



Laser and Optical Technology (TOP: 0934.80)

February 2020

Prepared by the South Central Coast Center of Excellence for Labor Market Research

Program Recommendation

This report was compiled by the South Central Coast Center of Excellence to provide regional labor market data for the program recommendation – Laser and Optical Technology. This report can help determine whether there is demand in the local labor market that is not being met by the supply from programs of study (CCC and non-CCC) that align with this occupation group.

Key Findings

- In the South Central Coast region, **the number of jobs related to Laser and Optical Technology are expected to remain steady**, over the next five years, for Ophthalmic Laboratory Technicians, and Opticians, Dispensing, while **an increase is projected** in the number of jobs for Ophthalmic Medical Technicians.
- Opticians, Dispensing, and Ophthalmic Medical Technicians are expected to anticipate a **low risk of automation**, while Ophthalmic Laboratory Technicians are expected to experience a **high risk of automation**.
- In 2017 there were 111 regional completions in programs related to the occupations identified as related to Laser and Optical Technology and 74 openings, indicating an **oversupply/demand is being met by supply**.
- Typical entry-level education ranges from a **high school diploma or equivalent** for Opticians, Dispensing and Ophthalmic Laboratory Technicians, while a **postsecondary nondegree award** is necessary for Ophthalmic Medical Technicians.
- Completers of Laser and Optical Technology programs from the 2015-2016 academic year had a **median annual wage** upon completion of \$47,213.
- 83% of students are **employed within a year** after completing a program.
- 79% of students are **earning a living wage**.

¹ The South Central Coast Region consists of San Luis Obispo County, Santa Barbara County, Ventura County, and the following cities from North Los Angeles County: Canyon Country, Castaic, Lake Hughes, Lancaster, Littlerock, Llano, Newhall, Palmdale, Pearblossom, Santa Clarita, Stevenson Ranch, and Valencia.

Occupation Codes and Descriptions

Currently, there are five occupations in the standard occupational classification (SOC) system that were identified as related to Laser and Optical Technology for this analysis. The occupation titles and descriptions, as well as reported job titles are included in Exhibit 1.

Exhibit 1 – Occupation, description, and sample job titles

SOC Code	Title	Description	Sample of Reported Job Titles
29-2057	Ophthalmic Medical Technicians	Assist ophthalmologists by performing ophthalmic clinical functions. May administer eye exams, administer eye medications, and instruct the patient in care and use of corrective lenses.	Certified Ophthalmic Assistant, Certified Ophthalmic Medical Technician, Ophthalmic Assistant, Ophthalmic Medical Assistant
29-2081	Opticians, Dispensing	Design, measure, fit, and adapt lenses and frames for client according to written optical prescription or specification. Assist client with inserting, removing, and caring for contact lenses. Assist client with selecting frames. Measure customer for size of eyeglasses and coordinate frames with facial and eye measurements and optical prescription. Prepare work order for optical laboratory containing instructions for grinding and mounting lenses in frames. Verify exactness of finished lens spectacles. Adjust frame and lens position to fit client. May shape or reshape frames. Includes contact lens opticians.	Certified Optician, Contact Lens Technician, Dispensing Optician, Licensed Dispensing Optician, Licensed Optician, Ophthalmic Dispenser, Optical Technician, Optician, Optometric Assistant, Optometric Technician
51-9083	Ophthalmic Laboratory Technicians	Cut, grind, and polish eyeglasses, contact lenses, or other precision optical elements. Assemble and mount lenses into frames or process other optical elements. Includes precision lens polishers or grinders, centerer-edgers, and lens mounters.	Edger Technician, Finishing Lab Technician, Grinder, Lab Technician, Lens Grinder and Polisher, Line Operator, Optical Lab Technician Optical Technician, Polisher, Surfacing Technician

Source: O*NET Online

Current and Future Employment

In the South Central Coast region, the number of jobs related to Laser and Optical Technology are expected to remain steady, over the next five years, for Ophthalmic Laboratory Technicians, and Opticians, Dispensing, while an increase is projected in the number of jobs for Ophthalmic Medical Technicians.

Exhibit 2 – Five-year projections for Laser and Optical Technology in the South Central Coast region

SOC	Occupation	2018 Jobs	2023 Jobs	2018-2023 Change	2018-2023 % Change
29-2057	Ophthalmic Medical Technicians	67	84	17	25%
29-2081	Opticians, Dispensing	543	573	30	6%
51-9083	Ophthalmic Laboratory Technicians	154	160	6	4%

Source: Economic Modeling Specialists International (EMSI)

Earnings

In the South Central Coast region, the average wage for the listed occupations is \$19.17 per hour.

Exhibit 3 contains hourly wages and annual average earnings for these occupations. Entry-level hourly earnings are represented by the 25th percentile of wages, median hourly earnings are represented by the 50th percentile of wages, and experienced hourly earnings is represented by the 75th percentile of wages, demonstrating various levels of employment.

Exhibit 3 – Earnings for Laser and Optical Technology in the South Central Coast region

SOC	Occupation	Entry-Level Hourly Earnings	Median Hourly Earnings	Experienced Hourly Earnings
29-2057	Ophthalmic Medical Technicians	\$14.24	\$16.89	\$21.17
29-2081	Opticians, Dispensing	\$16.26	\$19.56	\$24.48
51-9083	Ophthalmic Laboratory Technicians	\$13.66	\$18.54	\$25.50

Source: Economic Modeling Specialists International (EMSI)

Employer Job Postings

In this research brief, real-time labor market information is used to provide a more nuanced view of the current job market, as it captures job advertisements for occupations relevant to the field of study. Employer job postings are consulted to understand who is employing opticians and what they are looking for in potential candidates. To identify job postings related to Laser and Optical Technology, the following standard occupational classifications were used:

29-2057	Ophthalmic Medical Technicians
29-2081	Opticians, Dispensing
51-9083	Ophthalmic Laboratory Technicians

Top Occupations

In 2018, there were 45 employer postings for occupations related to Laser and Optical Technology.

Exhibit 4 – Top occupations in job postings and risk of automation tables

SOC Code	Occupation	Job Postings, Full Year 2018
29-2081	Opticians, Dispensing	28
29-2057	Ophthalmic Medical Technicians	14
51-9083	Ophthalmic Laboratory Technicians	3

Source: Labor Insight/Jobs (Burning Glass)

SOC Code	Occupation	Risk of Automation
29-2081	Opticians, Dispensing	Low
29-2057	Ophthalmic Medical Technicians	Low
51-9083	Ophthalmic Laboratory Technicians	High

Source: Labor Insight/Jobs (Burning Glass)

Top Titles

The top job titles for employers posting ads for jobs related to Laser and Optical Technology are listed in Exhibit 5. Optician is mentioned as the job title in 56% of all relevant job postings (25 postings).

Exhibit 5 –Job titles

Title	Job Postings, Full Year 2018
Optician	25
Ophthalmic Technician	7
Optical Dispenser	3
Optometric Assistant	3
Senior Laboratory Technician	2

Source: Labor Insight/Jobs (Burning Glass)

Top Employers

Exhibit 6 lists the major employers hiring professionals in the Laser and Optical Technology field. The top employer posting job ads was Costco. The top worksite cities in the region for these occupations were Lancaster, Santa Clarita, Santa Barbara, Oxnard, and Santa Maria.

Exhibit 6 – Top employers (n=45)

Employer	Job Postings, Full Year 2018
Costco	8
Kaiser Permanente	6
Lenscrafters Inc	4
Acuity Eye Group	3
Association of Constriction Professionals and Engineers	2

Source: Labor Insight/Jobs (Burning Glass)

Skills

Ophthalmology is the most sought after skill for employers hiring for jobs related to Laser and Optical Technology.

Exhibit 7 –Job skills (n=34)

Skills	Job Postings, Full Year 2018
Ophthalmology	16
Customer Service	14
Patient Assistance	10
Repair	10
Retail Industry Knowledge	10
Optometry	8
Refraction	6

Source: Labor Insight/Jobs (Burning Glass)

Industry Concentration

Exhibit 8 shows the industries with most Laser and Optical Technology postings in the South Central Coast. Note: 9% of records have been excluded because they do not include an industry. As a result, the chart below may not be representative of the full sample.

Exhibit 8 – Industries employing the most in the Laser and Optical Technology field, 2018

Industry	Occupation Group Jobs in Industry	% of Occupation Group in Industry
Retail Trade	17	42%
Health Care and Social Assistance	15	37%
Finance and Insurance	3	7%
Construction	2	5%
Professional, Scientific, and Technical Services	2	5%

Source: Labor Insight/Jobs (Burning Glass)

Education and Training

Exhibit 9 shows the typical entry-level education requirement for the occupations of interest, along with the typical on-the-job training needed to attain competency in the occupation.

Exhibit 9 – Education and training requirements

SOC	Occupation	Typical entry-level education	Typical on-the-job training
29-2057	Ophthalmic Medical Technicians	Postsecondary nondegree award	None
29-2081	Opticians, Dispensing	High school diploma or equivalent	Long-term on-the-job training
51-9083	Ophthalmic Laboratory Technicians	High school diploma or equivalent	Moderate-term on-the-job training

Source: Bureau of Labor Statistics Employment Projections (Educational Attainment)

Regional Completions and Openings

There were 111 regional completions (2017) and 74 regional openings (2017) in the South Central Coast region in programs related to the occupations identified as related to Laser and Optical Technology

Exhibit 10 – Completions and Openings

1 Regional Institutions had Related Programs (2018)	111 Regional Completions (2018)	74 Annual Openings (2018)
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Source: Economic Modeling Specialists International (EMSI)

Related Programs

CIP Code	Program	Completions (2018)
51.0000	Health Services/Allied Health/Health Sciences, General	111

Source: Economic Modeling Specialists International (EMSI)

Student Outcomes

The CTE LaunchBoard provides student outcome data on the effectiveness of CTE programs. The following student outcome information was collected from exiters of the Laser and Optical Technology Program (TOP: 1030.00) statewide for the 2015-16 academic year.

- The median annual wage for students after exiting is \$47,213.
- 83% of students are employed within a year after completing a program.
- 79% of students are earning a living wage.
- Most Common middle-skills jobs for this program are:
 - Engineering Technicians, Except Drafters, All Other

Source: CTE LaunchBoard

Sources

O*Net Online, Labor Insight/Jobs (Burning Glass), Economic Modeling Specialists International (EMSI), Bureau of Labor Statistics (BLS) Education Attainment, California Community Colleges Chancellor's Office Management Information Systems (MIS) Data Mart, CTE LaunchBoard

Notes

Data included in this analysis represent the labor market demand for relevant positions most closely related to Laser and Optical Technology. Traditional labor market information was used to show current and projected employment based on data trends, as well as annual average awards granted by regional community colleges. Real-time labor market information captures job post advertisements for occupations relevant to the field of study and can signal demand and show what employers are looking for in potential employees, but is not a perfect measure of the quantity of open positions. All representations have been produced from primary research and/or secondary review of publicly and/or privately available data and/or research reports. The most recent data available at the time of the analysis was examined; however, data sets are updated regularly and may not be consistent with previous reports. Efforts have been made to qualify and validate the accuracy of the data and findings; however, neither the Centers of Excellence for Labor Market Research (COE), COE host district, nor California Community Colleges Chancellor's Office are responsible for the applications or decisions made by individuals and/or organizations based on this study or its recommendations.