

## Economic Analysis

# Three Drivers of the U.S. Demographic Makeover

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- **Unprecedented challenges to economic growth from slower population growth and increased life expectancy**
- **Demographic paradigm creating a tradeoff between lower overall growth and policy intervention**
- **Diversity playing a greater role in policymaking, business decisions and output**
- **Short run costs of polarization and political friction in response to demographic changes outweighed by long-term benefits**

## Introduction

An increasingly gray and diverse population will foster a divergence of preferences on a scale never seen before in U.S. history. The population will be older; in less than two decades and for the first time ever, there will be more Americans over age 80 than under age five. In addition, the population will be more heterogeneous, and by 2050, the share of first and second-generation immigrants combined will reach a record high of 37%. While aging is expected to have a negative effect on potential output, diversity is expected to have a positive effect.

This demographic paradigm will shape politics and define how resources are collected and allocated between competing factions. The challenge for policymakers is to find common ground and reach compromises that improve basic education and healthcare, guarantee fiscal sustainability, promote private investment, modernize infrastructure, and insure opportunities for future generations. This will boost competitiveness and productivity, thereby maximizing the positive effects from diversity and mitigating the negative effects from aging. For businesses, the opportunity lies in understanding and adapting to the new consumption patterns of an older and more diverse population.

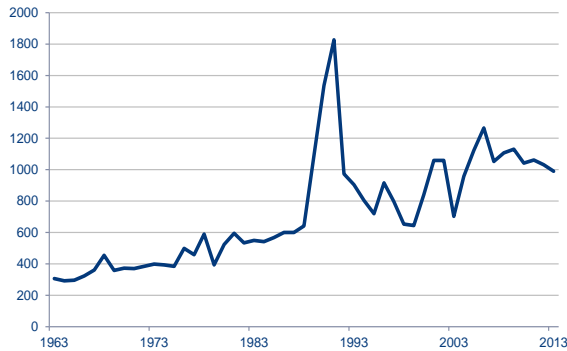
## 1. Population Growth

Population growth continues to slow and in two decades will be at its lowest level since 1918, a year beleaguered by influenza and the effects of World War I. According to the most recent Census Bureau projections, population growth in 2060 will be 0.46% per year, roughly half the current rate. Both a slower birth rate and a higher death rate contribute to the slowdown in natural population growth. In fact, 63% of this deceleration is explained by a jump in the mortality rate. An aging population is the main driver of the rise in mortality, and will continue to be the case in the foreseeable future.

During the heightened fertility of the Baby Boom (1946-1964), the birth rate averaged 24.2 per 1000 people; since 1964, the birth rate has been relatively steady, but at an average of only 15.3. The increasing age of women at first birth is a factor, as this affects the total number of children a woman will have in her childbearing years. In 2013, the average age of a mother at first birth was 26, whereas the average age was 21 in 1970. Higher educational attainment, increased focus on career advancement, and advanced fertility treatments are reasons for this increasingly common delay in childbearing.

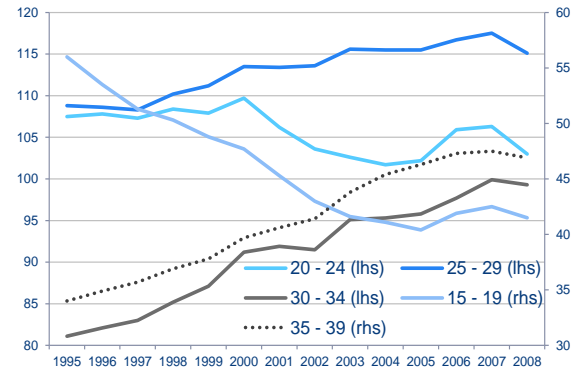
In addition, lawful immigration has slowed to one million people after reaching 1.3 million in 2006. Nevertheless, even if immigration rates remain stable, their contribution to total population growth will increase from 37% to 51% in three decades.

Chart 1  
**Persons Obtaining Legal Permanent Resident Status, Thousands**



Source: Department of Homeland Security/ Haver Analytics

Chart 2  
**Birth Rates by Age of Mother Births/1000 Women**



Source: U.S. Census Bureau

If these trends continue, long-term potential growth will be lower. However, just as in previous episodes, population dynamics can turn out very different than anticipated. For example, the mortality rate can stray from expectations as a result of a pandemic or a breakthrough in medicine. Likewise, new immigration legislation could slow or accelerate expected trends. According to the Census Bureau, population growth in 2060 could range between 0.37% and 0.62% depending on whether a low or high net international migration scenario is assumed.

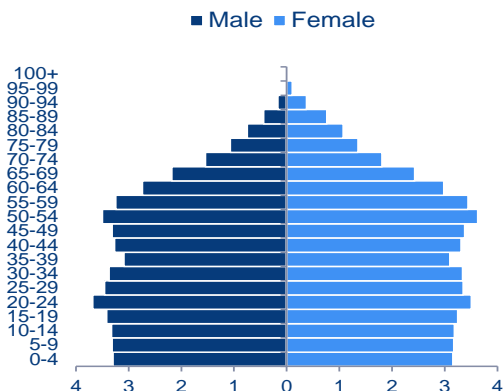
## 2. Life Expectancy

People are living longer. Life expectancy in 2013 was 78.8 years, whereas babies born 50 years ago were not expected to live past 71 years. This increase in life expectancy has been the catalyst for the rise in the median age from 26 to 37 in the last 80 years. On average, life expectancy is expected to reach 85.6 years by 2060. This is a function of advances in medicine which shift the leading cause of death away from infectious disease to noncommunicable disease, such as cancer and diabetes. In addition to medical developments, numerous studies have been released highlighting the role that nutrition and exercise play in promoting a long and healthy life. New technologies that can alter or replace stem cells to withstand DNA damage could further increase life span. Some experts believe that these anti-aging interventions can stretch lifespan to 120 years, while others believe that there is no limit. Assuming that the maximum threshold for life expectancy continues to rise, there must be either a natural increase in births or higher flows of immigration in order to slow the increase in the median age. Given these factors, it is apparent that some institutional programs implemented 50 to 100 years ago—labor market regulations, pensions and retirement systems—were made under different assumptions, and will be unsustainable without further reform.

However, while life expectancy in the U.S. has certainly risen over the past decades, it falls far short of the 10-year gain across OECD countries, and currently sits below the OECD average. High adult obesity rates in the U.S. explain part of the disparity, which at 35.3% of the adult population, is almost twice as high as the OECD average; death from cardiovascular disease and many cancers significantly increases with obesity.

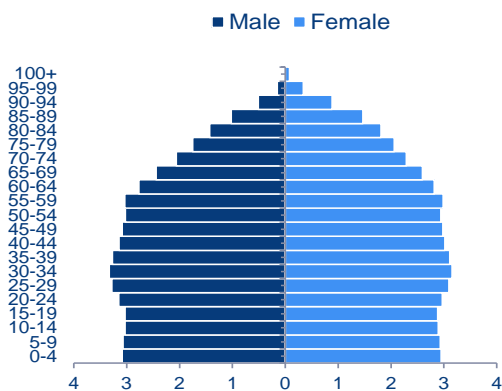
Unlike the slowdown in population growth and immigration flows, life expectancy at its current levels is a phenomenon for which the U.S. has no precedent, and thus no experience from which to draw upon. Lacking this experience, the ability to make accurate forecasts for the effects of longer lives on growth is diminished.

Chart 3  
**Population by Age Group, 2013**  
%



Source: U.S. Census Bureau

Chart 4  
**Population by Age Group, 2050**  
%



Source: U.S. Census Bureau

### 3. Diversity

Diversity as a concept encompasses more than just race and gender. Other dimensions of diversity include but are not limited to: age, ethnicity, political affiliation, language, educational background, and urban/rural classification. As a result of immigration flows and cross-cultural experiences, the nation's diversity has gained complexity since the first waves of mass immigration from the 1880s to the 1920s, and even from just 20 years ago.

Racially, the country is more diverse than during initial waves of immigration, as most immigrants then were white, with the exception of the Chinese prior to the Chinese Exclusion Act in 1882. Still, one could argue that racial diversity was present even then, when considering the disparities between the Native American, African, and Mexican populations and the predominantly white immigrants.

Ethnically, there is also a greater mix of cultures— in 1960, 75% of the foreign-born residing in the U.S. were European, whereas in 2012, that number was merely 11.8%. Before 1880, most immigrants hailed from either Northern and Western Europe (primarily Ireland or Germany) or China. Between 1880-1920, more Central, Eastern, and Southern Europeans, especially Italians and Jews from Eastern Europe, fled to the U.S. in search of religious and political freedom. There was another resurgence of immigration starting in the 1960s, in which an even broader set of ethnicities entered the U.S. Asian (Vietnamese, Cambodian), Caribbean (Cuban, Dominican), and Mexican immigrants were among the most populous foreign-born groups entering the nation at that time. Immigrants currently entering the U.S. are older than in previous waves. In fact, the foreign-born population is currently older than the native-born, with a median age of 42 vs. 35, respectively; young people ages 15 to 30 predominated during the earlier waves of immigration.

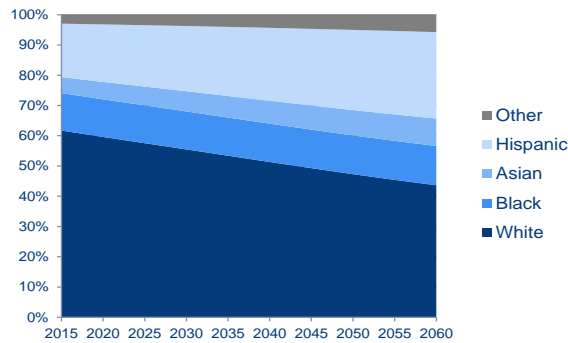
Also of note is the diversity of languages being spoken across the country as a result of immigration flows. From 1980 to 2010, there has been a 158% increase in the number of people who report speaking a language other than English at home. As in previous waves, the standard three-generation model of assimilation applies today

as well, with the first-generation primarily speaking their native language, the second-generation being bilingual, and the third-generation typically fluent in just English.

Increasing urbanization presents yet another layer of diversity to the picture. While the urban population has increased by 234% in the last 50 years, the rural population has gone up by just 4% in that time period. The prevalence of isolation and poverty in rural areas produces a distinct culture from that found in urban areas. Although American mainstream culture has pervaded rural areas thanks to the media, the degree of integration of rural Americans with the rest of population is just as relevant as when discussing ethnic diversity.

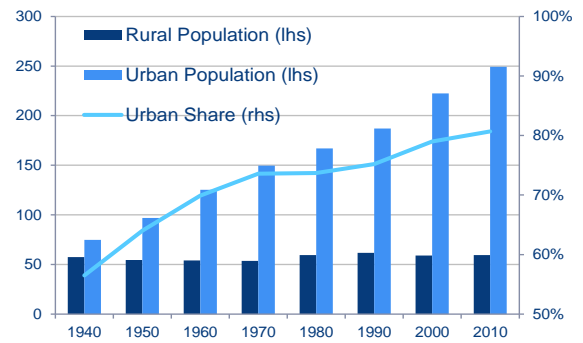
Politically, the nation has been subject to periods of extreme polarization. However over the last 30 years, both Republicans and Democrats have moved to the extremes of the ideological spectrum. In a recent poll, the Pew Research Center found that the typical Republican is now more conservative than 94% of Democrats, and that the typical Democrat is more liberal than 92% of Republicans. Changes in demographics are expected to further increase polarization as a result of different perspectives and biases. In spite of this polarization, the private sector has successfully evolved with changing demographics. In the future, it remains likely that solutions to demographic challenges will come from innovations in the private sector. For example, firms have responded to the skills gap by lobbying for increased quotas for high-skilled professionals from abroad. Although the primary intention of these efforts is profit maximization, they can ultimately lead to higher overall productivity and an indirect boost to social welfare.

Chart 5  
**Projected Distribution of Population by Race**  
%



Source: U.S. Census Bureau

Chart 6  
**Urban and Rural Populations**  
Millions (lhs), % (rhs)



Source: U.S. Census Bureau

The nation has made progress in advancing educational opportunities for its increasingly diverse population, but there is still a long way to go. The percentage of the population with a high school education has jumped over 60 percentage points in the last 70 years to 85%, with the share of those with bachelor's degrees up by 25 percentage points to reach 28%. While educational attainment has improved across race/ethnicities, significant achievement gaps still remain. Nativity also plays a role, with 89% of the native-born population completing high school versus just 68% of the foreign-born population.

However, a poorer level of educational attainment among the foreign-born is insufficient to defend lower productivity and growth, especially since subsequent immigrant generations go on to achieve educational standards similar to that of native-born. A key challenge brought on by greater diversity is improving basic education in order to integrate immigrants and allow them to get closer to fulfilling their version of the American dream.

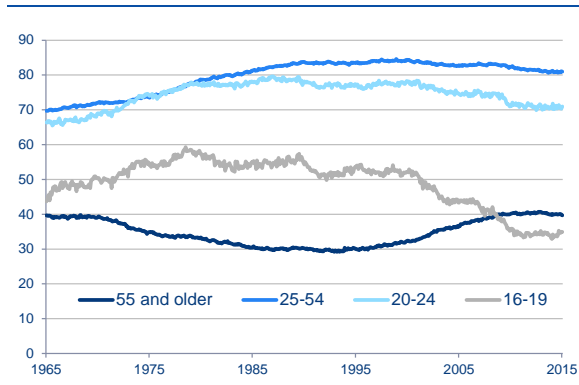
The U.S. has experienced waves of immigration before, along with increasing numbers of second-generation immigrants. Geographical openness and cultural diversity were essential to U.S. industrialization, and in modern times, are associated with technological innovation and human capital as key drivers of economic growth.

### Impact on U.S. Economic Growth

At first glance, it seems that at least slower population growth and increased life expectancy would lower potential output growth. Today, as in the late 1930s, some economists anticipate a period of secular stagnation unless population growth not only reverses its current decline, but also starts growing rapidly. In this presently unlikely scenario, which actually took place in the 1940s and 1950s, demand for real estate and other goods would rise and output would go up, avoiding stagnation altogether. On the other hand, greater cultural diversity could be beneficial for output given educational and immigration reform.

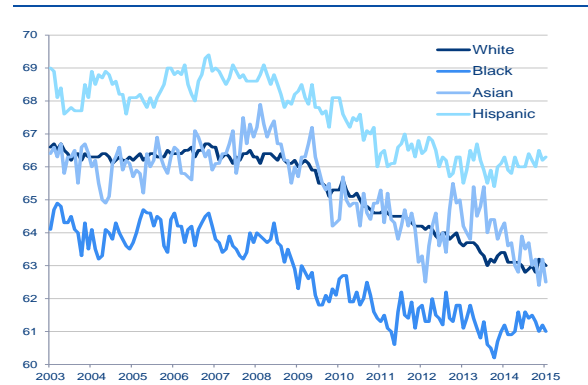
First, government expenditures tied to retirement such as Social Security, Medicare and public pensions will increase due to the aging population. To face these challenges, the government could reduce expenditures on other items; however, this could imply less spending on high-multiplier public goods such as infrastructure, public education and R&D. Thus, the net effect would be slower economic growth. In order to avoid reductions on public goods, the government would need to increase taxes. This could be problematic as well—the decrease in the labor force will restrict the tax base and thus increase the tax burden of future generations. Interestingly, higher immigration levels could soften the pressures on pensions, retirement and healthcare systems as the ratio of working adults to retirees would increase relative to the baseline scenario. A greater number of working-age adults would also be beneficial to revenues, private savings and domestic demand.

Chart 7  
**Civilian Labor Force Participation Rate, by Age SA, %**



Source: Bureau of Labor Statistics/ FRED

Chart 8  
**Civilian Labor Force Participation Rate, by Race SA, %**



Source: Bureau of Labor Statistics/ Haver Analytics

Second, declining labor force participation (LFP) results in lower output growth as this reduces the number of total hours worked and the demand for capital per unit of labor. All things considered, most of the decline in LFP reflects aging. The first baby boomers reached retirement age in 2011, and 8,000 boomers per day are expected to follow suit over the next 18 years. As a result, there are projected to be only 1.7 workers per beneficiary in 2060, versus a ratio of 8.6 in the 1950s. The only age group with an increasing LFP rate is the 55 and older cohort. Older Americans are choosing to work longer in order to save the money they need for a longer retirement. Higher levels of immigration could help reduce some pressures on declining LFP because the two

largest immigrant groups, consisting of Asians and Hispanics, tend to have relatively higher levels of participation.

However, the drop in the LFP rate may not be entirely negative. For example, LFP among young adults, specifically 16-19 year olds, is at its lowest level since 1965, and is currently 20 percentage points lower than it was 30 years ago. One factor for the decreased participation of young adults is increased full-time enrollment in postsecondary education, which rose 38% between 2001 and 2011. In this case, declining LFP may not be negative if it leads to a better-skilled labor force in the future.

Third, for the U.S. as a whole, a more culturally diverse workforce seems to be a highly positive advantage in an increasingly globalized world. Companies will be able to tap more markets with greater efficiency by having employees knowledgeable of local customs and cultural factors. At the firm level, diversity could be relevant if it translates into higher innovation and productivity. For example, nearly 40% of *Fortune 500* firms were founded by immigrants or their children, and a quarter of tech start-ups have at least one immigrant founder. Now, as in the past, greater inherent (ethnic) and acquired diversity (via cross-cultural experience) among employees is expected to enhance innovation in the private sector, resulting in higher productivity and performance.

Finally, demographic shifts can yield either positive or negative returns for corporations depending on whether they adjust to diverging preferences. In fact, preferences vary greatly by age, employment status, and ethnicity and anticipating the trends can provide value when developing new products and services to meet customer needs. In particular, the financial services industry could learn from other industries that have incorporated demographic trends to their business models such as the healthcare, food, media, and the real estate industries.

The healthcare industry must prepare for greater demand from an aging population. For example, pharmaceutical companies have already geared many of their advertisements towards the elderly. Similarly, the real estate industry has already experienced the impact of aging, as the number of age-restricted developments under construction has multiplied. In addition, the food industry has responded to greater cultural infusion; for example, a greater proportion of grocery stores have international food aisles, especially in ethnically diverse neighborhoods. Likewise, the media industry has adapted to a broader set of tastes and preferences through the presence of more foreign-language programming. By speaking directly to an older and more diverse population, businesses can build a closer relationship with their customers. For some business and industries, these trends may not have a significant impact and therefore it may not be as relevant to their strategy and future successes.

## Bottom Line

Going forward, the U.S. population will be larger, older, and more diverse. Immigrants and their children will add significantly to the diversity and size of the population, yet population growth is expected to continue its decline as delayed parenthood leads to lower birth rates. Life expectancy will keep increasing with continued advances in medicine, especially in the area of cancer treatments. However, unlike previous generations, older Americans are expected to work longer, playing a key role in buoying labor force participation. These shifts imply a reallocation of resources that will likely add to existing fiscal strains and challenge the sustainability of large federal entitlement programs. Focusing on boosting long-term potential and productivity through sound fiscal policies, education reform, investment in infrastructure, and prudent immigration policies over risk-averse stopgap solutions will ease these pressures. In terms of capturing the benefits from diversity, there is still much progress to be made. Public institutions will be responsible for creating programs and policies that enhance an increasingly diverse society, but at the same time, there must be a demand from the voters reflecting a willingness to genuinely embrace diversity in its many forms. However, in the short-run, disparate demands between demographic cohorts will make the transition costly. Nevertheless, with a nudge from policymakers, and



as individuals have more exposure to demographic shifts, these frictions are likely to recede and may even lead to a new consensus over the long-term. This has been the case through U.S. history.

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