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### SECRETARY'S MESSAGE

#### By U.S. Secretary of Labor Elaine L. Chao



The American economy is strong and growing. It is a good time for American workers: Job opportunities are increasing, unemployment is low, and compensation is rising. During the past five years, through recession,

terrorism, and natural disaster, the American economy has proven itself to be resilient. We have consistently bounced back from adversity and recorded growth that is the envy of other major industrial nations.

In the first half of 2006 the unemployment rate averaged 4.7 percent. That's lower than the 5.1 percent average of 2005 and a full point lower than the 5.7 percent average unemployment rate of the 1990s. For a comparison, look at France and Germany: They have persistent unemployment rates near double the U.S. rate. And their long-term unemployment of 12 months or more is nearly triple that of the United States.

By June 2006, the latest month for which data for this report were available, the United States had enjoyed 34 months of uninterrupted job growth. More than 5.4 million net new jobs have 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 3.2 percent in 2005, and in the first half of 2006 real GDP gains averaged a 4.1 percent annual rate. That's the best record

among the major G-7 industrialized nations, and it's remarkable for a mature, industrialized nation.

But even as our economy grows steadily, 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 large numbers. In fact, the majority of employment growth over the past five 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. 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; those who do not keep up in terms of knowledge and skills increasingly lag behind in employment and earnings. Our goal at the Department of Labor is to ensure that all Americans 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 21<sup>st</sup> century economy.

Despite the difficult challenges that America has confronted over the past five years — terrorist attacks, accounting scandals, devastating hurricanes and high oil prices — our economy is doing well. That performance is a tribute to the dynamism, productivity and flexibility of our nation's workforce.

#### **ACKNOWLEDGEMENTS**

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Veronica Vargas Stidvent, Assistant Secretary for Policy; Suey Howe and Leon Sequeira, OASP Deputy Assistant Secretaries; and John Britton, OASP Chief of Staff provided editorial advice and support throughout the development of *America's Dynamic Workforce: 2006.* Laura Genero, Associate Deputy Secretary for Communications, generously provided insightful advice and assistance at various stages of design and development of the report.

Many of the charts were derived from *Charting the U.S. Labor Market in 2005*, a compendium of labor market condition and trend charts compiled by the Bureau of Labor Statistics (BLS). The BLS report provides more information and technical detail on

many of the topics summarized in this volume. It <u>is</u> available online at www.bls.gov/cps/labor2005/home.htm\_

The text and charts for *America's Dynamic Workforce: 2006* were developed and edited by Ron Bird, Chief Economist, and by OASP economists David Langdon, Alison Pasternak, Regina Powers and Lisa Stuart. Additional design assistance and editorial review was provided by Mario Distasio, Kathleen Franks, Jim Jones, Brad Mantel, Sheila McConnell, Fred Siskind, Stephanie Swirsky, and Babette Williams. Gretta Jameson assisted in the coordination of print production.

Diana Furchtgott-Roth, previously Chief Economist at the Department of Labor and now Senior Fellow at the Hudson Institute, edited the original 2004 version of *America's Dynamic Workforce* and provided valuable advice to facilitate the development of the present edition.

#### INTRODUCTION

America's Dynamic Workforce: 2006 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.

There are six chapters:

- ➤ Chapter 1 summarizes the current levels and trends of payroll jobs, total employment, job openings, turnover, unemployment, and GDP.
- ➤ Chapter 2 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.
- ➤ Chapter 3 presents an overview of patterns, recent trends and projections regarding the distribution of employment across industries and occupations.
- Chapter 4 examines the educational attainment of the labor force, including trends and comparisons of employment, earnings, and unemployment relative to educational attainment.
- ➤ Chapter 5 examines the concept of labor force flexibility in terms of schedules, work arrangements, and other factors.

➤ Chapter 6 highlights the dimensions of opportunity in the American workforce, including dynamic age, gender, race, and ethnicity perspectives.

The end notes provide important technical details, caveats, and references to additional information about the data items discussed in the main text.

Most of the tables and charts in *America's Dynamic Workforce: 2006* reflect annual average data for calendar years ending in 2005 as the most recent full year available. In some cases, monthly data through the latest available month in 2006 (typically June) are also referenced.

In this report, the terms "population" and "labor force" refer to the civilian noninstitutional population ages 16 and older and to the civilian labor force age 16 and over unless specified otherwise. Similarly, data on workers refer to employed persons age 16 and over unless otherwise noted. Monthly or quarterly labor market data are seasonally adjusted unless specified otherwise.

Much of the data in this report were compiled from the public access files of the Bureau of Labor Statistics' Web site at <a href="www.bls.gov">www.bls.gov</a>. A number of the charts were derived from the extensive chart book published by BLS, <a href="Charting the U.S. Labor Market in 2005">Charting the U.S. Labor Market in 2005</a>, and available for download from the BLS Web site.

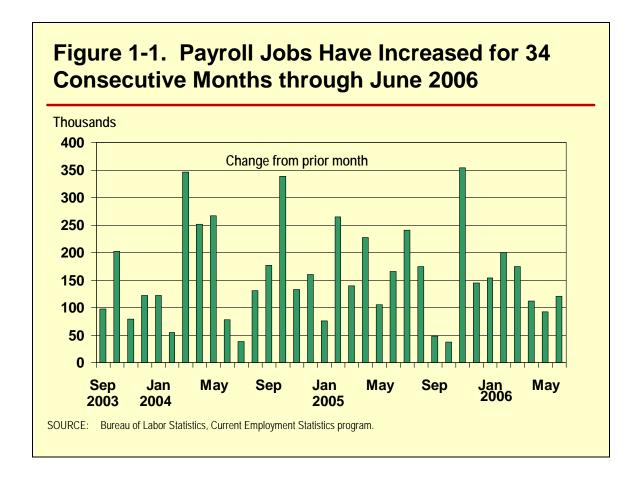
Readers seeking a more extensive review of international labor market comparisons than the summary provided in Chapter 2 are encouraged to download the Department of Labor publication *A Chartbook of International Labor Comparisons* at <a href="https://www.dol.gov/asp/media/reports/chartbook/index.htm">www.dol.gov/asp/media/reports/chartbook/index.htm</a>.

# 1

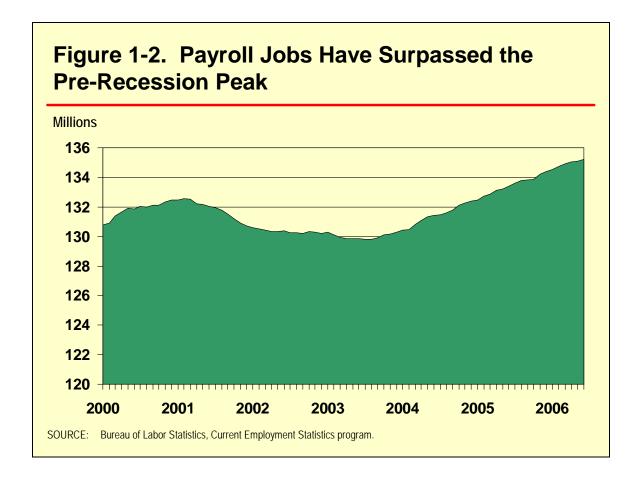
#### **GROWING JOBS, OUTPUT AND EARNINGS**

The American labor market is strong and resilient. The labor market indicators describe an economy that is creating jobs, expanding output, and rewarding work with good compensation. Since jobs began recovering in 2003 from the effects of the last recession, the economy has tallied 34 consecutive months of job gains (through June 2006, the latest data available for this report). Employment has reached new record heights.

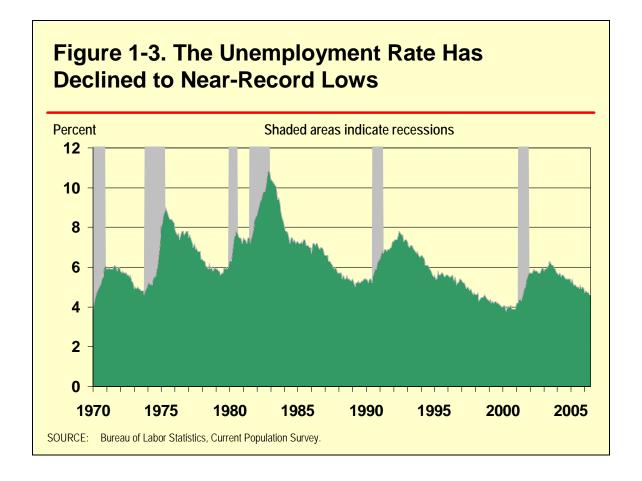
The unemployment rate has fallen significantly from its post-recession high of 6.3 percent and has ranged between 4.8 percent and 4.6 percent during the first half of 2006. Both components of compensation – wages and employer-paid benefits – were higher in terms of real purchasing power in 2005 than in 2000.



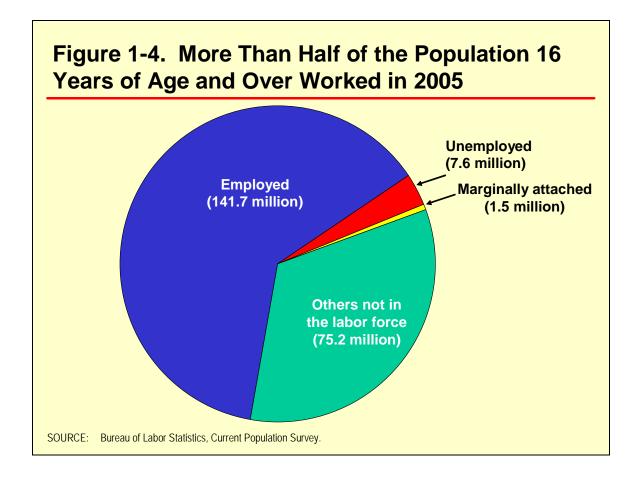
- ➤ Net growth in nonfarm payroll employment totaled 5.4 million from August 2003 through the first half of 2006. Job growth during 2005 was 2.0 million. In the first half of 2006 a total of 865,000 net new jobs were created.
- ➤ Between August 2003 and June 2006, monthly job gains averaged 160,000. Monthly gains ranged from 37,000 in October 2005, following the Gulf Coast hurricanes to a high of 354,000 in November 2005, reflecting, in part, the post-hurricanes rebound.
- ➤ In 2005, nonfarm payroll employment averaged a record 133.5 million, over 1.6 million more than the previous record set in 2001. By June 2006, the jobs total reached 135.2 million, a new record. Total employment, including farm and self employment, averaged 141.7 million workers in 2005, an increase of nearly 4.8 million from 2001.<sup>1</sup>



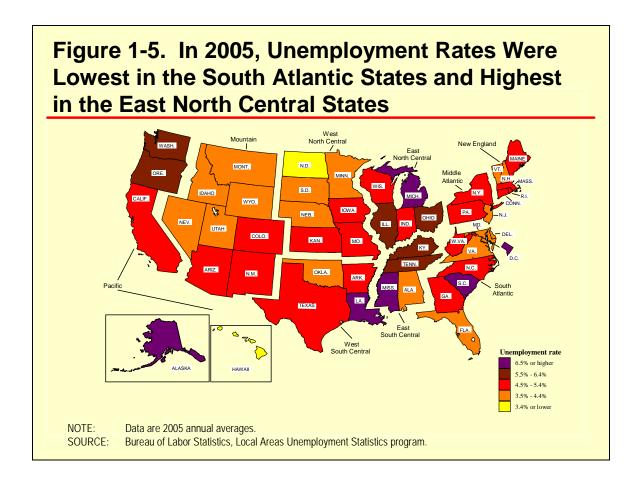
- ➤ In February 2001, just before the onset of the 2001 recession, payroll employment peaked at nearly 132.6 million. In the recession aftermath, payroll employment declined to a low of 129.8 million in August 2003.
- ➤ In terms of the proportion of payroll jobs lost, the 2001 recession was more severe than the immediately previous (1990) recession, which recorded a 1.5 percent decline in payroll employment, but less severe than the 1981 recession, which recorded a 3.1 percent decrease in payroll employment.²
- ➤ Job market recovery began after the low-point of August 2003 and has continued without interruption for 34 months through June 2006. In the last four months of 2003, job gains totaled 501,000, or 125,000 per month, on average.



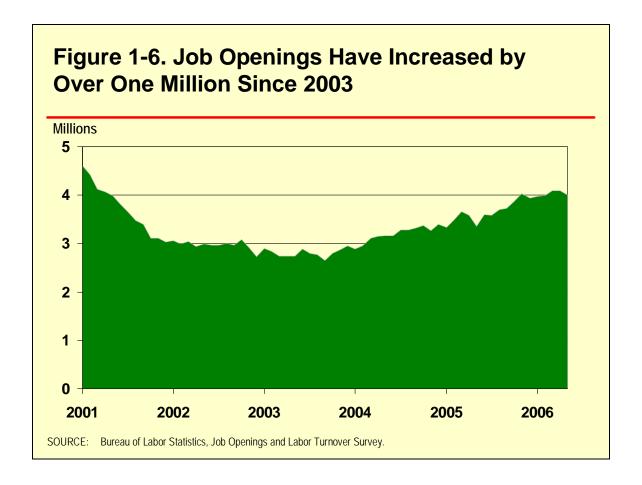
- ➤ At 4.6 percent in June 2006, the national unemployment rate was at its lowest level in nearly five years.
- ➤ In 2005, on average, 7.6 million persons were unemployed, and by June 2006 the number had declined to less than 7.0 million. These levels represent a significant decline from the 9.2 million unemployed at the post-recession peak in 2003.
- ➤ In 2005, the median duration of unemployment averaged 8.9 weeks for the year. On a monthly basis, the median duration of unemployment generally declined in 2005 from 9.3 weeks in January to 8.5 weeks in December.
- ➤ The post-recession high for median duration of unemployment was 11.5 weeks in June 2003. Since the median duration series was first reported in 1967, the average has been 7.1 weeks.



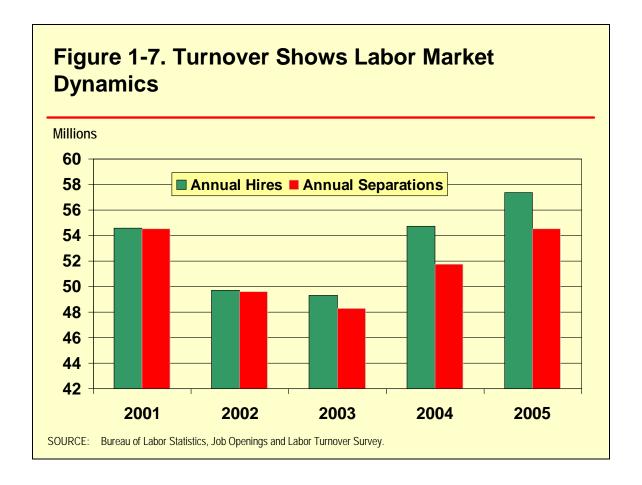
- ➤ In 2005, 141.7 million persons, comprising 62.7 percent of the total 226.1 million noninstitutional civilian population ages 16 and older, were employed. The 7.6 million unemployed comprised 3.4 percent. Employed and unemployed combined comprise the labor force.
- ➤ The 1.5 million persons "marginally attached" to the labor force comprised 0.7 percent of the civilian noninstitutional population ages 16 and older. The other 75.2 million persons not in the labor force comprised 33.3 percent of the civilian noninstitutional population ages 16 and older. The 75.2 million individuals not in the labor force included persons who cited reasons such as retirement, disability, and school attendance for being outside the labor force.



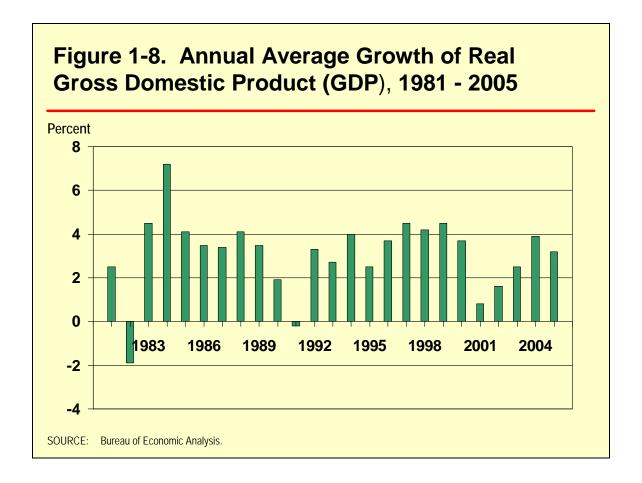
- ➤ In 2005, Hawaii reported the lowest unemployment rate among the states (2.8 percent). North Dakota had the next lowest rate (3.4 percent). closely followed by Vermont and Virginia (3.5 percent each).
- ➤ The highest rates were recorded in Mississippi and Louisiana (7.9 and 7.1 percent, respectively), reflecting the impact of the Gulf Coast hurricanes.
- ➤ The largest unemployment rate declines from 2004 to 2005 occurred in Alabama and Oregon (-1.2 percentage points each).



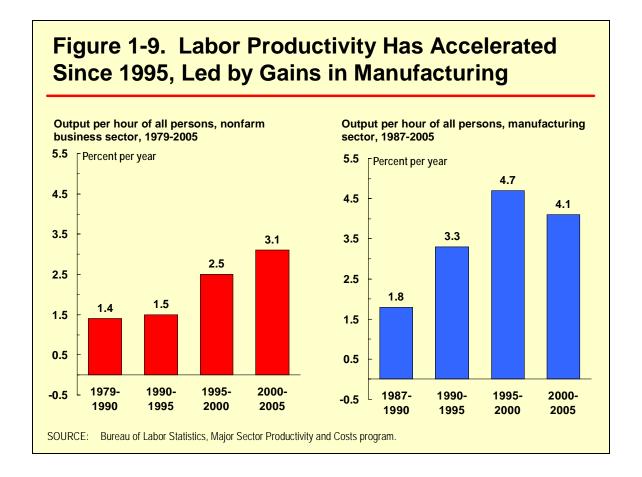
As the unemployment rate has fallen over the past two years, the number of unfilled job openings has steadily risen, reaching 4.0 million unfilled job openings at the end of May 2006. This was an increase of 1.3 million from the post-recession low of 2.7 million at the end of September 2003 and an increase of 500,000 from April 2005.



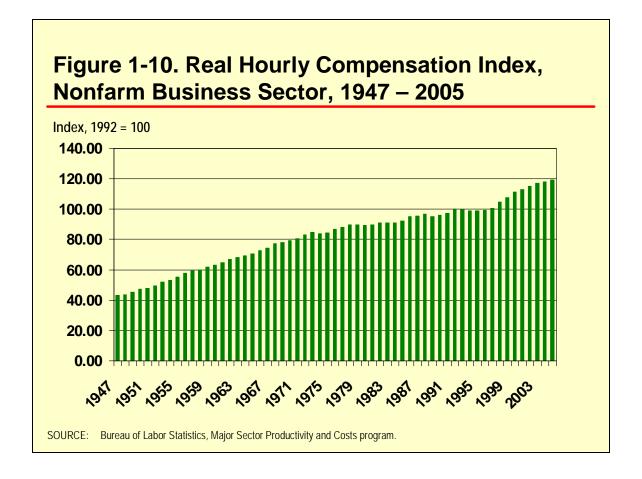
- ➤ In 2005, employers made 57.4 million hires to fill vacancies or newly created jobs.³ On average about 3.6 percent of jobs were filled or refilled each month. In parallel, over the course of 2005, separations totaled 54.5 million.
- ➤ Separations included 30.9 million voluntary quits by employees, 19.9 million layoffs or discharges, and 3.7 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.



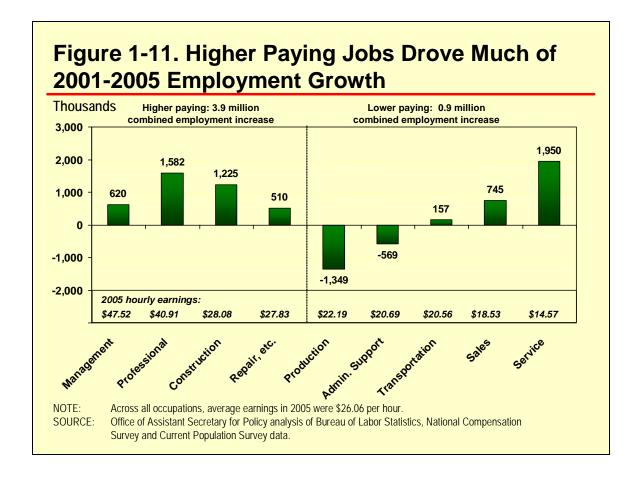
- ➤ The strength of the labor market is a reflection of the strong growth of real (after inflation adjustment) gross domestic product (GDP) in recent years. In 2005, real GDP reached nearly \$12.5 trillion.<sup>4</sup> Since 1980, real GDP has more than doubled.
- ➤ On a per capita basis, GDP in 2005 was \$42,090. This was 3.4 times the per capita real GDP of \$12,567 in 1948 (2005 dollars), and 1.7 times the per capita real GDP in 1980.
- ➤ Real GDP growth (Figure 1-8) averaged 3.2 percent in 2005.<sup>5</sup> This followed a 3.9 percent growth rate in 2004 and a 2.5 percent growth rate in 2003. Including the 2001 recession year, real GDP growth over the past five years averaged 2.4 percent per year, comparable to the 2.5 percent average over the 1991-1995 recession and recovery period. Since 1948, annual real GDP growth has averaged 3.4 percent.



- ➤ Underlying recent strong GDP growth has been a notable increase in labor productivity. Growth of labor productivity in the nonfarm business sector averaged 3.1 percent per year over the 2000-2005 period, more than twice the 1979-1990 and 1990-1995 averages. 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.
- ➤ Growth in manufacturing productivity also has accelerated. Over the 2000-2005 period, output per hour grew at an average annual rate of 4.1 percent. This was a notable gain over the 1987-1990 average of 1.8 percent annual growth.



- ➤ 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. The recent real compensation growth experience appears similar to the 1947-1970 trend and stronger than the trend of 1970 to 1995.
- ➤ In the late 1990s, the trend of real hourly compensation increased notably, posting gains of 4.5 percent in 1998, 2.6 percent in 1999, and 3.7 percent in 2000. Over the most recent five years (2001-2005) the growth of real hourly compensation continued at a relatively robust rate of 1.4 percent per year, compared to the 1977-1997 average annual growth of 0.7 percent and to the 0.6 percent annual average rate for the comparable business cycle years of 1991-1995.
- ➤ In 2005, the average level of real hourly compensation in the nonfarm business sector was 7.0 percent higher than in 2000.

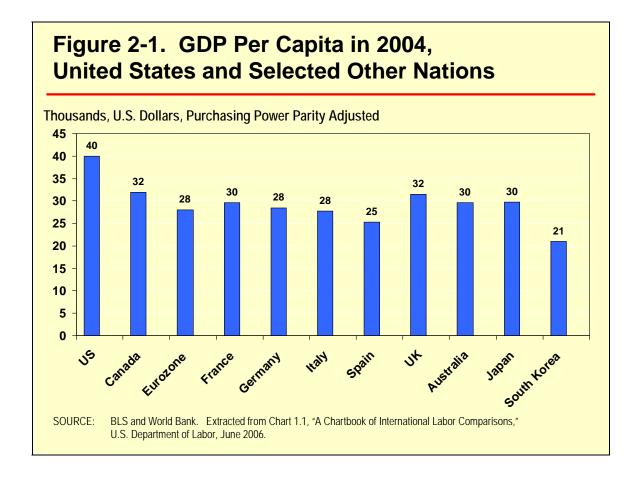


- ➤ Over the past five years, job growth was greater among relatively well compensated occupations: management, business and finance; professional and related; construction and extraction occupations; and repair, maintenance and installation occupations. Each of these four occupational groups paid above the average compensation of \$26.06 per hour in 2005.<sup>6</sup> Between 2001 and 2005, they accounted for 3.9 million net additional jobs.<sup>7</sup>
- ➤ The five lower-compensation occupations together accounted for 934,000 net additional jobs. Two of the latter occupational categories had net losses of jobs over the period: production occupations (-1.3 million) and administrative support occupations (-569,000). For the lower-compensation occupations, employment losses in production occupations and in administrative support occupations offset gains in transportation, sales, and service occupations.

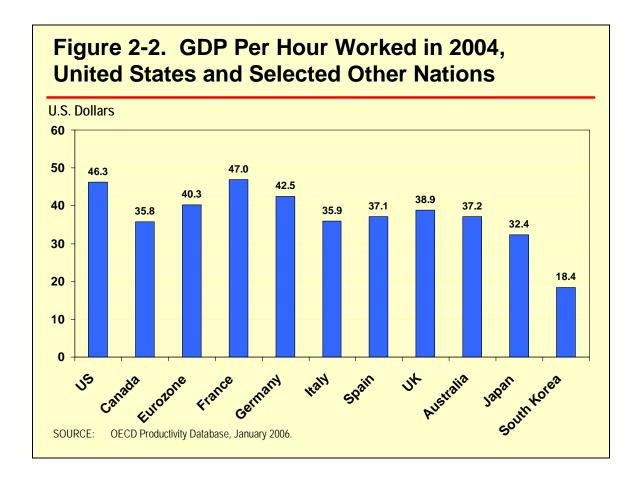
# 2 Strong International Competitiveness

Diverse indicators highlight the strengths of the U.S. economy and labor market. 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.

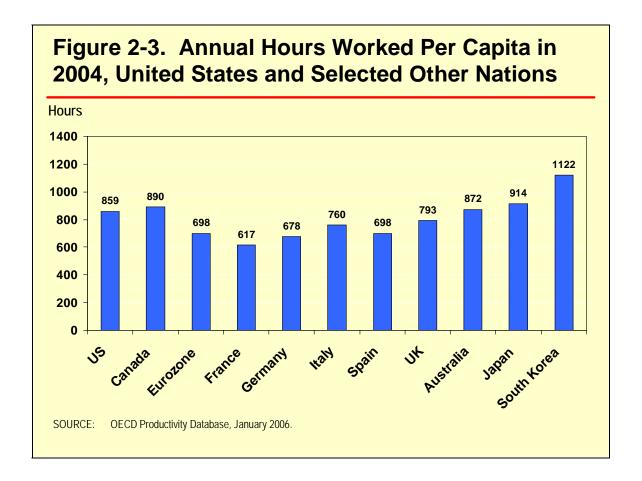
The fact that the United States has achieved these results in the face of growing world-wide competition and other challenges, both natural and man-made, is a further testament to the robustness and resilience of an economic system based on free and open markets. High and growing output per capita, growing employment, high labor force participation rates and employment-population ratios, strong productivity growth and low unemployment relative to other nations reflect the energy, creativity, skills, flexibility and competitiveness of American workers and employers



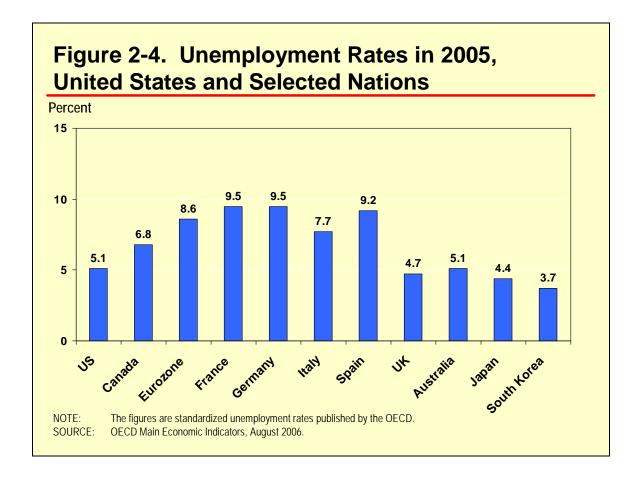
- ➤ The strength and productivity of American workers are reflected in high per capita output. U.S. per capita gross domestic product (GDP) was \$39,900 in 2004, the most recent year for which broad international comparisons of per capita GDP can be made on a purchasing power adjusted basis.
- Among member countries of the Organization for Economic Cooperation and Development (OECD), the United States ranked near the top in terms of GDP per capita. Only Luxembourg, Norway, and Ireland (not shown in the figure) had higher per capita GDP. Among large major economies, U.S. per capita GDP was more than 20 percent higher than that of Australia or Canada.
- ➤ Among the largest members of the European Monetary Union (Eurozone), per capita GDP ranged from \$25,300 in Spain to \$29,600 in France.<sup>9</sup> Overall, U.S. per capita GDP was 34 percent higher than in Japan.



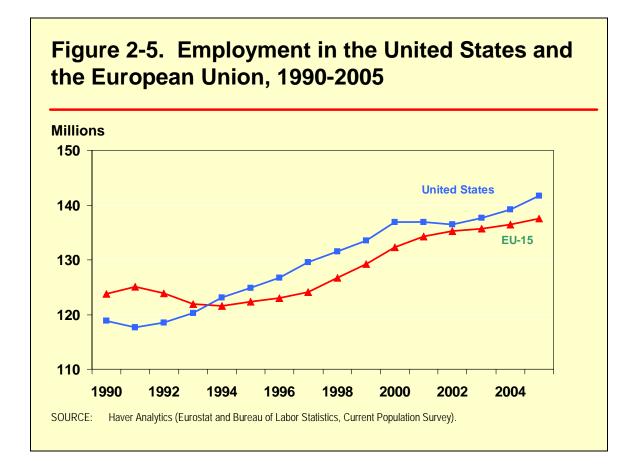
- ➤ Underlying the United States' high per capita GDP is our dynamic, productive workforce. On average, each hour on the job contributed \$46.30 to domestic output. Among the large, major economies shown, only France achieved greater GDP per hour worked (\$47 per hour), but lower effort resulted in lower per capita output for France compared to the United States.
- ➤ Other Eurozone countries exhibited less efficiency, and the Eurozone as a whole had an average GDP per hour of \$40.30 in 2004. Indeed, a number of European economies, as well as Canada and Australia, posted figures more than \$10.00 per hour lower than the U.S. figure.



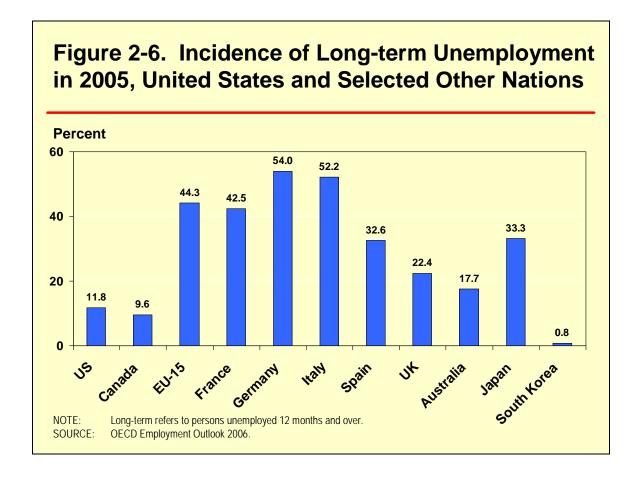
- ➤ Hours worked per capita is a single measure of the labor activity across the population taking into account both the proportion of the population that is employed and the number of hours people work. In 2004, per capita hours worked totaled 859 hours, placing the United States in the same neighborhood as Australia and Canada.
- ➤ South Korea easily surpassed these countries by posting 1,122 hours per capita. The gap reflected the 2,394 hours an average South Korean employee worked per year in 2004; in contrast, an average U.S. worker worked 1,808 hours.
- ➤ On the flip side was France's relatively low hours per capita. Here lies the difference between per capita GDP in the United States and France. In broad terms, the two countries' workers are similarly productive, but the French simply work fewer hours.



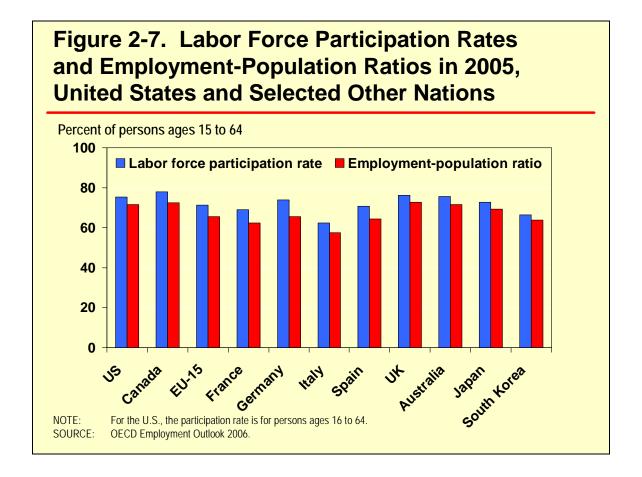
- ➤ At 5.1 percent, the U.S. unemployment rate in 2005 was well below that of most of its European peers. Both Japan and South Korea benefited from even lower rates, continuing long-term trends for both countries.
- ➤ The United Kingdom's unemployment rate has hovered around 5 percent for several years, after trending down from over 10 percent in 1993. The U.S. unemployment rate edged down further by mid-2006. In May, it reached a nearly 5-year low of 4.6 percent.



- ➤ The labor markets of both the United States and the European Union (EU-15) are quite similar in size and make for interesting comparisons. Between 1990 and 2005, civilian employment in the United States rose 19.3 percent, while the comparable measure for the EU-15 rose 11.1 percent. Employment clearly has increased in both areas, but the EU-15 has outpaced the United States in employment growth for only five of the past 15 years, most notably during and after the last two U.S. recessions, 1990-91 and 2001.
- ➤ Since 2003, the United States again has taken the lead, while a number of European countries have seen somewhat stagnant employment growth, most notably France and Germany.
- ➤ Like much of Europe, Japan has experienced poor employment growth in recent years. Japan saw six consecutive years of employment declines between 1997 and 2003. The subsequent recovery has boosted employment only slightly.



In addition to tepid job growth, a common thread between Japan and Europe is the incidence of long-term unemployment, defined as a spell of unemployment lasting at least 12 months. In Japan, the long-term unemployed account for one-third of the total in 2005; in the European Union, the figure was over 44 percent. Even the United Kingdom's share doubled the roughly 12 percent seen in the United States.

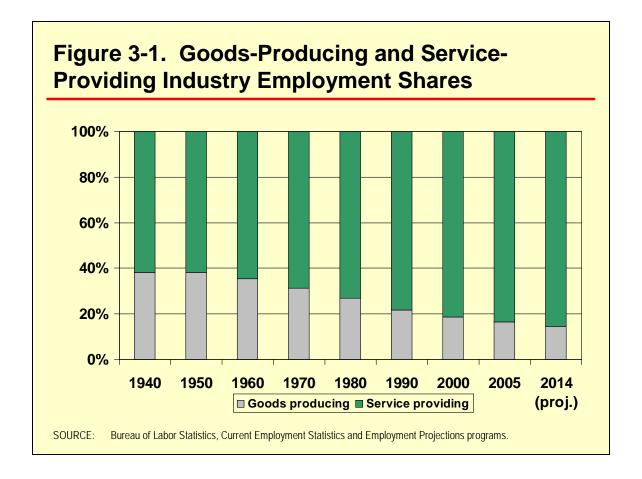


- ➤ The U.S. labor force participation rate, 75.4 percent (for ages 16-64) was somewhat higher than the 71.3 percent registered in the European Union (for ages 15.64).
- In terms of the employment-population ratio, there were only minor differences between the United States and other countries with low unemployment rates. The United States, Canada, United Kingdom, Australia, and Japan all had employment-population ratios in the neighborhood of 70 percent. The notably lower percentages for South Korea reflect its relatively low labor force participation rates. For the major European economies (excluding the United Kingdom), the reduced employment-population ratios reflect their elevated unemployment rates as well.

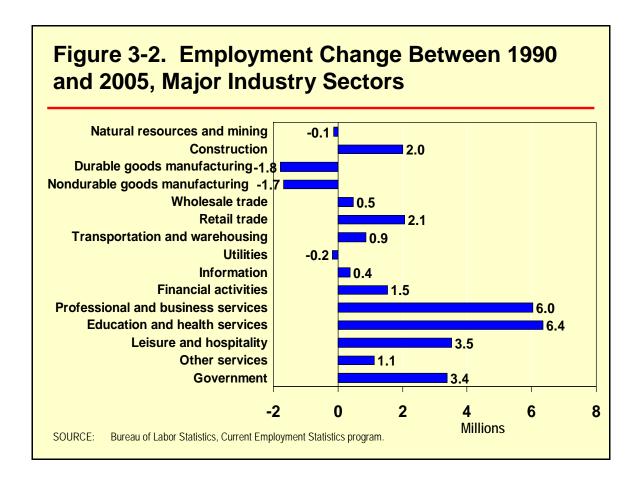
# **3** Dynamic Labor Market Structure

A notable feature of the U.S. labor market is its constant activity as people freely move in and out of the labor market, as total jobs grow, and as workers change jobs. High turnover in the United States – as evidenced by high levels of both separations and hires – partially reflects broad changes over time in the economy's industry and occupation patterns. As the historical employment shift away from the goods-producing sector continues, new employment patterns emerge.

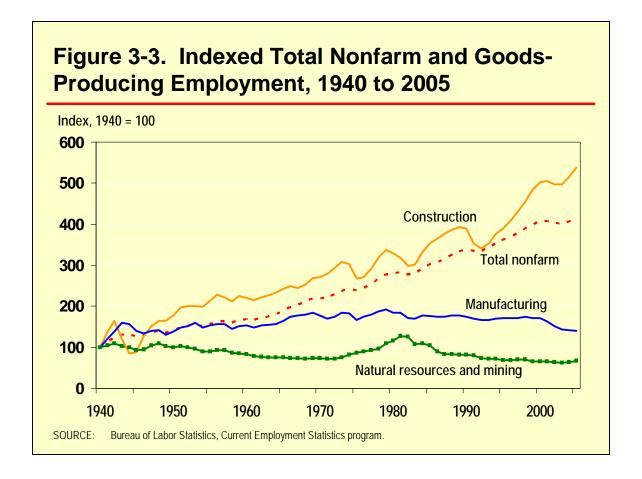
Robust employment growth is the norm. Over the past half-century (1955 to 2005) payroll employment increased from 50.7 million to 133.5 million as our growing population found new jobs in a growing economy. The total number of jobs has doubled since 1967, and over the most recent 15 years (1990 to 2005) total payrolls increased by 22 percent. However, robust total job growth has masked significant changes in the industrial and occupational structure of the labor market. Employment growth rates have varied widely among industries as changing demand, technology and global competition have reshaped the labor market.



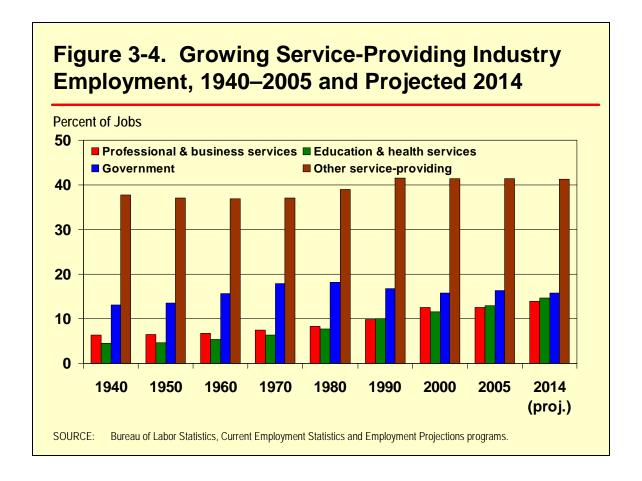
- ➤ The service sector accounted for 62 percent of nonfarm payroll employment in 1940, and that share rose to 83 percent in 2005. The service sector share of payroll employment is projected to rise to nearly 86 percent by 2014.
- From 1940 to 2005, total employment grew in both the goods-producing and service-providing sectors, but the overwhelming majority of net new jobs have been in the service sector. From 1940 to 2005, 9.8 million net new jobs were created in the goods- producing sector, and 91.3 million net new jobs were created in the service-providing sector.



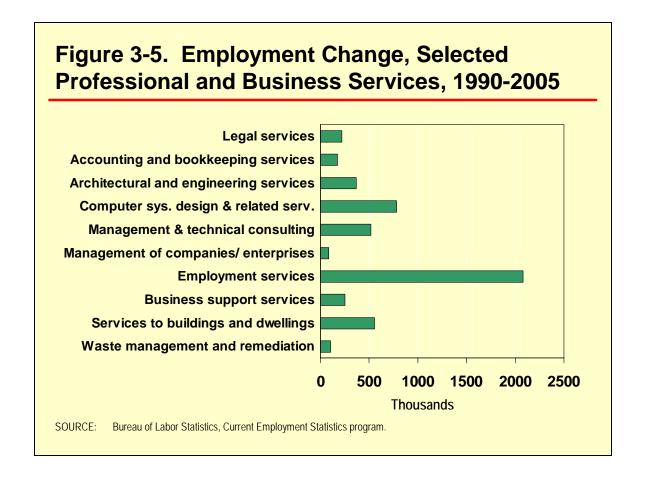
- ➤ The on-going shift of the industrial structure of employment is evident even during the 1990-2005 period. The 6.0 million increase in employment for the professional and business services industry sector and the 6.4 million increase in employment for the education and health services sector stand in contrast to net job losses for manufacturing. Those two sectors accounted for over half (51.7 percent) of net nonfarm payroll employment growth over the past 15 years.
- ➤ In 2005, the 17.3 million jobs in the private education and health industries sector accounted for 13 percent of all payroll jobs and comprised the second largest of the major sectors.



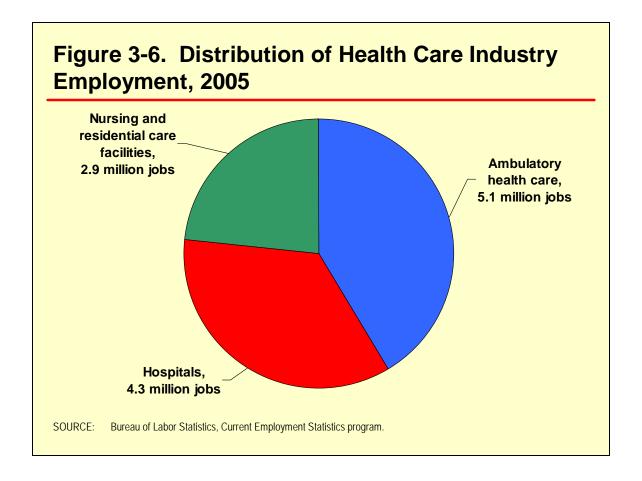
- Construction job growth generally has kept pace with total nonfarm employment, with the exception of brief cyclical downturns offset by quick recoveries. The rate of growth following the 1990-91 recession held steady through most of the decade. Only minor job losses came in the period surrounding the 2001 recession, and rapid job growth soon resumed.
- ➤ In 2005, construction industry employment was more than 5 times greater than the level in 1940. By comparison, manufacturing employment was 41 percent higher than in 1940 and significantly below its all-time high in 1979. At 14.2 million in 2005, manufacturing employment reflected a steady decline over the past quarter century of nearly 27 percent.



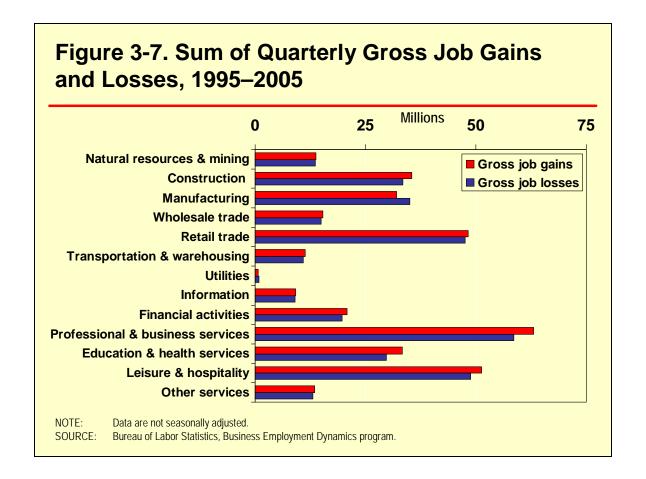
- Among the service-providing industries, two major industries stand out for their job growth since 1990. Professional and business services, and private education and health care and social assistance services together represented just 10.9 percent of nonfarm payroll employment in 1940. They represented nearly one in five jobs by 1990 and over one-quarter by 2005.
- ➤ By 2014, they are projected to account for nearly three out of ten nonfarm payroll jobs. The growth of these two sectors has notably exceeded the growth of government (the leading services sector in terms of employment) and all other private service industries.



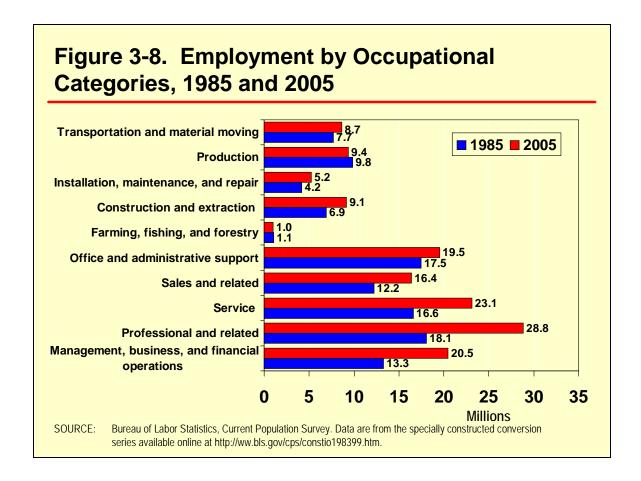
- ➤ Payroll employment throughout professional and business services has expanded notably over the past decade and a half.<sup>11</sup> Within the sector, only travel arrangement services lost jobs, with all the declines coming since 1998.
- ➢ Gains were especially notable in three industries: employment services; computer systems design and related services; and management, scientific, and technical consulting. These three industries accounted for just one-fifth of professional and business services employment in 1990 but over half the job gains between 1990 and 2005. This pattern is expected to continue to 2014.



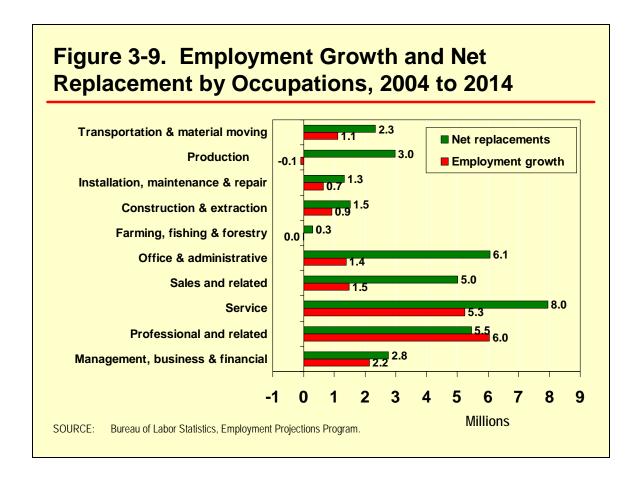
- ➤ The health care sector includes some of the largest and fastest-growing private industries in terms of employment. With 12.3 million payroll employees in 2005, the private health care industry comprised 9.2 percent of all payroll jobs. Overall health care sector employment grew by 4.1 million between 1990 and 2005 a 50 percent increase.
- ➤ The ambulatory care industry group grew by 80 percent (2.3 million jobs) from 1990 to a total of 5.1 million jobs in 2005, making it the largest subcategory within health care. This industry includes offices of physicians and other health practitioners, outpatient care centers, medical laboratories, and home health care services.
- ➤ Private hospitals added 834,000 jobs from 1990, bringing 2005 hospital employment to 4.3 million, a 23.8 percent increase. Nursing and residential care facilities added 1.0 million jobs, a 54 percent increase that brought total employment in nursing and residential care facilities to 2.9 million in 2005.



- ▶ Between first quarter 1995 and third quarter 2005, job creation because of the opening of new establishments or the expansion of existing ones totaled 352 million, and job elimination because of closing of some establishments or reductions in numbers of jobs at others totaled 337 million.¹² The flows of job creation and elimination somewhat mirrored the patterns of net job creation, but not entirely.
- ➤ With gross job gains of 63.1 million and gross job losses of 58.6 million, the growing professional and business services industry experienced both the greatest jobs creation and elimination among major industries, as competition sorted out business successes and failures.
- ➤ It is notable, also, that manufacturing, which experienced net employment decline, also experienced relatively high levels of job creation in parallel with job elimination. In manufacturing 35.1 million jobs were eliminated in aggregate during the period, but job gains in new or expanding establishments totaled 32 million.<sup>13</sup>



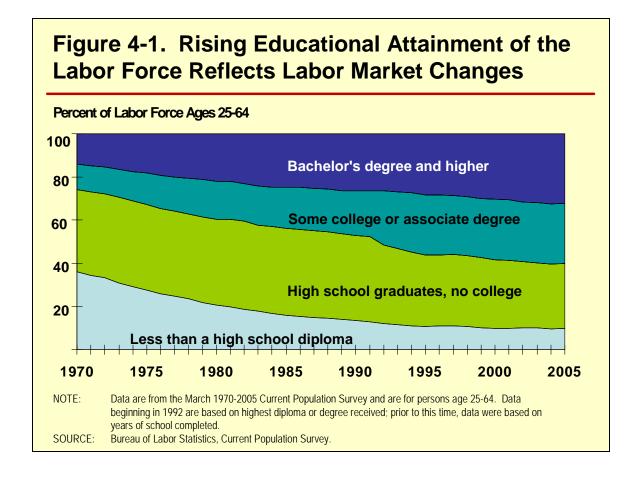
- Over the past 20 years the major occupation groups with both the fastest percentage growth and the largest numerical increase in employment were professional and related occupations and management, business and financial operations occupations.<sup>14</sup>
- ➢ Professional and related occupations accounted for 20.3 percent (28.8 million) of total employment in 2005, up from 16.9 percent in 1985. Employment growth of 10.7 million in professional and related occupations accounted for 30.9 percent of total employment growth over the 1985 to 2005 period.
- Management, business and financial operations occupations accounted for 14.5 percent (20.5 million) of total employment in 2005, up from 12.4 percent in 1985. Employment growth of 7.2 million in management, business and financial operations occupations accounted for 20.8 percent of total employment growth over the period.



- ➤ Employment is projected to grow by 18.9 million jobs between 2004 and 2014. In addition to job growth, net replacement for retirees and others leaving the labor force is expected to provide another 35.8 million job openings. Together, growth plus net replacement will yield 54.7 million cumulative job openings.
- ➤ Growth-related job openings over the 10-year period will be greatest in professional and related occupations and in service occupations. Within the professional and related occupations category, health care workers will be especially in demand.
- ➤ The largest major occupation category in terms of replacement needs will be the service occupations group, with 8.0 million projected replacement job openings.
- ➤ Even production occupations will need workers: 2.5 million net replacement openings are projected despite little increase in job openings due to growth.

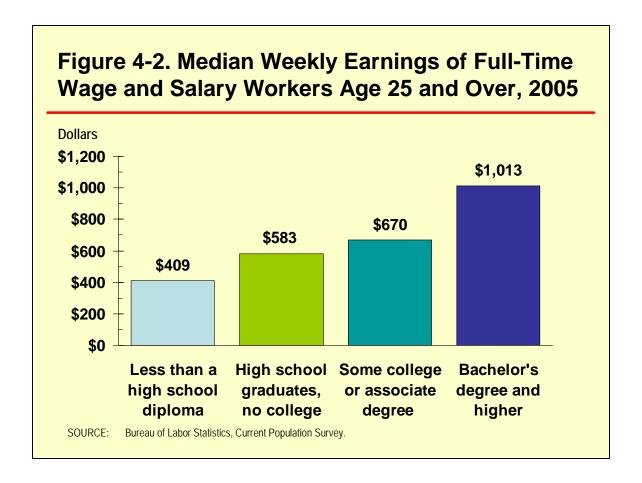
# **4** Education Pays

The 21<sup>st</sup> 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

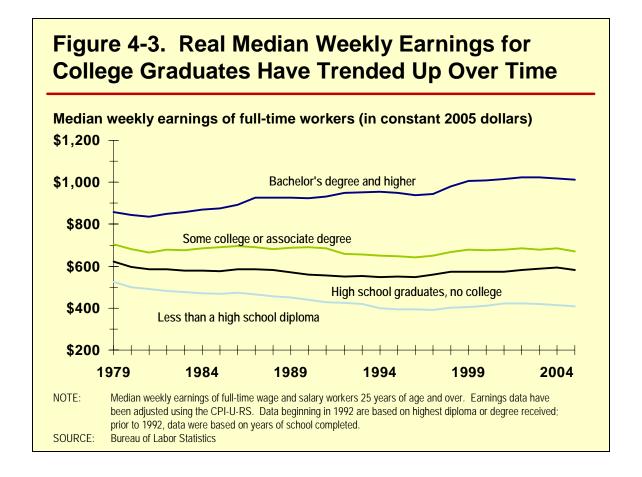


- ➤ Sixty-five years ago only about one in twenty Americans ages 25 or older was a college graduate. Many jobs required no more than basic literacy and physical skills largely learned through experience. The change in the educational attainment of the labor force since the 1940s has been dramatic. Still, 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).¹⁵
- ➤ The proportion of persons ages 25 to 64 years old with some college (or an associate degree) more than doubled between 1970 and 2005. The share with a bachelor's degree or higher also more than doubled over the period. In contrast, the share of the labor force with less than a high school diploma declined markedly.

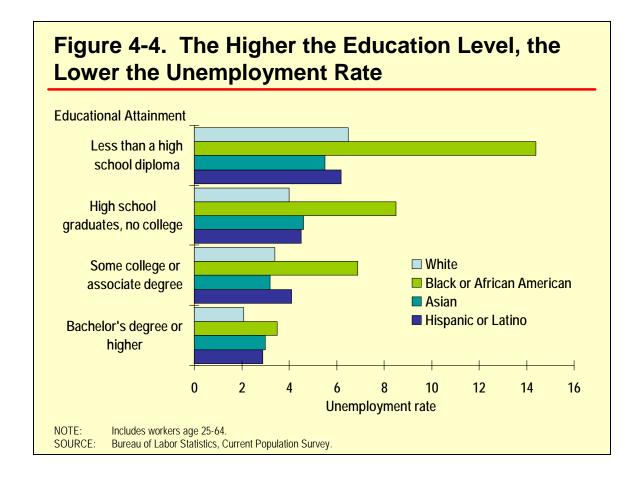
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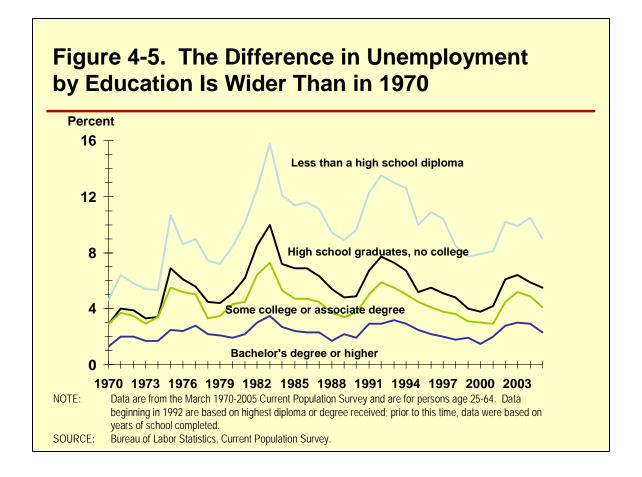
➤ Among workers 25 years old and over, median weekly earnings of wage and salary workers who usually work full time are nearly two and a half times more for persons with at least a college degree than for those who have not completed high school. The weekly difference of \$604 in 2005 would amount to an annual difference of \$31,408 if extended over a 52-week year.



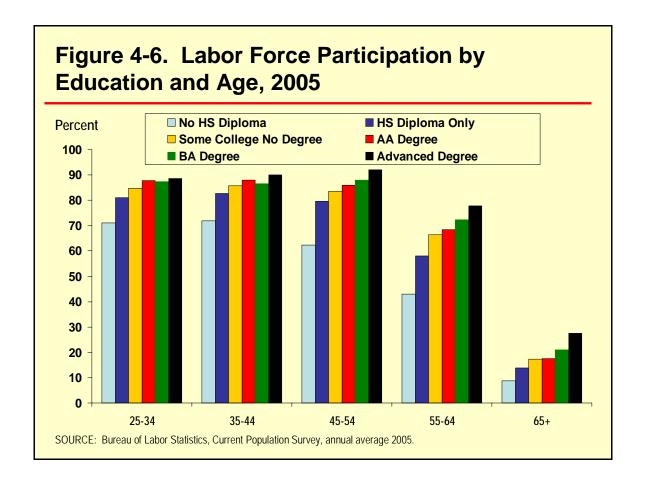
- ➤ In 1979, the \$334 difference (in 2005 inflation-adjusted dollars) in median weekly earnings of usual full-time workers between those with less than a high school diploma and those who had completed 4 or more years of college amounted to a 63.7 percent education premium college completers enjoyed 1.6 times higher median weekly earnings than high school dropouts.
- ➤ By 2005, 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 20 percent.<sup>16</sup>



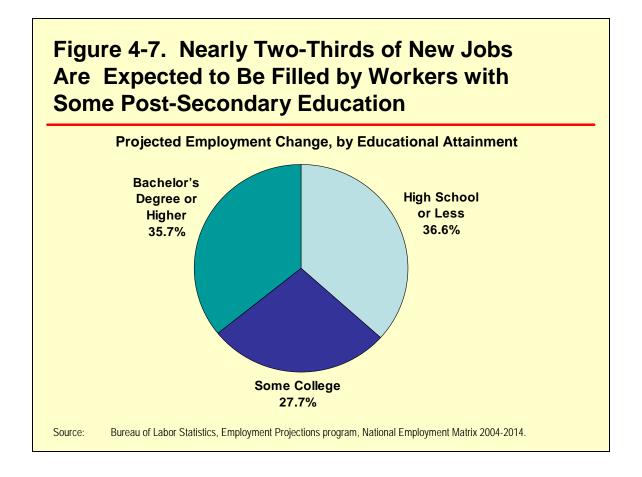
- ➤ In 2005, the unemployment rate for college graduates (bachelor's degree or higher) age 25 and older averaged 2.3 percent. In comparison, persons age 25 or older without a high school diploma experienced 7.6 percent unemployment on average. The corresponding unemployment rate for high school graduates with no college was 4.7 percent, and the unemployment rate for those with some college but less than a bachelor's degree was 3.9 percent.
- ➤ Higher educational attainment is associated with lower unemployment rates regardless of race or ethnicity. The unemployment rate, however, is particularly lower for African American college graduates than high school dropouts. 3.5 percent for college graduates versus 14.4 percent for those without a high school diploma (or GED).



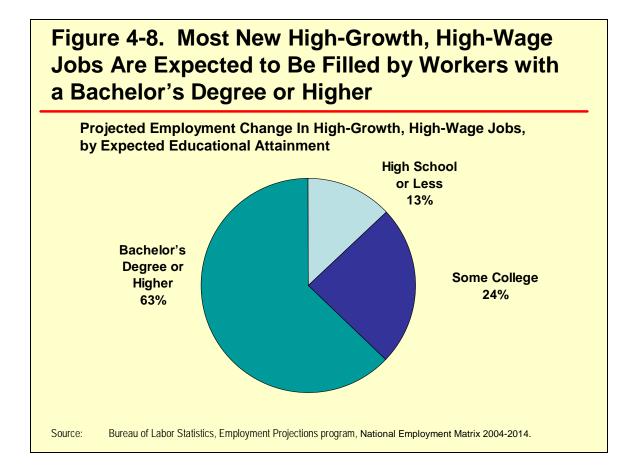
- ➤ The relative cost of being a high school dropout has grown in terms of unemployment risk. The unemployment rate for high school dropouts spiked in the early 1980s, and while trending downward somewhat since then, it is still considerably higher than for other groups. The jobless rate for college 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 since 1970.



- ➤ Despite the overall differences in educational attainment across the age groups, higher educational attainment is associated with higher labor force participation within each age cohort.
- ➤ For the oldest Americans (ages 65 and older) 27.4 percent of the 2.7 million with advanced degrees and 20.9 percent of those with bachelor's degrees only were in the labor force in 2005.<sup>17</sup>
- Among the 65 and older age group, only 8.7 percent of persons without a high school diploma and 13.8 percent of persons with a high school diploma but no college were in the labor market.



- ➤ 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 the 18.9 million new job openings because of growth 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.



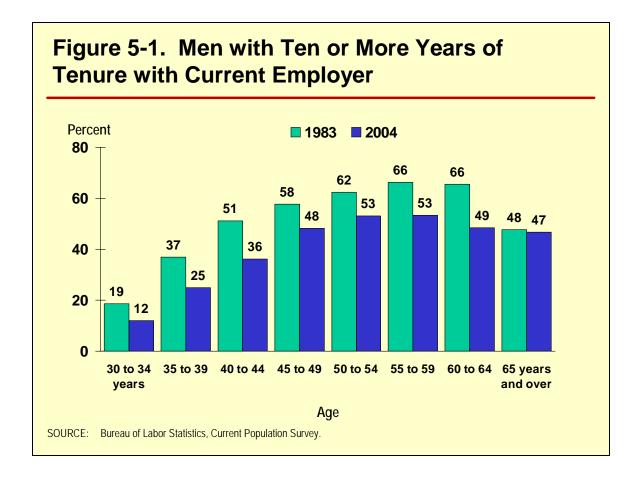
- ➤ Within the projected job growth category, the projection for the high-growth, high-wage subgroup is particularly noteworthy.
- ➤ Of the 18.9 million new jobs associated with projected growth by 2014, 8.7 million fall within the high-growth, high-wage group. Among those occupations with both high growth and high wages, 87.0 percent of new jobs are expected to be filled by workers with at least some postsecondary education.
- ➤ Within the high-growth, high-wage group, 5.5 million jobs (62.8 percent of the total) will most likely be filled by workers with at least a bachelor's degree and 2.1 million (24.2 percent) by those with some postsecondary education, such as a two-year community college academic program, a vocational certificate or specialized formal training.

# **5** America's Flexible Labor Market

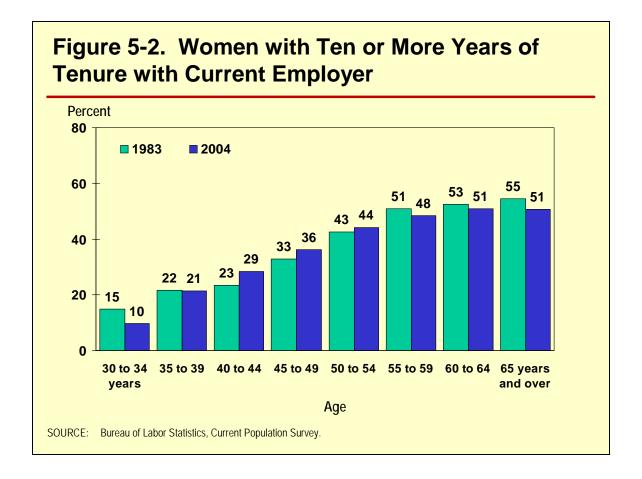
Flexibility is a hallmark of the American labor market, which places a high value on the freedom to choose one's work and the terms of employment. America's labor market is characterized by a dominance of the at-will employment relationship, which provides labor market flexibility by keeping hiring costs and separation costs relatively low.

In the workplace, flexibility can take many forms and can involve combinations of arrangements to suit the needs the worker and the requirements of the job. Because flexibility involves tailoring to the job as well as the worker, it can vary greatly by occupation.

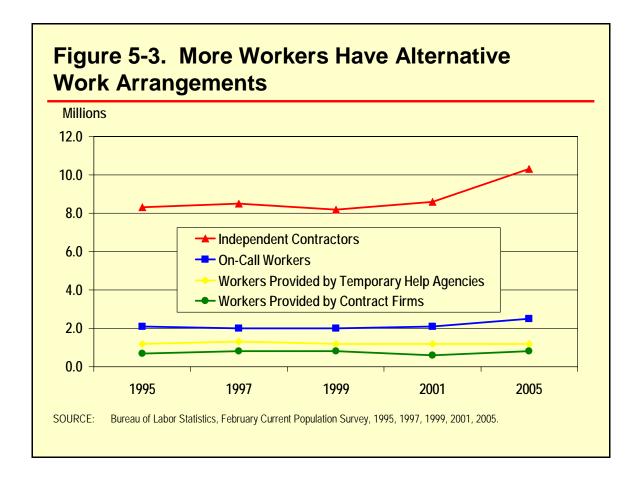
Flexibility in its many forms will continue to be a key factor in maintaining a dynamic U.S. workforce. While dramatic changes in how work is done have yet to be realized, employers and workers will need flexibility to respond and adapt to changes in the global economy as well as technological innovations, allowing new opportunities for when, where, and how we work



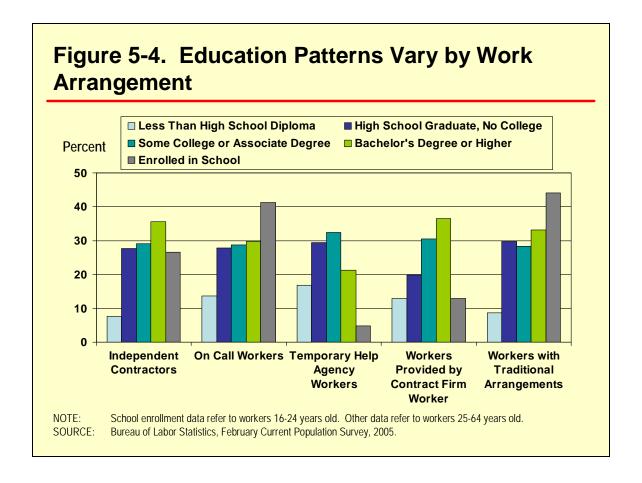
- ➤ In 2004, longer employment tenure was most common among men in their 50s, with just over half of those men reporting ten or more years of employment with their current employer.
- ➤ Over the last two decades, the proportion of men with ten or more years of employment with their current employer has declined for all age groups. For example, among employed men age 40-44 years, 51.1 percent had worked for their current employer for at least ten years in 1983. In 2004, the proportion was only 36.2 percent.



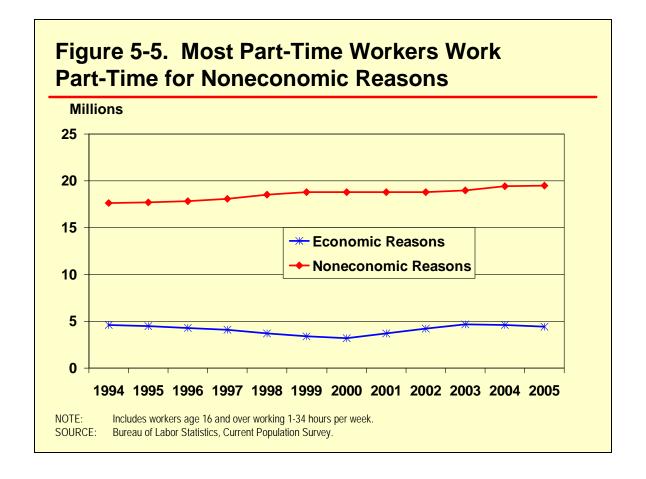
- ➤ The proportion of women employed by their current employer for at least ten years increases with age. Longer employment tenure was most common among women in their 60s, with just over half reporting ten or more years with their current employer in 2004.
- ➤ For women, changes over time in these proportions vary by age. Longer employment tenure has become somewhat more common among women age 40-54. For example, for women age 40-44 years, the proportion increased from 23.4 percent in 1983 to 28.5 percent in 2004. In contrast, for women 30-34 years old, the proportion decreased from 14.8 percent in 1983 to 9.8 percent in 2004.



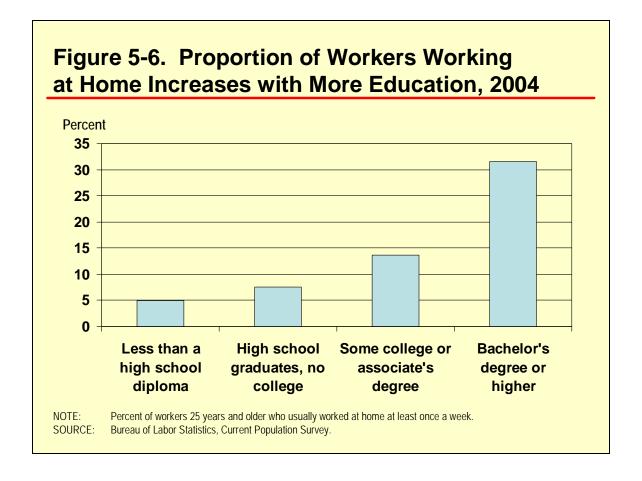
- ➤ Alternative work arrangements have become more common in recent years. According to the Current Population Survey, in the last decade, the number of workers with alternative arrangements has increased by 21.3 percent, representing about 11 percent of the employed in 2005.
- ➤ Since 2001, the number of independent contractors and on-call workers has risen by almost 20 percent each and the number of contract firm workers has increased by almost one-third. According to the Current Population Survey, the number of U.S. workers reporting work for temporary help agencies has remained steady. However, data from the establishment-based Current Employment Statistics program suggest that employment in temporary services actually increased by over 8 percent between 2001 and 2005.



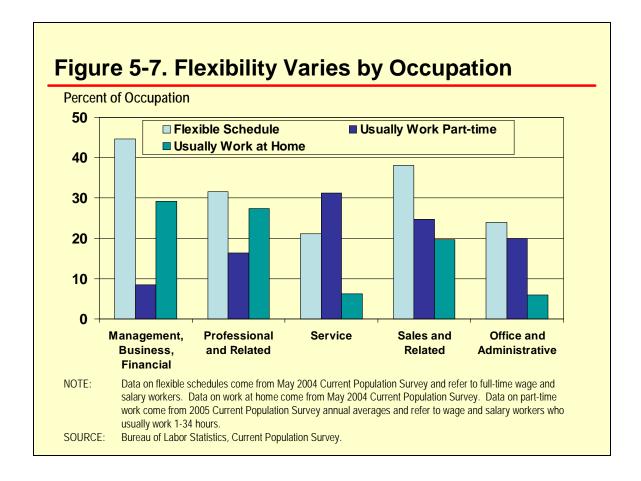
- Independent contractors and workers provided by contract firms are more likely than other types of workers, including those with traditional work arrangements, to have a bachelor's degree or higher. At the other end of the education spectrum, temporary help, on-call, and contract firm workers are more likely than traditional workers or independent contractors to have less than a high school diploma.
- ➤ In general, demographic characteristics differ among workers with various alternative work arrangements. Independent contractors are more likely than traditional workers to be white and male. Independent contractors also tend to be older. In 2005, 27.3 percent of independent contractors were age 55 and over, compared to 15.5 percent of traditional workers.



- ➤ Today, part-time workers (less than 35 hours per week) account for about 17 percent of the workforce. Some part-time workers would prefer full-time work but are unable to find it. However, the vast majority of those who work part-time do so for so-called *noneconomic* reasons, such as to care for family members or to make time for educational pursuits. Since 1994, among workers who usually work part-time, the proportion of those who do so for noneconomic reasons has held steady at about 8 in 10.
- ➤ Those who usually work part-time for noneconomic reasons are more likely to be women and older. In 2005, 68.5 percent of those who usually worked part-time for noneconomic reasons were women, and 22.7 percent were age 55 or over. Except for workers provided by contract firms, workers with alternative arrangements are more likely to work part-time than are workers with traditional arrangements.



- ➤ In 2004, 20.7 million persons usually did some work at home as part of their primary job. These workers, who reported working at home at least once per week, accounted for about 15 percent of total nonagricultural employment in May 2004. About one-third of persons who usually worked at home in May 2004 were self-employed.
- ➤ About 3.3 million wage and salary workers, or 1 in 4 wage and salary workers working at home, had a formal arrangement with their employer to be paid for the time they put in at home.
- The likelihood of working at home increased with educational attainment. Employed persons 25 years and over with a bachelor's degree or higher were more than 6 times more likely to work at home as those without a high school diploma. Much of this disparity is due to the varying occupational patterns of workers with different levels of education. For example, college graduates are much more likely to be employed in managerial and professional occupations—which have a greater work-at-home rate—than are high school dropouts.

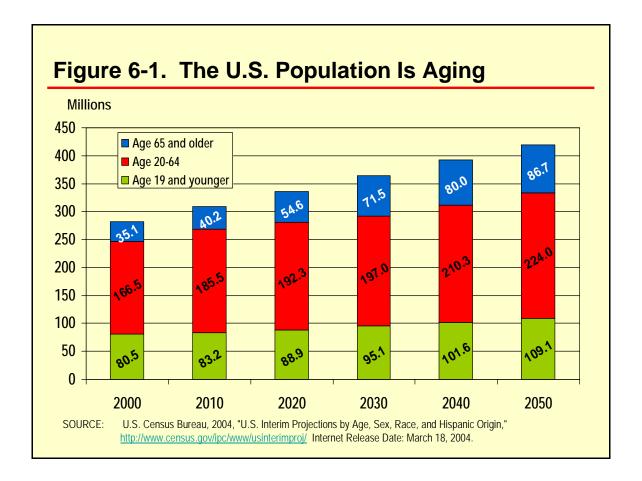


- ➤ Certain jobs may be more amenable to particular mechanisms for flexibility. For example, among workers with alternative work arrangements in 2005, independent contractors were more likely to be in management and business, sales, or construction occupations than were workers with traditional arrangements.
- ➤ Flexibility in the form of flexible scheduling and work at home are more common in management, sales, and professional occupations, while working part-time for noneconomic reasons is more common in sales, service, and office occupations. These forms of flexibility tend to be less common in production, transportation, and related occupations (not shown).

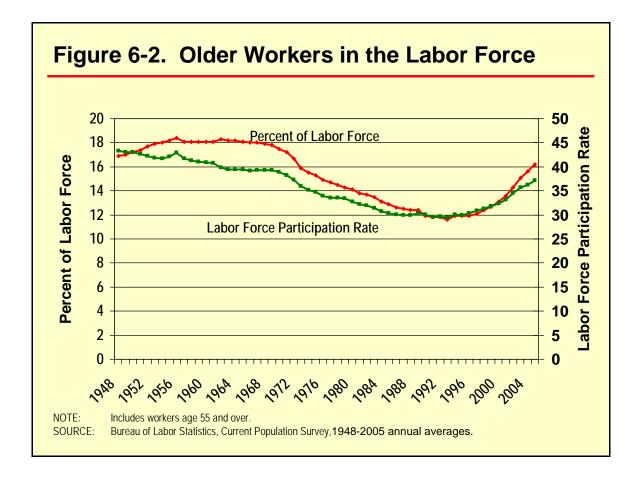
# **6** Opportunities to Prosper

Experience shows that America's economy likely will continue to face challenges arising from technological innovation, globalization, demographic trends, natural disasters, and political events. However, the flexible and dynamic nature of our labor market enables America's workers to grasp the opportunities presented by these changes.

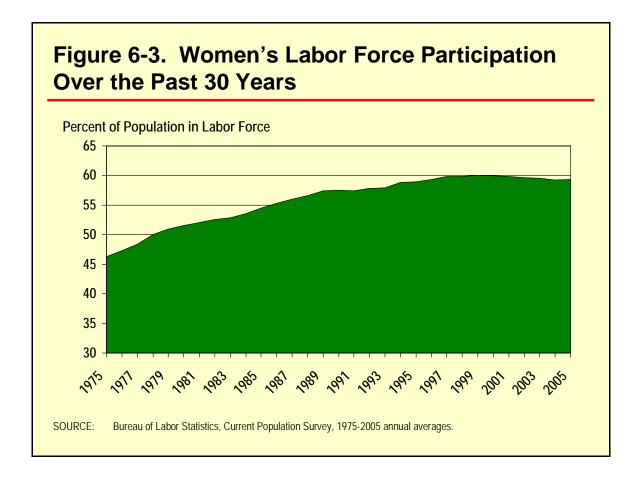
In recognizing opportunities to succeed in the workforce, America's workers strengthen our economy at the same time. This chapter examines opportunity in the American labor market from three perspectives: the effects of an aging population, the expanding role of women, and the experience of racial and ethnic minorities.



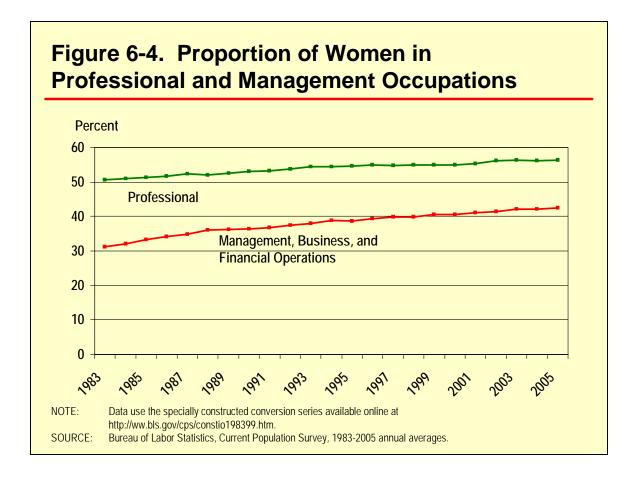
- ➤ The proportion of the population ages 65 and older is projected to grow from about 12.4 percent of the total population in 2000 to about 20.7 percent in 2050. The Baby Boom generation is now just beginning to turn 60 years of age, but over the next several years, all 78.2 million of them will pass that milestone, moving into the traditional age of retirement. The population next in line is today's 20 to 39 year olds, and there are about half a million fewer of them, according to 2005 Census estimates.
- ➤ The growing size of the aging population relative to the younger population may contribute to better job market conditions for younger workers in terms of lower unemployment rates and more job openings.



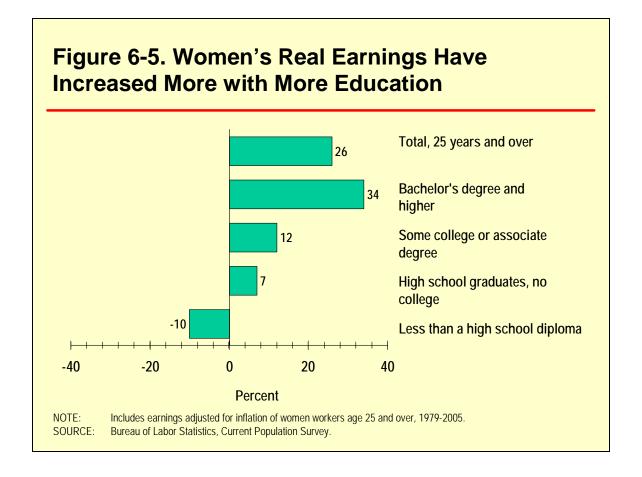
- ➤ In the last several years, workers age 55 and older have represented a growing share of the labor force, growing from 11.6 percent in 1993 to 16.2 percent in 2005. Over the same time, the labor force participation of workers age 55 and older has increased from 29.4 percent to 37.2 percent.
- ➤ In the future, America's older workers who will be more educated than previous generations of older workers may remain in the labor force longer, thereby increasing the typical age of retirement. Still, as older workers maintain their attachment to the labor force, they may desire more flexibility and more non-traditional work relationships. As much as any other group of workers, older workers may benefit from the opportunities afforded by alternative work arrangements, such as part-time schedules and temporary and contract work. Therefore, these arrangements may become even more important as employers provide the flexibility to retain productive older workers.



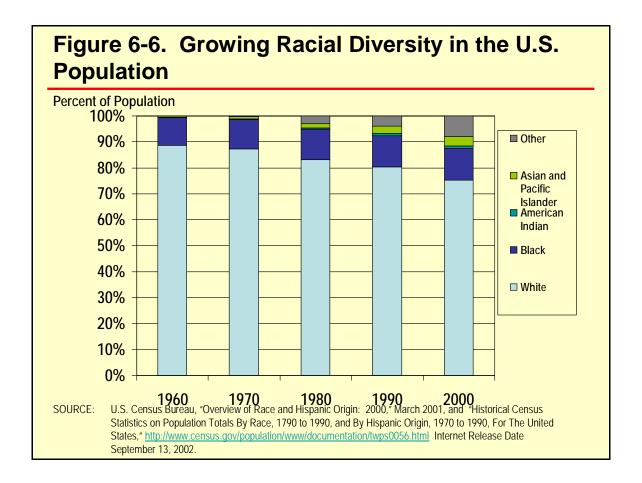
- > Over the last several decades, women have taken advantage of the opportunities presented by America's dynamic labor market.
- ➤ Women's labor force participation rate was 32.7 percent in 1948. Over the years it increased steadily, from 46.3 percent in 1975 to a peak of about 60 percent in 2000. At 59.3 percent in 2005, the labor force participation rate of women has plateaued since 2000.



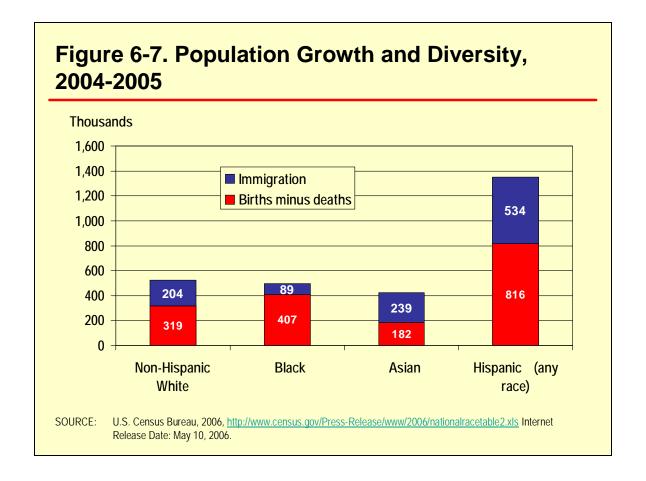
- ➤ More women than ever are in higher-paying occupations. Women's share of employment in professional and related occupations and in management, business and financial operations occupations has steadily risen over time.<sup>18</sup>
- ➤ Women represented 50.7 percent of all professional and related occupations in 1983 but represented 56.3 percent in 2005. Women have also made progress in management occupations. In 1983, women comprised 31.2 percent of workers in management, business and financial operations occupations. By 2005, the proportion of women in such occupations had grown to 42.5 percent.



- ➤ The progress of women in the U.S. labor market highlights the vital role of education and the opportunities available to those who pursue it. Overall, real (inflation-adjusted) earnings of women 25 years and over increased by over one-fourth from 1979 to 2005, while real earnings of men changed very little.
- ➤ At all levels of education, changes in real earnings since 1979 have been more favorable for women than for men. Women's gains in earnings varied significantly by educational attainment, and women with more education experienced larger gains in real earnings. Indeed, women without a high school education experienced lower earnings after adjusting for inflation, while those with higher levels of education experienced higher earnings over time even after adjusting for inflation.

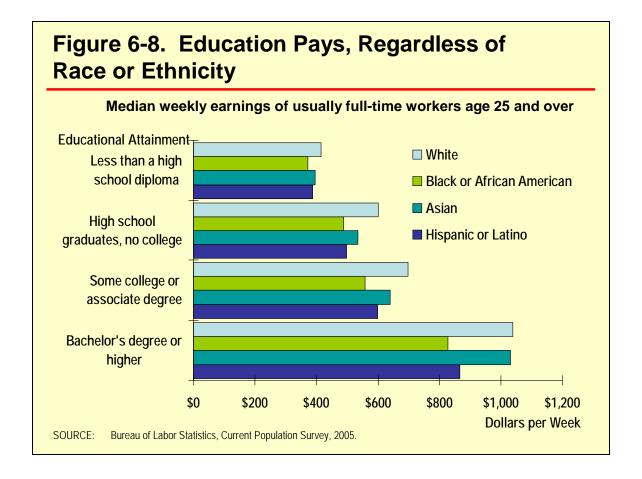


- ➤ The increasing racial and ethnic diversity of the U.S. population also will create new opportunities as well as challenges for the U.S. labor market, and education will play a vital role. As shown in Figure 6-6, the proportion of the population (all ages) whose race is classified as "white" has decreased from almost 9 in 10 in 1960 to about 3 in 4 in 2000.
- ➤ When Hispanic ethnicity is considered in addition to race, the U.S. population's diversity is further underscored: In 2005, about one-third of the country's population belonged to either a racial or ethnic minority group.

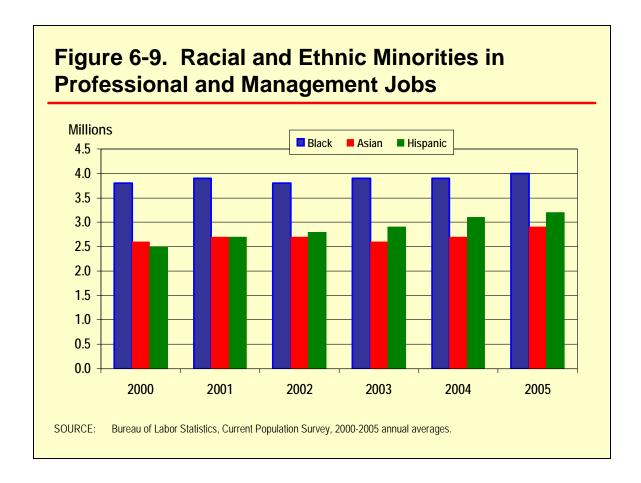


- ➢ Greater population diversity naturally results in greater diversity among U.S. workers. Immigration is a factor in the growing role of racial and ethnic minorities, but natural increase native-born Americans is also an important source for growth of the minority population. The 2.9 million estimated increase in total population (all ages) between 2004 and 2005 included 1.1 million immigrants and 1.7 million native births. Of these, 1.4 million of the native births were of minority race or ethnicity.
- ➤ From 2004 to 2005, the Hispanic population grew by over 1.3 million, with about 39.5 percent of that growth due to immigration. The black population increased by almost half a million over the year, with 18.0 percent of the growth due to immigration. The Asian population increased by 421,000 over the year, with 56.7 percent of the increase due to immigration. By comparison, the non-Hispanic white population increased by half a million, with 39.0 percent of the increase due to immigration.

55



- Regardless of race or Hispanic ethnicity, college graduates earn substantially more than do high school graduates and more than twice as much as high school dropouts.
- Comparing 2005 median weekly earnings of those who usually work full time (age 25 and over), the earnings premium for a bachelor's degree or higher versus less than a high school diploma was
  - √ 151.0 percent (\$625 per week) for Whites,
  - √ 122.6 percent (\$456 per week) for Blacks or African Americans,
  - √ 160.4 percent (\$635 per week) for Asians; and
  - √ 123.2 percent (\$478 per week) for Hispanics or Latinos.



➤ The number of minority workers employed in professional and management jobs, which tend to be higher-paying jobs requiring higher levels of education, has steadily increased in recent years. Encouraging educational attainment for all U.S. workers will be a critical component of the continued success of the country's dynamic workforce.

#### **End Notes**

1 The Bureau of Labor Statistics publishes two distinct but complementary employment series. Nonfarm payroll employment is based on a survey of establishments and total employment is based on a survey of households.

2 The calculation is from the peak payroll employment level nearest to the NBER declared beginning of the recession to the employment nadir following the recession. For the 1981-82 recession, the peak was 91,594,000 in July 1981 and the nadir was 88,756,000 in December 1982, a decline of 3.098 percent. For the 1990-91 recession, the peak was 109,820,000 in June 1990 and the nadir was 108, 203,000 in May 1991, a decline of 1.472 percent. For the 2001 recession the peak was 132,551,000 in February 2001 and the nadir was 129,797,000 in August 2003, a decline of 2.078 percent.

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

4 \$12.455 trillion according to the BEA revised estimate published in July 2006.

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

6 Based on annual average for 2005 of quarterly estimates from the BLS National Compensation Survey, Employer Cost of Employee Compensation reports. Occupations in the graph are ranked according to 2005 annual average hourly compensation.

7 Based on annual average of monthly employment levels for each occupational group estimated from the Current Population Survey.

8 In addition to the occupations shown in the chart, the Farming, fishing and forestry occupations group experienced an employment decline of 76,000. This group was not included in the chart because ECEC data to rank hourly compensation was not available.

9 The members of the European Monetary Union are Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, and Spain 10 All European Union figures for the rest of the chapter will be for the 15 member countries prior to the latest expansion on May 1, 2004: Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Denmark, Sweden and the United Kingdom. In part, this focus results from a lack of statistical data covering the current 25-member European Union.

11 Employment data date from January 1990.

12 The sum of quarterly gross job gains and gross job losses for a length of time (such as 10 years) measures the number of jobs gained and lost *during* that period and not *over* the period.

13 Some of the gross flows of jobs gained and lost reflect seasonal fluctuations that repeated year after year and add to the multi-year aggregates of gains and losses (the quarterly data used were not adjusted to remove seasonal effects), but some of the aggregate job gains and losses represent more lasting gains that partly offset closures and downsizing.

- 14 The data comparison in the section and in Figure 3-8 is based on a special conversion series developed by BLS. The specially constructed data series available online at <a href="http://www.bls.gov/cps/constio198399.htm">http://www.bls.gov/cps/constio198399.htm</a> provides a set of occupational definitions for CPS data from 1983 to 1999 that is consistent with new occupational categories introduced in 2000
- 15 Degree status is implied but not certain for 1970-91 data. Prior to 1992, the Current Population Survey questionnaire asked for years of school attended and whether the terminal year was completed. Beginning in 1992, the CPS questionnaire explicitly asks about receipt of a high school diploma, GED certificate, or college degree.
- 16 Data are annual averages of quarterly median earnings for wage and salary workers ages 25 or older who usually worked full-time.
- 17 Data are annual average of monthly survey results. Because of movements in and out of the labor force during the year, the number of distinct persons with some labor force activity during the year would be somewhat higher for all categories than the average.
- 18 The specially constructed data series available online at <a href="http://www.bls.gov/cps/constio198399.htm">http://www.bls.gov/cps/constio198399.htm</a> provides a set of occupational definitions for CPS data from 1983 to 1999 that is consistent with new occupational categories introduced in 2000.







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