



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 from 2010 to 2020. Many of the charts in this section show which occupations or occupational groups are expected to grow fastest (highest percent growth) or gain the most jobs (highest numeric growth).

Between 2010 and 2020, overall employment is projected to grow by about 14 percent. This rate is shown as a dotted vertical line in the chart on page 11.

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 permanently leave an occupation for other reasons. Some charts show which occupations are expected to have the most openings for workers who are entering the occupation. 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, charts at the beginning of the section show

employment growth in broad groups of similar occupations.

The federal government classifies workers into categories using the Standard Occupational Classification (SOC) system. All of the SOC occupations are included in these 12 broad groups:

Management, business, and financial occupations. Examples include logisticians, construction managers, and personal financial advisors.

Computer, engineering, and science occupations. Examples are computer programmers, nuclear engineers, landscape architects, chemists, and political scientists.

Education, legal, community service, arts, and media occupations. Examples include teachers, court reporters, social workers, graphic designers, and editors.

Healthcare practitioners and technical occupations. Examples of these workers include dentists, physical therapists, and veterinarians.

Service occupations. This group includes workers who assist the public, including healthcare support occupations. Firefighters, dental assistants, bartenders, barbers, and pest control workers are examples.

Sales and related occupations. Examples include cashiers, insurance sales agents, and retail salespersons.

Office and administrative support occupations. Examples include order clerks, customer service representatives, tellers, and medical secretaries.

Farming, fishing, and forestry occupations.

Examples include forest and conservation workers, animal breeders, 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 boilermakers and roofers. It also includes occupations in oil and gas extraction and mining, such as roustabouts and mining machine operators.

Installation, maintenance, and repair occupations. Examples include home appliance repairers, millwrights, and small engine mechanics.

Production occupations. Examples include machinists, power plant operators, welders, and tailors.

Transportation and material moving occupations. Examples include air traffic controllers, railroad conductors, taxi drivers, and dredge operators.

Growth by education assignment

To help guide students and jobseekers, some charts show occupations by education assignment. These charts are grouped by the typical level of education most workers need to enter an occupation: graduate degree, bachelor's degree, associate's degree, post-secondary non-degree award, high school diploma or equivalent, and less than a high school diploma.

- Completion of a graduate degree typically requires a bachelor's degree plus 1 or 2 years of full-time study for a master's degree or at least 3 years of full-time study for a doctoral or professional degree.
- Completion of a bachelor's degree typically requires at least 4 years of full-time study beyond high school.
- Completion of an associate's degree typically requires 2 years of full-time study beyond high school. Postsecondary non-degree award programs typically last from several weeks to 1 year or more beyond high school.

Although the charts in this section are arranged by education assignment, columns within each chart also provide information about the experience and training assignments for the occupations. Assignments for work experience in a related occupation are indicated in the appropriate column as follows: more than 5 years (5+), 1 to 5 years (1–5), less than 1 year (<1), or none (N).

Assignments for on-the-job training typically needed to attain competency are indicated in the appropriate column as follows: internship/residency (I/R), apprenticeship (A), long-term (L), moderate-term (M), short-term (S), or none (N).

- Internship and residency assignments include only those required for workers to be employed in an occupation. They may be paid or unpaid and vary from 1 to 8 years.
- Apprenticeships combine paid on-the-job training with occupation-specific instruction. Most programs last between 3 and 5 years.
- Long-term on-the-job training lasts more than 12 months and includes either on-the-job training or combines work experience with formal instruction.
- Moderate-term on-the-job training includes informal instruction and on-the-job training that lasts between 1 and 12 months.
- Short-term on-the-job training includes informal, on-the-job training or experience of 1 month or less.

For complete information, see www.bls.gov/emp/ep_education_training_system.htm.

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 the wages shown in these charts, but overtime and nonproduction bonuses are not.

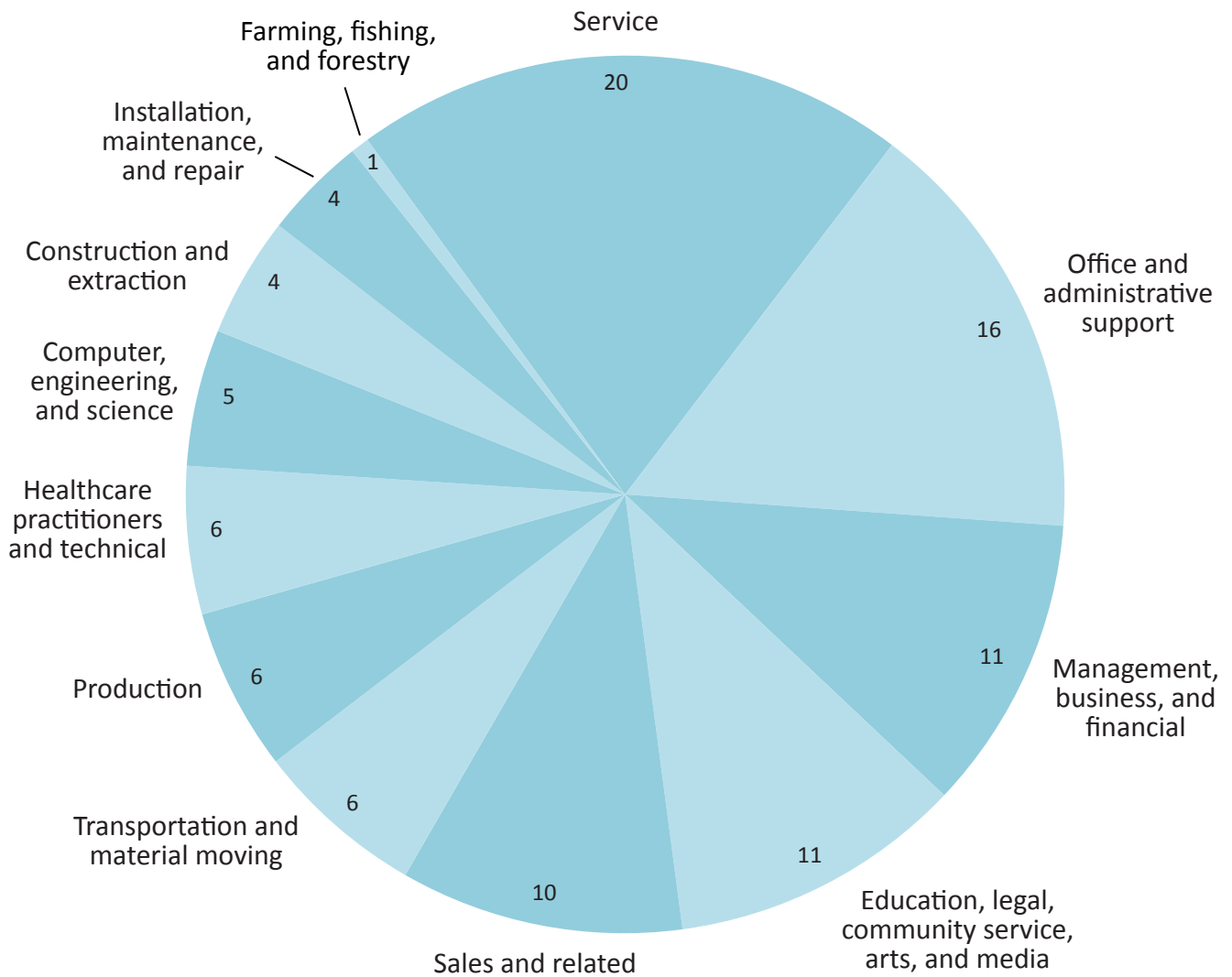
For individual occupations, most charts include 2010 median annual wage data from the BLS Occupational Employment Statistics (OES) program. The median wage is the point at which half of the workers in an occupation earned more than the amount, and half earned less. In May 2010, the median annual wage for all workers was \$33,840.

The highest median annual wage among the occupations in a given chart is 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, 2010

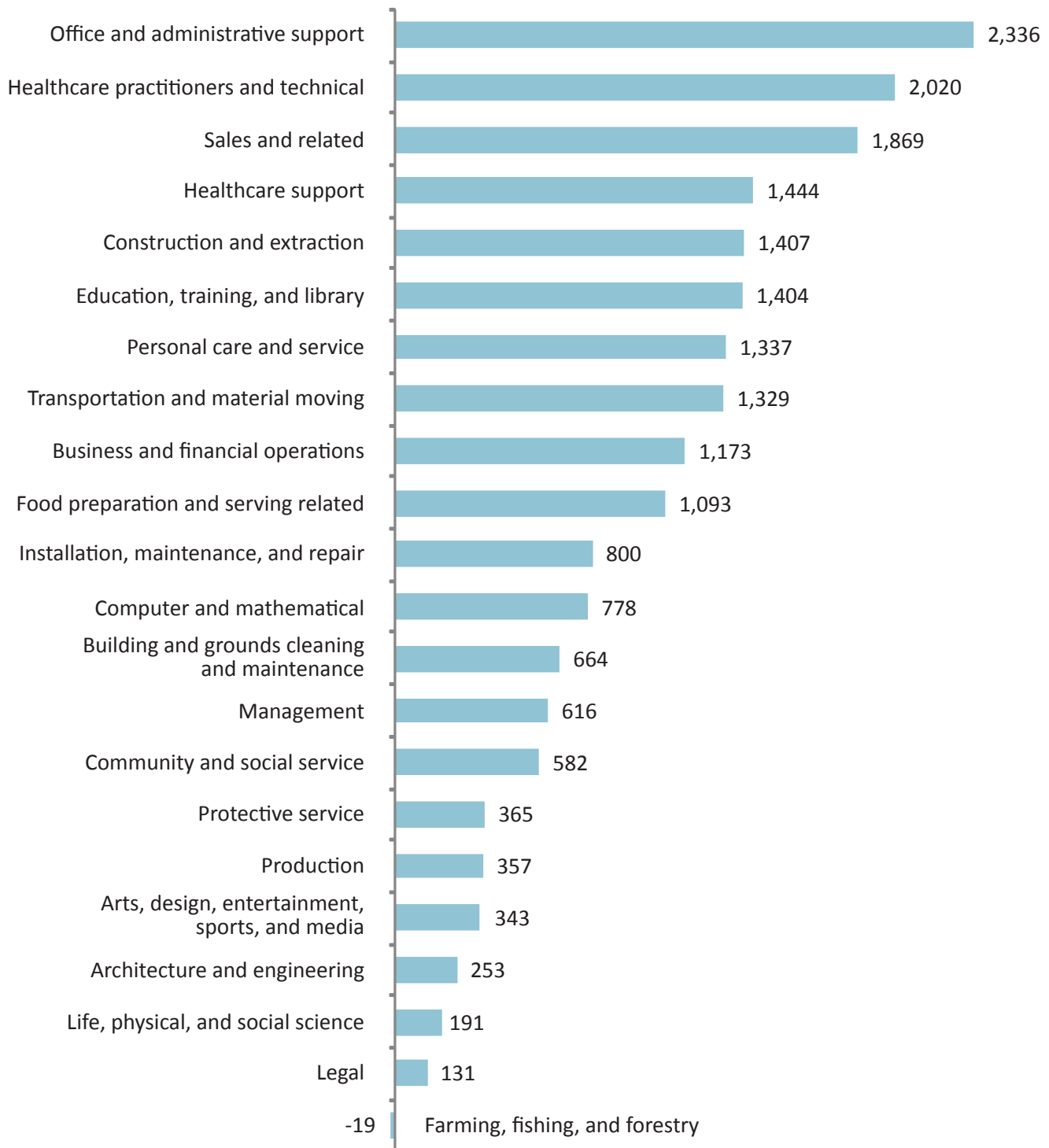
Percent distribution of employment by aggregate occupational group, 2010



Occupations that have similar job duties are grouped according to the tasks that the workers in those occupations perform. This chart shows the aggregated occupational groups from the 2010 Standard Occupational Classification (SOC) system. For example, the computer, engineering, and science group in this chart includes computer and mathematical occupations; architecture and engineering occupations; and life, physical, and social science occupations.

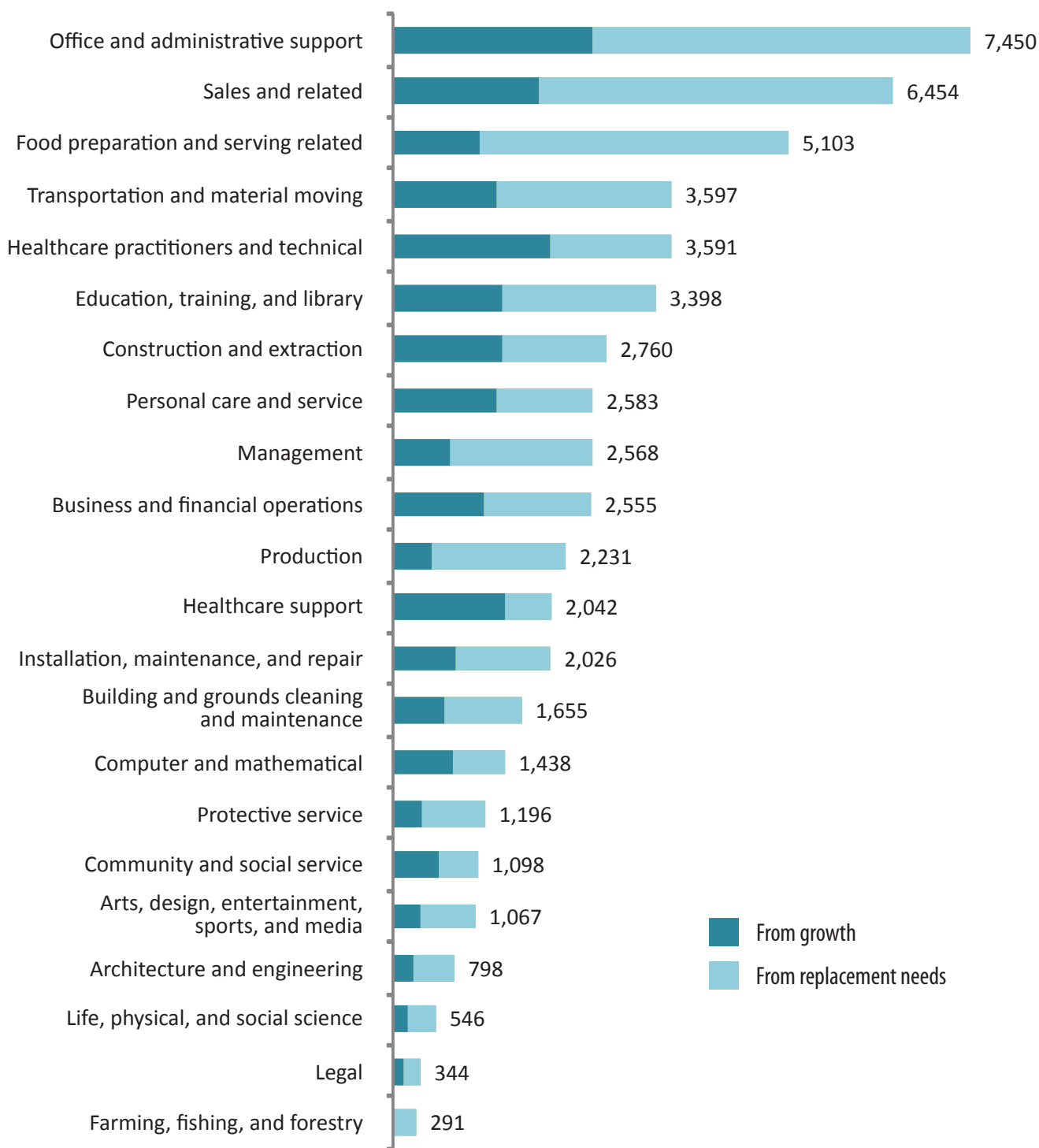
Occupational employment

Numeric change in employment by major occupational group, projected 2010–20, in thousands of jobs



This chart shows the 22 major occupational groups from the SOC. All of the major groups except one are projected to gain jobs.

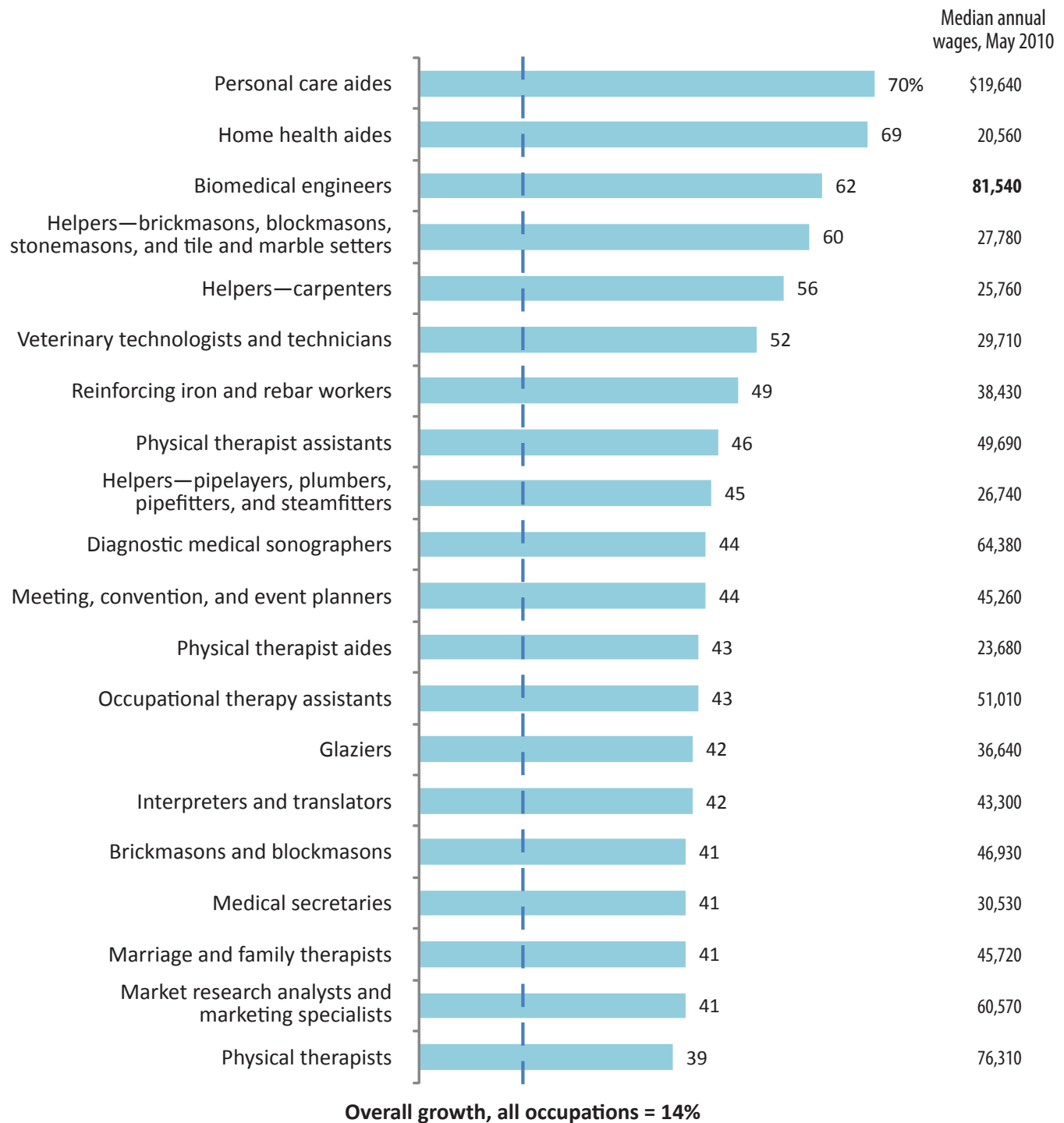
Job openings by major occupational group, projected 2010–20, in thousands of openings



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 most occupations, the need to replace workers who leave an occupation is expected to create more openings than job growth will.

Fastest growing occupations

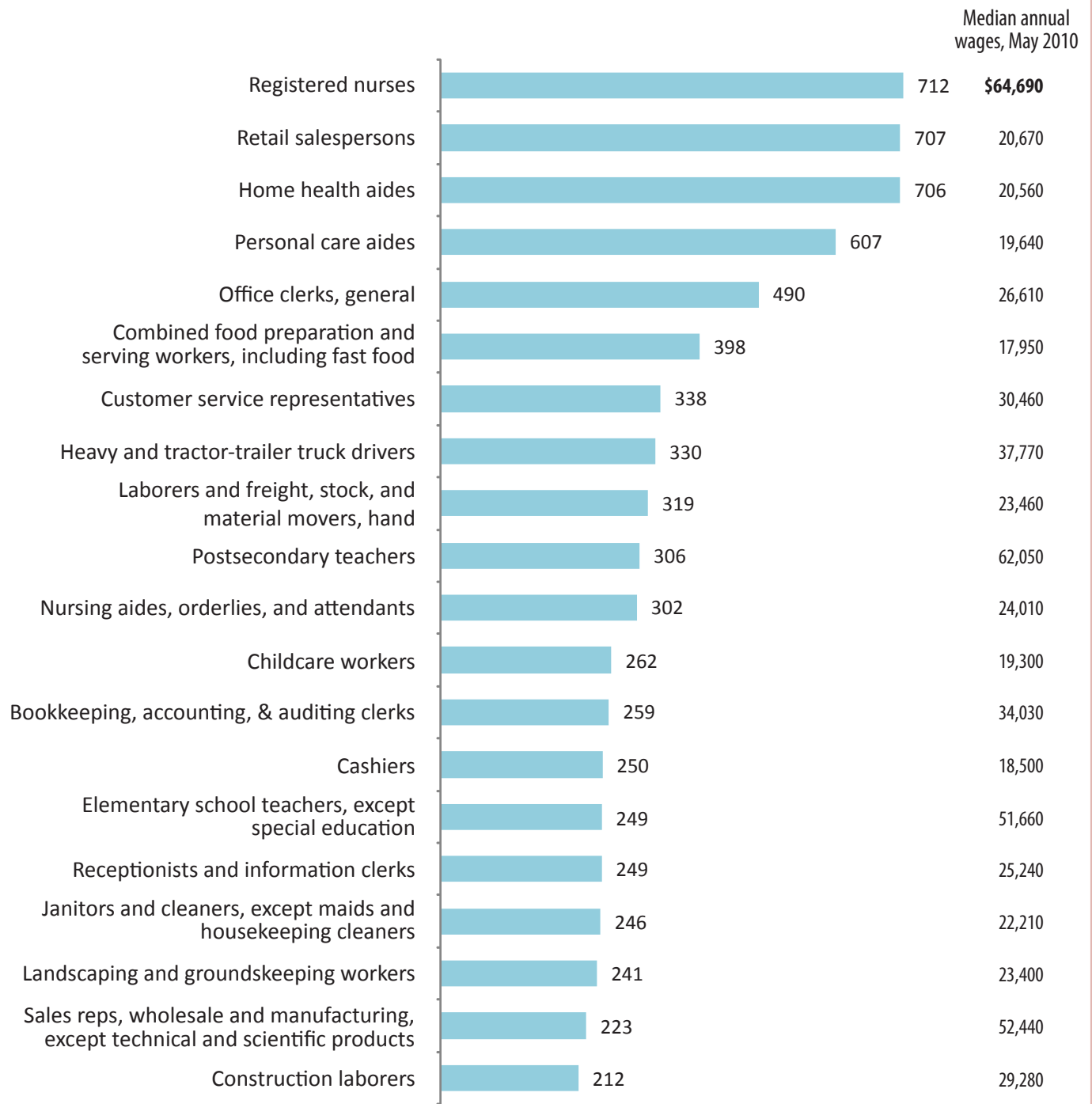
Percent growth in employment, projected 2010–20



Six of the occupations in this chart are construction occupations. The construction and extraction occupations group is projected to grow rapidly, by about 22 percent, and add 1.4 million jobs. However, employment in 2020 in this group is expected to remain below its 2006 level, before the 2007–09 recession.

Most new jobs

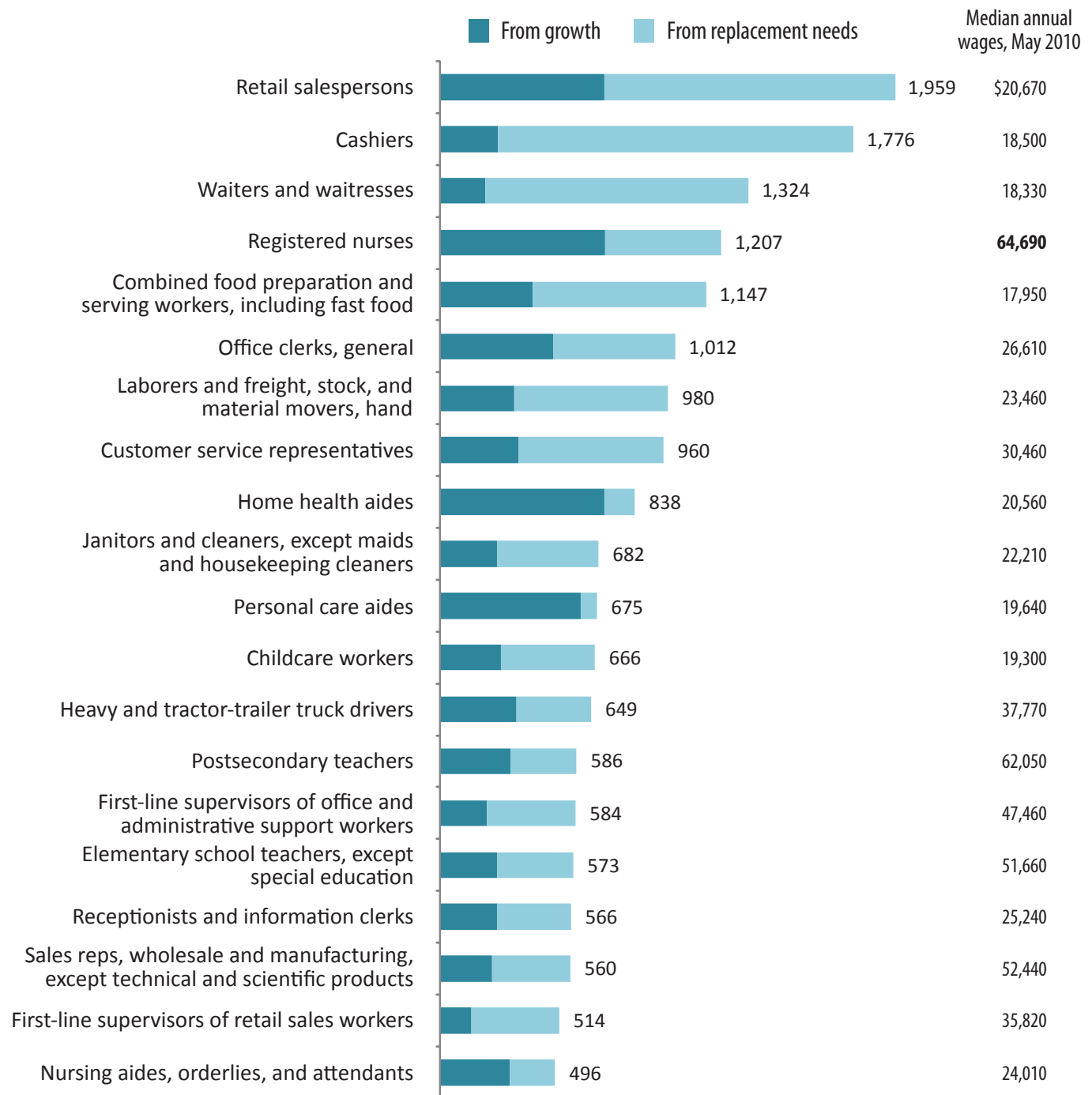
Numeric growth in employment, projected 2010–20, in thousands of jobs



These 20 occupations are projected to gain the most new jobs between 2010 and 2020 and account for about 36 percent of all jobs projected to be added over the decade. These occupations have a range of wages, job duties, and education and training requirements. Registered nurses had the highest wage in May 2010 among occupations projected to gain the most new jobs.

Most job openings

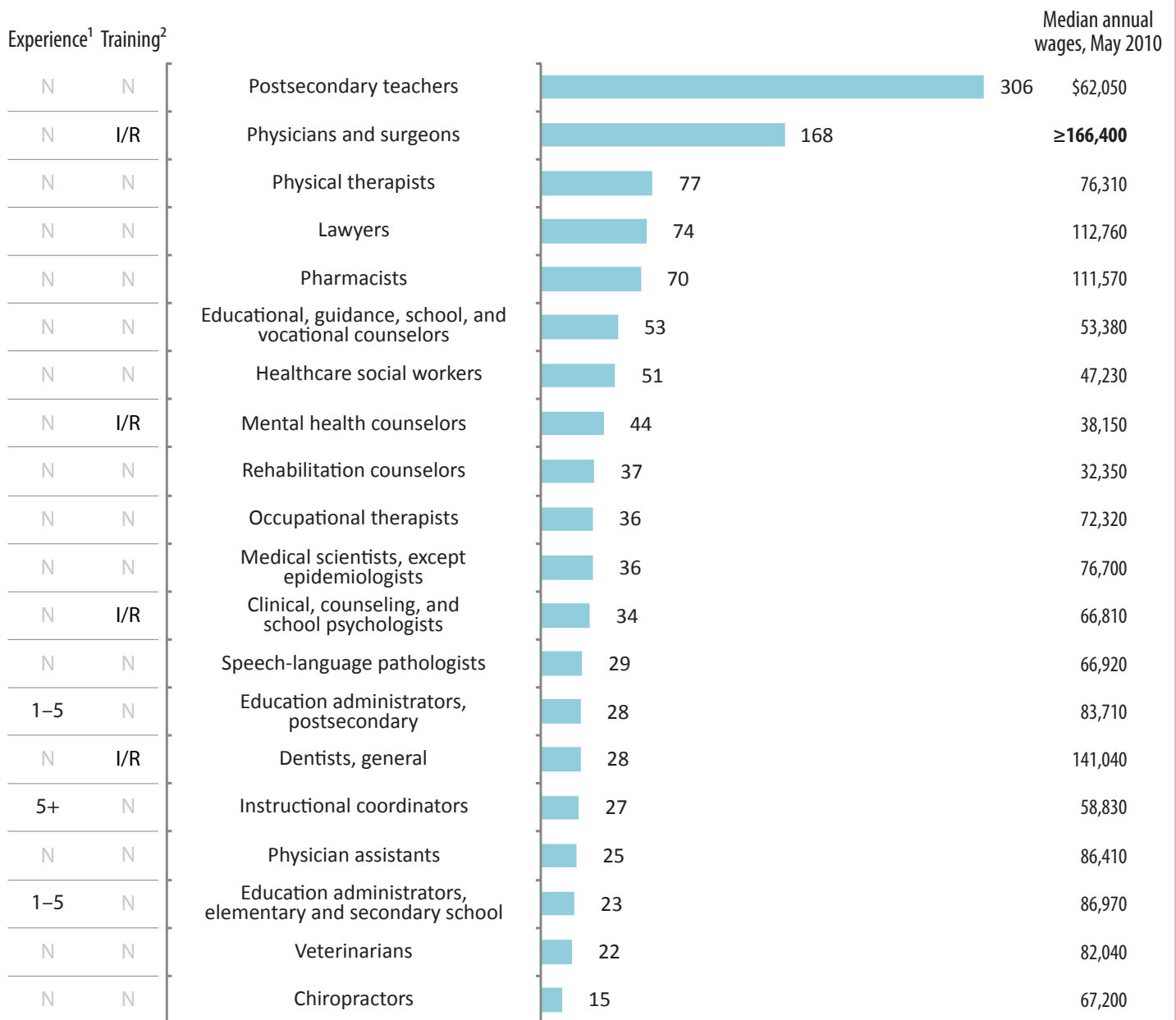
Job openings due to growth and replacement needs, projected 2010–20, in thousands of openings



Retail salespersons and cashiers 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.

Graduate degree

Occupations that have the most growth and have a master's, doctoral, or professional degree as the typical level of education needed to enter the occupation, projected 2010–20, in thousands of jobs



¹ Indicates whether **work experience in a related occupation** is also typically needed for entry into the occupation. Assignments are more than 5 years (5+), 1–5 years (1–5), less than 1 year (<1), or none (N).

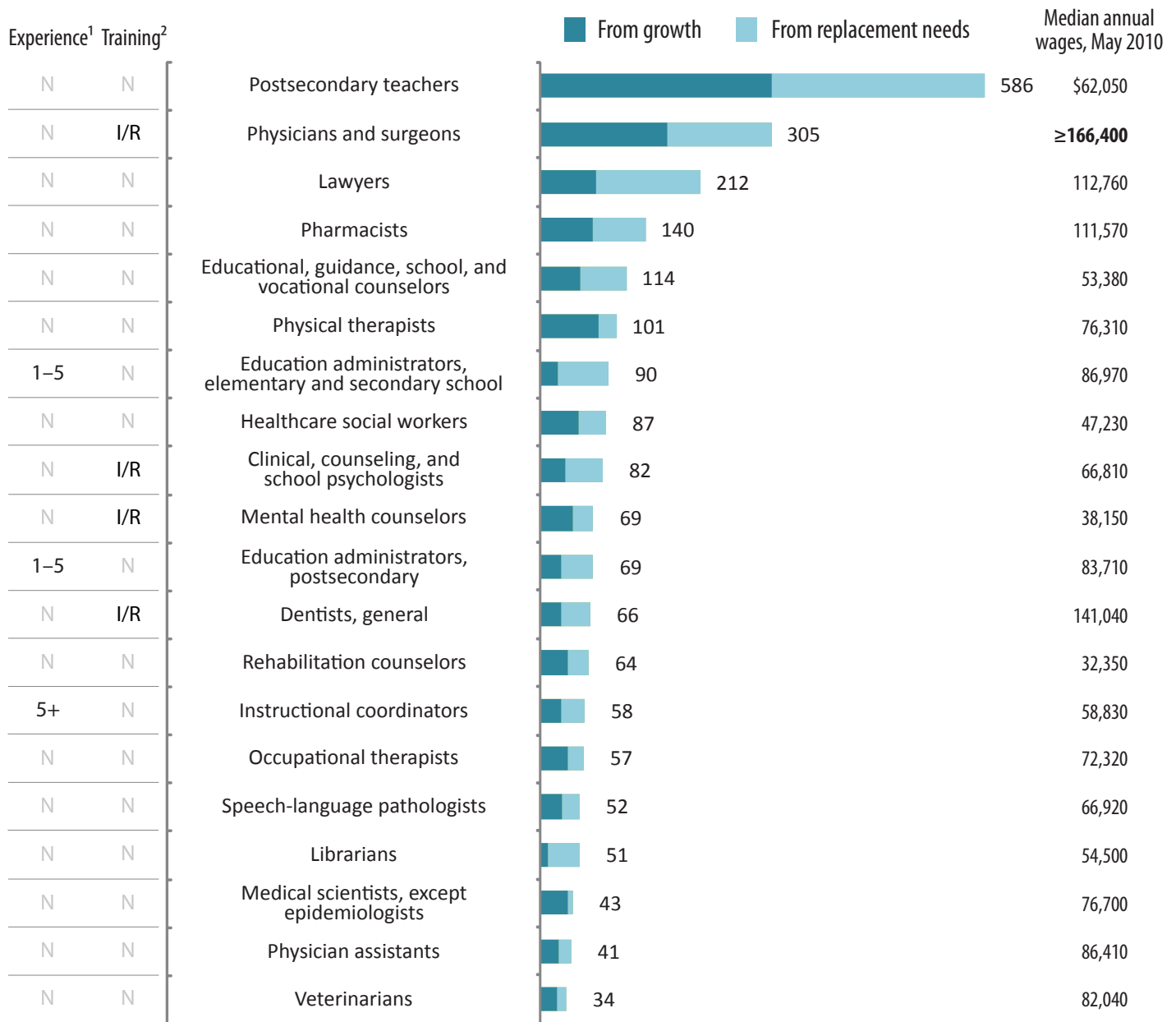
² Indicates whether **on-the-job training is typically needed to attain competency in the occupation**. Assignments are internship/residency (I/R), apprenticeship (A), long-term (L), moderate-term (M), short-term (S), or none (N).

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.

Occupational employment

Graduate degree

Occupations that have the most job openings and have a master's, doctoral, or professional degree as the typical level of education needed to enter the occupation, projected 2010–20, in thousands of openings



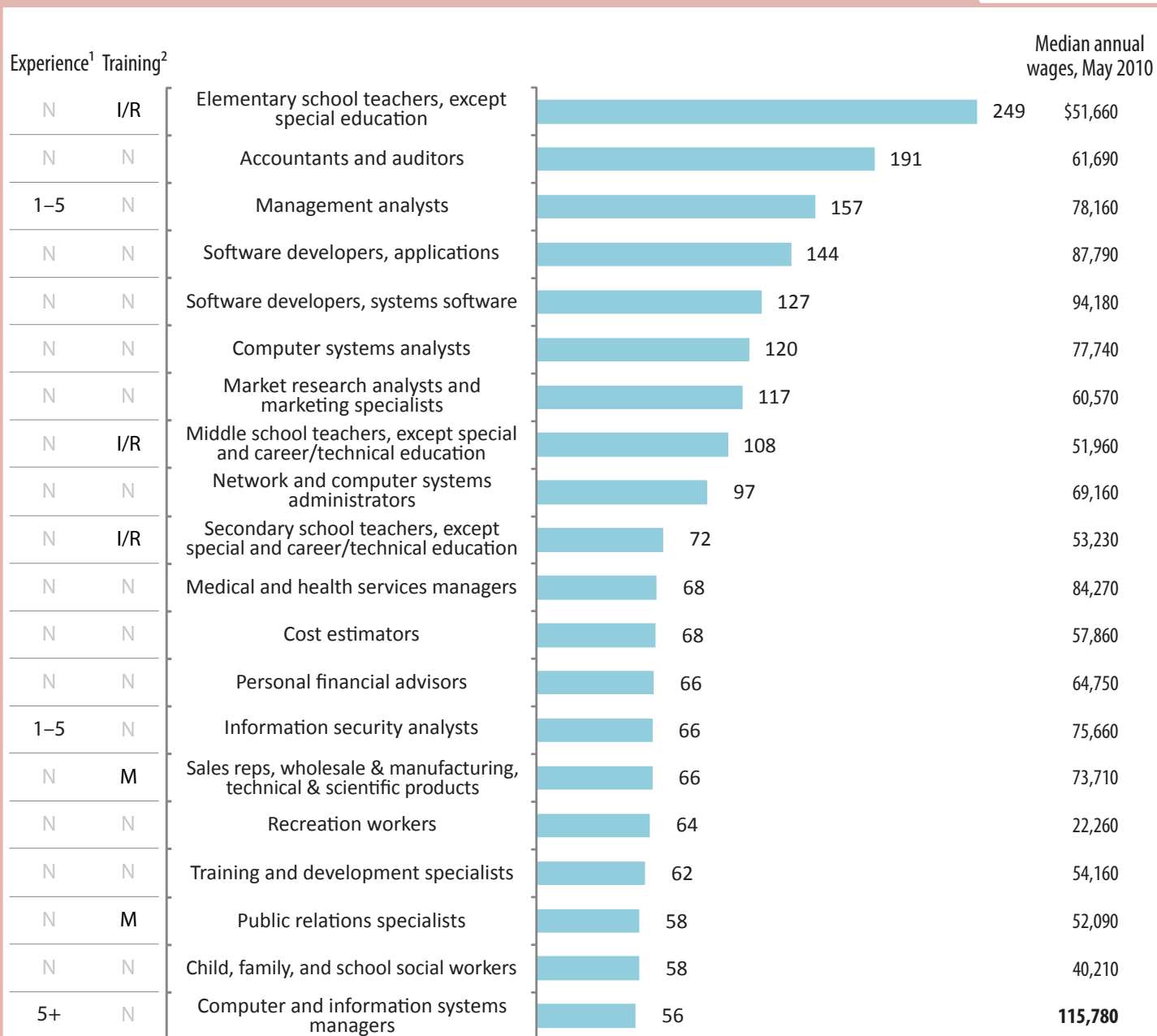
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Workers in seven of the occupations in this chart typically need either experience or training in addition to a graduate degree.

Bachelor's degree

Occupations that have the most growth and have a bachelor's degree as the typical level of education needed to enter the occupation, projected 2010–20, in thousands of jobs



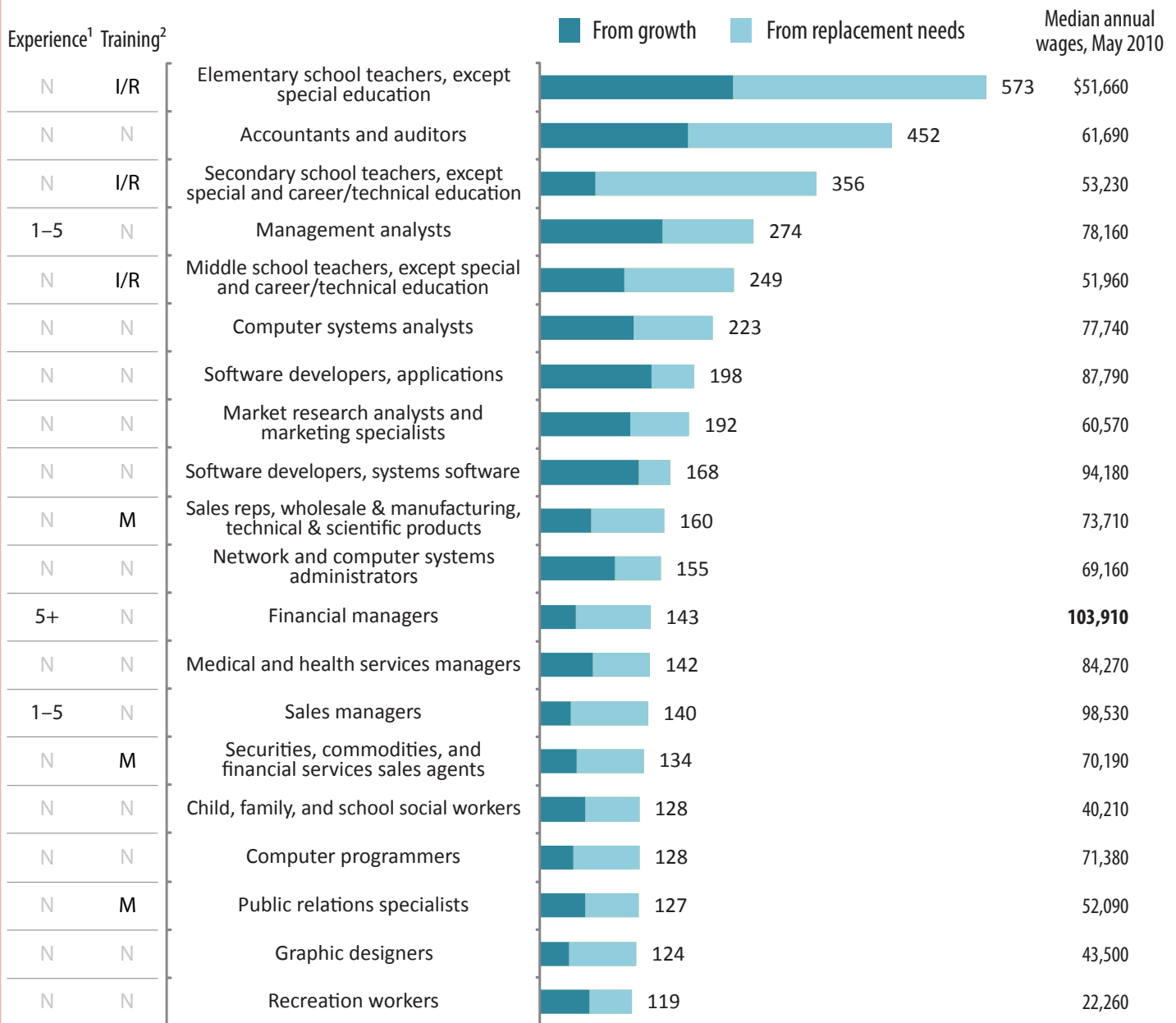
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Of the occupations shown here, computer and information systems managers had the highest wage in May 2010. They typically need more than 5 years of experience in a related occupation.

Bachelor's degree

Occupations that have the most job openings and have a bachelor's degree as the typical level of education needed to enter the occupation, projected 2010–20, in thousands of openings



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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's degree or postsecondary non-degree award

Occupations that have the most growth and have an associate's degree or postsecondary non-degree award as the typical level of education needed to enter the occupation, projected 2010–20, in thousands of jobs

Experience ¹	Training ²			Median annual wages, May 2010
N	N	Registered nurses	712	\$64,690
N	N	Nursing aides, orderlies, and attendants	302	24,010
N	N	Licensed practical and licensed vocational nurses	169	40,380
N	N	Preschool teachers, except special education	114	25,700
N	N	Hairdressers, hairstylists, and cosmetologists	98	22,760
N	N	Dental assistants	92	33,470
N	L	Heating, air conditioning, and refrigeration mechanics and installers	90	42,530
5+	N	Construction managers	87	83,860
1–5	N	General and operations managers	82	94,400
N	N	Emergency medical technicians and paramedics	75	30,360
N	N	Dental hygienists	69	68,250
N	N	Radiologic technologists & technicians	61	54,340
N	N	Paralegals and legal assistants	47	46,680
N	N	Veterinary technologists & technicians	42	29,710
N	N	Medical records and health information technicians	38	32,350
N	N	Respiratory therapists	31	54,280
N	N	Massage therapists	31	34,900
N	N	Physical therapist assistants	31	49,690
N	M	Telecom equipment installers and repairers, except line installers	28	54,710
N	L	Firefighters	27	45,250

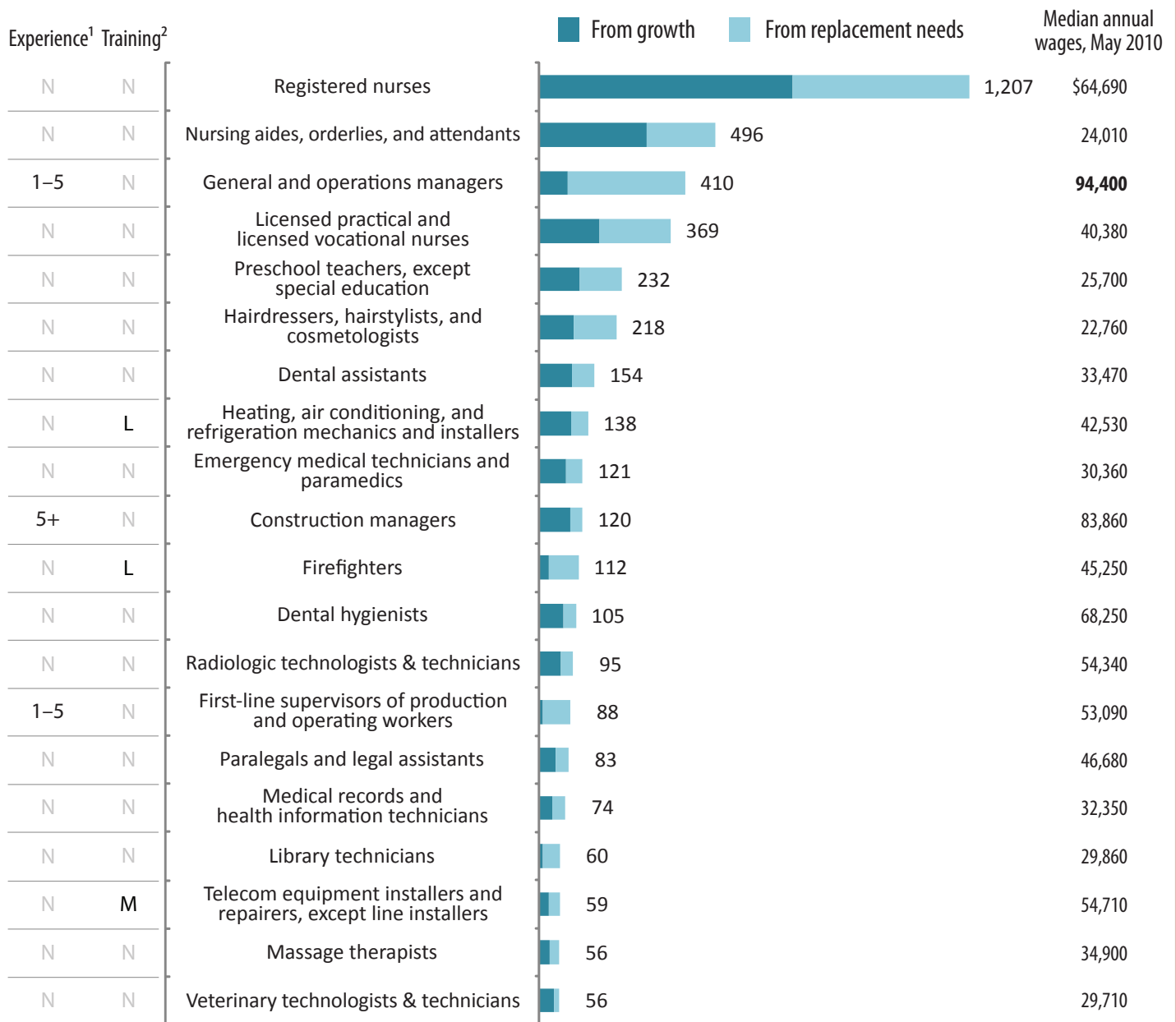
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At these levels of education, occupations that are projected to gain the most jobs are largely related to healthcare, reflecting the growing medical needs of an aging population.

Associate's degree or postsecondary non-degree award

Occupations that have the most job openings and have an associate's degree or postsecondary non-degree award as the typical level of education needed to enter the occupation, projected 2010–20, in thousands of openings



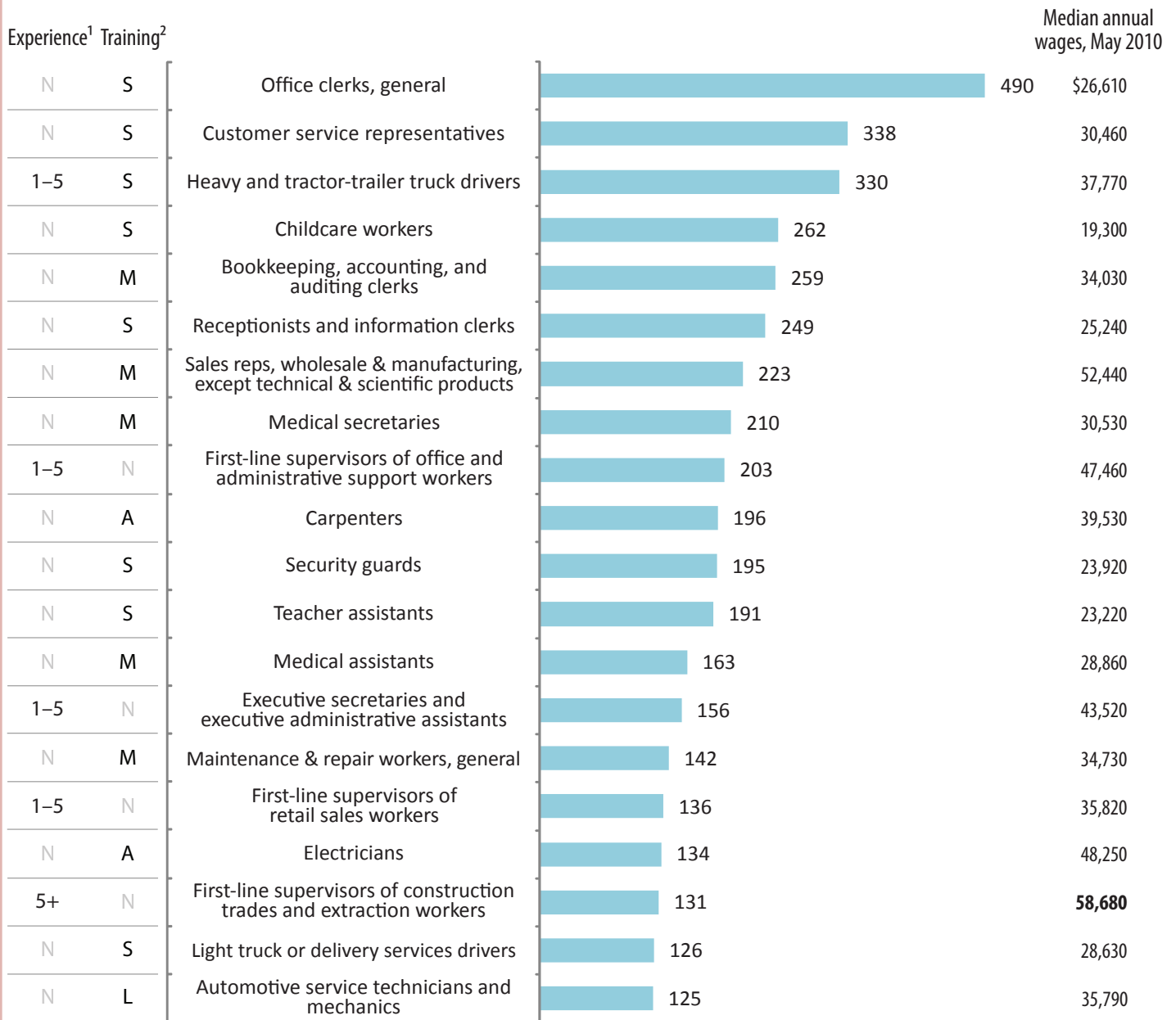
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Over the 2010–20 decade, registered nurses are expected to have more than twice as many job openings as any other occupation with these levels of education.

High school diploma or equivalent

Occupations that have the most growth and have a high school diploma or equivalent as the typical level of education needed to enter the occupation, projected 2010–20, in thousands of jobs



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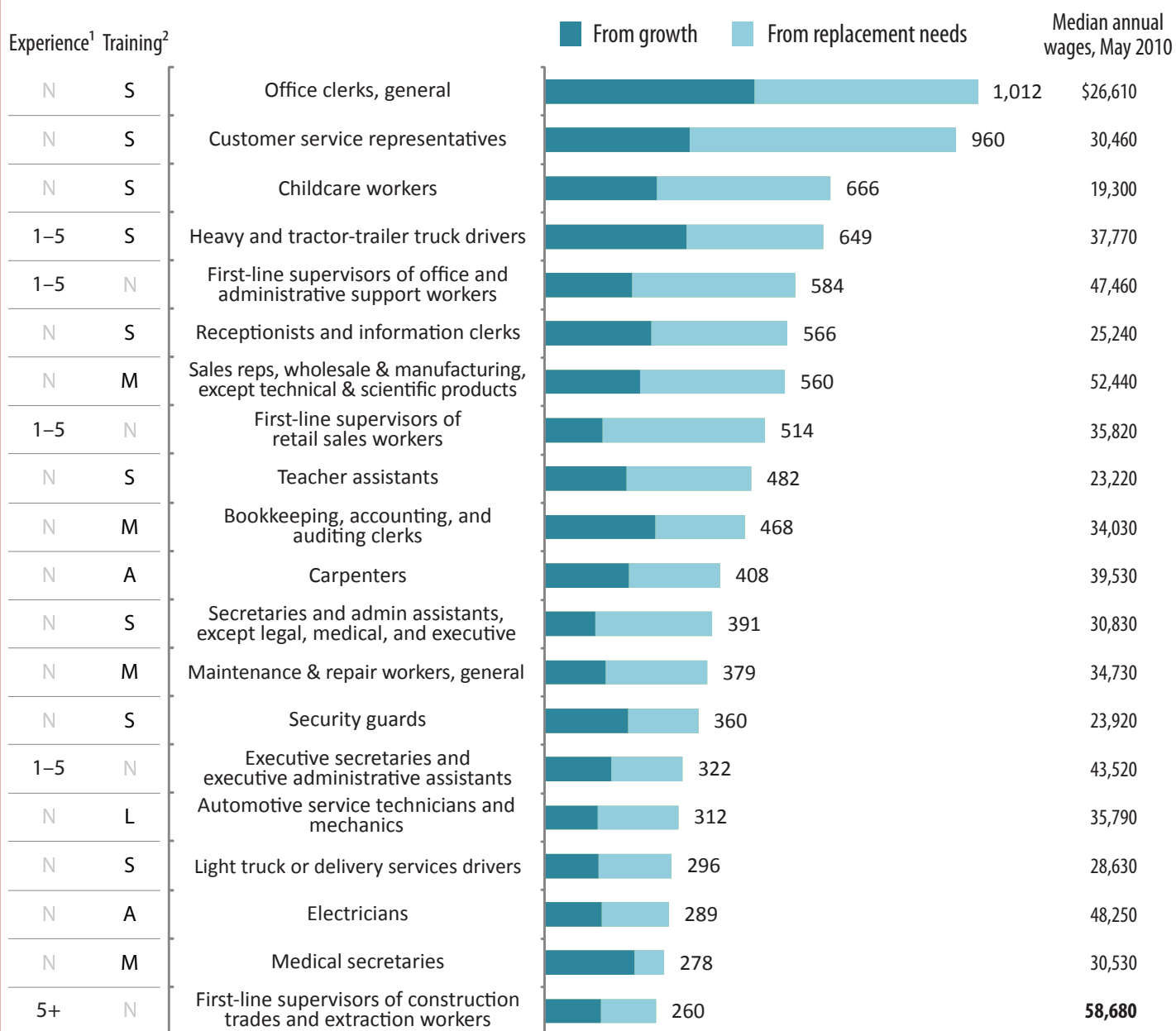
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Occupations at this education level need different types of training, ranging from short-term on-the-job training to apprenticeships. The four fastest growing occupations in this chart typically need short-term on-the-job training.

Occupational employment

High school diploma or equivalent

Occupations that have the most job openings and have a high school diploma or equivalent as the typical level of education needed to enter the occupation, projected 2010–20, in thousands of openings



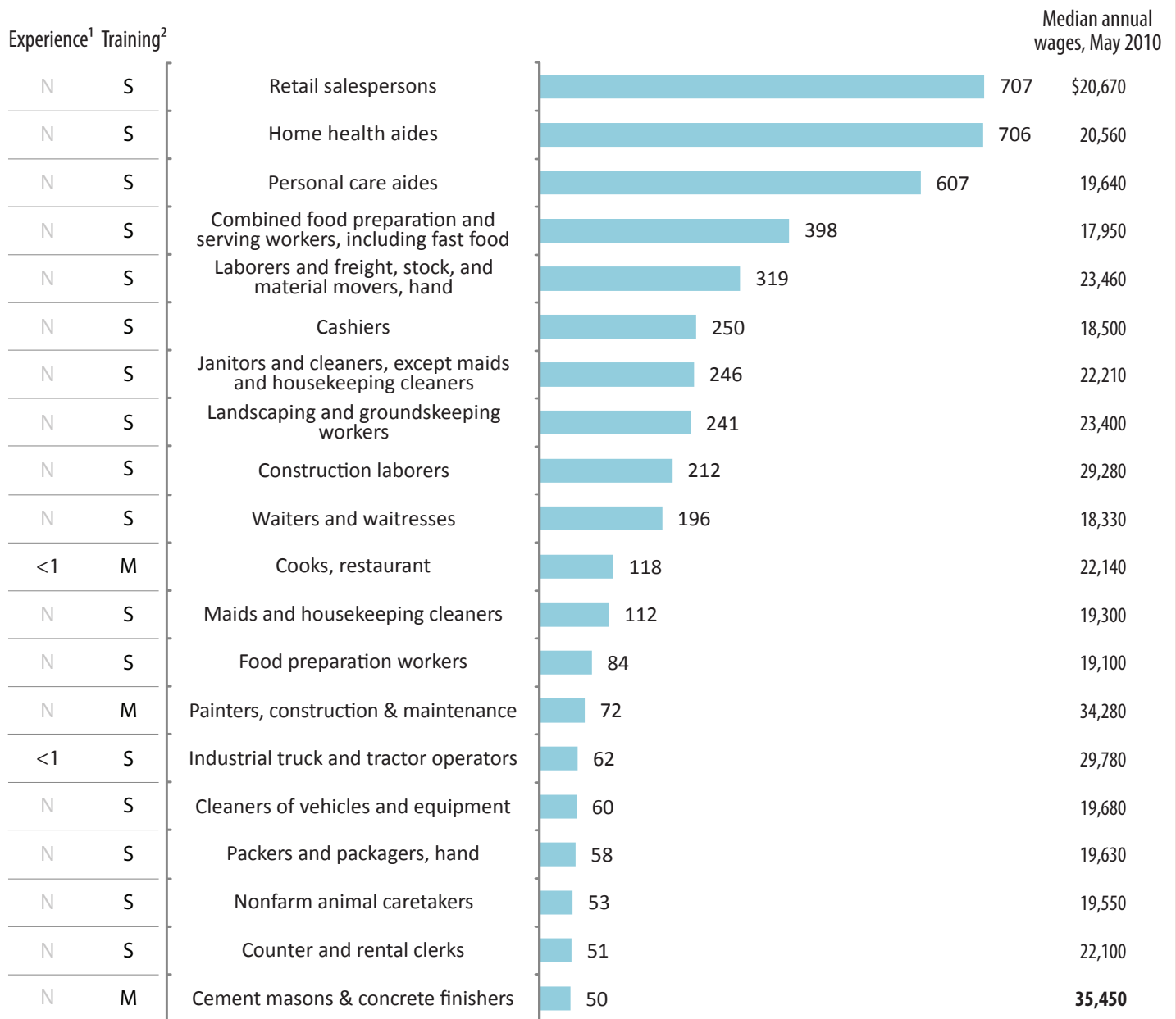
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Of the occupations shown here, first-line supervisors of construction trades and extraction workers had the highest wage in May 2010. They also typically need more than 5 years of experience in a related occupation.

Less than a high school diploma

Occupations that have the most growth and have less than a high school diploma as the typical level of education needed to enter the occupation, projected 2010–20, in thousands of jobs



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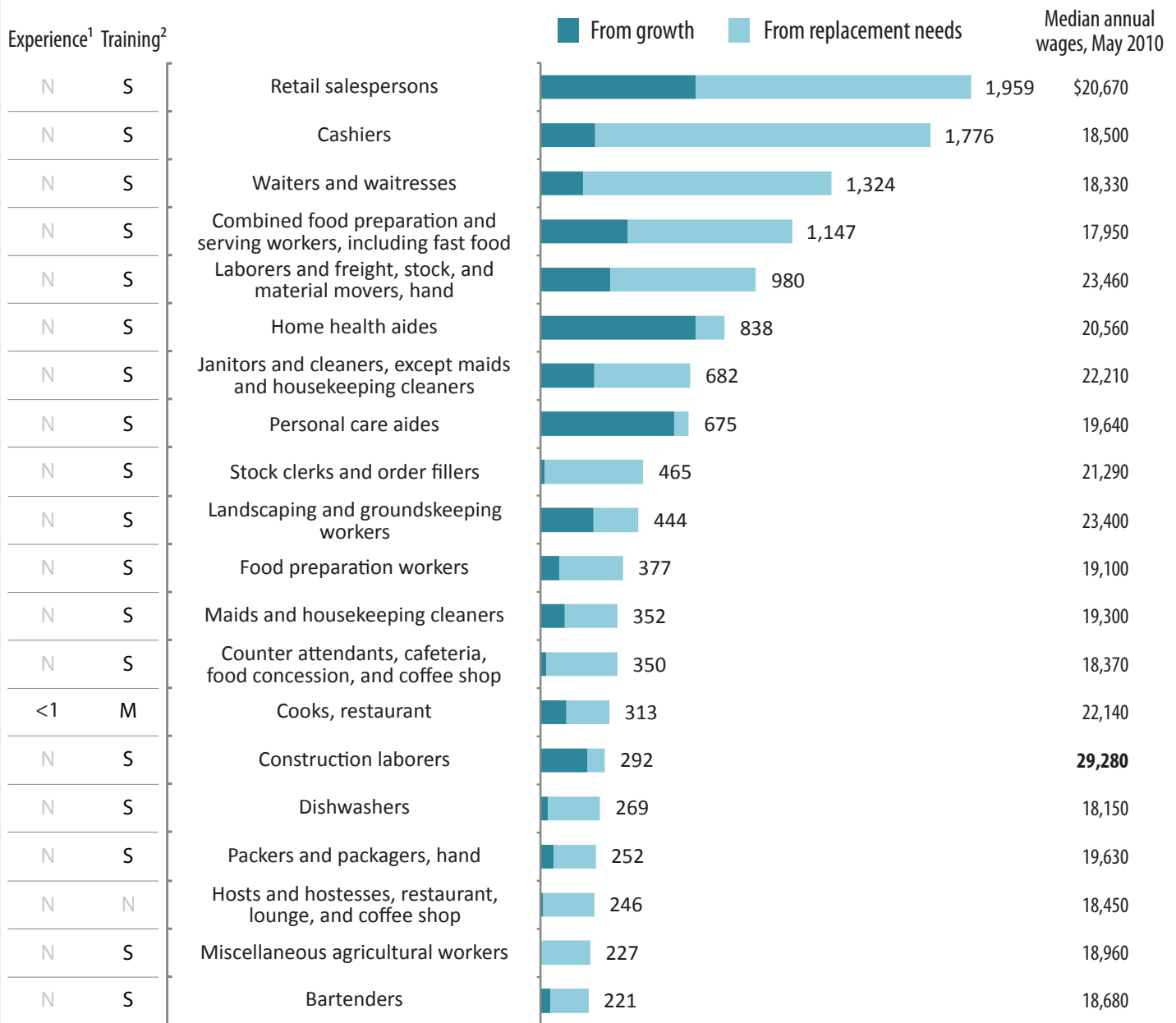
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Workers might not need a high school diploma to enter these occupations, but they typically need on-the-job training to attain competency.

Occupational employment

Less than a high school diploma

Occupations that have the most job openings and have less than a high school diploma as the typical level of education needed to enter the occupation, projected 2010–20, in thousands of openings



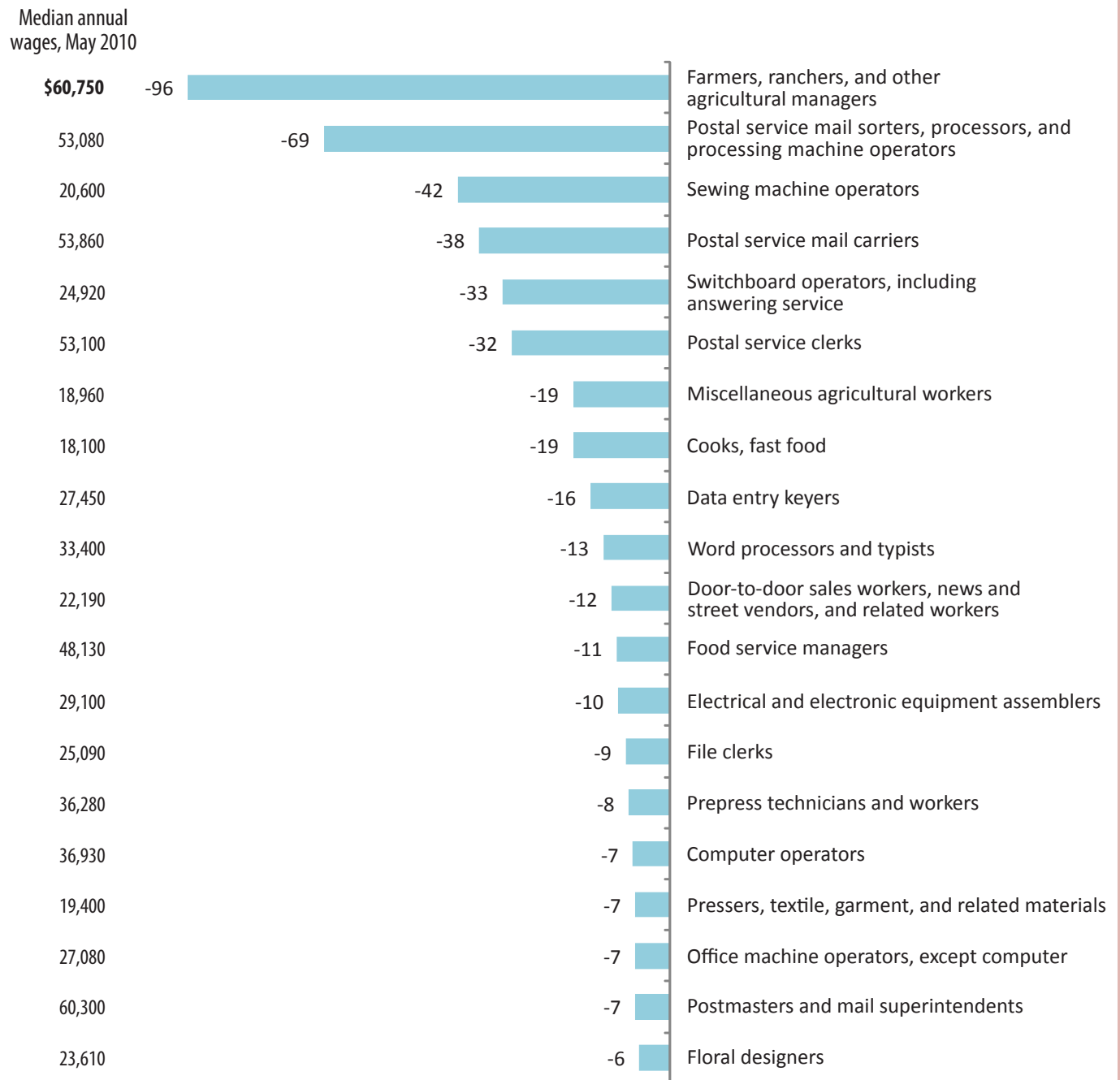
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Construction laborers, the highest paid occupation in this chart, had a wage that was lower than \$33,840—the median annual wage for all workers in May 2010.

Most job losses

Decline in employment by occupation, projected 2010–20, in thousands of jobs



These occupations are expected to lose jobs for many reasons, including increasing worker productivity. Even in occupations that are not expected to gain jobs, however, the need to replace existing workers who leave should create some opportunities.

Most self-employed

Occupations with the most self-employed jobs, projected 2020, in thousands of jobs



* Total employment includes self-employed jobs, wage and salary jobs, and jobs for unpaid family workers.

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 grow slowly through 2020. Farmers, ranchers, and other agricultural managers are projected to have the most jobs for self-employed workers in 2020.