

Missing Children

By GARY S. BECKER

The 20th century was the one with the greatest decline in death rates not only in rich countries but also throughout the world. Very low birth rates in a rapidly increasing number of countries are shaping up as the defining demographic event of the 21st century. The total fertility rate, which measures the number of births to the average woman over her lifetime, must be at least 2.1 in order to prevent a country's population from declining in the long run in the absence of enough immigration. Yet there are now about 70 countries, which comprise almost half the world's population, with fertility rates below 2.1, and in many nations birth rates are far under this maintenance level. All European countries have low birth rates, and so do many Asian ones, including Japan, China, both Koreas, Hong Kong and Taiwan. Japan, Italy, Russia and Spain are the countries with the lowest birth rates, with the typical woman giving birth to not much more than one child during her lifetime. The last major census in Hong Kong shows an even more extreme picture, for the typical woman has less than one child over her lifetime.

When a country's birth rate is much below the replacement level, it must receive enough immigrants to maintain a stable or growing population. Since Japan has been especially reluctant to accept immigrants unless they are of Japanese descent, net immigration has been negligible. It is not surprising that Japan is among the first countries to be already experiencing a population decline. Russia, too, has a falling population because it not only has a very low birth rate, but also net outmigration of its population and high death rates—life expectancy for males is under 60 years. The U.S., by contrast, still has a growing population because it has birth rates at about replacement levels, and because it continues to attract many immigrants (and these immigrants on average have higher birth rates).

The rate of population decline in Japan and Russia will accelerate if their low birth rates persist, and these countries do not change either their attitude toward, or their ability to attract, immigrants. The reason is that eventually low birth rates lead to smaller numbers of men and women in the child-producing ages. The larger numbers at these ages presently resulted from much higher birth rates in the past. World Bank projections are that the Russian population will decline by more than 25% to about 100 million by the year 2050 unless present birth, death and immigration trends are radically reversed. Japan's population is expected to decline by a similar percentage.

Not long ago many persons were concerned, and some still are, about the rapid growth in world population. If they were right, one might have expected the specter of declining population to be welcomed. Yet most countries with low birth

rates are worried about the prospects of declining population. To reverse this trend, many of them have proposed or implemented subsidies to women who have larger families. France has expensive systems of allowances to women with more than one child. Vladimir Putin proposed an even more liberal system of benefits to encourage Russian women to have additional children. Japan has been discussing greater incentives to women there to have more children.

What is concerning people about low birth rates that is overlooked by the many neo-Malthusians who continue to rail against growing population? One consequence of low birth rates and extensions of life expectancy at older ages is that fewer people are at working ages compared to the number of retirees. As a result, financing of retirement income and medical expenditures becomes more of a challenge with an aging population since most countries finance retirement income and medical spending on the elderly by social security taxes on the working population.

Fortunately, shifting away from a pay-as-you-go social security system to an individual account system can alleviate this problem. Under the latter, individuals accumulate assets over their working lives in retirement and health savings accounts. They would draw down this capital at older ages to pay for consumption and medical expenses. This system would break the link between taxes on the working population and retirement benefits, and reduce the negative consequences of having a smaller number of working people relative to retirees.

Another important negative consequence of population decline is seldom discussed, but it is not eliminated by changing the structure of taxes and saving, or even by increasing the fraction of married women and older men in the labor force. Smaller populations reduce the amount of innovation partly because it leads to fewer younger persons, both absolutely and compared to the number of older persons. This shift toward an older population is bad for innovation because the vast majority of important new ideas come from inventors and scientists who are younger than age 50, often far younger.

Innovations also require an intense initial effort on R&D with considerable inputs of high-level personnel and capital. These costs become worthwhile only when the demand for new products and ideas is sufficiently great. The magnitude of demand obviously depends on per capita incomes, but also on the number of persons who can benefit from new consumer goods, and advances in medical and other knowledge. The number benefiting is related to population size, and possibly also to its age distribution. The 1983 Orphan Drug Act recognizes the importance of population in stimulating innovations. This Act gives pharmaceutical companies special patent protection if they produce new drugs that help persons with rare diseases; that is, diseases that affect less than 200,000 persons.

Missing Children

Even some frequently cited negative effects of larger populations, such as greater pollution, can be alleviated, if not fully solved, by a bigger population. Larger populations, as argued, increase incentives to innovate, which include innovations that reduce pollution and other negative effects of more dense populations.

What does the future path of fertility look like in countries like Japan where women are producing too few children to prevent their populations from falling? Some commentators have expressed their belief that fertility rates are only temporarily low, and that before long they will increase significantly toward replacement levels. In fact, the number of births in Japan was up by about 2% in the first six months of 2006 compared to the same period a year ago. The Japanese Health Ministry has taken an optimistic view that this might be a harbinger of further fertility increases as Japan regains more rapid economic growth and lower unemployment.

I am less optimistic than this ministry about any spontaneous large increase in birth rates. Since 1970, no country has had a large increase in its total fertility rate after this rate had fallen much below the replacement level. Birth rates are low for good reasons, especially the high time cost involved in raising children, particularly the time of more educated women, and the desire of parents in knowledge-based economies to invest more in each child instead of having additional children. Births rates could be raised by increasing child allowances to mothers, establishing paid leaves to mothers, and providing subsidies to child-care facilities. However, even generous subsidies to parents appear to have only modest effects on fertility. Two French economists have studied the elaborate French system of allowances to mothers who have more than one child. Their conclusion: Even this thoroughgoing system of allowances raised the total fertility rate by no more than 0.1, from 1.7 to 1.8.

My reading of the evidence is that fertility in countries like Japan with birth rates that are far below the replacement level of 2.1 children per women will not rise to anywhere near that level in the next few decades, even with generous financial and other child-care support. If I am right, the only solution for countries that continue to be concerned about a future with declining and aging populations is to open their gates to immigration. Yet in most countries large-scale immigration creates political, economic and social problems. Immigration is an especially unwelcome alternative for Japan, given the history of Japanese reluctance to have many foreigners settling in their country. As a result, Japan, Russia and many other countries face a worrisome demographic and economic future.

—*Mr. Becker, the 1992 Nobel economics laureate, is professor of economics at the University of Chicago and senior fellow at the Hoover Institution.*