POPULATION MATTERS
Highlighting the Policy Relevance of Demographic Research
RAND
Policy Brief

Banking the "Demographic Dividend"

How Population Dynamics Can Affect Economic Growth

Countries can spur economic growth by reducing high fertility rates and enacting policies that improve health, education, and job opportunities. These conclusions emerge from a recent report published by RAND's *Population Matters* project: *The Demographic Dividend: A New Perspective on the Economic Consequences of Population Change*, by David Bloom, David Canning, and Jaypee Sevilla. The report synthesizes recent research that sheds light on the debate over the impact of population dynamics on economic development—in particular, the importance of age structure. The report also examines the relationship between population change and economic growth in specific regions of the world and discusses the policy environment needed for nations to benefit economically from the transition to lower fertility rates.

THE CONSEQUENCES OF AGE STRUCTURE FOR ECONOMIC DEVELOPMENT

For decades, experts have debated the impact of population growth on economic development. "Population pessimists" have insisted that high fertility and rapid population growth inhibit development. This view contributed to the rationale for widespread funding of family planning policies and programs in the 1960s.[1] Conversely, "population optimists" have argued the opposite position: Rapid population growth and large population size can promote economic prosperity by furnishing abundant human and intellectual capital and increasing market size. Proponents of both views can find support in the research record, but overall, the evidence has been inconclusive.

Proponents of yet a third view, "population neutralism," contend that population growth, in isolation from other factors, has little impact on economic performance, a position supported by a sizable body of economic research. This view has become the dominant position in the current policy environment.

Focusing on population *size* and *growth*, the debate has largely ignored a critical demographic variable: the *age structure* of the population (that is, the way the population is distributed across different age groups). Because individual economic behavior varies at different stages of life, changes in age structure can significantly affect national economic performance. Nations with a high proportion of young or old dependents tend to devote a relatively high proportion of resources to these groups, often limiting economic growth. By contrast, nations in which a relatively large share of the population has reached the prime ages for working and saving may enjoy a boost to income growth stemming from the higher share of the population that is working, from the accelerated accumulation of capital, and from reduced spending on dependents. This phenomenon is known as the "demographic dividend." The combined effect of this "dividend" and effective policies in other areas can stimulate economic growth.

The relationship between population change and economic growth has taken on added salience in the last few decades because of demographic trends in the developing world. At varying rates, developing countries are undergoing a demographic transition to lower rates of mortality and fertility, producing a boom generation that is gradually working its way through nations' age structures. Thus, many developing countries face opportunities to translate their ongoing demographic transitions into economic gains.

STUDIES IN CONTRAST: EAST ASIA AND SUB-SAHARAN AFRICA

The demographic transition and its impact on economic development are playing out differently in different regions of the world. The East Asian nations

[1] *The Origins and Evolution of Family Planning Programs in Developing Countries* (RAND MR-1276), by Judith R. Seltzer, explores the policy rationales and programmatic evolution of family planning programs. This document is available online at http://www.rand.org/publications/MR/MR1276/.

have experienced the most success in "reaping" the demographic dividend produced by reduced fertility rates. This achievement has been less pronounced in other areas. Latin America has undergone a fairly sharp demographic transition but, because of a weak policy environment, has not capitalized on it. The demographic transitions in South Central and Southeast Asia started later and have been less pronounced than that in East Asia; these regions are only beginning to enjoy the economic benefits of demographic change. The Middle East and North Africa are still in earlier phases of the demographic transition, and indeed many parts of sub-Saharan Africa have seen almost no decrease in traditionally high fertility rates.

The cases of East Asia and sub-Saharan Africa best illustrate the two ends of the spectrum with respect to the demographic dividend.

East Asia. The East Asian "economic miracle" shows how reduced fertility can help to create conditions for robust economic growth. Declining mortality, followed by declines in fertility, resulted in a rapid demographic transition in the region between 1965 and 1990. As a result, the working-age population grew four times faster than the dependent (youth and elderly) population. A strong educational system and trade liberalization policies enabled national economies to absorb this "boom" generation into the workforce. The demographic dividend fueled the region's spectacular economic boom: Real per capita income growth averaged 6 percent per year between 1965 and 1990. The demographic dividend accounted for approximately one-fourth to two-fifths of this growth.

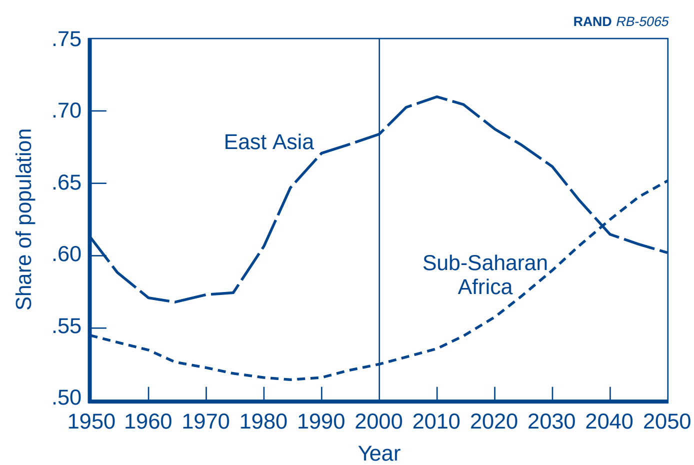
Sub-Saharan Africa. By contrast, sub-Saharan Africa has experienced an extremely sluggish demographic transition. Traditionally high fertility rates and large family sizes have persisted in the face of improvements in infant and child mortality, and now the ravages of HIV/AIDS are depleting the working-age population. As a result, the average age of the population has remained low, and there has been no demographic dividend to help catalyze a sustained period of economic growth. Compared with East Asia, the proportion of working-age people in sub-Saharan Africa remains low (see figure). As long as fertility rates remain high, sub-Saharan African countries are unlikely to see rising incomes, improved health conditions, or better-educated workers. There is cause for optimism, however. Despite difficult conditions, sub-Saharan Africa is projected over the next 25 years to see a decline in fertility from 5.5 children per woman to 3.5. Some nations —notably those in southern Africa, including Namibia, Botswana, South Africa, and Zimbabwe—have achieved reductions in high fertility rates. In most countries of sub-Saharan Africa, however, children are still viewed as a valuable source of labor and insurance for old age, so policies to reduce fertility have been slow to take effect. Still, for the region as a whole, there may be opportunities to reverse the cycles that have hindered economic growth. One possible starting place: improving the status of women. If policymakers can emphasize educating and empowering African women, who represent a critical supply of social and economic resources, countries are more likely to see declines in fertility and a gradual increase in the share of working-age people.

THE NEED FOR EFFECTIVE POLICIES IN OTHER AREAS

As the case studies show, falling fertility rates can create conditions for economic growth. However, reduced fertility by itself provides no guarantee of prosperity. In order to capitalize on their demographic dividend, nations need effective policies in key areas.

Catalyzing the Demographic Transition. Improvements in public health are the key to initiating the demographic transition. Improved sanitation, immunization programs, and antibiotics lead to declines in mortality that lead in turn to declines in fertility. Furthermore, there are economic reasons to invest in health: Mounting research indicates that a healthy population can abet economic growth and lessen poverty, contrary to the long-standing belief that causation runs only from wealth to health.

Accelerating the Transition. Effective family planning can accelerate the demographic transition, potentially enhancing the economic benefits and lifting nations out of a cycle of poverty.



SOURCE: United Nations, "World Population Prospects: The 2000 Revision," CD-ROM, 2001.

NOTE: Post-2000 data are UN projections.

Share of Population of Working Age— East Asia and Sub-Saharan Africa, 1950–2050

Exploiting the Transition. Policies in three areas—education, the economy, and governance—are critical to collecting the demographic dividend.

- *Education.* Transforming a youthful population into a productive workforce requires investment in education at all levels.
- *Economic policy.* A larger, better-educated workforce will yield benefits only if the extra additional workers can find jobs. Government policies that lead to stable macroeconomic conditions are associated with the growth of productive and rewarding jobs. Labor-market flexibility and openness to trade are also important, but the relevant policy reforms must be undertaken gradually and in a manner that protects those who can lose out in such transitions.
- *Good governance.* In many countries, necessary steps to reaping the benefits of the demographic dividend include strengthening the rule of law, improving the efficiency of government operations, reducing corruption, and guaranteeing contract enforcement.

The effects of successful policies in all of these areas can be mutually reinforcing, helping to create a "virtuous cycle" of sustained growth. Conversely, without effective policies, countries may miss opportunities for economic growth, or worse. They may risk high unemployment, increased crime rates, and political instability.

LOOKING FORWARD

Policymakers in developing countries have a time-limited opportunity to capitalize on reduced fertility and the maturing of young populations before this boom generation reaches nonworking age.[2] Policymakers should therefore act soon to implement the policies required to catalyze and accelerate the demographic transition and to realize its benefits. Understanding the challenges and implications of changing age structures can be useful to international organizations as they work with governments and can enhance the ability of governments to choose policies that will build on the economic potential inherent in demographic change.

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[2] See *Preparing for an Aging World* (RAND RB-5058), a *Population Matters* policy brief that explores the implications of aging on existing social institutions and how cross-national research can inform policy responses. This document is available online at http://www.rand.org/publications/RB/RB5058/.

RAND policy briefs summarize research that has been more fully documented elsewhere. This policy brief describes work done for the Population Matters *project of RAND's Labor and Population Program and documented in* The Demographic Dividend: A New Perspective on the Economic Consequences of Population Change, *by David Bloom, David Canning, and Jaypee Sevilla, RAND MR-1274-WFHF/DLPF/RF, 2002, 100 pp., ISBN: 0-8330-2926-6. This work was funded by the William and Flora Hewlett Foundation, the David and Lucile Packard Foundation, the Rockefeller Foundation, and the United Nations Population Fund.* Population Matters *publications and other project information are available at http://www.rand.org/labor/popmatters. RAND publications are available from RAND Distribution Services (telephone: 310-451-7002; toll free 877-584-8642; fax: 310-451-6915; email: order@rand.org; or the web: www.rand.org/publications/order). RAND® is a registered trademark. RAND is a nonprofit institution that helps improve policy and decisionmaking through research and analysis; its publications do not necessarily reflect the opinions or policies of its research sponsors.*

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