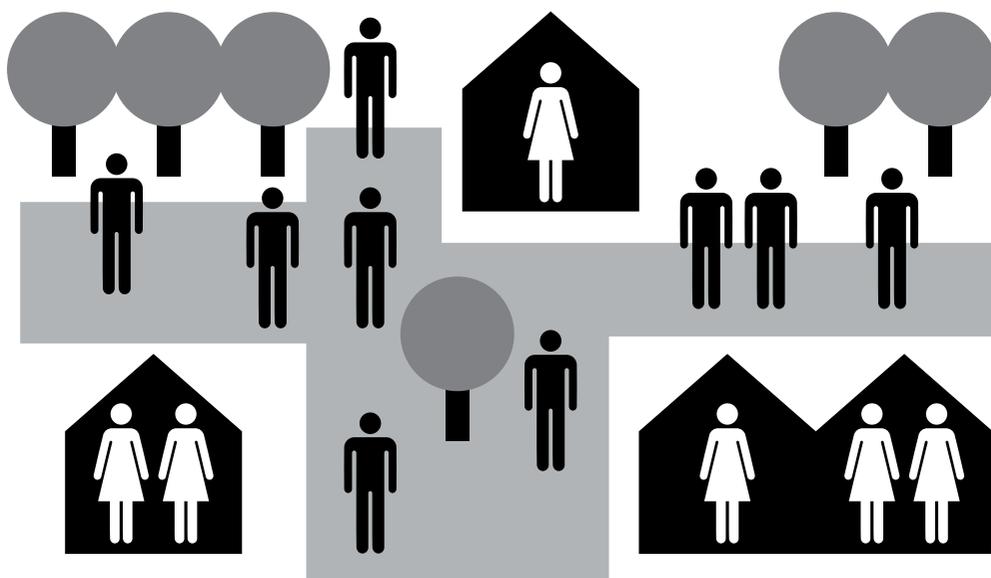
India. And the reforms did lead to a rise in women’s inheriting land. Women’s age of marriage also rose and girls received more schooling, presumably because their mothers were more empowered in the household or because their parents thought that education would be useful to them in their future role as landowners.

The hefty dowries that parents must pay are often cited as a key factor in the preference for sons in India. The evidence is mostly anecdotal, since dowry payments (unlike inheritance) are kept off the books. Yet the financial burden seems to loom large in prospective parents’ minds. The author of a 1993 article describes a billboard that was put up when prenatal sex-diagnostic tests were just arriving in India. A new clinic in the city of Amritsar urged parents to “invest Rs. 500 now, save Rs. 50,000 later.” The 500 rupees today was the price of an ultrasound test, which would tell the parents if their fetuses were female; the 50,000 rupees later – which did not need to be spelled out on the billboard – was the dowry the parents would save if they aborted the female fetus.

Religion and philosophy may also play roles in the preference for sons in Asia. Confucianism encourages the patrilineal and patrilocal systems, and ancestor worship involves rituals in which sons play essential parts. Hindu rituals calling for the son to light the funeral pyre are adhered to more strictly by upper castes than by lower, and an analysis of a century-old Indian census found a more skewed sex ratio for upper castes than lower castes. Yet some of these ritualistic reasons for son preference (along with other cultural reasons) should push families toward wanting at least one son – not exclusively sons. Indeed, my own research has shown that parents in India strongly want to have one male child, but, once they have him, prefer a more or less balanced gender ratio.

These institutional forces explain the persistence of son preference in India and China, but they don't explain why the preference grows with development. Why is the problem getting worse both with wealth and over time? One reason is technological innovation: female infanticide and neglect of daughters have been with us for centuries, but the ability to ascertain the sex of a fetus has given rise to safe sex-selective abortions and significantly exacerbated the missing women problem.

sire to have smaller families. Couples' ideal family size becomes systematically smaller as countries grow richer. For one thing, a higher female wage makes it more costly for the woman to take time out to have children. Moreover, richer families shift emphasis from the quantity of children to their "quality" – how healthy and educated they are. For a couple who strongly want at least one son, as their ideal number of children shrinks, they become less likely to get that one son natu-



Ultrasound accounts for about half of the increase in the sex imbalance in China. A second factor at work is declining fertility. Conventional wisdom is that couples limited in their family size by China's one-child policy used sex-selective abortions to ensure the "one" was a son. Consistent with this idea, in parts of China where the penalties for violating the one-child policy were more onerous, the sex ratio was more imbalanced.

A similar phenomenon is at work in several other countries not driven by a legal restriction on family size, but simply on a de-

rally within that ideal number and more likely to resort to sex-selective abortions.

The upshot: in societies like India and China that place enormous value on eldest sons, our simple optimistic model seems to have it backward. Economic progress actually worsens the problem of missing women.

With development, will women leave the domestic sphere for the workforce?

According to our optimistic model, female labor force participation should rise and the gender gap in the workplace should narrow

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as a country grows richer. As a poor country develops infrastructure, a woman will spend less time carrying water from the village well and gathering firewood, freeing her for paid labor. As fertility declines, the years she has available to participate in the labor force should increase, and eventually her country should enter Galor and Weil's virtuous circle of empowerment begetting development and vice versa.

men perceive from having their wives work – especially in manual labor. This transition explains the downward part of the U. Farther along in development, the female wage rises because of the brawn-to-brain shift discussed above. Jobs in occupations deemed “respectable” for women (such as clerical work) grow, which causes women to re-enter the workforce, and the curve swings back up.

Studies have documented a U-shape in the time trend of female labor force participation

The existence of culturally rooted gender norms means that even when India, China and Egypt advance to today's level of U.S. GDP per capita, they may not advance in terms of their preference for sons, equal employment opportunities for women, the decision-making power of women, and so forth.

Some of the evidence supports this model. One study shows that the extension of the electricity grid in post-apartheid South Africa increased female labor force participation (FLFP), most likely by facilitating a shift away from cooking with wood fires and by increasing the productive hours in the day, thanks to electric lights. Across nations, however, FLFP doesn't steadily link growth with wealth or income; it is U-shaped. And within specific countries, it also follows a U-shape over time. The cause appears to be cultural practices and beliefs again.

The explanation for a U-shaped curve for FLFP goes like this: at low stages of development, a large number of women work, say, tilling the fields. With development, jobs shift toward factories and offices. Higher wages mean that households can afford to forgo some earnings, and women withdraw from the labor force because of the social stigma

for individual countries as they grow and in comparisons of households of varying income within countries. But in some regions (India, the Middle East and North Africa), FLFP has remained stubbornly low despite development; the rising part of the U-shape has yet to materialize. One reason for the very low FLFP in some countries is the risk associated with women's ability to move about the community – both the objective risk of assault and the socially constructed risk to family honor.

A tenet of the Hindu caste system is that women should be protected from “pollution,” which includes exposure to men outside their own families. Prohibiting women from working outside the home is thus one way of maintaining their purity. The practice of purdah similarly limits women's career opportunities in many Muslim societies.

In India, one promising development is

the boom in call centers, which have created new types of “good” jobs for women. Many of the women who take jobs in call centers would otherwise not have worked at all. Moreover, the prospect of obtaining these jobs raises young women’s career aspirations, motivating them to enroll in computer and English training courses and to delay marriage and childbearing.

CAN PUBLIC POLICY CLOSE CULTURE-BASED GENDER GAPS?

The existence of culturally rooted gender norms means that even when India, China and Egypt advance to today’s level of U.S. GDP per capita, they may not advance in terms of their preference for sons, equal employment opportunities for women, the decision-making power of women, and so forth. Moreover, we might not want to wait patiently as the problem of gender inequality resolves itself through market forces.

So what policies could induce gender gaps to close?

One is to give couples the financial incentives both to have female babies and to invest in them. Many states in India offer incentives to have daughters, while Mexico’s Oportunidades cash grant program for the poor responds to the higher female school dropout rate by giving families larger financial incentives to educate girls than boys. Another is to give mothers legal control over household financial resources – there’s evidence that when women control a larger share of household income, girls’ outcomes improve.

There is an important caveat to the approach of giving more power to women: the differences in gender attitudes between men and women are sometimes surprisingly small. When asked whether a university education is more important for boys than girls, 18 percent of Chinese women agreed, versus 23 per-

cent of men. And sometimes attitudes even go in the counterintuitive direction: Indian women show more tolerance for gender-based violence than men. Such views may be explained by practical concerns – the need for Indian widows to hold onto property through male heirs, the status gain enjoyed by Chinese once a boy is born – or by the simple lack of positive empowered-female role models. Either way, my work showing that mothers’ gender attitudes appear more influential than fathers’ in shaping children’s views suggests that vicious circles could be created, with disempowered mothers disempowering their daughters.

An obvious step is to grant equal legal rights to women. Such reforms, however, are often weak. For example, the reform granting women rights to ancestral land in India that I mentioned earlier is far from universally enforced. Similarly, bans on prenatal sex determination, dowry obligations and child marriage often have limited practical effect.

On the other hand, a law requiring that a specific number of seats be reserved for women on village councils in India has had significant effects. The quota has influenced practical aspects of women’s lives, as female leaders implemented policies that better reflected the preferences of their female constituents. Moreover, it began to reshape attitudes toward women as leaders (even in the minds of men), and it raised both the aspirations of girls (as measured in surveys) and parents’ long-term investments in them.

If we want to weaken the forces that impede countries from following our optimistic model of empowerment with development, maybe we should begin with the mind. The arrival of positive female role models seems to have a strong effect, changing men’s undervaluation of women and, as important,  women’s attitudes toward other women.