

**STATEMENT OF KEITH HALL  
COMMISSIONER  
BUREAU OF LABOR STATISTICS**

**BEFORE THE  
COMMITTEE ON APPROPRIATIONS  
SUBCOMMITTEE ON LABOR, HEALTH AND HUMAN SERVICES,  
EDUCATION, AND RELATED AGENCIES**

**U.S. HOUSE OF REPRESENTATIVES**

**MARCH 25, 2009**

Thank you for the opportunity to discuss the Bureau of Labor Statistics' occupational outlook information with you.

I will provide a brief overview of the current economy and then discuss long-term employment trends through 2016, with special attention to occupations with above average wages and large numbers of job openings, as well as those with above average growth rates. In light of the Committee's interest in healthcare, I will address this field specifically.

Finally, concerning a topic currently of intense interest -- "green jobs" -- I want to briefly discuss with you the challenge of measuring the number and characteristics of these jobs.

***The current economy.*** As you know, the Nation is in the midst of a sharp and widespread contraction of the labor market. Since the start of the recession in December 2007, 4.4 million payroll jobs have been lost, and the unemployment rate has increased from 4.9 to 8.1 percent, the highest level in over 25 years. Job losses have occurred in nearly all major industry sectors; employment has grown only in healthcare, private education, and government. Unemployment is up among all major demographic groups, and the number of people working part time involuntarily has jumped by 4.0 million. Job losses have

occurred throughout the country, and, in January, 4 states had unemployment rates above 10 percent.<sup>1</sup>

***BLS projections.*** The BLS prepares long-term national projections every two years, including the labor force, industry output, and industry and occupational employment. The most recent projections were published in December 2007 for the 2006-2016 period.

The projections are widely used by individuals and career guidance counselors for career exploration, by public officials for policy decisions regarding workforce development, and for many other purposes. Our State partners use BLS projections as an input into state and area projections, which help drive the State and local decisions on education, training and workforce policy and funding, as well as helping individuals in their career decision-making and job search.

The projections describe the composition of a full-employment economy in 2016, and the change in employment by industry and occupation required to achieve that economy. We make specific assumptions about several economic, demographic, and policy topics, such as rates of productivity growth. We conduct a series of analytical processes ranging from econometric and time-series modeling to explicitly subjective analysis.

We use data from many sources, including the Current Employment Statistics, Occupational Employment Statistics, and Producer Price programs, along with labor force data from the Current Population Survey and productivity data. We also use data from other Federal statistical agencies, primarily the Census Bureau and the Bureau of Economic Analysis.

***Impact of the recession on projections.*** I want to note that the 2006-2016 projections were completed before the current economic downturn and therefore are based on a pre-recession perspective of the economy. The impact of the current recession on the

---

<sup>1</sup> These states and their January 2009 preliminary unemployment rates are Michigan (11.6 percent), South Carolina (10.4 percent), Rhode Island (10.3 percent), and California (10.1 percent).

accuracy of our depiction of a full-employment economy in 2016 projections is uncertain. It may not be clear for some time whether the recession will have permanent impacts on the structure of the economy and on the long-term trends that are the focus of the projections analysis.

***Broad trends.*** To put the occupational projections into context, let me briefly review the broad trends. We expect growth in the labor force and total employment to slow, and the decline in manufacturing employment and shift towards services employment to continue. We project the labor force to grow at an annual rate of 0.8 percent between 2006 and 2016, down from a 1.2 percent rate during the previous decade (1996-2006). Nonagricultural wage and salary employment is projected to grow at an annual rate of 1.0 percent over 2006-2016, slower than the 1.3 percent annual rate during 1996-2006.

Manufacturing employment is projected to decline at an annual rate of -1.1 percent, down 1.5 million jobs over the decade. Manufacturing output is expected to grow, however, reflecting continued increases in productivity. Declining employment is also projected for the mining, federal government, and utilities industries. All other major industry groups are projected to gain jobs, with the most rapid growth expected in health care and social assistance at 2.4 percent annual growth, professional and business services at 2.1 percent, and educational services at 1.9 percent. (See charts 1 and 2.)

***Occupational trends.*** Turning to occupations, we categorize occupational employment into 10 major groups. The three largest major groups are professional and related occupations, service occupations, and office and administrative support occupations, with 2006 employment of 30 million, 29 million, and 24 million, respectively. These 3 groups accounted for well over half of the Nation's total employment. The smallest occupational group is farming, forestry, and fishing occupations, with just 1 million jobs. (See chart 3.)

Total employment is expected to grow about 10 percent over the decade, resulting in 15.6 million new jobs. The two groups with the largest employment in 2006—professional

and related occupations and service occupations—also are expected to grow faster than any other groups, with each increasing by 17 percent. (See chart 4.)

Because of their large size and projected fast growth, these 2 groups also will add the most new jobs to the economy—nearly 10 million—accounting for more than 60 percent of all new jobs. (See chart 5.) Both groups include detailed occupations that are concentrated in the large and fast-growing health care and social assistance and professional and business services industries, such as registered nurses, home health aides, and computer software engineers

These 2 major groups also represent the opposite ends of education and earnings ranges. Many occupations in the professional and related group pay wages above the median for all occupations and require higher levels of education or training, while many service occupations pay lower wages and require less education or training.

Two occupational groups are expected to decline over the long term, continuing their past trends. Farming, forestry, and fishing occupations are projected to decline by 3 percent, losing 29,000 jobs, and production occupations are projected to decline by 5 percent, losing over half a million jobs. Production occupations are concentrated in manufacturing, where strong productivity growth and rising import penetration will lower demand for workers.

All other groups are expected grow at or below the 10 percent average rate of growth. Expected job gains in these groups range from 1.7 million for office and administrative support occupations to about 462,000 for transportation and material moving occupations.

So far, I have mentioned only job growth. However, job openings arise not just when new jobs are added to the economy, but also when existing jobs become permanently vacant, such as when workers retire. This second source, known as replacement needs, is

expected to generate 33.4 million job openings, or more than twice as many openings as job growth alone.

For this reason, examining job openings information, instead of focusing primarily on fast growth, provides a more complete picture of expected job opportunities and the extent of training that must be provided to prepare workers to fill these jobs.

As the baby boom generation ages, retirements will create many replacement openings. Replacement needs also are strong in occupations—such as waiters and waitresses—that employ large numbers of young workers who usually work in such occupations temporarily before leaving for more permanent employment elsewhere.

Large occupations are likely to be the source of large numbers of job openings regardless of whether they are growing rapidly. Some occupations that are not growing, or are even declining, can generate significant numbers of openings because of replacement needs. On the other hand, many rapidly-growing occupations are small in employment and, therefore, will add relatively few openings.

When the two sources for job openings—growth and replacements—are added together, a different picture emerges than given by expected job growth. Service occupations, where replacement needs are high, top the list, and are expected to generate more than 12 million total job openings. Although professional and related occupations are expected to add more new jobs than service occupations, replacement needs are lower. This group is expected to generate 11 million job openings. (See chart 6.)

***Detailed occupations.*** To examine detailed occupations, I will refer to 2 tables. Table 1 lists the 30 occupations expected to be the fastest-growing and also have wages above the median. Table 2 lists the 30 occupations expected to have the most job openings and also have wages above the median.

Many of the fastest-growing higher wage occupations are related to information technology and health care. Of the 30 occupations listed in Table 1, six are computer-related, including network systems and data communication analysts (53 percent growth and \$64,600<sup>2</sup>); computer software engineers, applications (45 percent and \$79,780); and computer systems analysts (29 percent and \$69,760). Demand for computer occupations is driven by organizations' need to adopt and integrate increasingly sophisticated and complex technologies, and to address computer network security issues.

Eight health-related occupations fall into the top 30 list of fastest growth, higher wage occupations, and include physical therapist assistants (32 percent and \$41,360), dental hygienists (30 percent and \$62,800), and mental health counselors (30 percent and \$34,380). I will discuss health occupations in more detail later.

Every occupation listed in Table 1 has at least some postsecondary education as its most significant source of education or training. For most, a bachelor's degree or higher is typically required.

As I noted earlier, fast-growing occupations do not necessarily generate large numbers of job openings, including replacement needs as well as new jobs. Occupations that were relatively large in 2006 will have many openings, despite their sometimes slower growth. Table 2 indicates that several education, health-related, and computer-related occupations are among those with the most job openings and that pay relatively well.

Unlike many of the fastest growing occupations, some level of education or training below the bachelor's level is sufficient for many occupations in Table 2, including truck drivers (moderate-term on-the-job training) and bookkeeping, accounting, and auditing clerks (moderate-term on-the-job training).

---

<sup>2</sup> All wages are 2006 median annual wages from the BLS Occupational Employment Statistics program. The median wage for all occupations was \$30,400 in 2006.

***Education and training requirements.*** In addition to information on job growth, job openings, and wages, it is important to be aware of the education and training requirements for in-demand occupations. To provide this information, we classify occupations by the most significant source of education or training required for entry. The education and training categories range from short-term on-the-job training to a graduate degree.

Occupations falling in the categories generally requiring a postsecondary award or degree are projected to have faster than average growth between 2006 and 2016. However, the largest number of new jobs—4.6 million—is expected in occupations in the short-term on-the-job training category. Many of these are service occupations, such as retail salespersons, home health aides, janitors and cleaners, waiters and waitresses, child care workers, and landscaping and groundskeeping workers. An additional 3.1 million new jobs are expected to require a bachelor’s degree, many of which are professional and related, such as computer software engineers, applications; accountants and auditors; and elementary school teachers. (See chart 7.)

***Healthcare occupations.*** Increasing demand for healthcare services will generate significant employment growth throughout the healthcare sector. The primary driver of this growth is an aging population. The number of people in older age groups, with substantially more health care needs than younger cohorts, will grow faster than the total population over the next decade. Advances in medical technology will continue to improve the survival rate of severely ill and injured patients, who will then need extensive therapy and care. At the same time, cost-containment policies will generate faster-than-average growth in demand for healthcare workers who assist health care practitioners and have lower training requirements.

In presenting healthcare occupations, we look at two groups: health care practitioners and technical occupations, which are found in the professional and related major group, and healthcare support occupations, which are found in the service occupations major group.

Health care practitioners and technical occupations accounted for 7.2 million jobs in 2006 and are projected to add 1.4 million new jobs over the decade and generate 279,000 job openings annually. (See table 3.) Technological advances in medicine will lead to increased demand for more medical procedures and the workers who perform them. Physicians and surgeons are projected to add about 90,000 jobs. Registered nurses, already the largest healthcare occupation with 2.5 million jobs in 2006, is projected to add about 587,000 new jobs. Strong employment growth is projected for many healthcare technicians and assistants as these workers become more productive and perform more medical procedures that have been typically performed by healthcare practitioners. For example, physician assistants are projected to add about 18,000 jobs, while physical therapists are projected to add about 47,000 jobs.

Healthcare support occupations accounted for 3.7 million jobs in 2006 and are projected to add 1 million jobs over the 2006-2016 decade. (See table 3). The broad occupation of nursing, psychiatric, and home health aides, accounting for 2.3 million jobs in 2006, is expected to add 647,000 jobs through 2016 as demand increases for these lower-cost workers. Home health aides, in particular, are projected to experience much faster than average employment growth. An emphasis on less costly home care and outpatient treatment of the elderly population, as opposed to expensive institutional care, will lead to a growing number of aides who provide in-home health care. In addition, patients of all ages are being sent home from hospitals and nursing facilities more quickly, and they often require continued health care at home. Other large and fast growing healthcare support occupations include medical assistants, projected to increase 35 percent between 2006 and 2016, and dental assistants, projected to increase 29 percent.

***Measuring green jobs.*** Any time there are emerging industries or occupations, there is a growing need by households, businesses, and policy-makers to understand and evaluate the levels and types of jobs created. This often requires us to adapt and/or expand our programs and generates some measurement challenges.



BLS produces comprehensive employment and wage data for 670 industries and over 800 occupations following the North American Industrial Classification System (NAICS) and the Standard Occupational Classification (SOC) system, respectively. While we can identify some of the industries and occupations that are likely to have green jobs, most green activities either cut across industries and occupations or account for a subset of activity within an individual industry and occupational category.

For example, retrofitting buildings to increase energy efficiency currently falls within the construction industry, but likely supports only a small fraction of the current 6.6 million construction jobs in the U.S. There are, of course, a few industries where this problem does not exist. For example, the production of renewable electric power exactly matches the hydroelectric and other electric power generation industries<sup>3</sup> in the current NAICS.

Accurately measuring employment in green industries and in green occupations will therefore require additional research and data collection to supplement our existing information on industries and occupations. We are developing approaches that include surveying establishments in industries where green activity is expected to occur to identify both the extent they are performing green activities and the occupations of the employees who are doing such work.

An additional challenge for us will come from the number of alternative definitions of what constitutes green activity. For example, the White House Task Force on the Middle Class defined green activity quite broadly as anything dealing with some aspect of environmental improvement. They concluded that “definitions of green jobs are so broad at this point in time, it is impossible to generate a reliable count of how many green jobs there are in America today.”<sup>4</sup> There will likely always be some alternative definitions of green jobs since many are driven by specific policy initiatives. For example, the Green Jobs title of the Energy Independence and Security Act of 2007 (co-sponsored by

---

<sup>3</sup> NAICS industries 221111 and 221119 employed 68,000 workers in the second quarter of 2008.

<sup>4</sup> Middle Class Task Force, The Vice President of the United States, “Green Jobs: A Pathway to a Strong Middle Class,” February 28, 2009, page 2.

Secretary of Labor Solis during her time in Congress) focuses on a number of energy efficiency and renewable energy industries.

BLS welcomes the opportunity to help inform the discussion on green jobs. We are learning more about the questions being asked and about green technology so we can fashion a useful and measurable definition – or perhaps multiple definitions.

**Table 1. Detailed occupations with the fastest job growth and above-the-median wages, 2006 and projected 2016, ranked by percent change**

(Numbers in thousands)

Detailed occupation title	Major occupational group	Employment			2006 Median annual wages	Most significant source of postsecondary education or training
		2006	2016	Percent change		
Network systems and data communications analysts	Professional and related	262	402	53.4	\$64,600	Bachelor's degree
Computer software engineers, applications	Professional and related	507	733	44.6	79,780	Bachelor's degree
Personal financial advisors	Management, business, and financial	176	248	41.0	66,120	Bachelor's degree
Makeup artists, theatrical and performance	Service	2	3	39.8	31,820	Postsecondary vocational award
Veterinarians	Professional and related	62	84	35.0	71,990	First professional degree
Substance abuse and behavioral disorder counselors	Professional and related	83	112	34.3	34,040	Bachelor's degree
Financial analysts	Management, business, and financial	221	295	33.8	66,590	Bachelor's degree
Physical therapist assistants	Service	60	80	32.4	41,360	Associate degree
Forensic science technicians	Professional and related	13	17	30.7	45,330	Bachelor's degree
Dental hygienists	Professional and related	167	217	30.1	62,800	Associate degree
Mental health counselors	Professional and related	100	130	30.0	34,380	Master's degree
Mental health and substance abuse social workers	Professional and related	122	159	29.9	35,410	Master's degree
Marriage and family therapists	Professional and related	25	32	29.8	43,210	Master's degree
Computer systems analysts	Professional and related	504	650	29.0	69,760	Bachelor's degree
Database administrators	Professional and related	119	154	28.6	64,670	Bachelor's degree
Computer software engineers, systems software	Professional and related	350	449	28.2	85,370	Bachelor's degree
Environmental science and protection technicians, including health	Professional and related	36	47	28.0	38,090	Associate degree
Physical therapists	Professional and related	173	220	27.1	66,200	Master's degree
Network and computer systems administrators	Professional and related	309	393	27.0	62,130	Bachelor's degree
Physician assistants	Professional and related	66	83	27.0	74,980	Master's degree
Health educators	Professional and related	62	78	26.2	41,330	Bachelor's degree
Multi-media artists and animators	Professional and related	87	110	25.8	51,350	Bachelor's degree
Cardiovascular technologists and technicians	Professional and related	45	57	25.5	42,300	Associate degree
Environmental engineers	Professional and related	54	68	25.4	69,940	Bachelor's degree
Occupational therapist assistants	Service	25	31	25.4	42,060	Associate degree
Environmental scientists and specialists, including health	Professional and related	83	104	25.1	56,100	Master's degree
Securities, commodities, and financial services sales agents	Sales and related	320	399	24.8	68,500	Bachelor's degree
Radiation therapists	Professional and related	15	18	24.8	66,170	Associate degree
Environmental engineering technicians	Professional and related	21	26	24.8	40,560	Associate degree
Social and community service managers	Management, business, and financial	130	162	24.7	52,070	Bachelor's degree

**Table 2. Occupations with the most job openings and above-the-median wages, 2006 and projected 2016, ranked by numeric change**  
(Numbers in thousands)

Detailed occupation title	Major occupational group	Employment			Annual average job openings, 2006-16 (1)	2006 Median annual wages	Most significant source of postsecondary education or training
		2006	2016	Percent change			
Registered nurses	Professional and related	2,505	3,092	23.5	100	\$57,280	Associate degree
Postsecondary teachers	Professional and related	1,672	2,054	22.9	66	56,120	Doctoral degree
Bookkeeping, accounting, and auditing clerks	Office and administrative support	2,114	2,377	12.5	59	30,560	Moderate-term on-the-job training
Elementary school teachers, except special education	Professional and related	1,540	1,749	13.6	55	45,570	Bachelor's degree
Truck drivers, heavy and tractor-trailer	Transportation and material moving	1,860	2,053	10.4	52	35,040	Moderate-term on-the-job training
Executive secretaries and administrative assistants	Office and administrative support	1,618	1,857	14.8	50	37,240	Work experience in a related occupation
Sales representatives, wholesale and manufacturing, except technical and scientific products	Sales and related	1,562	1,693	8.4	48	49,610	Work experience in a related occupation
Accountants and auditors	Management, business, and financial	1,274	1,500	17.7	45	54,630	Bachelor's degree
General and operations managers	Management, business, and financial	1,720	1,746	1.5	44	85,230	Bachelor's or higher degree, plus work experience
First-line supervisors/managers of retail sales workers	Sales and related	1,676	1,747	4.2	42	33,960	Work experience in a related occupation
Secondary school teachers, except special and vocational education	Professional and related	1,038	1,096	5.6	37	47,740	Bachelor's degree
First-line supervisors/managers of office and administrative support workers	Office and administrative support	1,418	1,500	5.8	37	43,510	Work experience in a related occupation
Carpenters	Construction and extraction	1,462	1,612	10.3	35	36,550	Long-term on-the-job training
Licensed practical and licensed vocational nurses	Professional and related	749	854	14.0	31	36,550	Postsecondary vocational award
Computer software engineers, applications	Professional and related	507	733	44.6	30	79,780	Bachelor's degree
Computer systems analysts	Professional and related	504	650	29.0	28	69,760	Bachelor's degree
Automotive service technicians and mechanics	Installation, maintenance, and repair	773	883	14.3	27	33,780	Postsecondary vocational award
Management analysts	Management, business, and financial	678	827	21.9	26	68,050	Bachelor's or higher degree, plus work experience
Police and sheriff's patrol officers	Service	648	719	10.8	24	47,460	Long-term on-the-job training
Computer support specialists	Professional and related	552	624	12.9	24	41,470	Associate degree
Lawyers	Professional and related	761	844	11.0	23	102,470	First professional degree

**Table 2. Occupations with the most job openings and above-the-median wages, 2006 and projected 2016, ranked by numeric change**  
(Numbers in thousands)

Detailed occupation title	Major occupational group	Employment			Annual average job openings, 2006-16 (1)	2006 Median annual wages	Most significant source of postsecondary education or training
		2006	2016	Percent change			
Electricians	Construction and extraction	705	757	7.4	23	43,610	Long-term on-the-job training
Middle school teachers, except special and vocational education	Professional and related	658	732	11.2	22	46,300	Bachelor's degree
Physicians and surgeons	Professional and related	633	723	14.2	20	(2)	First professional degree
Network systems and data communications analysts	Professional and related	262	402	53.4	19	64,600	Bachelor's degree
First-line supervisors/managers of construction trades and extraction workers	Construction and extraction	772	842	9.1	18	53,850	Work experience in a related occupation
Correctional officers and jailers	Service	442	516	16.9	18	35,760	Moderate-term on-the-job training
Maintenance and repair workers, general	Installation, maintenance, and repair	1,391	1,531	10.1	17	31,910	Moderate-term on-the-job training
Securities, commodities, and financial services sales agents	Sales and related	320	399	24.8	16	68,500	Bachelor's degree
Plumbers, pipefitters, and steamfitters	Construction and extraction	502	555	10.6	16	42,770	Long-term on-the-job training
Notes: (1) Annual average job openings due to both growth and net replacement needs.							
(2) Wage is equal to or greater than \$145,600 per year.							

**Table 3. Healthcare practitioner and technical and healthcare support occupations: projected employment growth, 2006-16, 2006 wages, and education and training category**  
(Numbers in thousands)

Occupation title	Employment			Annual average job openings, 2006-16 (1)	2006 Median annual wages	Most significant source of postsecondary education or training
	2006	2016	Percent change			
<b>Healthcare practitioner and technical occupations</b>	<b>7,198</b>	<b>8,620</b>	<b>19.8</b>	<b>279</b>	<b>\$51,980</b>	—
Chiropractors	53	60	14.4	1	65,220	First professional degree
Dentists, general	136	149	9.2	4	132,140	First professional degree
Oral and maxillofacial surgeons	8	8	9.1	0	(2)	First professional degree
Orthodontists	9	10	9.2	0	(2)	First professional degree
Prosthodontists	1	1	10.7	0	(2)	First professional degree
Dentists, all other specialists	7	7	6.8	0	91,200	First professional degree
Dietitians and nutritionists	57	62	8.6	2	46,980	Bachelor's degree
Optometrists	33	36	11.3	1	91,040	First professional degree
Pharmacists	243	296	21.7	10	94,520	First professional degree
Physicians and surgeons	633	723	14.2	20	(2)	First professional degree
Physician assistants	66	83	27.0	3	74,980	Master's degree
Podiatrists	12	13	9.5	1	108,220	First professional degree
Registered nurses	2,505	3,092	23.5	100	57,280	Associate degree
Audiologists	12	13	9.8	0	57,120	First professional degree
Occupational therapists	99	122	23.1	4	60,470	Master's degree
Physical therapists	173	220	27.1	7	66,200	Master's degree
Radiation therapists	15	18	24.8	1	66,170	Associate degree
Recreational therapists	25	26	3.7	0	34,990	Bachelor's degree
Respiratory therapists	102	126	22.6	4	47,420	Associate degree
Speech-language pathologists	110	121	10.6	3	57,710	Master's degree
Therapists, all other	35	38	10.0	1	42,250	Bachelor's degree
Veterinarians	62	84	35.0	3	71,990	First professional degree
Health diagnosing and treating practitioners, all other	65	73	11.8	2	61,570	Bachelor's degree
Medical and clinical laboratory technologists	167	188	12.4	5	49,700	Bachelor's degree
Medical and clinical laboratory technicians	151	174	15.0	5	32,840	Associate degree
Dental hygienists	167	217	30.1	8	62,800	Associate degree
Cardiovascular technologists and technicians	45	57	25.5	2	42,300	Associate degree
Diagnostic medical sonographers	46	54	19.1	1	57,160	Associate degree
Nuclear medicine technologists	20	23	14.8	1	62,300	Associate degree
Radiologic technologists and technicians	196	226	15.1	6	48,170	Associate degree
Emergency medical technicians and paramedics	201	240	19.2	6	27,070	Postsecondary vocational award
Dietetic technicians	25	29	14.8	1	24,040	Postsecondary vocational award
Pharmacy technicians	285	376	32.0	18	25,630	Moderate-term on-the-job training
Psychiatric technicians	62	60	-3.3	2	27,780	Postsecondary vocational award
Respiratory therapy technicians	19	19	0.9	1	39,120	Associate degree
Surgical technologists	86	107	24.5	5	36,080	Postsecondary vocational award
Veterinary technologists and technicians	71	100	41.0	5	26,780	Associate degree

**Table 3. Healthcare practitioner and technical and healthcare support occupations: projected employment growth, 2006-16, 2006 wages, and education and training category**  
(Numbers in thousands)

Occupation title	Employment			Annual average job openings, 2006-16 (1)	2006 Median annual wages	Most significant source of postsecondary education or training
	2006	2016	Percent change			
Licensed practical and licensed vocational nurses	749	854	14.0	31	36,550	Postsecondary vocational award
Medical records and health information technicians	170	200	17.8	8	28,030	Associate degree
Opticians, dispensing	66	72	8.7	3	30,300	Long-term on-the-job training
Orthotists and prosthetists	6	6	11.8	0	58,980	Bachelor's degree
Healthcare technologists and technicians, all other	79	91	15.0	2	35,140	Postsecondary vocational award
Occupational health and safety specialists	45	49	8.1	1	58,030	Bachelor's degree
Occupational health and safety technicians	10	12	14.6	0	42,160	Bachelor's degree
Athletic trainers	17	21	24.3	1	\$36,560	Bachelor's degree
Healthcare practitioners and technical workers, all other	53	61	14.8	2	37,200	Bachelor's degree
<b>Healthcare support occupations</b>	<b>3,723</b>	<b>4,721</b>	<b>26.8</b>	<b>140</b>	<b>22,870</b>	—
Home health aides	787	1,171	48.7	45	19,420	Short-term on-the-job training
Nursing aides, orderlies, and attendants	1,447	1,711	18.2	39	22,180	Postsecondary vocational award
Psychiatric aides	62	62	-0.1	1	23,900	Short-term on-the-job training
Occupational therapist assistants	25	31	25.4	1	42,060	Associate degree
Occupational therapist aides	8	10	21.9	0	25,020	Short-term on-the-job training
Physical therapist assistants	60	80	32.4	3	41,360	Associate degree
Physical therapist aides	46	58	24.4	2	22,060	Short-term on-the-job training
Massage therapists	118	142	20.3	4	33,400	Postsecondary vocational award
Dental assistants	280	362	29.2	13	30,220	Moderate-term on-the-job training
Medical assistants	417	565	35.4	20	26,290	Moderate-term on-the-job training
Medical equipment preparers	45	52	14.2	1	25,950	Short-term on-the-job training
Medical transcriptionists	98	112	13.5	3	29,950	Postsecondary vocational award
Pharmacy aides	50	45	-11.1	1	19,440	Short-term on-the-job training
Veterinary assistants and laboratory animal caretakers	75	86	15.7	2	19,960	Short-term on-the-job training

**Table 3. Healthcare practitioner and technical and healthcare support occupations: projected employment growth, 2006-16, 2006 wages, and education and training category**  
(Numbers in thousands)

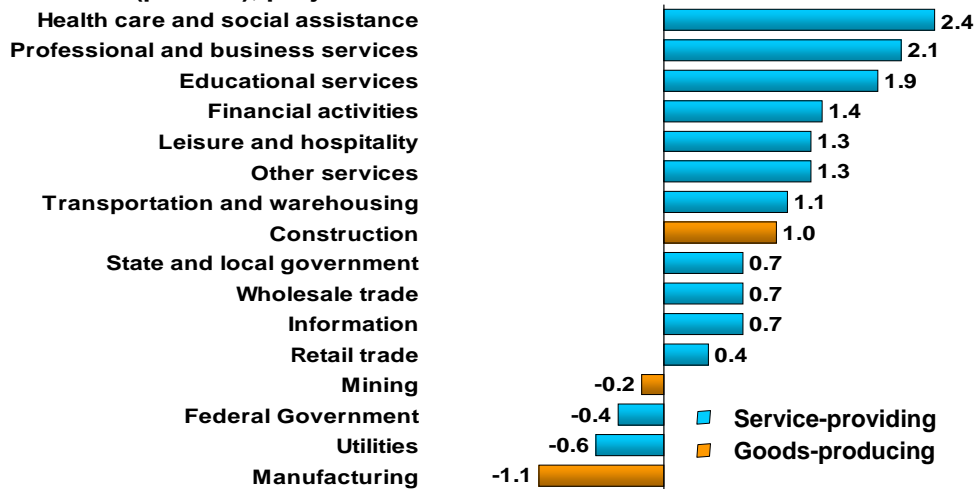
Occupation title	Employment			Annual average job openings, 2006-16 (1)	2006 Median annual wages	Most significant source of postsecondary education or training
	2006	2016	Percent change			
Healthcare support workers, all other	204	236	15.6	6	26,990	Short-term on-the-job training

Notes: (1) Annual average job openings due to both growth and net replacement needs.  
(2) Wage is equal to or greater than \$145,600 per year.



## Chart 1. Growth rate for wage and salary employment by industry sector

Annual rate (percent), projected 2006-16

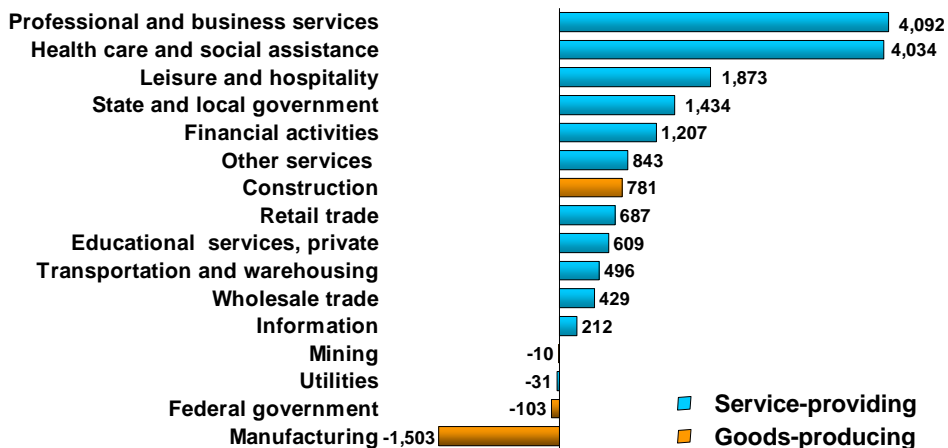


Source: Bureau of Labor Statistics

1

## Chart 2. Net (numeric) change in wage and salary employment by industry sector

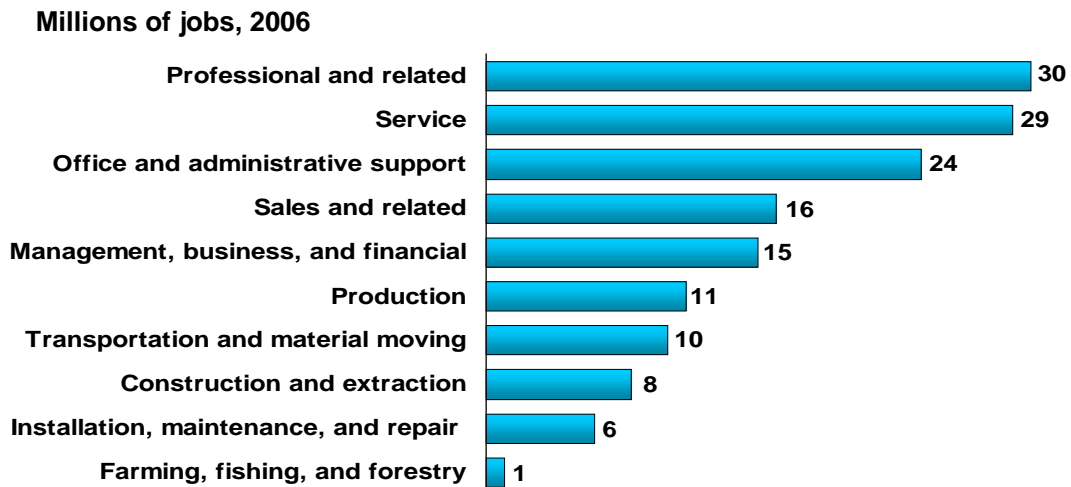
Thousands of jobs, projected 2006-16



Source: Bureau of Labor Statistics

2

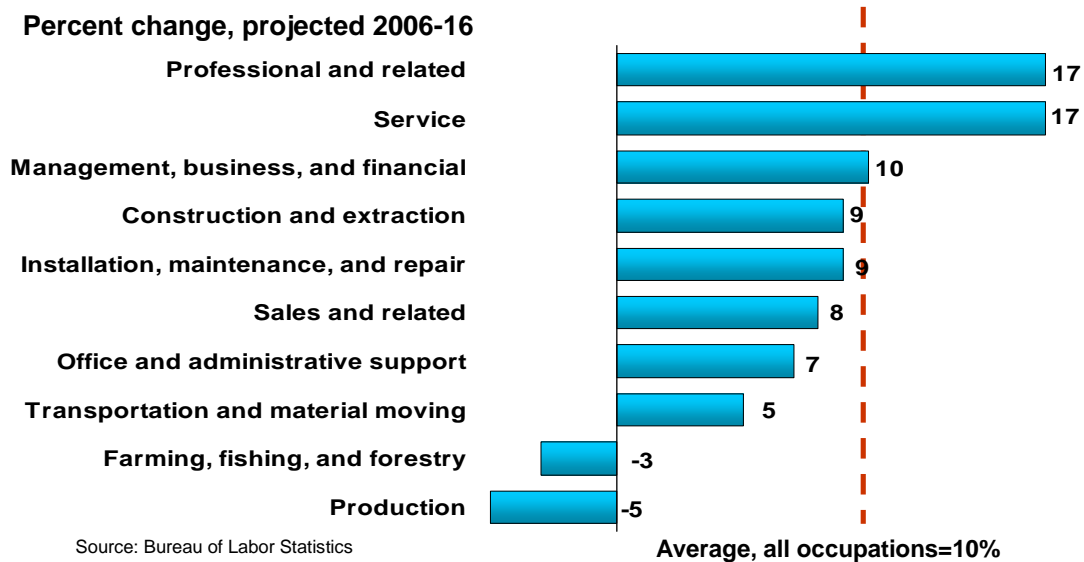
### Chart 3. Employment by major occupational group



Source: Bureau of Labor Statistics

3

### Chart 4. Percent change in employment by major occupational group

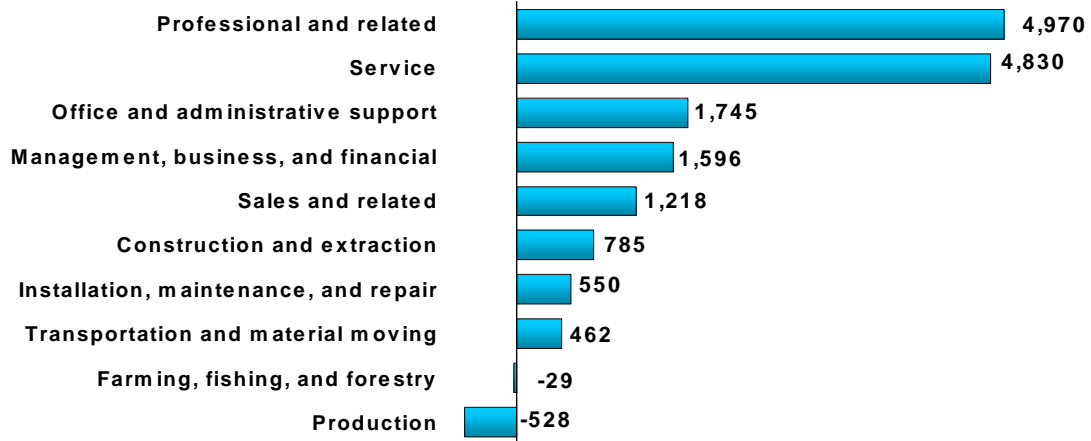


Source: Bureau of Labor Statistics

4

## Chart 5. Numeric change in employment by major occupational group

Thousands of jobs, projected 2006-16

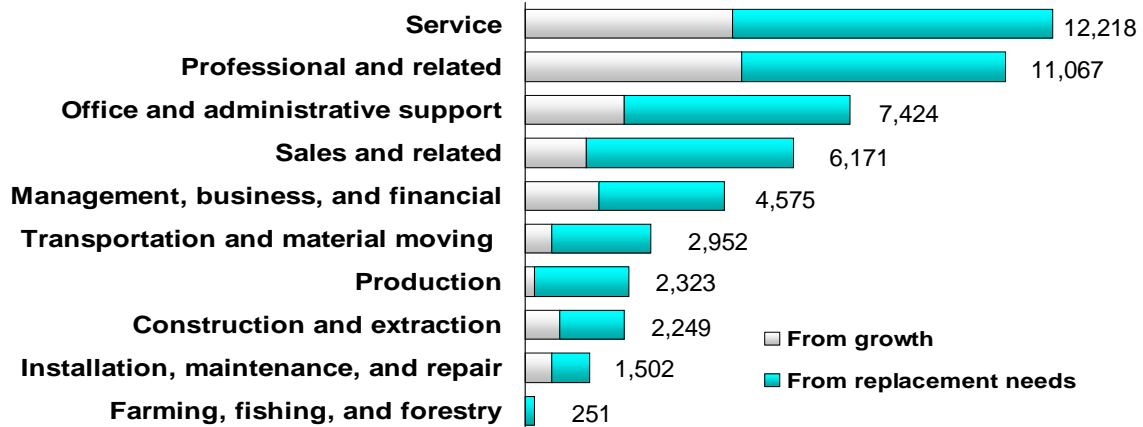


Source: Bureau of Labor Statistics

5

## Chart 6. Job openings by major occupational group

Millions of jobs, projected 2006-16

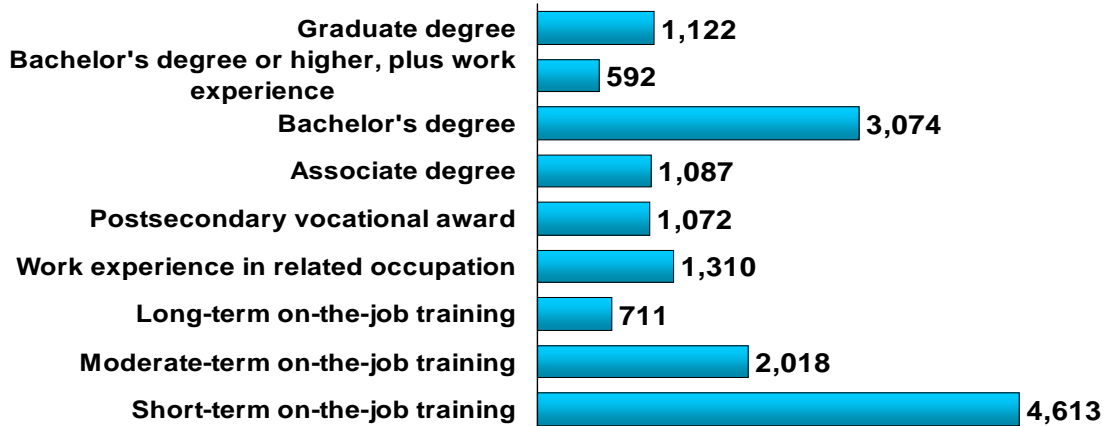


Source: Bureau of Labor Statistics

6

## Chart 7. Numeric growth in employment by education or training category

Thousands of jobs, projected 2006-16



Source: Bureau of Labor Statistics

7