

Ophthalmic Laboratory Technicians

Labor Market Analysis: San Diego County

September 2018

Summary

According to available labor market information, there is a small demand for more *Ophthalmic Laboratory Technicians*. This occupation has less labor market demand in San Diego County than the average occupation. The average regional demand for an occupation is 275 annual job openings. *Ophthalmic Laboratory Technicians* has a labor market demand of 42 annual job openings. However, this occupation's entry-level wages and median earnings are higher than the Self-Sufficiency Standard, suggesting that students who successfully complete a program and obtain employment will earn living wages. With only one related training program found in California, the San Diego region could benefit from a small cohort program for Optics (096100) or Optical Technology (121900).

The following list summarizes findings from the labor market analysis for *Ophthalmic Laboratory Technicians*:

- Between 2017 and 2022, *Ophthalmic Laboratory Technicians* are projected to increase by 26 jobs or eight percent.
- Employers in San Diego County will need to hire 42 workers annually to fill new jobs and backfill jobs due to attrition such as retirement or turnover.
- Between 2010 and 2017, there was an average of 12 online job postings per year for *Ophthalmic Laboratory Technicians* in San Diego County.
- *Ophthalmic Laboratory Technicians* earn median hourly earnings of \$19.47; this is more than the Self-Sufficiency Standard for a single adult in San Diego County, which is \$13.09 per hour.
- According to the California Community Colleges Chancellor's Office Management Information System (MIS) Data Mart, there are two Taxonomy of Programs (TOP) codes associated with this occupation: Optics (096100) and Optical Technology (121900).
- According to the TOP data, no colleges supply the region with awards for this occupation. According to the Keck School of Medicine of University of Southern California (USC), USC has an Ophthalmic Technician Education Program (OTEP), but no awards have been reported. OTEP at USC is one of 14 programs in the nation and the only one in California.

- Comparing labor demand (annual openings) with labor supply suggests that there is a supply gap for this occupation in San Diego County, with 42 annual openings and no awards. Comparatively, there are 368 annual openings in California and no completions.
- Between January 1, 2015 and December 31, 2017, the top five employers in San Diego County for this occupation were Vision Service Plan, UC San Diego Health System, 22nd Century Technologies, Scripps Institution of Oceanography and Becton Dickinson.
- The typical on-the-job training for this occupation is moderate-term on-the-job training. The typical entry-level education is a high school diploma or equivalent.

This report provides labor market information in San Diego County for the following occupational code in the Standard Occupational Classification (SOC)¹ system:

Ophthalmic Laboratory Technicians (SOC 51-9083): 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. Sample reported job titles include:

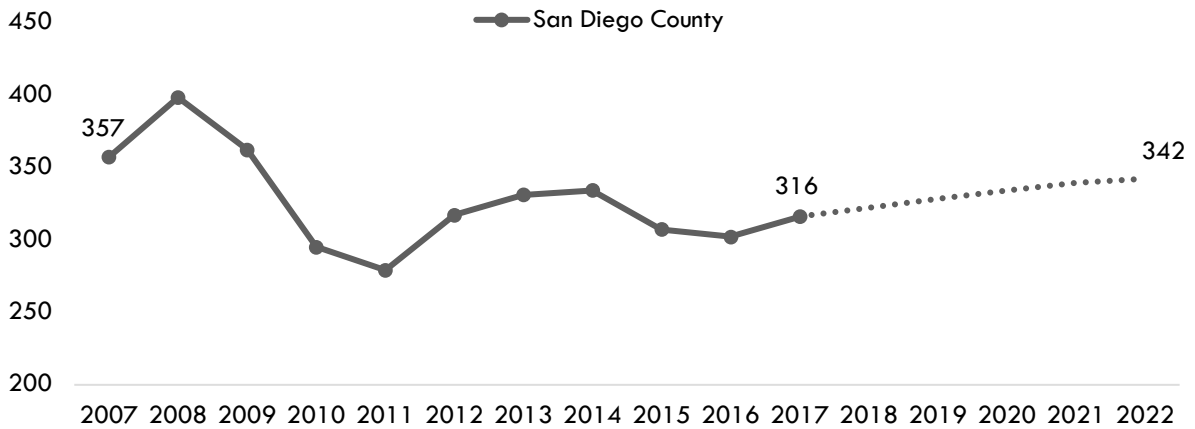
- | | |
|-----------------------------|----------------------------|
| • Optical Technician | • Optical Lab Technician |
| • Polisher | • Line Operator |
| • Lens Grinder and Polisher | • Finishing Lab Technician |
| • Grinder | • Edger Technician |
| • Surfacing Technician | |

Projected Occupational Demand

Between 2017 and 2022, *Ophthalmic Laboratory Technicians* are projected to increase by 26 jobs or eight percent (Exhibit 1). Employers in San Diego County will need to hire 42 workers annually to fill new jobs and backfill jobs due to attrition such as retirement or turnover.

¹ The Standard Occupational Classification (SOC) system is used by federal statistical agencies to classify workers into occupational categories for the purpose of collecting, calculating or disseminating data. bls.gov/soc.

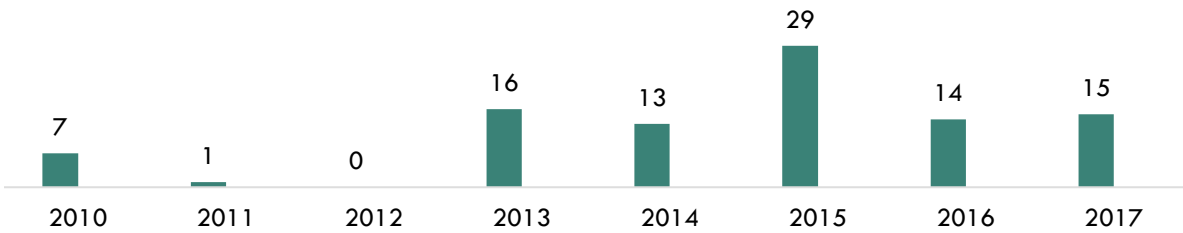
Exhibit 1: Number of Jobs for Ophthalmic Laboratory Technicians (2007-2022)²



Online Job Postings

Between 2010 and 2017, there was an average of 12 online job postings per year for *Ophthalmic Laboratory Technicians* in San Diego County (Exhibit 2).

Exhibit 2: Number of Online Job Postings for Ophthalmic Laboratory Technicians in San Diego County (2010-2017)³



Earnings

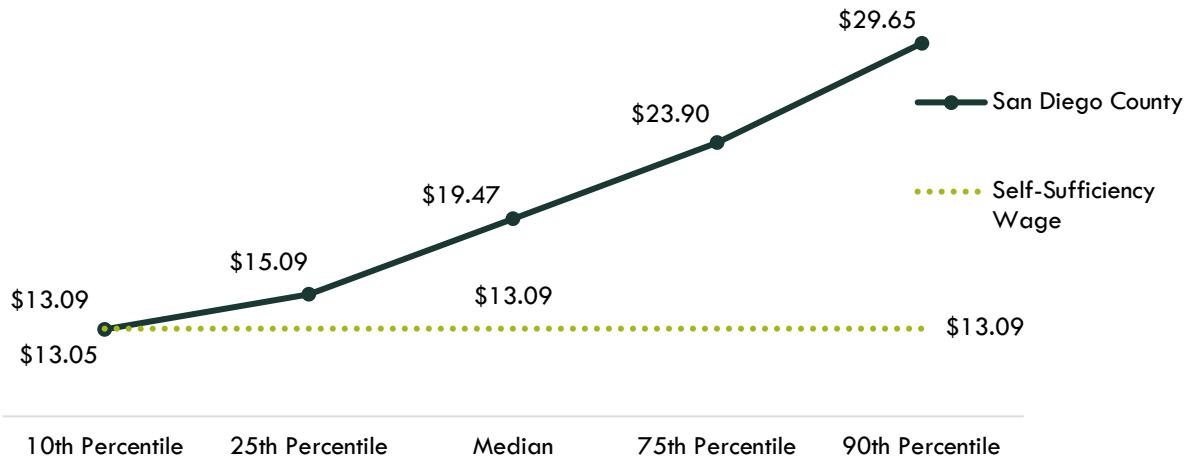
Ophthalmic Laboratory Technicians earn median hourly earnings of **\$19.47**; this is more than the Self-Sufficiency Standard for a single adult in San Diego County, which is **\$13.09** per hour (Exhibit 3).⁴

² Economic Modeling Specialists, Int'l. (EMS). San Diego (6073). 2018.03 Class of Worker. QCEW + Non-QCEW + Self-Employed. 2007-2022.

³ Labor Insight Jobs. Burning Glass Technologies. San Diego, CA. Full years 2010-2017.

⁴ The self-sufficiency wage in San Diego for one adult is \$13.09 (insightcced.org/tools-metrics/self-sufficiency-standard-tool-for-california).

Exhibit 3: Hourly Earnings for Ophthalmic Laboratory Technicians in San Diego County⁵



Educational Supply

Educational supply for an occupation can be estimated by analyzing the number of related program completers/graduates/awards in San Diego County. According to the California Community Colleges Chancellor’s Office Management Information System (MIS) Data Mart, there are two Taxonomy of Programs (TOP) codes associated with this occupation: Optics (096100) and Optical Technology (121900) (Exhibit 4).

Exhibit 4: Related TOP Codes in San Diego County

SOC 51-9083: Ophthalmic Laboratory Technicians

TOP 096100: Optics

TOP 121900: Optical Technology

According to TOP data, no colleges supply the region with awards for this occupation. According to the Keck School of Medicine of University of Southern California (USC),⁶ USC has an Ophthalmic Technician Education Program (OTEP), but no awards have been reported. The OTEP at USC is one of 14 programs in the nation and the only one in California (Exhibit 5).

⁵ EMSI. San Diego (6073). 2018.03 Class of Worker. QCEW + Non-QCEW + Self-Employed. 2017-2022.

⁶ Keck School of Medicine of University of Southern California Ophthalmic Technician Education program. keck.usc.edu/new-training-course-offered-for-aspiring-ophthalmic-technicians.

**Exhibit 5: Number of Awards (Certificates and Degrees) Conferred by Postsecondary Institutions
(Program Year 2013-14 through PY2016-17 Average)**

TOP6	TOP6 Title	3-Yr Annual Average CC Awards (PY14-15 to PY16-17)	Other Educational Institutions 3-Yr Annual Average Awards (PY13-14 to PY15-16)	3-Yr Total Average Supply (PY13-14 to PY16-17)
096100	Optics	0	0	0
121900	Optical Technology	0	0	0
			Total	0

Demand vs. Supply

Comparing labor demand (annual openings) with labor supply⁷ suggests that there is a **supply gap** for this occupation in San Diego County, with **42** annual openings and no awards. Comparatively, there are **368** annual openings in California and no completions⁸ (Exhibit 6).

Exhibit 6: Labor Demand (Annual Openings) Compared to Labor Supply (Average Annual Awards)

Community Colleges and Other Postsecondary Educational Institutions	Demand (Annual Openings)	Supply (Total Annual Average Supply)	Supply Gap or Oversupply
San Diego	42	0	42
California	368	0	368

Please note: This is a basic analysis of supply and demand of labor. This data should be used to discuss the potential gaps or oversupply of workers; however, it should not be the only basis for determining whether or not a program should be developed. Additionally, the data does not include workers who are currently in the labor force who could fill these positions or workers who are not captured by publicly available data.

⁷ Labor supply can be found from two different sources: EMSI or the California Community Colleges Chancellor's Office MIS Data Mart. EMSI uses CIP codes while MIS uses TOP codes. Different coding systems result in differences in the supply numbers.

⁸ EMSI. San Diego (6073). 2018.03 Class of Worker. QCEW + Non-QCEW + Self-Employed. 2017-2022.

Student Outcomes

Based on information in the CTE LaunchBoard, there were no outcomes reported for TOP codes related to this occupation (Exhibit 7).

**Exhibit 7: Strong Workforce Program Metrics for
TOP 096100: Optics in the San Diego-Imperial Region (PY2015-16)**

Metric	San Diego-Imperial	California
Number of course enrollments ⁹	N/A	N/A
Completed 12+ CTE Units in One Year ¹⁰	N/A	N/A
Completed 48+ CTE Contact Hours in One Year ¹¹	N/A	N/A
Number of students who got a degree or certificate ¹²	N/A	N/A
Number of students who transferred ¹³	N/A	N/A
Employed in the second fiscal quarter after exit ¹⁴	N/A	N/A
Employed in the fourth fiscal quarter after exit ¹⁵	N/A	N/A
Job closely related to field of study ¹⁶	N/A	N/A
Median earnings in the second fiscal quarter after exit ¹⁷	N/A	N/A
Median change in earnings ¹⁸	N/A	N/A
Attained a living wage ¹⁹	N/A	N/A

⁹ The number of enrollments in courses assigned to the TOP code in the selected year.

¹⁰ The number of students who completed 12 or more credit CTE units.

¹¹ The number of students who completed 48 or more noncredit CTE instructional contact hours.

¹² The number of unduplicated students who earned a locally-issued certificate, Chancellor's Office approved certificate, associate degree, and/or California Community Colleges bachelor's degree in the selected TOP code.

¹³ Students who took non-introductory courses or completed a California Community Colleges Chancellor's Office award in the selected TOP code in selected year who subsequently enrolled for the first time in a four-year institution the following year.

¹⁴ Among all exiters with a valid SSN, the percentage who were employed two quarters after exiting California Community Colleges.

¹⁵ Among exiting students with a valid SSN, the percentage who were employed four quarters after exiting California Community Colleges.

¹⁶ Among students who responded to the CTEOS, the percentage reporting employment in the same or similar field as their program of study.

¹⁷ Among exiting students, the median second-quarter earnings one year after the year in which they exited California Community Colleges.

¹⁸ Among exiting students with a valid SSN, the percentage change in earnings one year before and one year after exiting California Community Colleges.

¹⁹ Among completers and skills builders who exited, the proportion of students who attained a living wage.

Top Employers and Work Locations

Between January 1, 2015 and December 31, 2017, the top five employers in San Diego County for this occupation were [Vision Service Plan](#), [UC San Diego Health System](#), [22nd Century Technologies](#), [Scripps Institution of Oceanography](#) and [Becton Dickinson](#) (Exhibit 8).

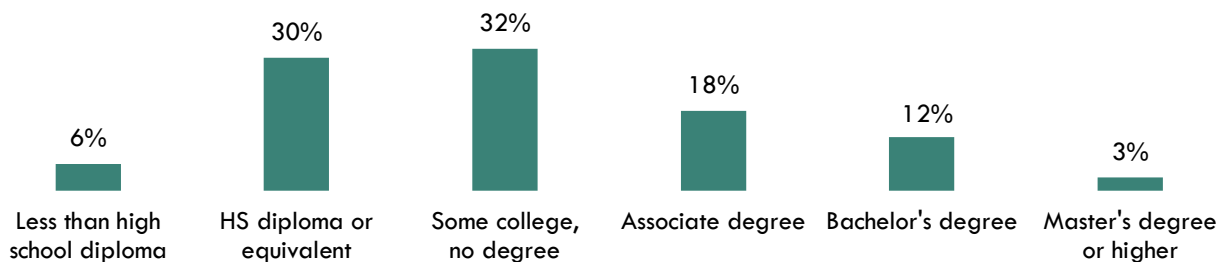
Exhibit 8: Top Employers in San Diego County for Ophthalmic Laboratory Technicians

Top Employers	
• Vision Service Plan (VSP Global)	• 22nd Century Technologies
• UC San Diego Health System	• Scripps Institution of Oceanography
• Becton Dickinson	

Skills, Education and Certifications

Exhibit 9 indicates the educational attainment for the occupation found currently in the national labor force. The typical on-the-job training for this occupation is [moderate-term on-the-job training](#). The typical entry-level education is a [high school diploma or equivalent](#).²⁰

Exhibit 9: National Educational Attainment of Ophthalmic Laboratory Technicians ²¹



*May not add to 100% due to rounding

Exhibit 10 lists the top specialized, soft and software skills that appeared in online job postings for this occupation between January 1, 2015 and December 31, 2017.

²⁰ EMSI. San Diego (6073). 2018.03 Class of Worker. QCEW + Non-QCEW + Self-Employed. 2017-2022.

²¹ Bureau of Labor Statistics, Educational attainment for workers 25 years and older by detailed occupation. bls.gov/emp/ep_table_111.htm.

Exhibit 10: Top Skills for Ophthalmic Laboratory Technicians in San Diego County²²

Specialized Skills	Soft Skills	Software Skills
<ul style="list-style-type: none"> • Manual Dexterity • Lifting Ability • Quality Assurance and Control • Machine Tools • Drill Presses 	<ul style="list-style-type: none"> • Detail-Oriented • Organizational Skills • Research • Writing • English 	<ul style="list-style-type: none"> • SAP • Automation Tools • Cisco Contact Center • Cisco Customer Voice Portal (CVP) • Cisco Unified Contact Center Enterprise (UCCE)

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Important Disclaimers

All representations included in this report have been produced from primary research and/or secondary review of publicly and/or privately available data and/or research reports. This study examines the most recent data available at the time of the analysis; 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 the report 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.

²² Labor Insight Jobs. Burning Glass Technologies. San Diego, CA. Full years 2015-2017.