

# Program Endorsement Brief:

Optical Technology in the North region

**North/Far North Center of Excellence, November 2019**

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## INTRODUCTION

This report provides an overview of the labor market demand and educational program supply for optical technology occupations in the 7-county North region and the broader 22-county North/Far North region.

## SUMMARY OF KEY FINDINGS

- Optical technology occupations are projected to have nearly 90 openings per year over the next five years.
- Median hourly wages for the selected occupations are above the regional living wage for a single adult. Hourly wages range from \$19 to \$20 per hour.
- Between 51% and 55% of incumbent ophthalmic medical technicians and dispensing opticians have either attended some college or earned an associate degree. Ophthalmic medical technicians are required to hold a postsecondary nondegree award for entry-level work.
- Optical technology training programs in the North region conferred an average of 39 certificates per year between 2015 and 2018.

The report contains the following sections:

- Occupational demand,
- Wages and job postings,
- Education and training,
- Regional program supply, and
- Findings and recommendations.

## OCCUPATIONAL DEMAND

The following Standard Occupational Classification (SOC) codes related to the proposed program were included in the analysis:<sup>1</sup>

29-2057.00 - Ophthalmic Medical Technicians	
<b>Description:</b>	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.
<b>Sample job titles:</b>	Certified Ophthalmic Assistant, Certified Ophthalmic Medical Technician, Certified Ophthalmic Technician, Certified Ophthalmic Technician with Surgical Assisting, Certified Ophthalmic Technician-Surgical Assistant (COT-SA), Ophthalmic Assistant, Ophthalmic Medical Assistant, Ophthalmic Medical Technician, Ophthalmic Technician, Surgical Coordinator

29-2081.00 - Opticians, Dispensing	
<b>Description:</b>	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.
<b>Sample job titles:</b>	Certified Optician, Contact Lens Technician, Dispensing Optician, Licensed Dispensing Optician (LDO), Licensed Optician, Ophthalmic Dispenser, Optical Technician, Optician, Optometric Assistant, Optometric Technician

Exhibit 1 summarizes the job trends by SOC codes in the 7-county North region, 22-county North/Far North region, and California.<sup>2</sup>

### Exhibit 1. Employment and projected occupational demand<sup>3</sup>

Occupation	SOC	2008 Jobs	2018 Jobs	2023 Jobs	2018-23 % Change	Annual Openings
Ophthalmic Medical Technicians	29-2057	135	321	353	10.0%	36
Opticians, Dispensing	29-2081	405	549	612	11.5%	53
<b>NORTH</b>	<b>TOTALS</b>	<b>539</b>	<b>870</b>	<b>965</b>	<b>11.0%</b>	<b>89</b>
Ophthalmic Medical Technicians	29-2057	149	328	361	10.1%	37
Opticians, Dispensing	29-2081	557	723	804	11.1%	71
<b>NORTH/FAR NORTH</b>	<b>TOTALS</b>	<b>706</b>	<b>1,051</b>	<b>1,164</b>	<b>10.8%</b>	<b>108</b>
Ophthalmic Medical Technicians	29-2057	1,456	3,212	3,524	9.7%	362
Opticians, Dispensing	29-2081	5,622	7,153	7,865	9.9%	674
<b>CALIFORNIA</b>	<b>TOTALS</b>	<b>7,079</b>	<b>10,365</b>	<b>11,389</b>	<b>9.9%</b>	<b>1,036</b>

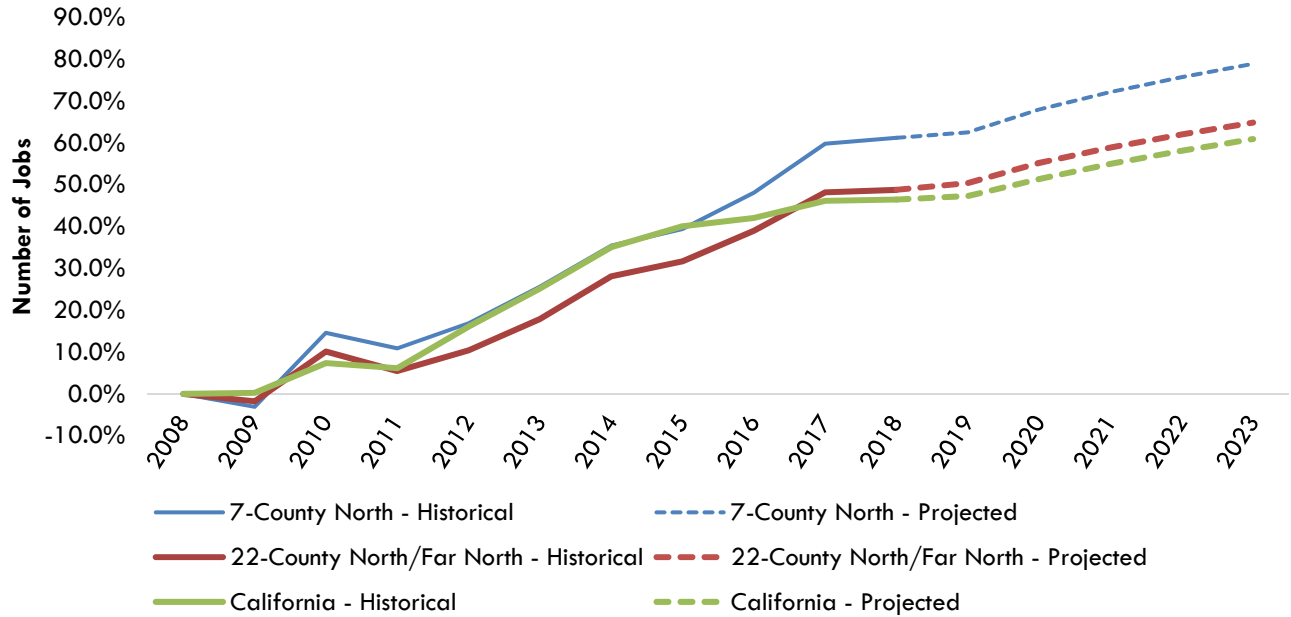
<sup>1</sup>O\*NET OnLine. U.S. Department of Labor Education & Training Administration. Accessed November 22, 2019. <https://www.onetonline.org/>.

<sup>2</sup> The 7-county North region includes El Dorado, Placer, Nevada, Sacramento, Sutter, Yolo and Yuba. The 15-county Far North region includes the Butte, Colusa, Del Norte, Glenn, Humboldt, Lake, Lassen, Mendocino, Modoc, Plumas, Shasta, Sierra, Siskiyou, Tehama and Trinity counties. The 22-county North/Far North region is the combination of the 7-county North and 15-county Far North regions.

<sup>3</sup> Emsi 2019.4; QCEW Employees, Non-QCEW Employees and Self-Employed.

Exhibit 2 compares the rates of change of the total number of jobs between 2008 and 2018 in the North region, the North/Far North region, and California. It also compares occupational demand projections from 2018 through 2023 across the same areas. The rate of change is indexed to the base year 2008 total number of jobs.

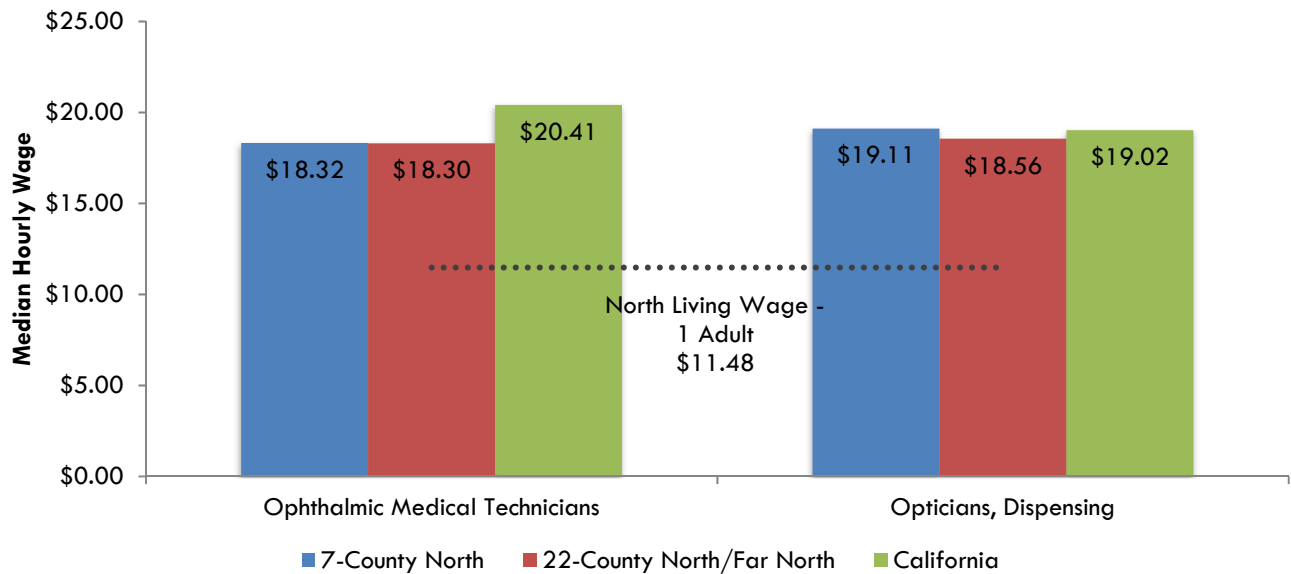
**Exhibit 2. Rate of Change for Selected Occupations<sup>4</sup>**



## WAGES AND JOB POSTINGS

Exhibit 3 compares the median hourly wages of the selected occupations in the study regions to the North region's 7-county average living wage for a one-adult household.<sup>5</sup>

**Exhibit 3. Wages for selected occupations<sup>6</sup>**



<sup>4</sup> Ibid.

<sup>5</sup> "Family Needs Calculator (Formerly the Self-Sufficiency Standard)." Insight Center for Community Economic Development, February 2018. <https://insightccd.org/2018-family-needs-calculator/>.

<sup>6</sup> Emsi 2019.4; QCEW Employees, Non-QCEW Employees and Self-Employed.

Burning Glass identified a pool of 87 job postings in the North region for the selected occupations. This data represents job listings posted online within the last year, from November 1, 2018 through October 31, 2019. Exhibit 4 compares the 12-month job posting trends of the selected occupations to the median number of job postings in the North region.

**Exhibit 4: Job postings trend for selected occupations<sup>7</sup>**

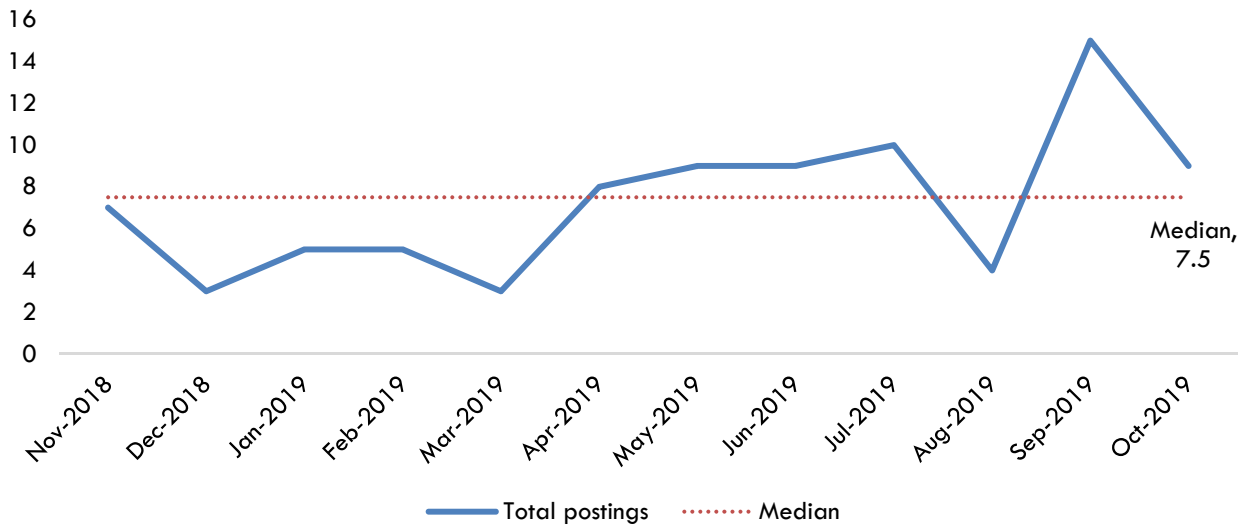
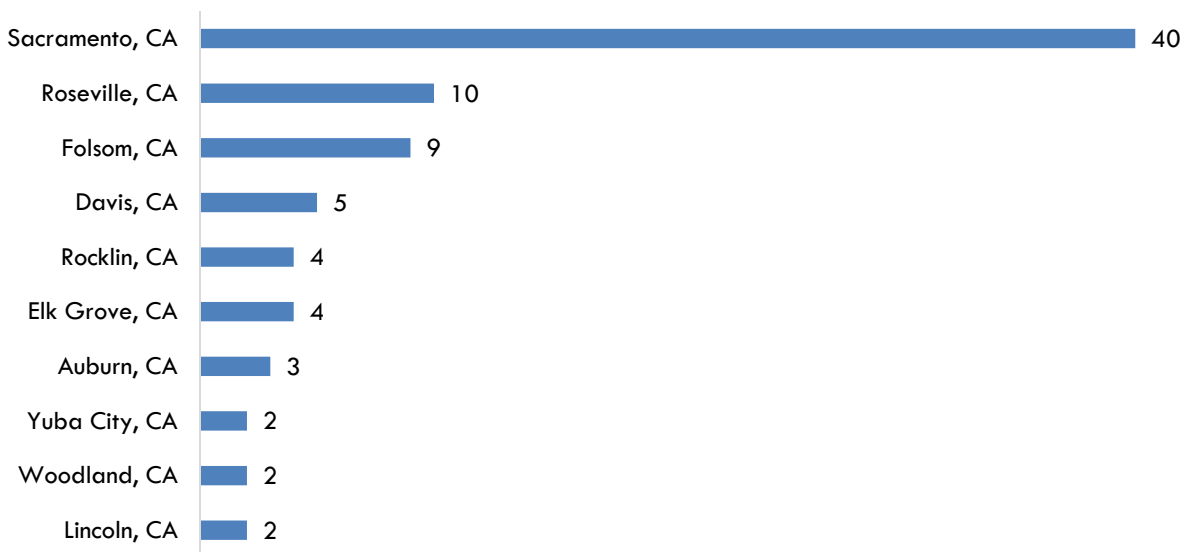


Exhibit 5 shows the number of job postings in the North region, by city, for the selected occupations.

**Exhibit 5. Top job postings locations for selected occupations<sup>8</sup>**



<sup>7</sup> Burning Glass Technologies, "Labor Insight Real-Time Labor Market Information Tool," <http://www.burning-glass.com>, 2019.

<sup>8</sup> Ibid.

Exhibit 6 lists North region employers with the most job openings for the selected occupations. Eighty-seven percent of job postings included the employer's name.

**Exhibit 6: Top employers by number of job postings<sup>9</sup>**

Employer	North (n = 76)	
	Number of Postings	Percent of Postings
Kaiser Permanente	9	12%
Lenscrafters Incorporated	8	11%
Vision Service Plan	5	7%
Target	5	7%
Stanton Optical Company	5	7%
Precision Vision Optometry	5	7%
Vision Precision Holding	4	5%
Vision To Learn	3	4%
UC Davis Health	3	4%
Walmart / Sam's	2	3%

Exhibit 7 shows the top job titles for the selected occupations in the North region. All 87 job postings included a job title.

**Exhibit 7. Top job titles by number of job postings<sup>10</sup>**

29-2057.00 - Ophthalmic Medical Technicians (n = 31)			29-2081.00 - Opticians, Dispensing (n = 56)		
Title	Job Postings	% Job Posting	Title	Job Postings	% Job Posting
Ophthalmic Technician	10	32%	Optician	49	88%
Optometric Technician	7	23%	Optical Dispenser	6	11%
Optical Technician	5	16%	Lead Optical Dispenser	1	2%
Optometric Assistant	4	13%			
Pre-Natal Screening Coordinator	3	10%			
Lead Optical Technician	1	3%			
Optometric Assistant, Medical	1	3%			

<sup>9</sup> Ibid.

<sup>10</sup> Ibid.

Exhibit 8 shows the skills most in-demand for the selected occupations in the North region. All 87 job postings included skills information.

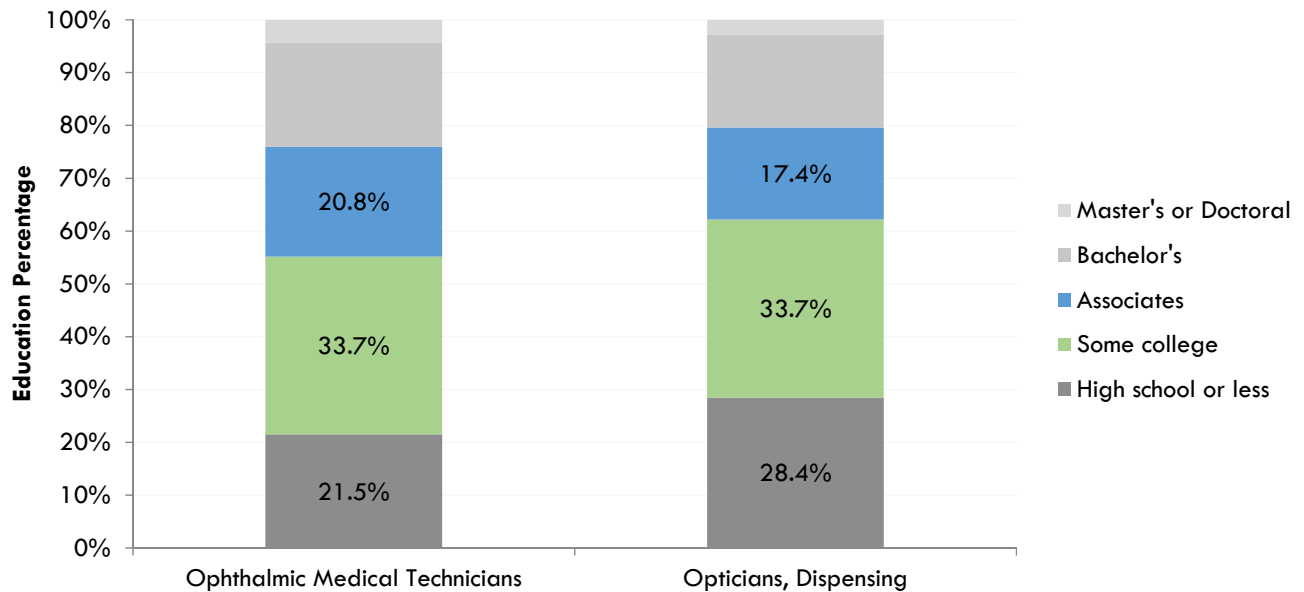
**Exhibit 8. Top skills by number of job postings**<sup>11</sup>

29-2057.00 - Ophthalmic Medical Technicians (n = 31)			29-2081.00 - Opticians, Dispensing (n = 56)		
Skill	Job Postings	% Job Posting	Skill	Job Postings	% Job Posting
Ophthalmology	19	61%	Customer Service	29	52%
Customer Service	9	29%	Repair	24	43%
Patient Care	7	23%	Patient Assistance	19	34%
Fluorescein Angiography	6	19%	Retail Industry Knowledge	17	30%
Patient/Family Education and Instruction	6	19%	Sales	17	30%
Lifting Ability	5	16%	Sales Goals	15	27%
Machinery	5	16%	Optometry	13	23%
Manual Dexterity	5	16%	Budgeting	10	18%
Materials Selection	5	16%	Customer Complaint Resolution	10	18%
Optometry	5	16%	Product Sales	6	11%

## EDUCATION AND TRAINING

Exhibit 9 shows the average level of educational attainment for workers 25 years and older by occupation across the U.S.

**Exhibit 9. Typical educational attainment for selected occupations, nationally**<sup>12</sup>



<sup>11</sup> Ibid.

<sup>12</sup> "Educational Attainment for Workers 25 Years and Older by Detailed Occupation." U.S. Bureau of Labor Statistics. U.S. Department of Labor, September 4, 2019. <https://www.bls.gov/emp/tables/educational-attainment.htm>.

Exhibit 10 shows the typical education requirements, on-the-job training, and work experience requirements for entry-level work in the selected occupations in the North region.

**Exhibit 10. Typical education, training, and work experience for selected occupations<sup>13</sup>**

Occupations	SOC	Typical Entry-Level Education	Typical On-The-Job Training	Work Experience Required
Ophthalmic Medical Technicians	29-2057	Postsecondary nondegree award	None	None
Opticians, Dispensing	29-2081	High school diploma or equivalent	Long-term on-the-job training	None

## PROGRAM SUPPLY

Analysis of existing educational programs shows that there is one Taxonomy of Program (TOP) code related to training for the selected optical technology occupations: 1219.00 - Optical Technology. The corresponding Classification of Instructional Programs (CIP) codes are 51.1802 – Optometric Technician/Assistant and 51.1801 – Opticianry/Ophthalmic Dispensing Optician.

Exhibit 11 compares the total number of awards (certificates and degrees) conferred by related training providers in the selected TOP and CIP codes in the North region over the last three academic years.

**Exhibit 11. Total awards conferred by North training providers, 2015-2018<sup>14</sup>**

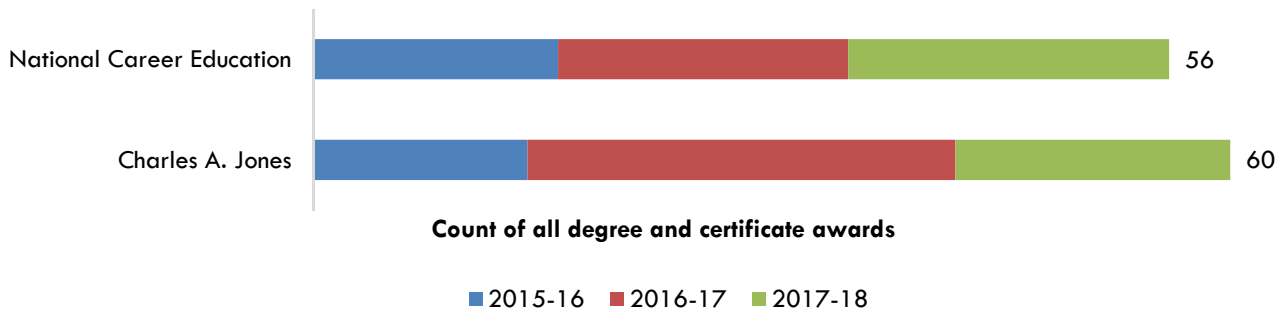


Exhibit 12 displays program awards by level and year for the selected education programs over the last three academic years.

**Exhibit 12. Program awards conferred by North region training providers, 2015-2018<sup>15</sup>**

1219.00 - Optical Technology, 51.1801 – Opticianry/Ophthalmic Dispensing Optician, and 51.1802 – Optometric Technician/Assistant								
	Certificate				Associate			
Training Providers	2015-16	2016-17	2017-18	3-Yr Avg	2015-16	2016-17	2017-18	3-Yr Avg
Charles A Jones	14	28	18	20	--	--	--	--
National Career Education	16	19	21	19	--	--	--	--
<b>NORTH REGION TOTALS</b>	<b>30</b>	<b>47</b>	<b>39</b>	<b>39</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>

<sup>13</sup> Emsi 2019.4; QCEW Employees, Non-QCEW Employees and Self-Employed.

<sup>14</sup> COE Supply Tables, California Community Colleges Chancellor's Office DataMart, and Integrated Postsecondary Education Data System (IPEDS).

<sup>15</sup> Ibid.

## FINDINGS

- Between 2008 and 2018, optical technology occupations grew by a net of 331 jobs in the North region alone. Jobs growth was distributed nearly equally across two occupations. Dispensing optician jobs add 144 jobs in the last 10 years, while ophthalmic medical technicians added 186 jobs.
- Jobs for dispensing opticians are projected to increase by 11.5% over the next five years, adding 63 new jobs by 2023. Jobs for ophthalmic medical technicians are projected to increase by 10%, adding 32 jobs over the next five years.
- Optical technology occupations are projected to have 89 job openings per year over the next five years. Overall job growth in the North region (11%) is slightly higher than job growth in the North/Far North region (10.8%) and statewide average of 9.9%.
- Median hourly wages for the selected occupations are significantly above the regional living wage for a single adult (\$11.48). Hourly wages are slightly higher for ophthalmic medical technicians in the North, \$20 per hour. Dispensing opticians are estimated to earn \$19 per hour in the North.
- Burning Glass Labor Insights identified a pool of 87 optical technology jobs posted online in the last 12 months. Most job postings were for dispensing opticians (n = 56) rather than ophthalmic medical technicians (n = 31).
- Between 51% and 55% of incumbent ophthalmic medical technicians and dispensing opticians have either attended some college or earned an associate degree. The typical entry-level education for ophthalmic medical technicians is a postsecondary nondegree award (i.e. a certificate). While the entry-level education for dispensing opticians is a high school diploma, new workers will require a longer length of on-the-job training.
- Currently, there are two training providers of optical technology programs in the North region. National Career Education (NCE) in Roseville, Ca and Charles A. Jones Career and Education Center of Sacramento, Ca issued a total of 116 awards between 2015 and 2018.
- As of November 25, 2019, Charles A. Jones no longer lists the Optometric Technician/Assistant program on its website. This suggests that the program is no longer active.
- North region training providers conferred an average of 39 certificates and 0 associate degrees in optical technology programs between 2015 and 2018.



# RECOMMENDATIONS

- Based on a three-year average of annual award in optical technology (39 certificates), and projected yearly openings for optical technology occupations (89 openings), the region appears to have some demand for programs related to the occupation.

COE Recommendation		
Move forward with program	Program is not recommended	Additional information needed
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## METHODOLOGY

Occupations in this report were identified using O\*Net. Findings in this report were determined using labor market data from the Bureau of Labor Statistics (BLS), U.S. Census Bureau data from Emsi, and jobs posting data from Burning Glass.

## APPENDIX A: DATA SOURCES

Sources used for data analysis purposes in this report include:

- U.S. Department of Labor/Employment and Training Administration (DOLETA) O\*NET Online
- Burning Glass, Labor Insight/Jobs
- Economic Modeling Specialists, International (EMSI)
- California Employment Development Department, Labor Market Information Division (EDD, LMID)
- Bureau of Labor Statistics, Occupational Employment Statistics (OES)
- California Community Colleges Chancellor's Office, Cal-PASS Plus LaunchBoard
- Living Insight Center for Community Economic Development, Self-Sufficiency Standard Tool for California
- California Community Colleges Chancellor's Office Management Information Systems (MIS Data Mart)
- U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS)

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