



Immigration Task Force

Immigration: America's Demographic Edge

Staff Paper | January 2014



BIPARTISAN POLICY CENTER



Immigration Task Force

ABOUT BPC

Founded in 2007 by former Senate Majority Leaders Howard Baker, Tom Daschle, Bob Dole, and George Mitchell, the Bipartisan Policy Center (BPC) is a nonprofit organization that drives principled solutions through rigorous analysis, reasoned negotiation, and respectful dialogue. With projects in multiple issue areas, BPC combines politically balanced policymaking with strong, proactive advocacy and outreach.

BPC STAFF

Theresa Brown, Director of Immigration Policy
Matt Graham, Policy Analyst
Lazaro Zamora, Policy Analyst
Kristen Masley, Administrative Assistant

DISCLAIMER

This report is the product of the staff of BPC's Immigration Task Force. The findings and conclusions reached in this document do not necessarily reflect the views of BPC's Immigration Task Force members or BPC, its founders, or its board of directors.

Message from BPC's Immigration Task Force

Immigration is a national imperative for the United States. New immigrants to our shores keep the American labor force large and growing. An expanding labor force, in turn, results in greater demand for goods and services and a more robust economy. Strong and sustained economic growth enables the United States to more effectively maintain our global influence and political, military, and economic preeminence.

As outlined in this paper, *Immigration: America's Demographic Edge*, many of today's developed countries have populations that are either stagnant or shrinking while their percentage of seniors is growing. Population stagnation reduces the supply of younger people entering the workforce, which threatens the ability of these countries to maintain the size of their labor force, promote economic growth, and encourage consumer demand. Especially at risk are social insurance and retirement systems, which rely on young workers to support retirees, including the U.S. Social Security and Medicare programs.

In the United States, immigration can be the foundation upon which our aging population is supported and an important means of improving the long-term U.S. budget and fiscal outlook. Most immigrants to the United States are younger than the native-born population. In fact, 95 percent of immigrants are younger than 65 at the time they enter the country. Projections show that without immigration, the U.S. population would age more quickly and stop growing by mid-century.

Immigration also has significant implications for America's strategic position in the world. Today, U.S. global influence is greatly enhanced by our status as the world's largest economy and most advanced military. Moving forward, if the United States were to experience slower economic growth, less rapid innovation, or a decline in the service-age population, these advantages could decrease or even disappear. By improving America's demographic future, immigration serves as an essential power asset.

Unlike many other developed countries, the United States has a long tradition of being open to immigrants. Immigration is part of our nation's cultural DNA. This orientation in favor of immigration is a tremendous advantage for the United States as we seek to strengthen our own economy and compete on the global stage. Looking ahead, the United States needs policies in place that effectively integrate immigrants into society so that they can fully realize their potential and benefit our economy to the maximum extent possible.

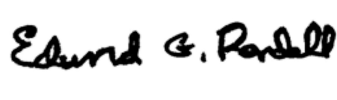
Countries without rich immigrant traditions can generally expect a bleaker demographic future. Potential rivals like Russia and China are both in the midst of dramatic demographic

transformations. Russia has experienced a decades-long decline in its population and appears to be on track for just a modest increase in 2013. China recently announced a liberalization of its “one-child” policy, largely out of a deep concern that its working-age population will soon be unable to support its burgeoning numbers of senior citizens. U.S. allies in Europe and Asia (most notably Japan) continue to struggle with population stagnation and even decline, with significant implications for the balance of power in the world.

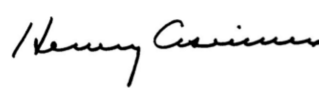
America’s ability to attract immigrants helped the United States become history’s greatest mobilizer of human potential. Moving forward, immigration will remain critical to economic prosperity and integral to our national security. The nations that most effectively harness the energies of youthful, productive, and creative workers will emerge as the world’s most powerful and influential states. Facing significant demographic challenges, it is as important as ever that the United States craft a sound, forward-looking immigration system that serves the national interest. The BPC Immigration Task Force remains committed to finding common ground and achieving this goal.



Haley Barbour
Former Governor
of Mississippi



Ed Rendell
Former Governor of
Pennsylvania



Henry Cisneros
Former U.S. Secretary
of Housing and Urban
Development



Condoleezza Rice
Former U.S.
Secretary of State

Howard Berman
Former U.S. Representative

Ed Brady
President, Brady Homes

Al Cardenas
Chairman, American
Conservative Union

John Chen
Executive Chair & CEO,
Blackberry

Michael Chertoff
Former U.S. Secretary of
Homeland Security;
Chairman and Co-Founder,
The Chertoff Group

Eliseo Medina
Chair, SEIU Immigration and
Latino Civic Engagement
Initiative

John Rowe
Chairman Emeritus, Exelon
Corporation

John Shadegg
Former U.S. Representative

Hilda Solis
Former U.S. Secretary of
Labor

Table of Contents

Executive Summary	vii
Introduction: Demographic Challenges	1
The Role of U.S. Immigration	4
International Context	9
Implications for Economic Growth, Public Finances, and National Security	14
Conclusion	19
Appendix A. Summary Tables.....	20

Executive Summary

Many nations, especially those with advanced economies, face significant demographic challenges. Due primarily to declining fertility rates, the populations of these countries are stagnating and, in some cases, even shrinking. In addition, most developed countries are “graying,” with seniors accounting for an increasingly larger share of their overall populations.

In the coming decades, these demographic trends will only accelerate, straining the already-tested economic and social systems of the developed world. As increasing numbers of elderly people exit the workforce, slower population growth leaves fewer young workers to take the jobs they vacate. This makes it difficult to maintain the size of the labor force, which in turn limits the economy’s growth potential and strains social insurance programs that count on workers to support retirees.

The United States faces these same challenges, but thanks to immigration trends, has a healthier demographic outlook than most other advanced economies. Immigrants help improve the U.S. demographic outlook by (1) coming in large numbers (about one million legally per year) and (2) having children at nearly a 50 percent higher rate than people who are not immigrants.

These factors, net migration and natural increase, are the two main determinants of every country’s population growth. The U.S. Census Bureau (Census) expects migration to overtake natural increase as the leading contributor to U.S. population growth between 2027 and 2038. When the children of immigrants are included, immigration already accounts for the majority of U.S. population growth. United Nations (U.N.) and Census projections show that without immigrants, the U.S. population would stop growing between 2040 and 2050.

Because they are relatively young and have children at high rates, immigrants also slow the rate of aging. Between 2003 and 2012, nearly 95 percent of immigrants were 64 or younger when admitted to the United States. U.N. projections show that immigration will slow the rate of aging in the United States by about 30 percent over the next five decades, as measured by the number of retirement-age people per 100 working-age people.

Immigrants’ contributions translate into significant advantages for the United States. For example, the U.N. projects that the U.S. population will grow by 0.63 percent per year between 2010 and 2050, compared with 0.34 percent for countries within the Organization for Economic Co-operation and Development (OECD) and 0.12 percent for countries it classifies as “more-developed.” The United States also has a lower ratio of retirement-age to working-age people (“old age support ratio”) than most other developed countries, and in 2050, the U.N. projects that only three OECD countries (Turkey, Israel, and Mexico) will have lower ratios than the United States.

A healthier demographic outlook will help the United States sustain economic growth, improve its fiscal outlook, and maintain its strategic position in global affairs. Immigrants keep the U.S. population and labor force growing, which promotes economic vitality—without more workers to produce goods and services, economic growth becomes significantly more challenging. BPC’s October 2013 study concludes that increasing legal immigration would increase gross domestic product (GDP) and decrease the federal budget deficit. Entitlement programs especially benefit from immigration. Immigrants contributed an annual net surplus of \$13.8 billion to Medicare from 2002 to 2009, and Social Security Administration projections show that immigration reduces long-term actuarial deficits. On the international stage, these domestic advantages add up to an important power asset: countries with larger economies and less-constrained budgets have an easier time projecting economic power and influencing world events.

The ability to attract immigrants and integrate them effectively places the United States in a strong position at home and abroad. Developing a sound, forward-looking immigration system will be critical to maintaining U.S. competitiveness.

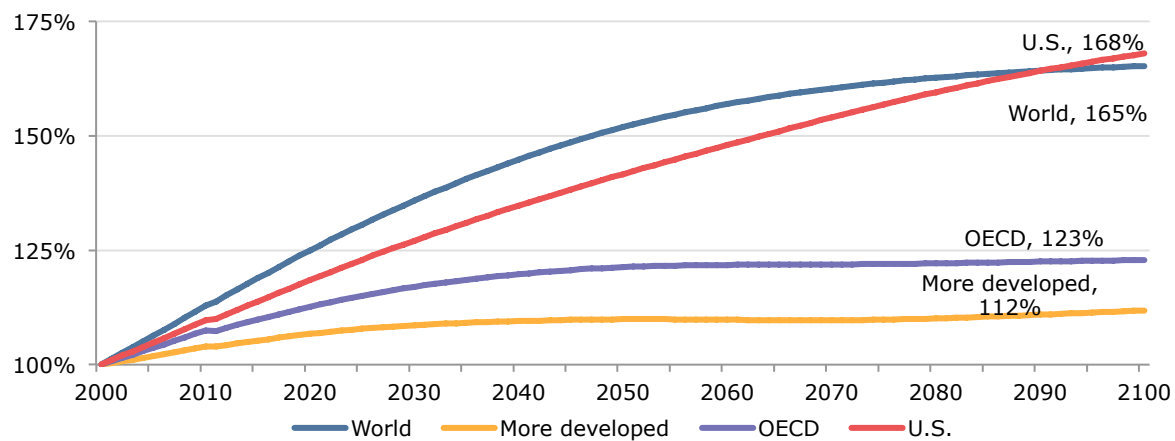
Introduction: Demographic Challenges

Developed countries like the United States are aging rapidly, and many face population stagnation or decline. This “demographic transition” is one of the defining fiscal and economic challenges of our time. With more elderly people exiting the workforce and fewer young people available to fill the jobs they leave behind, developed countries are finding it difficult to maintain the size of their labor forces. This reduces their ability to grow and compete economically. On the fiscal side, demographic trends place considerable strain on social insurance and retirement systems, which rely on young workers to support retirees. The implications of these trends stretch into international affairs. Countries with weaker economies, smaller populations, and more heavily constrained budgets have a more difficult time projecting influence on the world stage.

Immigrants can help mitigate these demographic challenges. When admitted in sufficient numbers, immigration can reverse population decline, especially in cases where immigrants are also more fertile than the native-born population. In Europe and the United States, immigrants slow the rate of population aging, because they tend to be younger than the population at large. As this paper will show, immigration gives the United States a significant demographic edge. America’s history of being generous to immigrants is an essential reason why the U.N. projects that over the coming century, U.S. population growth will significantly outperform that of other developed countries (Figure 1).

Worldwide population growth has been slowing for decades and will slow further over the next century (Figure 2). According to the U.N., the global population increased nearly 2 percent annually between 1950 and 1980, and 1.5 percent per year between 1980 and 2010, but it is projected to grow about 0.8 percent per year between 2010 and 2050. In more-developed countries, where fertility rates are lower, population growth is expected to fall more sharply—from about 1 percent annually between 1950 and 1980 to just 0.12 percent per year between 2010 and 2050.

Figure 1. Actual and projected population relative to 2000 population, 2000–2100.¹



The world population will also age substantially in the years ahead, with more-developed countries leading the way. The U.N. projects that between 2010 and 2050, the percentage of people over 65 in more-developed countries will increase from 16.1 percent to 25.8 percent (Table A-1). Between 2010 and 2050, the world’s old age support ratio—the number of retirement-age people (65 and over) per 100 working-age people (20–64)—is projected to double (Figure 3).

At the root of these trends is a drop in global fertility. Between 1950–1955 and 2005–2010, total fertility rates fell all around the world—by 41 percent in developed countries and 49 percent worldwide (Figure 4). Fertility rates fell substantially over the past century, particularly in more-developed countries. Overall, 81 of 197 countries or regions for which the World Bank had data were below the “replacement rate” of 2.1 births per woman in 2011, meaning that these countries were not having children quickly enough to sustain the population.²

As aging accelerates and population growth slows over the coming decades, countries that can sustain the size of their labor forces will have a competitive advantage in both the economic and diplomatic spheres. For the United States, continuing to attract and welcome immigrants will be critical to maintaining its demographic advantage.

Figure 2. Actual and projected population growth rates, 1950–2100.³

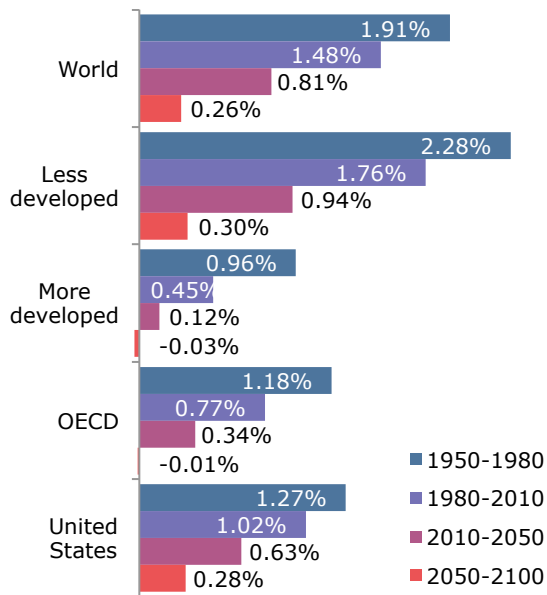
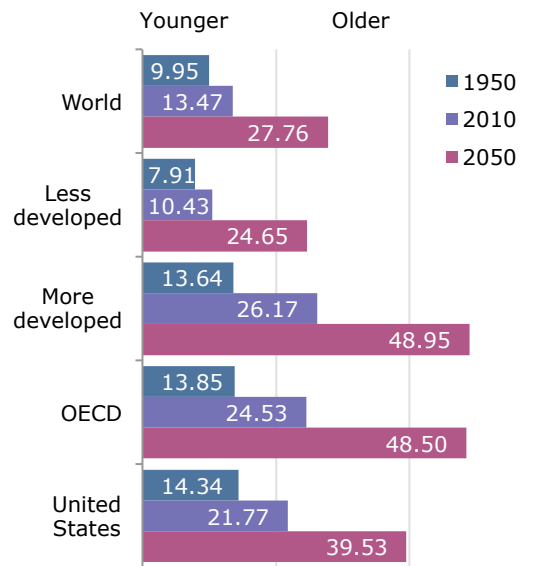
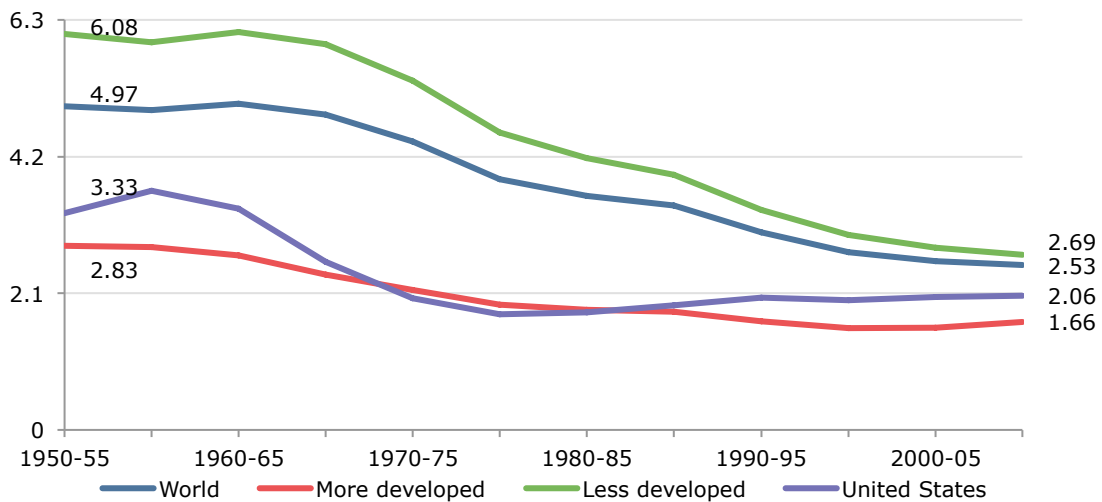


Figure 3. Actual and projected old age support ratio, 1950–2050.⁴



Note: the old age support ratio is the number of retirement-age people (65 or older) per 100 working-age people (20 to 64).

Figure 4. Five-year total fertility rates, 1950–2010.⁵



The Role of U.S. Immigration

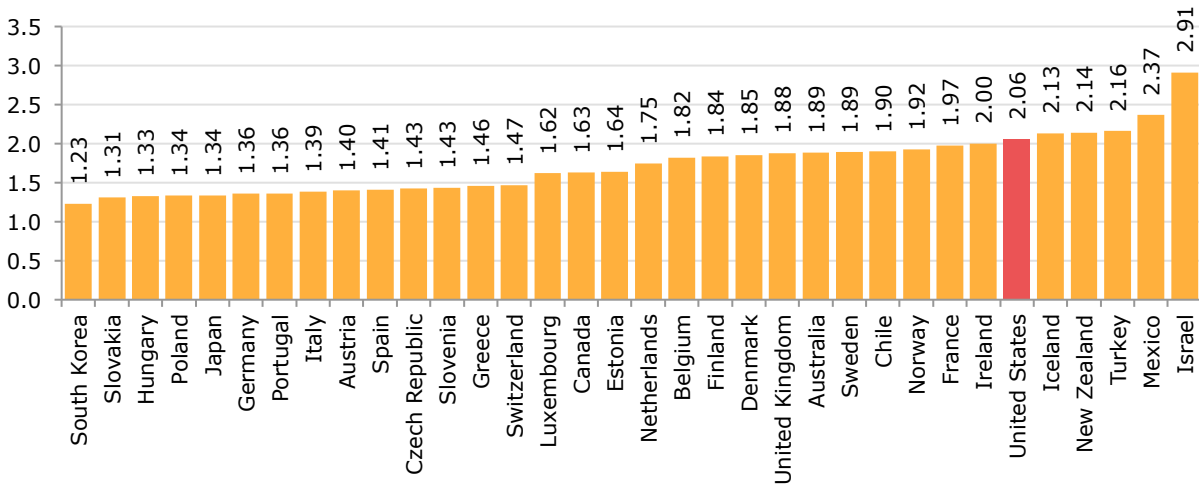
All developed countries face considerable demographic challenges, but the United States can expect healthier population growth and slower aging than other developed countries. The U.N. projects that the U.S. population will grow 0.63 percent annually between 2010 and 2050—more than five times faster than the overall rate for developed countries (Figure 2). The U.S. population is also projected to age more slowly. Its 2050 old age support ratio is projected to be about one-fourth lower (younger) than the overall ratios for developed nations and the OECD (Figure 3).

Immigration is an important reason why the United States can anticipate less severe demographic challenges than most other developed countries. Historically, the United States has tended toward more generous immigration policies than many other countries, admitting immigrants in larger numbers and integrating them more effectively. This approach to immigration has helped the United States maintain a younger population and a higher fertility rate. Moving forward, the United States can expect to maintain its demographic advantage—provided that America retains its historic edge in attracting immigrants, integrating them, and allowing them to reach their full economic potential.

Population growth. Every nation's rate of population growth has two main components: net international migration (immigrants minus emigrants) and natural increase (births and deaths).⁶ Immigration helps the United States outpace other countries on both components.

Immigrants accelerate the U.S. rate of natural population increase. Pew Research Center statistics reveal that in 2010, immigrants constituted 13 percent of the U.S. population but were responsible for 23 percent of all births. Immigrants gave birth to 87.8 children per 1,000 women aged 15 to 44 in 2010, nearly 50 percent higher than the non-immigrant rate of 58.9.⁷ High immigrant fertility helped the United States rank sixth among OECD nations in 2005-2010 (Figure 5). During that period, the U.S. total fertility rate (2.06 per woman) was 24 percent higher than the overall rate for developed countries (1.66 per woman) (Table A-1).

Figure 5. Total fertility rate for OECD countries, 2005–2010.⁸

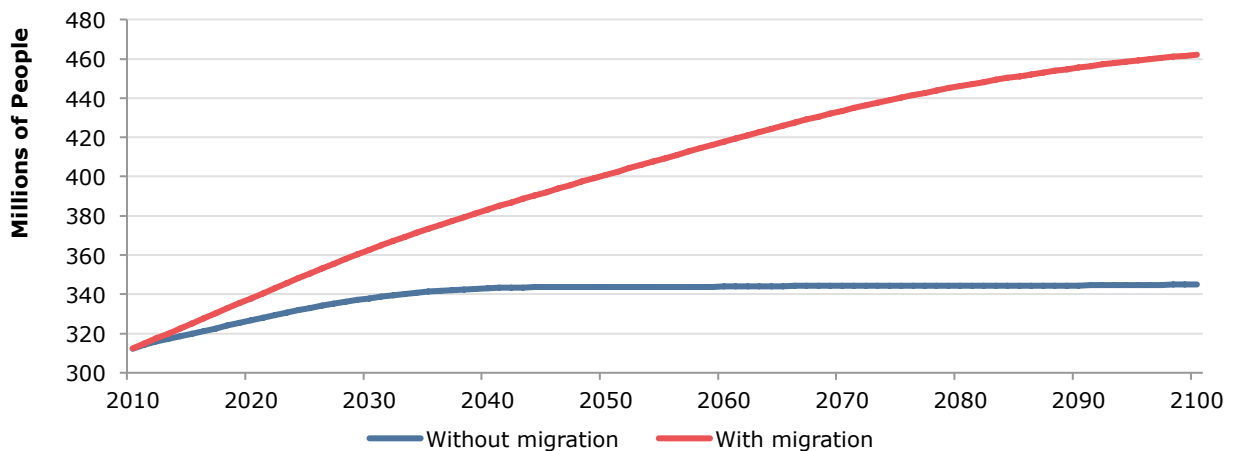


The United States also has an advantage on the other key component of population growth, net migration. During every half-decade between 1965–1970 and 2005–2010, the United States had more net international migrants than any other country in the world.⁹ For 2005–2010, the U.S. net international migration rate (3.42 per 1,000 population) was 20.7 percent higher than the overall rate for developed countries (Table A-1). Historically, the United States has had a greater advantage—for every half-decade between 1950–1955 and 1995–2000, the U.S. net migration rate was at least 70 percent higher.¹⁰ For most half-decades, the U.S. net international migration rate was more than double the developed countries’ rate.

These two factors make immigrants and their children vital to U.S. population growth. The Census Bureau predicted in May 2013 that net international migration will become the leading cause of U.S. population growth between 2027 and 2038.¹¹ When the children of immigrants are included, their role in sustaining population growth becomes more pronounced. Between 2000 and 2013, 57 percent of the population growth that took place in the United States was among immigrants or the children of immigrants.¹² In 2008, the Pew Research Center estimated that immigrants and their descendants will account for 82 percent of total U.S. population growth between 2005 and 2050.¹³

Without immigration, the U.S. population would stop growing within a few decades. In 2009, the Census Bureau projected that with zero net international migration, the U.S. population would begin to shrink by 2049.¹⁴ Similarly, the U.N. projects that the U.S. population would plateau around the year 2040 without immigration (Figure 6). Between 2010 and 2050, the U.S. population is projected to grow 0.63 percent per year, versus 0.24 percent without immigration.¹⁵

Figure 6. Projected U.S. population with and without migration, 2010–2100.¹⁶



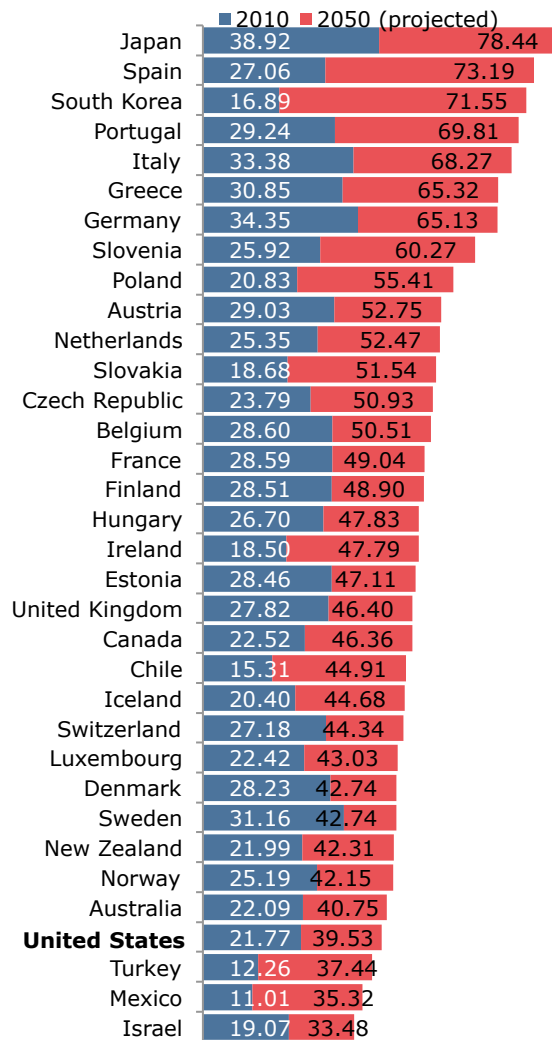
Ageing. Compared with other developed countries, the United States has experienced relatively slow ageing. A useful metric for ageing is the “old age support ratio,” defined here as the number of retirement-age individuals (65 or older) for every 100 working-age individuals (20–64). America’s 2010 old age support ratio was 21.8, versus 26.2 in all developed countries and 24.5 in the OECD.

Due in large part to immigrants and their high rates of fertility, the United States can expect its population to age more slowly than comparable countries over the next 40 years. While other developed countries and the OECD should anticipate their old age support ratios to rise to 49.0 and 48.5 in 2050, respectively, the United States can expect its ratio to increase to just 39.5 (Figure 4). Among the 34 OECD countries, the United States is projected to have the fourth-lowest old age support ratio and the fourth-lowest population share over 65 in 2050, trailing only Israel, Turkey, and Mexico on both metrics (Figure 7). While these figures represent a dramatic increase in old age dependence for the United States, they compare favorably to other developed countries whose populations are ageing more rapidly.

Immigration improves the aging picture in the United States through the same two ways it increases population: by boosting fertility and by annually adding young, working-age people to the population. On average, between 2003 and 2012, newly admitted immigrants were both younger and more likely to be of working age than non-immigrants (Figure 8). Just 5.1 percent were 65 or older, compared with 13.3 percent of the U.S-born population.

Each year’s wave of immigrants makes the United States younger. Based on Figure 8’s data, the overall immigrant population’s old age support ratio was 16.4 in 2011. This ratio would have ranked fourth-lowest among OECD countries in 2010, behind only Chile, Israel, and Turkey (Figure 7). The non-immigrant ratio of 23.3 would fall in the middle of the pack. As past immigrants age, newly admitted immigrants keep the overall foreign-born population relatively young—among newly admitted immigrants between 2003 and 2012, the annual average old age support ratio was just 7.2.¹⁷

Figure 7. Old age support ratios for OECD countries, 2010 and projected 2050.¹⁸



Moving forward, immigrants will make the U.S. population younger than it would have been otherwise. Between 2010 and 2060, the U.N. projects that the U.S. old age support ratio will increase 92 percent to 41.8 (Figure 9). Without migration, that ratio would more than double, rising 119 percent to 47.8 by 2060. This means that the number of elderly people per 100 working-age people would increase 30 percent more quickly without immigration.¹⁹

Figure 8. Age distribution of immigrants and U.S.-born citizens.

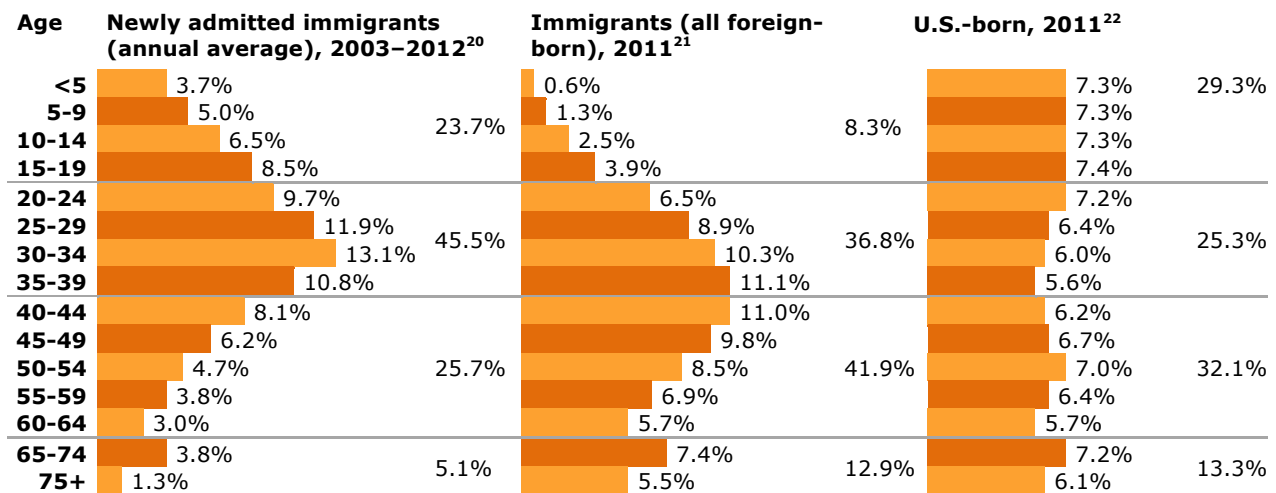
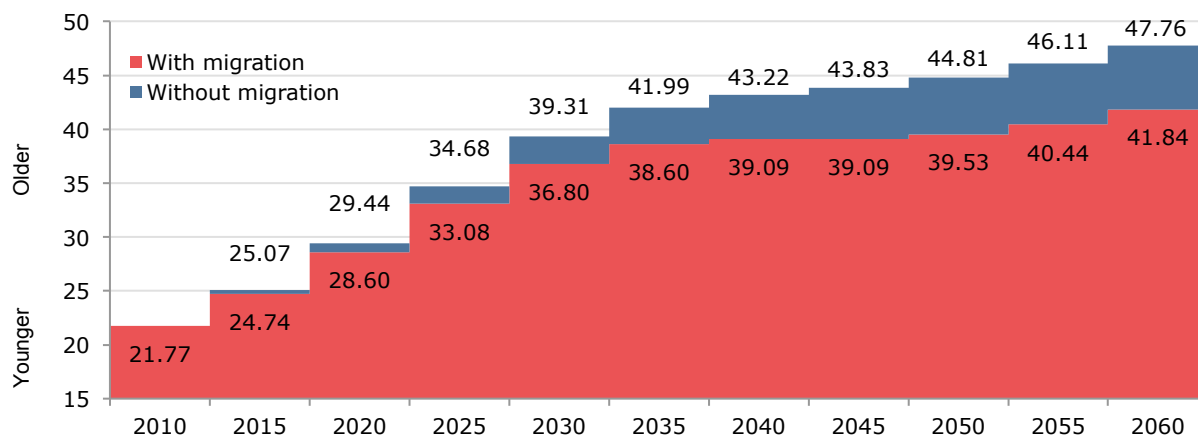


Figure 9. Projected U.S. old age support ratio with and without migration, 2010–2060.²³

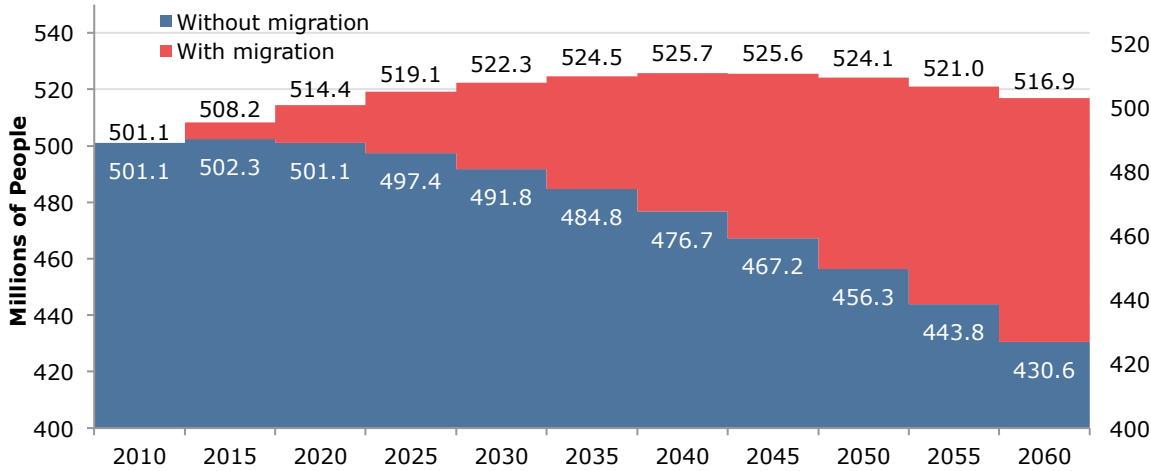


International Context

The United States faces challenges related to aging and population growth, but other developed nations are in a more difficult position. Throughout the developed world, population growth is slowing or stagnating even as aging accelerates. The demographic picture in several European and Asian nations illustrates the important role that immigration can play in sustaining healthy population growth and reducing the pace of aging.

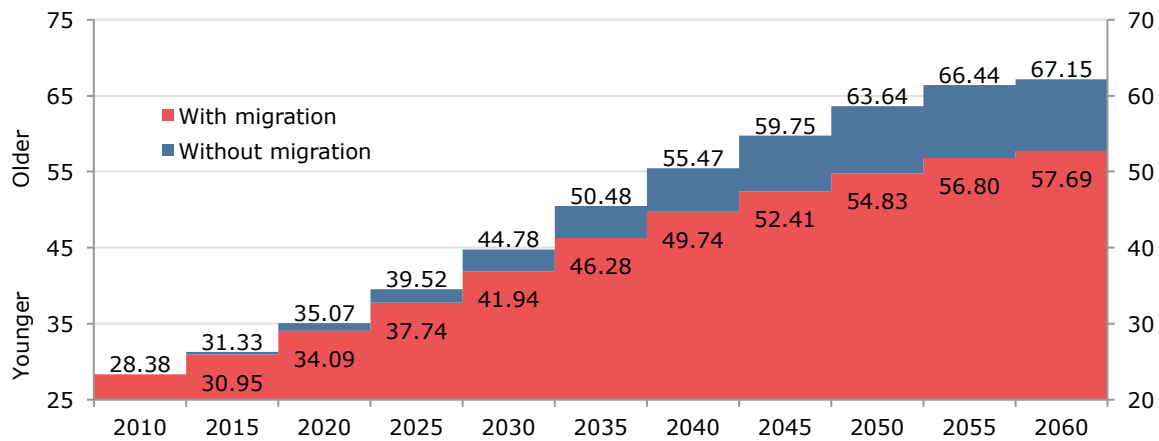
Europe has long been the poster child for demographic challenges. In the 27 European Union member states (EU-27), migration overtook natural increase as the leading cause of population growth in 1992.²⁴ In fact, Eurostat projects that immigration will be responsible for all EU-27 population growth over the coming decades (Figure 10). Without immigration, the EU-27 population would begin to decline between 2015 and 2020.

Figure 10. Projected EU-27 population with and without migration, 2010–2060.²⁵



Immigration also improves Europe’s aging picture. Based on Eurostat’s population projections, the EU-27 can expect its old age support ratio to increase by 103 percent between 2010 and 2060, rising to 57.69 (Figure 11). Without migration, the ratio was projected to increase by 137 percent, reaching 67.15 by 2060.

Figure 11. Projected old age support ratio for EU-27 with and without migration, 2010–2060.²⁶



Not all European nations face the same demographic trends. The United Kingdom’s net migration rate was relatively high in 2005–2010 (Figure 12), resulting in relatively healthy population and aging projections (Figure 13, Table A-1). Immigration is essential to this relatively healthy outlook. Without immigration, Eurostat projects that the U.K.’s 2010–2060 population growth rate would fall by 0.48 percent (Table A-2). In its 2013 *Fiscal Sustainability Report*, the U.K.’s Office of Budget Responsibility found that increasing immigration would boost GDP over every ten-year period from 2013–2023 to 2053–2063.²⁷ The report’s baseline scenario projected a debt-to-GDP ratio of 99 percent in 2063, but a “zero gross migration” scenario projected a ratio of 174 percent. The *Fiscal Sustainability Report* and a recent report from the Migration Observatory at Oxford University each showed that immigration sustains population levels and slows aging.²⁸

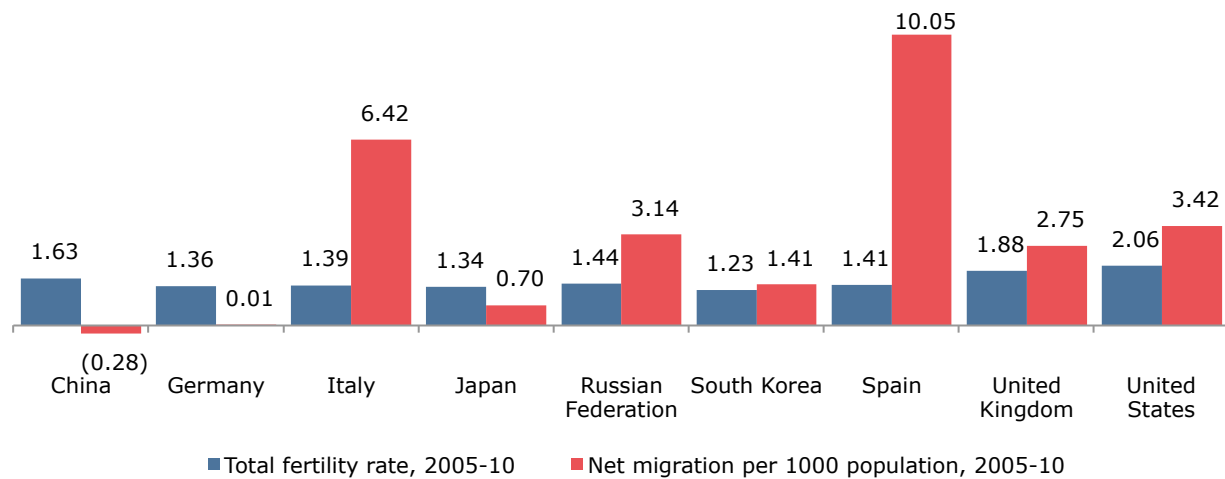
Germany stands in contrast to the United Kingdom. Its poor track record of integrating immigrants has been a key contributor to its present demographic crisis.²⁹ The U.N. projects that 2100 will see the German population contract to 85 percent of its 2000 level (Figure 13). This decline would be sharper without immigration. Eurostat projects annual population decline of 0.42 percent between 2010 and 2060, compared with 0.68 percent without migration (Table A-2). Germany is now looking to immigration as a way to avert demographic decline. At a May 2013 conference on German demographic challenges, Chancellor Angela Merkel stressed the need to “do more to be open to immigration.”³⁰

With fertility rates comparable to those found in Germany and Japan (Figure 12), Italy and Spain have sometimes been held up as examples of countries facing severe demographic challenges. However, each nation dramatically increased immigration in the 2000s, more than doubling their net migration rates.³¹ Although their projected rates of population growth still lag behind higher-fertility nations like France, the United Kingdom, and the United States, Italy and Spain can look forward to a brighter demographic future than other countries with similarly low fertility (Figures 12 and 13)—provided that they maintain high levels of net migration. Spain, however, has seen an immigrant exodus in response to its

recent economic crisis. This exodus caused the nation’s first population decline since official records began in the 1850s.³² If Spain cannot restore net migration to its 2000–2010 levels, its projected population will decline as well. Eurostat projects that, without migration, Spain’s expected population growth rate from 2010 to 2060 would fall from 0.26 percent to -0.40 percent (Table A-2).

Russia’s demographic outlook provides another cautionary tale. Its fertility rate plummeted after the Soviet Union’s collapse, bottoming out at 1.17 children per woman in 1999.³³ Since that time, its fertility rate has improved, thanks in large part to immigrants. Ethnic Russians are among the least-fertile ethnicities in the country, and a growing Muslim population is having children at a 50 percent higher rate than Russians overall.³⁴ Over the 1990 to 2010 period, when Russia’s population declined more than 3 percent, the Russian government reports that immigration “offset more than half of the natural decline in population.”³⁵ Russia will remain dependent on immigration moving forward. Based on U.N. projections, Russia’s expected population growth rate from 2010 to 2050 would fall from -0.43 percent to -0.57 percent without immigration.³⁶

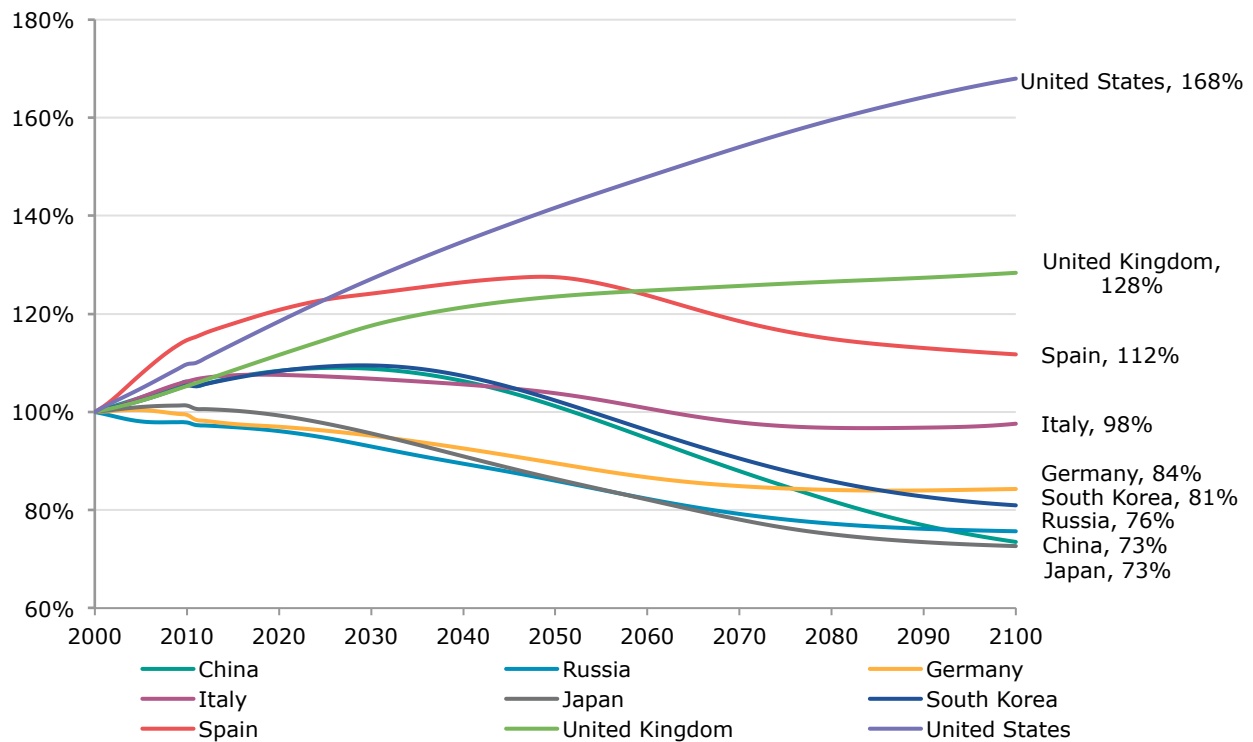
Figure 12. Total fertility rate and net international migration rate, 2005–2010.³⁷



In Asia, low fertility and immigration rates now threaten the demographic future of some of the continent’s most prominent economies. In fact, as of 2009, 57 percent of the world population living below replacement fertility lived in Asia.³⁸ China has long been a powerful engine of economic growth, and some expect its GDP to grow larger than that of the United States in the next several decades. However, the nation’s population policies and low-immigration rates may hold back future growth. With a fertility rate well below replacement levels and a negative rate of international migration (Figure 12), China’s population is projected to decline over the coming decades (Table A-1). By 2050, the share of its population over age 65 is projected to nearly triple to 24 percent (Table A-1). According to Citigroup economists Nathan Sheets and Robert A. Sockin, the aging of China’s population could reduce its rate of economic growth by as much 3 percentage points.³⁹ In an effort to

offset its looming demographic decline, the Chinese Communist Party recently announced a relaxation of its longstanding “one-child” policy.⁴⁰

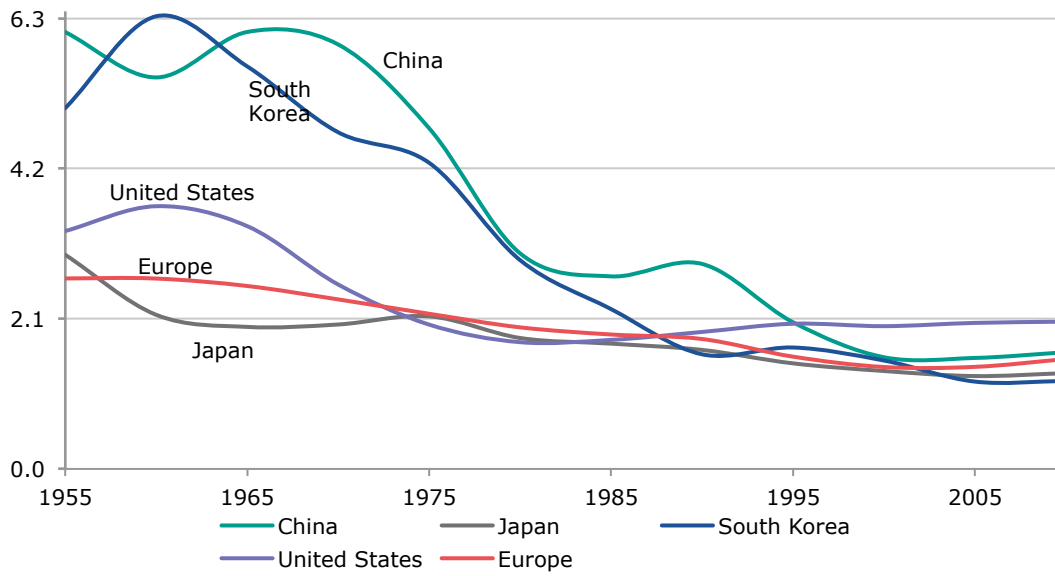
Figure 13. Actual and projected population relative to 2000 population, 2000–2100.⁴¹



Japan’s low fertility and immigration rates caused its population to decline between 2011 and 2012, a trend that is projected to continue over the coming decades. Between 2010 and 2050, the U.N. projects Japanese population contraction of 0.38 percent per year (Table A-1). By 2100, its population is projected to reach just 73 percent of its 2000 level (Figure 13). Japan can expect its 2050 old age support ratio to double that of the United States (Table A-1). Demographic trends are taking their toll on the Japanese economy. A May 2012 paper from the Bank of Japan estimated that between 1992 and 2006, aging caused a 1.8 percent decrease in real GDP and a 0.3 to 0.4 percent increase in unemployment.⁴²

South Korea developed rapidly after the Korean War. Since 1955, however, its total fertility rate has dropped even more precipitously than that of China or Japan—from 6.33 per woman during 1955–1960 to 1.23 during 2005–2010 (Figure 14). Additionally, South Korea has one of the world’s most restrictive immigration policies.⁴³ As a result, the U.N. predicts that South Korea will experience a steeper demographic decline than its Asian peers. Between 2010 and 2050, the U.N. projects that South Korea’s population will age more quickly than China or Japan (Table A-1). South Korea was the fourth-youngest OECD country in 2010, but it is projected to be the third-oldest by 2050 (Figure 7).

Figure 14. Historical five-year total fertility rates, 1950–1955 to 2005–2010.⁴⁴



Implications for Economic Growth, Public Finances, and National Security

Immigration's ability to sustain population growth and counteract aging trends has significant economic and fiscal implications. Immigrants can help grow the economy, reduce deficits, and support public benefit programs like Medicare and Social Security. In turn, immigration's fiscal and economic benefits have the potential to reverberate into global affairs.

Macroeconomists generally accept that two fundamental components determine economic output: (1) the number of workers, measured by the size of the labor force, and (2) output per worker, which is based on the productive technology in the economy. All else being equal, increasing either factor makes the economy larger. Although immigration has important implications for the second factor—for example, the effect of immigrants on innovation and entrepreneurship—demographic trends primarily affect the first factor. When population growth provides enough young people to replace elderly people who are leaving the workforce, the labor force can expand. Conversely, countries with rapidly aging populations and little or no population growth may not have an adequate supply of workers.

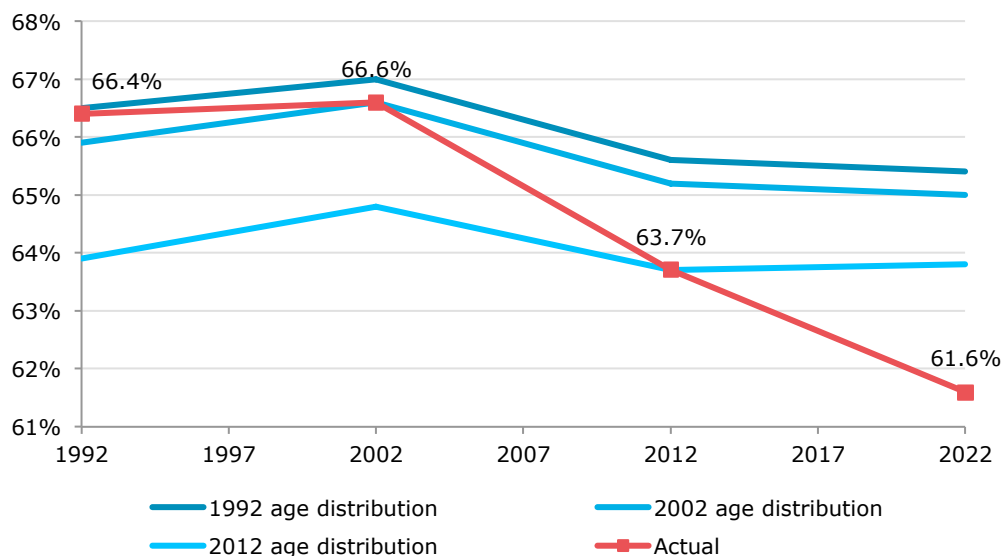
A healthy level of population and labor force expansion contributes to both the supply and demand sides of economic growth. On the supply side, a larger labor force means that more workers are available to produce goods and services, increasing the economy's growth potential. Just as significantly, a healthy level of population growth and labor force expansion creates additional demand: when more people live in a country, earning paychecks and purchasing goods, a larger market exists for businesses to sell their products. On the opposite end of the spectrum, countries with aging, stagnant, or shrinking populations have trouble maintaining the size of their labor force and consumer populations. With fewer workers available to produce goods and fewer consumers available to buy them, economic growth is constrained.

In this way, immigration's demographic effects—sustaining healthy population growth and reducing the rate at which society ages—promote economic vitality. Without immigration,

the U.S. population would grow much more slowly in the next few decades and would stop growing altogether by mid-century. Even after the population stopped growing, the proportion of elderly people in society would continue to increase, which would further reduce the number of workers available. Barring significant increases in the retirement age or hours worked, this would cause the labor force to shrink as well, leaving fewer workers to produce and consume goods and services. The resulting deficit of supply and demand creates downward pressure on GDP.

Demographic trends are already taking their toll on the U.S. labor force. The slowdown in population growth has decreased the number of new workers entering the economy, and aging is reducing the share of the population that is of working age. Figure 15 below illustrates that aging was responsible for much of the drop in labor force participation in the past decade and is at the root of the projected decline between 2012 and 2022.

Figure 15. Age-adjusted labor force participation rate, 1992–2012 and projected 2022.⁴⁵



Immigration helps counteract this trend. In fact, immigration’s implications for the labor force are so fundamental that the Congressional Budget Office (CBO) goes against its typical practice of holding GDP constant when analyzing immigration reform.⁴⁶ CBO explained in June 2013:

Cost estimates produced by CBO and JCT typically reflect the assumption that macroeconomic variables such as gross domestic product (GDP) and employment remain fixed at the values they are projected to reach under current law. However, because S. 744 would significantly increase the size of the U.S. labor force, CBO and JCT relaxed that assumption by incorporating in this cost estimate their projections of the direct effects of the bill on the U.S. population, employment, and taxable compensation.⁴⁷

By expanding the labor force and consumer population, immigration promotes economic growth. The BPC's October 2013 economic study found that immigration reform could expand the labor force by 4.4 percent over 20 years, resulting in 4.8 percent additional economic growth over that period.⁴⁸ CBO's June 2013 estimates of the Senate's immigration reform proposal found that GDP would be 3.3 percent higher than the baseline scenario by 2023. By 2033, GDP would be 5.4 percent above the baseline.⁴⁹

In part due to economic growth, immigration can also have positive fiscal impacts. BPC found that immigration reform would reduce the federal budget deficit by about \$1.2 trillion over the next 20 years.⁵⁰ Conversely, the study also found that relative to the baseline, an "enforcement-only" approach to immigration reform would reduce the population, lower GDP, and increase the federal budget deficit.

Public pension and health care entitlement programs benefit especially from immigration. As described above, immigrants are younger and have more children than U.S.-born citizens. This means that they disproportionately increase the working-age population, whose tax payments support retirees. On average, between 2002 and 2009, immigrants annually contributed a \$13.8 billion surplus to the Medicare trust fund, while U.S.-born individuals reduced trust fund balances by \$30.9 billion annually.⁵¹ In total, immigrants increased trust fund balances by \$115.2 billion over this time period. Immigration alone will not solve Medicare's fiscal and structural challenges, but immigrants play a clear and positive role in the program's finances.

Immigration also has positive fiscal implications for Social Security. In 1950, 16.5 workers supported each Social Security beneficiary (Figure 16). That ratio fell to 2.9 by 2012, and it is projected to fall to 2.1 in 2050. Immigration improves the worker to retiree ratio by adding workers to the economy, which in turn improves the program's fiscal outlook by increasing payroll tax revenues. Social Security's 2013 trustees report showed that compared with a high-immigration scenario, a low-immigration scenario would increase long-term actuarial deficits by 17 to 19 percent (Figure 17). This amount of deficit reduction would extend by two years the date when the trust fund is expected to be depleted. As with Medicare, immigration alone cannot solve Social Security's fiscal challenges, but it does offer significant benefits.

Figure 16. Actual and projected workers per retiree in the Social Security system, 1950–2050.⁵²

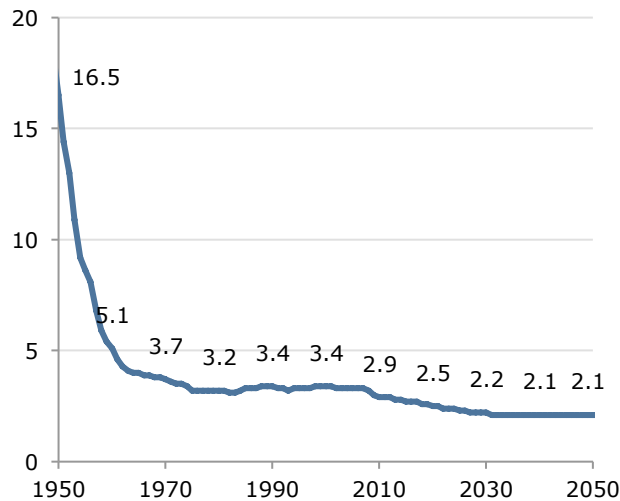
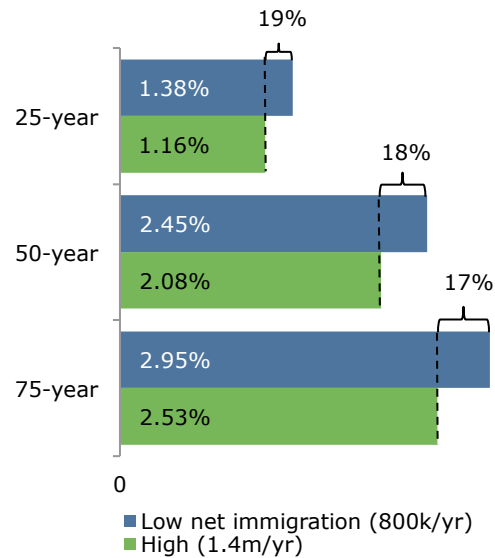


Figure 17. Projected Social Security actuarial deficit under alternate immigration scenarios (as a percent of taxable payroll).⁵³



By contributing labor and helping sustain economic growth, immigrants could be instrumental to helping the United States maintain its prominence in global affairs. The major findings from a Center for Strategic and International Studies report, *The Graying of the Great Powers*, emphatically place the importance of U.S. population growth in international context:

With its higher rates of fertility and immigration, the U.S. share [of the developed world’s population] will continue to grow in the future. ... The relative U.S. economic position will improve even more dramatically. As recently as the early 1980s, the GDPs of Western Europe and the United States (again, in purchasing power parity dollars) were about the same, each at 37 percent of total developed-world GDP. By 2050, the U.S. share will rise to 54 percent and the Western European share will shrink to 23 percent. ... By the middle of the twenty-first century, the dominant strength of the U.S. economy in the developed world will have only one historical parallel: the immediate aftermath of World War II. ... Many of today’s multilateral theorists look forward to a global order in which the U.S. influence diminishes. In fact, any reasonable demographic projection points to a growing U.S. dominance among the developed nations that preside over this global order.⁵⁴

Countries with brighter demographic futures have a competitive advantage in international affairs. A larger economy can increase a country's power in trade negotiations, the effectiveness of its economic sanctions, and the size of its military investments. Healthier budgets and less-burdened entitlement programs free up resources for other priorities, including defense spending and foreign aid. These and other factors make the U.S. immigration system an important power asset. If the United States uses its immigration system to support economic growth and fiscal health, it can expect to retain a relatively stronger position in the world.

Conclusion

Developed countries, including the United States, face significant demographic challenges. The working-age populations of these countries are stagnating or shrinking even as the number of elderly retirees rises. The United States will still face substantial aging- and population-related challenges in the coming decades, but among developed countries, America's higher rates of immigration and fertility place it in a relatively strong position.

Immigration sustains the U.S. population and mitigates the problems associated with aging. Immigrants are the most important factor in averting U.S. population stagnation not only because of their raw numbers, but because they have children at a 50 percent higher rate than people who are not immigrants. Without immigrants, the populations of both the United States and Europe would age much more quickly and begin to shrink by mid-century. Because each year's new immigrants are much younger than the rest of the population, immigration also makes the overall U.S. population younger.

The demographic advantage that the United States gains from immigration confers significant economic benefits. Immigration helps maintain and grow the U.S. labor force, which helps preserve economic vitality and promote growth. In turn, a more rapidly growing economy, wider tax base, and younger population have positive fiscal effects. Social Security and Medicare, which depend on current workers to support retirees, benefit especially from immigration. Immigrants improve the Medicare trust fund's fiscal health by about \$14 billion annually, and high-immigration scenarios significantly improve projections of Social Security's long-term fiscal health.

On top of these more obvious domestic benefits, immigration's economic and fiscal effects have significant implications on the world stage. Countries with faster-growing economies and healthier budgets have an easier time shaping world events and global markets. As the populations and economies of traditional powers stagnate and decline, immigration policy has the potential to help the United States maintain its global political, economic, and military primacy.

Appendix A. Summary Tables

All population, immigration, and aging statistics presented in Table A-1 are taken or calculated from the supplemental Excel tables contained in the 2012 edition of the United Nations' *World Population Prospects*. Table A-2 presents population projections with and without migration from the European Union's official statistical office, Eurostat.

Table A-1. Demographic and economic statistics and projections for selected countries and regions, 1990–2050.

Population	World	More devel.	OECD	U.S.	China	France	Germany	Italy	Japan	Portugal	Russia	S. Korea	Spain	U.K.
Population, 2010 (millions)	6,916.2	1,240.9	1,242.1	312.2	1,359.8	63.2	83.0	60.5	127.4	10.6	143.6	48.5	46.2	62.1
Annual change, 1990-2010	1.32%	0.39%	0.75%	1.03%	0.77%	0.53%	0.15%	0.31%	0.20%	0.34%	-0.16%	0.60%	0.86%	0.41%
Annual change, 2000-10	1.22%	0.39%	0.72%	0.93%	0.60%	0.66%	-0.06%	0.60%	0.13%	0.27%	-0.22%	0.53%	1.38%	0.52%
Annual change, 2005-10	1.21%	0.42%	0.71%	0.93%	0.62%	0.57%	-0.20%	0.62%	0.06%	0.15%	-0.04%	0.60%	1.26%	0.58%
Projected population, 2050 (millions)	9,550.9	1,303.1	1,425.4	400.9	1,385.0	73.2	72.6	60.0	108.3	9.8	120.9	51.0	48.2	73.1
Annual change, 2010-50	0.81%	0.12%	0.34%	0.63%	0.05%	0.37%	-0.34%	-0.02%	-0.40%	-0.18%	-0.43%	0.13%	0.11%	0.41%
Annual natural pop change, 2005-10 (millions)	80.4	1.7	5.8	1.8	8.7	0.3	-0.2	-0.0	-0.0	-0.0	-0.5	0.2	0.1	0.2
Annual per 1000 pop, 2005-10	11.98	1.36	-	5.80	6.50	4.07	-1.97	-0.25	-0.11	-0.40	-3.58	4.54	2.43	3.06
Fertility rate, 2005-10	2.53	1.66	-	2.06	1.63	1.97	1.36	1.39	1.34	1.36	1.44	1.23	1.41	1.88
Birthrate, 2005-10	20.09	11.41	-	13.97	13.05	12.68	8.38	9.47	8.69	9.74	11.32	9.64	10.86	12.51
Immigration	World	More devel.	OECD	U.S.	China	France	Germany	Italy	Japan	Portugal	Russia	S. Korea	Spain	U.K.
Annual net migration, 2005-10	-	3,482,400	2,876,848	1,044,962	-376,821	103,694	987	382,261	89,132	20,000	451,470	67,562	450,001	168,074
Annual per 1000 pop, 2005-10	-	2.84	-	3.42	-0.28	1.66	0.01	6.42	0.70	1.90	3.14	1.42	10.05	2.75
Immigrants, 2010 (millions)	214.2	127.8	112.2	42.8	0.7	6.7	10.8	4.5	2.2	0.9	12.3	0.5	6.4	6.5
Annual change, 1990-2010	1.62%	2.24%	2.86%	3.10%	3.05%	0.63%	3.02%	5.86%	3.59%	3.80%	0.31%	-0.34%	10.74%	2.80%
Annual change, 2000-10	1.85%	2.06%	2.56%	2.09%	3.05%	0.63%	0.75%	7.72%	2.58%	3.76%	0.31%	-0.60%	13.79%	3.02%
Share of total population, 2010	3.10%	10.30%	9.03%	13.71%	0.05%	10.57%	12.96%	7.38%	1.71%	8.67%	8.54%	1.10%	13.81%	10.39%
Aging	World	More devel.	OECD	U.S.	China	France	Germany	Italy	Japan	Portugal	Russia	S. Korea	Spain	U.K.
Old age dependency, 2010	13.47	26.17	24.53	21.77	12.74	28.59	34.35	33.38	38.92	29.24	19.90	16.89	27.06	27.82
Projected, 2050	27.76	48.95	48.50	39.53	42.46	49.04	65.13	68.27	78.44	69.81	36.04	71.55	73.19	46.40
Change, 2010-50	106.0%	87.1%	97.7%	81.6%	233.3%	71.5%	89.6%	104.5%	101.5%	138.7%	81.2%	323.7%	170.4%	66.8%
Under 20, 2010	35.4%	22.5%	25.4%	26.9%	26.1%	24.4%	18.6%	18.9%	18.0%	20.4%	21.1%	23.3%	19.7%	23.8%
Projected, 2050	28.2%	21.5%	21.5%	24.3%	19.7%	22.6%	17.0%	18.6%	16.9%	16.3%	22.6%	16.4%	18.3%	22.1%
Change, 2010-50	-7.2%	-1.0%	-3.8%	-2.6%	-6.4%	-1.8%	-1.6%	-0.3%	-1.2%	-4.1%	1.6%	-7.0%	-1.4%	-1.7%
Age 20-64, 2010	56.9%	61.4%	59.9%	60.0%	65.5%	58.8%	60.6%	60.8%	59.0%	61.6%	65.8%	65.6%	63.2%	59.6%
Projected, 2050	56.2%	52.7%	52.8%	54.3%	56.3%	51.9%	50.2%	48.4%	46.6%	49.3%	56.9%	48.8%	47.2%	53.2%
Change, 2010-50	-0.7%	-8.7%	-7.1%	-5.8%	-9.2%	-6.9%	-10.3%	-12.4%	-12.4%	-12.3%	-9.0%	-16.8%	-16.0%	-6.4%
Over 65, 2010	7.7%	16.1%	14.7%	13.1%	8.4%	16.8%	20.8%	20.3%	23.0%	18.0%	13.1%	11.1%	17.1%	16.6%
Projected, 2050	15.6%	25.8%	25.6%	21.4%	23.9%	25.5%	32.7%	33.0%	36.5%	34.4%	20.5%	34.9%	34.5%	24.7%
Change, 2010-50	7.9%	9.7%	10.9%	8.4%	15.6%	8.7%	11.9%	12.7%	13.6%	16.4%	7.4%	23.8%	17.4%	8.1%
Over 75, 2010	3.0%	7.4%	6.8%	6.0%	3.1%	8.9%	9.0%	10.1%	11.0%	8.5%	5.5%	4.2%	8.8%	7.9%
Projected, 2050	7.2%	14.4%	14.6%	11.9%	12.0%	15.6%	20.1%	20.7%	23.1%	19.4%	8.4%	21.1%	19.8%	14.2%
Change, 2010-50	4.1%	7.0%	7.7%	5.8%	8.9%	6.7%	11.1%	10.6%	12.1%	10.9%	3.0%	16.9%	11.0%	6.3%

Source: U.N. Population Division (2012). World Population Prospects: The 2012 Revision. Files FERT/3, FERT/4, MIGR/1, POP/1-1, POP/7-1. Available at: <http://esa.un.org/wpp/index.htm>.

Table A-2. EuroStat population projections, 2010–2060.

	Population, 2010		Projected population, 2060		Projected annual change, 2010-60		Difference
	With migration	Without migration	With migration	Without migration	With migration	Without migration	
European Union (27 countries)	501,084,516	516,939,958	430,561,409	0.06%	-0.30%	-0.37%	
European Free Trade Association	12,997,529	16,379,708	12,200,000	0.46%	-0.13%	-0.59%	
Austria	8,375,290	8,868,529	6,563,375	0.11%	-0.49%	-0.60%	
Belgium	10,839,905	13,445,216	10,266,188	0.43%	-0.11%	-0.54%	
Bulgaria	7,563,710	5,531,318	5,685,291	-0.62%	-0.57%	0.05%	
Cyprus	819,140	1,134,460	776,270	0.65%	-0.11%	-0.76%	
Czech Republic	10,506,813	10,467,652	8,485,807	-0.01%	-0.43%	-0.42%	
Denmark	5,534,738	6,079,838	5,282,874	0.19%	-0.09%	-0.28%	
Estonia	1,340,127	1,172,707	1,154,694	-0.27%	-0.30%	-0.03%	
Finland	5,351,427	5,744,452	5,029,924	0.14%	-0.12%	-0.27%	
France	64,658,856	73,724,251	68,155,902	0.26%	0.11%	-0.16%	
Germany	81,802,257	66,360,154	58,087,416	-0.42%	-0.68%	-0.26%	
Greece	11,305,118	11,294,664	8,902,133	0.00%	-0.48%	-0.47%	
Hungary	10,014,324	8,860,284	7,404,974	-0.24%	-0.60%	-0.36%	
Iceland	317,630	435,030	412,035	0.63%	0.52%	-0.11%	
Ireland	4,467,854	6,544,749	5,517,823	0.77%	0.42%	-0.34%	
Italy	60,340,328	64,989,319	45,073,686	0.15%	-0.58%	-0.73%	
Latvia	2,248,374	1,671,729	1,654,122	-0.59%	-0.61%	-0.02%	
Liechtenstein	35,894	38,328	33,287	0.13%	-0.15%	-0.28%	
Lithuania	3,329,039	2,676,297	2,795,647	-0.44%	-0.35%	0.09%	
Luxembourg	502,066	728,098	460,872	0.75%	-0.17%	-0.92%	
Malta	414,372	387,422	350,581	-0.13%	-0.33%	-0.20%	
Netherlands	16,574,989	17,070,150	15,718,046	0.06%	-0.11%	-0.17%	
Norway	4,858,199	6,587,061	5,214,480	0.61%	0.14%	-0.47%	
Poland	38,167,329	32,710,238	31,580,831	-0.31%	-0.38%	-0.07%	
Portugal	10,637,713	10,265,958	8,081,364	-0.07%	-0.55%	-0.48%	
Romania	21,462,186	17,308,201	16,682,087	-0.43%	-0.50%	-0.07%	
Slovakia	5,424,925	5,116,496	4,556,079	-0.12%	-0.35%	-0.23%	
Slovenia	2,046,976	2,057,964	1,636,620	0.01%	-0.45%	-0.46%	
Spain	45,989,016	52,279,310	37,582,881	0.26%	-0.40%	-0.66%	
Sweden	9,340,682	11,525,240	9,330,579	0.42%	0.00%	-0.42%	
Switzerland	7,785,806	9,319,289	6,540,198	0.36%	-0.35%	-0.71%	
United Kingdom	62,026,962	78,925,262	63,745,343	0.48%	0.05%	-0.43%	

Source: Calculated from Eurostat tables. See: Eurostat (2011) "EUROPOP2010—Convergence scenario, national level," European Commission. Three data tables used: "1st January population by sex and 5-year age groups (proj_10c2150p)," "No migration—1st January population by sex and 5-year age groups (proj_10c2150zmp)," and "Population on 1 January by age and sex (demo_pjan)." Accessed August 5, 2013. Available at: http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database.

Endnotes

- ¹ United Nations Population Division (2011) "World Population Prospects, The 2012 Revision." File POP/1-1. Accessed October 30, 2013. Available at: <http://esa.un.org/wpp/Excel-Data/population.htm>.
- ² Replacement fertility is the rate at which births are expected to replace deaths; therefore, in countries with high mortality, the replacement rate is higher. 2.1 is a widely accepted approximation and understates the number of nations that are below replacement. See: World Bank (n.d.) "World Development Indicators." Accessed December 1, 2013. Available at: <http://data.worldbank.org/indicator/SP.DYN.TFRT.IN>.
- ³ Calculated from U.N., "World Population Prospects: The 2012 Revision," File POP/7-1.
- ⁴ Calculated from U.N. statistics. See U.N., "World Population Prospects: The 2012 Revision," File POP/7-1.
- ⁵ U.N., "World Population Prospects: The 2012 Revision," File FERT/4.
- ⁶ For example, the U.S. Census Bureau's Population Clock includes births, deaths, and net international migration. Accessed May 13, 2013. Available at: <http://www.census.gov/popclock>.
- ⁷ Gretchen Livingston and D'Vera Cohn (2012) "U.S. Birth Rate Falls to a Record Low; Decline Is Greatest Among Immigrants." Pew Research Center. Accessed May 2, 2013. Available at: www.pewsocialtrends.org/files/2012/11/Birth_Rate_Final.pdf.
- ⁸ U.N., "World Population Prospects: The 2012 Revision," File FERT/4.
- ⁹ U.N., "World Population Prospects: The 2012 Revision," File MIGR/1. The U.S. ranked first for 1950–1955 and 1955–1960, and second for 1960–1965 behind France.
- ¹⁰ Calculated from U.N. statistics. See U.N., "World Population Prospects: The 2012 Revision," File MIGR/1.
- ¹¹ U.S. Census Bureau (2013) "International Migration is Projected to Become Primary Driver of U.S. Population Growth for First Time in Nearly Two Centuries." Press Release. Accessed May 16, 2013. Available at: <http://www.census.gov/newsroom/releases/archives/population/cb13-89.html>.
- ¹² Retrieved and calculated from Current Population Survey, March 2000 and March 2013. Extracted from IPUMS-CPS data available through the Minnesota Population Center, University of Minnesota. Variables used: nativity, "statefip." The immigrant contribution to population growth was calculated as the total change in the number of immigrants and their children, divided by the total change in the size of the population.
- ¹³ Jeffrey Passel and D'Vera Cohn (2008) "U.S. Population Projections: 2005-2050." Pew Research Center. Accessed May 2, 2013. Available at: <http://www.pewsocialtrends.org/2008/02/11/us-population-projections-2005-2050>.
- ¹⁴ U.S. Census Bureau (2009) "2009 National Population Projections (Supplemental): Summary Tables: Zero Net International Migration Series." Table 1. Accessed May 15, 2013. Available at: <http://www.census.gov/population/projections/data/national/2009/2009znmsSumTabs.html>.
- ¹⁵ Calculated from U.N., "World Population Prospects: The 2012 Revision," File POP/7-1 (medium fertility and zero migration).
- ¹⁶ U.N., "World Population Prospects: The 2012 Revision," File POP/7-1 (medium fertility and zero migration).
- ¹⁷ Old age support ratios for immigrants, non-immigrants, and newly admitted immigrants calculated from data underlying Table 2.
- ¹⁸ U.N., "World Population Prospects 2012," File POP/7-1.
- ¹⁹ $119.42 \div 92.23 = 1.295$. This means that on average, each year's projected increase in the old age support ratio was about 1.3 times greater in the no-migration scenario. This is equivalent to a 30 percent faster increase each year.
- ²⁰ Data compiled from Department of Homeland Security, *Yearbook of Immigration Statistics*, 2003–2012 editions. For 2005–2012, pertinent data come from Legal Permanent Residents Data Table 9; for 2003–2004, data come from Legal Permanent Residents Data Table 7. Available at: <http://www.dhs.gov/yearbook-immigration-statistics-2012-legal-permanent-residents>.
- ²¹ Seth Motel and Eileen Patten (2013) "Statistical Portrait of the Foreign-Born Population in the United States, 2011." Pew Research Center. Calculated based on Table 9. Accessed May 2, 2013. Available at: <http://www.pewhispanic.org/2013/01/29/statistical-portrait-of-the-foreign-born-population-in-the-united-states-2011>.

- ²² Ibid.
- ²³ U.N., "World Population Prospects: The 2012 Revision," File POP/7-1 (medium fertility and zero migration).
- ²⁴ Eurostat (2012) "Population and population change statistics." Source Data for Tables and Figures. Figure 2: Population change by component (annual crude rates), EU-27, 1960-2011 (per 1,000 inhabitants). Accessed August 4, 2013. Available at: http://epp.eurostat.ec.europa.eu/statistics_explained/images/9/99/Population_and_population_change_statistics_YB2013.xls.
- ²⁵ Calculated from Eurostat tables. See Eurostat (2011) "EUROPOP2010—Convergence scenario, national level." European Commission. Three data tables used: "1st January population by sex and 5-year age groups (proj_10c2150p)," "No migration—1st January population by sex and 5-year age groups (proj_10c2150zmp)," and "Population on 1 January by age and sex (demo_pjan)." Accessed August 5, 2013. Available at: http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database.
- ²⁶ Calculated from Eurostat tables. See Eurostat (2011) "EUROPOP2010—Convergence scenario, national level." European Commission. Three data tables used: "1st January population by sex and 5-year age groups (proj_10c2150p)," "No migration—1st January population by sex and 5-year age groups (proj_10c2150zmp)," and "Population on 1 January by age and sex (demo_pjan)." Accessed August 5, 2013. Available at: http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database.
- ²⁷ Office for Budget Responsibility (2013 July) *Fiscal sustainability report*. United Kingdom: The Stationary Office Limited. Available at: http://cdn.budgetresponsibility.independent.gov.uk/2013-FSR_OBR_web.pdf.
- ²⁸ Alessio Cangiano (2012) "The Impact of Migration on U.K. Population Growth." The Migration Observatory at The University of Oxford. Available at: <http://www.migrationobservatory.ox.ac.uk/sites/files/migobs/Briefing%20-%20Impact%20on%20Population%20Growth.pdf>.
- ²⁹ Iris Hoßmann (2010) "Ageing and Migration in Europe: Germany's New Politics towards Migration and Integration." In Wilhelm Hofmeister (ed.), *Ageing and Politics: Consequences for Asia and Europe*. Singapore: Konrad-Adenauer-Stiftung.
- ³⁰ Tony Czuczka (2013) "Merkel Aims to Boost Immigration in Break With Germany's Past." *Bloomberg*, May 14, 2013. Accessed May 22, 2013. Available at: <http://www.bloomberg.com/news/2013-05-14/merkel-aims-to-boost-immigration-in-break-with-germany-s-past.html>.
- ³¹ U.N., "World Population Prospects: The 2012 Revision," File MIGR/1. For both nations, the 2000–2005 and 2005–2010 rates were more than double the rate recorded in any other five-year period since 1950–1955.
- ³² Fiona Ortiz (2013) "Spain's population falls as immigrants flee crisis." *Reuters*, April 22, 2013. Available at: <http://www.reuters.com/article/2013/04/22/us-spain-population-idUSBRE93L0J620130422>.
- ³³ World Bank (n.d.) "World Development Indicators." Accessed December 1, 2013. Available at: <http://data.worldbank.org/indicator/SP.DYN.TFRT.IN>.
- ³⁴ Nicholas Eberstadt (2011) "The Dying Bear." *Foreign Affairs*, November–December 2011. Available at: <http://www.foreignaffairs.com/articles/136511/nicholas-eberstadt/the-dying-bear>. Daniel Pipes (2013) "Russia's Demographic Revolution." *The National Review*, October 22, 2013. Available at: <http://www.nationalreview.com/article/361804/russias-demographic-revolution-daniel-pipes>.
- ³⁵ U.N., "World Population Prospects: The 2012 Revision," File POP/1-1. Government of Russia (2012) "The President approved the Concept of the State Migration Policy of the Russian Federation for the period until 2025." Available at: <http://xn--d1abbgf6aiiy.xn--p1ai/acts/15635>.
- ³⁶ U.N., "World Population Prospects: The 2012 Revision," File POP/1-1
- ³⁷ See Table A-1.
- ³⁸ Naohiro Ogawa, Sang-Hyop Lee, Rikiya Matsukura, An-Chi Tung, and Mun Sim Lai (2012) "Population aging, economic growth, and intergenerational transfers in Japan: How dire are the prospects?" In Donghyun Park, Sang-Hyop Lee, and Andrew Mason (ed.s), *Ageing, Economic Growth, and Old age Security in Asia*, Asian Development Bank, 2012.
- ³⁹ N. Sheets and R. Sockin (2013) "Global Demographics: Emerging Markets to the Rescue?" Citi GPS. Accessed November 25, 2013. Available at: <https://www.citivelocity.com/citigps/OpArticleDetail.action?recordId=301>.
- ⁴⁰ S. Song (2013) "China's One Child Policy Relaxed: 10 Million More Babies in 5 years, \$790 Billion More Spent on Them," *International Business Times*. Accessed November 22, 2013. Available at: <http://www.ibtimes.com/chinas-one-child-policy-relaxed-10-million-more-babies-5-years-790-billions-more-spent-them-1482656>.
- ⁴¹ U.N., "World Population Prospects: The 2012 Revision," File 1 and Medium Fertility Variant File 1B.
- ⁴² Mitsuru Katagiri (2012) "Economic Consequences of Population Aging in Japan: Effects through Changes in Demand Structure." Tokyo, Japan: Institute for Monetary and Economic Studies, Bank of Japan. Accessed May 22, 2013. Available at: <http://www.imes.boj.or.jp/research/papers/english/12-E-03.pdf>.

⁴³ Marcus Noland (2014) "South Korea," *Foreign Affairs* January/February 2014. Washington, DC: Council on Foreign Relations. Accessed January 14, 2014.

⁴⁴ U.N., "World Population Prospects: The 2012 Revision," File FERT/4 and MIGR/1.

⁴⁵ Calculated using statistics from the Bureau of Labor Statistics. See: Mitra Toossi (2013) "Labor force projections to 2022: the labor force participation rate continues to fall." *Monthly Labor Review*. U.S. Bureau of Labor Statistics. Accessed January 10, 2013. Available at: <http://www.bls.gov/opub/mlr/2013/article/pdf/labor-force-projections-to-2022-the-labor-force-participation-rate-continues-to-fall.pdf>. Each year's age-specific labor force participation rates were applied to the age distributions for other years—for example, the "1992 age distribution" line supposes that no population aging occurred after 1992. This roughly isolates aging's impact on labor force participation.

⁴⁶ In addition to the 2013 estimates of S.744, CBO's 2006 analysis of S.2611 followed this convention. See: CBO (2013) "How CBO Would Analyze the Economic Effects of Proposals to Make Major Changes in Immigration Policy." Available at: <http://www.cbo.gov/publication/44109>.

⁴⁷ Congressional Budget Office (2013a) "Cost Estimate: S. 744 Border Security, Economic Opportunity, and Immigration Modernization Act." Washington, DC: Congressional Budget Office, p. 3. Accessed June 27, 2013. Available at: <http://www.cbo.gov/sites/default/files/cbofiles/attachments/s744.pdf>.

⁴⁸ Bipartisan Policy Center (2013) "Immigration Reform: Implications for Growth, Budgets, and Housing." Washington, DC: Bipartisan Policy Center. Accessed October 29, 2013. Available at: http://bipartisanpolicy.org/sites/default/files/BPC_Immigration_Economic_Impact.pdf.

⁴⁹ Congressional Budget Office (2013b) "The Economic Impact of S. 744, the Border Security, Economic Opportunity, and Immigration Modernization Act." Washington, DC: Congressional Budget Office.

⁵⁰ Bipartisan Policy Center (2013) "Immigration Reform: Implications for Growth, Budgets, and Housing." Washington, DC: Bipartisan Policy Center. Accessed October 29, 2013. Available at: http://bipartisanpolicy.org/sites/default/files/BPC_Immigration_Economic_Impact.pdf.

⁵¹ Leah Zallman, Steffie Woolhandler, David Himmelstein, David Bor, and Danny McCormick (2013) "Immigrants Contributed An Estimated \$115.2 Billion More To The Medicare Trust Fund Than They Took Out In 2002–09." *Health Affairs* 32.6, pp. 1377-84. Accessed June 27, 2013. Available at: <http://content.healthaffairs.org/content/early/2013/05/20/hlthaff.2012.1223.full.pdf+html>.

⁵² Social Security Administration (2013) "2013 OASDI Trustees Report," Table IV.B2. Accessed July 18, 2013. Available at: <http://www.ssa.gov/oact/tr/2013/lr4b2.html>.

⁵³ Social Security Administration (2013) "2013 OASDI Trustees Report," Table VI.D3. Accessed July 18, 2013. Available at: <http://www.ssa.gov/oact/tr/2013/lr4b2.html>.

⁵⁴ Richard Jackson and Neil Howe (2008) *The Graying of the Great Powers: Demography and Geopolitics in the 21st Century*. Washington, DC: Center for Strategic and International Studies. Accessed May 22, 2013. Available at: http://csis.org/files/media/csis/pubs/080630_gai_majorfindings.pdf.



BIPARTISAN POLICY CENTER

1225 Eye Street NW, Suite 1000
Washington, DC 20005
(202) 204-2400

WWW.BIPARTISANPOLICY.ORG