

The Massachusetts Job Outlook through 2016

Overview

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

Technology will continue to transform the pattern of job growth in Massachusetts, causing some industries and occupations to grow rapidly and others to recede in importance. Jobs will continue to exist for workers at all levels of education and training. However, workers with higher level and more relevant skills will have more job opportunities and access to better paying jobs than those with less training and experience.

Highlights of the latest projections include the following:

- More than 83 percent of all net new nonfarm wage and salary jobs will emerge in health care and social assistance and professional, scientific, and business services. These large and diverse sectors include specific industries where the state has competitive advantages: computer software; research and testing; engineering; medicine; and management consulting.
- As a result of rapid growth in the health care and the professional, scientific, and business service industries, demand for professional and technical workers is projected to increase the fastest and generate the most net new jobs. Demand for service workers, which includes nursing, psychiatric, and home health aides and waiters and waitresses, will generate the 2nd largest number of net new jobs through 2016. Together these two occupational groups, which are on opposite ends of the education and earnings spectrum, will account for virtually all of the state's net new jobs (over 98 percent) by 2016.

Total Job Openings Through 2016

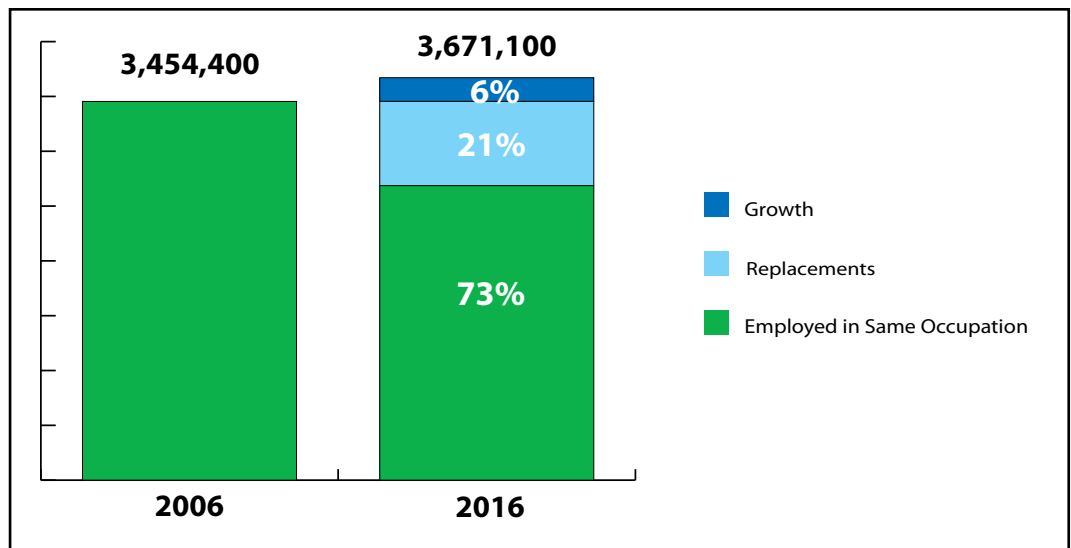


Chart 1 By 2016, nearly three out of ten jobs in Massachusetts will arise from economic growth and the need to replace workers.

- Of the 20 fastest growing detailed occupations, 11 are concentrated in health care and information technology. An additional four are found in life sciences. The remaining five are primarily community and social service and personal service jobs. In terms of education and training requirements, 14 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) than from economic growth (216,650).
- Replacement needs tend to be greatest in occupations where a higher 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 will require an associate's degree or higher.

Fastest Growing Industries, 2006 - 2016

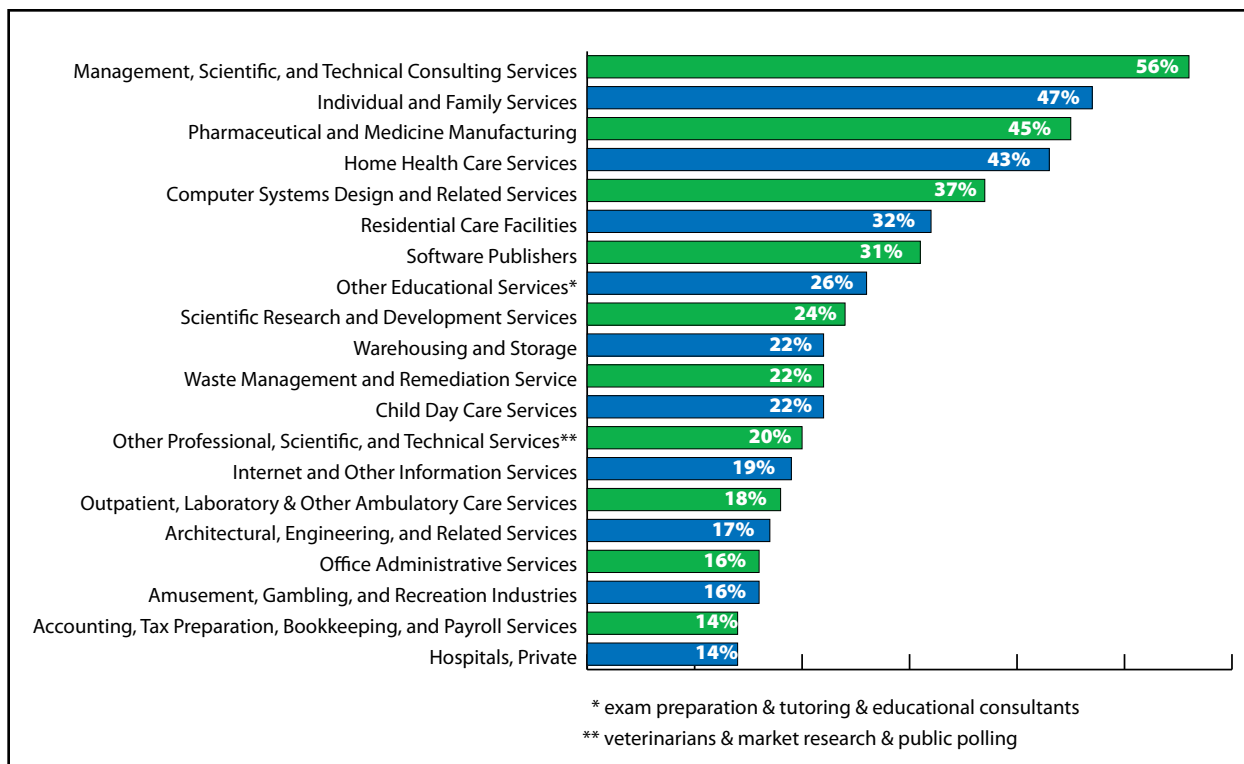


Chart 2 11 of the 20 fastest growing detailed industries are found in two sectors; Professional, Scientific, and Technical Services and Health Care and Social Assistance.

Highlights of the projections for the seven major occupational groups are summarized below, along with miscellaneous charts, ranking the fastest growing industries and occupations as well as those producing the most new jobs.

Professional and Technical Jobs

Professional and technical workers are projected to have the most job openings overall (344,340). They will have the largest number of new jobs (139,050 or 64.2 percent of all projected net new jobs) and also the largest number of replacements (205,280). 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 21.2 percent for computer and mathematical workers to a low of 6.6 percent for architecture and engineering workers. As a result of a 21.2 percent growth rate, the relatively smaller computer and mathematical occupational group will gain the second largest number of net new jobs (25,490) trailing only health practitioners and technologists, who will

gain the largest number (33,800) of professional and technical jobs. In total, these two disciplines should account for nearly 43 percent of all net new jobs generated in professional and technical occupations by 2016.

Service Jobs

Service workers— nursing, psychiatric, and home health aides, waiters and waitresses, cooks, security guards, janitors and cleaners, cosmetologists, gardeners and grounds keepers — will gain the second largest number of job openings overall (244,350). Because much of the work they perform cannot be automated, their jobs will expand by 11.4 percent, a net expansion of 74,450. 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 will have the second largest 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 new service jobs, as demand for home health aides, medical and dental assistants, and occupational and physical therapy assistants increases at rates ranging from 24 to 34 percent.

Industries Generating the Most New Jobs through 2016

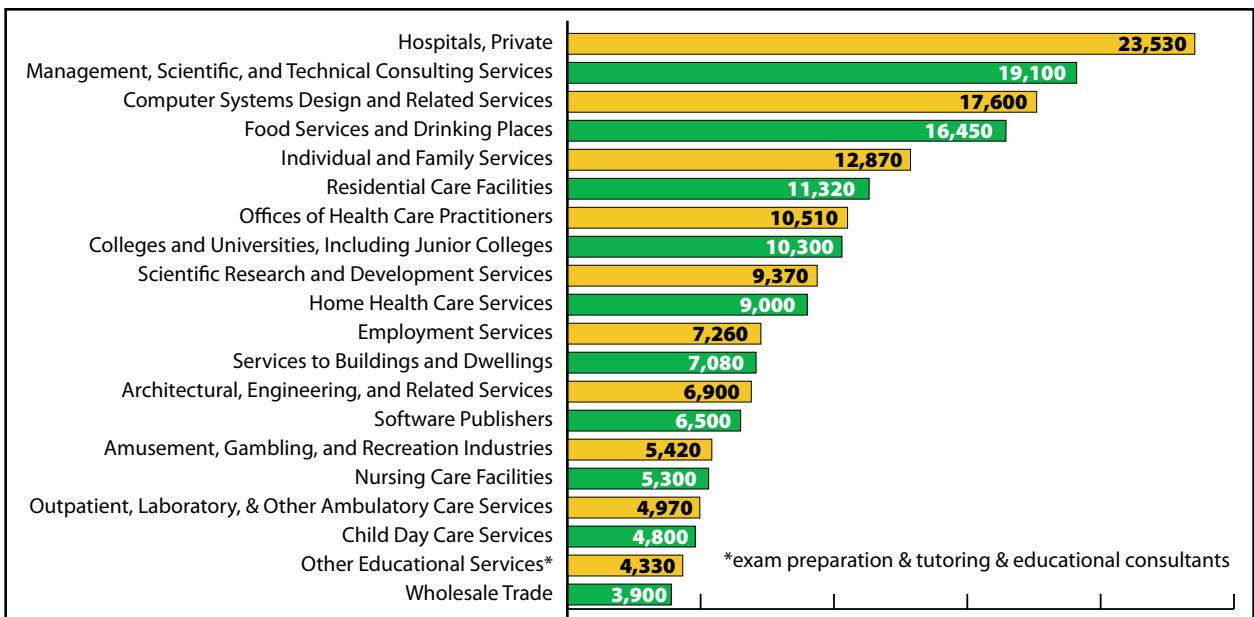


Chart 3 16 of the 20 detailed industries generating the most new jobs are found in the Professional and Business Services and Education and Health Services sectors

Office and Administrative Support Jobs

Office and administrative support workers should gain the third largest number of jobs overall (127,340 or 12.9 percent of total net openings). 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 clerks, receptionists, and bill and account collectors - whose jobs involve a great deal of contact with people and are therefore less affected by office automation - should expand by 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.

Sales Jobs

Slower growth in wholesale and retail trade, which accounts for the majority of all sales workers, will hold job growth in sales to 2.2 percent during the projection period. Automation and increased use of the Internet to purchase and sell goods should restructure sales workers in these key industries. Nevertheless, due to replacement needs, sales workers should gain the fourth largest number of jobs overall (115,960 or 11.8 percent of total net openings). Job opportunities should expand the fastest in IT and other professional, scientific, and technical businesses that typically require a 4-year degree.

Fastest Growing Occupations, 2006 - 2016

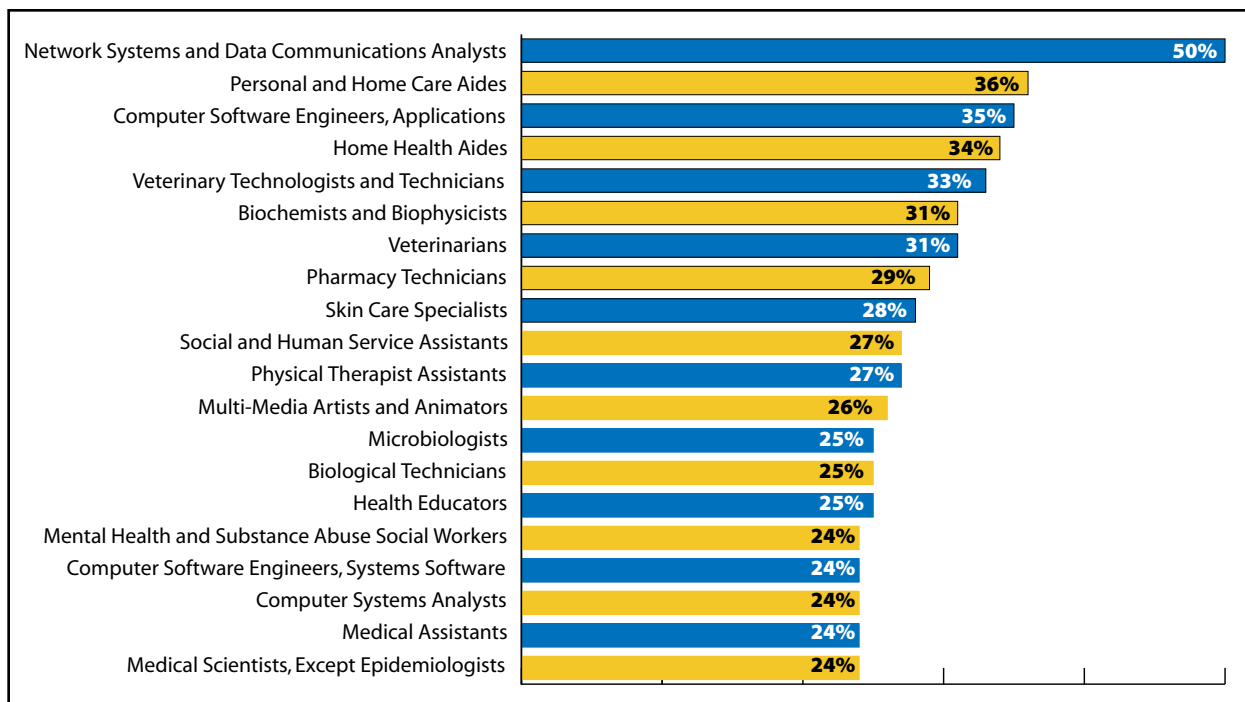


Chart 4 Of the state's 20 most rapidly growing occupations, 11 are in the health and computer fields. All have growth rates of 24 percent or more. That's almost four times faster than the average for all occupations.

Production, Construction, Installation, and Repair Jobs

Globalization, automation, and more efficient 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 installers and repairers and construction workers, whose jobs are less subject to globalization, should increase 1.3 percent. Employment of construction workers is expected to remain essentially flat. 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, some post-secondary training, and 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 56,460 net job openings (or 5.7 percent of all job openings) by 2016. In total, management jobs are projected to increase 3.1 percent or 7,000 jobs. 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 for medical and health services, 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.

Occupations Generating Nearly Half of All New Jobs

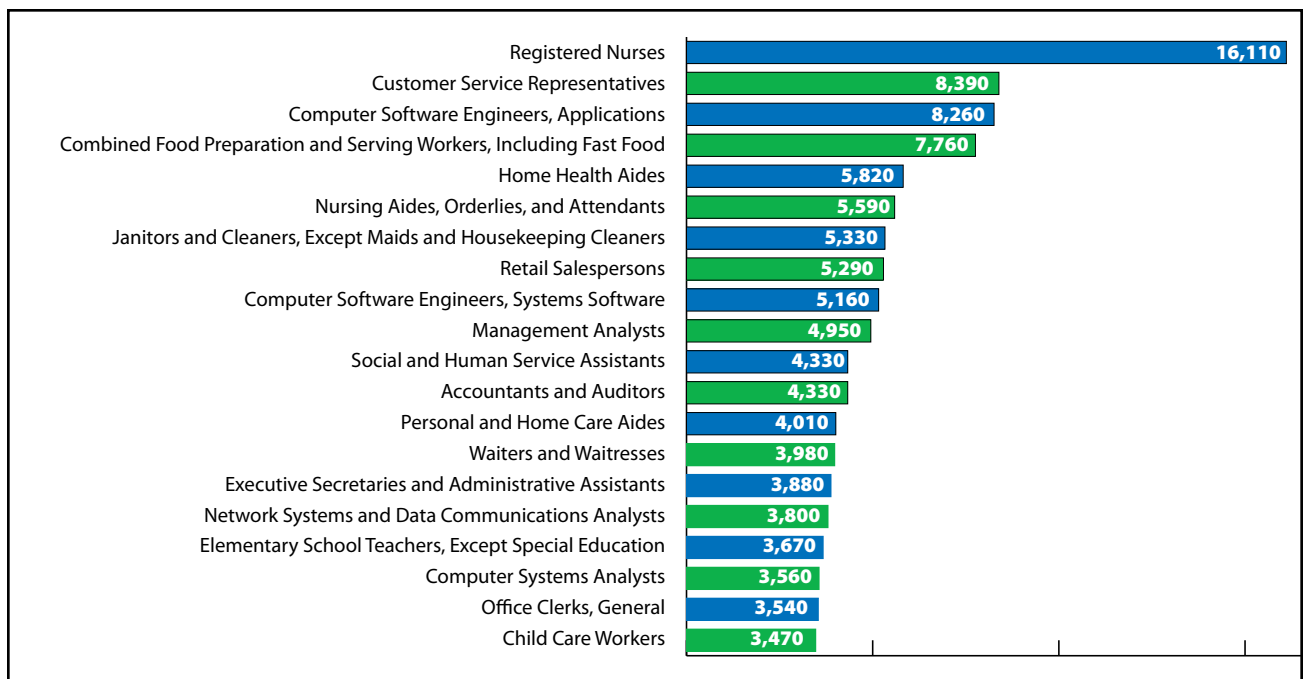


Chart 5 Just 20 occupations will account for over one-half of projected net new jobs in Massachusetts. Since most of these occupations employ sizeable numbers of workers (10,000 or more), they will generate large numbers of jobs regardless of their growth rate.

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 37,200 openings by 2016. Job prospects will vary widely by industry. The motor vehicle group 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.

Most Net Job Openings Will Arise From Replacements*

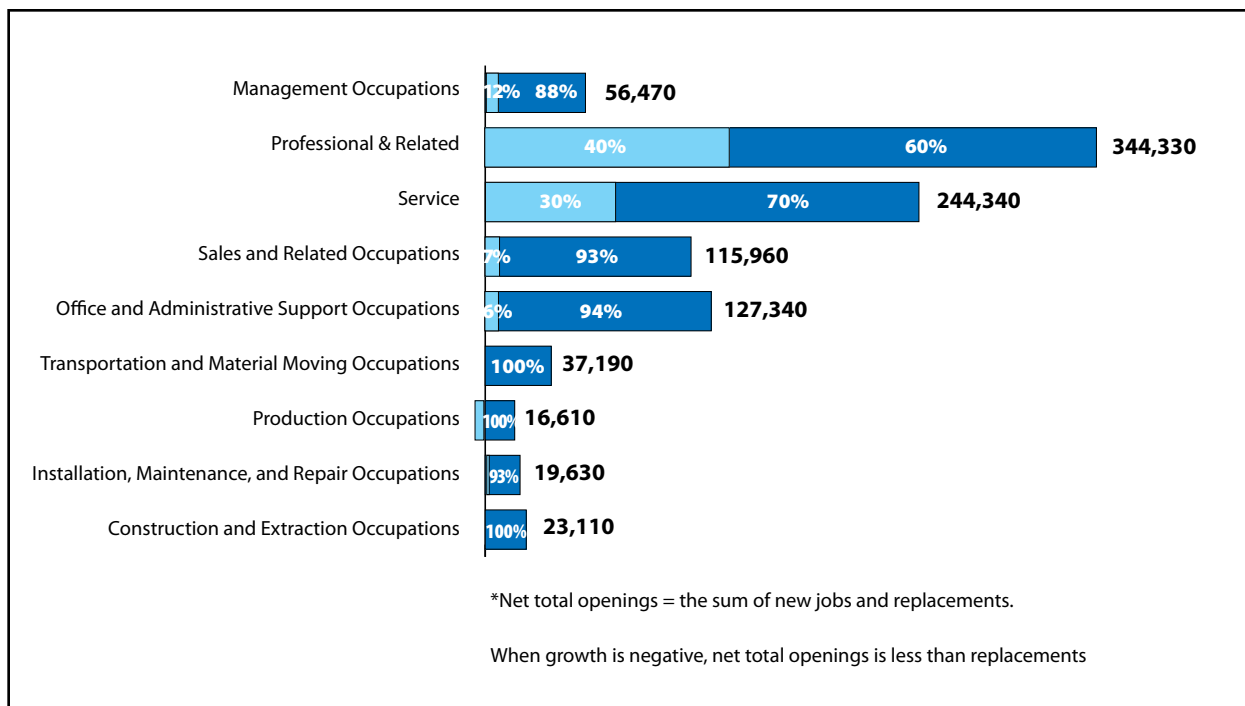


Chart 6 Although 73 percent of total job openings are due to replacements, the rate varies among the major occupational groups. Whereas 60 percent of Professional and Related jobs will arise from replacements, 100 percent of all Production job openings will be due to replacements..

Impact on Education and Training

Through 2016, job opportunities will continue to exist for workers at all levels of education and training. However, jobs for more skilled workers will increase significantly faster than jobs for less skilled workers. In this age of rapid technological change and increased globalization, the labor market is increasingly creating jobs requiring more education and up-to-date technical skills. The importance of lifelong learning cannot be overstated.

As Chart 7 shows, 60 percent of the 216,650 projected net new jobs will require an associate's degree or higher. Currently, only 32 percent of the jobs in Massachusetts require an associate's degree or higher. The second largest category of new jobs (21 percent) is made up of jobs that require some post-secondary vocational training or one or more years of on-the-job training. Only 19 percent of net new jobs will be ones that can be learned in a relatively short time (i.e., a few days or weeks).

Job Growth vs. Replacement Needs Along the Educational Spectrum

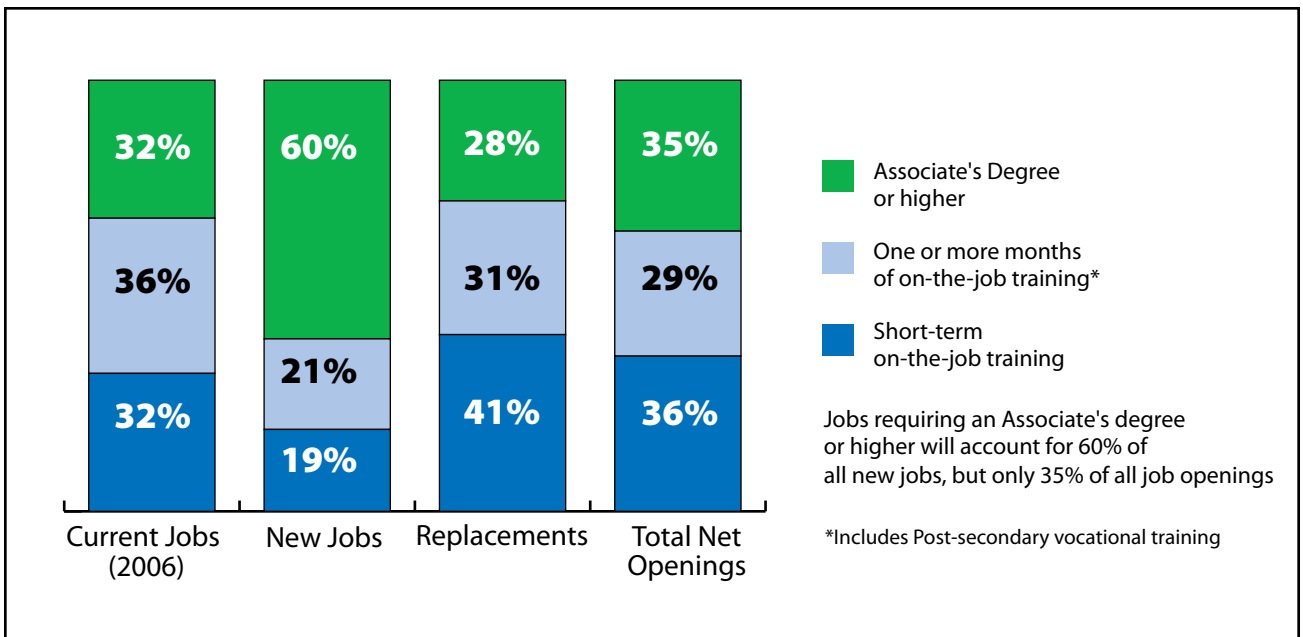


Chart 7

Since jobs that can be learned in a relatively short time turn over fairly often and employ the largest number of workers, they will provide the most openings overall: 352,317 or 36 percent of total net projected openings (see Chart 8).

In summary, it should be re-emphasized that although replacement needs will generate jobs at every educational level, those workers who have more education and training will have more options and better prospects for rising up the career ladder, earning higher salaries, and adapting to an ever-changing economy.

Total Net Job Openings by Education and Training Categories

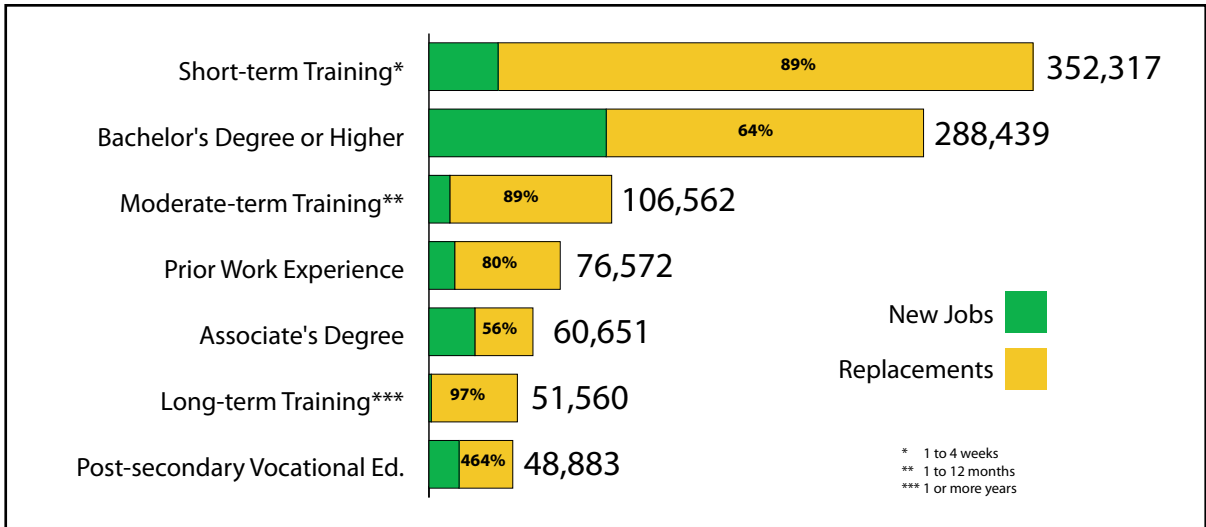


Chart 8

Job Growth by Level of Education and Training (2006-2016)

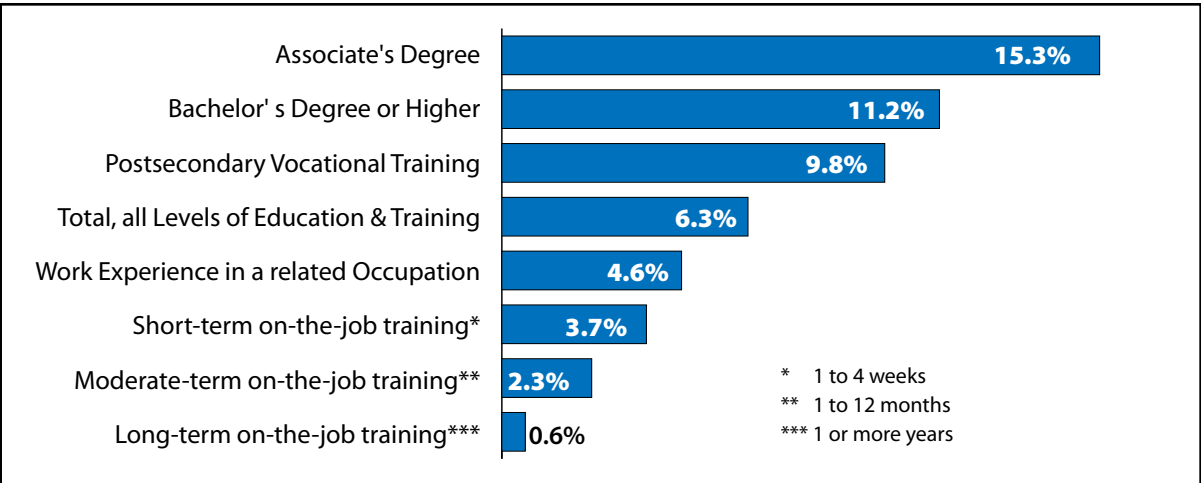


Chart 9 Jobs for more educated and highly skilled workers will increase much faster than jobs for minimally skilled workers