

Projections of the labor force to 2050: a visual essay

Mitra Toossi

The U.S. labor force, which consists of people who are either employed or actively seeking employment, has undergone tremendous change in the last six decades. Over this period, the high labor force growth rate of the 1970s to 1990s was replaced by a much lower growth rate since 2000. Major demographic factors—including slower population growth, the aging of the U.S. population, the leveling off of the labor force participation rate, and increasing diversity within the population—have been responsible for these changes. BLS long-term projections point to a slower rate of growth of the labor force over the next four decades.

A series of charts in this visual essay presents an overview of the trends in the civilian labor force and civilian labor force participation rates for a period of 100 years from 1950 to 2050. These charts highlight the dramatic changes that have affected the labor force in the past and how these changes will shape the labor force in the coming years. The historical 1950–2011 demographic data are based on the Current Population Survey.¹ The 2008 National Population Projections have been used as the basis for the BLS long-term labor force projections.² These labor force projections are a continuation of the 2010–2020 medium-term labor force projections, which can be found on the BLS website at <http://www.bls.gov/opub/mlr/2012/01/art3full.pdf>.

The slower growth of the labor force over the past two decades, especially since 2000, is mainly the result of two intertwined factors:

- *Slower growth of the population.* Population is the single most important factor in determining the size and composition of the labor force. The slower growth of the population is primarily the result of the aging of the U.S. population.
 - *A downward trend in the labor force participation rate.* After nearly five decades of steady growth, the overall participation rate—defined as the proportion of the civilian noninstitutional population in the labor force—peaked at an annual average of 67.1 percent for each year from 1997 to 2000. Since then, the labor force participation rate declined gradually, falling to 64.1 percent by 2011, a drop of 3.0 percentage points. By September 2012, the rate had dropped further, to 63.6 percent.
- Some important factors that have reduced the labor force participation rate are the following:
- *Participation of the baby boomers.* The overall labor force participation rate is on the decline as roughly 77 million baby boomers gradually move from the prime age group of 25-to-54-year-olds with its high participation rate (above 80 percent) to older age groups with much lower participation rates (around 40 percent for the age group 55 and older).
 - *The declining participation rate for the 25-to-54 age group.* Although this group exhibits the strongest attachment to the labor market, the participation rate for this age group has been declining since 2000, and the rate is projected to decline further in the future.
 - *The declining participation rates for teenagers and young adults.* The participation rates of both 16-to-19- and 20-to-24-year-olds have decreased sharply over the past several decades, and their rates are expected to decline further, although at a slower rate.
 - *The decreasing participation rate of women.* The participation rate of women peaked in 1999 after several

decades of strong growth. Since then, their rate has been declining slowly and is expected to continue to post small declines in the future.

- *The declining participation rate of men.* The participation rate of men has been steadily declining since its high point in the 1940s, and this trend is projected to continue throughout the coming decades.

The participation rate, like other labor market indexes, is affected by cyclical, structural, and demographic factors. Cyclical changes are changes that happen in response to

business cycles and are generally short term. For example, the recession of 2007–2009 lowered the participation rates of many age, gender, race, and ethnic groups. Historically, structural and demographic changes have long-term impacts. Therefore, the expected shift of the population into older age groups—a demographic change—will have long-lasting effects on the labor market.

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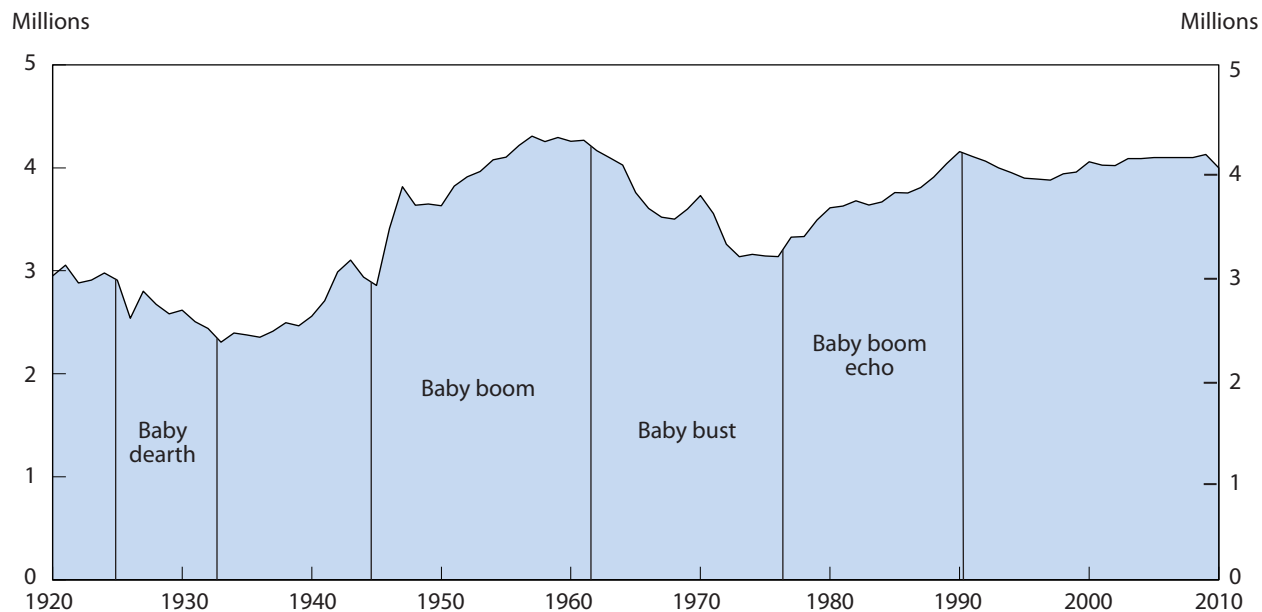
Notes

¹ The Current Population Survey, a monthly survey of households, is conducted by the Bureau of the Census for the Bureau of Labor Statistics. The survey provides statistics on the employment and labor force status of the civilian noninstitutional population 16 years and older and is collected from a probability sample of approximately 60,000 households. The civilian noninstitutional population comprises people 16 years and older residing in the 50 states and the District of Columbia who are not inmates of institutions (e.g., penal and mental facilities, homes for the aged) and who are not on active duty in the Armed Forces. In addition, charts 4–6 also include people ages 0 through 15.

² The Census Bureau recommends its 2008 National Popula-

tion Projections for data users. See “U.S. Population Projections: 2008 National Population Projections,” <http://www.census.gov/population/projections/data/national/2008.html>. The 2009 National Population Projections are a supplemental series to the 2008 National Projections released on August 14, 2008; the 2009 projections provide results for differing assumptions of net international migration. All other 2009 methodology and assumptions, including mortality and fertility, are the same as those used in the 2008 National Population Projections. The four 2009 series are useful for analyzing potential outcomes of different levels of net international migration but lack the detailed age, gender, race, and ethnic data needed for the BLS labor force projections.

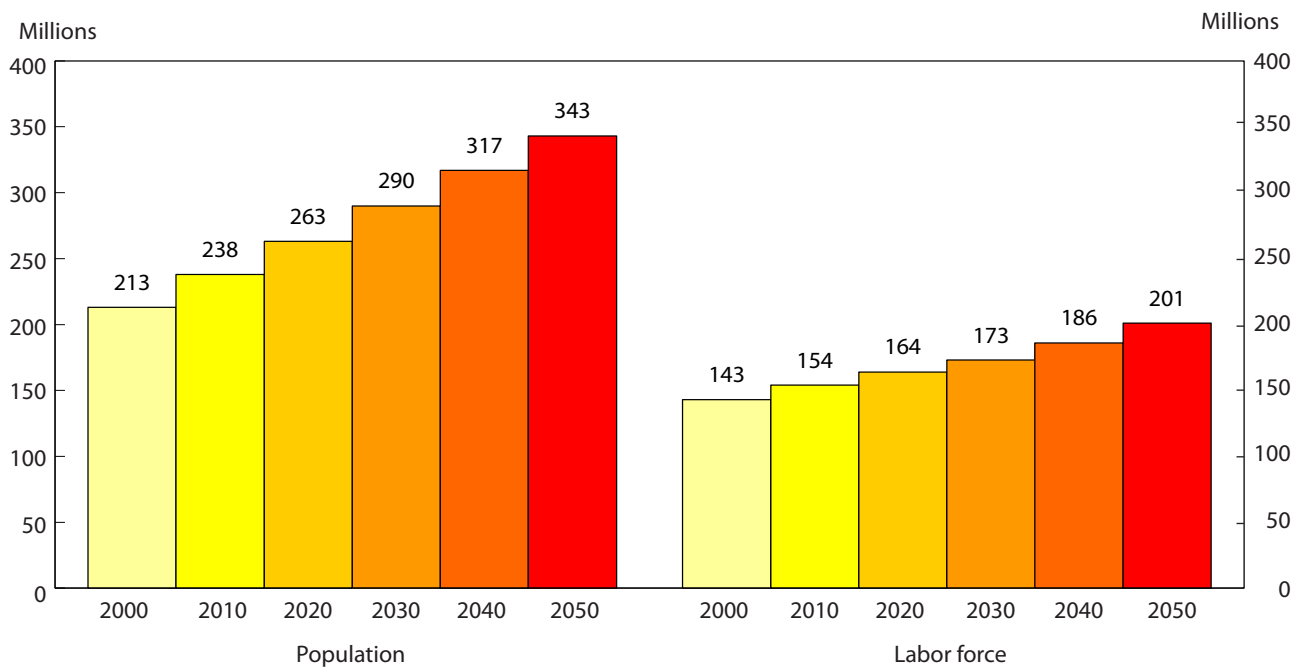
1. Live births by year, 1920–2010



SOURCE: National Center for Health Statistics, Centers for Disease Control and Prevention.

- Since the beginning of the 20th century, four distinct birthrate patterns in the United States have created significant demographic changes with long-lasting impacts on future labor markets. These demographic patterns can be traced chronologically as follows:
 - The birth dearth—a reduction in birthrates during the late 1920s and early 1930s
 - The baby boom—a surge in birthrates from 1946 to 1964
 - The baby bust—a slight reduction in birthrates from 1965 to 1975
 - The baby boom echo—an increase in birthrates from the early 1980s through the early 1990s
- The boom-and-bust pattern of U.S. birthrates throughout the past decades greatly influenced the size and demographics of the present labor force and will influence the future labor force as well.

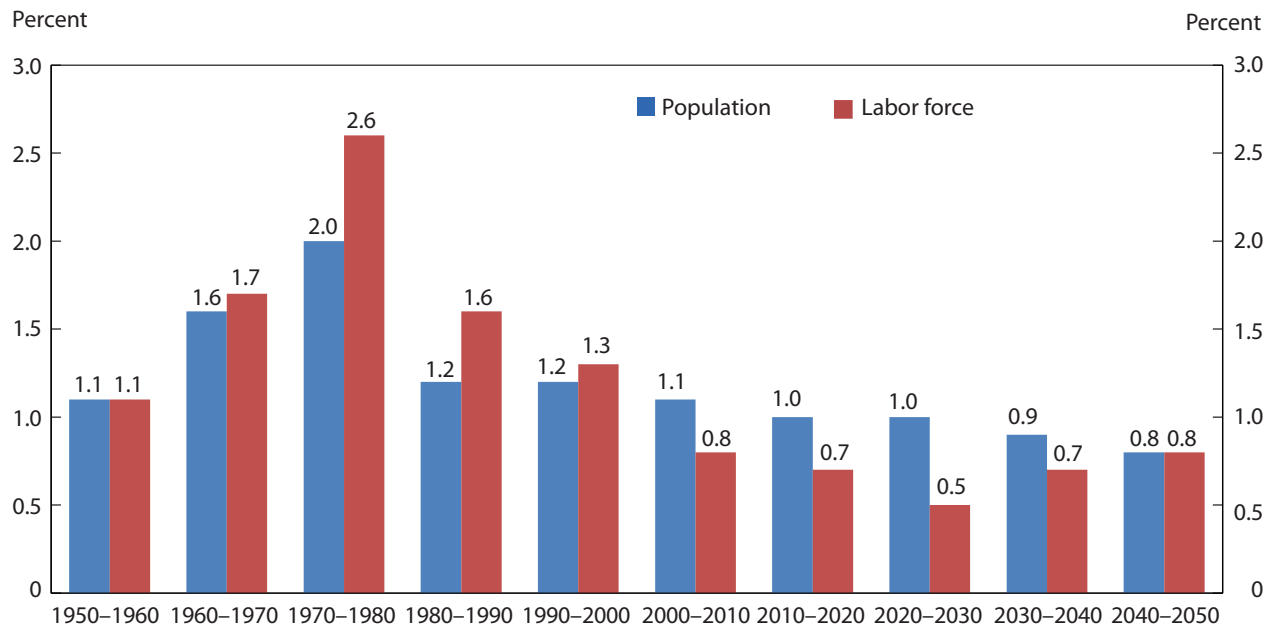
2. Population and labor force, 2000, 2010, and projected 2020, 2030, 2040, and 2050



SOURCE: U.S. Bureau of Labor Statistics.

- Changes in the rates of birth, death, and migration to and from the United States will continue to shape the size and composition of the population over the next four decades. The civilian noninstitutional population ages 16 and older is projected to grow steadily and reach 343 million by 2050.
- The labor force participation rate—the proportion of a population group that is in the labor force—differs by age, gender, race, and ethnic origin. Although labor force participation rates for specific groups change over time, the historical statistical relationships are fairly consistent across age groups, between the genders, and among race and Hispanic-origin groups.
- Changes in both the population and the labor force participation rate over the next four decades will affect the size and composition of the labor force. As a result of these changes, the labor force is projected to grow to 201 million by 2050.

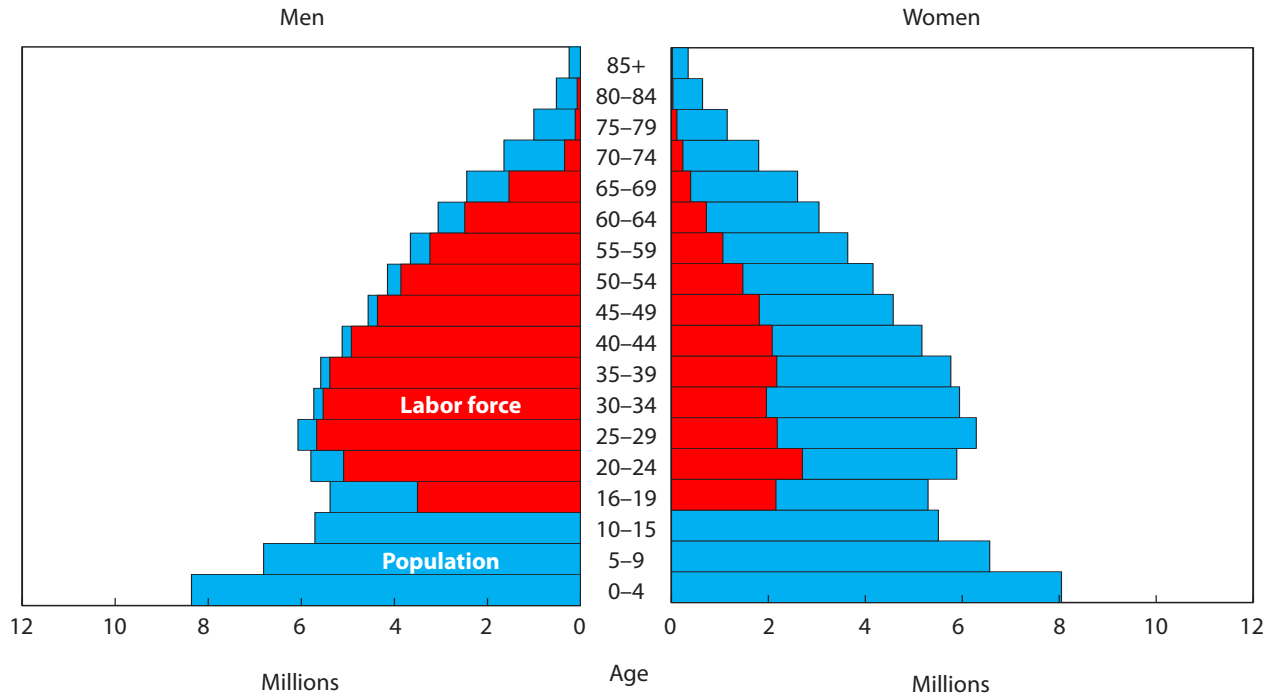
3. Annual population and labor force growth rates by decade, 1950–2010 and projected 2010–2050



SOURCE: U.S. Bureau of Labor Statistics.

- Even though the size of the population will grow, its annual growth rate is projected to slow down in the coming decades. The decline in the growth rate of the U.S. population is due to a variety of factors, such as the aging of the baby boomers, declining fertility rates, and a lessening of the growth in immigration.
- During the 1970s, the annual growth rate of the labor force peaked at 2.6 percent. This high growth rate was caused by the entrance of the large baby boom generation into the labor force and the steep rise in the participation rate of women. In the 1980s, the continued absorption of the baby boomers into the job market kept the participation rate relatively high, and the labor force grew by 1.6 percent.
- In the 1990s, a gradual slowdown occurred in the growth of the labor force because nearly all baby boomers had entered the labor force; the growth rate during this period decreased to 1.3 percent. Since 2000, as a result of the shift of population to older age groups with lower participation rates, the growth rate of the labor force began to slow down even more. The annual growth of the labor force dropped to 0.8 percent over the 2000–2010 decade.
- The high growth rate of the labor force in the 1950–2000 period will be replaced by a much lower growth rate throughout the five decades that follow. During the 2000–2050 period, the annual growth rate of the labor force is expected to fall to 0.7 percent.

4. Population and labor force, 1950



SOURCE: U.S. Bureau of Labor Statistics.

- Population pyramids show the age and gender composition of the population and the labor force. In a country with high fertility and high mortality, the shape is like a pyramid. In this chart, the baby boom generation is in the age group 0 to 4, and the birth dearth generation is reflected in the 16-to-19 and 20-to-24 age groups.
- In 1950 as well as in later years, there were more baby boys born than baby girls. However, the higher mortality of males results in the population of men and women being the same size around age 24. Overall, there is a larger number of older women than older men in the population.
- The pyramid also shows the labor force of men and women in 1950. The difference in the shape of the male labor force and female labor force is the result of the different participation rates of the genders. In 1950 the participation rate for men (86.4 percent) was more than double that for women (33.9 percent).

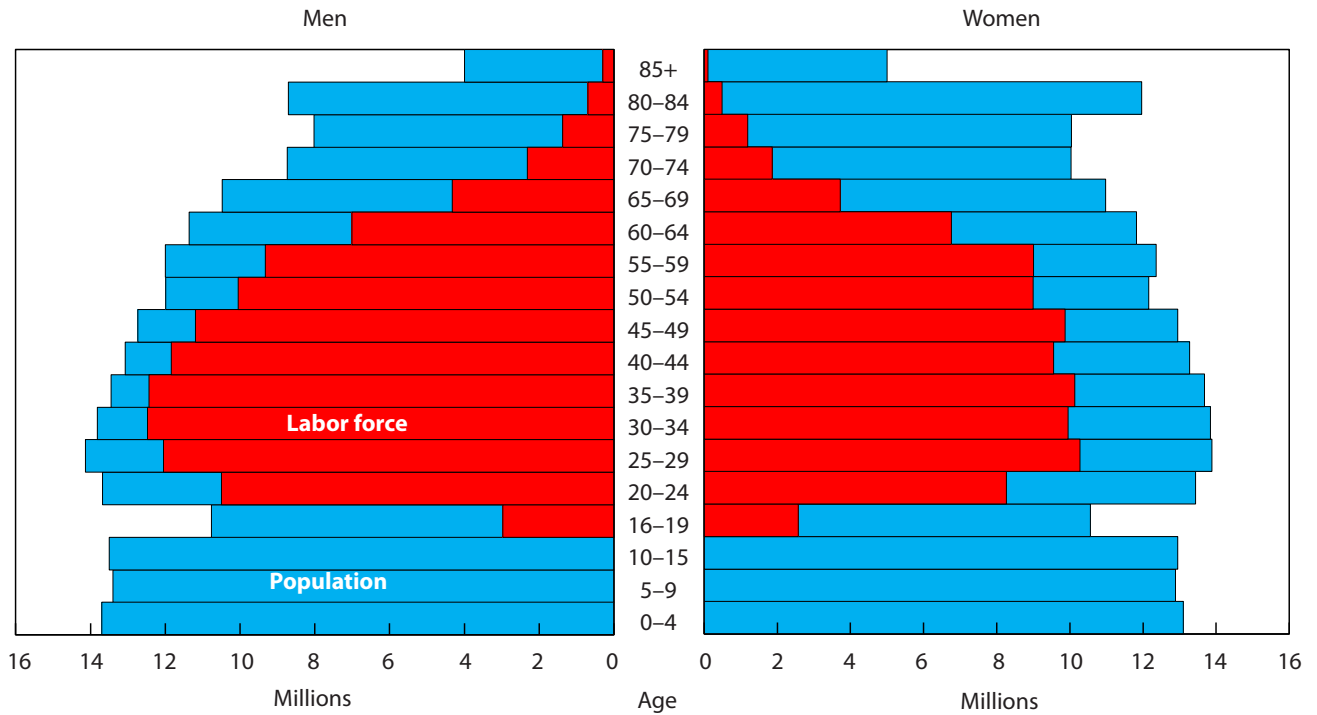
5. Population and labor force, 2000



SOURCE: U.S. Bureau of Labor Statistics.

- The population pyramid in 2000 shows the effects of fifty years of aging and change on the population and labor force. Because of both the aging of the population and the steep increase in the labor force participation rate of women, the shape of the pyramid is more rectangular than in 1950.
- In 2000, the baby boom generation was ages 36 to 54, placing them all into the 25-to-54 age group, which typically has the highest labor force participation rate.
- Because of the large increases in labor force participation rates among women, the shape and size of the pyramid for both men and women look very much alike. In 2000, women composed 47 percent of the labor force, compared with 30 percent in 1950.

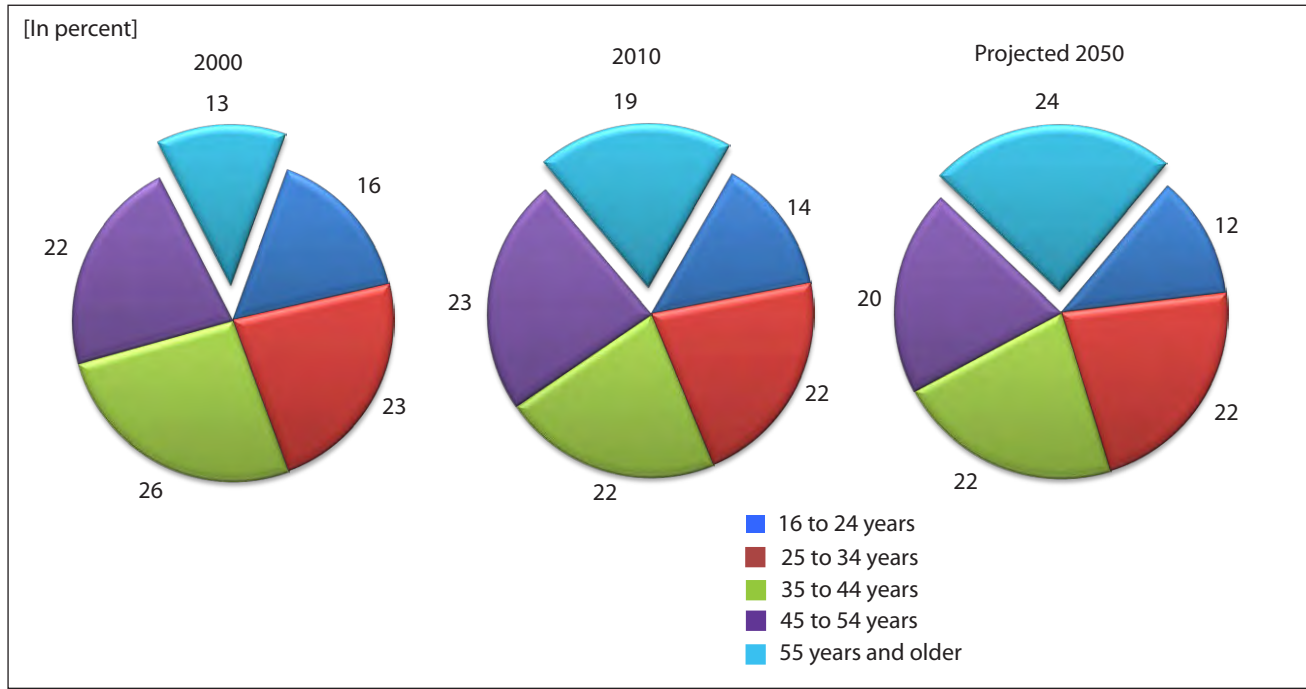
6. Population and labor force, projected 2050



SOURCE: U.S. Bureau of Labor Statistics.

- The population portion of the pyramid in 2050 looks rectangular in shape in the higher age brackets, which is indicative of both longer life spans and the aging of the population.
- The aging of the baby boom generation is projected to increase the share of the older age groups in the population. The oldest members of the baby boom generation celebrated their 65th birthday in 2011. In 2020, all members of this group will be 56 to 74 years old. In 2050, the entire baby boom generation will be more than 85 years old, and nearly all will be out of the labor force.
- By 2050, the shape of the pyramid for both men and women is expected to become nearly symmetric; this is a reflection of the further narrowing of the gap between men’s and women’s labor force participation rates.
- Women have lower mortality when compared with men, which is made apparent by the large numbers of women in the older age groups of the population.

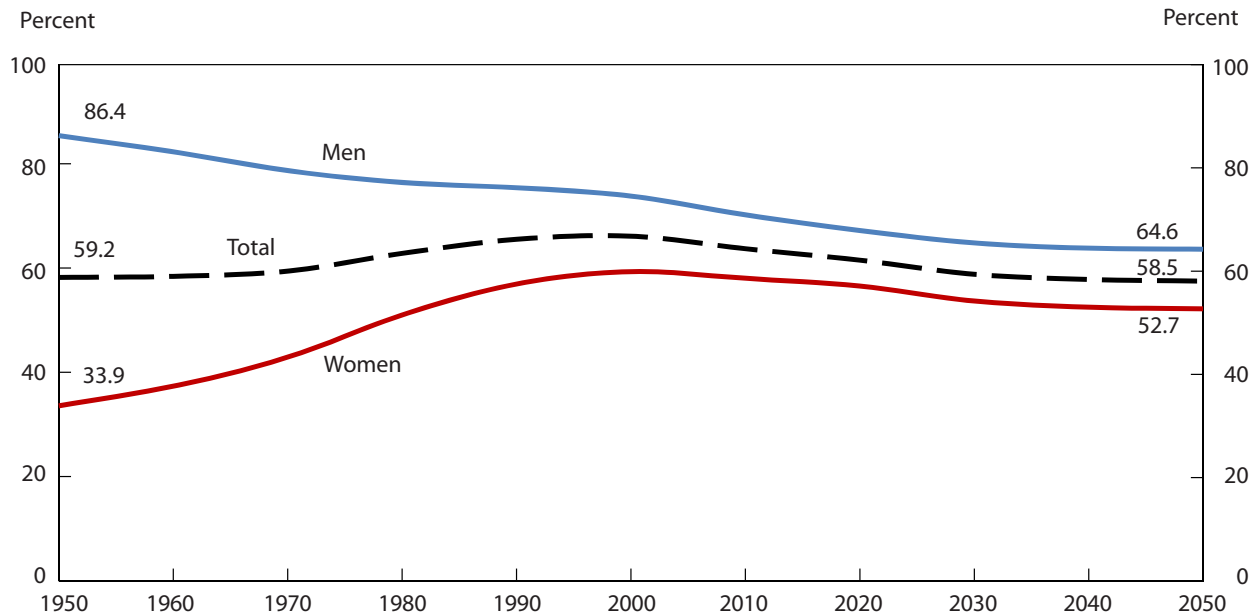
7. Labor force by age, 2000, 2010, and projected 2050



SOURCE: U.S. Bureau of Labor Statistics.

- The shift in the composition of the labor force from younger to older age groups is expected to continue in the coming decades.
- The 55-and-older group is expected to undergo the most sweeping changes in the years to come, primarily because of the aging of the baby boom cohorts. The proportion of the labor force composed of people ages 55 and older is projected to rise from 13 percent in 2000 to 24 percent by 2050.
- Although the labor market share of the 45-to-54 age group increased slightly from 2000 to 2010, the share is projected to decline to 20 percent in 2050. After an initial drop from 26 percent in 2000 to 22 percent in 2010, the share of the 35-to-44 age group is projected to hold steady through 2050. The 25-to-34 age group is expected to maintain its share between 2000 and 2050 at 22 percent.
- The labor market share of the 16-to-24 age group declined gradually from 16 percent in 2000 to 14 percent in 2010. It is projected that the share of this group will further decrease to 12 percent in 2050. The increase in school attendance of people in the 16-to-24 age group, especially 16-to-19-year-olds, is the main reason the youth labor force has been decreasing.

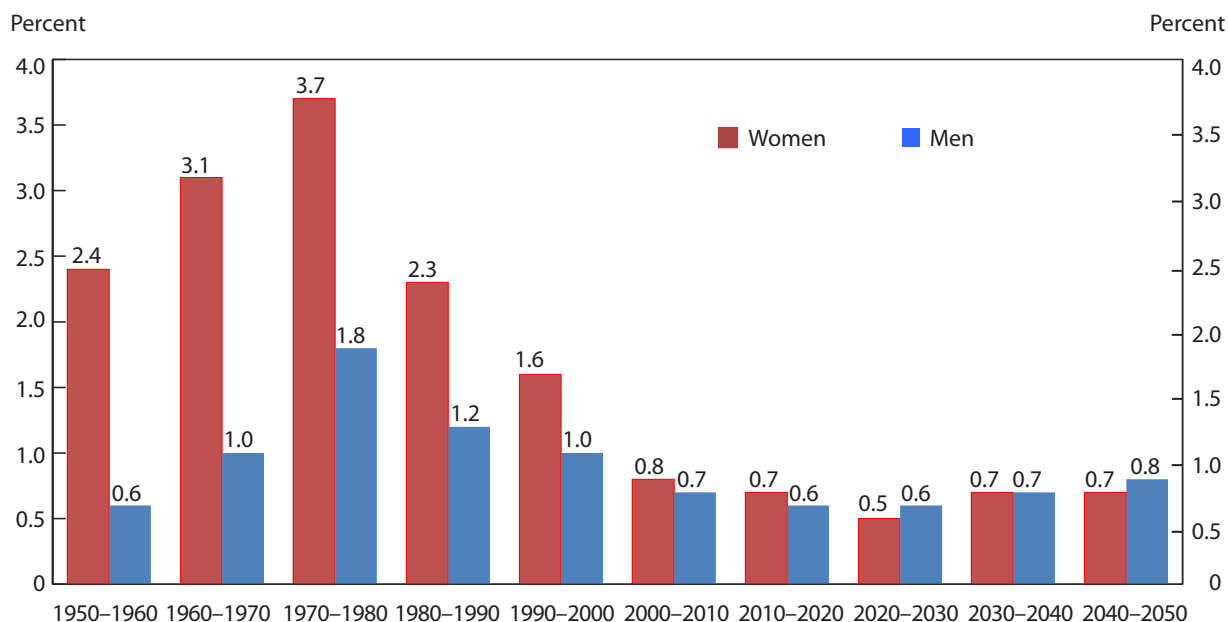
8. Labor force participation rate for total, men, and women, 1950–2050



SOURCE: U.S. Bureau of Labor Statistics.

- The total participation rate and the separate participation rates for both women and men reflect the changes in the age distribution of the population as well as changes in participation rates by age, gender, race, and Hispanic origin.
- The overall labor force participation rate has risen significantly in the past couple of decades as a consequence of the rapidly increasing participation rate of women. The overall rate peaked at 67.1 percent from 1997 to 2000 and then started a declining trend.
- The participation rate continued to decline after the recession of 2001 and then held steady at 66.0 percent from 2004 to 2008, with a minor uptick to 66.2 percent in 2006. During the 2007–2009 recession, the overall labor force participation rate experienced a sharp decline, falling to 65.4 percent by 2009. The participation rate continued to fall sharply, reaching 64.7 percent in 2010 and 64.1 percent in 2011. Therefore, the decline between 2008 and 2011 totaled 1.9 percentage points.
- The overall labor force participation rate—like the rates for both men and women—is projected to continue declining, reaching 58.5 percent by 2050.

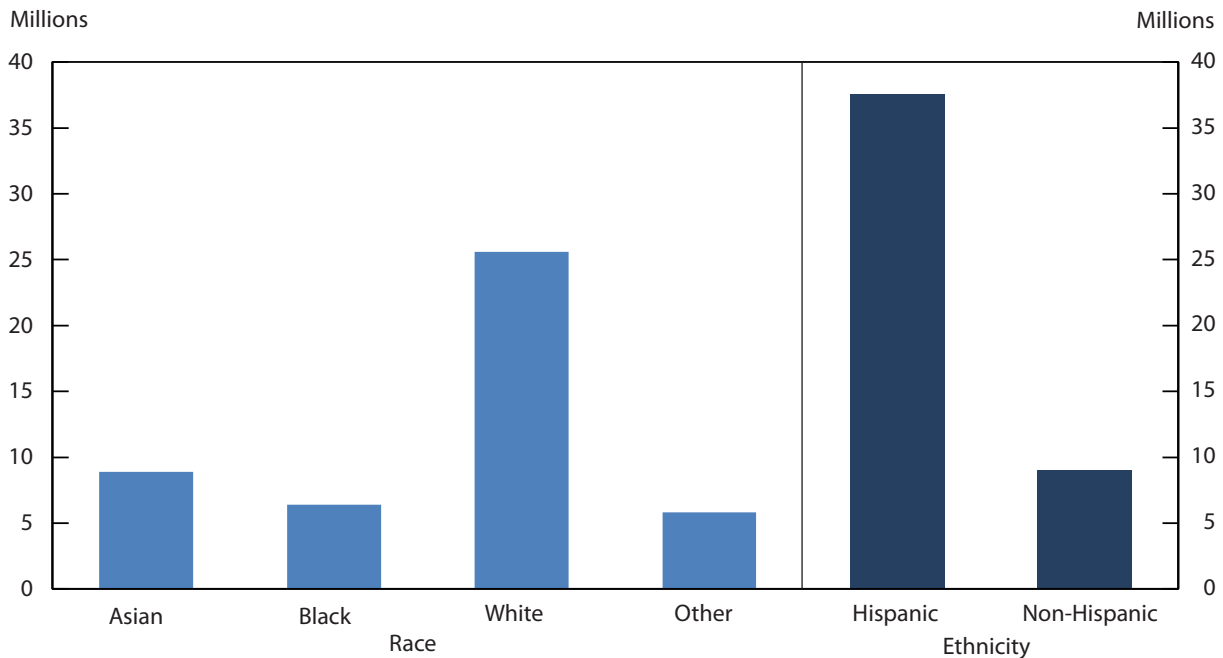
9. Annual labor force growth rates by decade for women and men, 1950–2010 and projected 2010–2050



SOURCE: U.S. Bureau of Labor Statistics.

- The number of men in the U.S. labor force has always been greater than the number of women, but historically, the growth rate of women in the labor force has been significantly higher than that of men.
- However, the high growth rate of the women's labor force over the 1970–2000 period has been replaced by much lower growth rates during the 2000–2050 time span.
- It is projected that the higher growth rate of the female labor force relative to that of men will end by 2020, and the growth rates for men and women will be similar for the 2020–2050 period.

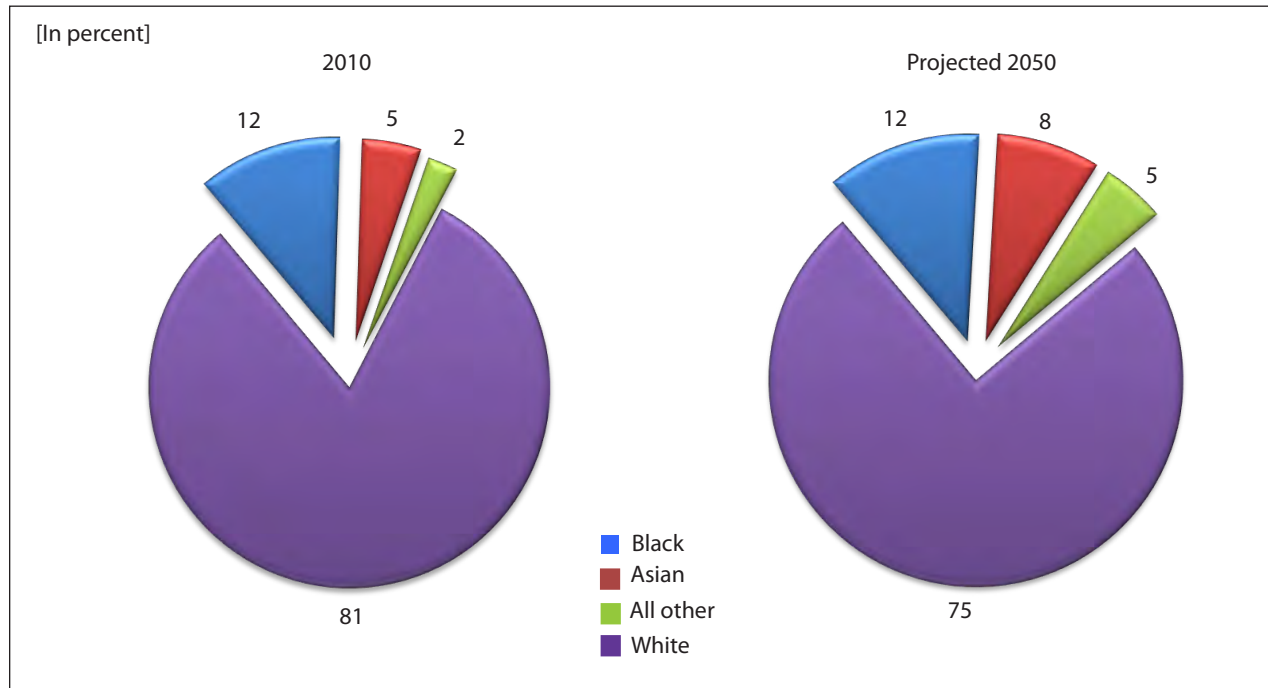
10. Labor force growth by race and ethnicity, projected 2010–2050



SOURCE: U.S. Bureau of Labor Statistics.

- Although the growth rate of the White labor force will be much slower than that of other race groups, Whites will remain the largest labor force group in 2050. This group will add 25.6 million people to the labor force during the next four decades.
- The Asian labor force is projected to more than double in size over the next four decades and add about 9 million people to the labor force. Although their number and share of the total labor force both start from low levels, the continued immigration of Asians to the United States, coupled with this group’s high participation rates, contributes to this huge increase in their labor force.
- The growth in the numbers of Blacks in the labor force from 2010 to 2050 is projected to be 6.4 million and mainly results from their higher birth rates, a steady stream of Black immigrants to the county, and very high labor force participation rates among Black women compared with other women.
- The category “other,” which includes (1) people of multiple races, (2) American Indians and Alaskan Natives, and (3) Native Hawaiians and other Pacific Islanders, is expected to add 5.8 million people to the labor force during the 2010–2050 time frame.
- From 2010 to 2050, people of Hispanic origin are projected to add 37.6 million people to the labor force, accounting for about 80 percent of the total growth of the labor force. In comparison, non-Hispanics are projected to add only 9 million workers. (Although Hispanics may be of any race, more than 80 percent report that their race is White.)

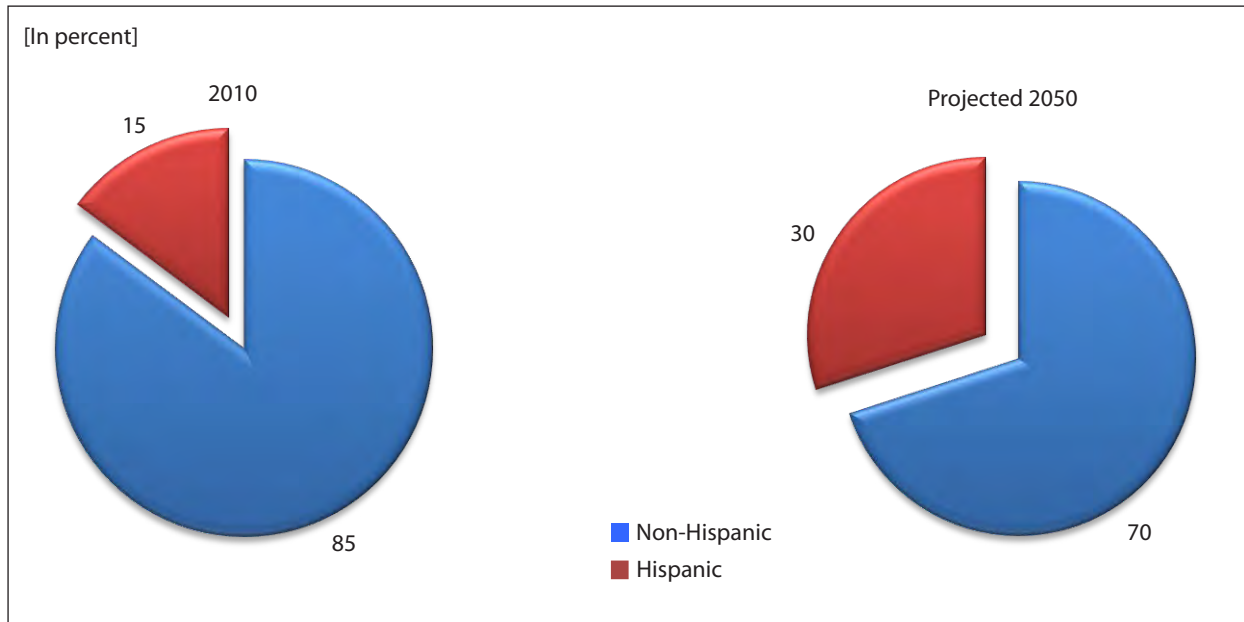
11. Labor force by race, 2010 and projected 2050



SOURCE: U.S. Bureau of Labor Statistics.

- The declining labor force share of the Whites coincides with faster growth of other race and ethnic groups in the U.S. workforce. The upcoming retirement of the baby boomers, a group that has a large proportion of White men, will also lower the share of this group in the total labor force. In addition, the low fertility rate and low migration of Whites relative to other race groups contributes to the declining share of this group both in the population and the labor force.
- The share of the labor force composed of Blacks (12 percent) is projected to be unchanged over the next four decades. In contrast, Asians have been one of the fastest growing race groups and this trend is projected to continue over the next four decades. Their share of the labor force is projected to increase from 5 percent in 2010 to 8 percent in 2050.
- The share of the “all other” category—comprising those classified as being of multiple races, as well as the racial categories of American Indians and Alaska Natives and of Native Hawaiians and other Pacific Islanders—is projected to more than double, from 2 percent in 2010 to 5 percent in 2050.

12. Labor force by ethnicity, 2010 and projected 2050



SOURCE: U.S. Bureau of Labor Statistics.

- Racial and ethnic minorities have assumed an increasing presence in the labor force, and the result can be seen in the growing diversity of the work force.
- Coming to the United States to seek better job opportunities and higher wages, immigrants are the major source of this growing diversity. Immigrants tend to be concentrated in younger age groups and have higher fertility rates than do the resident population in the same age groups. Both higher fertility rates and higher labor force participation rates of the immigrants have significantly added to the diversity of the U.S. population and labor force.
- The Hispanic share of the labor force is projected to double from 15 percent in 2010 to 30 percent in 2050.
- The high rates of Hispanic immigration to the United States, the younger age profile of Hispanics that results in higher birth rates, and the very high labor force participation rates of Hispanics are reasons for their increasing share in the labor force.