

California Occupational Employment Projections Between 2012-2022

Overview

California's occupational employment is expected to add more than 2.4 million jobs, reaching a total of about 18.7 million jobs by 2022. The projection period is characterized by widespread growth, causing occupations to expand, resulting in new job opportunities.

California is anticipated to generate:

- About 2.5 million new jobs from industry growth.
- Nearly 3.8 million jobs from replacement needs.
- A combined total of approximately 6.3 million job openings.

An occupation's total job openings are the sum of new jobs from industry growth and replacement needs. Replacement needs estimate the number of workers needed to replace those that have left the labor force or changed occupations. Total job openings do not factor in occupational declines. If an occupation's forecasted employment change is negative, the number of opportunities resulting from growth is zero and replacement needs are the only source of job opportunities.

Fastest Growing Occupations

The top 50 fastest growing occupations are expected to grow at a rate of 23.9 percent or more, compared to the overall 14.9 percent growth rate projected for total employment in California. These occupations are expected to generate more than 700,000 new jobs by 2022, accounting for almost 30 percent of all new jobs in California.

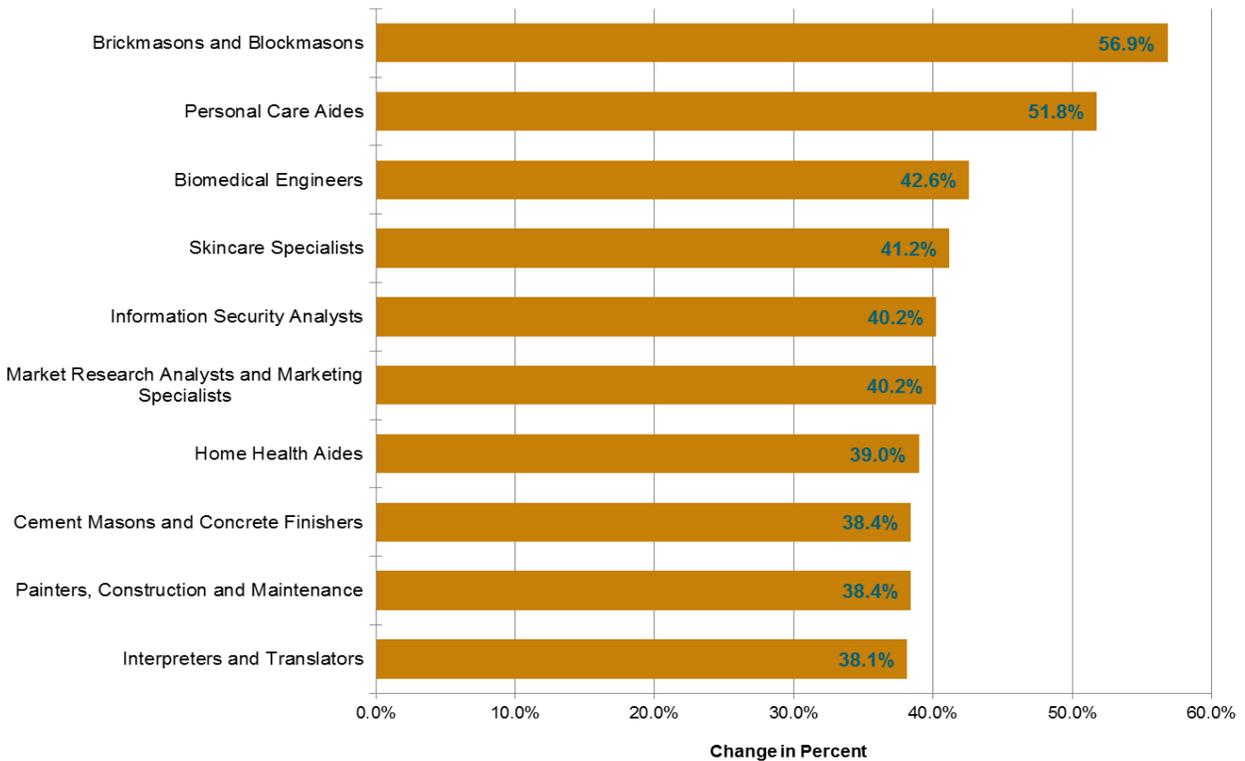
The top 50 fastest growing occupations include:

- Brickmasons and blockmasons, the fastest growing occupation, projected to grow at a rate of 56.9 percent over the ten-year projection period.
- Personal care aides, projected to grow at a rate of 51.8 percent and generate more than 200,300 new jobs from industry growth.
- Software developers, applications and software developers, systems software with projected growth rates of 29.4 and 24.0 percent, respectively, and median annual wages more than \$100,000.

The top 50 list includes varied occupations reflecting the widespread growth seen in the construction, wholesale, health, leisure and hospitality, and professional and business services industry sectors. Additional characteristics of the top 50 occupations are as follows:

- A majority of occupations do not require a form of on-the-job training.
- Twenty-two occupations require a high school diploma or less than high school.
- Only seven occupations require pre-employment work experience in addition to the necessary entry level education.

Figure 1. The Top 10 Fastest Growing Occupations with the Highest Percent Change of Employment Between 2012-2022



Excludes "All Other" occupations and those with employment less than 5,000 in 2012.
Source: California Employment Development Department

The top 10 fastest growing occupations displayed in Figure 1 are concentrated in fast growing industries, shown in Table 1.

Table 1. Industries Where Occupational Growth is Concentrated

Occupation	Top Industry (Industry Percentage Growth Rate)
Brickmasons and Blockmasons	Foundation, Structure, and Building Exterior Contractors (43.2)
Personal Care Aides	Individual and Family Services (48.4)
Biomedical Engineers	Medical Equipment and Supplies Manufacturing (10.0)
Skincare Specialists	Personal Care Services (24.5)
Information Security Analysts	Computer Systems Design and Related Services (32.8)
Market Research Analysts and Marketing Specialists	Management, Scientific, and Technical Consulting Services (69.2)
Home Health Aides	Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly (49.2)
Cement Masons and Concrete Finishers	Foundation, Structure, and Building Exterior Contractors (43.2)
Painters, Construction and Maintenance	Building Finishing Contractors (42.0)
Interpreters and Translators	Other Professional, Scientific, and Technical Services (17.0)

Source: California Employment Development Department

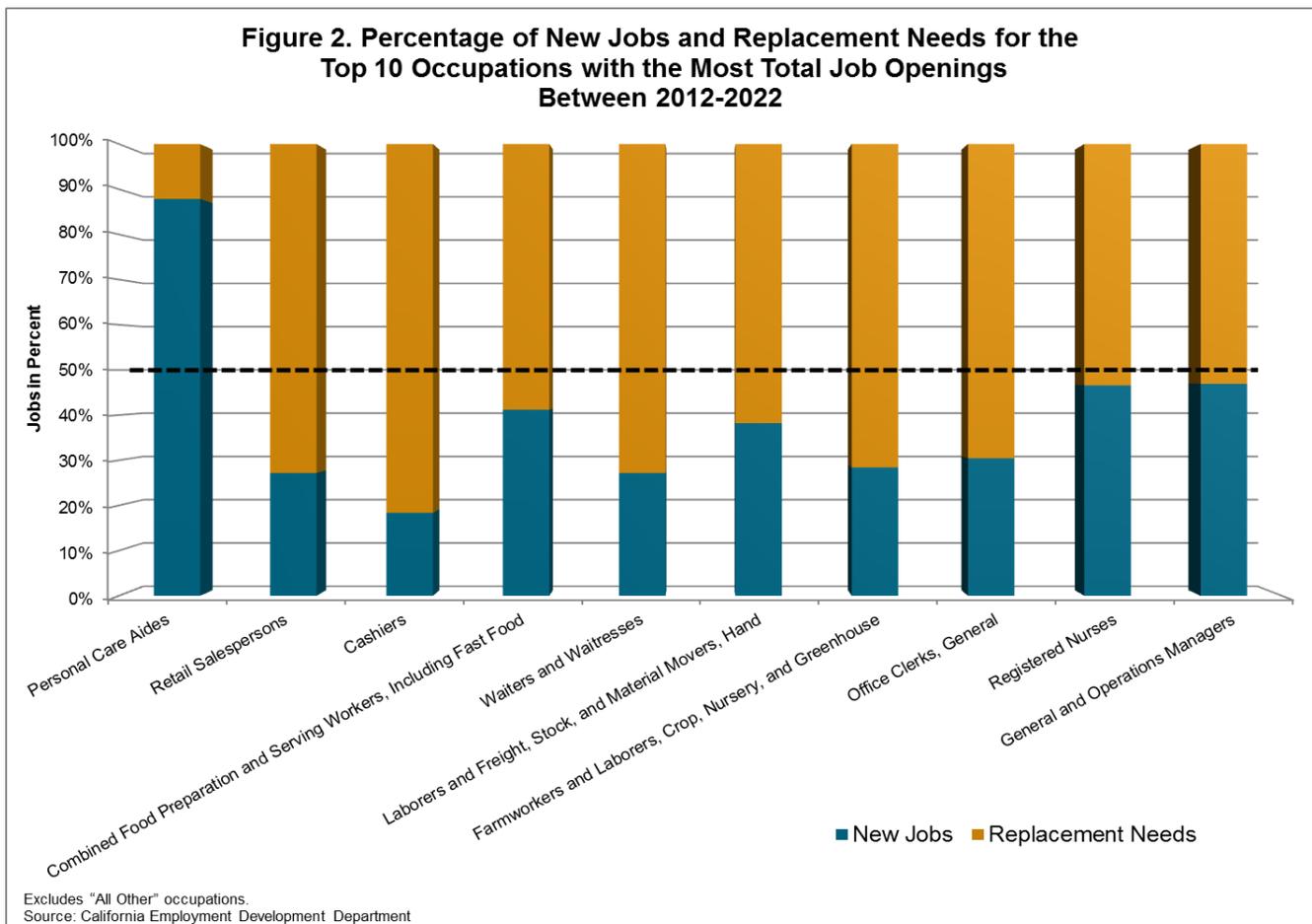
Occupations with the Most Job Openings

The top 50 occupations are projected to generate more than 3.3 million total job openings over the 10-year projection period, accounting for 53 percent of all job openings in California. The occupations in the food preparation and serving related and office and administrative support groups account for 19 of the top 50 occupations with the most job openings.

Occupations that are each expected to generate more than 40,000 job openings over the 10-year projection period and pay median hourly wages more than \$25 per hour include registered nurses; general and operations managers; accountants and auditors; first-line supervisors of office and administrative support workers; sales representatives, wholesale and manufacturing, except technical and scientific products; management analysts; and software developers, applications.

Among the top 50 occupations with the most job openings, 35 have more replacement needs than new jobs from projected industry growth over the ten-year period. Replacement needs are expected to increase as baby boomers retire and entry level workers seek opportunities in higher paying occupations. The top 10 occupations with the most job openings are projected to produce more than 1.5 million job openings, with 59 percent of those openings coming from replacement needs. As shown in Figure 2, 9 of the top 10 occupations expect more job openings to come from replacement needs than jobs from new industry growth.

Figure 2. Percentage of New Jobs and Replacement Needs for the Top 10 Occupations with the Most Total Job Openings Between 2012-2022

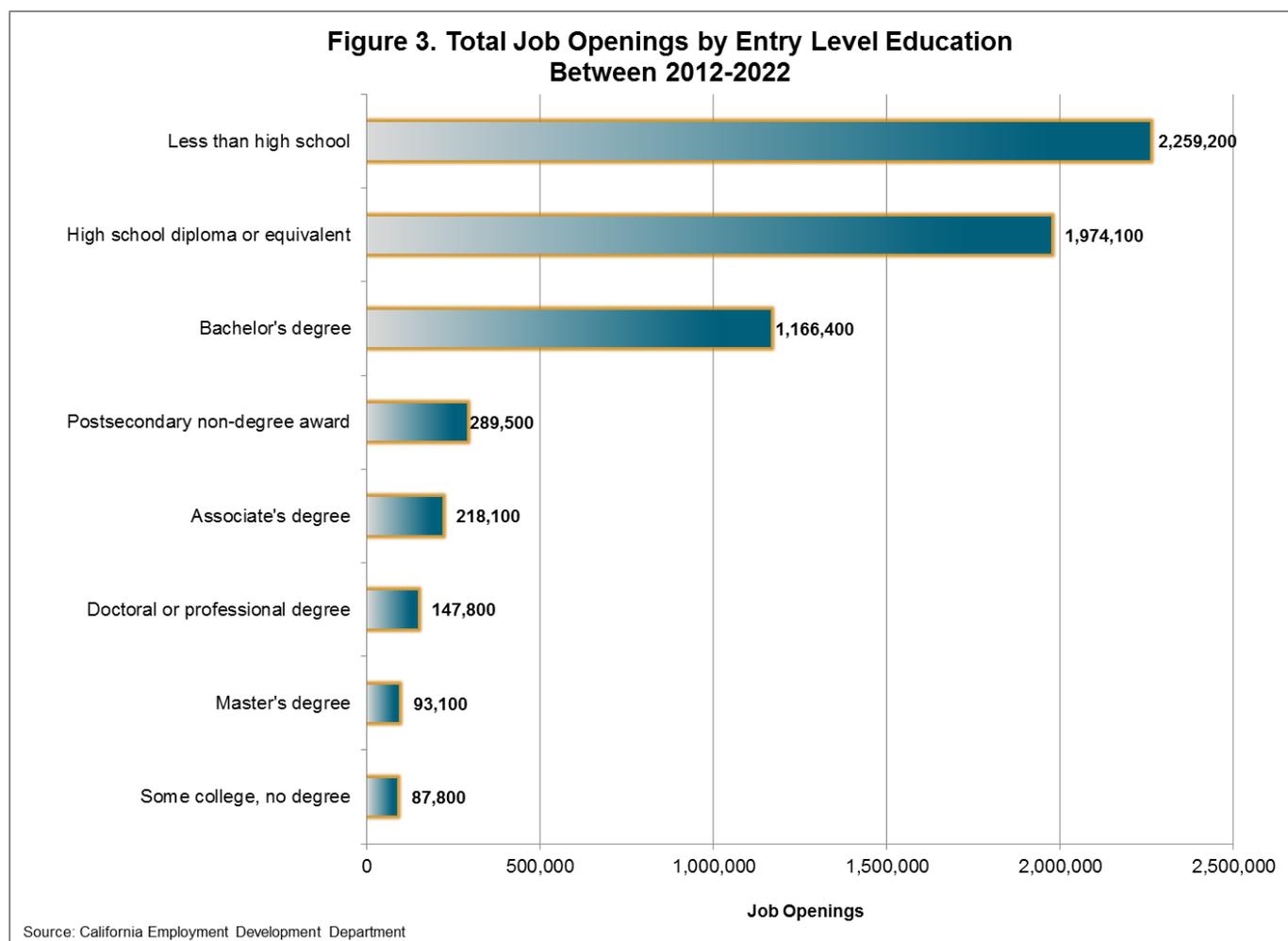


Of the top 50 occupations with the most job openings, only 14 require a pre-employment entry level education beyond a high school diploma or equivalent. Six occupations require work experience in a related occupation as a pre-employment job requirement in addition to the entry level education. After being hired, 35 occupations require some type of on-the-job training, ranging from short-term on-the-job training to apprenticeships and internships/residencies.

Education and Training Requirements

The United States Bureau of Labor Statistics assigns education and training categories to occupations. The typically required education and training requirements are grouped into three categories; entry level education, related work experience, and on-the-job training. Entry level education and related work experience are measures of pre-employment qualifications, where on-the-job training is offered later so that an employee can obtain competency in the occupation.

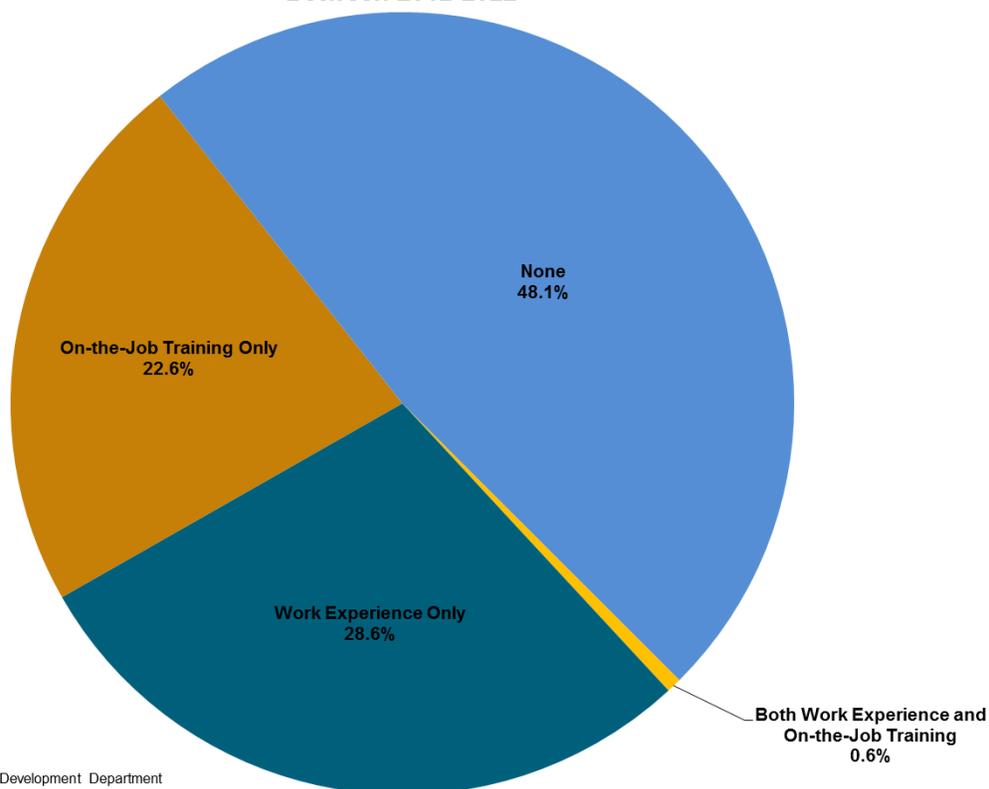
The entry level education category best describes the level of education that most workers typically need to enter an occupation. Figure 3 shows the breakdown of projected total job openings by entry level education in California between 2012-2022.



The entry level education classifications and their job requirements are:

- *Doctoral or professional degree* - Completion of this degree usually requires at least three years of full-time academic study beyond a bachelor's degree. Examples of occupations for which a professional degree is the typical form of entry-level education include lawyers, pharmacists, biochemists and biophysicists, and physical therapists. Of the 40 occupations in this category with published median annual wages, 34 occupations earn more than \$70,000, and 12 occupations earn more than \$100,000. There are a large number of medical occupations that require high entry level education combined with internships or residencies.
- *Master's degree* - Completion of this degree usually requires one or two years of full-time academic study beyond a bachelor's degree. Examples of occupations in this category include physician assistants, marriage and family therapists, and healthcare social workers. Most of the occupations requiring this degree are in education, health care, or social assistance fields.
- *Bachelor's degree* - Completion of this degree generally requires at least four years, but not more than five years, of full-time academic study beyond high school. Examples of occupations in this category include accountants and auditors; software developers, applications; and database administrators. The occupations requiring a bachelor's degree are varied and cross all industries; and many require additional work experience, on-the-job training, or both as seen in Figure 4. Of the nearly 1.2 million job openings over the 10-year projections period requiring a bachelor's degree, more than 340,000 also require pre-employment work experience in a related occupation, and more than 270,000 openings also require on-the-job training.

Figure 4. Additional Experience or Training for Job Openings Requiring a Bachelor's Degree Between 2012-2022



Source: California Employment Development Department

- *Associate's degree* - Completion of this degree usually requires at least two years but not more than four years of full-time academic study beyond high school. Examples of occupations in this category include registered nurses, paralegals and legal assistants, and respiratory therapists. Registered nurses account for 42 percent of projected total job openings at this entry level education and earn median annual wages of more than \$95,000.
- *Postsecondary non-degree award* - These programs lead to a certificate or other award, but not a degree. The certificate is awarded by the educational institution and is the result of completing formal postsecondary schooling. Certification, which is issued by a professional organization or certifying body, is not included here. Some postsecondary non-degree award programs last only a few weeks, while others may last one to two years. Examples of occupations in this category include emergency medical technicians and paramedics, licensed practical and licensed vocational nurses, and firefighters.
- *Some college, no degree* - This category signifies the achievement of a high school diploma or equivalent plus the completion of one or more postsecondary courses that did not result in a degree or award. Examples of occupations in this category are computer support specialists and teacher assistants.
- *High school diploma or equivalent* - This category signifies the completion of high school or an equivalent program resulting in the award of a high school diploma or an equivalent, such as the General Educational Development credential. Examples of occupations in this category include office clerks, general; customer service representatives; and childcare workers. As shown in Table 2, the entry level education is one of the requirements for an occupation. Of the top 10 occupations with the most job openings requiring a high school diploma or equivalent, seven occupations require either short-term (ST) or moderate-term (MT) on-the-job training, and three occupations require less than 5 years' experience in a related occupation or field.

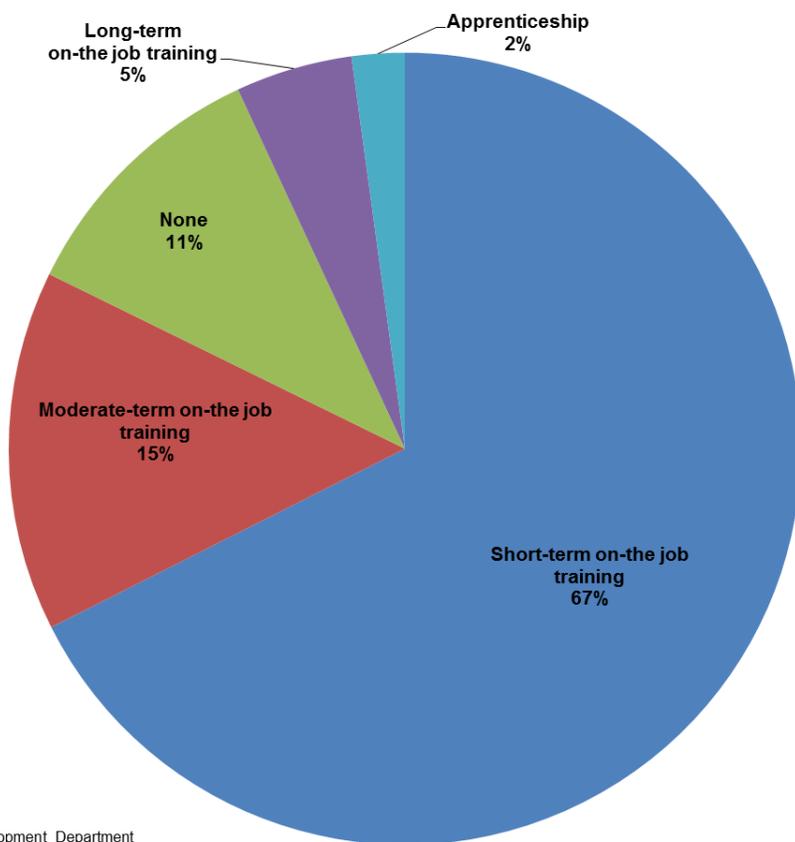
Work Experience	On-the-Job Training	Total Job Openings Between 2012-2022	Median Annual Wage
None	ST OJT	Office Clerks, General 99,500	\$31,704
None	ST OJT	Customer Service Representatives 85,200	\$36,949
<5 years	None	First-Line Supervisors of Office and Administrative Support Workers 64,900	\$55,833
None	ST OJT	Secretaries and Administrative Assistants, Except Legal, medical and Executive 62,900	\$37,415
<5 years	None	First-Line Supervisors of Retail Sales Workers 49,400	\$39,871
None	MT OJT	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products 47,300	\$54,152
<5 years	None	First-Line Supervisors of Food Preparation and Serving Workers 45,000	\$29,413
None	ST OJT	Security Guards 43,500	\$24,496
None	MT OJT	Bookkeeping, Accounting, and Auditing Clerks 43,100	\$40,938
None	ST OJT	Childcare Workers 39,800	\$23,176

Source: California Employment Development Department

- *Less than high school* - This category signifies the completion of any level of primary or secondary education that did not result in the award of a high school diploma or equivalent. Examples of occupations in this category include personal care aides, home health aides, retail salespersons, and cashiers.

Occupations requiring a high school diploma or less are expected to generate 4.2 million job openings over the 10-year projection period. As seen in Figure 5, 89 percent of the job openings require some type of training.

Figure 5. On-The-Job Training Needed for Occupations Requiring a High School Diploma or Less Between 2012-2022



Source: California Employment Development Department

For more information on the fastest and largest growing occupations by entry level education, please refer to the Comparison of Growing Occupations by Entry Level Education in California Between 2012-2022 table on the next page.

The complete [2012-2022 California industry and occupational projections](#) are available online.

Produced by: Employment Development Department
Labor Market Information Division
www.labormarketinfo.edd.ca.gov/LMID/ContactUs.html

Comparison of Growing Occupations by Entry Level Education in California Between 2012-2022

Fastest Growing (New Jobs from Industry Growth)	Entry Level Education	Largest Growing (New Jobs and Replacement Needs)
Health Specialties Teachers, Postsecondary (37.0% or 4,400 jobs) Physical Therapists (28.7% or 4,700 jobs) Biochemists and Biophysicists (27.0% or 1,700 jobs) Computer and Information Research Scientists (20.5% or 1,500 jobs) Medical Scientists, Except Epidemiologists (17.9% or 5,000 jobs)	Doctoral or Professional Degree	Lawyers (23,900 jobs) Medical Scientists, Except Epidemiologists (11,000 jobs) Pharmacists (10,500 jobs) Clinical, Counseling, and School Psychologists (9,100 jobs) Physical Therapists (8,700 jobs)
Physician Assistants (33.7% or 2,800 jobs) Nurse Practitioners (28.0% or 2,600 jobs) Healthcare Social Workers (24.2% or 3,200 jobs) Marriage and Family Therapists (23.3% or 1,400 jobs) Occupational Therapists (22.6% or 2,100 jobs)	Master's Degree	Educational, Guidance, School, and Vocational Counselors (11,000 jobs) Education Administrators, Elementary and Secondary School (7,100 jobs) Education Administrators, Postsecondary (6,800 jobs) Healthcare Social Workers (6,000 jobs) Rehabilitation Counselors (5,500 jobs)
Biomedical Engineers (42.6% or 2,300 jobs) Information Security Analysts (40.2% or 3,300 jobs) Market Research Analysts and Marketing Specialists (40.2% or 28,500 jobs) Interpreters and Translators (38.1% or 3,700 jobs) Operations Research Analysts (37.0% or 2,700 jobs)	Bachelor's Degree	General and Operations Managers (89,400 jobs) Accountants and Auditors (70,600 jobs) Elementary School Teachers, Except Special Education (49,400 jobs) Management Analysts (44,900 jobs) Software Developers, Applications (40,200 jobs)
Web Developers (31.6% or 6,800 jobs) Medical and Clinical Laboratory Technicians (28.1% or 4,500 jobs) Dental Hygienists (23.4% or 5,100 jobs) Veterinary Technologists and Technicians (20.9% or 1,800 jobs) Respiratory Therapists (17.7% or 2,500 jobs)	Associate's Degree	Registered Nurses (92,300 jobs) Preschool Teachers, Except Special Education (18,200 jobs) Dental Hygienists (10,600 jobs) Paralegals and Legal Assistants (10,200 jobs) Web Developers (10,200 jobs)
Skincare Specialists (41.2% or 2,100 jobs) Licensed Practical and Licensed Vocational Nurses (25.7% or 15,600 jobs) Surgical Technologists (25.5% or 2,400 jobs) Manicurists and Pedicurists (23.9% or 5,500 jobs) Nursing Assistants (23.6% or 23,200 jobs)	Postsecondary Non-degree Award	Heavy and Tractor-Trailer Truck Drivers (44,100 jobs) Nursing Assistants (41,800 jobs) Medical Assistants (34,500 jobs) Licensed Practical and Licensed Vocational Nurses (30,400 jobs) Hairdressers, Hairstylists, and Cosmetologists (17,500 jobs)
Computer User Support Specialists (25.2% or 15,300 jobs) Actors (11.7% or 4,000 jobs) Teacher Assistants (8.2% or 11,900 jobs) Computer, Automated Teller, and Office Machine Repairers (0.7% or 100 jobs)	Some College, No Degree	Teacher Assistants (44,700 jobs) Computer User Support Specialists (24,900 jobs) Actors (15,000 jobs) Computer, Automated Teller, and Office Machine Repairers (3,200 jobs)
Brickmasons and Blockmasons (56.9% or 2,900 jobs) Glaziers (34.0% or 1,700 jobs) Physical Therapist Aides (33.9% or 2,000 jobs) Carpenters (29.6% or 28,000 jobs) Medical Secretaries (29.1% or 19,900 jobs)	High School Diploma or Equivalent	Office Clerks, General (99,500 jobs) Customer Service Representatives (85,200 jobs) First-Line Supervisors of Office and Administrative Support Workers (64,900 jobs) Secretaries and Administrative Assistants, Except Legal, Medical, and Executive (62,900 jobs) First-Line Supervisors of Retail Sales Workers (49,400 jobs)
Personal Care Aides (51.8% or 200,300 jobs) Home Health Aides (39.0% or 17,500 jobs) Cement Masons and Concrete Finishers (38.4% or 5,800 jobs) Painters, Construction and Maintenance (38.4% or 16,900 jobs) Tile and Marble Setters (37.6% or 3,200 jobs)	Less than High School	Personal Care Aides (228,000 jobs) Retail Salespersons (220,000 jobs) Cashiers (189,500 jobs) Combined Food Preparation and Serving Workers, Including Fast Food (185,700 jobs) Waiters and Waitresses (162,600 jobs)

Excludes "All Other" occupations and those with employment less than 5,000 in 2012.
 Source: California Employment Development Department

Visit www.labormarketinfo.edd.ca.gov for more projections information.