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Very Low Fertility in Asia: Is There a Problem? Can It Be Solved?

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SUMMARY Fifty years ago, women in Asia were having, on average, more than five children each, and there was widespread fear of a "population explosion" in the region. Then birth rates began to fall—in several countries more steeply than anyone had anticipated. This unexpected trend has now raised concerns about the social and economic impact of extremely low fertility. Today, four of Asia's most prosperous economies—Japan, Singapore, South Korea, and Taiwan—have among the lowest birth rates in the world. With women having, on average, only one child each, these societies have expanding elderly populations and a shrinking workforce to pay for social services and drive economic growth. And in Japan, overall population numbers are already going down. Why are women choosing to have so few children? How are policymakers responding to these trends? Government leaders have initiated a variety of policies and programs designed to encourage marriage and childbearing, but to what effect? Given current social and economic trends, it is unlikely that Asia's steep fertility decline will be reversed, at least not in the foreseeable future.

Over the past 50 years, economic and social modernization in Asia has been accompanied by a remarkable drop in birth rates. Gains in education, employment, and living standards, combined with dramatic breakthroughs in health and family-planning technology, have led to lower fertility in every country of the region.

Fertility tends to decline with economic growth and improvements in living conditions

The pace of this decline has varied widely. At today's fertility rates, women in Pakistan will typically have three or four children over their lifetimes. By contrast, women in the Republic of Korea (South Korea) will have, on average, only one child (United Nations 2008).

Four societies in East and Southeast Asia have experienced some of the steepest fertility declines in human history. In Japan, Singapore, South Korea, and Taiwan, young men and women are waiting longer to marry, and many who do marry go on to have only one child. Others do not marry or have children at all.

Extremely low birth rates are leading to increasingly elderly populations, with relatively few people left in the workforce to pay for social services or to drive economic growth. And in Japan, overall population numbers are already going down. These trends have prompted government leaders to initiate a variety of policies and programs designed to reverse fertility decline.

The trend was first observed in Japan, where fertility dropped from an average of 4.54 children per woman in 1947 to 2.04 in 1957 (Retherford and Ogawa 2006). This is close to "replacement-level" fertility, defined as an average of 2.1 children per woman—two to replace the woman and her partner plus a little extra fertility to make up for children who do not live to reproductive age. If this fertility level is maintained, population growth will slow and eventually population size will stabilize.

Fertility is expressed in this discussion as the total fertility rate, or TFR, defined as the average number of children that a woman can expect to bear over her lifetime at current age-specific fertility rates, assuming that she survives to the end of her reproductive age span, which is defined as 50 years.

The decline to replacement-level fertility, which first began in Japan in the late 1940s, started about 20 years later in the three other Asian societies. In 1960, women in Singapore, South Korea, and Taiwan were still having an average of about six children each. Fertility reached the replacement level of 2.1 children per woman in 1975 in Singapore, in 1983 in South Korea, and in 1984 in Taiwan.

Demographers agree that fertility tends to decline with economic growth and improvements in living conditions, and indeed, these East Asian economies were developing rapidly during the period that fertility was going down. The link between economic growth and fertility decline has health and education components. As improved standards of living bring down infant and child mortality, couples can expect that their children will live to adulthood. They rarely have to replace children who die, and they rarely feel the need to have "extra" children to make sure that a certain number will survive.

Expanded educational opportunities contribute to lower fertility in two ways. With the spread of primary and then secondary and college education, children do not join the labor force at an early age but rather remain economically dependent on their parents for many years. Large families become an economic burden, rather than an asset, as couples increasingly focus on the "quality" of their children—measured in large part in terms of education—rather than on numbers alone.

In addition, as girls stay in school longer and then join the labor force, they tend to postpone marriage and childbearing. Given expanded educational and professional opportunities that compete with the traditional roles of housewife and mother, some women choose to avoid marriage and childbearing altogether.

While demographers anticipated that couples would tend to have fewer children as they became more affluent, they did not foresee that fertility would eventually fall to well below replacement level. By 2006, the TFR in Japan, South Korea, Singapore, and Taiwan (and in several European countries) had fallen to levels rarely seen in human history (table 1).

Is Low Fertility a Problem?

Fertility this far below replacement level, if sustained, will lead to age imbalance in a population, with older men and women—who were born in the past when

Table 1. Total fertility rates, 1970 and 2006

	Year	
	1970	2006
Japan	2.13	1.32
Singapore	3.07	1.26
South Korea	4.53	1.12
Taiwan	3.93	1.12

Sources: For 1970, Choe (2008); for 2006, Jones, Straughan, and Chan (2009b).

Table 2. Percent of national population ages 65 and above in 2000 and in 2020 and 2050, projected

	Year		
	2000	2020	2050
Japan	17.2	28.5	37.8
Singapore	7.2	17.9	32.6
South Korea	7.2	15.6	38.2
Taiwan	8.6	16.2	35.9

Sources: For Japan, South Korea, and Singapore, United Nations (2008); for Taiwan in 2000, Council for Economic Planning and Development (2008); for Taiwan in 2020 and 2050, Council for Economic Planning and Development (2009b).

Note: Data for 2020 and 2050 are projections.

fertility was high—becoming a much larger proportion of the total. In Japan, South Korea, Singapore, and Taiwan, the percentage of the total population in the age group 65 and above is projected to rise steeply, reaching one-third or more of the total by 2050 (table 2). The figures on page 4 illustrate this trend in Japan.

The populations of Japan, Singapore, South Korea, and Taiwan could eventually shrink by one-third per generation

The concern is that large numbers of elderly people will pose a burden on working-age men and women, both in terms of financial support and personal care. Government policymakers are also worried about how to finance public pension and healthcare systems.

A number of policy options have been proposed to improve support for Asia's growing elderly populations. These range from raising the retirement age to improving financial systems that foster personal savings, shoring up social security and pension schemes, providing long-term care facilities, and helping working adults care for their elderly parents at home. The governments of Japan, South Korea, Singapore, and Taiwan are actively pursuing, or at least seriously considering, all of these options. Some governments are also considering a limited relaxation of immigration laws to bolster the number of working-age adults in their populations.

Looking further ahead, below-replacement fertility, if sustained, will eventually lead to population loss. If today's fertility levels persist, the populations of Japan, Singapore, South Korea, and Taiwan will eventually shrink by about one-third per generation, roughly every 30 years.

This process has already started in Japan, where the total population began to decline in 2006. According to United Nations projections (United Nations 2008), the population of South Korea will begin to decline between 2025 and 2030, and the population of Singapore will begin to decline about 10 years later. Taiwan's population is projected to start declining in 2027 (Council for Economic Planning and Development 2009a). Although fewer people might be good for the global environment, policymakers worry about the social and economic implications of population loss.

Expanding immigration is frequently mentioned as a possible measure to help counter population decline, but realistically, the impact of immigration can only be modest. If a population shrinks by one-third in each generation, and this loss is replaced entirely by immigrants, then well over one-half of the entire population will be foreign-born or the descendants of foreign-born within two generations, or about 60 years. Even if these four Asian societies had policies that allowed massive in-migration (which they do not), it might not be practical or politically feasible to replace such a large proportion of their populations with immigrants. Thus, current efforts to halt population loss focus, in part, on measures to raise fertility.

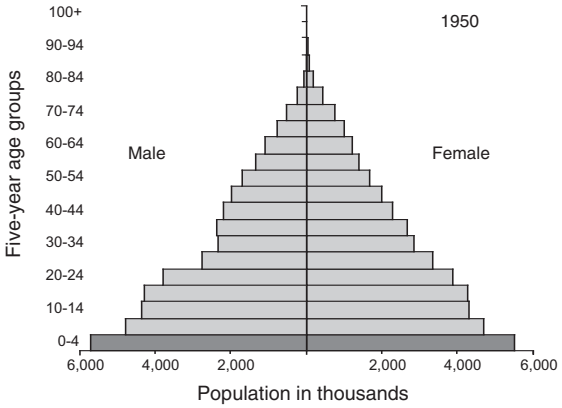
Why Are Young People Having So Few Children?

Up until the 1970s or 1980s, nearly everyone in Japan, South Korea, Singapore, and Taiwan married, and

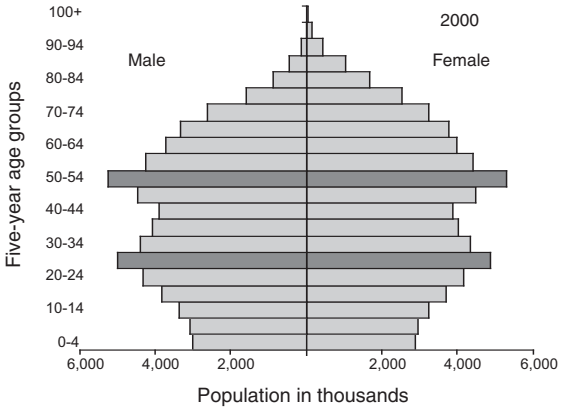
Age and sex structure of the national population of Japan in 1950 and 2000 and projected for 2050

This dramatic shift from a preponderance of children in the population to a preponderance of working-age adults and eventually to a preponderance of the elderly is also occurring, although somewhat later, in South Korea, Singapore, and Taiwan.

The age structure of Japan's population in 1950 (figure at right) is typical of a country just entering the demographic transition from high to low fertility. There is a broad base at the bottom consisting of large numbers of children and a narrow top made up of relatively small numbers of elderly. The age group 0–4 is particularly large, reflecting a baby boom that occurred in Japan just after World War II.



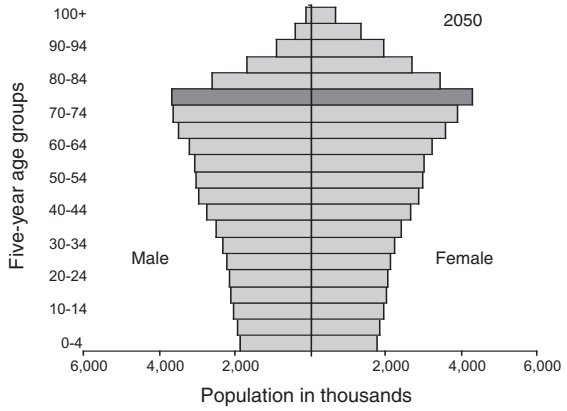
Age and sex structure of the national population of Japan in 1950



Age and sex structure of the national population of Japan in 2000

The population of Japan in 2000 (figure at left) has a primary bulge at ages 50–54, corresponding to persons born in 1945–49 during Japan's brief post–World War II baby boom. Japan's fertility dropped by half during the 1950s, and this is reflected in the narrowing of the pyramid at ages 40 to 44. The secondary bulge at ages 25–29 is a generational echo—the children of the baby boomers, born on average 25–30 years later.

The population pyramid projected for Japan in 2050 (figure at right) shows population aging that is so extreme that the pyramid is inverted, broadening steeply through the retirement years. The largest age group, at 75–79, was 25–29 years old in 2000.



Age and sex structure of the national population of Japan in 2050, projected

Source: United Nations (2008).

most had at least two children. Fertility fell during this period because fewer couples went on to have three or more children. In recent years, by contrast, more young people are not marrying at all, and those who do marry are marrying at later ages. These two trends account for half or more of the decline from replacement-level fertility—slightly more than two children per woman—to the very low levels observed today.

What is keeping these young people from starting the families they say they want?

Yet surveys in Japan, South Korea, and Singapore show that most young men and women still hope to marry and to have at least two children. What is keeping these young people from starting the families they say they want?

For one thing, women have vastly greater opportunities to continue their schooling and to build their careers than their mothers had in the past. Women's education levels and employment rates have risen steeply throughout the region (table 3).

At the same time, marriage rates have dropped. Most women still say that they want to marry and have children, but they are postponing starting a family until some time in the future. And for some, that time in the future never arrives.

Many women also have the option to remain single while having an active sex life. Although childbearing outside marriage is still extremely rare, premarital sex is becoming more common and socially acceptable. In 2000, Japan's National Survey on Family Planning found that 57 percent of single women age 16 and above were using contraception—up from 39 percent in 1990 (Retherford, Ogawa, and Matsukura 2001).

Another explanation for low marriage rates is cost. Traditionally in East Asian societies, couples who married lived in multigenerational households with the husband's or—less commonly—the wife's family. This arrangement tended to minimize living expenses for the newlyweds.

Today, unmarried adults still often live with their parents, but married couples increasingly want, or are expected, to set up households of their own. In South Korea, for example, the 2005 census found that 76 percent of single men ages 25–29 were living with their parents, while 86 percent of married men in the same age group had set up their own households. In East Asia's expensive urban housing markets, setting up and maintaining an independent household is likely to represent a considerable financial burden.

Cost becomes an even more important factor when a couple considers having a child—both the cost to the family of raising the child and the opportunity cost for the woman who interrupts her career to give birth and care for a baby. In 2000, the average cost of raising and educating a Japanese child from birth through four years of university ranged from 28,600,000 yen (about US$286,000 at 2000

Table 3. College completion, labor-force participation, and marriage among women ages 25–29 in Japan, Singapore, South Korea, and Taiwan in 1970 and 2004 or 2005 (percent)

	Completed four years of college		Employed		Married	
	1970	2005	1970	2004	1970	2005
Japan	10[a]	49 [ab]	46	74	80	38
Singapore	n.a.	n.a.	31	86	77	54
South Korea	4	62	32	64	88	40
Taiwan	4[c]	30	39[d]	76	83	36

Sources: For education and marriage in Japan, National Institute of Population and Social Security Research (2009). For employment in Japan, South Korea, and Singapore, Jones, Straughan, and Chan (2009b). For education and marriage in South Korea, Doo-Sub Kim (personal communication). For marriage in Singapore, Jones and Gubhaju (2008). For education and marriage in Taiwan, Ministry of Interior (1976, 2006). For employment in Taiwan, Directorate-General of Budget, Accounting, and Statistics (1979, 2006).

[a]Includes junior college, technical college, university, and graduate school.
[b]2000.
[c]1975.
[d]Ages 25–34.

exchange rates) to 63,020,000 yen (US$630,100) (Ogawa, Retherford, and Matsukura 2009). In both South Korea and Singapore, the average cost of raising and educating a child has been estimated conservatively at about US$253,000 (Jones, Straughan, and Chan 2009b).

The income that is lost when a woman interrupts her career to have children is even higher. One estimate in Japan (Cabinet Office 2003) found that a university-educated woman who starts work at age 22, works for six years at a regular full-time job, quits for six years to have children, and then comes back to another regular full-time job at age 34 will lose 84,770,000 yen (US$847,700) in lifetime income. If the same woman returns to a part-time, more junior position after having children—which is a very common pattern—she will lose an estimated 237,930,000 yen (US$2,379,300) in income over her life.

Inflexible employment practices and a work culture incompatible with family life contribute to the high cost of motherhood

Inflexible employment practices and a work culture that tends to be incompatible with family life both contribute to the high cost of motherhood in these societies. The professional and administrative jobs that educated women aspire to often require long work hours, frequent overtime work, and after-hours socializing with colleagues. Part-time positions, when they are available at all, tend to be at much lower levels of responsibility and much lower pay.

At the same time, maternity leave is too short to allow women to care for infants until they are old enough to enroll in daycare. This situation forces women to drop out of the labor force altogether when they have a child. And after dropping out, it is very difficult for women to return to a job at their previous level of employment. According to a national survey conducted in 2003 in South Korea, only 37 percent of married women who had worked in administrative, professional, or technical occupations before they married were still working in jobs with the same occupational status after marriage (Kim et al. 2004).

An additional explanation for low fertility relates to a sense of eroding job security. With increasing emphasis on global competitiveness, companies in East Asia are much less likely than in the past to offer secure, lifetime jobs to their employees. Yet at the same time, young people have high economic aspirations, leading to an emphasis on educational attainment and work experience. As McDonald (2009) points out, "Investment in one's human capital (education and labor-market experience) is seen as the essential hedge against…risks…. As a result, family formation is put on hold while human capital is accumulated."

Describing the situation in South Korea, Kim (2009) notes, "The 1997 economic crisis marked an important turning point in the process of the socio-economic development and fertility transition of Korean society. Labor-market deregulation and high unemployment associated with a poor economy have made many young people delay or avoid marriage and child-bearing." Kim found that women with relatively secure employment—such as teachers and civil servants—have higher fertility than women who work in other sectors.

Looking at 25 years of economic data from Singapore, Yap (2009) concludes, "Perhaps most significant among recent developments that could have affected fertility trends in Singapore are the economic fluctuations and rise in unemployment due to globalization and economic restructuring." Stressing that the perception of insecurity is as important as insecurity itself, she notes that in recent years while "the economy has improved, and unemployment was on the way down, the TFR has, at best, leveled off."

In the face of eroding job security, it makes sense for both husband and wife to stay in the workforce in order to minimize risk. If one is out of work, the other may still have a job, so they will not have to sell their house or other assets or relocate in search of employment.

Given today's financial climate, no employer or government program can fully restore job security for young workers or compensate couples for the costs of having a child. Nevertheless, Japan, Singapore, and South Korea all have policies and programs in place to help young women pursue their education and career goals, while at the same time marrying and having children. Policymakers in Taiwan are discussing similar options.

Policies and Programs that Address Low Fertility

Policymakers are finding that it is much more difficult and costly to raise fertility than to lower it

Policymakers are finding that it is much more difficult and costly to raise fertility than to lower it. Programs aimed at lowering fertility can be highly cost effective because family-planning technology is relatively inexpensive and because economic and social development tends to lower fertility even in the absence of government programs. Japan is a good example. There, fertility declined to well below replacement level without any government family-planning program at all.

But in societies with very low fertility, policies and programs designed to increase childbearing run counter to economic and social trends. Government interventions tend to be costly, and the forces of economic and social development that keep fertility low are very strong.

Nevertheless, in response to surveys, nearly all young women in these societies say that they want to marry and have children. And governments are trying to help them reach their educational, career, and family-building goals. The question now facing demographers and policymakers alike is whether government policies and programs that are attempting to raise fertility can be effective.

Such policies fall into five general categories: (1) monetary support for families with children, either in the form of cash payments or tax deductions; (2) maternity leave and childcare leave from work, either for mothers or for both parents, and either paid or unpaid; (3) assistance with childcare through daycare centers, after-school programs, and monetary support for childcare at home; (4) other programs that help young families, such as housing preferences and medical insurance that covers expenses related to pregnancy and childbirth; and (5) dating services and other programs that encourage young people to marry.

Japan

In 1989, when the TFR in Japan dropped to a new low of 1.57 births per woman, the media picked up the story, and the "1.57 shock" made headlines throughout the country (Ogawa and Retherford 1993). Since then, government initiatives have included: (1) larger child allowances paid directly to parents, (2) steadily expanding provisions for parental leave, (3) highly subsidized childcare services, and (4) social programs to encourage marriage and childbearing.

Since 1990, eligible couples in Japan receive an allowance of 5,000 yen (US$50) per month for each of their first two children and 10,000 yen (US$100) per month for each subsequent child. The allowances are paid until the child completes the third year of primary school. For a four-person household to be eligible, household income must be less than US$41,500 per year.

Beginning in 1991, the Japanese government has steadily expanded childcare leave, designed to make it easier for working women to have children and for women who have children to continue working. Today, the law provides up to one year of childcare leave for either the mother or the father of a child less than one year old. A mother (or in rare cases, a father) taking childcare leave receives 40 percent of her salary, paid out of the Employment Insurance Fund (originally established to pay unemployment benefits). She also accumulates seniority while on leave, and the government pays both her and her employer's share of social security contributions.

Childcare leave benefits have been restricted until recently, however, to regular, full-time employees in firms with more than 30 workers. The exclusion of part-time workers has seriously limited the number of households that can benefit from the legislation. Only about one-half of married women in Japan work at all, and among those who work, about one-half fall into the category of part-time worker. In 2003, only about 20 percent of all women who gave birth took childcare leave (Ogawa, Retherford, and Matsukura 2009). In 2005, to help remedy this situation, the government extended limited childcare benefits to nonregular employees who have worked continuously in the same firm for more than one year.

Since the early 1990s, the Japanese government has steadily expanded public daycare facilities throughout the country. The government also provides sports and other after-school programs and maintains

A Japanese employer with an approved plan to raise fertility can display this logo on its products and advertisements, stating "We support childrearing among our employees." At the bottom, the logo gives the year followed by "Government-certified child-friendly employer."

family-support centers that offer various additional services, such as picking up a child after school if both parents are working. These services are highly subsidized, especially in major urban areas. In Tokyo, the monthly cost to the government of daycare for one infant currently exceeds the average monthly wage of a male worker.

Government-subsidized daycare and family-support services are offered on a sliding scale, with higher-income households paying higher fees. Specific eligibility criteria vary by locality, but in Japan's largest cities, waiting lists for government daycare may be long. As a result, private-sector daycare services have also expanded.

Despite expanding government programs, Singapore's birth rate continues to plummet

Additional programs to help raise fertility have included information campaigns exhorting husbands to help with childrearing and housework. Another government initiative addresses the problem that many women do not take the childcare leave they are entitled to because of social disapproval from coworkers and employers. To create an atmosphere within firms that encourages parents to take childcare leave, the law requires employers with more than 300 employees to submit a plan to the government every year outlining their efforts to raise fertility among their staff. Firms that qualify are entitled to display a logo (above) identifying them as "government-certified child-friendly employers." The impact of this law, which went into effect in 2005, has yet to be evaluated.

Employer plans generally include dating services. In fact, all the big *keiretsu* (families of allied industries) have been providing dating services for their employees for some time. These services are contracted out to the 3,000 or so private-sector dating services in Japan. In 2005, the government formed an expert committee to look into the possibility of government subsidies for "marriage-information services," including not only dating services but also programs such as training in interpersonal communication skills between men and women.

Singapore

In 1984, the Singaporean government created the Social Development Unit (SDU), a dating service designed to encourage marriage and fertility among college graduates (Murphy 2002), who were most likely to be ethnic Chinese. Three years later, facing a TFR well below replacement level, the government introduced programs to raise fertility among all social classes and ethnic groups. These included tax and housing incentives, childcare subsidies, and childcare leave for working parents (Yap 2009).

Despite these measures, fertility continued to plummet. In response, the Singaporean government enlarged existing programs in 2004 and introduced several new initiatives, designed to address a broader set of concerns that appear to be preventing Singaporeans from having larger families. The new package of measures is grouped under five broad categories, each addressing a specific aspect of parenthood: (1) promoting marriage, (2) making childbirth more affordable, (3) providing financial support for raising children, (4) expanding childcare options, and (5) encouraging a better balance between work and family life.

Today the SDU provides subsidized parties and excursions for singles, "speed-dating" events, and computer matchmaking services. It also runs college classes and seminars on courtship and marriage, a "Romancing Singapore" advertising campaign, and online advice sites on love and marriage.

Apart from problems encountered in meeting and wooing prospective mates, housing availability and housing costs are important constraints on young

people in Singapore who wish to marry and set up independent households. To promote marriage, the government has introduced a scheme to increase public-housing grants for singles who marry. The government also provides public housing as a priority to couples with three or more children.

To make childbirth more affordable, the government has expanded the medical services provided under the national medical insurance scheme to cover both prenatal and delivery expenses for all births, as well as assisted conception procedures such as in vitro fertilization.

Government and NGO efforts in South Korea have not been enough to reverse more than 30 years of fertility decline

The government provides financial support for raising children through tax rebates and cash incentives (Yap 2009). Parents are eligible for tax rebates for the birth of second, third, and fourth children on a sliding scale up to S$20,000 (US$13,260) per child. Working mothers are also eligible for monthly child-relief payments for each dependent child. This amounts to 5 percent of the mother's earned income for a first child, 15 percent of the mother's earned income for a second child, 20 percent for a third child, and 25 percent for a fourth child. Since 2001, the government has also provided a cash Baby Bonus of up to S$6,000 (US$4,000) at the birth of each child, plus a savings account in which the government matches dollar-for-dollar the savings that parents set aside for their children.

To help with child care, working mothers are eligible for eight weeks of fully paid maternity leave after each birth. Working parents with a child less than seven years old are eligible for two days of employer-paid childcare leave a year (five days for government employees). Parents of children ages 2 months to 18 months receive a subsidy to support enrollment in any government-licensed infant or childcare center. Tax provisions also benefit working parents whose children are cared for by grandparents or by foreign domestic workers. And since 2001, fathers employed in the civil service are eligible for paternity and childcare leave.

More recently, to encourage a better balance between work and family life, the Singaporean government has allocated S$10 million (nearly US$6.5 million) to a WoW! (Work-life Works!) Fund. This fund provides financial support to companies that develop and implement family-friendly work practices. The government has set an example by reducing the work week for civil servants to five days.

South Korea

In 1996, the government of South Korea abolished policies designed to lower fertility and adopted a new population policy with an emphasis on the quality and welfare of the South Korean population (Choe 2008). Among the objectives of the new policy were: (1) to keep the rates of fertility and mortality at levels required for sustainable socioeconomic development, (2) to promote family health and welfare, and (3) to promote women's labor-force participation and well-being.

The activities of both government and nongovernmental organizations shifted to focus on these and related objectives, but the new programs were not enough to reverse more than 30 years of fertility decline. In 2006, with a total fertility rate of 1.12, the South Korean government announced a comprehensive plan to support childbearing by helping women balance work and family responsibilities. The demographic goal is to increase the country's TFR to 1.6, the average level of fertility among economically advanced countries during 2000–2005. This target is considered more realistic than aiming for replacement-level fertility of 2.1.

Several programs are now in place. The government has extended health insurance and strengthened the mother-and-child health program to help defray costs related to pregnancy and childbirth. Benefits include expansion of health insurance coverage to include surgery to reverse vasectomy and sterilization procedures, special care for infants born prematurely, and prenatal tests to identify possible birth defects.

The government allows tax deductions for dependent children and for educational expenses and provides a tax-free allowance to help cover the cost of childbirth and childcare. Maternity leave has been extended to 90 days, with maternity benefits fully covered by government-sponsored employment insurance.

In addition, the government provides a childcare-leave allowance to women (or men) who stay at home to care for young children. Mothers (or fathers) receive 400,000 won (about US$345) per month, and their employers receive up to 150,000 won (about US$129) per month as a subsidy to help cover the cost of temporarily replacing a staff member.

Other programs include baby bonuses, expanded high-quality childcare facilities, tax incentives for childcare and elderly care, paternity leave, flexible work hours for parents of young children, and support for employees' rights to return to work after parental leave. Because many working parents are not taking advantage of childcare leave, the government has introduced two innovative measures in the civil service: a "bank" of temporary employees who can fill in for workers on childcare leave and an option to work part time, defined as 15 to 32 hours per week. Beginning in 2006, women have also been offered paid leave after a stillbirth or spontaneous abortion. Finally, the National Assembly is discussing a plan to offer public pension credits to women who have two or three children.

Looking Ahead

Today, in spite of government policies and programs, Japan, Singapore, and South Korea have among the lowest fertility rates in the world. As Jones, Straughan, and Chan (2009a) point out, "The general consensus about pronatalist policies in East Asian countries seems to be that they have failed, because there is no evidence that fertility has risen as a result of their introduction."

There is now a risk that even the desire for children will diminish

As very low fertility rates continue over time and young adults have fewer opportunities to interact with children, there is a risk that even the desire for children will diminish. As only children grow up, they tend to have very little contact with infants or younger children. In China, where fertility is also low (around 1.4 children per woman), the government now permits a couple to have a second child if both the husband and wife were only children. But a study in Beijing (Hou Yafei 2007, quoted in Jones, Straughan, and Chan 2009a) showed that only 18–24 percent of such couples want a second child.

As marriage is postponed, even young people who grew up with siblings settle into a lifestyle that does not include children. It is one thing for a government program to help young people who want to have children achieve their goals, but quite another to persuade young people to have children if they do not particularly want them. A large-scale survey conducted in Singapore in 2005 (Straughan, Chan, and Jones 2009) found that 68 percent of married people of reproductive age felt that the government's policies and programs would result in higher fertility in general, but only 24 percent felt that these policies and programs might encourage them to have more children themselves.

Of course it is possible that fertility would be even lower without the actions that governments have taken to encourage marriage and childbearing. In addition, many of these government policies and programs are limited in scope and have been introduced quite recently. So perhaps it is too soon to tell whether they will achieve their objectives.

As household incomes have increased across the region, the modest incentives currently offered may not be very meaningful to a young couple looking at the cost of interrupting a career and educating a child. Yet with the current economic crisis putting pressure on tax revenues, governments must measure the cost of programs that support childbearing and childrearing against other public priorities. And in today's economic climate, it is important that measures to increase fertility do not erode the efficiency of the commercial and industrial sectors by placing too much of a burden on companies. Legal requirements that increase the cost of hiring women might also end up hampering female employment.

Further research can help elucidate whether today's very low fertility levels are what women actually prefer or whether they are the result of choices that women are forced to make, given the personal and institutional constraints they face. If women want to have children, programs are needed that support their efforts to achieve all their goals—in terms of education, career, and family.

Perhaps more important than cash incentives, governments and employers need to improve job

Fertility in these societies will likely remain low as women make difficult choices between careers and motherhood

flexibility by removing the institutional barriers that make it difficult for women to combine work and family responsibilities. They also need to reduce barriers—such as the mandatory retirement age—that put a burden on young families indirectly by making it difficult for older family members to support themselves.

On balance, it seems likely that the programs already in place will continue, but further expansion will probably be modest. Governments may simply not be able to afford the cash and other incentives necessary to provide meaningful support to couples who have children. It therefore seems likely that fertility in these East Asian societies will remain low—at least for the foreseeable future—as women make difficult choices between careers and motherhood.

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