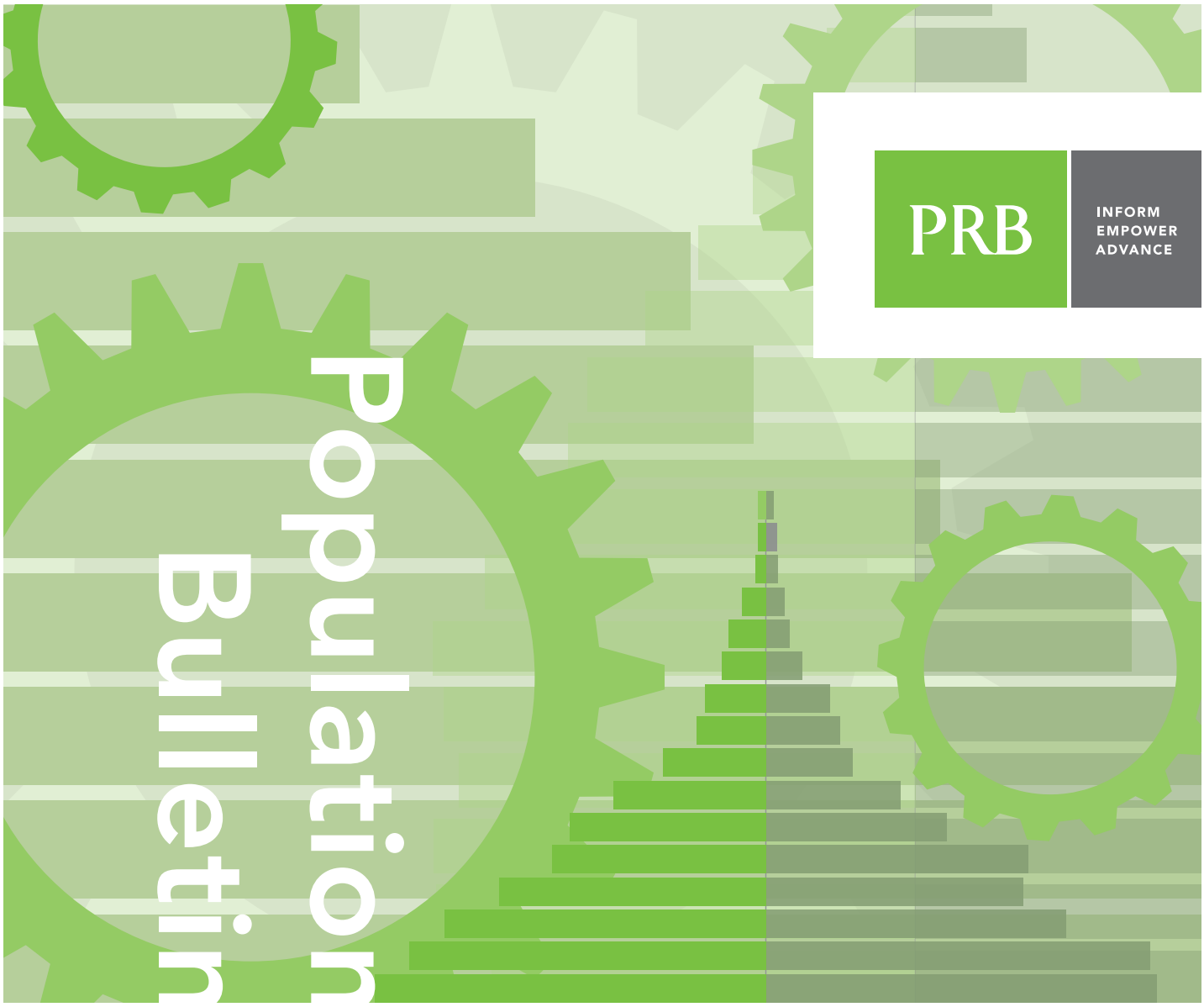

BY **JAMES N. GRIBBLE** AND **JASON BREMNER**

ACHIEVING A DEMOGRAPHIC DIVIDEND

VOL. 67, NO. 2

DECEMBER 2012

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Population Bulletin

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BY **JAMES N. GRIBBLE** AND
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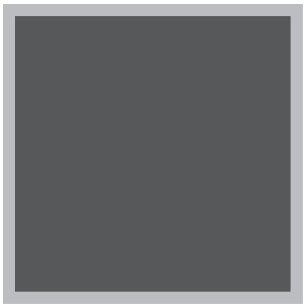
ACHIEVING A DEMOGRAPHIC DIVIDEND

Lowering fertility and changing the population age structure is a first step toward a demographic dividend.

25%

The share of women in developing countries who want to avoid becoming pregnant but who are not using modern contraception.



BY 1990,

Thailand's total fertility rate decreased to 2.2 children per woman, from 5.5 in 1970.

Good governance is critical to attracting investments needed for a demographic dividend.

One of the goals of development policies is to create an environment for rapid economic growth. The economic successes of the "Asian Tigers" during the 1960s and 1970s have led to a comprehensive way of thinking about how different sectors can work together to make this growth a reality. Referred to as the "demographic dividend," this framework helps explain the experience of certain countries in Asia, and later successes in Latin America, and is creating a sense of optimism for improving the economic well-being of developing countries, especially in sub-Saharan Africa.

The demographic dividend refers to the accelerated economic growth that begins with changes in the age structure of a country's population as it transitions from high to low birth and death rates. With fewer young people relative to the population of working-age adults, and with the successful implementation of key national policies over the long term, countries such as Thailand and Brazil have reaped many rewards from their demographic dividend.

But many policymakers mistakenly think that a demographic dividend results automatically from a large population of young people relative to the population of working-age adults and without the needed population, social, and economic policies. This is not the case.

Nations earning a demographic dividend have invested in human capital (health and education), implemented sound economic and governance policies, and sustained the political commitment necessary to make the most of the opportunity. Carrying out those policies can be challenging for a country's social and governance structures, and not all countries may be able to take advantage of a dividend.

This *Population Bulletin* explains the demographic dividend in terms of demographic changes, investments in human capital, and economic and governance policies. It highlights the experiences of Asian and Latin American countries in achieving their dividends and considers the prospects for African nations. The last section outlines issues that countries need to plan for as they move beyond their demographic dividend.

A Framework

As a country's total fertility rate (TFR, the average number of children per woman) drops, the proportion of the population under age 15 begins to decrease relative to the adult working-age population (generally ages 15 to 64—the child dependency ratio). The decline in this ratio sets the stage for smaller families, who now have more resources to invest in the health, education, and well-being of each child. And with fewer people to support, a country has a window of opportunity for rapid economic growth if the right social and economic policies are developed and investments made. As long as the child dependency ratio continues to decrease, the window remains open. Eventually, however, people ages 65 and older begin to represent an increasingly larger proportion of the total population, signaling the end of the first demographic dividend.

From a demographic perspective, these changes in the population age structure characterize the time frame during which a dividend can take place. But changes in the population age structure do not guarantee accelerated economic growth—the dividend is not automatic and requires a set of investments and policy commitments (see figure).

CHANGING POPULATION STRUCTURE

As a first step, countries must go through a demographic transition—from high to low birth and death rates. Although most countries have made significant progress in reducing mortality, the countries that continue to experience sustained high levels of fertility are not poised for a demographic dividend. As long as fertility rates and resulting population growth rates remain high, the size of the child and adolescent population will be larger than the working-age adult population. In these circumstances, families and governments typically will not have the resources to invest in the health and well-being of children and be able to move toward a dividend.

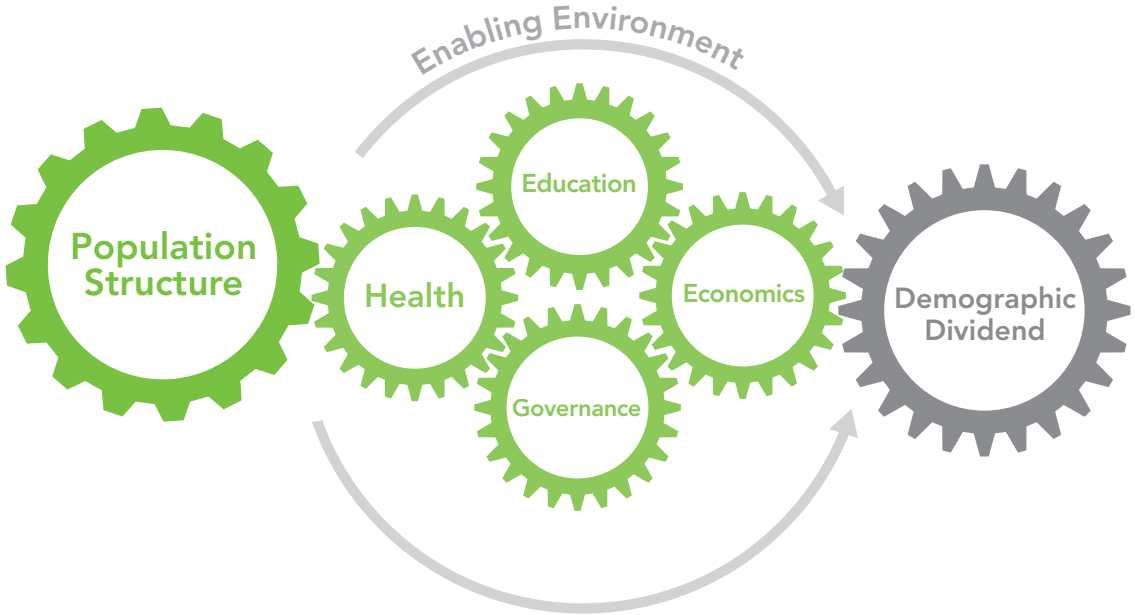
To achieve a demographic transition, countries must first focus on lowering fertility. One key strategy to achieving this goal is by providing women and men with voluntary family planning information and services. One in four women in developing countries wants to avoid becoming pregnant or delay or space births, but is not using a modern family planning method.[1] These women account for almost 80 percent of unintended pregnancies.[2] Other factors, especially education and child survival, contribute to the uptake of family planning and to lower fertility. When women can choose when and how often to become pregnant, they are more likely to have fewer children and are better able to achieve their desired family size. When women use modern contraception, a country's population age structure can begin to change, setting the stage for a demographic dividend.

INVESTING IN HEALTH PROGRAMS FOR CHILDREN AND WOMEN

A demographic dividend needs a healthy population. Investments in child survival play a key role in sustaining lower levels of fertility; as child survival improves, the desire for a smaller family and demand for family planning will increase. In much of sub-Saharan Africa, couples still desire large families. But these desires are changing. Families will choose to have fewer children when they know that each child has a better chance of surviving.

For children to make the most of educational opportunities, they must be healthy and attentive at school. Health programs that provide immunizations and prevent and treat many common infections will help children to excel in school and, over the long term, to be better-skilled workers. Good nutrition fosters cognitive development among infants and young children and sustains child health.

Policy Interventions Facilitating a Demographic Dividend



BOX 1

Prioritizing Equitable and Pro-Poor Policies

For any country to make the most of a demographic dividend, its policies and programs need to promote equity. Beginning with efforts to reduce fertility and shift the child dependency ratio, policies to improve access to family planning must take a pro-poor approach because poor people tend to have many children. The wealthy generally have smaller families and have better access to health services and education for their children.

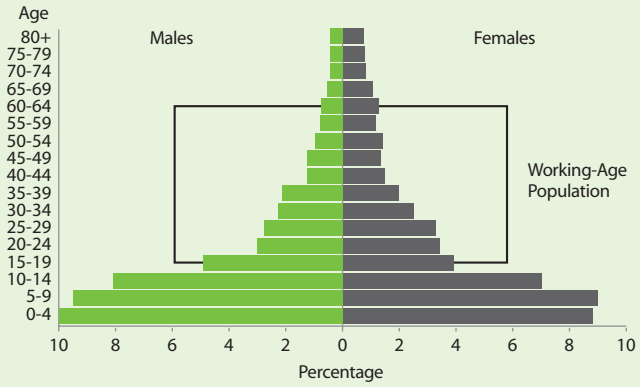
Malawi illustrates this imbalance in population structure. In the population structure of Malawi's poorest quintile, 53 percent of the population is under age 15 while the working-age population (age 15 to 64) represents 42 percent. Women in this group have a median education of one year and have an average of seven children each. Most people in this quintile work in agriculture.

The structure of Malawi's wealthiest quintile shows that the population under age 15 represents 43 percent of the population, and the working-age population represents 55 percent of the total. Women in this group have a median education of six years, have on average fewer than four children, and almost half use modern contraception. Most adults in this segment work in sales, services, or skilled manual work.

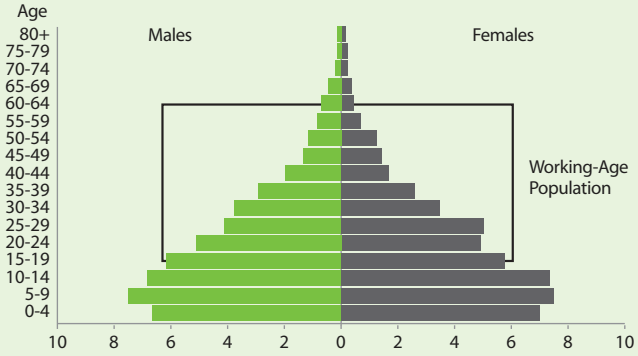
Although the wealthy households are on their way to a demographic dividend, pro-poor policies can help the most disadvantaged people reduce fertility, improve school enrollment, and foster employment—all of which generate greater household incomes.

Sources: James Gribble, "Malawi: On the Road to a Demographic Dividend," presentation at the National Leaders Conference on Family Planning, Population, and Development, Lilongwe, Malawi, May 2012; and ICF International, *2010 Malawi Demographic and Health Survey* (Calverton, MD: ICF International, 2011).

Malawi, Poorest Quintile, 2010



Malawi, Wealthiest Quintile, 2010



As children grow into adolescents, their health needs evolve. They must have access to reproductive health information and services to avoid unplanned pregnancies, and to prevent HIV and sexually transmitted infections—all of which can undermine educational opportunities, especially for girls. When youth are developing behaviors that will shape the rest of their lives, health programs need to address smoking, excessive alcohol use, sedentary lifestyles, and obesity—all of which lead to an increased burden on the health sector.

Appropriate care during pregnancy and delivery plays a key role in reducing maternal and infant deaths. For young women, family planning can help delay their first pregnancy until an age when they are physically, psychologically, and socially prepared for childbearing. Delaying a first birth improves health outcomes for both mother and infant.

And while programs that address specific health issues are critical, there is also a need to strengthen health systems so that facilities offer the right combination of services, providers are appropriately trained, and supplies are available. Research demonstrates that good health is linked to strong health systems and programs.

EDUCATING CHILDREN AND YOUTH

Although countries are paying attention to the Millennium Development Goal of universal primary education, the quality of education remains a challenge. To grow a country's economy, both boys and girls must have access to education. In the case of girls, education—especially at the secondary level—helps delay marriage and first pregnancy.

As countries experience a demographic dividend, they will need to adapt education policies in response to their changing labor market needs. The labor force may need training for lower-skilled and labor-intensive work as well as for more efficient and more value-added agricultural production. Then, as the economy grows and diversifies, workers will need a range of skills in business, technology, and other professions.

PROMOTING GOOD GOVERNANCE

In addition to health and education, an enabling environment for a demographic dividend needs good governance, which helps attract domestic and foreign investments in local economies. Because the demographic transition results in fewer children to care for, households gradually have more disposable income and savings that they can invest in their own businesses or in others. Similarly, good governance is critical to attract foreign investments that can create jobs and stimulate economic growth. Established legal systems and rules of law, especially contract law and financial standards, must be in place for people to be willing to invest in a local economy. If people are not confident that a contract will be honored or laws enforced, they are not likely to invest in that country. Other aspects of good governance also contribute, such as reducing corruption and efficiently operating governments.

Good governance promotes gender equality. A gender-equitable environment fosters a demographic transition by allowing women to access and use family planning without many of the barriers they currently face, especially in developing countries. Women can therefore contribute more to the family's economic well-being by working outside the home. And better-educated women obtain higher-paying jobs and use their earnings to improve the human capital of their children. Other policies that promote gender equality, such as access to credit and the right to inherit property and assets, reflect an environment that empowers women to save and invest.

ENACTING POLICIES FOR ECONOMIC GROWTH

Contributing to a demographic dividend are economic policies that promote growth. In particular, trade policies can ensure that local products have access to international markets and can create demand.[3] Policies are needed to provide incentives for people to save and invest; investments also require banks and other financial institutions to yield a profitable return for investors. A flexible, cross-trained labor force is also important as the size of the working-age population increases and the economy becomes more diversified. At the same time, experts indicate that it is important to be able to adjust salaries—increasing or decreasing—in response to market conditions. Tax incentives are needed to encourage local and foreign investment, as well as basic infrastructure of ports, roads, transportation, and communication.

The extent to which countries are able to capitalize on a demographic dividend depends largely on their responses to these policy areas. Lowering fertility in order to change the age structure of the population is a first step, but it is insufficient by itself to accelerate economic growth. The combination of health, education, governance, and economic policies all contribute to an enabling environment for a demographic dividend. A dividend also depends on how a country responds to external factors such as global economic changes, wars, and technological advances. The following sections examine the experiences of Asia and Latin America and the opportunities that may lie ahead for African nations.

Demographic Dividend in Asia

The "Asian Tigers"—a group of countries that includes Hong Kong, South Korea, Singapore, and Taiwan—have long been recognized for the rapid transition they made from economies based on agriculture to economies based on technology. Each country's experience was different, yet the group as a whole shows what is possible (although the fast growth of these Tigers does not represent the entire Asian experience). There is still much diversity in the development indicators of the region, as countries from Southeast Asia (Cambodia and Vietnam) are ahead on some indicators, while the countries of South Asia (India and Pakistan) move forward on many indicators at a slower pace, and certain countries of West Asia are even further behind. This overview highlights the success story of South Korea and the progress of demographic-giant India and emerging Vietnam.

CHANGING POPULATION STRUCTURE

To chart its course for a demographic dividend, South Korea prioritized access to family planning and implemented an aggressive population policy, and the country's TFR dropped from 5.4 children per woman in 1950 to 2.9 in 1975, and dropped further to 1.2 in 2005.[4] Although health centers began to promote family planning in the 1960s, the larger reductions in fertility were due to home visits conducted by field workers. In 1950, 42 percent of South Korea's population was under age 15 and the working-age population represented 55 percent of the total population. By 2010, the structure was radically different, with children under age 15 representing only 16 percent and the working-age population representing 74 percent of the population.[5]

In comparison, India has also had a long-standing population policy, and the country's TFR decreased from 5.9 in 1960 to 2.5 in 2011. However, family planning programs are carried out by India's individual states, and the lowest fertility rates are generally found in the southern states, especially in Kerala (1.7) and its neighbor Tamil Nadu (1.6).[6] Much of the country's demographic future will depend on fertility trends in the northern states that, along with large populations, have the highest levels of illiteracy and poverty. Bihar and Uttar Pradesh, the states with the highest TFRs (around 4), have populations of approximately 104 million and 200 million, respectively. Overall, 31 percent of India's population is under age 15, and the working-age population represents 64 percent of the total, which compares favorably with the young population of Uttar Pradesh, where 35 percent of the population is under age 15.

Vietnam is another country poised for a demographic dividend. Family planning efforts are carried out by both the public and private sectors, and have been a government priority since the 1980s, when the National Committee for

BOX 2

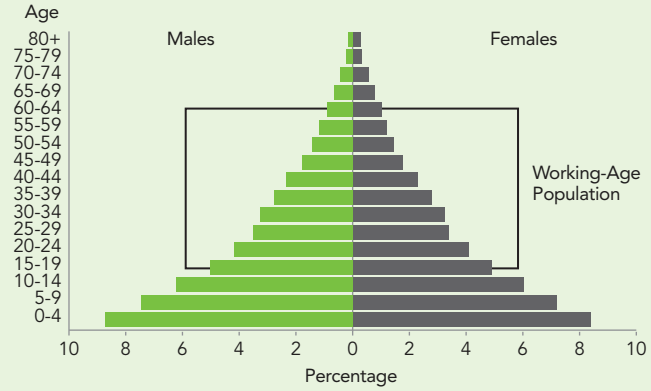
Thailand's Demographic Dividend

Over the past 40 years, Thailand has emerged as an economic powerhouse of Southeast Asia. To achieve this success, Thailand first addressed slowing its population growth by expanding access to and use of voluntary family planning. Between 1970 and 1990, Thailand's total fertility rate declined from 5.5 children per woman to 2.2—an exceptional feat given that two of every three Thais lived in rural areas. In 1970, Thailand had a population structure typical of developing countries: The broad base represented a large number of children in relation to the working-age population. By 2010—only 40 years later—this sustained low fertility resulted in a population structure in which the group ages 25 to 64 is larger than the population under 25. Underpinning this reduction in fertility was an increase in contraceptive use—from 15 percent in 1970 to approximately 80 percent in 2010; Thailand's total fertility rate is currently 1.5 children per woman. As a result, Thailand's population has become older, with higher educational levels and improved health. Changes in Thailand's age structure have led to the need for new policies to expand educational opportunities, increase work-related migration, and foster savings and social security for the country's working-age and older population.

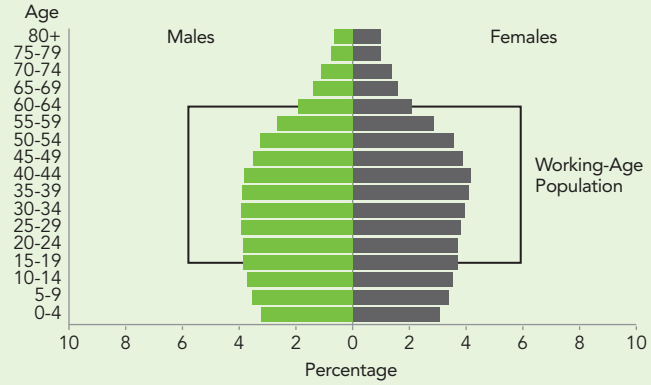
The rapid changes in contraceptive use and fertility in Thailand made it one of the biggest family-planning success stories in Asia. The dramatic achievements, a result of innovation and commitment to voluntary family planning within the Ministry of Public Health, provide an example of the actions that are needed in countries that have not completed the demographic transition.

Sources: United Nations Population Division, *World Population Prospects: The 2010 Revision*, low variant (New York: UNFPA, 2011); and United Nations Population Fund, *Impact of Demographic Change in Thailand* (Bangkok: UNFPA, 2011).

Thailand, 1970



Thailand, 2010



Population and Birth Control was established. These efforts led to a drop in the TFR from 7.1 in the early 1970s to 1.9 in 2000, and then stabilizing around 1.7. In 1975, when fertility was high, the population under age 15 represented 43 percent and the working-age population represented another 52 percent of the population. In 2010, only 24 percent of the population was under age 15 and 70 percent was between ages 15 and 64.[7] Policy efforts to slow fertility through access to a full range of reproductive health services have had a central role in preparing these three countries for a demographic dividend.

HEALTH PROGRAMS CONTRIBUTE TO INCREASING LIFE EXPECTANCY

In 1960, South Korea had a life expectancy of 53 years and an infant mortality rate of 84 deaths per 1,000 live births. By 2010, South Korea had greatly improved these indicators to among the world's highest (life expectancy of 81 years and infant mortality rate of 4).[8] These dramatic changes reflect more health care providers and facilities per capita, as well as expanded access to health care through government-sponsored insurance programs. Medical insurance programs and free and subsidized health care expanded after programs were established in 1977; and by 1991, virtually all South Koreans were covered by some type of insurance.[9]

Over the same time frame of 1960 to 2010, India greatly improved life expectancy (from 42 years to 65 years) and infant mortality rates (from 159 to 49).[10] Based on its leading causes of death, India is in the middle of an epidemiologic transition, with chronic diseases accounting for more than 50 percent of deaths; communicable, maternal and perinatal diseases, and nutritional deficiencies accounting for 36 percent; and injuries 11 percent.[11] Although the private sector is the largest source of health care in India (due in large part to the insufficient and inefficient services in the public sector), the National Rural Health Mission was established in 2005 by the government

to provide health care to the poor in prioritized states, and is improving access to care.

Vietnam's improvements in health indicators are equally impressive: Life expectancy at birth increased from 44 years in 1960 to 75 years in 2010; and infant mortality rates decreased from 130 to 18.[12] However, chronic diseases are responsible for 66 percent of all deaths, while communicable, maternal and perinatal diseases, and nutritional deficiencies represent only 25 percent of all deaths.[13] In the 1970s, North Vietnam expanded its public health care system into the south. But, as the private sector began to grow, people relied on it for curative care and increasingly turned to the public system for primary and preventive care. Reduced funding for public-sector health programs has contributed to a shortage of nurses, midwives, and hospital beds. However, a compulsory health care program is now in place to cover the needs of ethnic groups and the poor. As a result, almost 90 percent of women have a skilled attendant at delivery and the risk of maternal death is only 1 in 850.[14]

PROGRESS IN EDUCATION, GAINS STILL NEEDED

In the 1950s and 1960s, South Korea's educational strategy changed from compulsory primary education that reached only about 54 percent of school-age children to "production-oriented" education that focused on the knowledge and skills needed for economic development. This change led to 97 percent of school-age children attending school by 1990.[15] India, on the other hand, continues to face educational challenges, especially for girls. Although 94 percent of girls complete primary school, only 56 percent of them are enrolled in secondary school.[16] Gender bias in education persists at university levels, because half of Indians continue to think it is more important for a boy to have a university education than a girl.[17] In general, Indian women have much lower levels of literacy than men, limiting their productivity in the labor force. Vietnam has shown important progress toward the education indicators associated with the Millennium Development Goals. Enrollment in primary school is almost universal: More boys than girls attend primary and secondary school (94 girls per 100 boys for primary school and 95 girls per 100 boys for secondary school). However, more girls than boys are enrolled in tertiary education (101 girls per 100 boys).[18] In 2009, among the population ages 15 to 24, as many women as men were literate—an improvement in female literacy over the past 20 years.

GENDER BIAS AND POOR GOVERNANCE LIMIT DEVELOPMENT

During the time of its demographic and economic transition, South Korea had a strong central government that created integrated and comprehensive development plans over several decades. At the same time, however, traditional values may have contributed to extreme gender inequalities. During the 1980s, the sex ratio at birth in South Korea was 116 boys for every 100 girls. (A normal sex ratio at birth is 102 to 107 boys for every 100 girls.) Today, South Korea is the only country that has brought an out-of-balance sex ratio back to a normal range (approximately 107).[19] This decrease suggests that the country is increasingly rejecting sex-selection abortion. India and Vietnam, on the other hand, have high sex ratios at birth (around 111 in each country), reflecting underlying gender-based inequalities. Gender bias in India is further reinforced by lower labor-force participation rates, lower educational enrollment, and lower literacy rates among women. However, a study in India found that giving women political power at the local level led to increased expenditures of public goods that women prefer (water and sanitation) and men prefer (irrigation and schools), as well as reduced government corruption.[20] Gender biases in Vietnam continue, as female-headed households in rural areas have less access to credit and markets than male-headed households. However, unlike many countries, a Vietnamese woman and her children are most often the recipients of her late husband's assets, which reduces her vulnerability as a widow.

Based on the model of the Asian Tigers, many countries in Asia are increasingly paying attention to the issues that set the stage for a dividend. The countries highlighted above are making progress, but will need to sustain these investments and focus attention on the poorer segments of their populations. In cases like India, the populations of northern states are larger than many countries. In other parts of Asia, including Afghanistan and Yemen, attention needs to first focus on addressing high fertility and rapid population growth so that an elusive dividend may eventually be realized.

Demographic Dividend in Latin America

Latin American countries have been relatively successful in reaping a demographic dividend, as population structures have changed and investments in human capital have paid off. Despite these advances, Latin America's economic growth has lagged behind that of the Asian Tigers. Most countries of Latin America share some similar languages and histories, but the recent social and economic history of the region has been diverse and uneven. Economic powerhouses like Brazil and Mexico dominate regional economies, while neighboring Bolivia and Guatemala continue to face multiple challenges.

DRAMATIC CHANGES IN POPULATION STRUCTURE

As a region, Latin America began a demographic transition in the 1960s and 1970s. The TFR was 6.0 in the late 1960s, then began to drop to 5.0 in the late 1970s, and reached 2.3 by the late 2000s.[21] Family planning programs played a large role. Mexico, for example, saw a rapid reduction in its TFR from 6.8 in the late 1960s to an estimated 2.4 in the late 2000s,

BOX 3

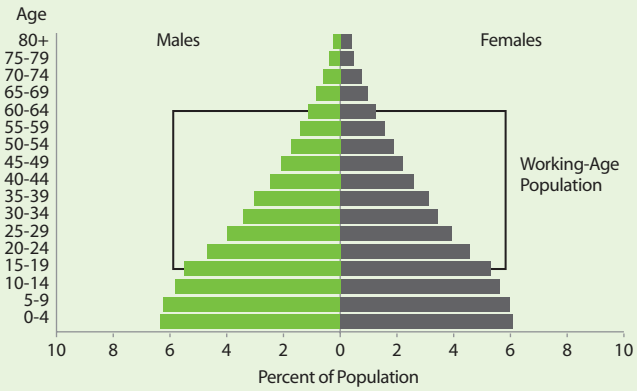
Distant Neighbors: Bolivia and Brazil

Many people think of the countries of Latin America as being very similar. The region's diversity, however, is exemplified by neighboring countries Bolivia and Brazil, each of which followed a different path toward a demographic dividend.

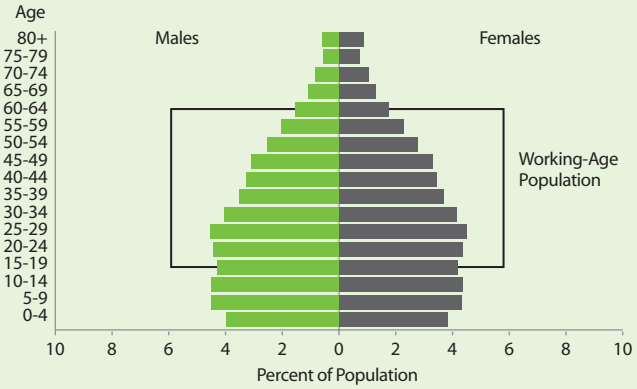
Bolivia's pyramid shows a more-youthful population structure, with 36 percent under age 15. The country has a total fertility rate of 3.3 children per woman, which contributes to its population growth rate of 1.9 percent. Only about one in three women uses modern contraception. Public expenditures on health are approximately $58 per person per year and 25 percent of Bolivians live on less than $2 a day. Bolivia faces persistent poverty and inequality: The poorest quintile of the population earns only 2 percent of total income, while the wealthiest quintile earns almost 60 percent. Although primary school completion rates are almost universal, only about 81 percent go on to secondary school. Many who attend school are unable to translate their education into better paying jobs for the skills they acquired.

Brazil's population pyramid tells a different story. Only 24 percent of the country's population is under age 15—its population structure has changed. With a total fertility rate of 1.9, Brazil is below the replacement level of 2.1 children per woman. Only 10 percent of Brazil's population lives on less than $2 a day, although its income distribution is very similar to Bolivia's and reinforces the gap between wealthy and poor. While Brazil had high economic growth in the early years of its fertility transition, economists estimate that the growth rate could have been higher between 1990 and 2010 had Brazil taken better advantage of its population age structure. Although Brazil has had periods of economic growth and decline, its most recent growth is attributed to four key policies: investment in infrastructures, lower levels of poverty and inequality, increased openness to the world, and reformed government institutions.

Bolivia, 2010



Brazil, 2010



Sources: Carl Haub and Toshiko Kaneda, *2012 World Population Data Sheet* (Washington, DC: Population Reference Bureau, 2012); Donna Clifton, Toshiko Kaneda, and Mahesh Karra, *Population and Economic Development 2012 Data Sheet* (Washington, DC: Population Reference Bureau, 2012); Trading Economics, "GINI Index in Bolivia," accessed at www.tradingeconomics.com/bolivia/gini-index-wb-data.html, on Dec. 3, 2012; Donna Clifton and Ashley Frost, *The World's Women and Girls 2011 Data Sheet* (Washington, DC: Population Reference Bureau, 2011); Bernardo L. Queiroz and Cassio M. Turra, *Window of Opportunity: Socioeconomic Consequences of Demographic Change in Brazil* 2010 (Brasilia: Ministerio da Previdencia Social, 2010), accessed at www.inss.gov.br, on Dec. 10, 2012; Sean Williams, *Why Is Brazil an Emerging Market Economy?* (Iowa City, IA: University of Iowa Center for International Finance and Development, 2011), accessed at http://ebook.law.uiowa.edu/ebook/uicifd-ebook/why-brazil-emerging-market-economy, on Dec. 3, 2012; and United Nations Population Division, *World Population Prospects: The 2010 Revision* (New York: UNFPA, 2011).

reflecting high levels of political commitment and investments in family planning services. As Mexico's wealth from oil increased in the 1970s, the government invested in a rural health program that prioritized family planning and maternal and child health, and helped to slow population growth. At the same time, the under-5 mortality rate decreased from 57 deaths per 1,000 live births in the early 1980s to 20 by 2009. As a result of fertility and mortality declines, Mexico changed from a country with a rapid population growth rate of 3.1 percent in the late 1960s (meaning that the population doubled in size in less than 22 years) to a rate of 1.8 percent (doubling in more than 38 years). Brazil's experience was similar. By the late 2000s, its population growth rate had slowed to 1.6 percent per year—a doubling time of more than 43 years. Brazilian soap operas contributed to the uptake of contraception and fertility decline between 1960 and 2000; these programs are an interesting example of how media can influence behavior.[22] At the same time, Guatemala and Bolivia, with large indigenous populations, have among the highest TFRs in the region (4.1 and 3.5, respectively), and relatively high levels of income inequality.[23] Although their fertility has dropped, the reduction is not uniform: Urban, more-educated women generally lead the trend toward smaller families, while rural, less-educated women, particularly indigenous women, are much slower to catch up.

The population of Latin American is rapidly aging and, with fewer children, the older population represents a greater portion of the total population. In 1970, there were 14 working-age adults for each person 65 or older. By 2010, this ratio has shifted to 9 and will continue to decrease to nearly 3 by 2050, at which time there will be about as many people turning 65 as are being born.[24] Increasingly, Latin America is having to find ways to support its growing elderly population.

HEALTH TRANSITION CHALLENGES HEALTH SYSTEMS

Building on the 1978 Alma Ata Declaration for primary health care for all citizens, Latin American countries have increasingly turned their attention to public health, and many have declared health a constitutional right. In recent decades, Latin America's health profile has become more complex. While the communicable diseases of poverty still have a large impact on the health status of people, emerging chronic and noncommunicable diseases place additional burdens on health systems—and represent 72 percent of all deaths in the region. One factor underpinning this complex health situation is a high level of poverty and income disparity. More than 33 percent of the region's population lives in poverty and 13 percent lives on less than $2 a day.[25] Almost 80 percent of the region's population lives in urban areas, exposing them to crowded living conditions, air pollution, and traffic congestion; and to risk factors for stroke, diabetes, and obesity.[26]

Infant mortality rates vary widely. The upper middle-income countries of Chile, Costa Rica, and Cuba have lowered infant mortality rates to fewer than 10 deaths per 1,000 live births; Bolivia, Guatemala, and Haiti have rates that range between 25 and 70.[27]

As in other parts of the world, health in Latin America is increasingly decentralized to subnational governments. Few countries allocate more than 4 percent of GDP to public health services in the region, and subnational governments often lack sufficient resources, personnel, and expertise to effectively manage demand. An additional pressure is the out-migration of many health professionals to the United States, which faces a shortage of health care professionals, and to other countries in Latin America.

EDUCATION MUST IMPROVE

While higher levels of educational attainment have contributed to fertility reductions in Latin America, evidence suggests that countries in the region are underinvesting in education. Universal access to primary education has improved, and generally almost all boys and girls complete primary school. The lowest completion rates are in Nicaragua, where 78 percent of girls and 71 percent of boys complete primary school. But primary school is insufficient. Secondary education is central to strengthening human capital and to spurring economic growth in middle-income countries. In the region, 94 percent of girls and 87 percent of boys are enrolled in secondary school. In most countries, girls are more likely to be in secondary school, but the largest gap is in El Salvador, where 72 percent of girls but only 57 percent of boys are enrolled.[28] Aggravating the situation is the inadequate quality of math and science education, education that is required to grow technological capacity and attract higher-paying jobs; and disparities in educational attainment within countries among young adults ages 25 and 26—a group that should be largely active in the labor force. In Brazil, 64 percent of these young adults have completed secondary school; in Mexico, 54 percent have; and in Guatemala, only 42 percent.[29]

INADEQUATE GOVERNANCE IMPEDES BUSINESS OPPORTUNITIES

Since entering their demographic transitions in the 1960s and 1970s, the countries of Latin America have improved governance. Many have transitioned from authoritarian to democratically elected governments. However, the World Bank/IFC's "Ease of Doing Business Rank" gives a less-than-optimistic view of the ability of many countries in the region to attract investments needed for growth. Four Latin American countries rank in the world's top 50 of 184 countries (Chile, Peru, Colombia, and Mexico), but Brazil and Argentina rank much lower (130 and 124, respectively).[30] The World Economic Forum's "Global Competitiveness Report" considers a range of factors that contribute to a demographic dividend, such as infrastructure, health and primary education, and higher education and training. Chile performs well (ranked 33 of 144), followed by Brazil (ranked 48) and Mexico (ranked 53). Argentina and many other countries in the region rank much lower but generally fare better than countries in sub-Saharan Africa and in much of Asia.

The region shows progress in achieving gender equality, demonstrated by women elected as heads of state, to legislatures, as mayors, and to city councils. At the same time, gender-based violence —including physical and sexual assault —continues to contribute to deaths, disability, and lost opportunity for women.

While Latin America showed progress in the early years of the demographic transition, its economic policies did not foster trade. Between 1965 and 1990, the region was fairly isolated from the global economy. Had countries in the region been more open to trade, they could have doubled or tripled the size of the demographic dividend. More recently, however, policies have changed in many countries and annual growth rates in GDP have been positive.[31]

Demographic Dividend in Africa

Sub-Saharan Africa is the remaining region of the world where countries have yet to reap a demographic dividend, although some countries are making progress. The population, health, and education indicators for the countries in eastern and southern Africa have reached higher levels than those of western and middle Africa. Although the region had an annual average growth rate in GDP of 5.2 percent in the last 10 years, access to

health and education continues to challenge economic growth.[33] The region's high population growth rates—an average of about 2.5 percent per year—have greatly slowed per capita economic gains. More than 70 percent of Africans still live on less than $2 a day.[34]

HIGH FERTILITY CREATES RAPID POPULATION GROWTH

Today, 43 percent of sub-Saharan Africa's population is under age 15, and while youth can be a great force for economic and political change, sheer numbers do not themselves signify that a demographic dividend is imminent. Without a dramatic and rapid demographic transition from high birth and death rates to low rates, and the accompanying shift in the age structure, a demographic dividend remains a distant prospect for most countries of sub-Saharan Africa.

In much of sub-Saharan Africa, and especially in rural areas, couples still desire large families. But given the rapid decline in child mortality over the last decade, norms related to family size are changing. Several countries have greatly improved child survival and fertility rates have declined. In Botswana, Namibia, Rwanda, and South Africa, for example, smaller families are becoming the norm. Other countries such as Kenya and Ghana experienced rapid declines in TFRs a decade ago, but rates have stalled over the last several years and fertility remains well above the levels needed for a demographic dividend. Greater political commitment and increased resources for family planning and child survival are helping Ethiopia to begin its demographic transition. The fertility decline will result in some immediate economic benefits as women's labor force participation increases and income per capita increases, but more important, Ethiopia, Rwanda, and the other countries in southern Africa are establishing the demographic conditions needed for long-term economic growth. As long as these demographic trends continue, even more-rapid economic growth within the next two decades is possible.

Fertility declines in western and middle Africa, however, are lagging. Women in those two regions have on average between 5 and 6 children, down from between 6 to 7 children in 1970.[35] Less than 10 percent of married women use modern contraceptives, and use has increased only slightly over the last two decades. Poor health conditions, gender inequity, and underfunded and inadequately managed family planning programs are slowing fertility declines, and family planning programs do not meet current or future needs of the rapidly growing population. If these trends continue, the large size of the young population in relation to the working-age population will delay a demographic dividend for decades. However, if these countries increase investments in family planning by three to five times and meet women's needs for family planning, they could stabilize births by 2030 and establish the conditions to capitalize on the demographic dividend.[36]

HEALTH INDICATORS IMPROVE, SYSTEMS WEAK

Health gains have also been rapid, and mortality rates—particularly among infants and children—have declined dramatically. Infant mortality dropped from 142 deaths per 1,000 live births in 1970 to 85 in 2010.[37] However, leading causes of death in sub-Saharan Africa are largely from infectious diseases, dominated by HIV/AIDS (20 percent of all deaths), malaria (10 percent), respiratory infections (10 percent), diarrheal diseases (7 percent), and perinatal conditions (5 percent).[38] In addition, women's reproductive health has seen few gains, and the lifetime chance of dying from a maternal cause is 1 in 31—the highest in the world.

The Health of the People, a recent report by the World Health Organization, notes that African health systems stand in the way of addressing the health needs of the public. Stronger policies in four key areas can improve Africa's health: increasing numbers of skilled health workers and improving basic infrastructure; making essential medicines and supplies more accessible; implementing health financing systems that help families avoid bankruptcy due to health concerns; and developing effective health information systems to measure the scale of a given health condition in order to gauge the appropriate response.[39]

IMPROVEMENTS TO EDUCATION

Education—particularly for girls—is also a critical step that offers health and economic benefits. Education for girls—especially at the secondary level—helps delay marriage and first pregnancy. Primary education completion rates in the region are 63 percent for females and 71 percent for males. In Chad, however, only 24 percent of girls complete primary school; but in Botswana, 97 percent do.[40] Unfortunately, across sub-Saharan Africa enrollment drops by almost 50 percent for secondary school, where only 34 percent of girls and 42 percent of boys are enrolled. Literacy rates among young adults ages 15 to 24 also indicate the need for reaching people outside of the school system: 68 percent of young women and 77 percent of young men are literate. In Niger, only 23 percent of young women and 52 percent of young men have these skills.

Links between education and economic development are well established. Women who marry later tend to have fewer children than women who marry at a young age. Women who are educated are also more likely to work outside the home. Although many African women participate in the informal labor force, skills and experience acquired through secondary education position them to take on higher-level jobs in the formal sector or to secure financial support for their formal or informal businesses.

STRONGER PUBLIC INSTITUTIONS AND GENDER-EQUITABLE POLICIES

The countries of Africa must improve the efficiency and effectiveness of government institutions. Weak governance and public institutions in many countries are reflected in insufficient

BOX 4

Ethiopia's Path to a Demographic Dividend

Over the last decade, Ethiopia has made amazing progress in improving the health and development of its people. Infant and maternal mortality are on the decline, under-5 mortality has been cut in half, and literacy has nearly doubled. At the same time, women's reproductive health has greatly improved, and many more women have the ability and decisionmaking power to plan their pregnancies and are using modern methods of contraception. Use of modern contraceptive methods has grown from 6 percent in 2000 to 27 percent of married women today. Women are now having, on average, 4.8 children, compared with 6.5 a decade ago. In Addis Ababa, the capital, women on average have just over 2 children.

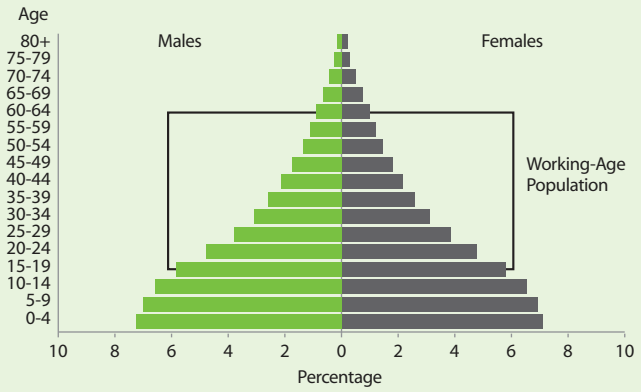
Recent economic growth has also been strong in Ethiopia, and based on the health and demographic changes occurring, one might expect Ethiopia to be poised to accelerate economic growth even further via a demographic dividend. A closer look at Ethiopia's population projections and age-sex structure, however, reveals that Ethiopia will have to substantially increase its investments in meeting family planning needs to create the age structure needed for a demographic dividend. In Ethiopia, more than 40 percent of the population is under age 15, and the population pyramid for 2010, despite the declines in mortality and fertility, is still dominated by a large base of young people.

Even if Ethiopia continues to make rapid progress in meeting family planning needs and if the total fertility rate declines by 2030 to 2.5, the country will just approach the age-structure conditions that can facilitate accelerated economic growth.

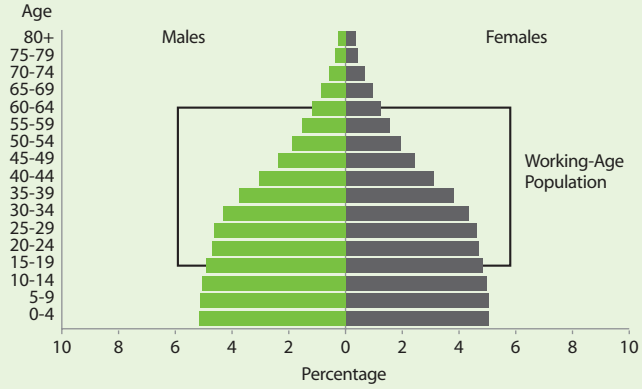
Ethiopia remains more than two decades away from a possible demographic dividend, even with continued progress.

Sources: Ethiopia Demographic and Health Surveys, data from 2000 and 2011, accessed at www.statcompiler.com; and Ethiopia Central Statistical Agency and ICF International, *Ethiopia Demographic and Health Survey 2011* (Calverton, MD: ICF International, 2012).

Ethiopia, 2010



Ethiopia, 2030



laws, inefficient bureaucracies, lack of government stability, and corruption. This negative environment also contributes to high unemployment, especially for the many young people entering the labor force.[41]

A gender-equitable environment in which women are free to access and use family planning enables women and couples to choose the number, timing, and spacing of children and allows women to participate in the labor force and contribute more to the family's economic well-being.

As an important step toward gender equity, and to foster economic growth, countries need to develop and enforce policies that enable girls to go to school and equip them with skills to compete for higher-paying jobs. In many parts of Africa, women—especially poor women—consistently have lower access than men do to mass media and technology, leaving them less informed and less empowered.

Also critical for gender equality are equitable land rights and access to credit for women. Women who own land are more likely to raise food for the family, and if they could access better production inputs, including fertilizer and seeds, their crop yields could be as much as 20 percent higher.[42] Similarly, when women access credit and generate profits, they are more likely than men to use their income to improve the health and well-being of their families.[43] Improving women's access to these assets brings countries closer to reaping a demographic dividend.

While family planning is necessary for establishing the conditions for a demographic dividend, investments in child survival, education, and gender equality are also critical. Together, these investments can empower women and girls with the information and decisionmaking to improve their reproductive health and take advantage of economic opportunities.

Beyond the Dividend

While each country has a unique experience with a demographic transition and dividend, research suggests that the issues outlined in this report play key roles.

Changing the age structure of a population is the first step. By slowing population growth, lowering fertility, and increasing the median age, countries are able to shift the youth dependency ratio so that there are more working-age adults to support a relatively smaller population of children.

Investing in the health and education of children and youth sets the stage for them to take on more technical and higher-paying jobs. At the same time, however, policies need to foster job creation and stimulate local and foreign investment. Without jobs, a healthy, educated young population will become frustrated and will not be able to contribute to economic growth.

The demographic dividend is a relatively slow process. Many countries have high levels of unemployment and underemployment that need to be addressed now. Many of the investments needed for the demographic dividend, however, do have some immediate economic benefits.

People will need incentives to save and have access to markets in which to invest their savings. For some people, this will mean investing their money in their own small businesses. For others, more sophisticated financial markets can stimulate savings and investments.

Countries will eventually move beyond the dividend and have a larger and older population. To prepare for so many people of retirement age, countries will need to develop appropriate social security and pension programs, or risk overburdening the working-age population. Managing the economic and health needs of an aging population is already a challenge for developed countries.

As the retired population grows, governments will need to maintain a large enough labor force to sustain their economies and living standards—already a reality for the Asian Tigers, Western Europe, and the United States.

The demographic dividend provides a framework for thinking about economic growth at a time when population age structures are changing. Having a youthful population does not ensure economic growth; what a young population does provide, however, is the opportunity for a demographic dividend. The experiences of countries in Asia and Latin America, and the trends for a few countries in Africa, underscore the progress that can be made when countries follow a set of strategic investments.

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ACHIEVING A DEMOGRAPHIC DIVIDEND

One of the goals of development policies is to create an environment for rapid economic growth. The economic successes of the "Asian Tigers" during the 1960s and 1970s has led to a comprehensive way of thinking about how different sectors can work together to make this growth a reality. Referred to as the "demographic dividend," this framework helps explain the experience of certain countries in Asia, and later successes in Latin America, and is creating a sense of optimism for improving the economic well-being of developing countries, especially in sub-Saharan Africa.

The demographic dividend refers to the accelerated economic growth that begins with changes in the age structure of a country's population as it transitions from high to low birth and death rates. With fewer young people relative to the population of working-age adults, and with the successful implementation of key national policies over the long term, countries such as Thailand and Brazil have reaped the rewards from their demographic dividend. But many policymakers mistakenly think that a demographic dividend results automatically from a large population of young people relative to the population of working-age adults without the needed population, social, and economic policies. This is not the case.

This *Population Bulletin* explains the demographic dividend in terms of demographic changes, investments in human capital, and economic and governance policies. The experiences of Asia and Latin America in achieving their dividends are highlighted, as are the prospects for African nations. The last section outlines issues that countries need to plan for as they move beyond their demographic dividend.

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