







August 2007 CHARTBOOK

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U.S. DEPARTMENT OF LABOR

AUGUST 2007

SECRETARY'S MESSAGE

BY U.S. SECRETARY OF LABOR ELAINE L. CHAO



Today's U.S. economy is healthy and resilient. Despite recent challenges, including a declining housing market, financial market volatility, and high energy prices, the fundamentals of our economy remain positive. America's labor market is vibrant: unemployment is low, compensation is rising, and millions of new jobs have been created in the past four years.

In the first half of 2007, the unemployment rate averaged 4.5 percent. That's lower than the 4.6 percent average of 2006 and about a full point lower than the 5.7 percent average unemployment rate of the 1990s.

By June 2007, the latest month for which data for this report were available, the United States had enjoyed 46 months of uninterrupted job growth. More than 8.2 million net new jobs had been created in the United States since August 2003. This level of job creation reflects the overall economic growth that our country has been experiencing. The U.S. economy grew at an average rate of 2.9 percent in 2006.

But even though our economy has grown, there are challenges. Our country is in the middle of a major economic transformation. Technology has accelerated the pace of change and our country is transitioning to a knowledge-based economy.

Good jobs are still being created. In fact, the majority of employment growth over the past six years was in occupations with above-average compensation. But there is a caveat. Most of the new jobs projected for the future are expected to be filled by persons with some kind of post-secondary education. Over the next decade, new jobs will be created in high-growth industries, including health care, geospatial technology, and the life sciences. Education to gain the knowledge and skills that are in demand is key to future success in America's dynamic labor market.

Workers who acquire and maintain competitive knowledge and skills are finding jobs with good compensation. Our goal at the Department of Labor is to ensure that all workers have access to the information, training, and resources that will help them get the skills they need to access the growing opportunities in our nation's 21st century economy.

Despite the difficult challenges that America has confronted over the past six years, our economy remains healthy and resilient. Its strength is a tribute to the dynamism, productivity, and flexibility of our nation's workforce.

U.S. DEPARTMENT OF LABOR



ACKNOWLEDGMENTS

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The text and charts for *America's Dynamic Workforce: 2007* were developed and edited by Ron Bird, Chief Economist, and by OASP economists David Langdon, Alison Pasternak, Regina Powers and Jay Berman. Economist interns Michael Chow and Ira Yeung also developed charts and text and provided valuable assistance throughout. Additional design assistance and editorial review was provided by Kathleen Franks, Sheila McConnell, Fred Siskind, Stephanie Swirsky, and Babette Williams. Richard Manning of the Office of Public Affairs coordinated production and printing.

U.S. DEPARTMENT OF LABOR

AUGUST 2007

EXECUTIVE SUMMARY

America's Dynamic Workforce: 2007 presents an overview of current conditions and notable trends affecting the American labor market and economic activity. Primary emphasis is on measures of labor market performance – employment, labor force participation, unemployment, and compensation. General measures of economic performance such as gross domestic product (GDP) and productivity growth are also described as they relate to labor market conditions and trends.

Throughout this report the focus is on the data – what the numbers actually say about the American labor market – and on how individual data items fit together to present an overall portrait of the health and dynamism of the market.

The report shows that the American labor market is strong and resilient. Labor market indicators describe an economy that is creating jobs, expanding output, and rewarding work with good compensation. Since job growth began recovering in 2003 from the effects of the last recession, the economy has tallied 46 consecutive months of job gains (through June 2007, the latest data available for this report). Employment has reached record heights.

The report also recognizes that, even as our economy grows steadily, there are challenges. The United States and the world are experiencing a major economic transformation. Technology has accelerated the pace of change, and the United States is transitioning to a knowledge-based economy.

The American economy is creating good jobs. The majority of employment growth over the past six years was in occupations with above-average compensation (wages plus benefits). This trend is likely to continue in the future, and most new jobs projected for the future are expected to be filled by persons with some kind of post-secondary education. Education to gain the knowledge and skills that are in demand is the key to success in America's dynamic labor market.

Workers who bring to the labor market the knowledge and skills that today's competitive economy demands are finding good jobs and rising compensation.

There are six chapters:

- Chapter 1 summarizes the current levels and trends of payroll jobs, total employment, job openings, turnover, unemployment, and GDP. 2006 was a good year for American workers, and the first half of 2007 continued the growth trend. In 2006, job growth resulted in 2.3 million net new jobs, and the unemployment rate averaged 4.6 percent over the year. The pace of job growth in the first half of 2007 suggests that we are moving into a steady and sustainable economic path. With the unemployment rate holding steady at around 4.5 percent in the first half of 2007, the labor market outlook is favorable for those seeking to enter or re-enter the labor market.
- Chapter 2 presents an overview of recent trends in labor productivity and worker compensation. Over the last two decades the capital-labor ratio and educational attainment of workers have increased, helping make American workers more productive. Greater productivity gains have translated into greater compensation gains. Today's workers earn the fruits of their labor in different forms, as benefits are both significant and increasingly diverse.
- Chapter 3 provides a global context for understanding the U.S. labor market and compares the United States and other countries along common dimensions of labor market indicators. The

successful record of the United States across a broad range of indicators and over an extended time period is remarkable for a mature industrial economy. The fact that the United States has achieved these results in the face of growing worldwide competition and other challenges, both natural and man-made, is a further testament to the robustness and resilience of an economic system based on free and open markets.

- Chapter 4 examines the educational attainment of the labor force, including trends and comparisons of employment, earnings, and unemployment relative to educational attainment. The 103.1 million Americans ages 25 and older in March 2006 who had completed some post-secondary education comprised a valuable national asset of knowledge, skill, and experience. The 21st century labor market seeks and rewards workers who can offer the educational foundation, technical skills and creative flexibility that employers need to compete and to adapt to changing needs successfully.
- Chapter 5 examines the dynamic features of the labor force in terms of job tenure, work schedules, work arrangements, and factors outside of work. Workers are taking advantage of new opportunities and move relatively quickly from one job to another. Flexibility is a hallmark of the American labor market, which places a high value on the freedom to choose one's work and the terms of employment. Flexible work schedules allow workers to do more outside of work, whether it is taking care of household responsibilities, volunteering, or pursuing more education.
- Chapter 6 highlights two trends that will significantly affect the shape of the labor force through the first half of the 21st century: an aging population and increasing racial and ethnic diversity. The aging of the population will lead to an aging of the labor force and slower labor force growth. Workers in the future will have to support a relatively greater dependent population as the baby boomer generation enters retirement. Between 2006 and 2050, the labor force will increase from 151.4 million to over 195 million, with racial and ethnic minorities comprising an increasing share of the labor force.

Data is presented through June 2007 and reflects updates and revisions published through July 31, 2007. Subsequent updates or revisions may occur that are not reflected in this report.

America's Dynamic Workforce: 2007 is presented in two versions:

The full text version, *America's Dynamic Workforce: 2007 – Full Text Version*, includes discussion and additional data and analysis beyond the basic charts presented.

The chart book version, *America's Dynamic Workforce: 2007 – Chartbook*, features larger format charts for easier reading and summary text related to each chart.

1 A HEALTHY LABOR MARKET

The American labor market is healthy and growing. The major labor market indicators continue to describe an economy that is creating jobs, expanding output, and rewarding work with good compensation. Since employment began recovering in mid-2003 from the effects of the last recession, the economy has tallied 46 consecutive months of job gains (through June 2007, the latest data available for this report). Employment has reached record levels.

The unemployment rate has fallen significantly from its post-recession high of 6.3 percent and ranged from 4.6 percent to 4.4 percent during the first half of 2007 – in June it was 4.5 percent. Both components of compensation – wages and employer-paid benefits – were higher in terms of real purchasing power in 2006 than in 2000.

The American economy is resilient, and its success in meeting the challenges of recent years while continuing economic expansion provides a foundation from which the nation can expect to successfully meet future challenges that may come its way.

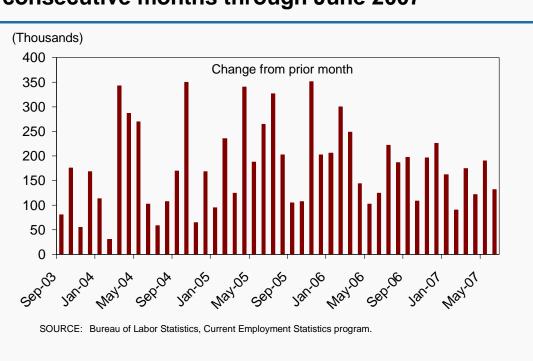


Figure 1-1. Payroll jobs have increased for 46 consecutive months through June 2007

- Net growth in nonfarm payroll employment totaled 8.2 million from August 2003 through the first half of 2007. Job growth during 2006 was 2.3 million. In the first half of 2007 a total of 871,000 net new jobs were created.
- Figure 1-1 shows the monthly record of job gains that began after the postrecession low point in August 2003. Over this period, monthly job gains averaged 179,000. In the first six months of 2007, monthly gains averaged 144,000.

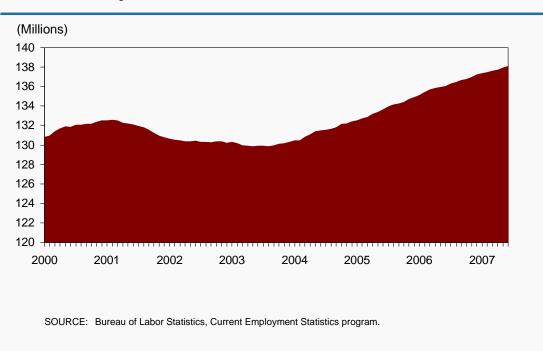


Figure 1-2. Payroll jobs have surpassed the prerecession peak

- Figure 1-2 shows monthly payroll employment from January 2000 to June 2007. In February 2001, just before the onset of the 2001 recession in March, payroll employment peaked at nearly 132.6 million. In the recession aftermath, payroll employment declined to a low of 129.8 million in August 2003.
- The rebound of payroll jobs erased the recession losses by February 2005 when the total payroll employment surpassed the previous level of February 2001. By June 2007, payroll employment was 138.0 million, nearly 5.5 million higher than the February 2001 mark.
- The recession that began in the first quarter of 2001 had its origins in economic events in 2000, when financial market reversals and inventory build-ups appear to have triggered increased layoffs and slower job growth. The September 11 terrorist attacks added pressure to an already declining economy.

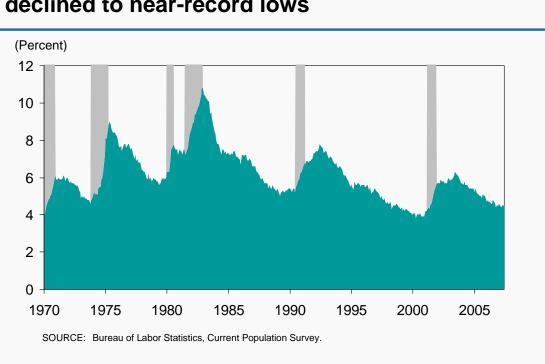
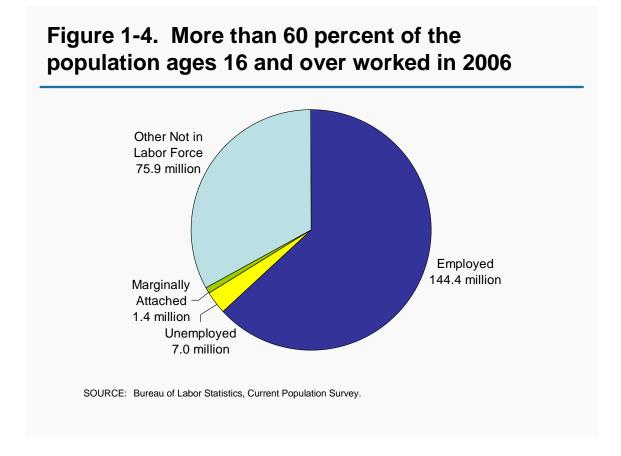


Figure 1-3. The unemployment rate has declined to near-record lows

- Figure 1-3 shows the trend of the unemployment rate from January 1970 to June 2007. At 4.5 percent in June 2007, the national unemployment rate was near its lowest level in nearly six years. The unemployment rate has declined from a post-recession high of 6.3 percent in June 2003. The previous expansion low-point for the unemployment rate was 3.8 percent in April 2000.
- At 6.3 percent in June 2003, the peak unemployment rate following the 2001 recession was lower than the peak rate for any recession since the 6.1 percent peak following the 1970 recession.
- In 2006, on average, 7.0 million persons were unemployed, and by June 2007 the number was 6.9 million. These levels represent a significant decline from the 9.3 million unemployed at the post-recession peak in 2003.
- The official unemployment rate calculation classifies persons as unemployed if they do not have a job, have actively looked for work in the prior 4 weeks (or are on temporary layoff), and are currently available for work.



- Figure 1-4 shows the distribution in 2006 of the total 228.8 million noninstitutional civilian population ages 16 and older. The 144.4 million employed persons comprised 63.1 percent. Another 7.0 million were unemployed. Employed and unemployed combined comprise the labor force.
- The Bureau of Labor Statistics (BLS) also publishes estimates of the subset of persons not in the labor force who have looked for work in the previous 12 months, and who want a job and are available for work, even though they have not actively looked during the last four weeks. In 2006, the number of persons in this "marginally attached" category totaled 1.4 million, of whom 381,000 cited discouragement about job prospects as the reason for not actively looking for work. The remainder cited other reasons, such as lack of transportation, illness, or family responsibilities.
- In addition to the "marginally attached," there were 75.9 million other people who were also not in the labor force. Individuals not in the labor force include persons who are neither working nor looking for work for reasons such as retirement, disability, and school attendance.

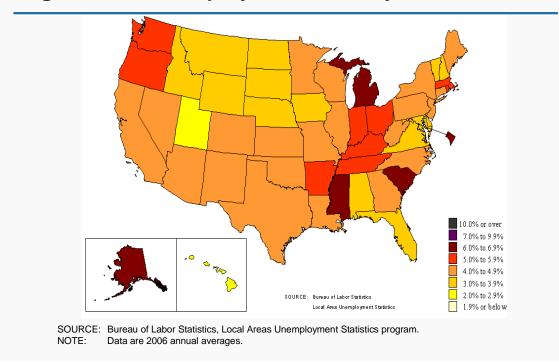


Figure 1-5. Unemployment rates by state, 2006

- Figure 1-5 shows average unemployment rates by state in 2006. Hawaii reported the lowest unemployment rate among the states (2.4 percent). Utah had the next lowest rate (2.9 percent) closely followed by Nebraska and Virginia (3.0 percent each).
- The highest rates were recorded in Michigan and Mississippi (6.9 and 6.8 percent, respectively). The largest unemployment rate decline from 2005 to 2006 occurred in Louisiana (-2.7 percentage points), reflecting, in part, recovery from the 2005 hurricanes.

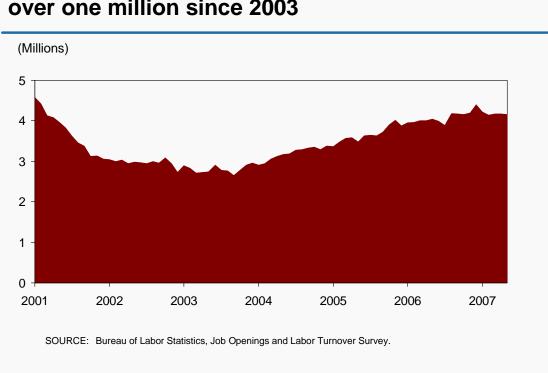


Figure 1-6. Job openings have increased by over one million since 2003

- As the unemployment rate has fallen over the past two years, the number of unfilled job openings has steadily risen another sign of a strengthening labor market.
- Figure 1-6 shows that the latest available data from the BLS Job Openings and Labor Turnover Survey (JOLTS) found 4.2 million unfilled job openings at the end of May 2007 (seasonally adjusted). This is an increase of 1.5 million from the post-recession low of 2.7 million at the end of September 2003 and an increase of 164,000 from April 2006.
- Job openings include both existing jobs that have become vacant and new jobs that the employer has created but not yet filled. During the course of a month, many jobs become available and many are filled.
- Data for job openings on the last business day of each month provide a snapshot estimate of the typical number of openings on a given day. A rising trend of openings suggests that job opportunities may be growing faster than qualified candidates are being found to fill them.

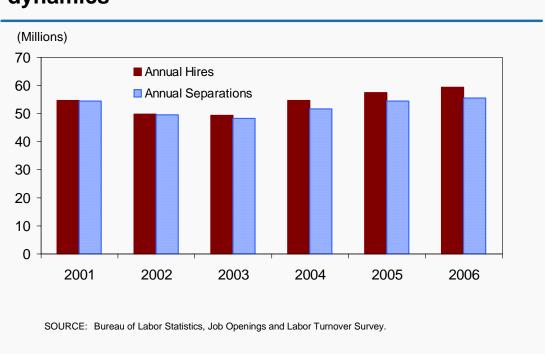


Figure 1-7. Turnover shows labor market dynamics

- Figure 1-7 shows annual turnover hires and separations for 2001 to 2006. In 2006, employers made 59.4 million hires to fill vacancies or newly created jobs.¹ On average about 3.6 percent of jobs were filled or re-filled each month.
- Parallel to hires, separations totaled 55.5 million over the course of 2006. Separations included 32.3 million voluntary quits by employees, 18.9 million layoffs or discharges, and 4.2 million other separations, including those because of retirement, disability and death. It is likely that many of the voluntary quits involved job changes from one employer to another, but the exact number is unknown.
- The JOLTS program collects data from employers on changes in payrolls. The numbers of separations and hires represent jobs vacated or filled, respectively. Some individuals change jobs or enter or leave the job market several times during a year, so the numbers of individuals who are involved in hires or separations is somewhat smaller than the numbers of jobs affected.

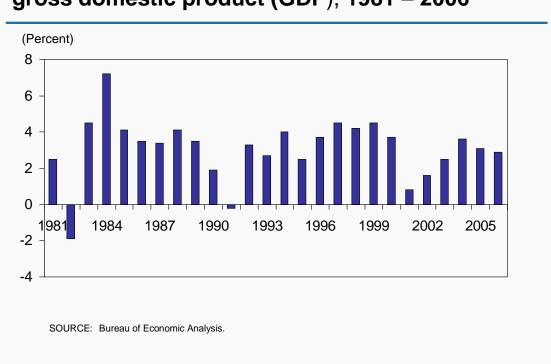
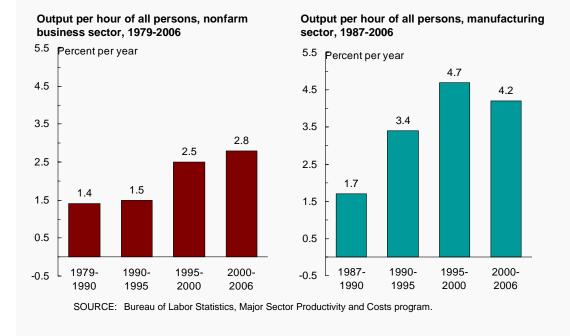


Figure 1-8. Annual average growth of real gross domestic product (GDP), 1981 – 2006

- The strength of the labor market is a reflection of the growth of real (after inflation adjustment) gross domestic product (GDP) in recent years. In 2006, GDP reached \$13.2 trillion.² Since 1980, real GDP has more than doubled.
- On a per capita basis, GDP in 2006 was \$44,007. This was 3.4 times the per capita real GDP of \$13,063 in 1948 (2006 dollars), and 1.7 times the per capita real GDP in 1980.
- Real GDP growth (Figure 1-8) averaged 2.9 percent in 2006.³ For 2003 through 2006 the average annual growth rate for real GDP was 3.0 percent. Including the 2001 recession year, real GDP growth over the past six years has averaged 2.4 percent per year. Since 1948, annual real GDP growth has averaged 3.4 percent.

Figure 1-9. Labor productivity has accelerated since 1995, led by gains in manufacturing



• Underlying GDP growth has been a notable increase in labor productivity (Figure 1-9) in recent years. Growth of labor productivity in the nonfarm business sector averaged 2.8 percent per year over the 2000-2006 period, twice the 1979-1990 average and nearly double the 1990-1995 average.

- Acceleration of productivity growth in the nonfarm business sector began in the late 1990s as the annual average growth rate jumped to 2.5 percent. Slower recent productivity growth (+1.0 percent in the first quarter of 2007) is associated with the fact that GDP growth slowed while employment continued growing. The continued growth of jobs despite slower GDP growth may signal employer expectations that the slowdown will be temporary and show an underlying confidence in the health of the economy.
- Growth in manufacturing productivity also accelerated over the 2000-2006 period: Output per hour grew at an average annual rate of 4.2 percent. This was a notable gain over the 1987-1990 average of 1.7 percent average annual growth.

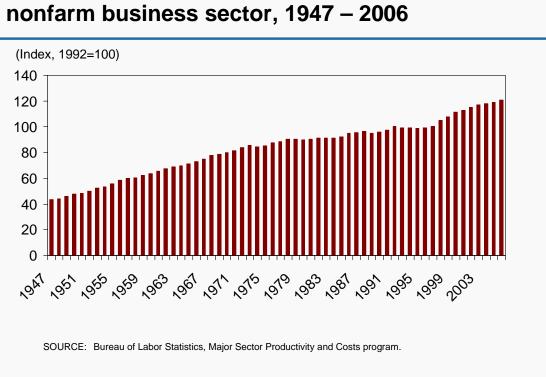
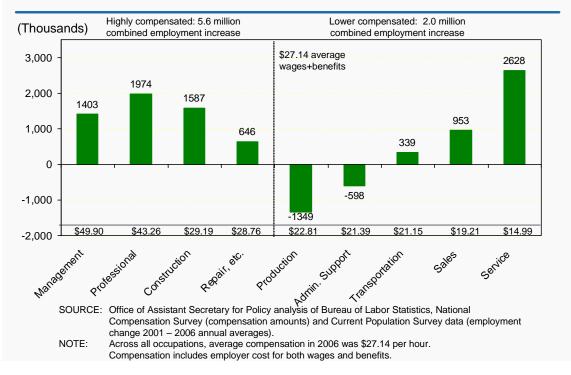


Figure 1-10. Real hourly compensation index, nonfarm business sector, 1947 – 2006

- Increasing real output and productivity have yielded real gains in compensation for employees. Compensation includes both wages and the cost of benefits such as health insurance, retirement plan contributions, paid leave, and other benefits.
- Over the most recent six years (2001-2006) the growth of real hourly compensation has continued at a relatively robust rate of 1.4 percent per year, compared to the 1977-1997 average annual growth of 0.6 percent and to the 0.6 percent annual average rate for the comparable business cycle years of 1991-1996. In 2006, the average level of real hourly compensation in the nonfarm business sector was 8.5 percent higher than in 2000.
- Compensation measured by the Constant Dollar Employment Cost Index (CD-ECI) also shows gains in real hourly terms over the past five years. Much of the increase in compensation in the past five years was due to higher benefits costs. In 2006, benefits costs measured by the CD-ECI were 13.2 percent higher than in 2001.

Figure 1-11. Highly compensated jobs drove much of 2001-2006 employment growth



- Figure 1-11 illustrates the relationship between increasing compensation (includes employer cost for both wages and benefits) and the changing structure of the labor market. Over the past five years, job growth has been greater among relatively well compensated occupations: management, business and financial; professional and related; construction and extraction occupations; and installation, maintenance and repair (repair, etc.) occupations.
- Each of these four occupations paid above the average compensation of \$27.14 per hour in 2006.⁴ These four higher-compensation occupations accounted for 5.6 million net additional workers between 2001 and 2006.⁵
- The five lower-compensation occupations together accounted for 2.0 million net additional workers.⁶ For the lower-compensation occupations, employment losses in production occupations and in administrative support occupations partly offset gains in the transportation, sales, and service occupation categories.

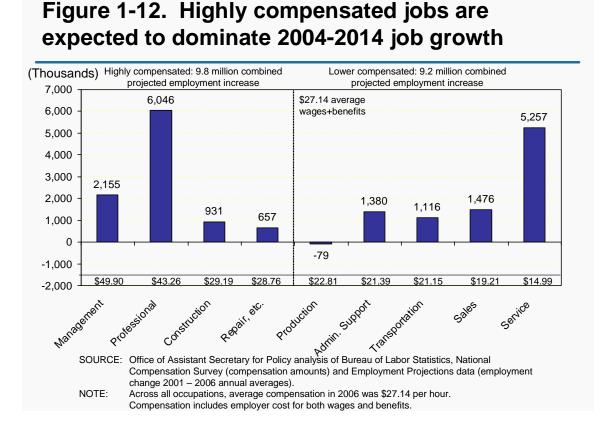


Figure 1-12 shows that jobs paying higher-than-average total compensation are expected to continue to account for the majority of net new jobs created in the future. Analysis of BLS's occupational job growth projections shows a 9.9 million net job growth over the 2004-2014 period for the major occupations that paid above average in 2006, compared to a net gain of 9.2 million among the occupations paying below-average hourly compensation.

2 A PRODUCTIVE WORKFORCE

Both expanding population and rising productivity boost economic growth, but only the latter raises the standard of living. Productivity growth paves the way for increased real compensation (i.e., wages and benefits) for American workers. Labor productivity is defined as the ratio of real output to the number of labor hours required as input, and indexes of labor productivity measure its change over time.

Multiple factors can raise workers' productivity. Two factors—workers' skills and efforts—are a direct reflection of the workers themselves. Other important factors include the effects of research and development and capital investment (in other words, the development and incorporation of technological change), the organization of production, and changes in managerial skills. Resource allocation also can affect overall productivity growth. If, for example, resources are shifted away from low-productivity industries to high-productivity ones, a nation's overall productivity level will rise.

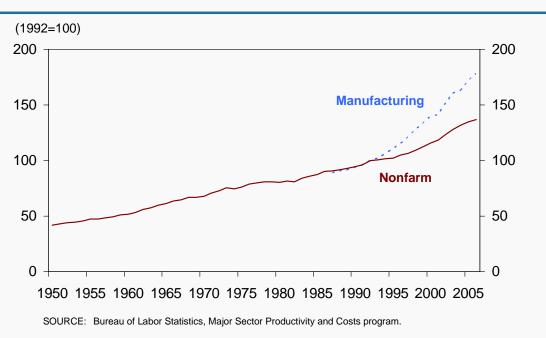
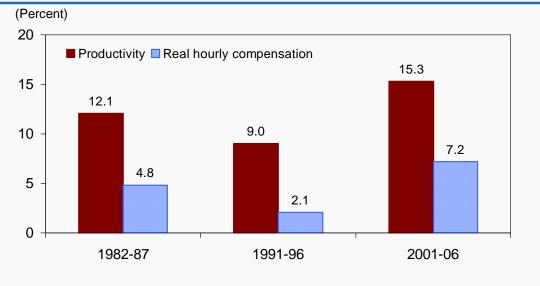


Figure 2-1. Nonfarm business and manufacturing indexes of labor productivity

- Nonfarm labor productivity has followed a long-term growth trend since the data were first published nearly 60 years ago, and growth has accelerated over the past decade.
- Labor productivity in 2006 was double the 1970 level and triple its 1953 level. Over the past decade, productivity climbed at a 2.7 percent annualized rate, well above the 1.5 percent rate over the prior decade and the 1.7 percent rate for the prior 3 decades.
- Estimates of manufacturing productivity, which date from 1987, show an even more pronounced acceleration in growth. Between 1996 and 2006, manufacturing productivity surged 4.5 percent annually, which was more than 1.5 times the rate over the prior 9 years.

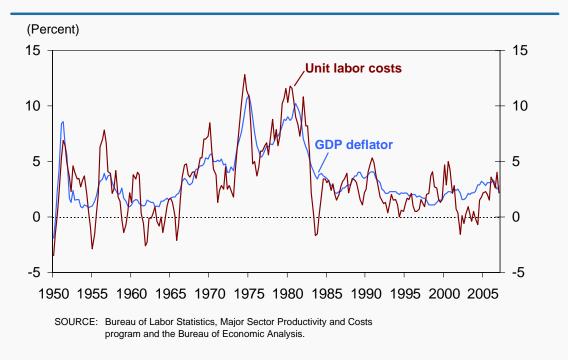
Figure 2-2. Growth in nonfarm business productivity and real compensation following recent recessions



SOURCE: Bureau of Labor Statistics, Major Sector Productivity and Costs program.

- Greater productivity gains have translated into greater compensation gains. Between 2001 (the year of the latest recession) and 2006, nonfarm labor productivity increased 15.3 percent and real compensation per hour increased 7.2 percent.
- The growth following the prior two recessions was notably lower. Between 1991 and 1996, labor productivity climbed 9.0 percent while compensation edged up 2.1 percent. Between 1982 and 1987, productivity increased 12.1 percent and compensation, 4.8 percent.
- In all three cases, the compensation gains fell short of productivity gains; however, the difference was least pronounced in 2001 - 2006. Productivity growth more closely translated into increased compensation over the past five years.

Figure 2-3. Year-to-year growth in nonfarm business unit labor costs and the GDP deflator



- Unit labor costs more directly measure the relationship between output and worker compensation. This measure is defined as nominal compensation per hour divided by real output per hour, or equivalently as the average nominal cost of a unit of output.
- Unit labor costs are an indicator of inflationary pressures facing companies. If unit labor costs grow faster than overall inflation, then companies face pressure either to raise prices or reduce payments to other input factors.
- Although growth rates in unit labor costs and other inflation measures diverge at times, their long-term trends are very similar. Figure 2-3 illustrates the year-to-year growth trends since 1950 of unit labor costs and the GDP deflator. Their correlation coefficient over the entire time period was 0.83, with 1.0 indicating perfect linear correlation. Over the past decade, the correlation was nearly 0.93. During that period, unit labor costs rose about 20 percent while the GDP deflator increased 24 percent.

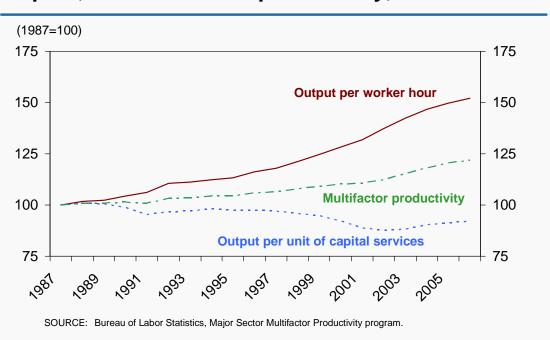


Figure 2-4. Private nonfarm business labor, capital, and multifactor productivity, 1987-2006

- The Bureau of Labor Statistics' measure of private nonfarm business multifactor productivity takes into account both labor and capital.⁷ Increases in multifactor productivity reflect the joint influence on labor and capital of new technologies, economies of scale, managerial skill, changes in the organization of production, and other factors.
- Over the past 19 years, multifactor productivity rose 21.6 percent while labor productivity increased by 52.2 percent. Over this period, capital services grew faster than labor input, and the resulting increase in the capital-labor ratio helped make U.S. workers more productive.
- Human capital also increased steadily over this period, as measured by workers' educational attainment. Quarterly labor productivity measures do not take human capital into account, but merely focus on raw counts of worker hours. As a result, part of the increase in labor productivity is the result of workers' increased educational attainment. Specifically, human capital growth—which BLS refers to as "labor composition"—between 1987 and 2006 accounts for about one-seventh of labor productivity growth during that period.

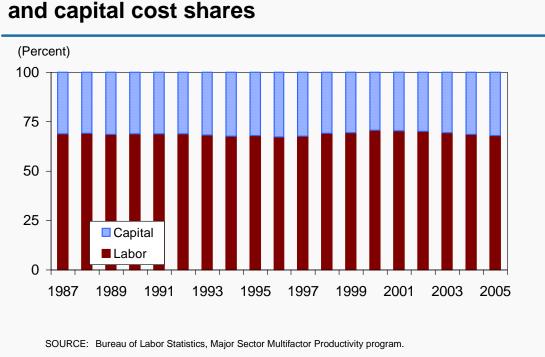
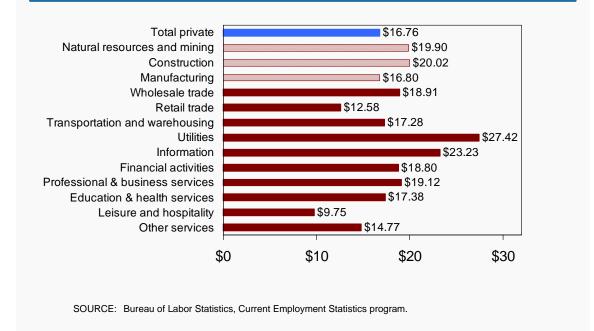


Figure 2-5. Private nonfarm business labor and capital cost shares

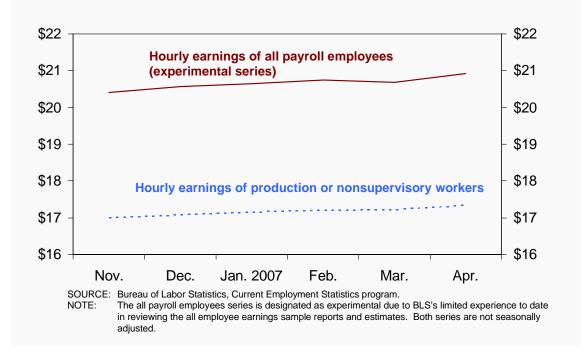
- Data from the BLS multifactor productivity program provide additional insight into the relative cost of labor and capital. Labor costs are essentially equivalent to worker compensation, that is, wages and benefits.⁸ Capital costs are more varied and less straightforward to define. Profits are a key part of capital costs, as are interest payments, rental payments, indirect taxes associated with capital, and inventory adjustments, with business transfers and government subsidies offsetting some costs.⁹
- One striking trend of the past 19 years is the stable share of costs of (and income going to) labor and capital. The labor share of costs has fluctuated between 67.4 and 70.7 percent of total costs. In 2005, labor costs represented 67.9 percent of total costs, similar to the percentages reported in the mid-1990s when the economy was at a similar point in the business cycle.

Figure 2-6. Average hourly earnings of production workers by major industry, 2006



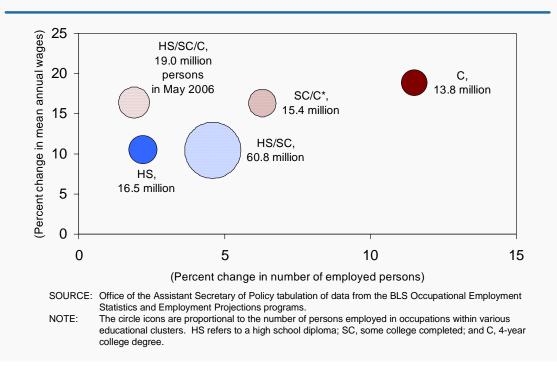
- Although manufacturing jobs are commonly regarded as well-paying jobs, many other industries have higher average hourly earnings of production or nonsupervisory workers.¹⁰ At \$16.80 in 2006, the average hourly earnings of manufacturing production workers were only slightly higher than the \$16.76 average for all production or nonsupervisory workers in private industries.
- Average hourly earnings were \$23.23 in the information industries, or 38 percent higher than in manufacturing. Other industries with relatively high earnings include construction, natural resources and mining, professional and business services, wholesale trade, and financial activities.
- Between 2001 and 2006, much of the employment growth came in industries with above-average hourly earnings. Employment in professional and business services, construction, and financial activities increased by nearly 2.5 million. The private education and health service industries added 2.2 million jobs. One notable exception is the information industry which lost 574,000 jobs following the recession and the dot-com bust.

Figure 2-7. Average hourly earnings of payroll employees in private nonfarm industries



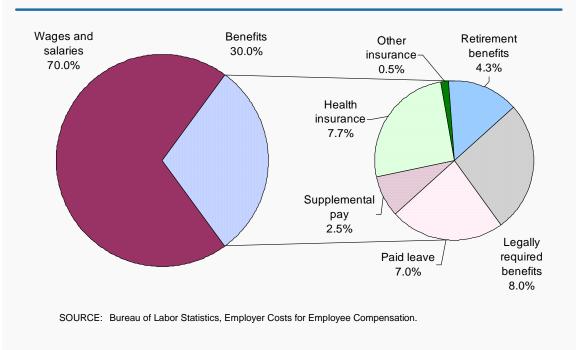
- The BLS payroll survey has recently added a more comprehensive measure of workers' earnings on an experimental basis: average hourly earnings of all private nonfarm employees.¹¹ Because these series are experimental, BLS continues to refine the editing and review of sample data and estimates. The methodology and data series are subject to change up until the series are made official. Currently, BLS plans to publish official earnings series for all employees beginning in February 2010.
- The inclusion of the 18 percent of workers who are non-production or supervisory raises the overall level of hourly earnings about \$3.00 per hour. (See Figure 2-7.) In April 2007, average hourly earnings of all workers totaled \$20.92, compared with \$17.34 for production or nonsupervisory workers.¹² The two series are following similar growth trends.

Figure 2-8. Employment and wage growth by educational cluster, 2001-2006



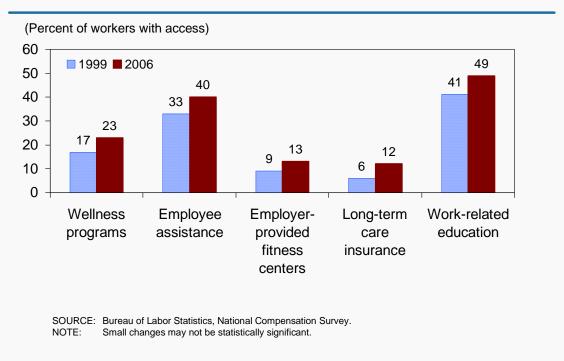
- According to Office of the Assistant Secretary for Policy's analysis of BLS data, although HS and HS/SC occupations still account for most jobs in the U.S., high job growth and high wage growth occupations are associated with greater post-secondary educational attainment.¹³
- Between 2001 and 2006, employment at "college" jobs (generally, a bachelor's degree or higher) grew 11.5 percent (nearly 1.5 million jobs) and employment at "some college/college" jobs grew 6.3 percent (900,000 jobs). "Some college" includes both two year degree or vocational programs and college level coursework without degree completion. In contrast, employment at "high school" jobs grew only 2.2 percent (350,000 jobs).
- High-wage growth occupations were also associated with higher education levels. Between 2001 and 2006, mean annual wages in "college" jobs and "some college/college" jobs increased 18.8 percent and 16.3 percent, respectively. Wages in "high school" and "high school/some college" jobs only increased 10.5 percent and 10.4 percent, respectively.

Figure 2-9. Distribution of hourly compensation costs for civilian workers, 2006 annual averages



- Although wages account for the majority of total worker compensation, benefits also represent a substantial share (30.0 percent).¹⁴ Under the umbrella of "benefits" falls a diverse range of plans and programs of great value to workers and of notable cost to employers. Benefit plans include programs that may be difficult or costly for individuals to obtain, such as health insurance.
- Health insurance accounted for 7.7 percent of total employee compensation in 2006, which together with legally required benefits (e.g., Social Security, Medicare), were the largest single benefit cost to employers on average. Although health benefits have risen as a share of total compensation in recent years, the long-term increase is not as significant as one might expect. The 7.7 percent share in 2006 was only about 0.7 percentage point higher than in the first quarter of 1994.
- At 7.0 percent of total compensation in 2006, paid leave fell just behind health insurance and the legally required benefits. Retirement benefits accounted for 4.3 percent, and supplemental pay (e.g., overtime, shift differentials, and bonuses) accounted for 2.5 percent.

Figure 2-10. Growth in access to specialized benefit programs in the private sector, 1999-2006



- Workers are gaining access to an increasingly diverse set of specialized benefit programs. Because workers are most productive when they are healthy, employers have become more conscious about keeping workers in better physical and emotional health. Between 1999 and 2006, access to wellness programs increased from 17 percent to 23 percent. These programs include smoking cessation, weight control, nutrition education, hypertension testing and stress management classes.
- Employee-assistance programs, which provide workers referral and counseling services in areas such as substance abuse, financial issues, legal problems, emotional problems and marital difficulties, have also grown in popularity, with access increasing from 33 percent to 40 percent. Access to employer-provided fitness centers increased from 9 percent to 13 percent during this period, while access to long-term care insurance doubled from 6 percent to 12 percent.
- Employers know that education pays, and nearly half of private sector employers made work-related education benefits available in 2006, up from 41 percent in 1999.

3 A BENCHMARK FOR OTHER NATIONS

The United States economy provides a consistent benchmark for the world across a broad range of economic and labor market indicators, including GDP per capita, the productivity of its workers, robust productivity growth, high labor force participation, low overall unemployment, and low long-term unemployment. Others nations may lead in individual indicators, but the United States is consistently at or near the top across many measures. Its vibrant, flexible labor market is a benchmark for other nations.

The successful record of the United States across a broad range of indicators and over an extended time period is remarkable for a mature industrial economy. The fact that the United States has achieved these results in the face of growing worldwide competition and other challenges, both natural and man-made, is a further testament to the robustness and resilience of an economic system based on free and open markets. And it is a testament to the energy, creativity, skills, flexibility, and competitiveness of American workers and employers.

This chapter provides an overview of a few selected labor market indicators across countries. For a more comprehensive review of international data, see *A Chartbook of International Labor Comparisons*, available online at <u>www.dol.gov/asp</u>.

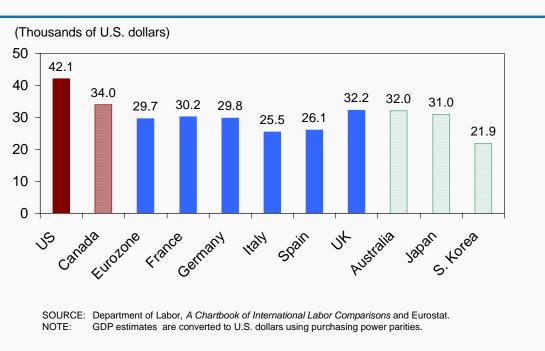


Figure 3-1. GDP per capita in 2005, United States and selected countries

- Data on GDP per capita are remarkable. In 2005, per capita GDP totaled \$42,100—about 24 percent higher than in Canada, 32 percent higher than in Australia, and 42 percent higher than the composite amount for the eurozone countries.¹⁵
- What makes such comparisons more striking is the fact that the United States is such a large country. With a total population of 301 million people, the United States is third most populous nation in the world, following China (1.3 billion) and India (1.1 billion). The euro area outnumbers the United States in total population (311 million); however, its labor force is marginally smaller—150 million compared with 151 million in the United States.¹⁶
- The United States also leads the world in manufacturing, followed by Japan, China, and Germany. The United States contributed 21 percent of global value added in manufacturing in 2005, the latest year with complete data. Japan's value added represented 13 percent of the global total, while China's and Germany's contributions were 12 percent and 8 percent, respectively. The euro area's share, at 22 percent, slightly exceeded that of the United States.¹⁷

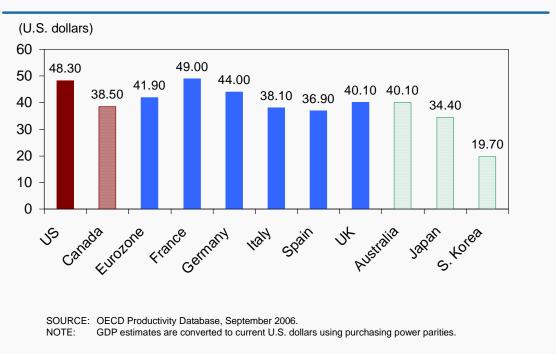
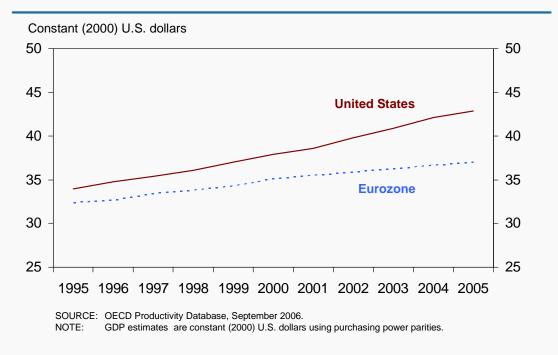


Figure 3-2. GDP per hour worked in 2005, United States and selected countries

- American workers are among the most productive in the world and their productivity has grown at an enviable pace in recent years. U. S. GDP was \$48.30 per hour worked according to Organization for Economic Cooperation and Development (OECD) data in 2005, the most recent year for which broad international comparisons of per capita GDP can be made on a purchasing power adjusted basis.¹⁸
- Among OECD member countries, the United States ranked near the top in terms of GDP per hour worked.¹⁹ Among large major economies, only France posted higher productivity levels, as French workers' output was valued at \$49.00 per hour in 2005. Output per labor hour in the United States was 20 percent higher than in Australia, 25 percent higher than in Canada, and 40 percent higher than in Japan. Among the eurozone countries, GDP per hour worked averaged \$41.90. Even among the largest euro area countries, however, productivity levels varied notably, from \$36.90 in Spain to \$49.00 in France.

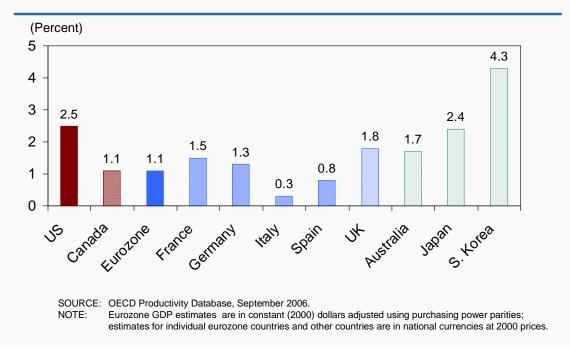
Figure 3-3. GDP per hour worked in the United States and the Eurozone countries, 1995-2005



- Not only are American workers highly productive but their productivity has grown steadily. As a result, the productivity gap between the United States and the euro area countries has widened. In 1995, an hour's work resulted in about 5 percent more output in the United States than in the eurozone countries.
- In 1995, American GDP per hour worked totaled \$34.00, or 4.9 percent higher than the \$32.40 per hour average for the countries that would form the euro area. Over the next 7 years, the gap had more than doubled, and by 2005, the gap had more than tripled from 4.9 percent to 15.9 percent—as U.S. growth in output per worker accelerated following the turn of the century.

Figure 3-4. Annualized growth in GDP per hour worked, 2000 to 2005

United States and selected other OECD countries



- Between 2000 and 2005, GDP per hour worked expanded at a 2.5 percent annualized rate in the United States, on par with Japan and easily surpassing the gains witnessed in Australia (1.7 percent), Canada (1.1 percent), and the eurozone countries (1.1 percent).
- Growth in the United Kingdom, which is not part of the euro area, was similar to that of Australia at 1.8 percent. With an annualized increase of 4.3 percent, South Korea handily topped the other major economies analyzed here.
- In addition to great efficiency (output per hour worked), U.S. workers also put in great effort in terms of the average annual hours worked. Indeed, what distinguishes the United States from other productivity leaders, like France, is the fact that the United States workforce is also a leader in work effort, that is, hours on the job. On average, U.S. workers clocked 1,713 hours in 2005 while workers in the euro area countries averaged 1,594 hours, practically 3 fewer weeks of full-time work.

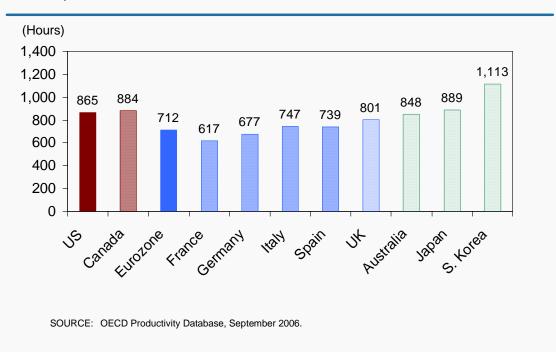


Figure 3-5. Annual labor hours per capita in 2005, United States and selected countries

- Another perspective on work effort is provided by hours worked per capita. Unlike hours worked per worker, hours worked per capita is a single measure of the labor activity across the population—taking into account both the proportion of the population that is employed and the number of hours worked.
- In 2005, per capita hours worked totaled 865 hours, placing the United States in the same neighborhood as Australia, Canada, and Japan. In Europe, hours were somewhat lower. Per capita hours came in at 801 in the United Kingdom. The euro zone average was 712 hours, or about 17 percent lower than in the United States.

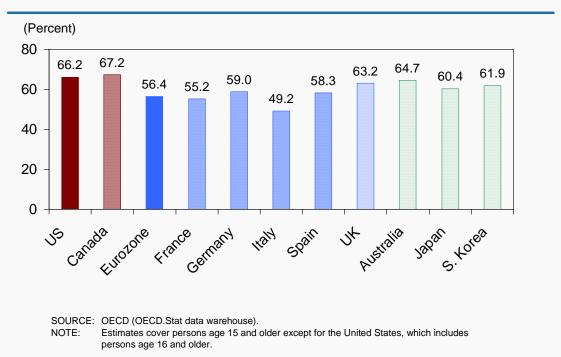


Figure 3-6. Labor force participation rate in 2006, United States and selected countries

- While hours worked per capita provide a measure of work activity, the labor force participation rates provide a measure of labor force attachment— specifically the proportion of the population that is working or actively looking for work. As seen in Figure 3-6, the United States and Canada were leaders in 2006, posting participation rates of 66.2 percent and 67.2 percent, respectively.
- Labor force participation rates for Australia and the United Kingdom were a few percentage points lower, while the eurozone countries came in nearly 10 percentage points lower than the United States, at 56.4 percent. With rates of 60.4 percent and 61.9 percent, Japan and South Korea showed greater labor force attachment than the larger European economies but slightly less than the four Anglophone countries.

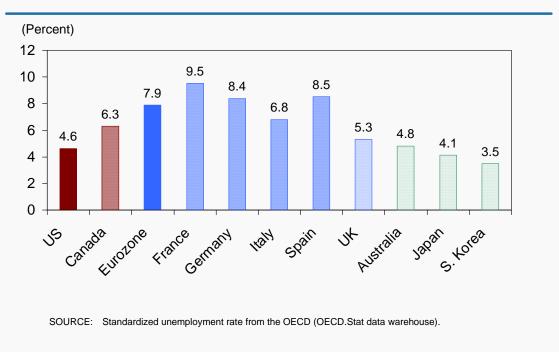


Figure 3-7. Unemployment rate in 2006, United States and selected countries

- The U.S. population participates in the labor market actively and with great success relative to other nations. The United States leads in terms of labor market participation and in terms of its low unemployment rate. In 2006, the unemployment rate was 4.6 percent. Japan and South Korea recorded lower rates; however, their labor force participation rates also were slightly lower.
- The euro area experienced not only lower participation rates, but workers also were less successful in translating participation into work. The unemployment rate across the euro area averaged 7.9 percent in 2006. Joblessness in Germany topped 8 percent and in France the unemployment rate was 9.4 percent. While the 8.5 percent rate in Spain might seem high, it marks a substantial improvement from a decade earlier, when rates in the upper teens were the norm.

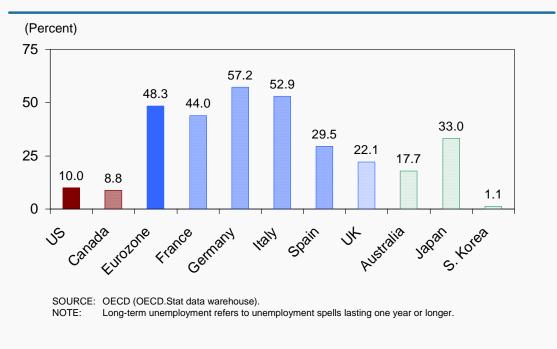


Figure 3-8. Incidence of long-term unemployment in 2006, United States and selected countries

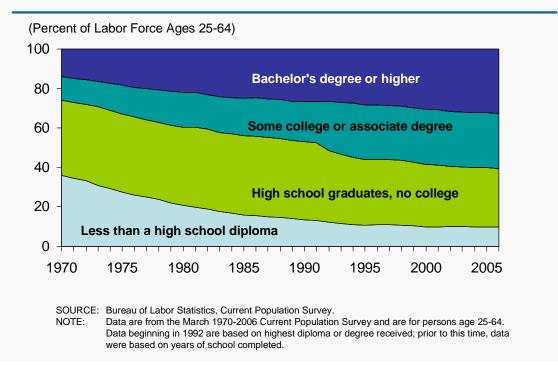
- A low unemployment rate, though laudable, may be little comfort to persons who are seeking work. In a truly vibrant labor market, low unemployment is coupled with low incidence of long-term unemployment. Europe and Japan differ starkly in their unemployment rates; however, both areas exhibit high degrees of long-term unemployment, defined as a period of unemployment lasting at least one year.
- Over half of unemployed workers in Germany and Italy were out of work for at least a year in 2006. The euro area average was close to half, at 48.3 percent. In Japan, one out of three unemployed persons had been looking for work for at least a year. In the United States, the ratio was just one out of ten. South Korea can boast of a ratio of approximately one in one hundred.

4 A LABOR FORCE THAT LEARNS

Sixty-five years ago only about one in twenty Americans ages 25 or older was a college graduate. Many jobs required no more than basic literacy and physical skills largely learned through experience. The change in the educational attainment of the labor force since the 1940s has been dramatic.

The 21st century labor market seeks and rewards workers who can offer the educational foundation, technical skills and creative flexibility that employers need to compete and to adapt to changing needs successfully. Higher educational attainment contributes to a worker's ability to efficiently absorb new knowledge and to learn new skills. Workers who can quickly move up the learning curve of a new job have a competitive advantage for economic success.

Figure 4-1. Educational attainment of the labor force over time



- As recently as 1970, a high school diploma was sufficient for most jobs, and 38.1 percent of the labor force (23.5 million persons) had completed no education beyond high school (12th grade), while an additional 36.1 percent had not completed high school.
- Between 1970 and 2006, the proportion of persons ages 25 to 64 with some college (or an associate degree) more than doubled. The share with a bachelor's degree and higher also more than doubled over the period.
- In 2006, 32.6 percent (40.0 million) of labor force members age 25 to 64 had earned a bachelor's degree or higher, 28.0 percent (34.3 million) had undertaken some college but had not attained a baccalaureate degree, 29.6 percent (36.2 million) had attained only a high school diploma (or GED certificate), and 9.8 percent (12.1 million) had attained less than a complete high school education (no diploma or GED certificate).
- The number of people ages 25 to 64 in the labor force with less than a complete high school education fell by 45.7 percent from 1970 to 2006.

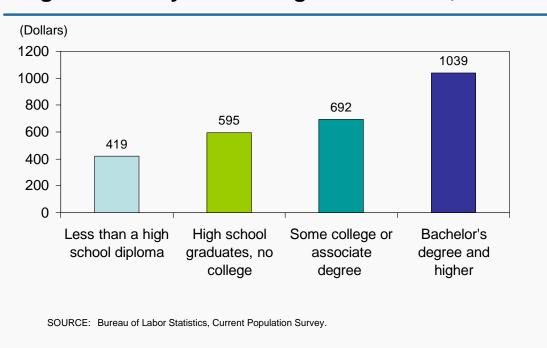
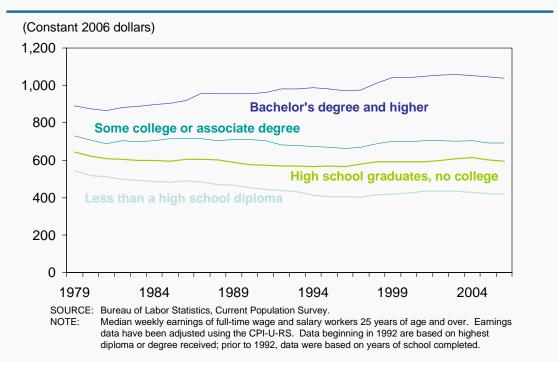


Figure 4-2. Median weekly earnings of full-time wage and salary workers age 25 and over, 2006

- The relationship between educational attainment and wages is strong and positive. Figure 4-2 shows that among workers 25 years old and over, median weekly earnings of wage and salary workers who usually work full time are nearly two and a half times more for persons with at least a college degree than for those who have not completed high school.
- The weekly difference of \$620 in 2006 would amount to an annual difference of \$32,240 if extended over a 52-week year.
- The trend toward higher educational attainment represents more than changing opportunities and tastes for consuming education services. The changes in educational attainment are closely associated with the changes in the occupational and industrial structure of the labor market, especially the growth in the demand for workers to provide professional, technical and managerial services.

Figure 4-3. Trends in real median weekly earnings, by educational attainment



- The growing demand for workers with greater educational attainment over the past three decades is a factor underlying the increase in the education premium over the period. The education premium is the difference in earnings between the lower and higher educated groups in the labor force.
- In 1979, the \$347 difference (in 2006 inflation-adjusted dollars) in median weekly earnings of usual full-time workers between those with less than a high school diploma and those who had completed 4 or more years of college amounted to a 63.8 percent education premium college completers enjoyed 1.6 times higher median weekly earnings than high school dropouts. By 2006, the education premium had risen to 148 percent: College graduates with a bachelor's or higher degree had median weekly earnings nearly 2.5 times greater than the typical high school dropout earned.
- Only college graduates have experienced growth in real median weekly earnings since 1979. In contrast, high school dropouts have seen their real median weekly earnings decline by about 23 percent.

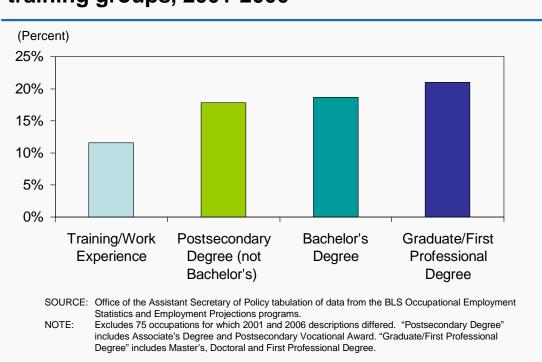
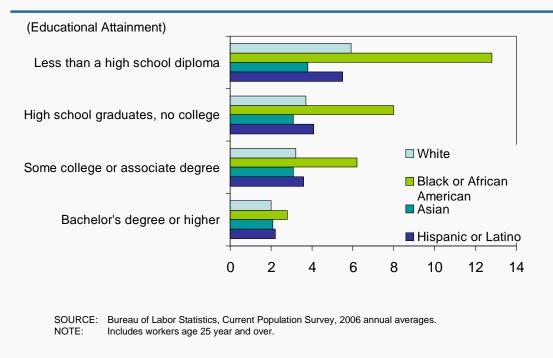


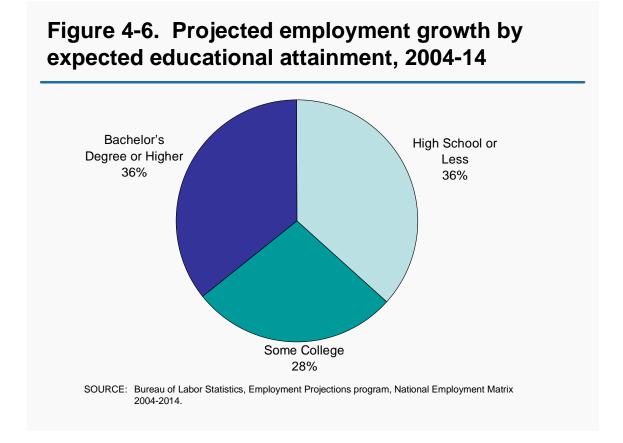
Figure 4-4. Wage growth, by education or training groups, 2001-2006

- Figure 4-4 illustrates the link between wage growth and the education or training that can serve as a pathway to employment. Between 2001 and 2006, wage growth was highest (21.0 percent) in jobs for which a post-baccalaureate degree was the most significant educational pathway to employment.
- Over the same time, wages grew 18.7 percent in jobs for which a bachelor's degree was the most significant educational pathway, and wages grew 17.8 percent in jobs for which an associate degree or vocational award was the most significant pathway. Wages grew 11.6 percent in jobs for which the most significant pathway to employment was on-the-job training or work experience but no formal post-secondary degree.

Figure 4-5. Unemployment rates, by education, race and ethnicity

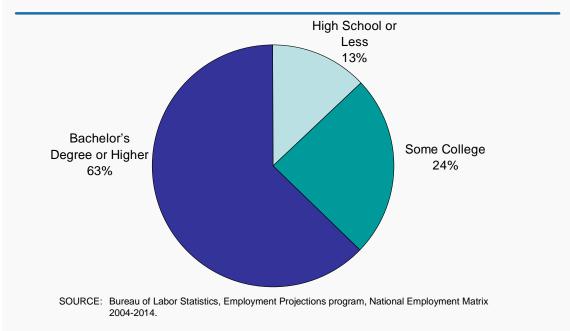


- Higher educational attainment is associated with lower unemployment rates regardless of race or ethnicity. For all races, lower rates of unemployment are correlated with higher levels of education. The unemployment rate, however, is particularly lower for African-American college graduates than African-American high school dropouts 2.8 percent for college graduates versus 12.8 percent for those without a high school diploma (or GED certificate).
- The relative cost of being a high school dropout has grown in terms of unemployment risk. The unemployment rate for high school dropouts spiked in the early 1980s, and while trending downward somewhat since then, it is still considerably higher than for other groups. The jobless rate for college graduates has been consistently lower and less subject to business cycle fluctuations than the unemployment rates associated with lower educational attainment. The gap in unemployment rates between those with a 4-year college degree and those without a high school diploma has increased from 3.3 percentage points in 1970 to 6.0 percentage points in 2006.



- The demand for a highly educated workforce is expected to continue. BLS projections for 2004 through 2014 indicate that nearly two-thirds (63.4 percent) of the projected 18.9 million new jobs will most likely be filled by workers with some post-secondary education. While most of these job openings will be in occupations for which workers with higher educational attainment will be the most suited, there will also be many jobs available for those with less education.
- In addition to growth, the BLS projections estimate openings because of net replacement needs – replacement of workers who permanently leave occupations for retirement or other reasons. Between 2004 and 2014, BLS projections show that the number of net replacement openings will total 34.3 million. In general, occupations in the high-school-or-less educational requirements cluster will account for a greater share of replacement job openings than of growth job openings because many of those occupations have a high turnover, an aging incumbent workforce and relatively large replacement needs despite slower relative growth.

Figure 4-7. Projected employment change in high-growth, high-wage jobs by expected educational attainment, 2004-14



- Within the projected job growth category, the projections for the high-growth, high-wage subgroup are particularly noteworthy. High-growth, high-wage jobs are occupations that are in the top half of the 2004 earnings distribution from the BLS Occupational Employment Statistics program (median annual earnings greater than \$28,770) and are projected to experience higher-than-average job growth over the 2004-2014 horizon. Among the 18.9 million new jobs associated with projected growth by 2014, 8.7 million fall within the high-growth, high-wage group.
- Among those occupations both with high growth and with high wages, 86.9 percent of new jobs are expected to be filled by workers with at least some college education. Within the high-growth, high-wage group, 5.5 million jobs (62.8 percent of the total) are expected to be filled by workers with at least a bachelor's degree and 2.1 million (24.2 percent) are expected to be filled by workers with some post-secondary education, such as a two-year community college academic program, a vocational certificate or specialized formal training.

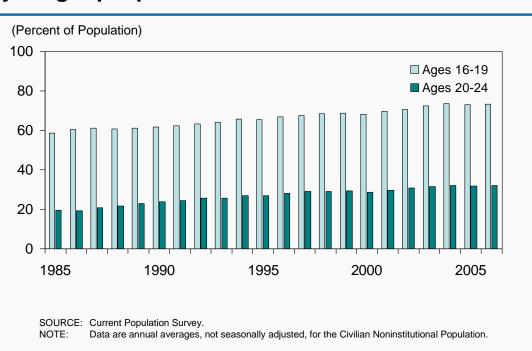


Figure 4-8. Trends in school enrollment among younger people

- The commitment that Americans have made to achieve higher levels of educational attainment reflects their realization of the present and future benefits of education for labor market success. More young Americans are investing in education. In 1985, 58.7 percent of the population ages 16 to 19 was enrolled in school; by 2006 the proportion had jumped to 73.3 percent. Likewise, among the population ages 20 to 24, 19.6 percent was enrolled in school in 1985, compared to 32.2 percent in 2006.
- More youth are completing high school. The average freshman graduation rate an estimate of the percentage of public high school students who graduate with a diploma within 4 years, was 74.7 in the 2004 2005 school year and has consistently increased in recent years.²⁰
- Likewise, since 2001, the college enrollment rate for recent high school graduates has trended upward. Of the 2.5 million youth who graduated from high school between October 2005 and October 2006, 65.8 percent were in college in October 2006, and 92.3 percent of those were full-time students.²¹

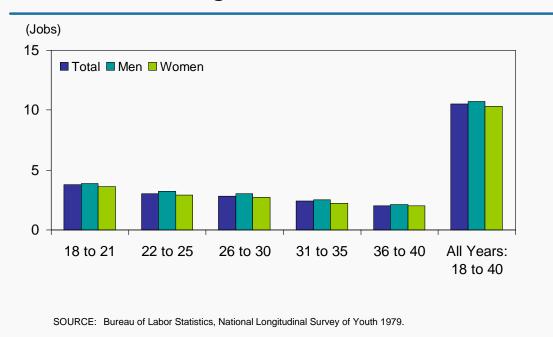
5 AT WORK AND BEYOND

With millions of jobs changing hands each year, America's labor force is dynamic. Technological advances and continually changing competitive conditions have led to higher rates of job change over working lives. Although long-run rates of U.S. employment and unemployment vary only slightly over time, the American labor market is characterized by large flows of workers between jobs and in and out of the labor force each year.

Americans who want to work can usually find a job within a short period of time, and sometimes they even find and accept more than one job. In 2006, more than two-thirds (67.6 percent) of unemployed workers had been unemployed for less than 15 weeks²², and 28 percent of persons who were reported as unemployed during a given month were found to be employed when they were re-interviewed the next month.²³

Moreover, many working Americans are able to choose work schedules that allow them to meet family obligations outside the workplace and to incorporate hobbies and activities into their lives. Ultimately, such choice and flexibility benefits workers, increasing the likelihood that workers will enjoy fulfilling careers.

Figure 5-1. Number of jobs held by a typical baby boomer between ages 18 and 40



- The average American born in the later years of the baby boom era held 10.5 jobs from ages 18 to 40.²⁴ Figure 5-1 shows that nearly three-fifths of these jobs were held from ages 18 to 25. Still, baby boomers held 4 jobs on average from ages 26 to 40. On average, male baby boomers held more jobs than did female baby boomers (10.7 jobs versus 10.3 jobs from age 18 to age 40).
- Frequent job changes mean that employment tenure for the average worker is relatively short. The median number of years that wage and salary workers had been with their current employer in January 2006 was 4.0 years.²⁵
- Because both men and women change jobs less frequently as they grow older, the percent of both men and women with 10 or more years of tenure generally increases with age. However, job tenure appears to be declining even as the workforce ages. Between 1996 and 2006, the percent of men age 25 and over with 10 years or more of tenure declined from 33.1 percent to 31.1 percent, and the decline occurred for men in most age groups. For employed women age 25 and over, the proportion with 10 or more years of tenure was stable over the period.²⁶

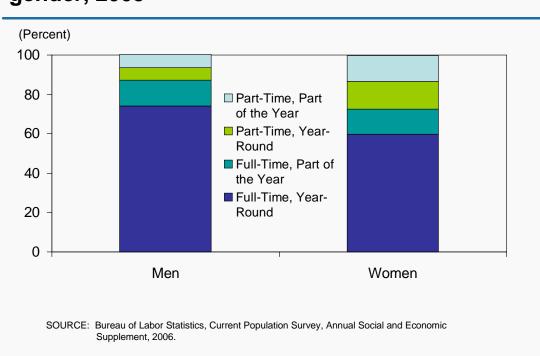


Figure 5-2. Work experience of the population, by gender, 2005

- Another manifestation of the U.S. labor market's dynamism is the flexibility and choice American workers have regarding work schedules, which allows for a variety of employment arrangements. About two-thirds of American workers worked full-time year-round in 2005, but a significant percentage worked full-time for only part of the year, part-time for the entire year, or part-time for only part of the year.²⁷
- Of those Americans who work part-time, most do so for non-economic reasons, such as to make time to care for other household members or to pursue additional education. In 2006, 87.2 percent of workers who worked part-time stated that they did so for non-economic reasons.²⁸
- Figure 5-2 shows the percentage of Americans employed in each employment category during 2005, by gender. Of those persons who worked in 2005, men were more likely to work full-time than were women: 87.0 percent of men worked full-time in 2005 versus 72.7 percent of women. Most of this difference is attributable to individuals who worked full-time for the entire year.

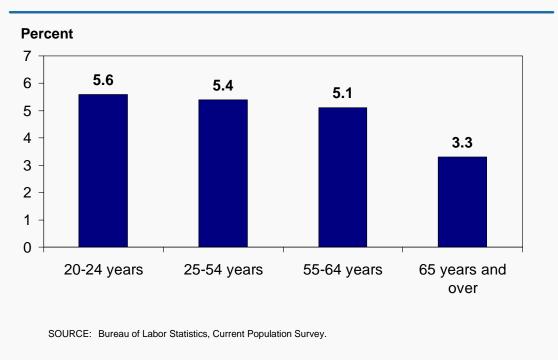
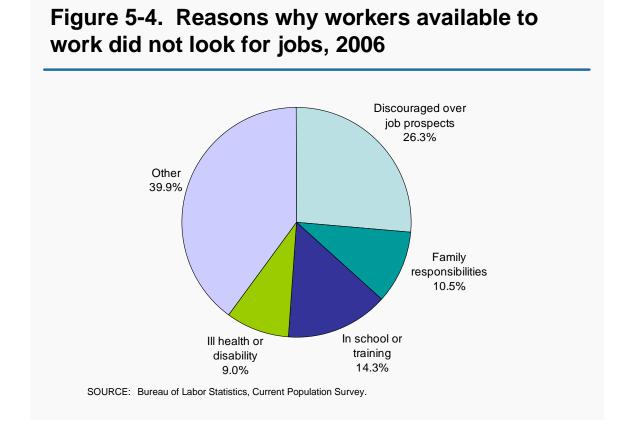


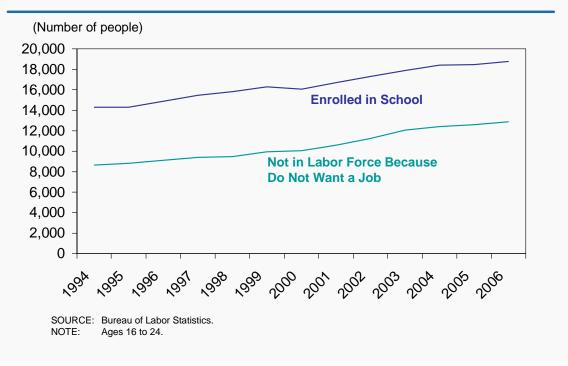
Figure 5-3. Percent of employed population that held multiple jobs by age, 2006

- While most employed Americans hold only one job at a time, some Americans choose to hold multiple jobs simultaneously. Some 7.6 million Americans (5.2 percent of average monthly total employment) held more than one job at a time in 2006.
- The likelihood of a worker holding more than one job decreases with age. Multiple jobholding occurred most frequently among persons ages 20 to 24, whereas persons age 65 and over were the least likely to hold more than one job.
- A smaller percentage of U.S. workers in 2006 held multiple jobs than 10 years ago. In 2006, 5.2 percent of Americans held multiple jobs on average during the year, compared to 6.2 percent of workers in 1996.²⁹ Most multiple jobholders worked in at least one job that was either part-time or had variable hours. Only 4.1 percent of workers with more than one job worked two full-time jobs.



- The flexibility of the U.S. labor market benefits Americans by allowing U.S. workers to choose careers and to find work that fit their educational plans and family structures. Each year, a significant number of Americans choose to enroll in school in order to obtain additional education at the expense of reduced current work and income.
- Figure 5-4 shows how participants responded to the Current Population Survey question regarding why they did not look for jobs in 2006 even though they were available to work. On average, 14.3 percent of those surveyed said that they did not look for work because they were either in school or undergoing training—more than the percentage of respondents that listed family responsibilities or ill health and disability as their reasons for not working (10.5 percent and 9.0 percent, respectively).

Figure 5-5. Trends in school enrollment and not wanting a job among young persons



- Foregoing work for additional education is particularly common among younger persons. In 2006, 34.2 percent of persons ages 16 to 24 who did not look for a job but were available to work said that their enrollment in school or training deterred them from seeking employment.
- Figure 5-5 shows that the number of Americans ages 16 to 24 who were enrolled in school, as well as the number of those who were not in the labor force and did not want a job, increased steadily from 1994 to 2006.

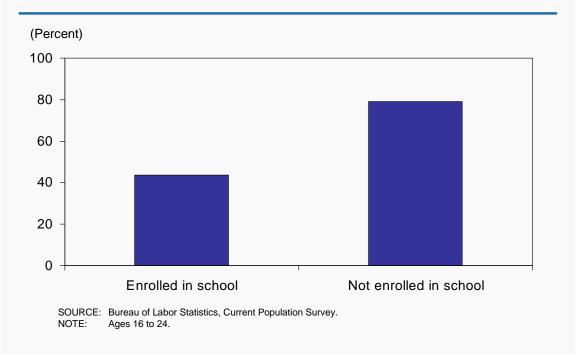


Figure 5-6. Labor force participation rates for young persons, by school enrollment status, 2006

- In recent years, the labor force participation rate of persons ages 16 to 24 has fallen from its most recent peak of 68.6 in 1989 to 60.6 percent in 2006. This decline was associated with an increase in the proportion of persons ages 16 to 24 who are enrolled in school.
- Labor force participation rates for students ages 16 to 24 have historically been much lower than rates for non-students. Recent research suggests that the labor force participation rates of both students and non-students have declined somewhat in recent years.³⁰ In 2006, the labor force participation rate for students ages 16 to 24 was 43.3 percent, compared to 81.8 percent for non-students.

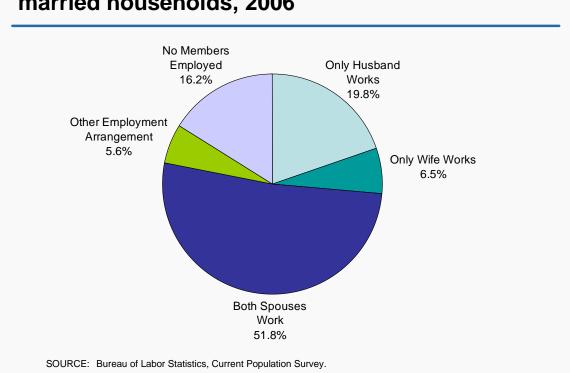


Figure 5-7. Employment arrangements among married households, 2006

- American workers also benefit from a flexible and dynamic labor market by having options when it comes to balancing work, life, and family structure. Figure 5-7 shows the employment arrangements adopted in 2006 by married-couple families.
- Just over half of these families, (51.8 percent) had employment arrangements in which both spouses worked, while 19.8 percent chose an arrangement in which only the husband worked. Just 6.5 percent chose an arrangement in which only the wife worked and 5.6 percent of married-couple families chose alternative employment arrangements.³¹

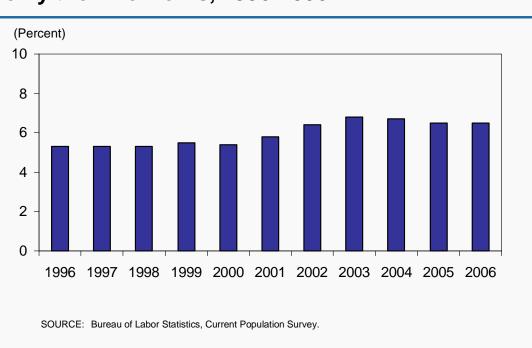


Figure 5-8. Percent of married couples in which only the wife works, 1996-2006

- Figure 5-8 shows the percent of all married couples (with or without children at home) in which only the wife worked from 1996 to 2006. In 1996, 5.3 percent of married couples had an employment arrangement in which only the wife worked, whereas 6.5 percent of married couples had such an arrangement in 2006. The percentage of married-couple families in which only the husband worked increased slightly over the same time period, rising from 19.0 percent in 1996 to 19.8 percent in 2006.
- Work arrangements are different for married couples with children younger than age 18 in their households compared to married couples without children. In 2006, 90.5 percent of married-couple families living with their own minor children had at least one employed spouse, compared to 83.8 percent of all married couples (with or without children at home). Additionally, dual-parent employment occurred in 62.0 percent of married-couple families with children, whereas the rate for dual-earner employment was just 51.8 percent for all married couples.³²

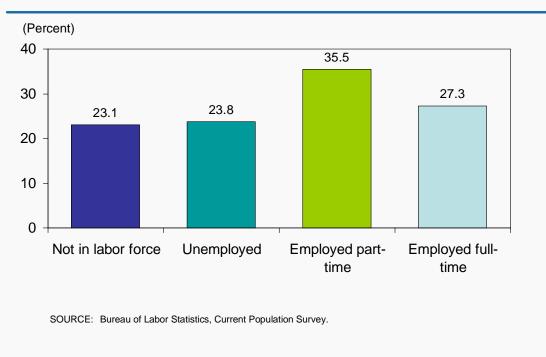
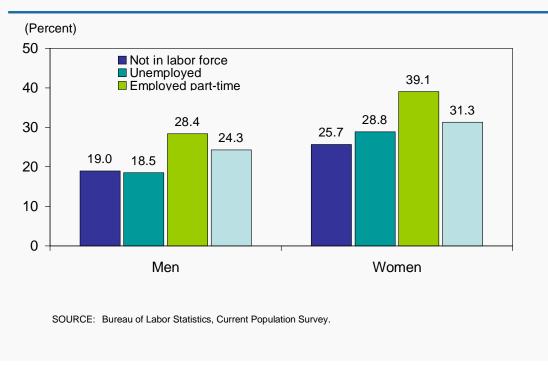


Figure 5-9. Volunteering rates by employment status, 2006

- Because there are many different family structures, having choice over work arrangements allows families more flexibility in balancing home and family responsibilities, as well as leisure and other activities including volunteering. Indeed, a significant percentage of workers choose to give back to their communities by volunteering.
- The latest available data show that 61.2 million Americans, or approximately 26.7 percent of the U.S. population, volunteered for an organization at least once between September 2005 and September 2006.³³ On a typical day in 2006, 6.7 percent of the population age 15 and over engaged in volunteer activities, spending on average 2.0 hours on such activities.³⁴
- Figure 5-9 shows the percentage of Americans who volunteered in 2006 according to employment status. 35.5 percent of workers employed part-time volunteered—more than any other employment category. Individuals who were not in the labor force were the least likely to volunteer (23.1 percent).

Figure 5-10. Proportion of men and women who volunteer, by employment status, 2006



• The percentage of Americans who volunteer from each employment category has not changed appreciably since the Bureau of Labor Statistics first began collecting data on volunteering in 2002. About 30.1 percent of women volunteered last year versus 23.0 percent of men, and a larger percentage of women than men volunteered across all employment status categories. Persons age 35 to 54 were the most likely to volunteer, while persons in their early twenties were the least likely.

6 LABOR FORCE TRENDS

A source of strength of the U.S. economy is the ability to recognize and embrace change: to transform challenges into opportunities. This chapter presents two key dynamics that will affect the shape of the U.S. labor force in the first half of the 21st century: an aging population and increasing racial and ethnic diversity. Both factors are expected to coincide with a pronounced slowing in labor force growth.³⁵ Another factor slowing labor force growth is the plateauing of women's labor force participation.

Workforce changes come from many angles – whether in the form of globalization of trade or an evolving population composition. Tackling these hurdles is today's highly skilled, adaptive, and proud workforce. These hallmarks will serve the American workforce well as it meets the challenges that unfold in the future.

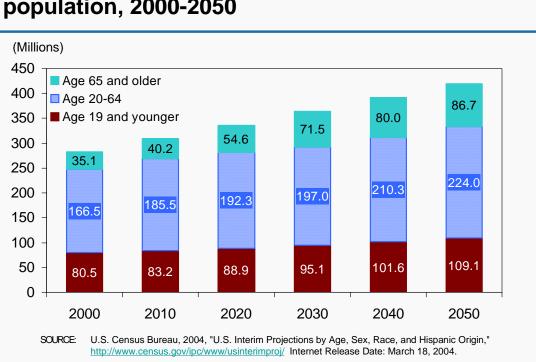


Figure 6-1. Age distribution of the U.S. population, 2000-2050

- The resident population of the United States recently surpassed 300 million, and by 2050, the population will approach 420 million.³⁶ During this period, the population of older Americans (age 65 and older) is expected to more than double compared to current levels to reach an estimated 86.7 million.
- By 2030, nearly one-fifth of the population will be 65 years or older. Growth in the population of younger Americans will be slower, as the population under 20 years of age will increase from current levels by roughly one-quarter to 109.1 million by 2050.

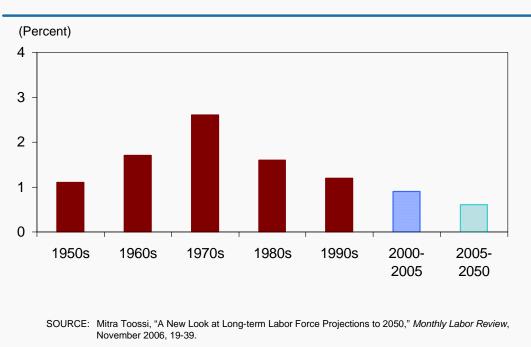
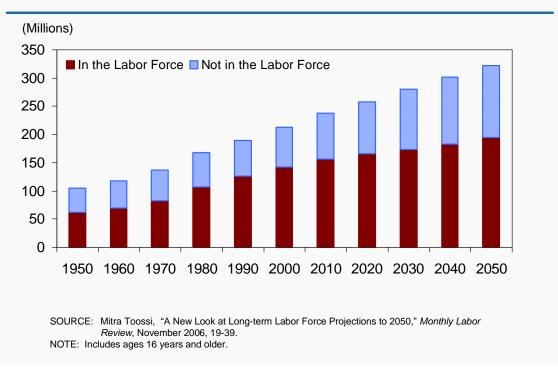


Figure 6-2. Annual rates of labor force growth, 1950-2050

- The relatively fast growth of the population above traditional retirement age combined with slower growth of younger cohorts are expected to be a severe constraint on labor force growth. This slowing will extend an already well-established trend reflecting the aging of the baby boomer generation.
- Growth peaked in the 1970s with the entry of the baby boomers into the labor force, when gains averaged 2.6 percent. Growth dropped back below 2.0 percent during the following two decades and fell further to 0.9 percent during the 2000-05 period. Between 2005 and 2050, annual labor force growth is projected to slow further, averaging 0.6 percent.
- Slower labor force growth increases the importance of productivity growth to enable the economy to expand output, to support increasing proportions of older, retired consumers (and Social Security recipients), and to facilitate increased living standards. Innovation, capital investment, and investment in education and training create a foundation for future productivity growth.

Figure 6-3. Civilian noninstitutional population and labor force growth, 1950-2050



- As the baby boomer generation enters retirement age, a rising share of the population will be outside the labor force. By 2050, the labor force is projected to number 195 million, a 28.6 percent increase from 2005. In contrast, the number of persons not in the labor force will surge by 64.1 percent to 128 million.
- As a result, the share of the civilian noninstitutional population age 16 and older that is in the labor force will decrease from 66.2 percent to 60.4 percent. It is worthwhile noting that a 60 percent participation rate is not without historical precedent. Labor force participation rates around this level and lower were the norm until the mid 1970s.

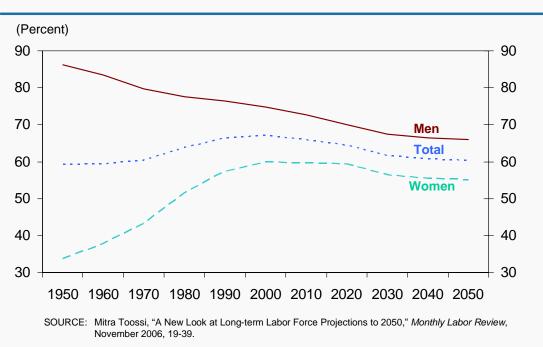


Figure 6-4. Civilian labor force participation rates, 1950-2050

- During most of the second half of the past century, the increased incorporation of women into the labor force boosted overall labor force participation at the same time that men's participation weakened.
- Overall labor force participation rose from 59.2 percent in 1950 to a peak of 67.1 percent from 1997 to 2000. While men's labor force participation slowly eroded from over 86 percent in the early 1950s to 73.5 percent in 2006, women's labor force participation rate increased from 33.9 percent in 1950 and peaked at 60.0 percent in 1999.
- Both genders are expected to see participation fall in the future, reflecting the rising share of the population of retirement age. By 2050, the labor force participation rates for men and women are projected to fall from 73.5 percent and 59.4 percent in 2006 to 66.0 percent and 55.1 percent, respectively.

(Thousands) (Percent) 1,500 100 Degrees Conferred ---- Percent of Degrees Conferred 1,250 80 1,000 60 750 40 500 20 250 0 0 1961 1966 1971 1976 1981 1986 1991 1996 2001 2006 2011 2016 SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Completions Survey" (IPEDS-C: 91-99), and Fall 2000 through Fall 2004; and Degrees Conferred Model, 1975-76 through 2003-04.

Figure 6-5. Bachelor's degrees conferred to women, 1961-2016

- Women's labor force participation has risen in step with women's increasing educational attainment. Yet, while participation has plateaued and is expected to remain flat, educational attainment will continue upward for at least the next decade.
- In 1961, women earned less than 40.0 percent of the bachelor's degrees conferred, or about 140,000 degrees. By 1982, women started earning more than half of the bachelor's degrees conferred. In 2004, women earned over 800,000 bachelor's degrees, or 57.5 percent of all bachelor's degrees. Continuing this positive trend, women are expected to be awarded over 60 percent of all bachelor's degrees by 2016.

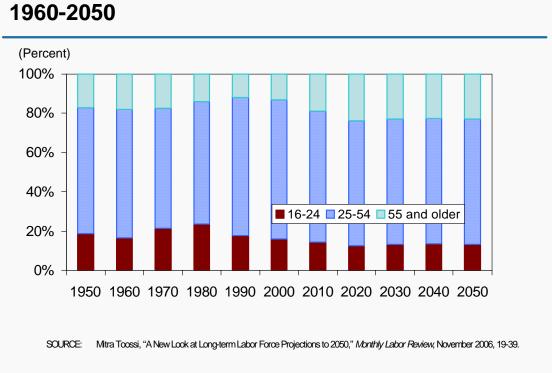
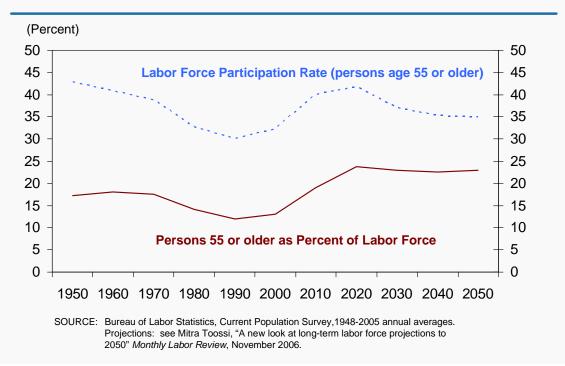


Figure 6-6. Civilian labor force by age group, 1960-2050

- The median age of the population provides a barometer of the maturing of the U.S. labor force. This statistic tells us the age of the worker in the middle of the age distribution that is, the point at which half the population is younger and the other half is older. The median age of the labor force was 40.8 years in 2006, having trended upward from 34.6 years in 1980 and 1981. BLS projects the median age of the labor force to reach 42.0 years in 2020 before declining to 41.6 years in 2050.
- As shown in Figure 6-6, another way of looking at the aging of the labor force is to look at each age group's share of the labor force. In 1970, prime age workers (ages 25 to 54) comprised 60.9 percent of the labor force. This age cohort's share of the labor force peaked at 72.3 percent in 1996 and abated to 68.4 percent by 2006. Their share is expected to continue its downward trend falling to 63.6 percent by 2020 and remaining close to that share through 2050.

Figure 6-7. Older workers, age 55 and above, in the labor force, 1950-2050



- While younger workers' participation has slipped in recent years, older workers' labor force participation has increased. After steadily declining for much of the second half of the 20th century, the labor participation rate of older Americans and their share of the labor force have been increasing since the mid 1990s.
- With greater life expectancy and access to better health care than their predecessors, baby boomers will have higher labor participation rates than the previous generation. The labor participation rate of persons 55 years and older has increased from 29.4 percent in 1993 to 38.0 percent in 2006. Their participation rates are expected to peak at 41.9 percent around 2020 before edging back to 35.1 percent around 2050.
- This fall in the labor participation rate reflects the fact that most of the baby boomer population will be over 60 years old after 2020. However, older workers will still comprise a significant proportion of the labor force. Their share of the labor force will increase from 16.8 percent in 2006 to 23.8 percent around 2020 and slightly recede to 22.9 percent by 2050.

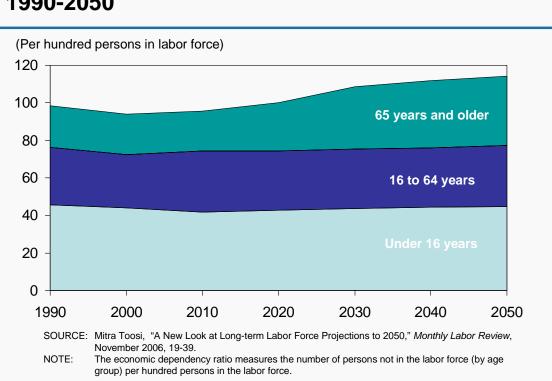


Figure 6-8. Economic dependency ratio, 1990-2050

- As the baby boomers enter their retirement years, future workers will carry the burden of supporting a relatively greater dependent population.³⁷ In 2000, 93.9 persons were not in the labor force for every 100 persons in the labor force.
- The ratio will increase to 100.1 in 2020 and continue increasing to 114.0 in 2050. As the percent of persons age 65 and older who are not in the labor force, increases from 21.6 in 2000 to 36.8 by 2050, the amount of people supporting those who do not work will tilt in the opposite direction.

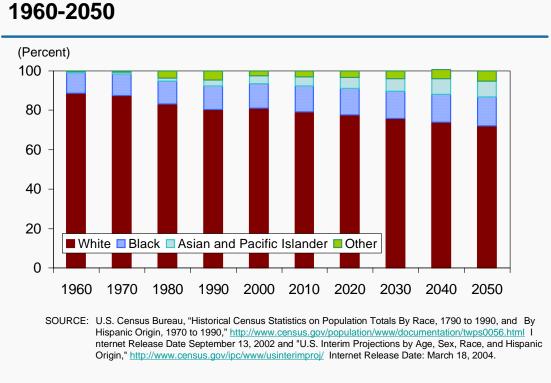


Figure 6-9. Population distribution by race, 1960-2050

- Many immigrants perceive the United States as a land of opportunity. Immigrants seeking freedom and opportunity have contributed to the increasing racial and ethnic diversity of the nation's population. In 1960, racial and ethnic minorities accounted for about 11.4 percent of the total population, or 20.5 million persons. The racial and ethnic minority share has steadily increased to 18.6 percent in 2006, or about 55.6 million persons.
- Asians, in particular, have seen a significant increase in their share, increasing from 0.5 percent in 1960 to nearly 4.4 percent in 2006. The African-American population has also seen a sizable increase in its share, increasing from 10.5 percent in 1960 to 13.4 percent in 2006. The American Indian and Alaska Native population, though only about 1.5 percent of the total population in 2006, has increased eight-fold from 0.5 million in 1960 to nearly 4.5 million in 2006. The share of persons of Hispanic ethnicity (who may be of any race) has increased dramatically from 6.4 percent of the population in 1980 to 14.8 percent in 2006.

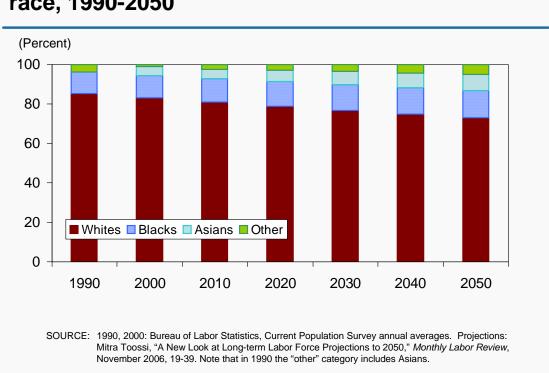


Figure 6-10. Distribution of the labor force by race, 1990-2050

- In the coming decades, the labor force will follow population trends and become increasingly diverse. The declining share of the white labor force will parallel the declining share of the white population. In 1990, racial and ethnic minorities accounted for 14.6 percent of the labor force, with African-Americans and Asians accounting for 10.9 percent and 3.7 percent, respectively.
- In 2005, racial and ethnic minorities increased their share to 18.2 percent, with African-Americans and Asians increasing their share to 11.4 percent and 4.4 percent, respectively. By 2050, the proportion of racial and ethnic minorities in the labor force is projected to increase to 26.9 percent. The African-American and Asian labor force is expected to increase to 13.8 percent and 8.3 percent, respectively. Other races will also increase their share of the labor force from about 1 percent in 2000 to 4.9 percent in 2050.

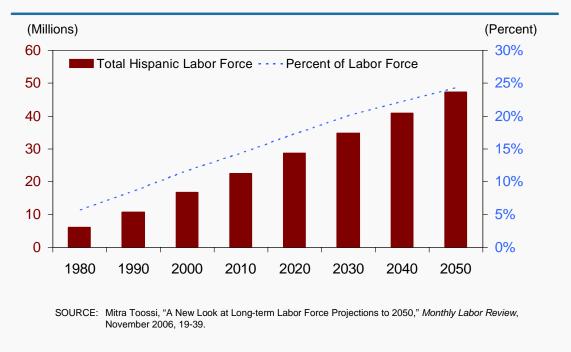


Figure 6-11. Hispanic share of civilian labor force, 1990-2050

• The Hispanic share of the labor force will increase from 13.3 percent in 2005 to 17.3 percent in 2020, as the number of Latinos in the labor force reaches 28.8 million. By 2050, the Hispanic labor force is projected to number 47.3 million persons, or 24.3 percent of the total labor force.

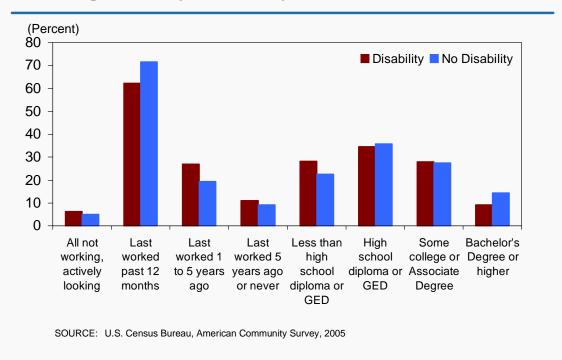
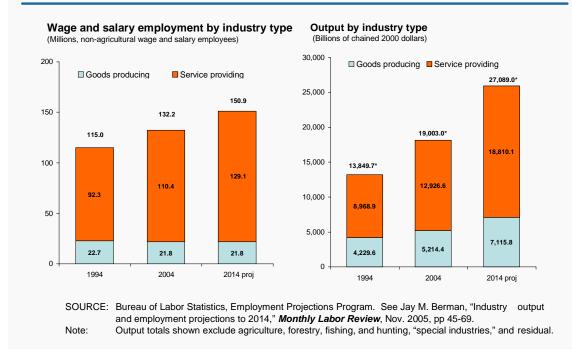


Figure 6-12. Persons not working but actively seeking work by disability status, 2005

- As the baby boomers enter retirement, it is likely that all sources of labor will be in higher demand, including people with disabilities. In 2005, 12.3 percent, or 22 million people, of working age (18 to 64 years old) had a disability. About 38 percent of men and women with a disability are employed, compared with 76.9 percent of people who do not have a disability.³⁸
- As shown in Figure 6-12, among persons who had last worked one to five years ago, 27.0 percent of persons with a disability were actively seeking work, compared with 19.3 percent of persons without a disability. Among persons with less than a high school education, 28.2 percent of persons with a disability were actively seeking work, compared with 22.5 percent of persons without a disability. Additionally, the proportion of people age 35 and over who were not working but looking for work was greater among persons with disabilities than among persons without disabilities.
- These potential workers from the population of persons with disabilities are a valuable, underutilized segment of our labor market, and will be even more so as the labor market tightens in the future.

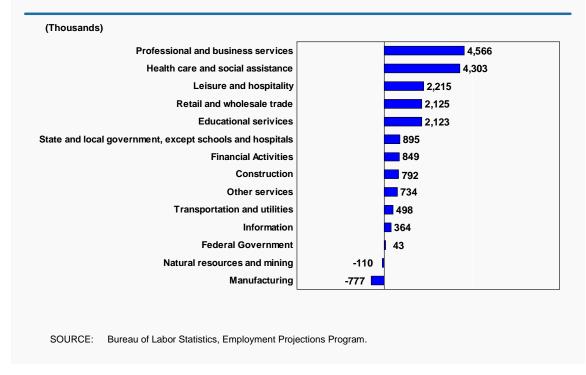
Figure 6-13. Employment and output: goodsproducing and service-providing sectors

1994, 2004 and projected 2014, non-agricultural industries.



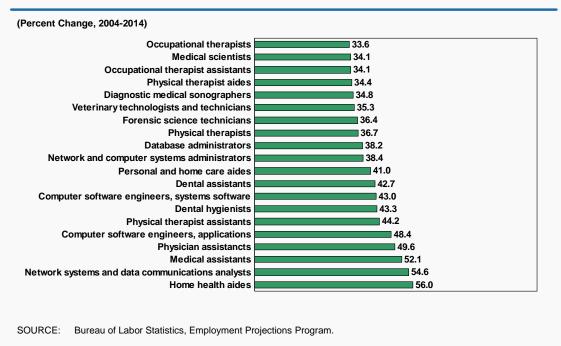
- Which sectors of the economy will be the engines of future employment growth and what will be required of the American workforce to fill those jobs? These questions lie at the heart of anyone contemplating potential education and career paths.
- Service-providing industries now dominate the landscape of the American workforce from both an employment and output perspective. Presently, more than three out of four jobs are attributed to service-providing industries. While the goods-producing side of the economy is expected to keep pace with its service-providing counterpart in terms of output growth, continued productivity gains and foreign competition will negate any prospect for this trend's reversal.

Figure 6-14. Projected employment change between 2004 and 2014, major industry sectors



- Industries that currently employ large numbers of people, such as retail trade, food services and drinking places, and construction, will continue to be important sources of employment, even though their growth may be proportionately less than other sectors. Together these industries account for almost a quarter of total wage and salary employment.
- However, the industry sectors that are expected to exhibit the largest levels of growth and provide the most opportunities in the future are professional and business services and health care and social assistance. Together they are projected to add 8.9 million jobs or almost half of the total expected employment growth for the economy as a whole by 2014.

Figure 6-15. Projected 20 fastest growing occupations



- The gradual aging of the population coupled with advances in new technologies that increase life expectancies, will place the health care sector as a dominant source of future employment growth. Fourteen of the projected 20 fastest-growing occupations are health related, including twelve in health care and two in other occupation groups. Home health aides and medical and physician assistants are occupations that highlight this trend.
- In terms of occupations with the largest growth prospects, registered nurses are expected to generate 703,000 new jobs from growth by 2014 the second largest in the economy. An additional 501,000 job openings will result from the need to replace experienced registered nurses who leave the occupation permanently, for retirement or other reasons.
- These trends suggest that the American workforce continues to be responsive to changing education and training requirements. Today, and increasingly in the future, a solid education foundation, including completion of post-secondary courses or degrees is needed to compete successfully in the job market.

america's dynamic workforce: 2007 NOTES

⁵ Based on annual average of monthly employment levels for each occupational group estimated from the Current Population Survey (CPS). The CPS data cover all workers, including public and private wage and salary workers and the self-employed.

⁶ In addition to the occupations shown in the chart, the Farming, fishing and forestry occupations group experienced an employment decline of 91,000. This group was not included in the chart because ECEC data to rank hourly compensation were not available.

⁷ Capital is defined as the services derived from the stock of physical assets and software. The capital assets included are computers, software, communications and other information processing equipment, other fixed business equipment, structures, inventories, rental residences, and land. Investments, depreciation, capital income, and estimated rental prices are estimated for each of these eight aggregates

⁸ Labor compensation is defined as wages and salaries of employees plus employers' contributions for social insurance and private benefit plans. The value of all other fringe benefits also is included. Additionally, BLS estimates the wages, salaries, and supplemental payments of the self-employed. ⁹ Capital compensation is defined as the sum of the portion of noncorporate income not attributed to labor, corporate profits, net interest, rental income, adjusted capital consumption allowance, inventory valuation adjustments, the portions of indirect taxes assumed to be associated with capital (notably motor vehicle and property taxes), and the sum of business transfers and government subsidies.

¹⁰ These earnings data relate to production workers in natural resources and mining and manufacturing, construction workers in construction, and nonsupervisory workers in the service-providing industries. On average these workers account for about 82 percent of private nonfarm jobs.

¹¹ The Current Employment Statistic program has also added series on average weekly hours and gross monthly earnings of all private nonfarm employees.

¹² Both figures are not seasonally adjusted.

¹³ Workers' educational attainment and occupational choices, in addition to their industry choices, influence their wages. BLS has defined a set of six educational attainment clusters by detailed occupation that provide "a natural hierarchical sorting of occupations that reflects increasing levels

¹ Hires include re-hires of laid off employees and transfers of employees to other establishments operated by the same employer.

² \$12.455 trillion according to the BEA revised estimate published in July 2006.

³ GDP growth rates reflect BEA benchmark revisions published in July 2006.

⁴ Based on annual average for 2006 of quarterly estimates from the BLS National Compensation Survey's Employer Cost of Employee Compensation (ECEC) reports. Occupations in the graph are ranked according to 2006 annual average hourly compensation. ECEC data cover civilian workers employed by the private sector, state governments, and local governments. The construction estimate (\$29.19) is a combination of construction and extraction occupations only for the first 3 quarters of 2006, but includes also farming, fishing and forestry occupations for the quarter ending December 2006. If farming, fishing, and forestry occupations were added for the other three quarters the estimate would be 5 cents lower, \$29.14.

of skill, education, and training. Occupations are grouped on the basis of the percentage of workers who have a high school diploma or less, some college or an associate degree, or a college diploma (bachelor's degree or higher). The system defines six education clusters: high school occupations (HS), high school or some college occupations (HS/SC), some college occupations (SC), high school or some college (HS/SC/C), some college or college (SC/C), and college (C). Because only two occupations fell into the some college cluster, this cluster was folded into the some college or college category for this analysis. For more information on the educational attainment clusters, see *Occupational Projections and Training Data, 2006-07 Edition*, page 2.

¹⁴ In Figure 2-9, the category shares for health insurance (7.7%) and other insurance (0.5%) but the published combined insurance category is 8.1%. The difference reflects the effects of rounding. ¹⁵ The "eurozone" or "euro area" is the area encompassing those European Union member states in which the euro has been adopted as the single currency in which a single monetary policy is conducted under the responsibility of the Governing Council of the European Central Bank. Currently there are 13 member states: Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Slovenia, and Spain. Because Slovenia joined the euro area in January 2007, the eurozone estimates included in this chapter exclude this member state. ¹⁶ July 2007 estimates from the CIA World Factbook, available online at

www.cia.gov/library/publications/the-world-factbook.

¹⁷ A Chartbook of International Labor Comparisons (available online at www.dol.gov/asp) and United Nations national accounts main aggregates database.

¹⁸ GDP estimates are in current U.S. dollars adjusted using purchasing power parities.

¹⁹ Comparisons of data based on levels of hours worked for a given year are not precise because of differences in data sources methods of estimation.

²⁰ U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education." Findings available at <u>http://nces.ed.gov/pubs2007/2007352.pdf</u> and

http://nces.ed.gov/programs/coe/2007/section3/tableXLS.asp?tableID=701

²¹ See the BLS publication "College Enrollment and Work Activity of 2006 High School Graduates" USDL 07-0604, April 26, 2007. <u>http://www.bls.gov/news.release/pdf/hsgec.pdf</u>

²² BLS data measures the length of spells of unemployment in progress, not completed periods of unemployment.

²³ The percentage of persons re-employed is based on unpublished BLS gross flows data derived from comparisons of the same individuals in successive monthly CPS records. Data are 2006 annual average.

²⁴ See the BLS publication "Number of Jobs Held, Labor Market Activity, and Earnings Growth among the Youngest Baby Boomers: Results from a Longitudinal Survey," USDL 06-1496, August 25, 2006. <u>http://www.bls.gov/news.release/pdf/nlsoy.pdf</u>

²⁵ See the BLS publication "Employee Tenure in 2006," USDL 06-1563, September 8, 2006. http://www.bls.gov/news.release/pdf/tenure.pdf

²⁶ Employee Tenure in 2006, Table 2.

²⁷ BLS, "Work Experience of the Population in 2005," USDL 07-0199, Feb. 9, 2007.

²⁸ The proportion includes both persons who usually worked part-time and persons who usually worked full-time, but reported part-time hours during the survey week. For only those who usually worked part-time the percentage who reported non-economic reasons was 88.3 percent.

²⁹ Bureau of Labor Statistics, Current Population Survey, 1996-2006.

³⁰ See Mosisa, A. and Hipple, S., "Trends in labor force participation in the United States," *Monthly Labor Review*, October 2006, 35-57.

http://www.bls.gov/opub/mlr/2006/10/art3full.pdf,

³¹ Alternative employment combinations in married-couple families are cases in which neither the husband nor wife is employed, but other family members (*e.g.*, children over 16, grandparents, siblings of the husband or wife) are employed.

³² See the BLS publication "Employment Characteristics of Families in 2006," USDL 07-0673, May 9, 2007. <u>http://www.bls.gov/news.release/pdf/famee.pdf</u>

³³ See the BLS publication "Volunteering in the United States, 2006," USDL 07-0019, January 10, 2007. <u>http://www.bls.gov/news.release/pdf/volun.pdf</u>

³⁴ American Time Use Survey—2006 Results.

³⁵ This chapter draws heavily on valuable research by Mitra Toossi of the Bureau of Labor Statistics published as "A new look at long-term labor force projections to 2050" in the *Monthly Labor Review*, November 2006.

³⁶ Census Bureau, Interim population projections, available online at

www.census.gov/population/www/projections/popproj.html (last visited July 2007).

³⁷ BLS defines the economic dependency ratio as the number of persons in the total population (including children and the Armed Forces) that are not in the labor force per 100 of those who are in the labor force.

³⁸ Data are limited to household population and exclude the population living in institutions, college dormitories, or other group quarters.