

# Occupational employment

When choosing a career, jobseekers often want to know which occupations offer the best prospects. Generally, occupations that have rapid job growth, many new jobs, or many job openings—and good wages—promise better opportunities.

This section shows how employment in particular occupations is projected to change over the 2008–18 decade. Many of the charts that follow show which occupations or occupational groups are expected to grow fastest (highest percent growth) or gain the most jobs (highest numeric growth).

Employment growth for all workers is projected to average about 10 percent between 2008 and 2018. This average is shown as a dotted vertical line in the chart on page 12.

But when it comes to employment prospects, job growth tells only part of the story. Job openings for workers also come from the need to replace workers who retire or leave an occupation permanently for other reasons. Some charts show which occupations are expected to have the most openings for workers who are entering the occupation for the first time. These charts show projected openings both from job growth and from replacement needs (the need to replace workers who leave).

## Growth by occupational group

Most charts in this section focus on detailed occupations. To better illustrate general employment trends, however,

five charts at the beginning of the section show employment growth in broad groups of similar occupations.

The following are descriptions of 10 broad occupational groups in the Standard Occupational Classification (SOC), a system used by the Federal Government to classify workers into occupational categories. The groups are listed in the same order used in the SOC:

◆ **Management, business, and financial occupations.** Many of these workers direct the activities of business, government, and other organizations and perform tasks related to finance and business. Examples include school administrators, financial managers, accountants, and food service managers.

◆ **Professional and related occupations.** These workers are in education, healthcare, science, information technology, the arts, and a variety of other jobs. Examples are physical therapists, engineering technicians, lawyers, writers, interior designers, and computer software engineers.

◆ **Service occupations.** This group includes workers who assist the public. Police, cooks, home health aides, flight attendants, child care workers, and cosmetologists are examples.

◆ **Sales and related occupations.** Workers in this group are involved in the sale of goods and services, both to businesses and to consumers. Examples include cashiers, insurance sales agents, retail salespersons, telemarketers, and real estate agents.

## ◆ *Office and administrative support occupations.*

Workers in this group prepare and file documents, interact with the public, and gather and distribute goods and information. Examples include secretaries, stock clerks, mail carriers, computer operators, and receptionists.

## ◆ *Farming, fishing, and forestry occupations.*

Workers in this group tend and harvest renewable resources. Examples include farmworkers, fishing vessel captains, and logging equipment operators. Workers who manage farms or ranches are counted in the management occupations group rather than in this group.

## ◆ *Construction and extraction occupations.*

This group includes workers in construction and building trades, such as carpenters and electricians. It also includes occupations in oil and gas extraction and mining, such as roustabouts and mining machine operators.

◆ *Installation, maintenance, and repair occupations.* Workers in this group install and maintain all types of equipment. They include avionics technicians, automotive service technicians and mechanics, computer repairers, industrial machinery mechanics, and millwrights.

◆ *Production occupations.* Most people in these occupations work as assemblers or machine operators, primarily in manufacturing industries. Examples include computer-controlled machine tool operators, machinists, textile occupations, power plant operators, and chemical equipment operators.

◆ *Transportation and material moving occupations.* Workers in these occupations move people or materials. They include airline pilots, truck drivers, locomotive engineers, and parking lot attendants.

## Classification by postsecondary education and training obtained

As an aid to jobseekers and counselors, some charts focus on occupations that have similar education and

training requirements. For each occupation they analyze, BLS economists choose the education and training category that is most significant for workers in that occupation—either the category that is most common among workers currently in the occupation or the category that gives new workers the best chance of qualifying for a job. In nearly all occupations, however, workers have a variety of educational backgrounds.

Each occupation is assigned to one of several education and training categories, ranging from a doctoral degree to short-term on-the-job training. Definitions for the postsecondary education and training categories accompany the relevant charts.

## Wages

Wages include hourly, weekly, or annual pay that people receive for the work that they do. Sales commissions, tips, and production bonuses also are part of wages, but overtime and nonproduction bonuses are not.

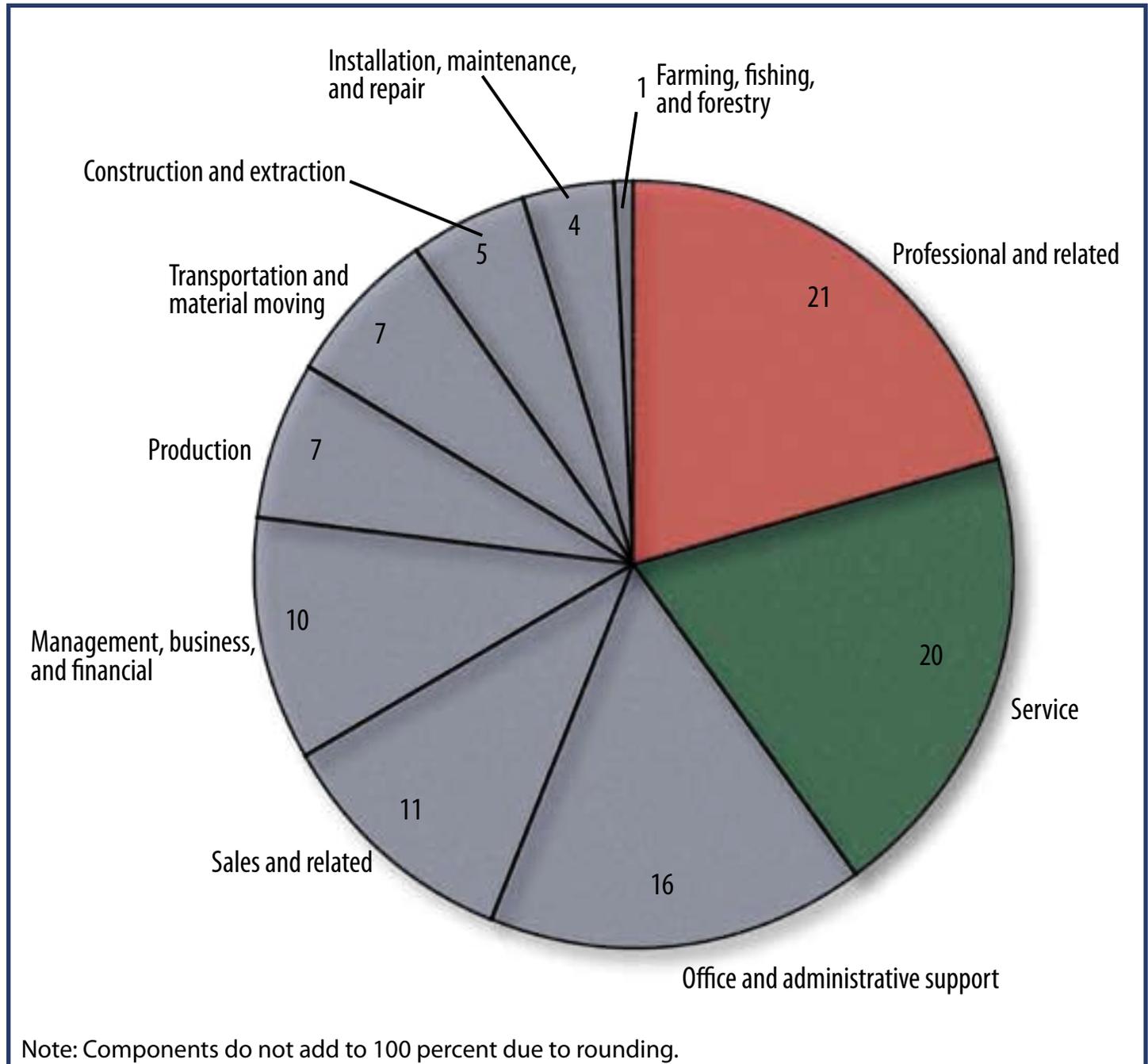
For individual occupations, most charts include 2008 median annual wage data from the BLS Occupational Employment Statistics (OES) program. The median wage is the point at which half of the workers in an occupation earned more than the amount, and half earned less. In May 2008, the median annual wage for all workers was \$32,390.

The highest median annual wages among the occupations in a given chart are in **boldface** type. For occupations with a median annual wage of more than \$166,400, a specific wage figure is not given because the OES survey does not publish wage data above this amount. In these cases, the charts show that the median wage was greater than or equal to ( $\geq$ ) \$166,400.

Wages in these charts are for wage and salary workers only. Self-employed workers are not included in these measurements.

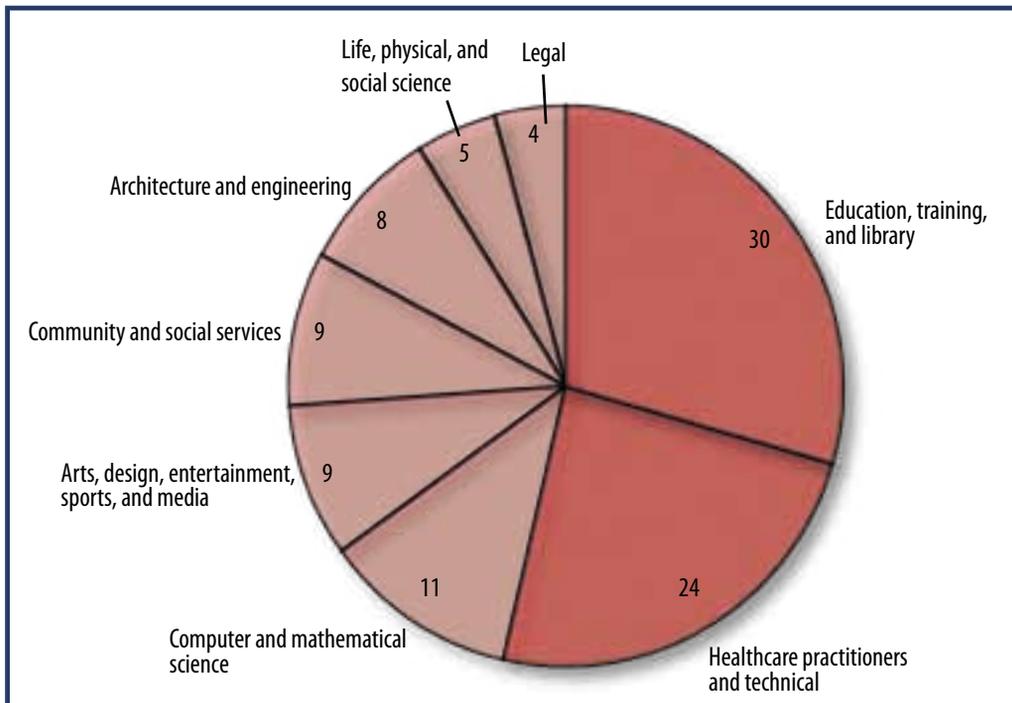
## Employment, 2008

Percent distribution of employment by major occupational group, 2008



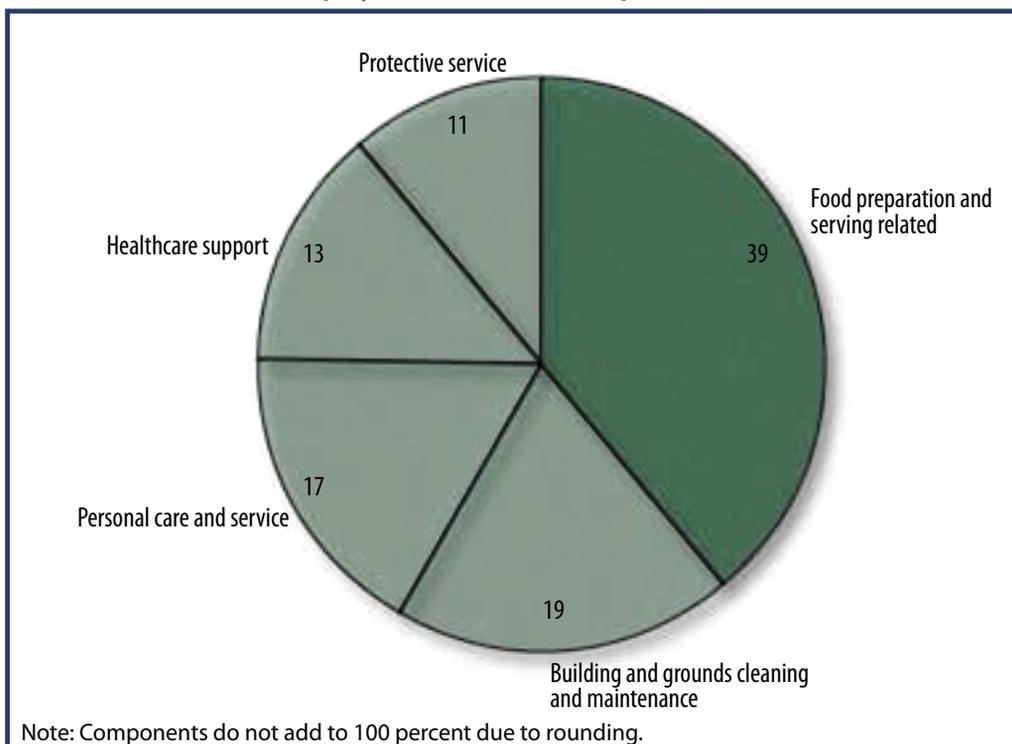
Occupations that have similar job duties are grouped according to the tasks that the workers in those occupations perform. Two major occupational groups—professional and related occupations and service occupations—accounted for almost half of total employment in 2008.

## Percent distribution of employment in professional and related occupations, 2008



Within the professional and related group, occupations related to education and healthcare accounted for the largest proportion of jobs in 2008.

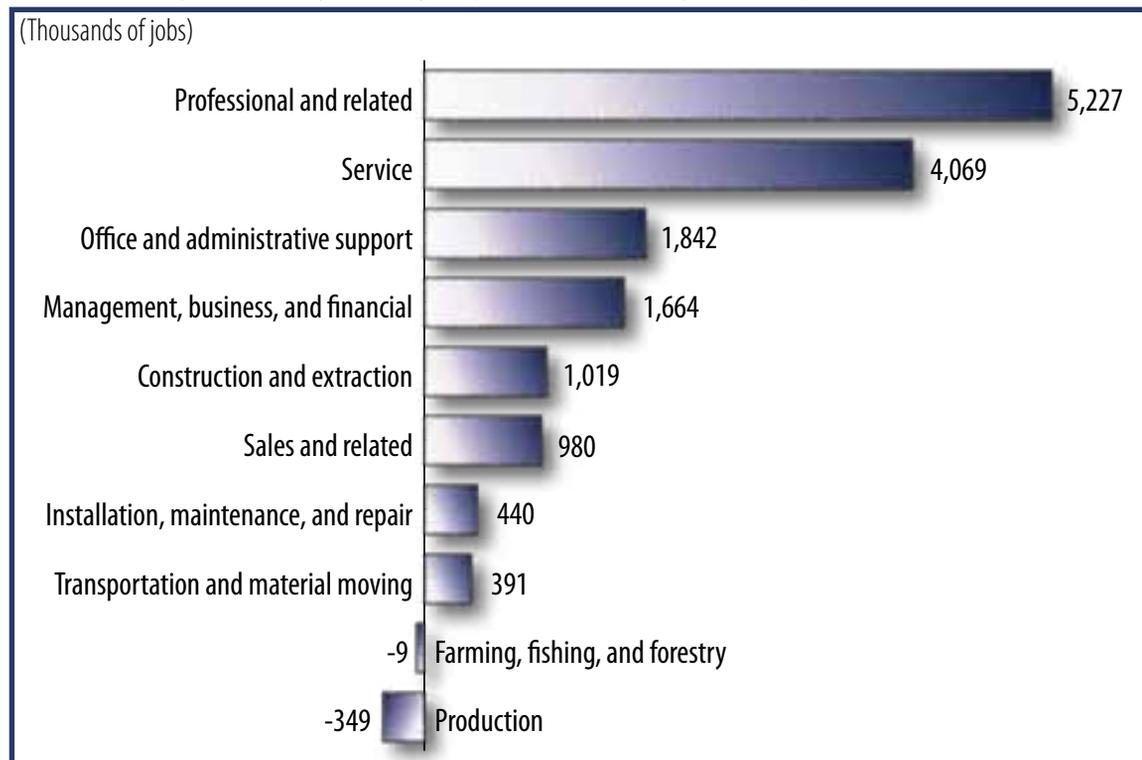
## Percent distribution of employment in service occupations, 2008



Workers involved in preparing and serving food made up the largest share of those in service occupations in 2008.

# Occupational employment

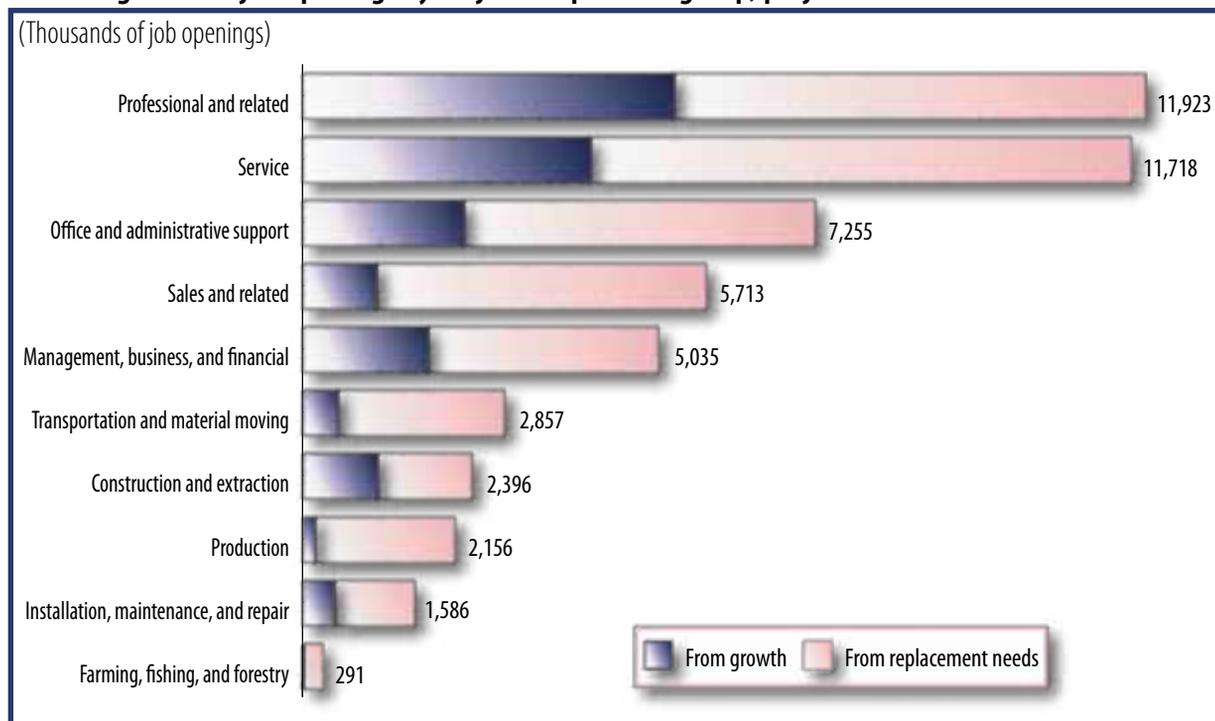
**Numeric change in employment by major occupational group, projected 2008–18**



The two occupational groups that were the largest in 2008 are also projected to add the most new jobs to the U.S. economy between 2008 and 2018. Two occupational groups are projected to lose jobs, due in part to increasing worker productivity and an ongoing shift to a service-providing economy.

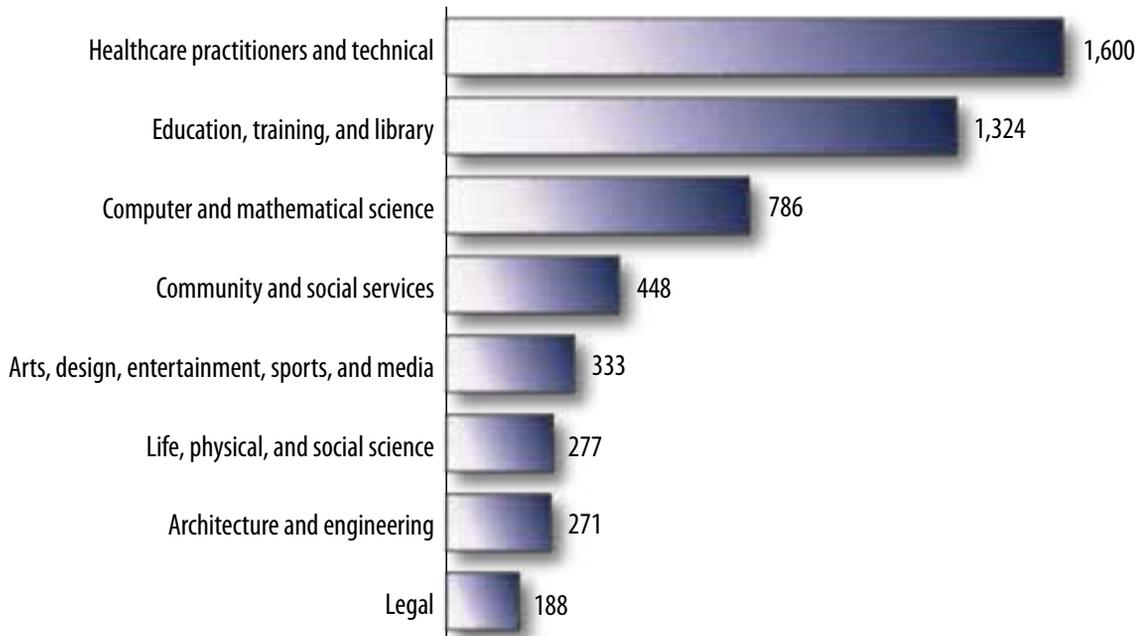
Employment prospects depend on more than job growth. Openings for new workers occur not only when jobs are added to the economy but also when current workers leave an occupation permanently. In fact, the need to replace workers who leave an occupation is expected to create more openings than job growth will.

**Numeric growth in job openings by major occupational group, projected 2008–18**



## Numeric growth in employment in professional and related occupations, projected 2008–18

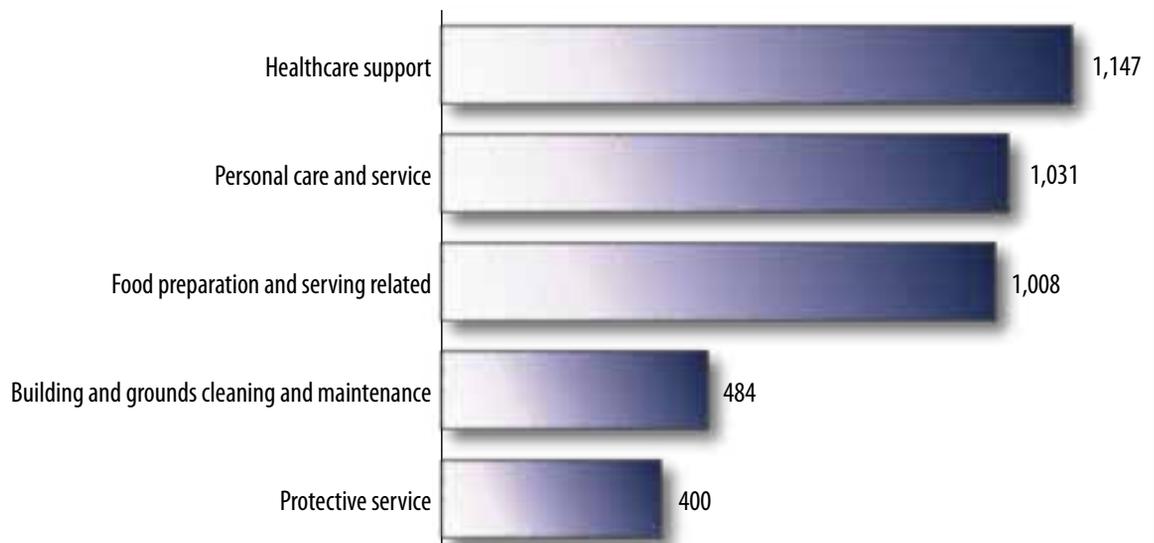
(Thousands of jobs)



Workers in professional and related occupations have a variety of specialized skills. Within this group, two occupations are each expected to gain more than 1 million new jobs between 2008 and 2018.

## Numeric growth in employment in service occupations, projected 2008–18

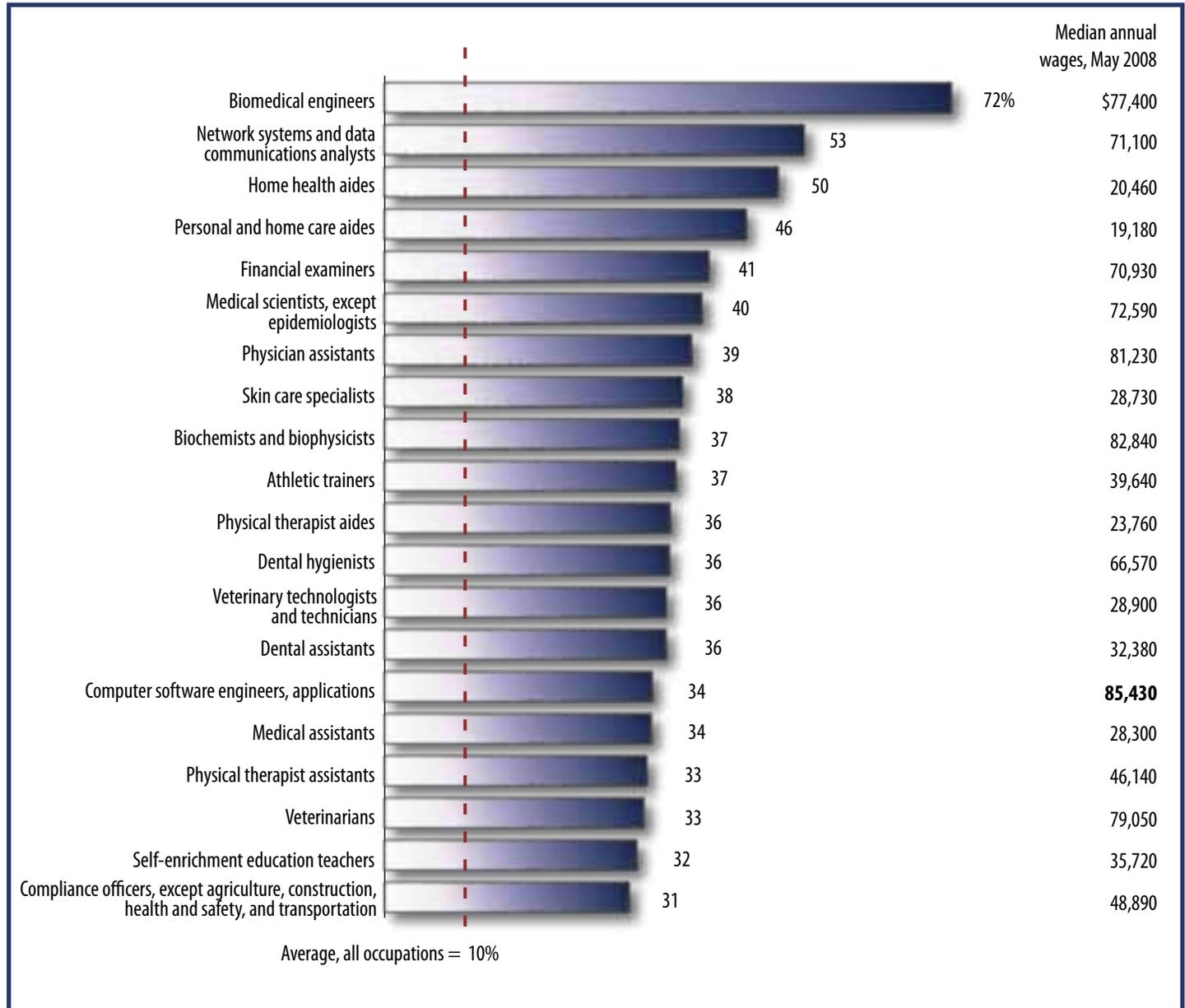
(Thousands of jobs)



Three occupations within this group are expected to gain more than 1 million new jobs from 2008 to 2018. Much of the employment growth in healthcare support occupations will come from increased demand for basic medical services to older persons. Job growth in personal care and service occupations will be driven primarily by demand for personal and home care for the elderly and disabled and by demand for child care services.

## Fastest growing occupations

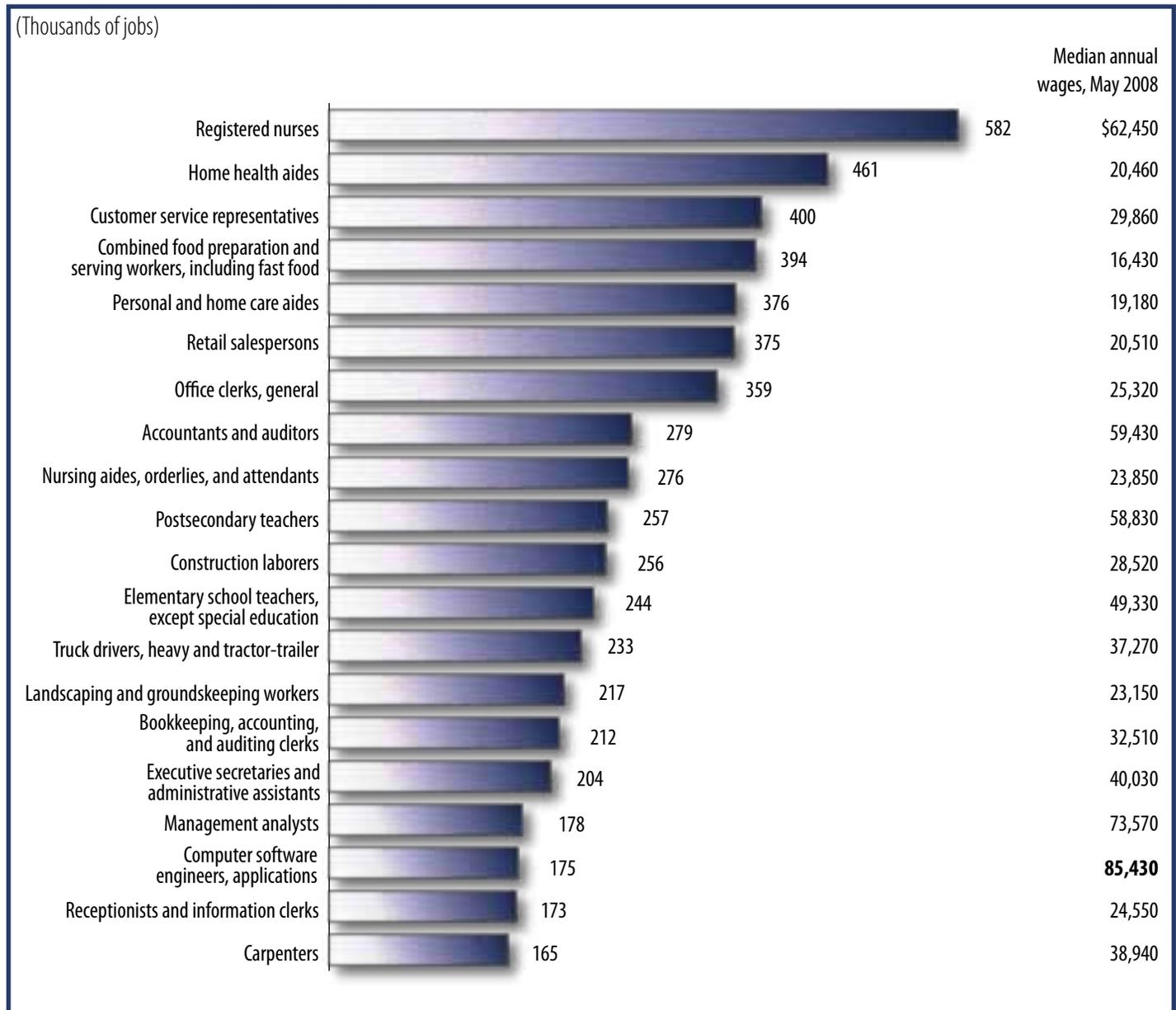
Percent growth in employment, projected 2008–18



Many of the occupations projected to grow the fastest relate to healthcare and care of the elderly. Of all the projected fastest growing occupations, however, computer applications software engineers had the highest median annual wage in May 2008.

## Most new jobs

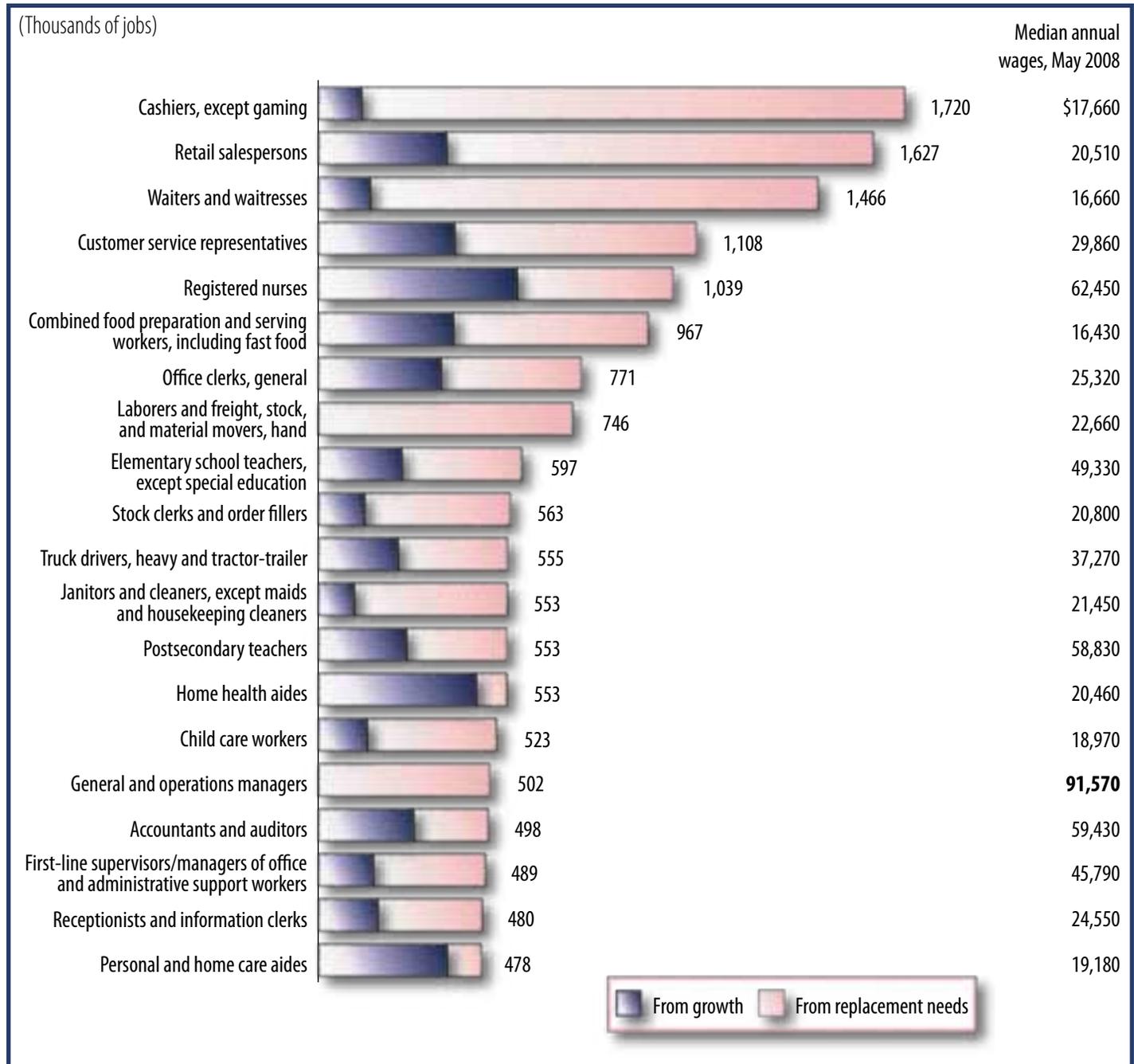
### Numeric growth in employment, projected 2008–18



These 20 occupations are projected to gain the most new jobs between 2008 and 2018 and account for almost 38 percent of all new jobs projected over the decade. Although these occupations have a range of wages, responsibilities, and education and training requirements, many relate to healthcare and care of the elderly. As with the projected fastest growing occupations, computer applications software engineers had the highest wage in May 2008 among occupations projected to gain the most new jobs.

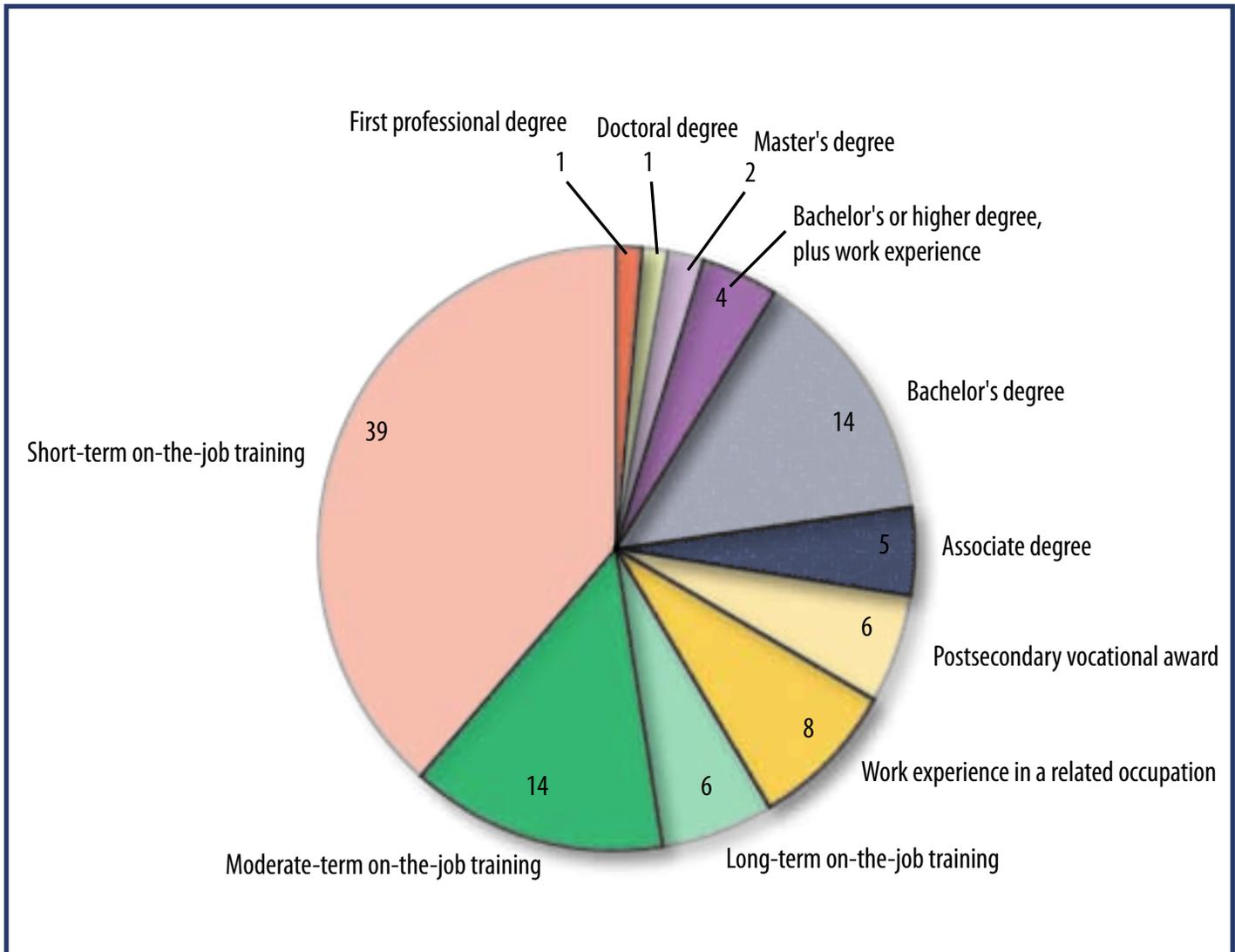
## Most job openings for workers new to an occupation

Job openings due to growth and replacement needs, projected 2008–18



Two retail occupations—cashiers and retail salespersons—are expected to have the most job openings over the projections decade. For most of the occupations in this chart, the need to replace workers leaving the occupation is projected to create more openings than job growth will. Of the occupations shown, general and operations managers had the highest median annual wage in May 2008. All job openings in that occupation are expected to result from replacement needs.

Percent distribution of job openings due to growth and replacement needs by education or training level, projected 2008–18



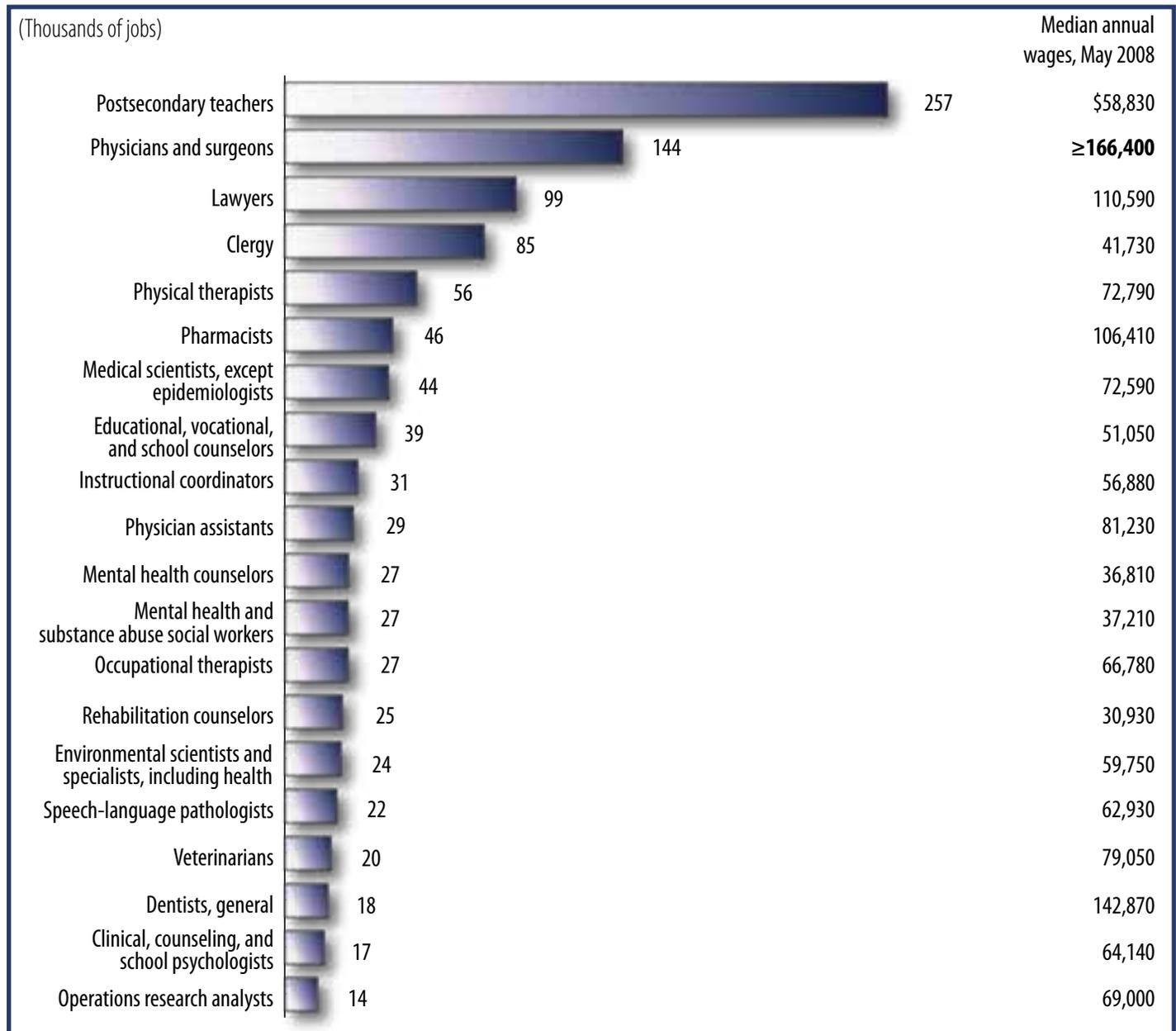
Most job openings over the projections decade will be in occupations that require short-term on-the-job training. Occupations requiring moderate-term on-the-job training and those requiring a bachelor's degree are also expected to have a large share of the projected job openings.

Charts on the following pages show projected employment growth, projected job openings, and 2008 annual wages for detailed occupations within these categories. Generally, workers in occupations with higher education and training levels earn higher wages than do those with lower levels of education and training. The median annual wage for all occupations in May 2008 was \$32,390.

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## Graduate degree

Occupations that have the most growth and that usually require a master's, doctoral, or first-professional degree, projected 2008–18

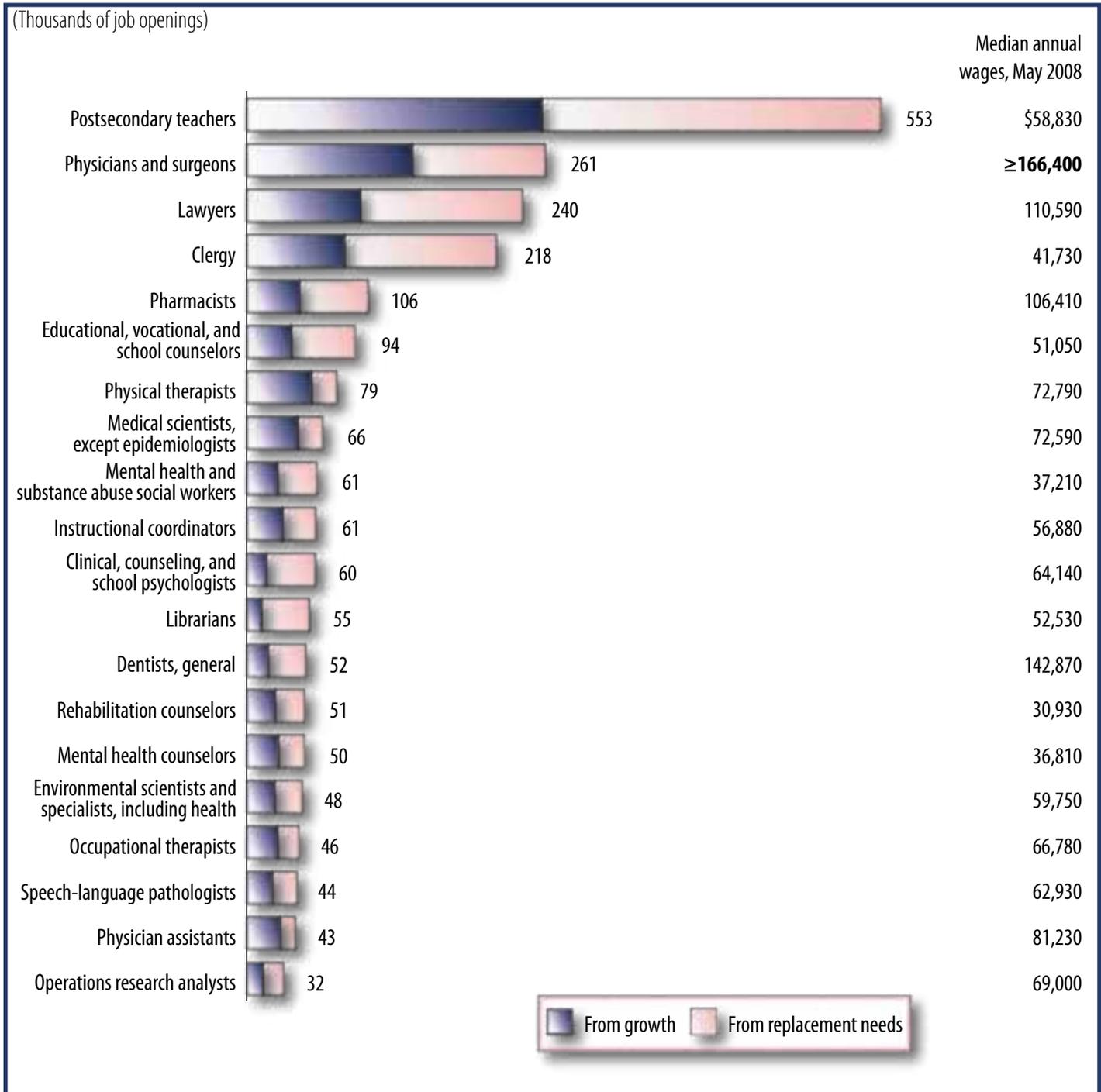


Completion of a master's degree usually requires 1 or 2 years of full-time academic study beyond a bachelor's degree. A doctoral degree (such as a Ph.D.) or a first professional degree (such as a medical or law degree) usually requires at least 3 years of full-time academic study beyond a bachelor's degree.

Most high-growth occupations in these educational categories are related to healthcare, education, and social services. The projected increase in the number of postsecondary teachers reflects expanding college enrollments. And the employment growth for physicians and surgeons and other medical occupations reflects an aging population's increased demand for medical services.

## Graduate degree

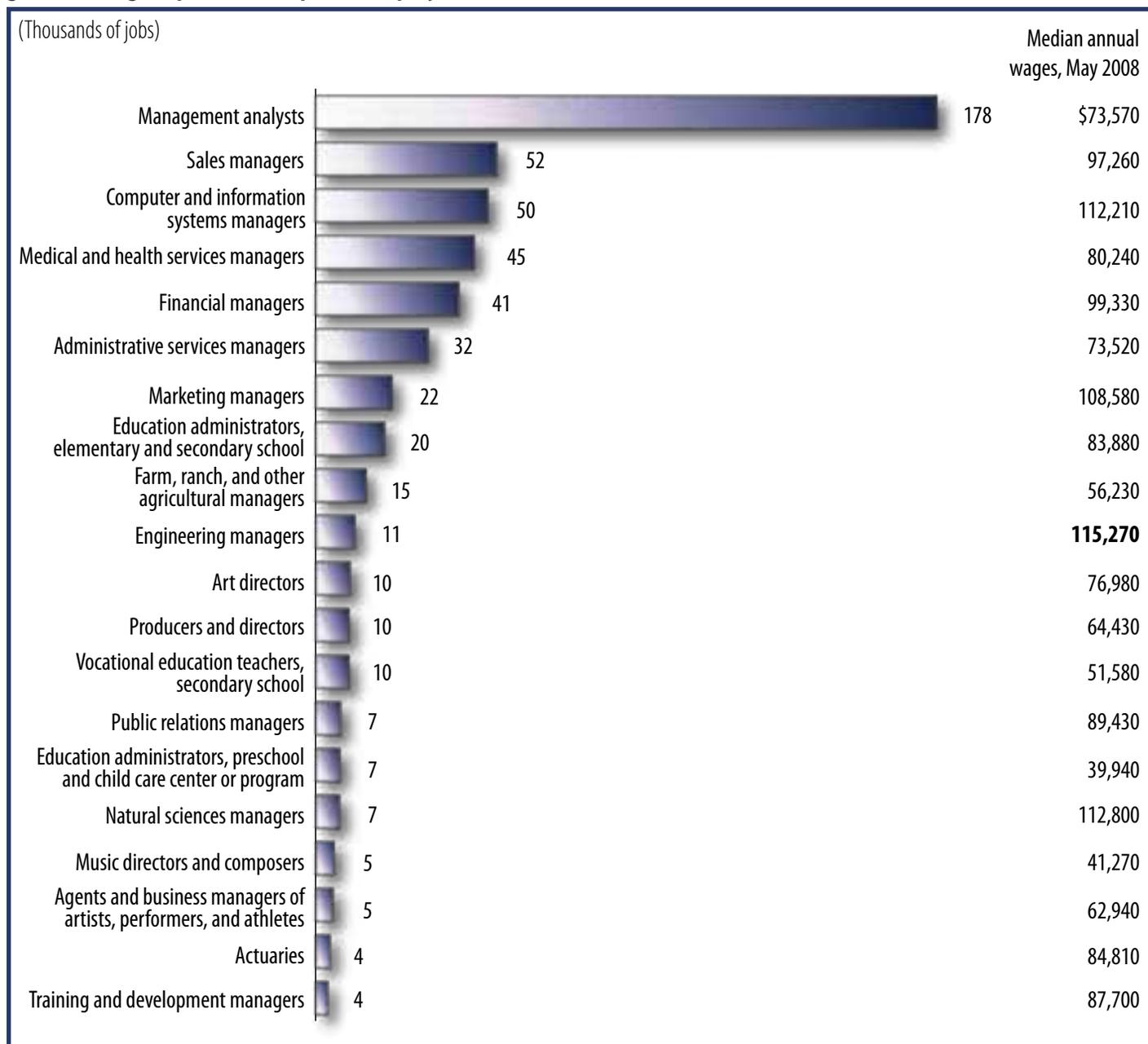
Occupations that have the most job openings and that usually require a master's, doctoral, or first-professional degree, projected 2008–18



Between 2008 and 2018, nearly 300,000 job openings for postsecondary teachers are expected to arise from the need to replace existing teachers who retire or leave the occupation permanently for other reasons.

## Bachelor's or graduate degree plus work experience

Occupations that have the most growth and that usually require a bachelor's or graduate degree plus work experience, projected 2008–18

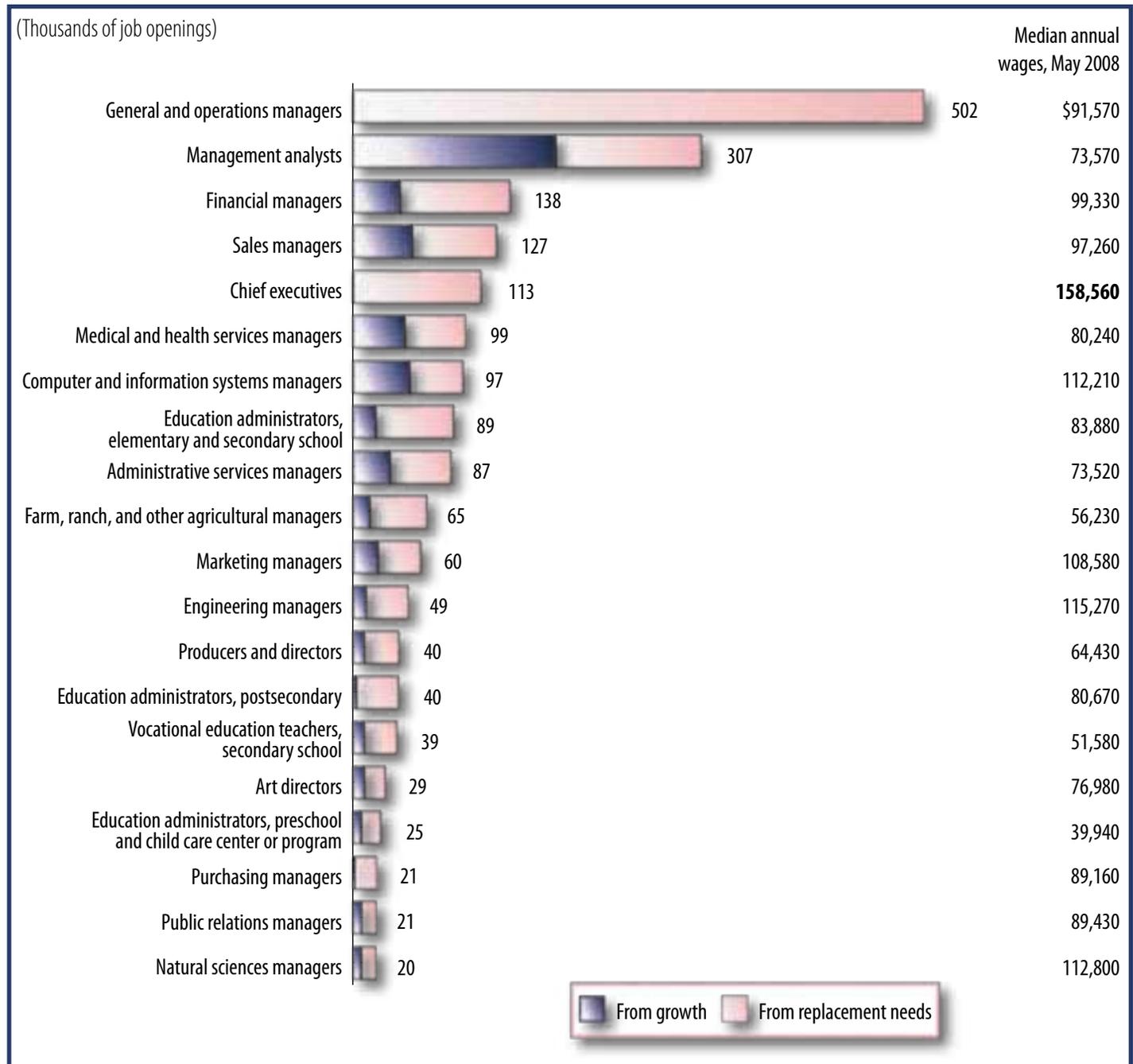


Occupations in this category often require a bachelor's or graduate degree and experience in a closely related occupation.

Nearly all of these occupations have managerial responsibilities, and jobs are usually filled by experienced staff who are promoted into managerial positions.

## Bachelor's or graduate degree plus work experience

Occupations that have the most job openings and that usually require a bachelor's or graduate degree plus work experience, projected 2008–18

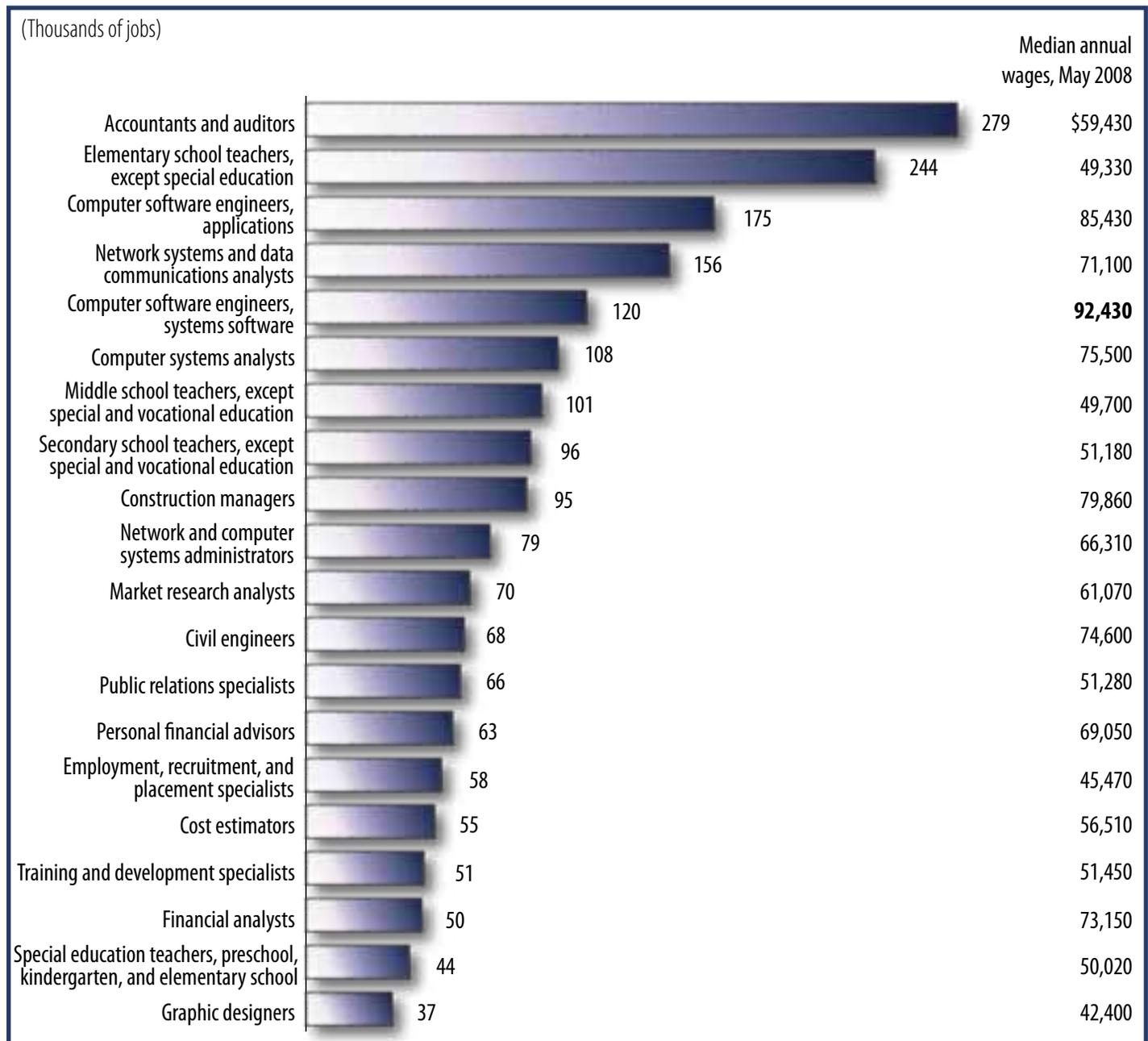


Within this category, general and operations managers are expected to have the most job openings over the 2008–18 decade. Because this occupation is large, many new workers will be needed to replace those who retire or leave permanently for other reasons.

# Occupational employment

## Bachelor's degree

Occupations that have the most growth and that usually require a bachelor's degree, projected 2008–18

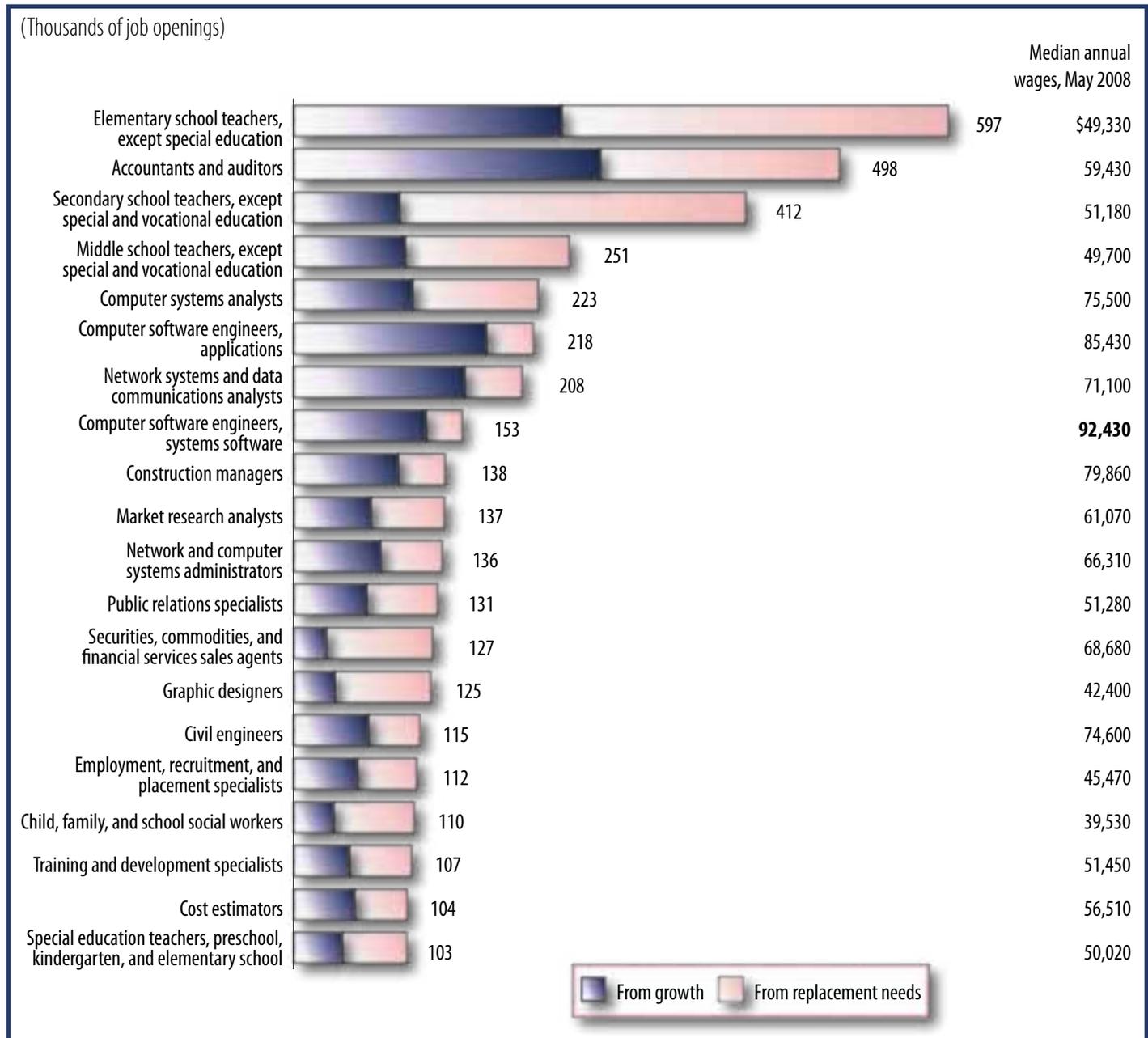


Completion of a bachelor's degree usually requires at least 4 years of full-time academic study beyond high school.

Most of these occupations relate to business, computers, or education. As businesses continue to invest in information technology, demand for workers in several computer-related occupations will grow. Several occupations involved in recruiting, training, and managing a qualified workforce are also expected to have significant job growth over the projections decade.

## Bachelor's degree

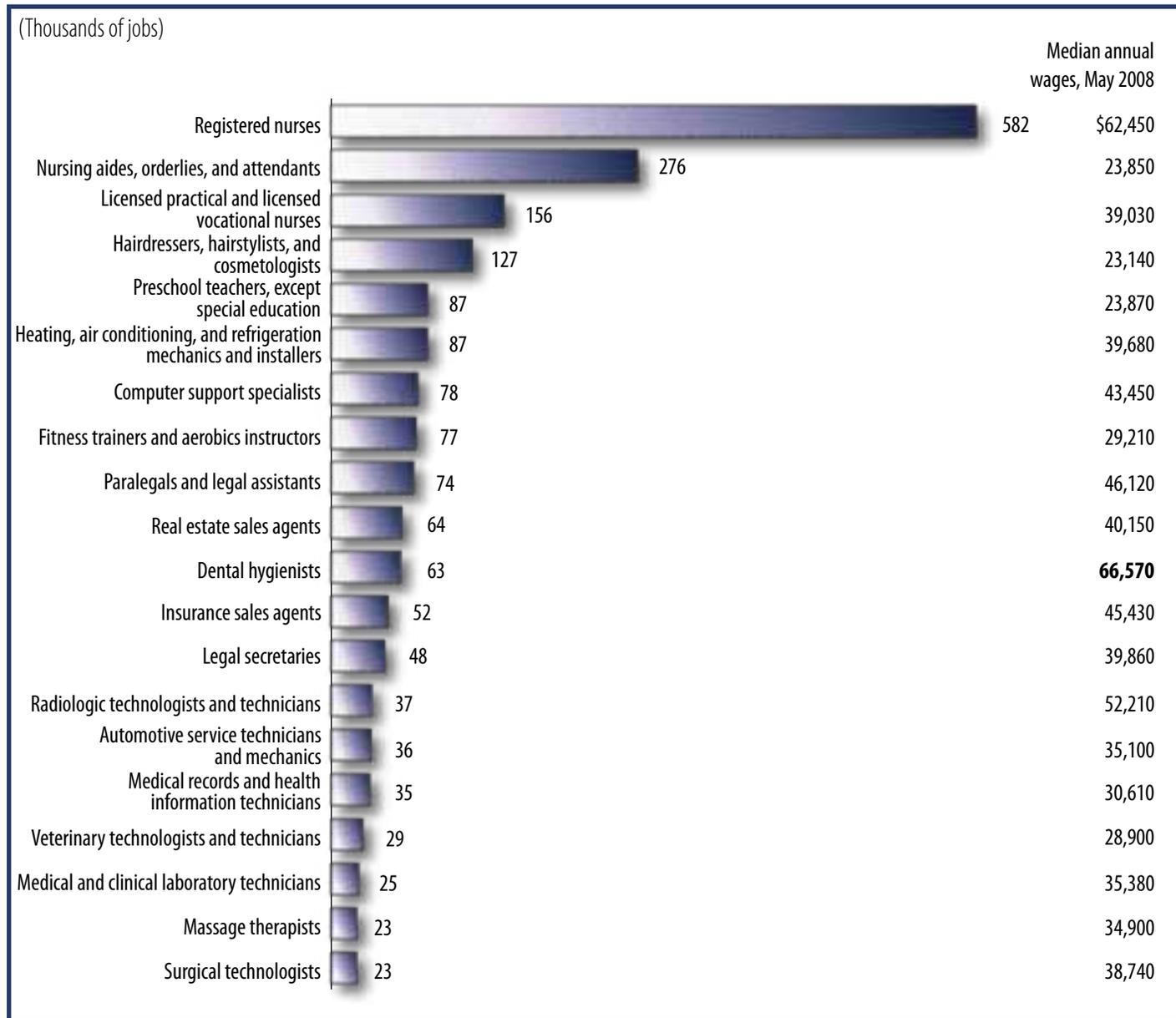
### Occupations that have the most job openings and that usually require a bachelor's degree, projected 2008–18



Thousands of openings for workers who have a bachelor's degree are expected in a variety of occupations. The large number of projected openings for teachers reflects the size of teaching occupations, the need to replace teachers who are expected to retire, and rising student enrollments.

## Associate degree or postsecondary vocational award

Occupations that have the most growth and that usually require an associate degree or postsecondary vocational award, projected 2008–18

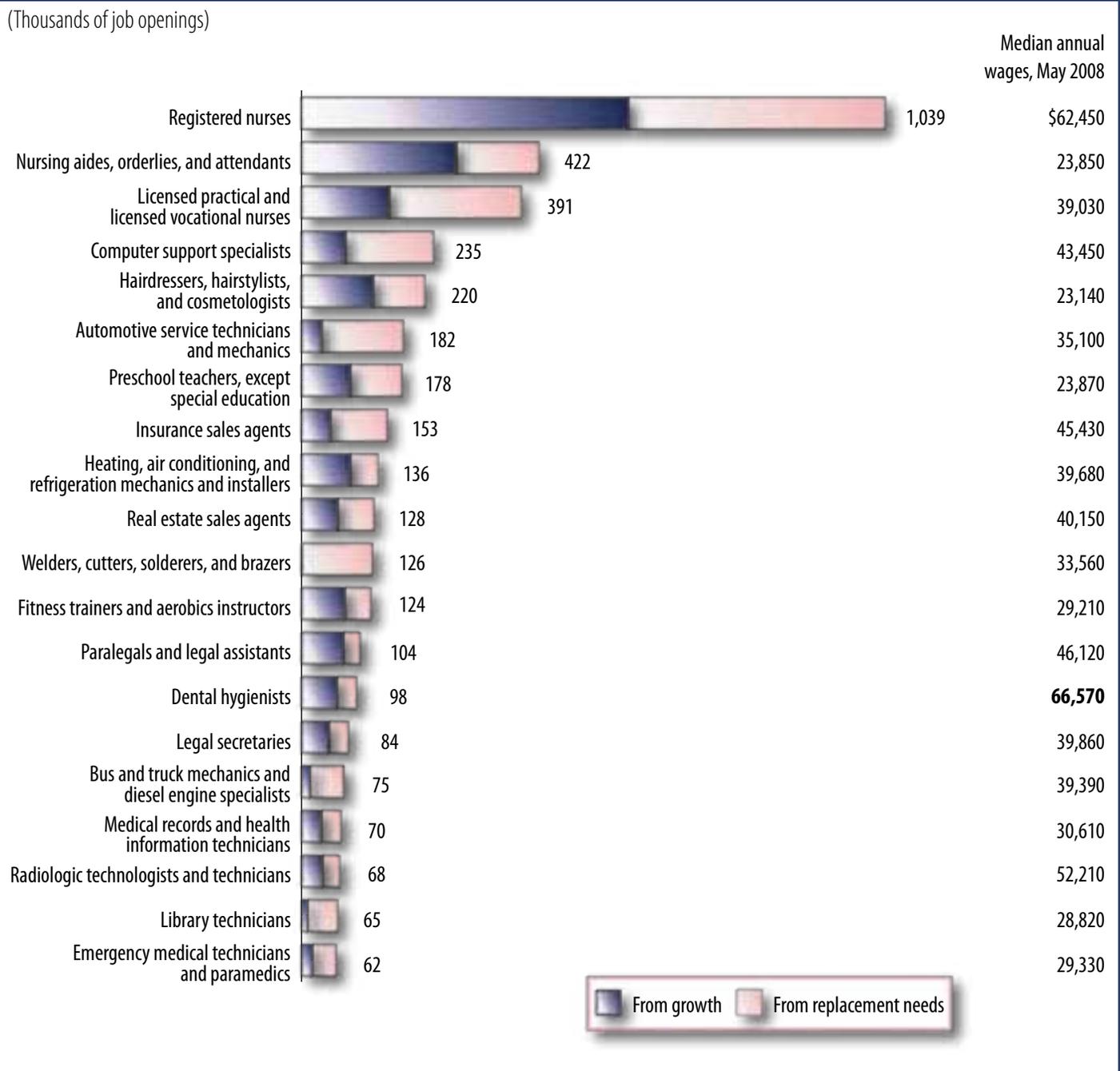


Completion of an associate degree usually requires 2 years of full-time academic study beyond high school. Postsecondary vocational programs vary in length and range from several weeks to 1 year or more. Completion of these programs often leads to a certificate or other award but not an academic degree.

At this level of training, occupations that are projected to gain the most jobs are largely related to healthcare, reflecting the growing medical needs of an aging population.

## Associate degree or postsecondary vocational award

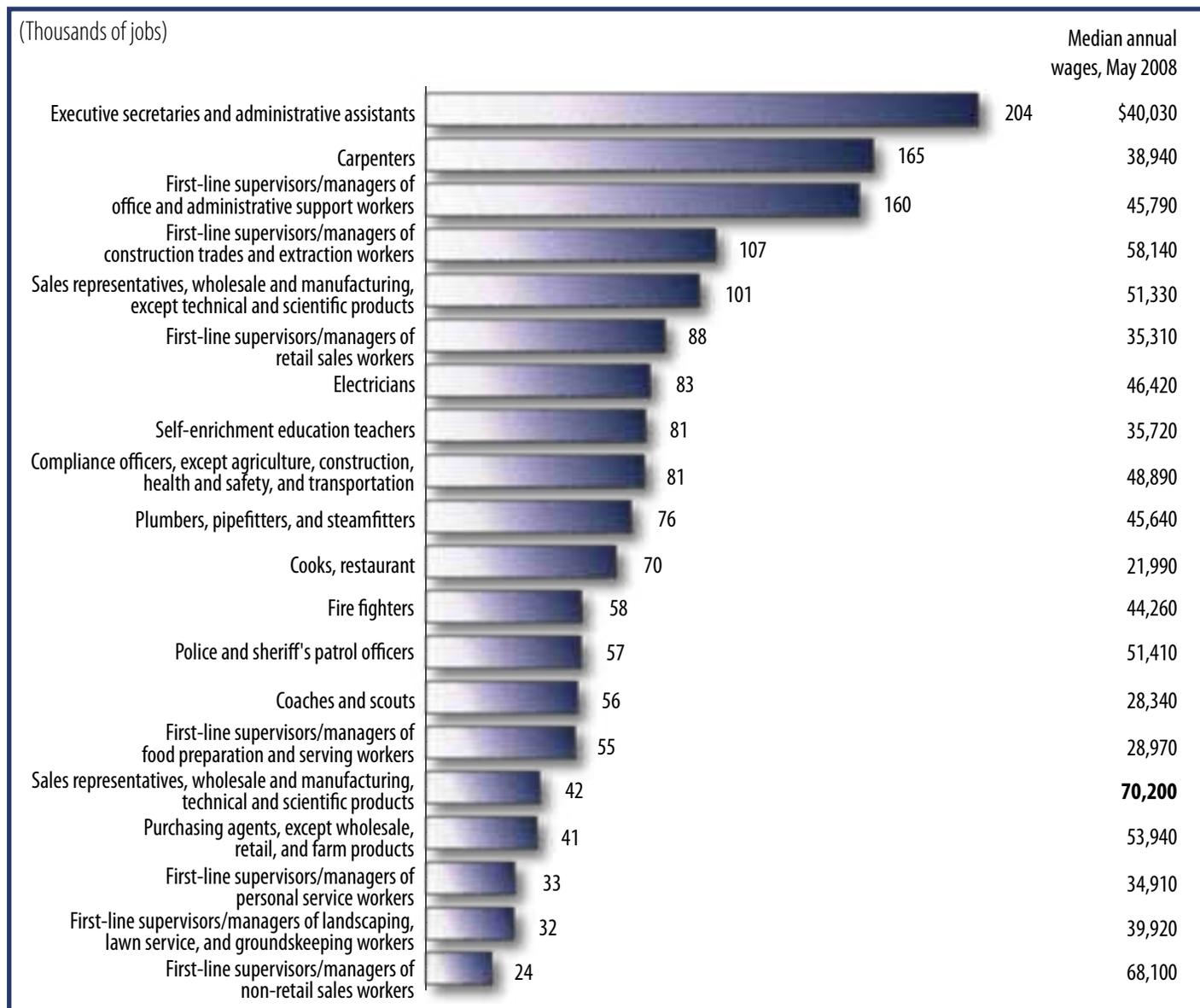
Occupations that have the most job openings and that usually require an associate degree or postsecondary vocational award, projected 2008–18



Over the 2008–18 decade, more than 1 million job openings are expected for registered nurses seeking employment in the occupation for the first time.

## Work experience or long-term on-the-job training

Occupations that have the most growth and that usually require work experience or long-term on-the-job training, projected 2008–18

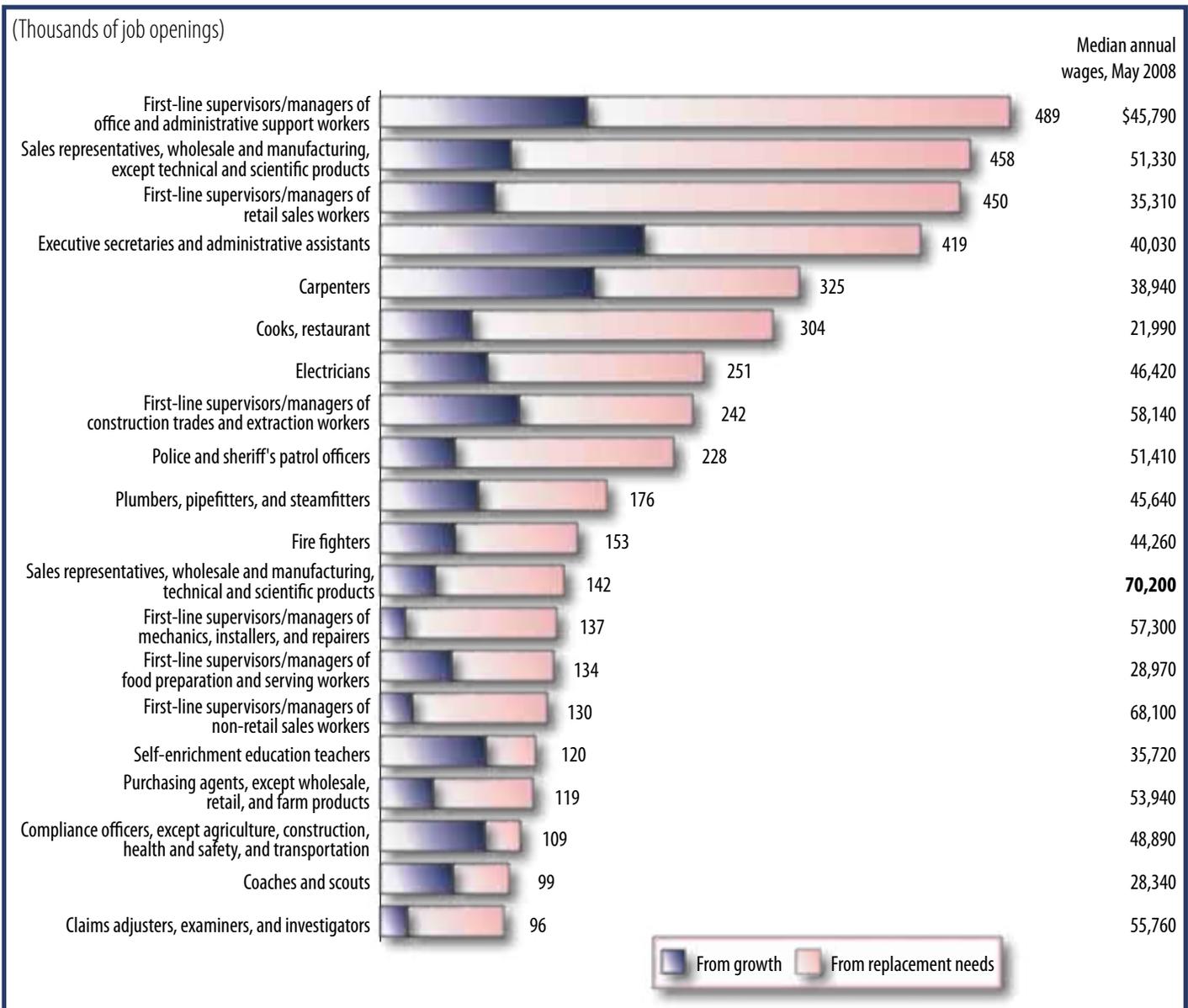


Occupations that require work experience are often supervisory, and workers' experience usually must be in the occupation being supervised. Occupations in the long-term on-the-job training category usually require workers to have 1 year or more of on-the-job training. Apprenticeships and long-term employer-sponsored training are classified here.

Employment of executive secretaries and administrative assistants is expected to increase in part because the duties in this occupation are less likely than many other office and administrative support occupations to be affected by technological advances. Increased activity in building and remodeling is expected to create growth in construction occupations. Supervisory occupations are also projected to gain many jobs over the 2008–18 decade.

## Work experience or long-term on-the-job training

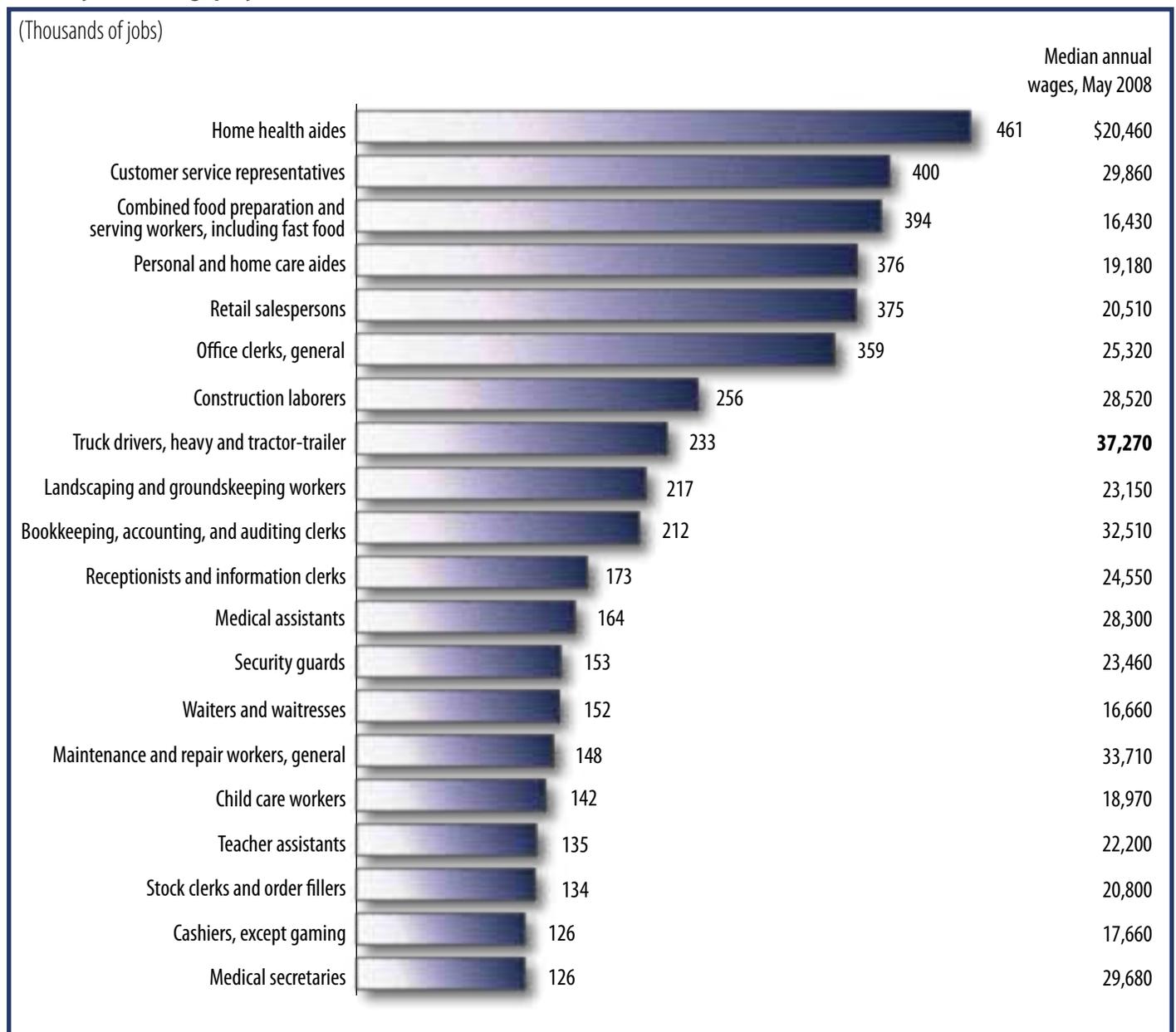
### Occupations that have the most job openings and that usually require work experience or long-term on-the-job training, projected 2008–18



Replacement needs are expected to account for most of the job openings in these occupations. Even occupations that are not expected to gain many new jobs—such as such as first-line supervisors of mechanics, installers, and repairers—will offer some job openings because of the need to replace existing workers who leave the occupation permanently.

## Short- or moderate-term on-the-job training

Occupations that have the most growth and that usually require short- or moderate-term on-the-job training, projected 2008–18



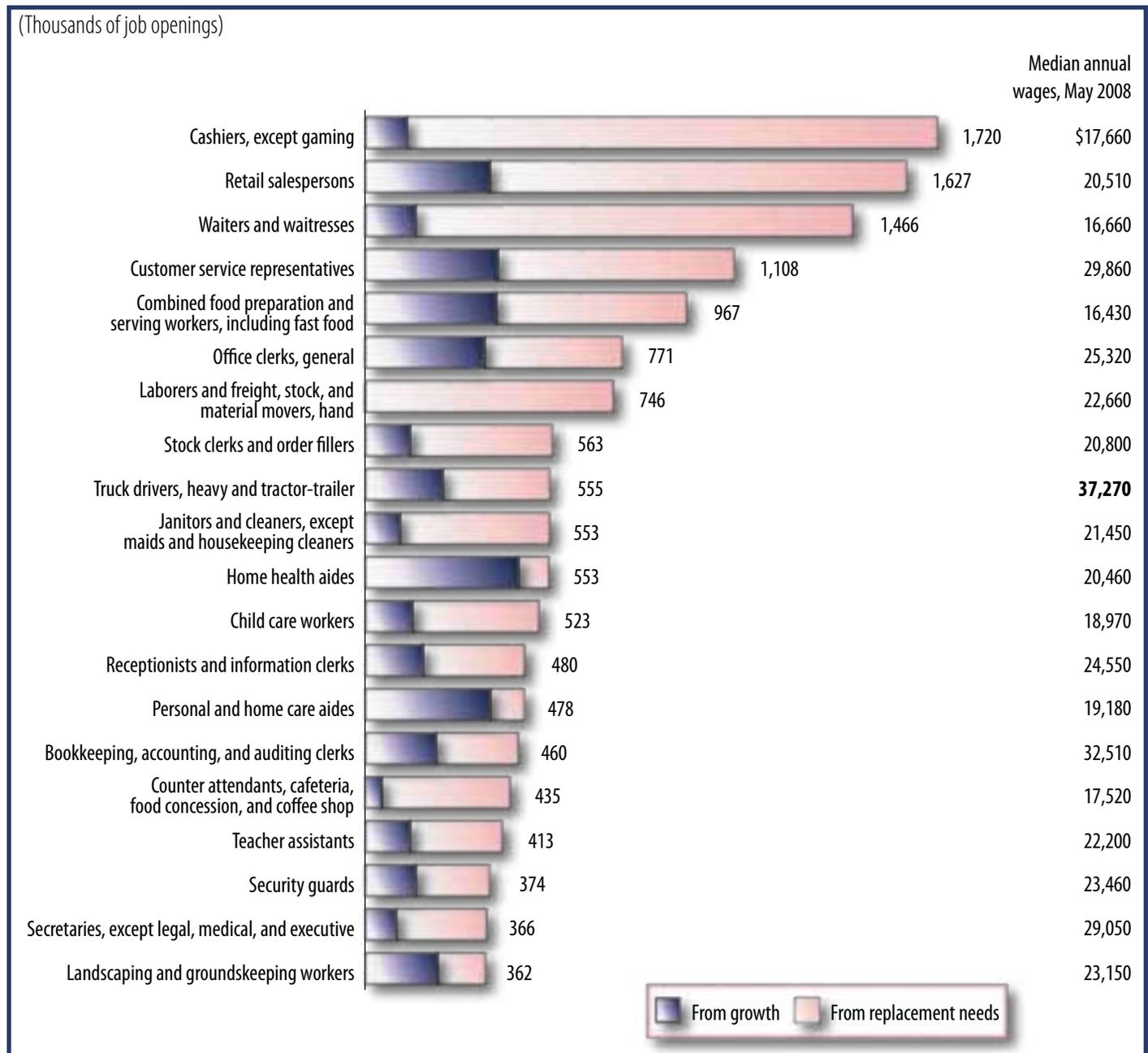
For occupations that require moderate-term on-the-job training, workers develop the skills that they need during 1 to 12 months of combined on-the-job experience and informal training.

For occupations in the short-term on-the-job training category, workers develop the skills that they need after a short demonstration of job duties or during 1 month or less of on-the-job experience or instruction.

Each of the occupations shown here is projected to gain more than 100,000 new jobs between 2008 and 2018.

## Short- or moderate-term on-the-job training

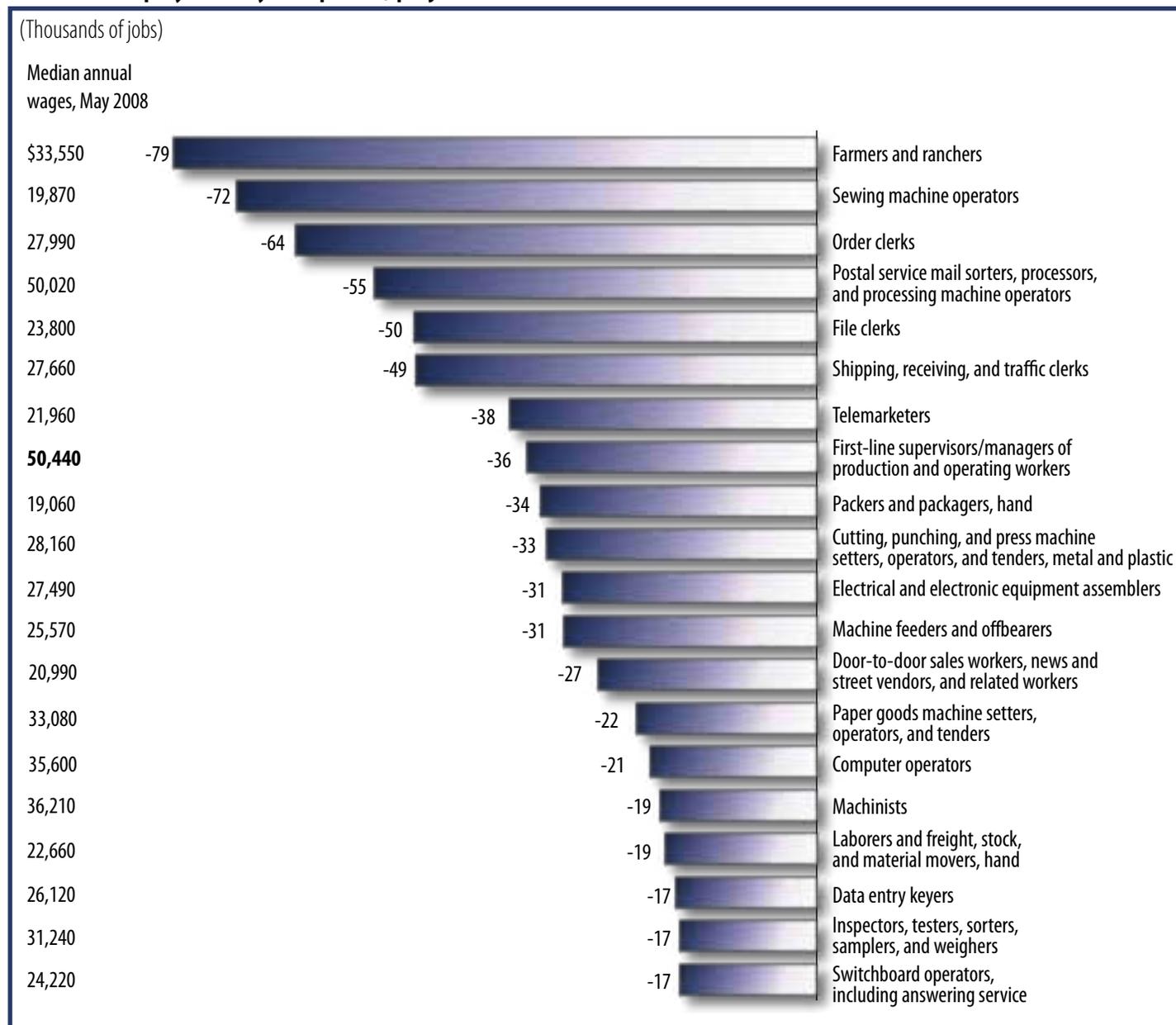
Occupations that have the most job openings and that usually require short- or moderate-term on-the-job training, projected 2008–18



Among occupations that require relatively little training, the need to replace workers is expected to account for the bulk of job openings.

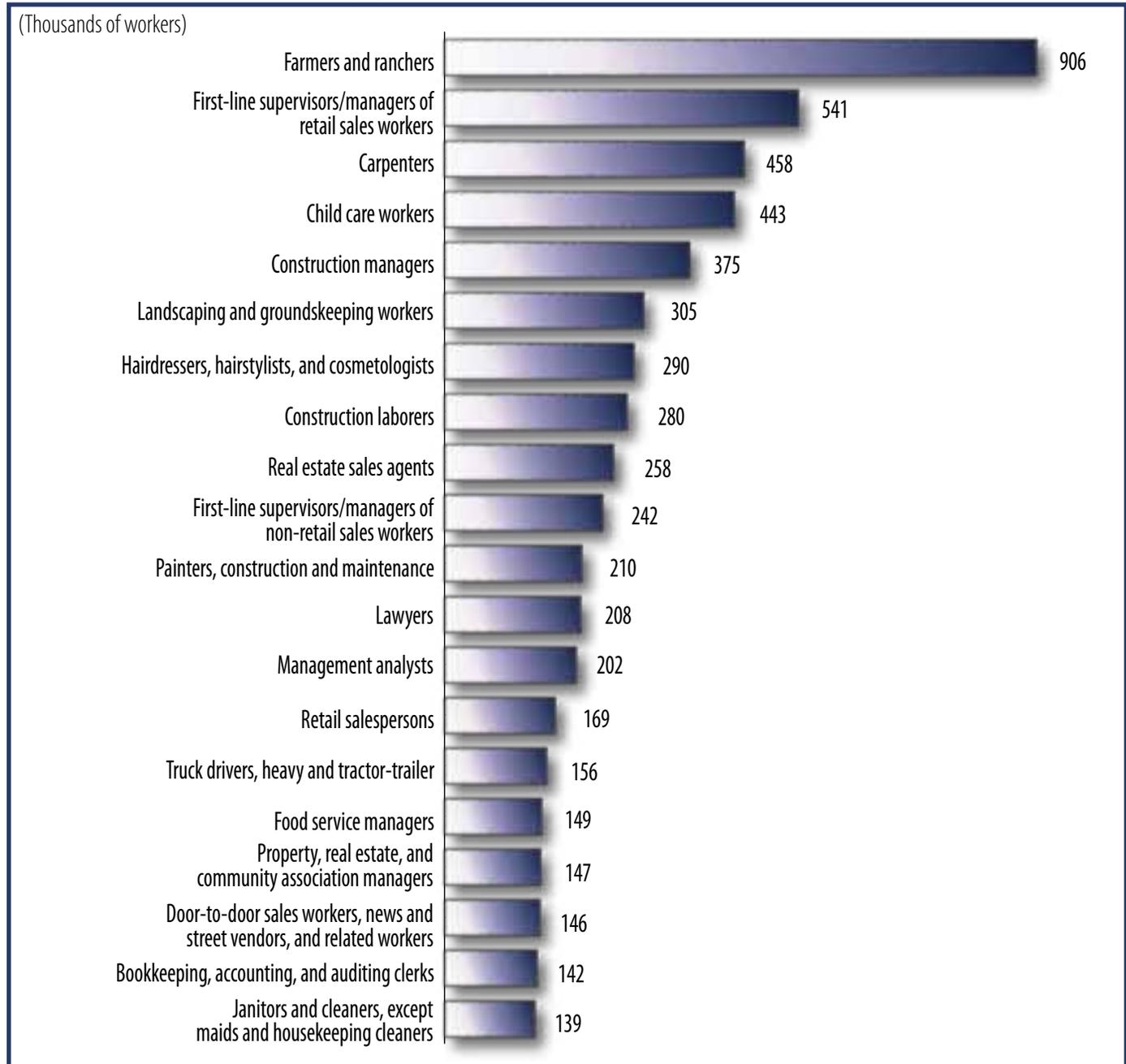
## Most job losses

Decline in employment by occupation, projected 2008–18



The occupations that are expected to have the largest employment declines—in part because technology is increasing worker productivity—are primarily production occupations and office and administrative support occupations. Even in occupations that are not expected to gain new jobs, however, the need to replace existing workers who leave will create some opportunities.

## Occupations with the most self-employed workers, projected 2018



Most of the new jobs added to the economy are expected to be for wage and salary workers; employment of self-employed and unpaid family workers is projected to change little through 2018. Farmers and ranchers are projected to have the highest levels of self-employment in 2018. But self-employment is also expected to be common in business, construction, and personal service occupations.