

# Population and Sustainability

During the past two decades, a dominant concern was that rapid global population growth, due to falling mortality and high fertility, would aggravate poverty, cause political instability, and overwhelm natural resources. Annual average demographic growth reached an all-time high of 3 percent per annum in 1992, a rate that would double world population in 28 years. But more recently, the global increase appears to be slowing thanks to rapid declines in fertility.

Global fertility is approaching replacement (roughly 2.1 births per woman). And an overall demographic stabilization-level growth rate that would result in a global population close to a moderate 1992 United Nations (UN) estimate of roughly 12 billion seems likely toward the end of this century. Public-sector policies and programs to reduce fertility have been an important part of this success story, although exactly how important remains under debate. Social attitudes now stress the importance of high, costly levels of education for all children, and fertility might well have fallen with time regardless of policy. The programs have, at the very least, sped up the process, and this cannot have been a bad thing.

Does this shift mean that analysts and policymakers can now view future population growth as a benign “non-issue” for the questions of economic and environmental sustainability? Hardly. In fact, some experts find declining future fertility more ominous than was past rapid population growth, for at least three reasons.

## Population Growth in Poor Countries

First, a discussion or conclusions based on the average global fertility rate or even the

average global population growth rate (birth rate minus death rate) is misleading. It does not tell us that no growth is occurring, only that if fertility remains high—above replacement—in some countries or regions, there must be other places around the world that have below-replacement fertility so that the pluses and minuses average to zero.

This is indeed the case: roughly one-third of the world’s population is reproducing above a replacement level and mostly in the very poor countries of sub-Saharan Africa, South Asia, and pockets elsewhere in Latin America and the Caribbean. These areas are offset by Europe, North America, Japan, and the industrializing nations of Asia, all of which have below-replacement fertility.

As noted, the UN estimates that total global population will continue to grow until about the end of this century, resulting in a more or less stable world population at about double the current number. But inasmuch as population will continue to grow in the developing countries that can least afford it, the need will continue for programs promoting contraception, low fertility, and maternal and child health, as well as those that help cope with HIV and other sexually transmitted diseases.

## Migration

Another powerful demographic force is at work reshaping the global economic and environmental future: migration, the movement of individuals and family units within nations and across national frontiers. A great deal of the movement is from the high-fertility poor regions to the low-fertility, well-off countries. The declining labor force in western European nations makes room for new migrant workers from Africa





and eastern Europe. (In some cases, this process is already in the second generation and the migrants have become permanent residents.) These shifts may improve or worsen future economic and environmental issues; either way, the impact will be felt and nations are reacting with new policies and programs.

### Shrinking Labor Force

The countries experiencing sharp declines in fertility have already begun to suffer a marked effect on the relative proportions of their total population entering the labor force (“productive” age groups). Births that did not occur in the last 15 to 20 years are now non-entrants into the labor force. At the same time, the retirement age groups of 65 and over, which are the survivors of the earlier birth cohorts born before the rapid decline in fertility, will grow in relative importance compared with all the other age groups. This effect will be increased as

new breakthroughs in medical science are made, adding to average longevity. Thus, in the near future, the economically active share of the population will fall, while the economically dependent share will increase. Each single person active in the labor force will be obliged to support two or three retirees, reducing their own standard of living accordingly. The consequences of this shift in the age distribution have been highlighted by journalists and commentators (that is, non-demographers), and this “population implosion” is made to appear fully as ominous to our future social and economic orders as was the “population bomb” several decades back.

### Implications for Sustainable Development

Let me close with a few comments on these demographic issues as they relate to the process of sustainable global economic development in the decades to come.

Sudden changes in the demographic processes—fertility, mortality, and migration—affect nearly all economic and social aspects of a modern society. They disturb the preexisting equilibrium and thus appear

decline over the centuries—a series of transitions, in fact, centering on the major regions. The present demographic transition may well be the first truly global one, representing the cutting edge of the larger

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threatening and unique. But “threatening” is too strong a word—“complicating” might be more appropriate. To be sure, the current alarm over the “empty workbench” in the factory may be real but is perhaps less worrisome than it now appears because this line of thought does not take into account the short-run adjustments in labor-force ages and participation rates. In the longer run, if the total population and the age distribution stabilize by the end of the century, the problem may solve itself.

Adjustments to large-scale movements—transitions in fertility, mortality, and migration—are by no means unique in human global history. The visual illustration typically employed in such discussions (a single, sweeping curve beginning at zero in prehistory and ending in the current population) is almost certainly a distortion. Human population has experienced periods of growth, stability, mass movement, and

socioeconomic and political “globalization” that the industrial revolution initiated two centuries ago. Adjustments now are far easier than in earlier times.

Finally, most human populations—like all living species—have generally aimed at increasing their numbers in order to guarantee their perpetuity. People struggled to control fertility and mortality, and science emerged as part of this struggle. In the last few centuries, science has been a powerful force indeed, and it seems fair to say that humans and their institutions have now achieved near-complete control over the vital processes when they choose to apply it. Population growth, age structure, and movement will pose a threat to sustainable economic development primarily when there is a lack of will to consider and apply policies and programs that have already been successfully employed. ● —WARREN C. ROBINSON