

# Commonwealth of Massachusetts Employment Projections 2006-2016



Commonwealth of Massachusetts  
Executive Office of Labor and  
Workforce Development  
Suzanne M. Bump, Secretary

## Introduction

These projections for more than 800 detailed and summary level industries and occupations are not, and cannot be, precise forecasts. Instead they are indicators of the relative size, general direction, and likely future impact of industrial and occupational changes within the state's economy.

Although a single growth rate estimate suggests a straight-line trend between 2006 and 2016, the figure generally incorporates the cyclical fluctuations common to most occupations and sectors. At any given point in time, therefore, a projection may seem on or off target; in the long term, it should reflect the dominant pattern.

These projections were completed during a time of unprecedented economic turmoil. The nation entered a recession late in 2007 and the economy was seriously disrupted at the end of 2008 when the credit markets froze. As this document neared its publication date, Congress was expected to enact an economic stimulus package; but the ultimate scope and nature of the program were undecided.

It is always difficult to project changes in employment, but the dramatic events that are currently taking place make forecasting especially uncertain. The Department of Workforce Development will continue to monitor economic developments as they unfold.

## Overview

The Massachusetts economy is projected to expand 6.3 percent by 2016, generating 216,650 net new jobs. An additional 768,330 job openings will result from the need to replace workers who retire or change careers. A total of nearly 1 million jobs will need to be filled by 2016.

Over the next 10 years, technological advances will spur the demand for more highly educated workers. This ongoing trend, along with the aging of the population, will play a significant role in shaping job growth through 2016. Jobs will continue to exist for workers at all levels of education and training, but education requirements will increase and change the skill content in many occupations.

**Table 1: Nonfarm Wage & Salary Employment\* by Industry Sector, 2006-2016**

Industry Sector	2006 Jobs	2016 Jobs	Net Change	Growth Rate
Total Nonfarm Wage and Salary Employment*	3,245,980	3,449,500	203,520	6.3%
Natural Resources and Mining	1,800	1,760	-40	-2.2%
Construction	141,100	136,800	-4,300	-3.0%
Total Manufacturing	299,700	258,380	-41,320	-13.8%
Trade, Transportation, & Utilities	570,500	573,630	3,130	0.5%
Information	87,010	94,140	7,130	8.2%
Financial Activities	223,890	230,970	7,080	3.2%
Professional, Scientific, and Business Services	471,680	557,080	85,400	18.1%
Educational and Health Services	605,690	707,710	102,020	16.8%
Leisure and Hospitality	296,700	323,860	27,160	9.2%
Other Services, Except Public Administration	118,910	127,520	8,610	7.2%
Government	429,000	437,600	8,600	2.0%

\*does not include self-employed

## Highlights of the projected changes include:

Job growth will vary widely by industry, occupation, and education, but more than 83 percent of all net new nonfarm wage and salary jobs will emerge in 1) health care and social assistance and 2) professional, scientific, and business services — industries in which high-tech companies abound. Health care alone will account for nearly 65,000 jobs between 2006 and 2016.

As a result of strong growth in the health care and professional, scientific, and business service industries, demand for professional and technical workers will increase the fastest among all occupational groups and will generate the most new jobs. Service workers – which includes nursing and home health aides and waiters and waitresses – will gain the 2nd largest number of new jobs through 2016. Together, these two occupational groups, which are at opposite ends of the education and earnings spectrum, will account for virtually all of the state's net new jobs by 2016 (over 98 percent).

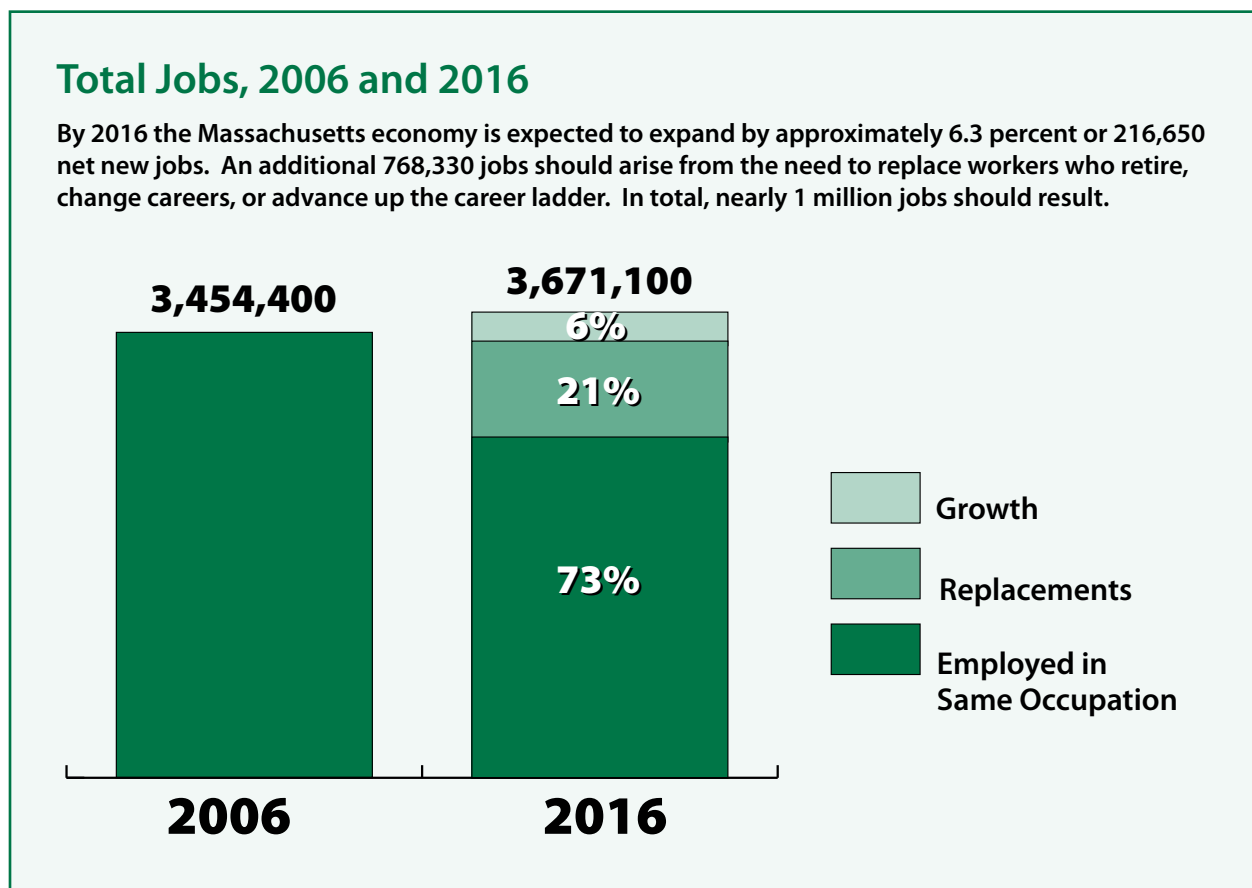


Chart 1

## Employment Shifts in Massachusetts, Past and Projected

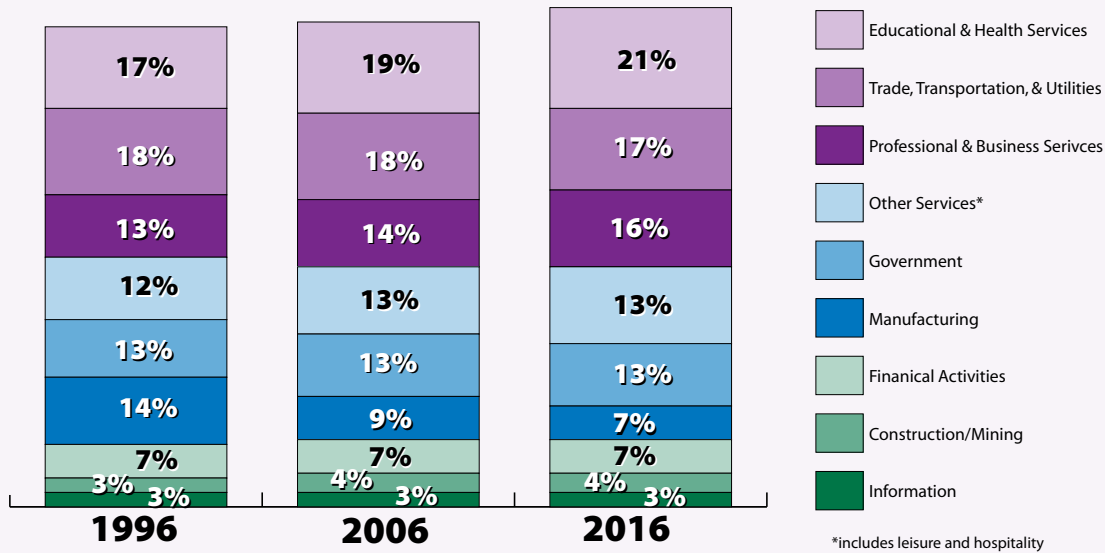


Chart 2

Of the 20 fastest-growing occupations, 11 are concentrated in health care and information technology. An additional four are found in the life sciences. The remaining five are primarily community and social service and personal service jobs. Fourteen of the 20 fastest-growing occupations will require an associate's degree or higher.

Due to retirements and other replacement needs, jobs will continue to be available at all levels of education and training. In fact, more than three times as many job openings will result from the need to replace workers (768,330) as from economic growth (216,650).

Replacement needs tend to be high in occupations where a greater than average proportion of workers are near retirement, such as teaching, and in occupations where a large concentration of young and part-time workers results in high job turnover, such as waitressing.

Education and training requirements will continue to rise through 2016. Approximately 60 percent of all net new jobs created from economic growth between 2006 and 2016 will require an associate's degree or higher.

## Differences in the Industry and Occupational Structure of the US and MA Labor Markets

Because Massachusetts has a higher than average concentration of jobs in education, health care, finance, and professional and technical services industries, a greater proportion of jobs here are found in professional and technical occupations compared to the United States.

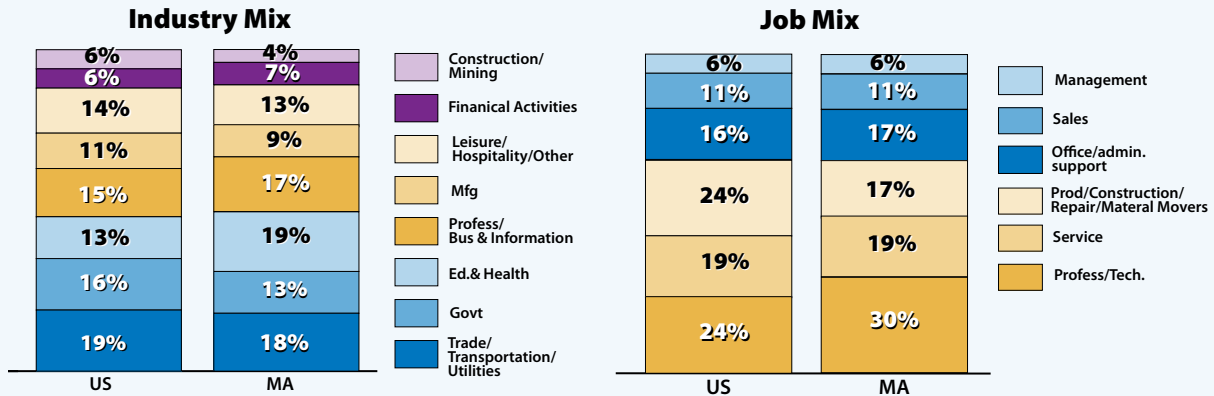


Chart 3

**Summary:** The impact of both replacement and new jobs will vary widely. In general, workers with the most up-to-date skills will have the most job opportunities and the greatest access to high-paying jobs.

It should be emphasized that these projections are not, and cannot be precise forecasts. Instead they are indicators of the relative size, general direction, and likely future impact of industrial and occupational change within the state's economy.

Although a single growth rate estimate suggests a straight line between 2006 and 2016, the figure generally incorporates the cyclical fluctuations common to most industries and occupations. At any given time the projection may seem on or off target; in the long term, it should reflect the dominant pattern.

In a broader sense, the estimates also assume that certain fundamental conditions will prevail through 2016: the institutional framework of the U.S. economy; and the absence of a major war or energy shortage.

# Job Growth by Major Industry Sector

## Professional and Technical Services

Demand for professional and technical services – which includes management consulting, computer systems design, research and testing, engineering, legal, and accounting services – will expand 25.8 percent and generate 61,860 new jobs - over 30 percent of all net new nonfarm wage and salary positions generated through 2016.

**Management, Scientific, and Technical Consulting.** Employment will increase nearly 56 percent and 19,100 new jobs will be generated in this high-paying and highly diverse sector. Its growth rate will exceed that of any other industry in the Commonwealth and it will rank second behind hospitals in jobs created.

The demand for consultants will increase as managers seek advice from outside specialists who are not influenced by company politics. Facing increasingly stiff competition on a global scale, businesses will hire consultants to help them deal with finance, corporate strategy and organization, records management, and logistics. Other areas where the use of consultants will quickly expand include human resources, health care, environment and energy, and security and safety.

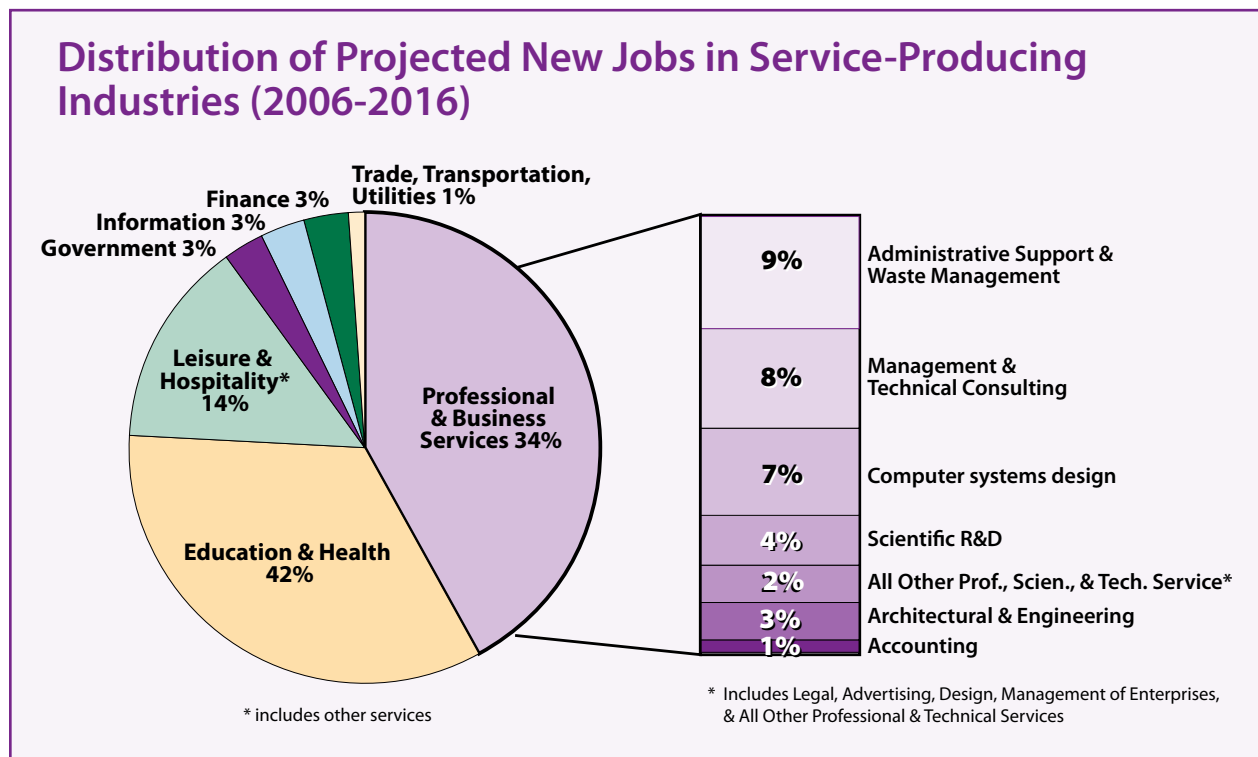


Chart 4

**Computer Systems Design.** With companies becoming more and more reliant on technology to store, protect and process data, the demand for computer systems design – including systems integration, network security, technical support, and web development – will increase 36.7 percent and generate 17,600 new jobs. Although this is somewhat lower than the growth rate achieved in the 1990s when the explosive demand for computer system design and related services generated 38,400 new jobs and more than doubled employment in that industry, computer systems design is still projected to be the state’s fifth fastest growing industry and the third largest source of new jobs.

Competition will remain keen among management and scientific consulting firms and computer systems design firms. Mergers and consolidations may occur as large companies expand their areas of expertise; and consulting firms will face competition from major hardware and software companies that now offer turnkey system design and installation.

**Research and Development.** Employment in this industry will increase 23.6 percent and generate 9,370 jobs. Job growth will be driven by the demand for medicines to treat AIDS, cancer and other diseases, the demand for new lifesaving drugs to sustain an aging population, and by advances in biotechnology and nanotechnology. Stepped-up competition for research dollars by out-of-state pharmaceutical companies will keep jobs from expanding as fast as in the 1990s when government spending on research and development soared and job growth averaged a whopping 4.2 percent a year. But research and testing is still projected to be the 9th fastest growing industry in the state.

**Other Professional Services.** Demand for these services will remain strong and will generate many new jobs in the following industries:

Industry	Percent Change	Number of Net New Jobs
Architectural and engineering services	+17.2 percent	+6,900
Accounting, Tax Preparation, Bookkeeping and Payroll Services	+14.4 percent	+2,960
Legal services	+8.2 percent	+2,540
Advertising	+6.9 percent	+790
Other professional, scientific, and technical services, including veterinary services, weather forecasting, consumer credit counseling, and marketing research	+20.2 percent	+2,180

## Health Care

Demand for health care will expand 16.7 percent and generate 64,630 new jobs by 2016. This represents almost 32 percent of all projected net new nonfarm wage and salary jobs in Massachusetts. The growth will be driven by efforts to expand health care coverage and improve health care access as well as by the need to provide more medical care for an aging population. Projected rates of job growth vary widely within health care, ranging from a high of 42.9 percent for home health and 31.8 percent for residential care facilities to a low of 9.4 percent for nursing care facilities and 14.2 percent for hospitals, the biggest health care provider.

**Hospitals.** To some extent, the need to control health care costs and reduce inefficiencies will hold down job growth in hospitals. Nevertheless, hospitals by their sheer size will generate 23,530 jobs through 2016 - over 36 percent of all new jobs in the health care industry.

**Nursing and Residential Care.** With the number of people aged 65 and older set to rise sharply, demand for long-term nursing and residential care (i.e., skilled nursing care, alternative residential care, and home and community-based care) should generate another 16,620 new jobs. Demand for residential care alone (i.e., assisted living) will increase 31.8 percent by 2016. This is projected as the economy's sixth fastest-growing industry and should generate the sixth largest number of new jobs - 11,320.

**Doctor's offices.** With ever more powerful medical diagnostics and therapies being performed in doctor's offices, employment in doctors' and other health care practitioners' offices will increase 13.0 percent and generate 10,510 new jobs.

**Home Health.** The home health services industry will generate 9,000 new jobs. This projected 42.9 percent increase would make home health services the state's fourth fastest growing industry. Much of the demand for in-home support services - including nursing care and physical therapy - will be driven by seniors who suffer from functional disabilities but desire to maintain an independent lifestyle. Most of the new jobs will be for home health aides and nurses.

Legislation was enacted in 2006 to make health care coverage available to the state's 500,000 uninsured residents. It is difficult to predict how this legislation, or any legislation that may be enacted in the future at the national level, will affect the utilization of hospitals and other medical care facilities.

## Social Assistance

As services are expanded for the elderly and for families in crisis and as more state and local social services are contracted out to the private sector, employment in this diverse industry will expand 30.4 percent and generate 19,060 new jobs. Individual and family services, the largest industry within social assistance, will expand at an even faster rate - 46.8 percent - and will account for over 67 percent of the projected new jobs.

Employment will increase 21.6 percent in child day care - the second largest industry within social assistance - and will generate 4,800 new jobs - 25 percent of all new jobs created. Although this growth represents a slight slow-down from the previous 10-year period when employment increased 31 percent and generated 5,200 new jobs, child day care is still the 12th fastest-growing industry in the state.

Increased demand for job training, food, housing, and other emergency relief services will account for the balance of the new jobs projected for social assistance. Projected employment will total 81,670 by 2016.



## Fastest Growing Industries, 2006- 2016

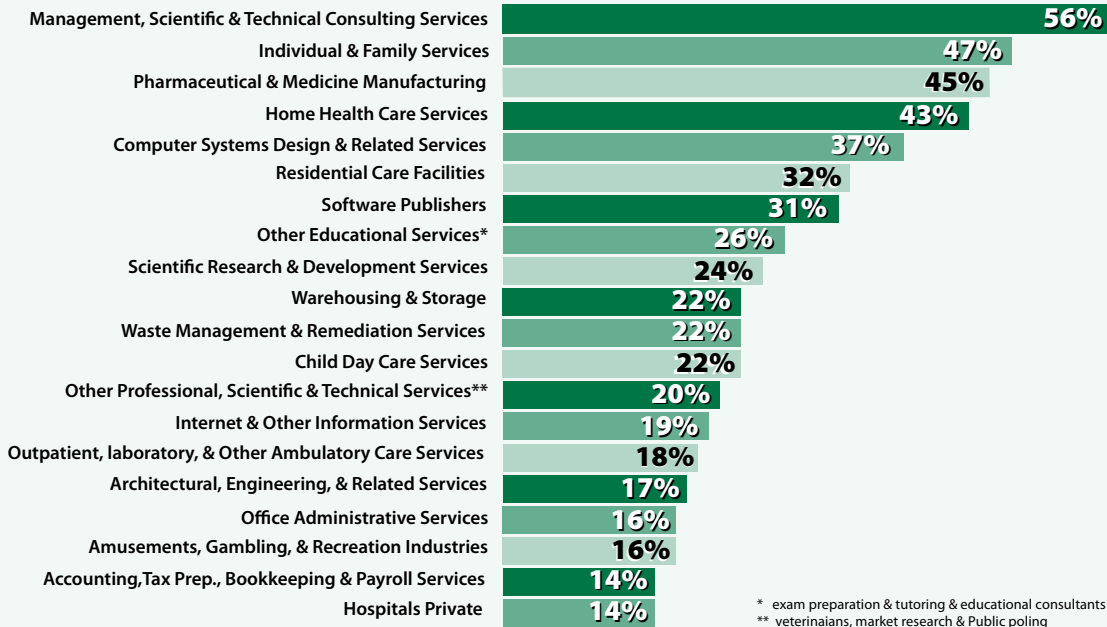


Chart 5

## Wholesale and Retail Trade

**Wholesaling.** The continuing globalization of trade will lead to more competition and consolidation in wholesaling and should keep employment from expanding faster than 2.8 percent or generating more than 3,900 new jobs. Most new jobs will arise in supply chain management and IT.

**Retailing.** Retail trade, which employed more than 350,000 workers in Massachusetts in 2006, is expected to decline by 1.6 percent, or 5,500 jobs, through 2016. This is due to a long-term slowdown in consumer spending and to the proliferation of labor-saving technologies such as on-line shopping.

The most significant declines will occur at gasoline stations (19.7 percent or 2,360 jobs), miscellaneous retailers (11.9 percent or 2,480 jobs), sporting goods, book, hobby, and music stores (8.7 percent or 1,530 jobs), and electronics and appliance stores (8.5 percent or 1,110 jobs).

These projected job losses will be partially offset by employment growth in stores that sell building materials and garden supplies (6.8 percent or 1,920 jobs), health and personal care products (5.2 percent or 1,400 jobs), clothing and accessories (1.8 percent or 700 jobs), and general merchandise (1.7 percent or 720 jobs).

Employment is currently spiking downward in most retail trade sectors as a result of the ongoing financial crisis and will take many years to recover.

## Finance, Insurance, and Real Estate

Employment is expected grow 3.2 percent by 2016. This is significantly lower than the 6.3 percent growth rate projected for the state's economy as a whole, but it represents a gain of 7,080 new jobs. The growth will be uneven among the key industries in this supersector, ranging from a low of 0.7 percent for insurance to a high of 7.6 percent for securities and commodities, which typically increases the fastest and recovers the most quickly when the economy emerges from a recession.

As these projections are being completed, the world's financial markets are in the midst of a downward spiral and US policy makers are debating the size and scope of a proposed economic stimulus program. Although it is impossible to predict to what extent the US financial system will rebound when the crisis ends, it is likely that tighter lending standards will cause employment to increase more slowly than after previous recessions.



**Banking.** After declining in the early 1990s because of widespread mergers, employment increased 15 percent between 1996 and 2006. This growth was fueled in large part by exceptionally low interest rates and the loosening of credit standards for mortgages and other consumer loans.

When interest rates started edging up in 2006 and housing prices soared beyond sustainable levels, demand for banking services fell and employment began to decline.

The banking industry should gain jobs again as the economy recovers and the population expands, but growth will be limited by technological advances. It is projected that employment will increase 1.6 percent by 2016 and that 800 jobs will be created.

**Securities and Commodities.** Employment in securities and commodities is highly cyclical. It rises during an upturn – typically peaking a little before the start of a recession – and then falls sharply during the downturn. In the 2001 recession, for example, employment peaked at 55,800 workers in December 2000. By the time the economy bottomed out, employment had fallen 18.8 percent and 10,500 jobs had been lost. The industry subsequently recovered 6,400 of those jobs by July 2007, but then lost another 3,200 jobs by the end of 2008. Employment in securities and commodities was still 7,300 jobs short of its peak of 55,800.

Since the 2008 financial crisis erupted, the value of the stock market has plummeted, job losses have mounted, scandals have broken out, major financial institutions have gone bankrupt, and the government has initiated a massive bailout. Congress is now deliberating on an economic stimulus program.

Under these circumstances, it is difficult to predict how severe and how protracted the financial crisis will be. It is clear, however, that the securities and commodities industry will be subject to stricter oversight in the future; and this may lower profits and limit employment growth.

Allowing for stricter oversight, employment is projected to grow 7.6 percent between 2006 and 2016, generating 3,660 jobs – a much lower growth rate than in the preceding 10-year period when employment expanded 22 percent.

Among the factors that will encourage growth during this time period is the growing need for investment advice as baby-boomers withdraw from the work place and as defined-benefit pensions are phased out in favor of defined-contribution retirement plans. Globalization of the securities markets will also encourage growth because it will cause more Americans to invest abroad and more foreigners to invest in the U.S.

**Insurance.** Heightened competition in insurance – an industry where competition has always been intense – will keep overall employment levels relatively flat through 2016. Job growth will vary widely by sector. Employment in the insurance carrier industry, which accounts for about two out of three insurance jobs in Massachusetts, will decline 1.2 percent as life and property and casualty insurance carriers downsize or automate operations to cut costs and remain competitive. Jobs in health and medical insurance will increase, but this growth will not offset the job losses in the other two lines of insurance.

In the smaller, local, independently-based insurance agency and brokerage service industry, employment will increase by 4.6 percent, or 1,000 jobs – much in line with overall population and economic growth. Moreover, as insurance investments become more complex and the variety of insurance products expands – especially for natural disasters and long-term medical conditions – more insurance brokers will be needed to help people select the type of coverage that is right for them.

## Transportation and Warehousing

Employment in transportation and warehousing is expected to grow at a rate of 7.4 percent, slightly faster than the economy as a whole. Employment growth in passenger and ground transport, the largest transportation industry, will mirror overall growth in transportation (8 percent) and will generate almost 1,400 new jobs.

In trucking, the second largest transportation industry (employing over 16,000 workers), job growth is expected to be 3.6 percent through 2016, a gain of almost 600 jobs. Increases in e-commerce and world trade will spur job growth, but demand will be tempered by efficiencies gained from new technologies such as GPS software and complex systems that track inventory levels and shipments.

In air transportation, the fourth largest transportation industry after couriers, employment is projected to increase modestly at 4.4 percent, a net gain of 340 new jobs by 2016. Demand for air transportation fluctuates with the ups and downs of the economy. This sector shed almost 5,000 jobs, for example, between 2001 and 2006 because of the 2001 recession and the subsequent run-up in fuel prices.

In the long run, however, demand for air transportation should increase as increasing numbers of retirees travel and more business continues to go global.

## Educational Services

Given the current emphasis on improving workplace skills and on raising the general level of education, employment in educational services is projected to expand by 11.8 percent, or 18,330 jobs. Eighty percent (80%) of the new jobs will be in post-secondary education with employment increasing by 9.5 percent, or 10,300 jobs, in private 2- and 4-year colleges.

Demand for computer and other post-secondary technical training should increase even faster (26.5 percent) and generate another 4,330 new jobs in post-secondary education. In addition, as educational standards are raised and standardized testing expands, demand for educational consultants, tutors, curriculum development specialists, and other testing and evaluation professionals will further promote the growth of this industry.

In private elementary and secondary education, employment will expand 12.2 percent and 3,700 new jobs will be created. This growth will be due, in part, to the increasing proportion of kindergarten through 12th grade students attending private schools and the limited increase in teacher productivity.

## Information

In the highly competitive and rapidly changing information sector – a diverse sector comprising traditional and emerging media/communication firms such as software and newspaper publishing and wired and wireless telecommunications – overall employment should expand by 8.2 percent, or 7,130 jobs. The vast majority (91 percent) of these net new jobs will be in software publishing.

**Telecommunications.** After shedding 8,900 jobs from 2001 to 2005, telecommunications employment is expected to remain virtually flat at 21,400 jobs through 2016. Business and consumer demand for high speed communication services should sustain current employment levels.

**Software Publishing.** In this industry, which includes firms that design and develop software, employment is projected to increase 31 percent, making this the state's seventh-fastest growing industry. Global competition and increased business demand for faster and more powerful software with easy-to-use interfaces will continue to fuel investments in software, particularly in the area of network security. Consumer demand for educational software and video games as well as the continued growth of general Internet use and the need to absorb a limitless quantity of material on the web will also spur growth.

Job growth will, nevertheless, be slowed by competition, mergers, and offshoring as companies contract out routine tasks to foreign companies that have lower labor costs. Low-level jobs, in particular, will continue to move offshore.

As information technology expands into more and more sectors of the economy, employers will look for IT workers with expertise in other fields such as finance and project management. Software engineers who keep their IT skills up to date and have experience in project management will have the best job opportunities.

**Internet and Other Information Services.** Demand for workers to provide web hosting and other related Internet services will increase employment by 18.8% for a net gain of 2,540 new jobs. Consolidation among Internet Service Providers (ISPs) and increasing competition from other telecommunications companies that provide Internet services will keep jobs from expanding in this sector as fast as they did during the previous 10 years.

## **Administrative Support and Waste Management**

Employment in this sector will expand by 12.7 percent, or 21,540 new jobs. Demand for employment services, most notably temporary help, will generate the greatest number of new jobs in this industry (7,260) and account for 34 percent of all new jobs in this sector. As global competition increases and market forces change abruptly, businesses will increasingly contract out for temporary help rather than add to their labor costs by hiring workers on a permanent basis. This arrangement will help companies weather economic ups and downs. In addition, more and more companies will adopt flexible work schedules to make their staffing patterns more responsive to market changes.

Professional employer organizations are expected to grow as companies attempt to control costs, reduce risks, and integrate human resource services by hiring contractors to administer health benefits, workers' compensation, unemployment insurance, tax payments, and payroll services. Other administrative support industries that will grow rapidly include maintenance and security. In these two industries combined, employment will increase by 13.7 percent, or 9,160 jobs.



## Government

Overall employment in government will expand by 2 percent, or 8,600 jobs, by 2016. At the federal level, job losses will continue but at a lower rate than during the previous 10-year period when employment fell 11 percent. Employment in federal government is expected to decline 8.4 percent, or 4,140 jobs, as more administrative operations are automated, centralized in Washington D.C., or contracted out to the private sector.

At the state and local level, employment is projected to increase modestly at a rate of 3.4 percent, or 12,740 new jobs. Demand for educational services will generate the bulk of the jobs. At all levels of government, controlling costs will remain a concern.

## Construction

Long-term economic and demographic trends will dampen job growth in construction from the extraordinary pace seen during the 1990s and cause employment to fall 3 percent by 2016. Nevertheless, thousands of jobs will arise to replace construction workers who retire or change careers.

Fueled by low mortgage rates as well as by the Big Dig, construction boomed in Massachusetts between 1996 and 2006, generating 46,500 new jobs, a 49 percent increase. In residential and commercial construction alone, employment shot up 56 percent and continued to increase even during the 2001 recession. This surge, which accounted for 22.6 percent of all jobs created in Massachusetts between 1996 and 2006 compared to 13 percent nationally, occurred despite below-average population growth (4.3 percent for Massachusetts versus 11.1 percent for the U.S.)

Being highly sensitive to the business cycle and large scale public works projects like the Big Dig, construction employment fluctuates widely. In 2008, for example, after home buyers started backing out of the market because of high prices and rising mortgage rates, the construction industry shed nearly 14,000 jobs. Specific point-in-time projections must therefore be evaluated with great caution.

Because it is still unclear how much money the economic stimulus package will set aside for infrastructure improvements and mortgage refinancing, it is difficult to predict how strongly construction will rebound when the recession ends.

In the long run, however, residential construction will probably remain weak as the rate of household formations slackens and the demand for single-family homes slows. This slowdown will be mitigated, however, by high-income baby boomers who move to senior housing, buy second homes or renovate their current homes.

When all of these factors are taken into account, construction employment will account for 4.0 percent of the state's nonfarm wage and salary jobs in 2016, less than the 4.3 percent share it held in 2006.



## Industries Generating the Most New Jobs through 2016

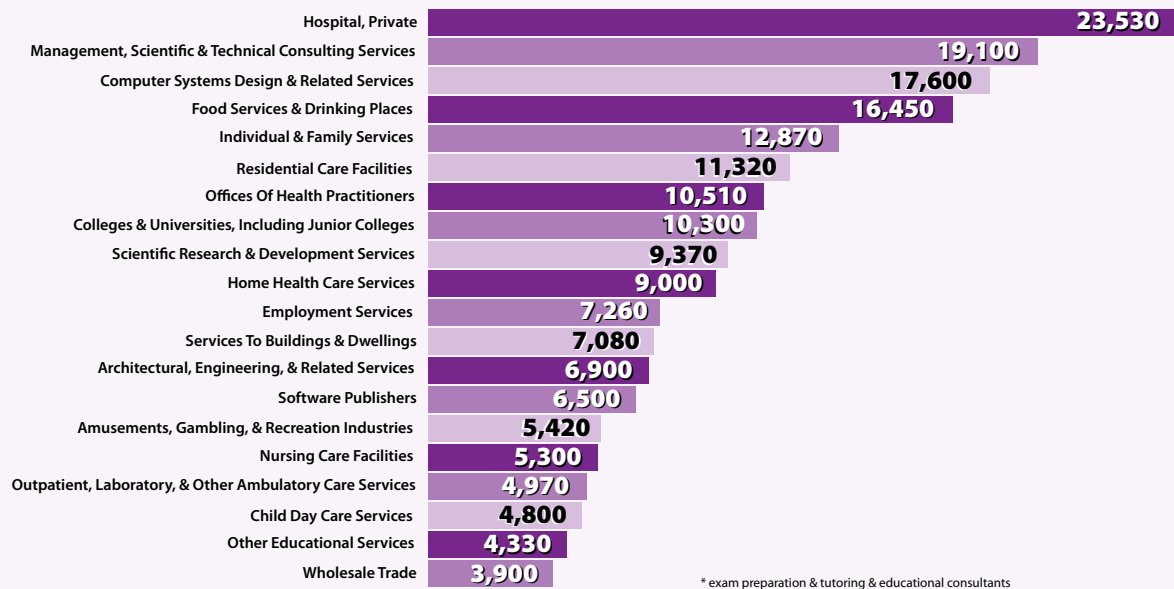


Chart 6

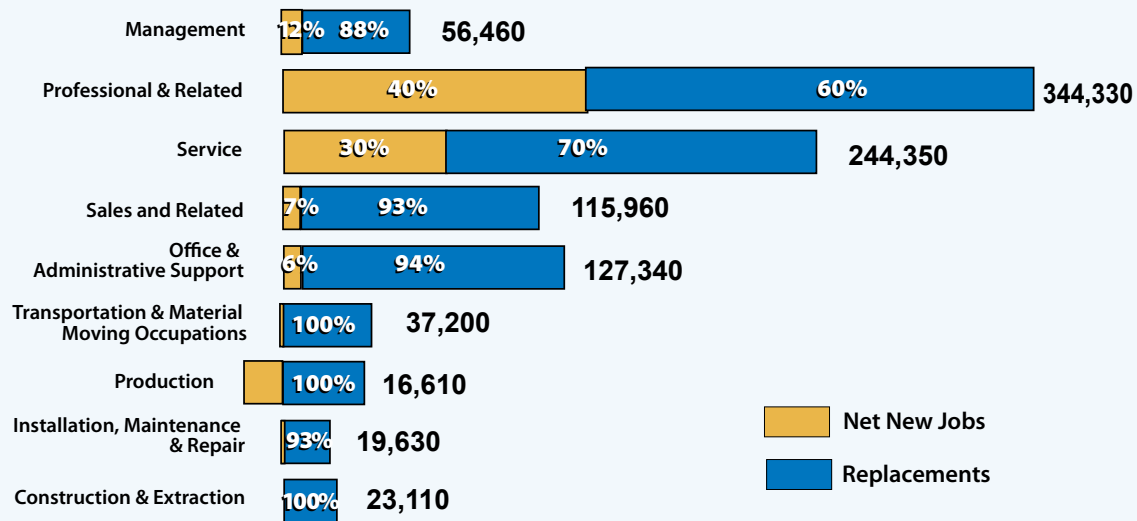
## Manufacturing

The current steep job losses will abate between 2006 and 2016, but manufacturing will still decline by 13.8 percent, or 41,300 jobs, as globalization intensifies competition and accelerates automation. By 2016, manufacturing will account for only 7.5 percent of the state's employment base, compared to 9.2 percent in 2006 and 13.5 percent in 1996.

Massachusetts lost 111,300 manufacturing jobs, or 27 percent of its manufacturing base, between 1996 and 2006. Although the losses were spread out among 18 of the 21 sectors that make up the state's manufacturing base, they were concentrated (69 percent) in high-tech durable goods, which was affected more seriously than any other sector by the boom and bust that occurred in IT investment spending. Across durable goods as a whole, employment fell by 27.2 percent, or 73,500 jobs.

As an improving exchange rate boosts US exports during the projection period, job losses will be held to 28,600 in durable goods, a 14.5 percent decrease. These losses will vary widely among the detailed industries, ranging from a high of 33 percent in computer and peripheral equipment manufacturing to a low of 0.7 percent in medical equipment and supplies. In the broader computer and electronic equipment manufacturing group, the state's largest manufacturing industry group, employment will decline by 14.1 percent, or 10,000 jobs, as productivity improves and jobs are outsourced to lower-wage countries.

## Most Job Openings will arise from Replacements, 2006-2016\*



\*Numbers shown in black represent net total openings, i.e. the sum of net new jobs and replacements.

Chart 7

With real defense spending increasing, aerospace manufacturing is the only durable goods industry expected to add jobs between 2006 and 2016 – a modest 4.6 increase.

Nondurable goods manufacturing will decline by 12.4 percent, or 12,730 jobs, as it faces intense foreign competition. Forty-two percent (42%) of these losses will be due to a nearly 35 percent decline in apparel, textiles and leather manufacturing.

Pharmaceutical and medicine manufacturing – which will benefit from growing demand and from increased state and federal spending on biotech development – will expand 44.6 percent, or 3,530 new jobs. It is the state’s third fastest-growing industry.

In summary, manufacturing will lose jobs but will remain a viable industry in Massachusetts. Although labor-intensive, lower-margin industries – challenged by shifting markets and foreign competition – will decline, capital-intensive, high-tech sectors will increase their output.

# Impact On Workers

How will these industry projections affect job opportunities? By analyzing the occupational mix of industries, it is possible to estimate the likely impact. For example, due to the concentration of job growth in the professional and technical services and health care industries – which currently employ a higher proportion of professional and technical workers than the economy as a whole – jobs for professional and technical workers should increase faster than those projected for other groups of workers. Nevertheless, large numbers of jobs will also result from the need to replace workers who retire, move up the career ladder, or change careers. In fact, for every new job created by economic growth, there will be 3.5 jobs resulting from replacement needs. The impact of both replacements and new jobs on the demand for workers varies widely. In general, the workers with the most skills will have the most job opportunities and the greatest access to high-paying jobs.

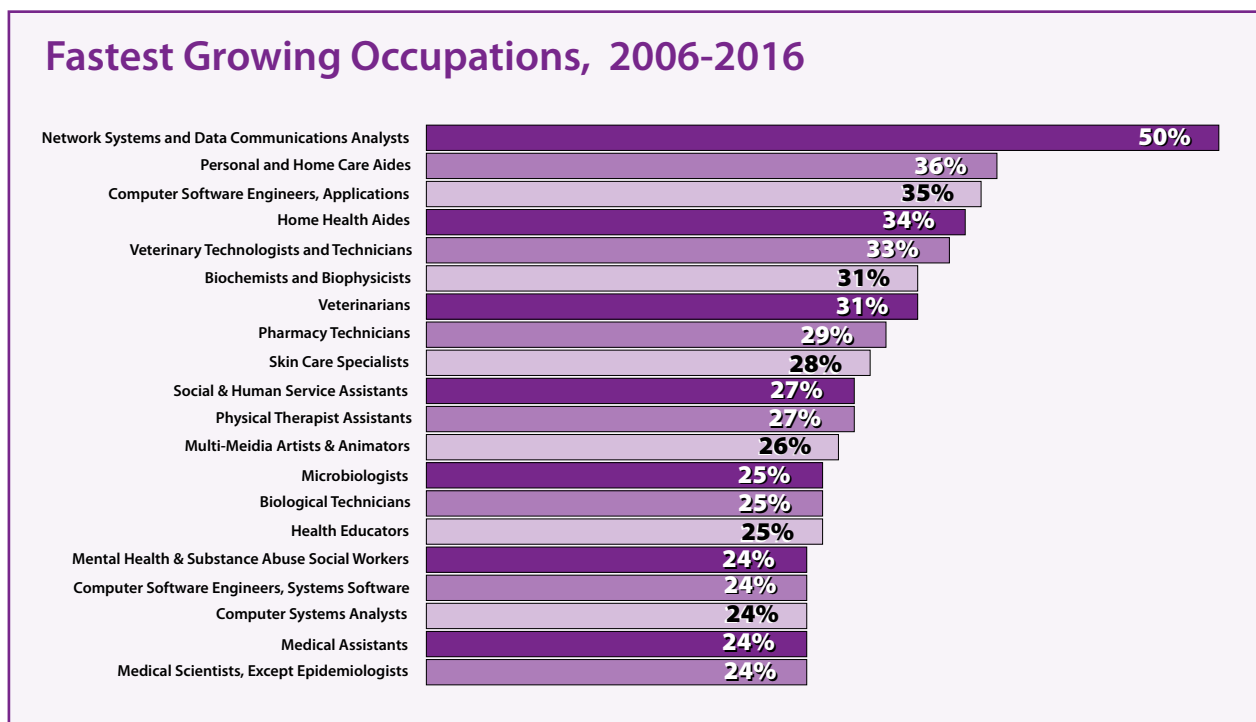


Chart 8



## Professional and Technical Jobs

Demand for professional and technical workers is projected to increase the fastest (13.3 percent) of all major groups and generate the largest number of net new jobs (139,050, or 64.2 percent of all projected net new jobs). In addition, professional and technical workers are projected to have the largest number of replacements (205,280). Consequently, professional and technical workers have the most projected net job openings overall – 344,330. Propelled by these gains, professional and technical workers should account for over 32 percent of the Massachusetts’ workforce by 2016.

Among the nine professional and technical disciplines, job growth will vary widely, ranging from a high of 16.2 percent for healthcare practitioners and technicians to a low of 10.0 percent for legal workers as shown in Table 2.

**Table 2: Professional and Technical Net New Job Growth, 2006-2016**

Occupational Group	Jobs		Percent Distribution		Net Change <sup>+</sup>	Percent Change	New Jobs#	Replacements	Total Openings 2006-2016	
	2006	2016	2006	2016					Net*	Total**
<b>Professional and Technical</b>	1,045,110	1,184,170	30.3%	32.3%	139,060	13.3%	141,980	205,280	344,340	347,260
Business and Financial Operations	188,950	209,010	5.5%	5.7%	20,060	10.6%	21,330	32,310	52,370	53,640
Computer and Mathematical	120,220	145,710	3.5%	4.0%	25,490	21.2%	25,790	25,010	50,500	50,800
Architecture and Engineering	77,550	82,650	2.2%	2.3%	5,100	6.6%	5,580	17,830	22,930	23,410
Life, Physical & Social Science	52,810	62,110	1.5%	1.7%	9,300	17.6%	9,300	12,330	21,630	21,630
Community and Social Services	67,260	79,070	1.9%	2.2%	11,810	17.6%	11,820	11,570	23,380	23,390
Legal	29,290	32,210	0.8%	0.9%	2,920	10.0%	2,990	5,030	7,950	8,020
Education, Training, and Library	233,220	258,990	6.8%	7.1%	25,770	11.0%	26,110	47,050	72,820	73,160
Arts/Design/Entertainment/Sports/Media	67,240	72,050	1.9%	2.0%	4,810	7.2%	5,170	15,760	20,570	20,930
Healthcare Practitioners & Technical	208,570	242,370	6.0%	6.6%	33,800	16.2%	33,890	38,390	72,190	72,280

<sup>+</sup> Net Change=Net New Jobs, i.e. the difference between 2016 and 2006 job levels.

<sup>#</sup> Calculated from positive employment changes only. If employment change for an occupation was negative, employment change was 0.

<sup>\*</sup> Represents the sum of net change and replacements

<sup>\*\*</sup> Represents the sum of new jobs and replacements.

As a result of a 21.2 percent growth rate, the relatively smaller computer and mathematical occupational group will gain the third largest number of net new jobs (25,490). The greatest number of net new jobs will be found in the larger healthcare practitioner and technologist group, which is expected to gain 33,800 net new jobs. The education, training and library occupational group is the largest in terms of total employment (233,220) and will generate the second largest number of net new jobs, 25,770.

## Service Jobs

Service workers – nursing and home health aides, waiters and waitresses, cooks, security guards, janitors and cleaners, cosmetologists, gardeners, and groundskeepers – will gain the second largest number of net job openings overall (244,340). Because much of the work they perform cannot be automated, their jobs will expand by 11.4 percent, or 74,440. An additional 169,900 job openings will arise from replacement needs. Because service workers tend to change jobs more frequently than those in other occupations, they tend to have a large number of replacement openings.

Within this group, food and health service workers will gain 56 percent of all projected net new jobs. Health service workers alone should account for 23 percent of the net new service jobs, as demand for home health aides, physical therapy assistants, and medical assistants increases at rates ranging from 24 to 34 percent.

## Office and Administrative Support Jobs

Office and administrative support workers should gain the third largest number of net job openings overall (127,340 or 12.9 percent of all jobs). This major group includes some of the largest declining as well as the largest growing occupations. Office automation will continue to cause a decline in jobs in many clerical occupations and will substantially reduce the need to replace office workers who retire or move on to better paying positions. Three occupations – file clerks, order clerks, and stock clerks – will account for a net loss of almost 8,800 jobs.

In contrast, demand for customer service representatives, receptionists, and bookkeeping and accounting clerks – whose jobs involve a great deal of contact with people and are therefore less affected by office automation – should expand by about 11 percent, or 14,200 jobs. Those who keep their computer skills up to date should have the most opportunities. As a result, overall employment in the clerical and administrative support group is projected to increase 1.3 percent by 2016.

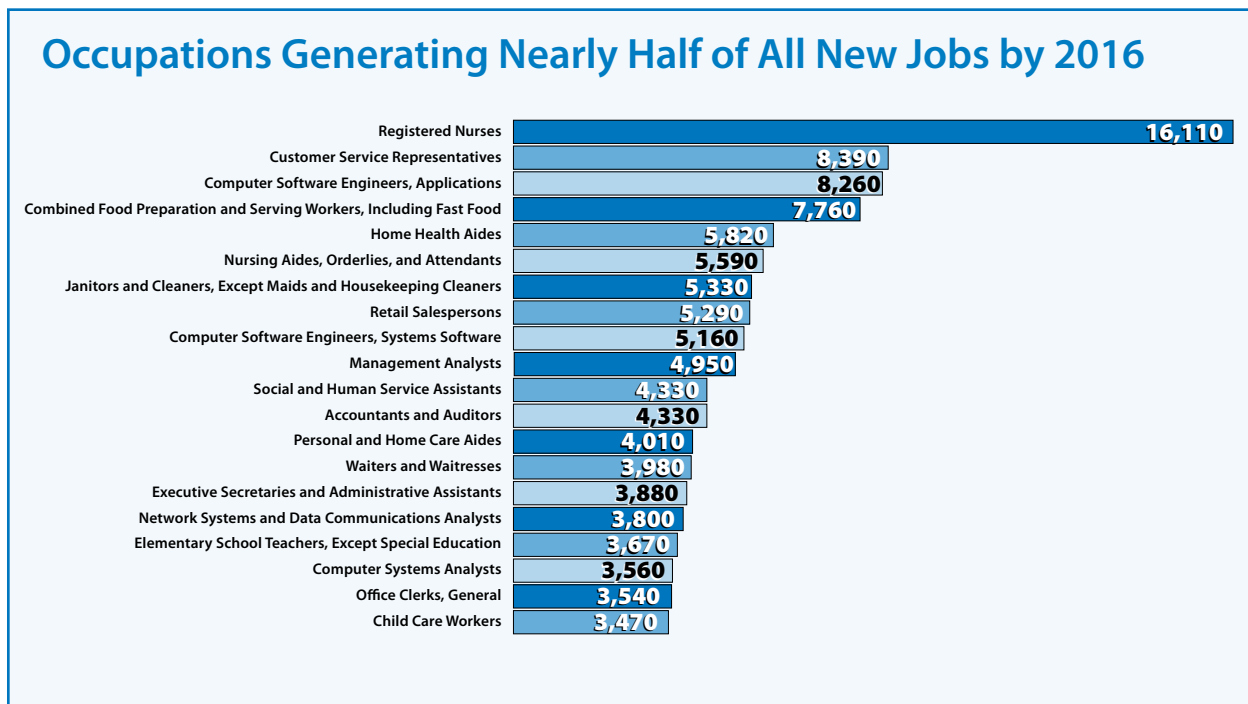


Chart 9

## Occupations with the Most Jobs Overall, 2006-2016

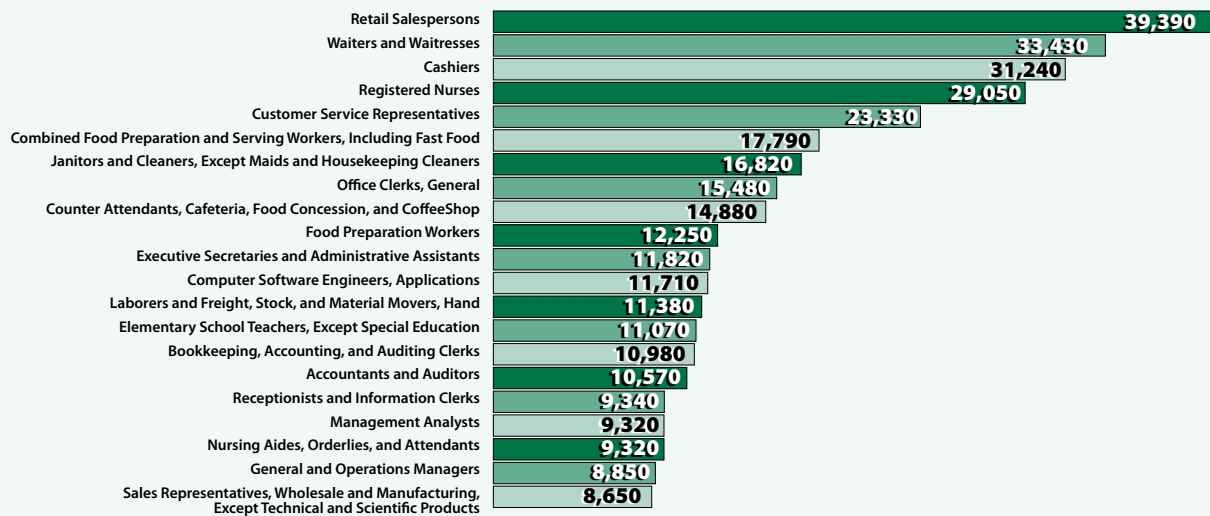


Chart 10

### Sales Jobs

Slower growth in wholesale and retail trade, which accounts for the majority of sales workers, will hold job growth in sales to 2.2 percent during the projection period, about one-third of the 6.3 percent growth rate for the economy as a whole. Automation and increased use of the Internet to purchase and sell goods should restructure sales workers in these key industries. Cashiers, for example, are expected to shed over 4,500 jobs by 2016. Nevertheless, due to replacement needs, sales workers should gain the fourth largest number of net job openings overall (115,960, or 11.8 percent of net openings). Job opportunities should expand the fastest in IT and other professional, scientific, and technical businesses that typically require a 4-year degree.

### Production, Construction, and Installation and Repair Jobs

Globalization, automation, and more efficient production, construction, repair, and installation techniques will continue to limit or decrease job growth in these fields. Employment of production workers, the largest group of job holders in this category, should decline 10.5 percent, or 19,050 jobs. Employment of installation, maintenance, and repair workers – whose jobs are less subject to globalization – should increase 1.3 percent. Employment of construction workers is expected to remain essentially flat through 2016. Nevertheless, 77,860 jobs will open up in these combined fields as workers retire. Workers who have basic math and reading skills, good communication skills, and some post-secondary training as well as the ability and willingness to learn new methods, should have the most opportunities.

## Managerial Jobs

Employment in managerial positions will increase more slowly than in the past as fewer low-level managers are replaced when corporations restructure. Nevertheless, managers will gain 56,470 net job openings (or 5.7 percent of all job openings) by 2016. In total, management jobs are projected to increase by 3.1 percent, or 7,000. Job prospects will differ widely by industry and function. In general, large, fast-growing industries will offer the most opportunities. The projected 8.9 percent growth for computer information systems managers and 13.5 percent growth for medical and health services managers, for example, reflects the growth of the IT and health care industries. On the other hand the 5.5 percent projected job loss for industrial production managers reflects such practices as the offshoring of manufacturing production jobs to lower-cost countries.

Competition for managerial jobs will remain keen, and corporate restructuring will continue to reduce the need for low-level managers, whose range of responsibilities is often limited.

## Transportation and Material Moving Workers

As logistics software improves efficiency, the demand for workers in the transportation and material moving group – which includes occupations such as bus drivers, heavy and light truck drivers, and material handlers – is expected to remain essentially the same. However, the need to replace workers will result in 37,190 openings by 2016. Job prospects will vary widely by industry. The motor vehicle operator group – which includes bus drivers, truck (light and heavy) drivers, and taxi drivers – will expand by 2,840 jobs, or 3.7 percent, through 2016. This will partially offset the 4,520 job loss (5.8 percent) in the material moving workers group, which includes occupations such as hand packers and stock room laborers.

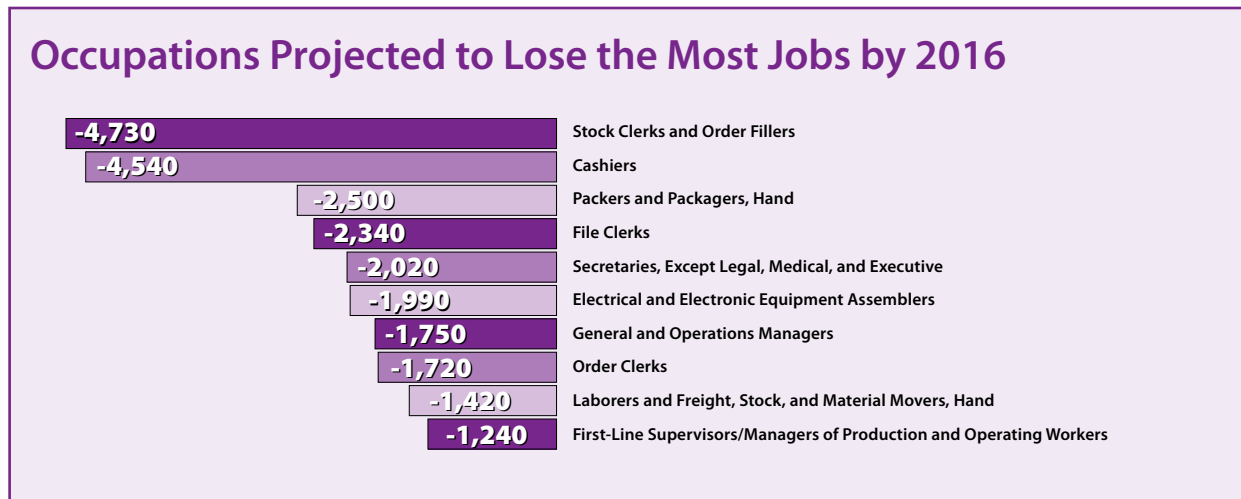
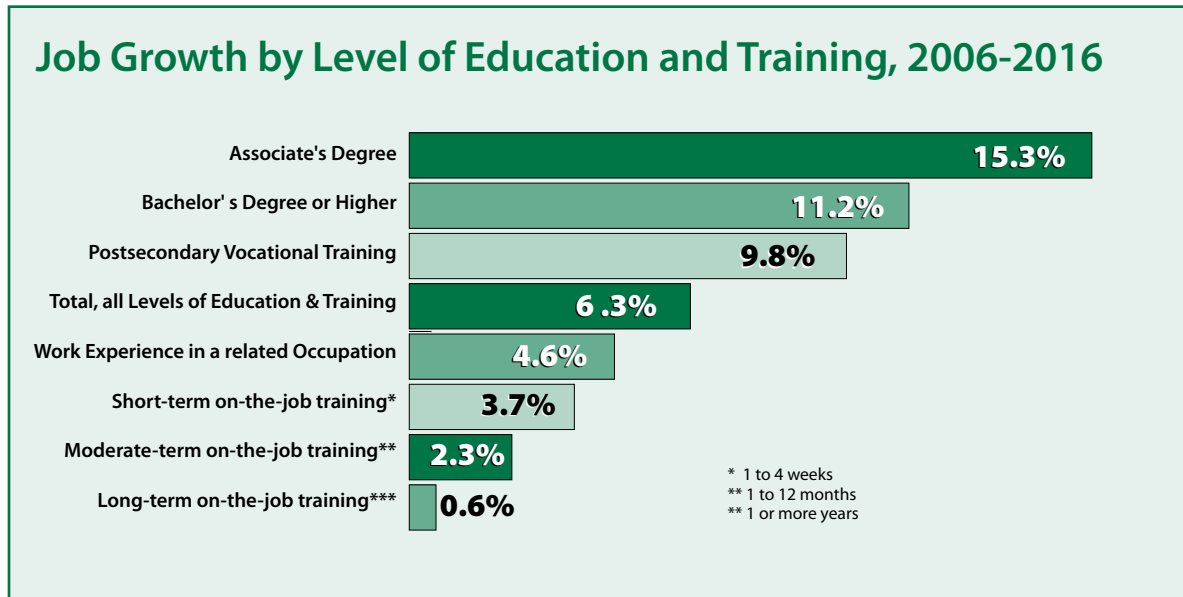


Chart 11

## Impact on Education and Training



**Chart 12**

### Education and Training for the Jobs of the Future

The globalization of the world economy and growth of technology are not expected to abate; and the resulting changes in the labor market highlight more than ever the importance of education and training at all stages of workers' participation in the labor market. Jobs will continue to exist for all levels of education and training. However, jobs for highly skilled workers will increase faster than jobs for minimally skilled workers (Chart 12). Moreover, all jobs will require more technological know-how as the use of technology becomes more pervasive in the work place.

Of the 216,650 net new jobs projected to emerge in Massachusetts, more than half (60 percent) will require an associate's degree or higher (Chart 14). Only 32 percent of current (2006) jobs in Massachusetts require an associate's degree or higher.

The second largest category of new jobs (21 percent) is made up of occupations that require some post-secondary vocational training or one or more years of on-the-job training. Only 19 percent of all net new jobs will be ones that can be learned in a relatively short time (i.e., a few days or weeks). Since jobs that can be learned in a relatively short time turn over fairly often and employ the largest number of workers, many of whom are students and other first-time job seekers, they will provide a significant number of openings overall, 352,320 or 35.8 percent of all jobs. (See Charts 13 and 14.)

## Total Net Job Openings by Education and Training Categories, 2006-2016

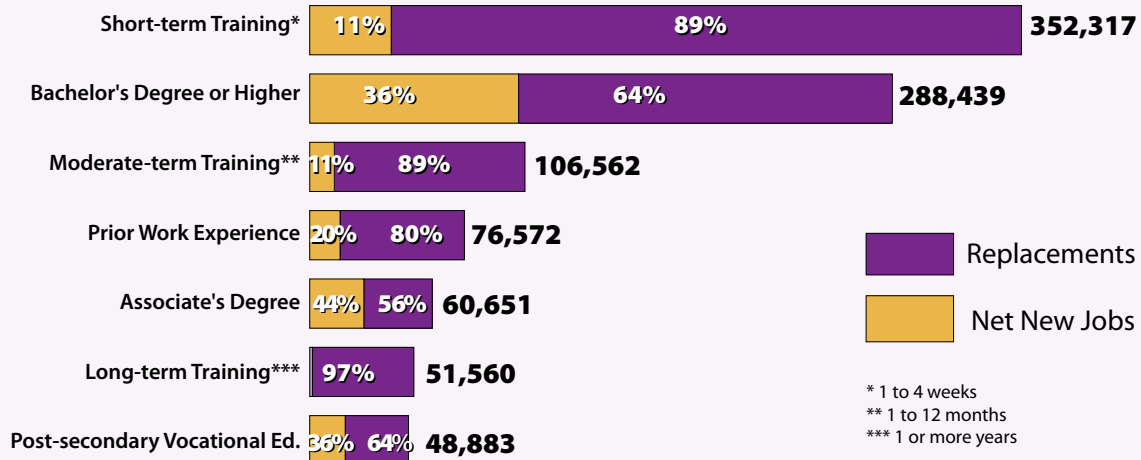


Chart 13

## Job Growth vs. Replacement Needs Along the Education and Training Spectrum

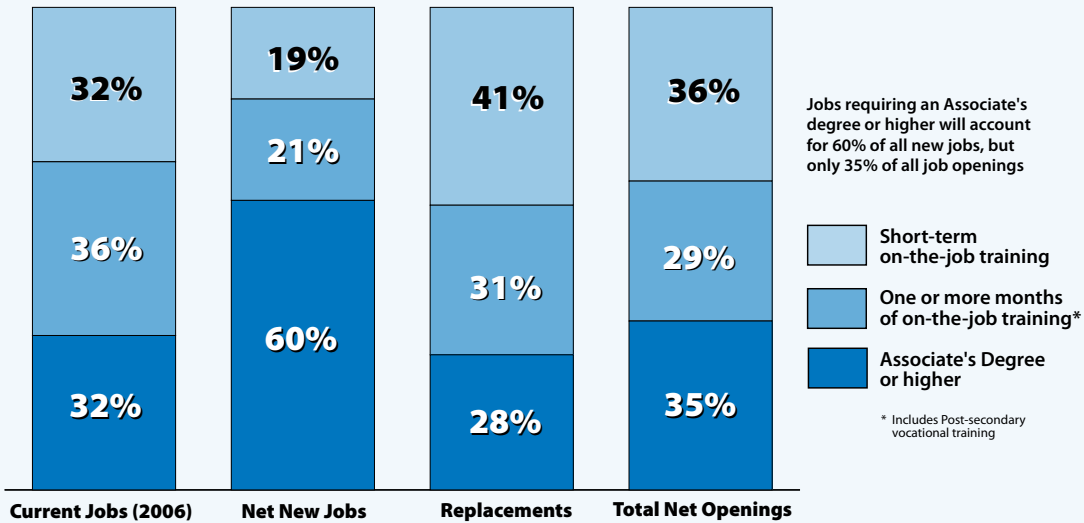


Chart 14

## Conclusion:

### Implication of the Projected Changes on Education and Training in Massachusetts

The education and training of the Massachusetts workforce will be an essential ingredient in maintaining a high-productivity, high-wage economy. The success with which the state's workforce is prepared will be of paramount importance, as approximately 60 percent of the projected net new jobs generated in this state are expected to require an associate's degree or higher compared to 38 percent of the jobs projected to be generated in the U.S. (See Chart 15). This differential, the result of the state's higher than average concentration of jobs in fast growing, high-paying, high-skilled industries (Refer to chart 3), will require business, labor, the schools, and state and local policy makers across the state to collaborate more fully to prepare the state's workforce for the jobs of the future. Indeed a highly skilled workforce is an essential prerequisite to ensure that Massachusetts remains a leader in technology and in the emerging 21st century economy.

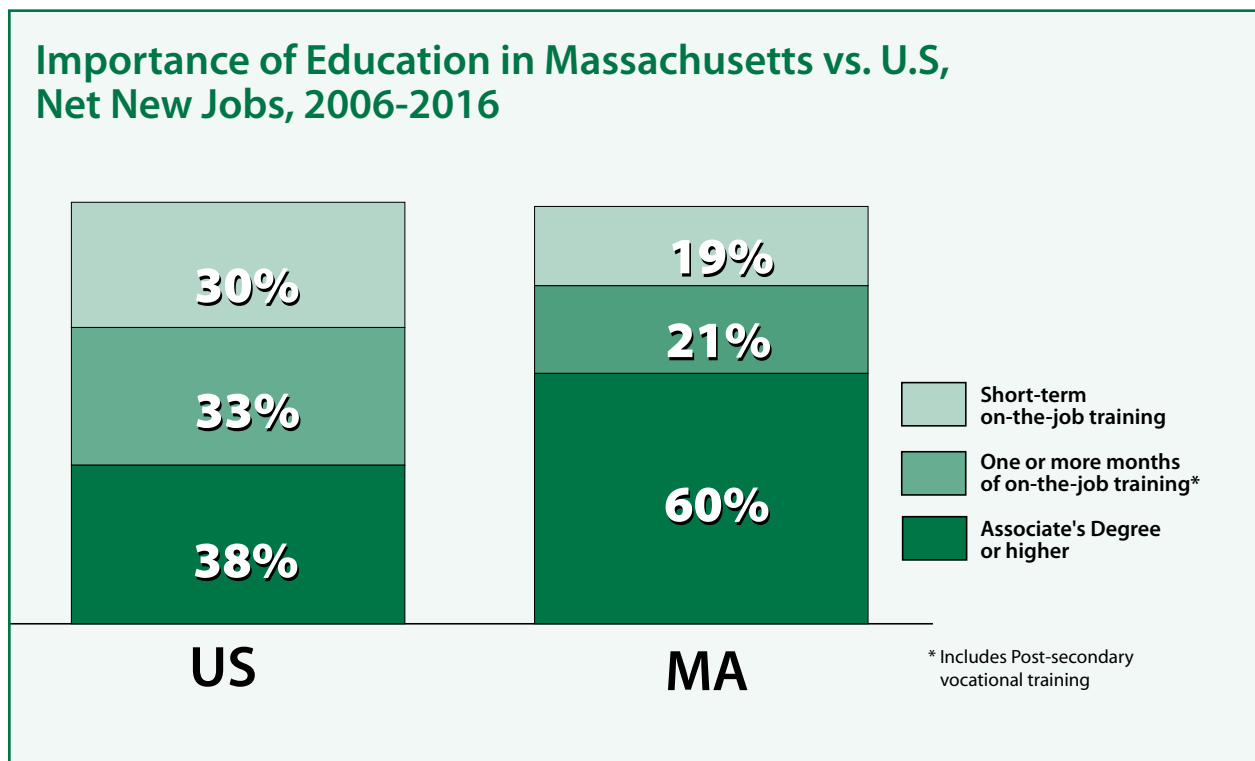


Chart 15

## Table A: Employment by Occupation, 2006 and Projected 2016

Occupational Group	Jobs		Percent Distribution		Net Change <sup>+</sup>	Percent Change	New Jobs#	Re-placements	Total Openings 2006-2016		2007 Average Wage	
	2006	2016	2006	2016					Net*	Total**	Hourly	Annual
<b>Total, All Occupations</b>	3,454,420	3,671,070	100.0%	100.0%	216,650	6.3%	279,650	768,330	984,980	1,047,980	\$23.59	\$49,070
<b>Management</b>	223,810	230,800	6.5%	6.3%	6,990	3.1%	10,040	49,470	56,460	59,510	\$52.42	\$109,030
<b>Professional and Technical</b>	1,045,110	1,184,170	30.3%	32.3%	139,060	13.3%	141,980	205,280	344,340	347,260	-	-
Business and Financial Operations	188,950	209,010	5.5%	5.7%	20,060	10.6%	21,330	32,310	52,370	53,640	\$34.36	\$71,470
Computer and Mathematical	120,220	145,710	3.5%	4.0%	25,490	21.2%	25,790	25,010	50,500	50,800	\$40.22	\$83,660
Architecture and Engineering	77,550	82,650	2.2%	2.3%	5,100	6.6%	5,580	17,830	22,930	23,410	\$36.80	\$76,540
Life, Physical & Social Science	52,810	62,110	1.5%	1.7%	9,300	17.6%	9,300	12,330	21,630	21,630	\$34.14	\$71,010
Community and Social Services	67,260	79,070	1.9%	2.2%	11,810	17.6%	11,820	11,570	23,380	23,390	\$20.32	\$42,270
Legal	29,290	32,210	0.8%	0.9%	2,920	10.0%	2,990	5,030	7,950	8,020	\$46.80	\$97,340
Education, Training, and Library	233,220	258,990	6.8%	7.1%	25,770	11.0%	26,110	47,050	72,820	73,160	\$25.28	\$52,570
Arts/Design/Entertainment/Sports/Media	67,240	72,050	1.9%	2.0%	4,810	7.2%	5,170	15,760	20,570	20,930	\$25.74	\$53,530
Healthcare Practitioners & Technical	208,570	242,370	6.0%	6.6%	33,800	16.2%	33,890	38,390	72,190	72,280	\$35.27	\$73,360
<b>Service<sup>~</sup></b>	655,460	729,910	19.0%	19.9%	74,450	11.4%	75,250	169,900	244,350	245,150	-	-
Healthcare Support	100,230	117,150	2.9%	3.2%	16,920	16.9%	17,210	10,450	27,370	27,660	\$14.31	\$29,760
Protective Service	73,230	77,900	2.1%	2.1%	4,670	6.4%	4,790	21,060	25,730	25,850	\$20.75	\$43,160
Food Preparation and Serving Related	267,040	291,450	7.7%	7.9%	24,410	9.1%	24,430	97,120	121,530	121,550	\$11.17	\$23,230
Building/Grounds Cleaning/Maintenance	120,900	133,590	3.5%	3.6%	12,690	10.5%	12,690	20,630	33,320	33,320	\$13.60	\$28,290
Personal Care and Service	91,730	107,350	2.7%	2.9%	15,620	17.0%	15,980	20,140	35,760	36,120	\$13.94	\$28,990
Farming, Fishing, Forestry	2,330	2,470	0.1%	0.1%	140	6.0%	150	500	640	650	\$12.01	\$24,990
<b>Sales and Related</b>	361,890	369,880	10.5%	10.1%	7,990	2.2%	14,310	107,970	115,960	122,280	\$19.50	\$40,550
<b>Office and Administrative Support</b>	567,950	575,580	16.4%	15.7%	7,630	1.3%	28,290	119,710	127,340	148,000	\$17.25	\$35,870
<b>Construction and Extraction</b>	136,110	135,240	3.9%	3.7%	-870	-0.6%	840	23,980	23,110	24,820	\$24.37	\$50,690
<b>Installation, Maintenance, and Repair</b>	109,260	110,670	3.2%	3.0%	1,410	1.3%	2,840	18,220	19,630	21,060	\$21.83	\$45,400
<b>Production</b>	181,530	162,480	5.3%	4.4%	-19,050	-10.5%	1,350	35,660	16,610	37,010	\$16.43	\$34,170
<b>Transportation and Material Moving</b>	173,300	172,360	5.0%	4.7%	-940	-0.5%	4,750	38,140	37,200	42,890	\$15.91	\$33,090

<sup>+</sup> Net Change=Net New Jobs, i.e. the difference between 2016 and 2006 job levels.

<sup>#</sup> Calculated from positive employment changes only. If employment change for an occupation was negative, employment change was 0.

<sup>\*</sup> Represents the sum of net change and replacements

<sup>\*\*</sup> Represents the sum of new jobs and replacements.

<sup>~</sup> Includes agriculture services



## Table B: Employment by Industry, 2006 and Projected 2016

2002 NAICS Code	NAICS Title	2006	2016	Net Change	Growth %
	<b>Total Employment</b>	<b>3,454,420</b>	<b>3,671,070</b>	<b>216,650</b>	<b>6.3%</b>
000000	<b>Total Nonfarm Wage and Salary Employment</b>	<b>3,245,980</b>	<b>3,449,500</b>	<b>203,520</b>	<b>6.3%</b>
	Self-Employed	208,440	221,570	13,130	6.3%
101100	<b>Natural Resources and Mining</b>	<b>1,800</b>	<b>1,760</b>	<b>-40</b>	<b>-2.2%</b>
23	<b>Construction</b>	<b>141,100</b>	<b>136,800</b>	<b>-4,300</b>	<b>-3.0%</b>
	<b>Total Manufacturing</b>	<b>299,700</b>	<b>258,380</b>	<b>-41,320</b>	<b>-13.8%</b>
	Durable Goods Manufacturing	197,110	168,520	-28,590	-14.5%
321	Wood Product Manufacturing	3,390	3,100	-290	-8.6%
327	Nonmetallic Mineral Product Manufacturing	6,810	6,380	-430	-6.3%
331	Primary Metal Manufacturing	5,060	3,550	-1,510	-29.8%
332	Fabricated Metal Product Manufacturing	35,200	27,800	-7,400	-21.0%
333	Machinery Manufacturing	20,300	16,500	-3,800	-18.7%
334	Computer and Electronic Product Manufacturing	71,500	61,400	-10,100	-14.1%
3341	Computer and Peripheral Equipment Manufacturing	14,700	9,900	-4,800	-32.7%
3342	Communications Equipment Manufacturing	6,100	5,080	-1,020	-16.7%
3343 and 3344	Semiconductor & Other Electronic Component Manufacturing & Audio & Video Equipment Mfg.	22,510	19,390	-3,120	-13.9%
3345	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	27,800	26,660	-1,140	-4.1%
335	Electric Equipment, Appliance, and Component Manufacturing	11,400	9,000	-2,400	-21.1%
336	Transportation Equipment Manufacturing	14,500	14,640	140	1.0%
3364	Aerospace Product and Parts Manufacturing	11,760	12,300	540	4.6%
337	Furniture and Related Product Manufacturing	5,550	4,850	-700	-12.6%
339	Miscellaneous Manufacturing	23,400	21,300	-2,100	-9.0%
3391	Medical Equipment and Supplies Manufacturing	11,800	11,720	-80	-0.7%
	Nondurable Goods Manufacturing	102,590	89,860	-12,730	-12.4%
311	Food Manufacturing	22,700	22,830	130	0.6%
312	Beverage and Tobacco Product Manufacturing	2,610	2,400	-210	-8.0%
313	Textile Mills	6,420	4,660	-1,760	-27.4%
314	Textile Product Mills	2,690	2,100	-590	-21.9%
315	Apparel Manufacturing	3,670	1,700	-1,970	-53.7%
316	Leather and Allied Products Manufacturing	2,580	1,540	-1,040	-40.3%
322	Paper Manufacturing	12,370	8,400	-3,970	-32.1%
323	Printing and Related Support Activities	16,100	12,400	-3,700	-23.0%
324	Petroleum and Coal Products Manufacturing	1,250	1,000	-250	-20.0%
325	Chemical Manufacturing	17,100	19,230	2,130	12.5%

**Table B: Employment by Industry, 2006 and Projected 2016 (continued)**

2002 NAICS Code	NAICS Title	2006	2016	Net Change	Growth %
3254	Pharmaceutical and Medicine Manufacturing	7,920	11,450	3,530	44.6%
326	Plastics and Rubber Products Manufacturing	15,100	13,600	-1,500	-9.9%
	<b>Wholesale and Retail Trade</b>	<b>487,600</b>	<b>486,000</b>	<b>-1,600</b>	<b>-0.3%</b>
42	Wholesale Trade	137,100	141,000	3,900	2.8%
44-45	Retail Trade	350,500	345,000	-5,500	-1.6%
441	Motor Vehicle and Parts Dealers	37,100	35,930	-1,170	-3.2%
442	Furniture and Home Furnishings Stores	13,300	13,240	-60	-0.5%
443	Electronics and Appliance Stores	13,000	11,890	-1,110	-8.5%
444	Building Material and Garden Equipment and Supplies Dealers	28,100	30,020	1,920	6.8%
445	Food and Beverage Stores	88,500	87,560	-940	-1.1%
446	Health and Personal Care Stores	26,900	28,300	1,400	5.2%
447	Gasoline Stations	11,960	9,600	-2,360	-19.7%
448	Clothing and Clothing Accessories Stores	39,900	40,600	700	1.8%
451	Sporting Goods, Hobby, Book, and Music Stores	17,600	16,070	-1,530	-8.7%
452	General Merchandise Stores	41,900	42,620	720	1.7%
453	Miscellaneous Store Retailers	20,900	18,420	-2,480	-11.9%
454	Nonstore Retailers	11,340	10,750	-590	-5.2%
	<b>Transportation, Warehousing, and Utilities</b>	<b>82,900</b>	<b>87,630</b>	<b>4,730</b>	<b>5.7%</b>
221	Utilities	9,700	8,980	-720	-7.4%
	Transportation and Warehousing	73,200	78,650	5,450	7.4%
481	Air Transportation	7,800	8,140	340	4.4%
482, 483 and 486	Rail, Water, and Pipeline Transportation	3,980	4,030	50	1.3%
484	Truck Transportation	16,200	16,780	580	3.6%
485	Transit and Ground Passenger Transport	17,300	18,690	1,390	8.0%
487	Scenic and Sightseeing Transportation	1,020	1,370	350	34.3%
488	Support Activities for Transportation	6,330	7,130	800	12.6%
492	Couriers and Messengers	11,480	11,380	-100	-0.9%
493	Warehousing and Storage	9,090	11,130	2,040	22.4%
<b>51</b>	<b>Information</b>	<b>87,010</b>	<b>94,140</b>	<b>7,130</b>	<b>8.2%</b>
511	Publishing Industries, Except Internet	42,000	46,520	4,520	10.8%
5111	Newspaper, Periodical, Book, and Directory Publishers	21,000	19,020	-1,980	-9.4%
5112	Software Publishers	21,000	27,500	6,500	31.0%
512	Motion Picture and Sound Recording Industries	4,540	4,220	-320	-7.0%
515	Broadcasting (except Internet)	5,640	5,940	300	5.3%
517	Telecommunications	21,310	21,400	90	0.4%
516, 518 and 519	Internet and Other Information Services	13,520	16,060	2,540	18.8%

**Table B: Employment by Industry, 2006 and Projected 2016 (continued)**

2002 NAICS Code	NAICS Title	2006	2016	Net Changes	Growth %
<b>52 and 53</b>	<b>Financial Activities</b>	<b>223,890</b>	<b>230,970</b>	<b>7,080</b>	<b>3.2%</b>
52	Finance and Insurance	179,590	185,510	5,920	3.3%
521 and 522	Credit Intermediation and Related Activities	64,200	65,650	1,450	2.3%
521 and 5221	Banking	50,620	51,420	800	1.6%
5222 and 5223	Credit Intermediation	13,580	14,230	650	4.8%
523	Securities, Commodities, and Other Financial Investment Activities	48,370	52,030	3,660	7.6%
524	Insurance Carriers and Related Activities	64,800	65,270	470	0.7%
5241	Insurance Carriers	43,100	42,570	-530	-1.2%
5242	Insurance Agencies, Brokerages, and Other Insurance Related Activities	21,700	22,700	1,000	4.6%
525	Funds, Trusts, and Other Financial Vehicles	2,220	2,560	340	15.3%
53	Real Estate, Rental, and Leasing	44,300	45,460	1,160	2.6%
531	Real Estate	31,600	32,510	910	2.9%
532	Rental and Leasing Services	12,220	12,400	180	1.5%
533	Lessors of Nonfinancial Intangible Assets	480	550	70	14.6%
<b>54, 55 and 56</b>	<b>Professional, Scientific, and Business Services</b>	<b>471,680</b>	<b>557,080</b>	<b>85,400</b>	<b>18.1%</b>
541	Professional and Technical Services	239,410	301,270	61,860	25.8%
5411	Legal Services	30,900	33,440	2,540	8.2%
5412	Accounting, Tax Preparation, Bookkeeping, and Payroll Services	20,600	23,560	2,960	14.4%
5413	Architectural, Engineering, and Related Services	40,100	47,000	6,900	17.2%
5414	Specialized Design Services	3,530	3,950	420	11.9%
5415	Computer Systems Design and Related Services	47,900	65,500	17,600	36.7%
5416	Management, Scientific, and Technical Consulting Services	34,400	53,500	19,100	55.5%
5417	Scientific Research and Development Services	39,700	49,070	9,370	23.6%
5418	Advertising and Related Services	11,510	12,300	790	6.9%
5419	Other Professional, Scientific, and Technical Services	10,770	12,950	2,180	20.2%
551	Management of Companies and Enterprises	62,500	64,500	2,000	3.2%
56	Administrative and Support Services and Waste Management and Remediation Services	169,770	191,310	21,540	12.7%
561	Administrative and Support Services	160,030	179,400	19,370	12.1%
5611	Office Administrative Services	8,690	10,120	1,430	16.5%
5613	Employment Services	63,900	71,160	7,260	11.4%
5614	Business Support Services	9,320	10,490	1,170	12.6%

**Table B: Employment by Industry, 2006 and Projected 2016 (continued)**

2002 NAICS Code	NAICS Title	2006	2016	Net Change	Growth %
5615	Travel Arrangement and Reservation Services	6,660	6,600	-60	-0.9%
5616	Investigation and Security Services	16,920	19,000	2,080	12.3%
5617	Services to Buildings and Dwellings	50,000	57,080	7,080	14.2%
5619 and 5612	Other Support Services, Including Facilities Support Services	4,540	4,950	410	9.0%
562	Waste Management and Remediation Service	9,740	11,910	2,170	22.3%
<b>611</b>	<b>Educational Services, Private</b>	<b>155,370</b>	<b>173,700</b>	<b>18,330</b>	<b>11.8%</b>
6111	Elementary and Secondary Schools	30,300	34,000	3,700	12.2%
6112 and 6113	Colleges and Universities, Including Junior Colleges	108,700	119,000	10,300	9.5%
6114, 6115, 6116 and 6117	Other Post-Secondary Schools and Instruction, Including Business & Computer Training, Tech/Trade Schools & Education Supt. Services	16,370	20,700	4,330	26.5%
<b>62</b>	<b>Health Care and Social Assistance</b>	<b>450,320</b>	<b>534,010</b>	<b>83,690</b>	<b>18.6%</b>
621, 622, and 623	Health Care	387,710	452,340	64,630	16.7%
621	Ambulatory Health Care Services	130,300	154,780	24,480	18.8%
6211, 6212 and 6213	Offices of Health Care Practitioners	80,990	91,500	10,510	13.0%
6216	Home Health Care Services	21,000	30,000	9,000	42.9%
6214, 6215 and 6219	Outpatient, Laboratory, & Other Ambulatory Care Services	28,310	33,280	4,970	17.6%
622	Hospitals, Private	165,200	188,730	23,530	14.2%
623	Nursing and Residential Care Facilities	92,210	108,830	16,620	18.0%
6231	Nursing Care Facilities	56,620	61,920	5,300	9.4%
6232, 6233 and 6239	Residential Care Facilities	35,590	46,910	11,320	31.8%
624	Social Assistance	62,610	81,670	19,060	30.4%
6241	Individual and Family Services	27,500	40,370	12,870	46.8%
6242, 6243	Individual, Family, Community, and Vocational Rehabilitation Services	12,910	14,300	1,390	10.8%
6244	Child Day Care Services	22,200	27,000	4,800	21.6%
<b>71-72</b>	<b>Leisure and Hospitality</b>	<b>296,700</b>	<b>323,860</b>	<b>27,160</b>	<b>9.2%</b>
71	Arts, Entertainment, and Recreation	47,100	54,210	7,110	15.1%
711	Performing Arts, Spectator Sports, and Related Industries	8,800	10,020	1,220	13.9%
712	Museums, Historical Sites, and Similar Institutions	5,200	5,670	470	9.0%
713	Amusement, Gambling, and Recreation Industries	33,100	38,520	5,420	16.4%
72	Accommodation and Food Services	249,600	269,650	20,050	8.0%
721	Accommodation	33,300	36,900	3,600	10.8%
722	Food Services and Drinking Places	216,300	232,750	16,450	7.6%

**Table B: Employment by Industry, 2006 and Projected 2016 (continued)**

2002 NAICS Code	NAICS Title	2006	2016	Net Change	Growth %
<b>81</b>	<b>Other Services, Except Public Administration</b>	<b>118,910</b>	<b>127,520</b>	<b>8,610</b>	<b>7.2%</b>
811	Repair and Maintenance	26,300	27,810	1,510	5.7%
8111	Automotive Repair and Maintenance	18,800	20,760	1,960	10.4%
8112	Electronic and Precision Equipment Repair and Maintenance	3,240	2,870	-370	-11.4%
8113	Commercial & Industrial Machinery & Equipment (except Auto. & Electronic) Repair & Maintenance	2,540	2,580	40	1.6%
8114	Personal and Household Goods Repair and Maintenance	1,720	1,600	-120	-7.0%
812	Personal and Laundry Services	36,300	38,850	2,550	7.0%
8121	Personal Care Services	18,530	21,100	2,570	13.9%
8122	Death Care Services	2,450	2,680	230	9.4%
8123	Drycleaning and Laundry Services	8,840	7,910	-930	-10.5%
8129	Other Personal Services	6,480	7,160	680	10.5%
813	Membership Associations and Organizations	56,310	60,860	4,550	8.1%
8131	Religious Organizations	18,890	20,200	1,310	6.9%
8132	Grantmaking and Giving Services	3,870	4,300	430	11.1%
8133	Social Advocacy Organizations	7,640	8,350	710	9.3%
8134	Civic and Social Organizations	18,320	20,010	1,690	9.2%
8139	Business, Professional, Labor, Political, and Similar Organizations	7,590	8,000	410	5.4%
	<b>Government</b>	<b>429,000</b>	<b>437,600</b>	<b>8,600</b>	<b>2.0%</b>
91	Federal Government, Total	49,100	44,960	-4,140	-8.4%
	Postal Service	21,300	19,510	-1,790	-8.4%
	Federal Government, Excluding Postal Service	27,800	25,450	-2,350	-8.5%
92	State Government, Total	114,200	117,580	3,380	3.0%
	State Education	42,600	46,630	4,030	9.5%
	State Hospitals	6,600	6,290	-310	-4.7%
	State Government, Excluding Education and Hospitals	65,000	64,660	-340	-0.5%
93	Local Government, Total	265,700	275,060	9,360	3.5%
	Local Education	164,500	171,340	6,840	4.2%
	Local Hospitals	1,820	1,790	-30	-1.6%
	Local Government Excluding Education and Hospitals	99,380	101,930	2,550	2.6%



Commonwealth of Massachusetts  
Executive Office of Labor and  
Workforce Development  
Suzanne M. Bump, Secretary