



Program Endorsement Brief:

Lake Tahoe Community College: Wilderness Education and Outdoor Leadership

North/Far North Center of Excellence, April 2019

INTRODUCTION

Lake Tahoe Community College is revising an existing Wilderness Education program to realign its program curriculum. This report provides an overview of the labor market demand and supply for related occupations. It provides an overview of the employment opportunities and existing community college programs that prepare students for these professions. Some challenges exist in aligning the program to occupational data; the chosen occupations represent the occupations that most closely align with the program.

Key findings include:

- Overall regional employment opportunities in occupations associated with Wilderness Education and Outdoor Leadership are exhibiting somewhat faster than average growth, compared to the 10-year historical rate of 2.6%, and are on par with job growth in the same occupations across the state and in the North/Far North region.
- Nearly seven out of ten of jobs for the four occupations studied are in the Recreation Workers occupation.
- Wages for related occupations are below the Sacramento living wage for a one adult one child household of \$26.40 per hour. Wages for Recreation Workers and Lifeguards, Ski Patrol, and other Recreation and Public Safety Workers pose concerns for the community colleges.

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 job posting data from Burning Glass.

The report contains the following sections:

- Occupational demand,
- Wages and job postings,
- Educational attainment and supply, and
- Findings and recommendations.

OCCUPATIONAL DEMAND

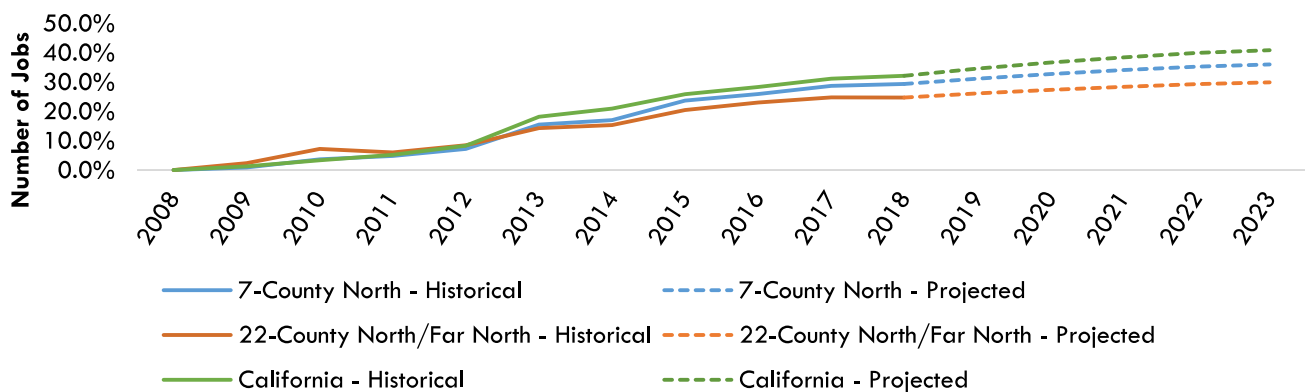
Four related Standard Occupational Classification (SOC) codes are included in the demand analysis for the proposed Wilderness Education and Outdoor Leadership program. Exhibit 1 summarizes job trends per the SOC codes in the 7-county Greater Sacramento region, the 22-county North/Far North region, and California.

Exhibit 1: Employment and Projected Occupational Demand¹

Occupation	SOC	2008 Jobs	2018 Jobs	2023 Jobs	2018-2023 % Change	Annual Openings
Forest and Conservation Technicians	19-4093	734	843	841	-0.2%	111
Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	33-9092	682	869	913	5.0%	218
Tour and Travel Guides	39-7018	127	138	151	9.4%	26
Recreation Workers	39-9032	2,724	3,670	3,901	6.3%	635
7-County Greater Sacramento Totals	Totals	4,267	5,520	5,805	5.2%	989
Forest and Conservation Technicians	19-4093	2,289	2,557	2,536	-0.8%	344
Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	33-9092	862	1,071	1,125	5.0%	271
Tour and Travel Guides	39-7018	203	223	245	9.8%	43
Recreation Workers	39-9032	3,726	4,982	5,294	6.3%	867
22-County North/Far North Totals	Totals	7,081	8,833	9,200	4.2%	1,525
Forest and Conservation Technicians	19-4093	6,776	7,148	7,189	0.6%	955
Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	33-9092	11,899	16,280	17,443	7.1%	4,061
Tour and Travel Guides	39-7018	4,381	5,634	6,029	7.0%	1,013
Recreation Workers	39-9032	38,152	51,816	55,558	7.2%	9,024
California Totals	Totals	61,208	80,877	86,219	6.6%	15,052

Exhibit 2 shows the percent change in the number of jobs between 2008 through 2018 and the occupational projections from 2018 through 2023. The rate of change is indexed to the total number of jobs in 2008 as the base year and compares 7-county Greater Sacramento region, 22-county North/Far North region, and California.

Exhibit 2: Rate of change for selected occupations²



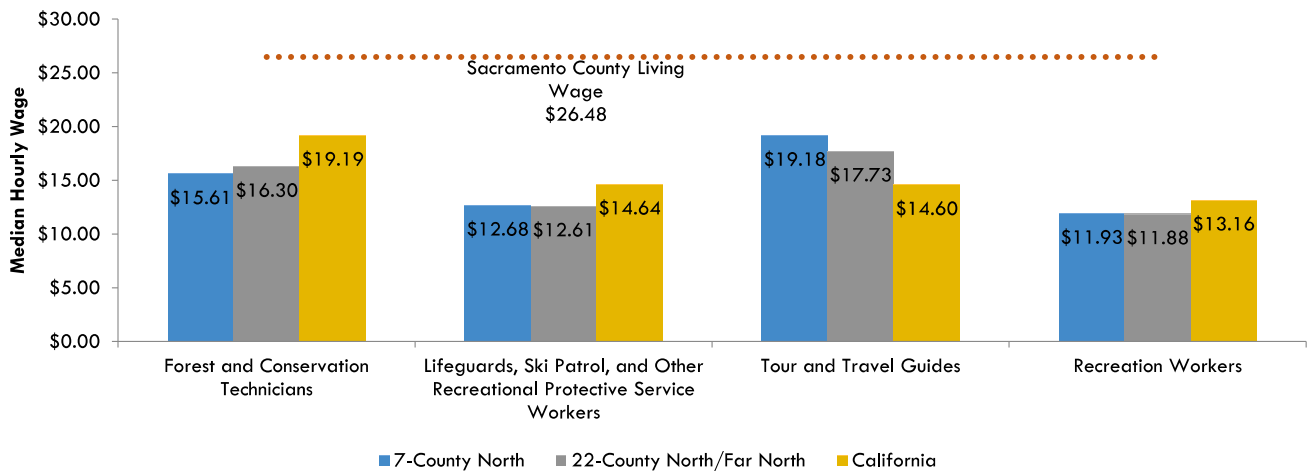
¹ Emsi 2019.1; QCEW Employees, Non-QCEW Employees and Self-Employed. The 7-county North region includes El Dorado, Placer, Nevada, Sacramento, Sutter, Yolo and Yuba. The 22-county North/Far North region includes the aforementioned counties as well as Butte, Colusa, Del Norte, Glenn, Humboldt, Lake, Lassen, Mendocino, Modoc, Plumas, Shasta, Sierra, Siskiyou, Tehama and Trinity.

² Ibid.

WAGES AND JOB POSTINGS

Exhibit 3 displays median hourly wages for the selected occupations compared to the Sacramento County living wage for a one-adult, one-child household.³ The chart highlights the difference between the median wages of the representative occupations across the study regions.

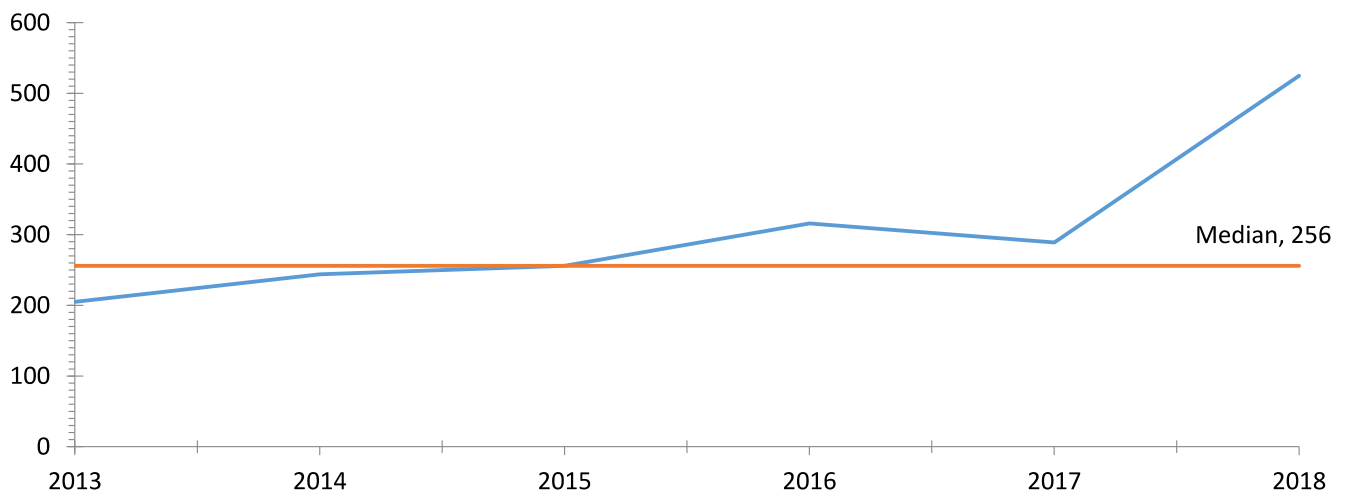
Exhibit 3: Wages for selected occupations⁴



Burning Glass data for job postings identified a pool of 828 listings in the North/Far North region for the representative SOC codes; 675 of these listings are located in the Greater Sacramento region, with the remaining 153 postings located in the 15 counties of the Far North region. The data shown in Exhibits 4 – 8 represents the Greater Sacramento region. Jobs postings data was limited to 12 months between April 1, 2018, and March 31, 2019.

Exhibit 4 shows the job posting trends for the SOC codes over the past ten years compared to the median number of jobs (256) during the same period for Greater Sacramento.

Exhibit 4: Job Posting Trend for Selected Occupations⁵



³ MIT Living Wage Calculator: Counties and Metropolitan Statistical Areas in California, <http://livingwage.mit.edu/states/06/locations>.

⁴ Emsi 2018.2; QCEW Employees, Non-QCEW Employees and Self-Employed.

⁵ Burning Glass Technologies, "Labor Insight Real-Time Labor Market Information Tool," 2018.

Exhibit 5 shows the top job titles across the selected occupations job postings in the study region.

Exhibit 5: Top Titles for Selected Occupations⁶

Top Job Titles in the Greater Sacramento Region	Number of Jobs Postings	Percent (n = 675)
Activities Assistant	105	15.6%
Lifeguard	88	13.0%
Camp Counselor	26	3.9%
Recreation Leader	24	3.6%
Forestry Technician	20	3.0%
Summer Camp Counselor	19	2.8%
Activities Coordinator	13	1.9%
School Recreation Aide	13	1.9%
Recreation Assistant	11	1.6%
Life Enrichment Manager	10	1.5%

Exhibit 6 shows the top employers across the selected occupation jobs postings in the study region. Over 90 percent of job postings contained employer information.

Exhibit 6: Top Employers among Selected Occupations⁷

Employers with the Most Job Openings in Greater Sacramento	Number of Jobs Postings	Percent (n = 631)
Vail Resorts Management Company	48	7.6%
San Juan Unified School District	31	4.9%
City of Sacramento	26	4.1%
Forest Service	23	3.6%
Life Time	19	3.0%
State of California	18	2.9%
Tahoe Donner Association	17	2.7%
City of Davis	13	2.1%
Copper Mountain Resort	13	2.1%
Lifetime Fitness	13	2.1%

Exhibit 7 shows the most in-demand skills for the selected occupation job postings in the study region. 70% of the job postings contained skill information.

⁶ Ibid.

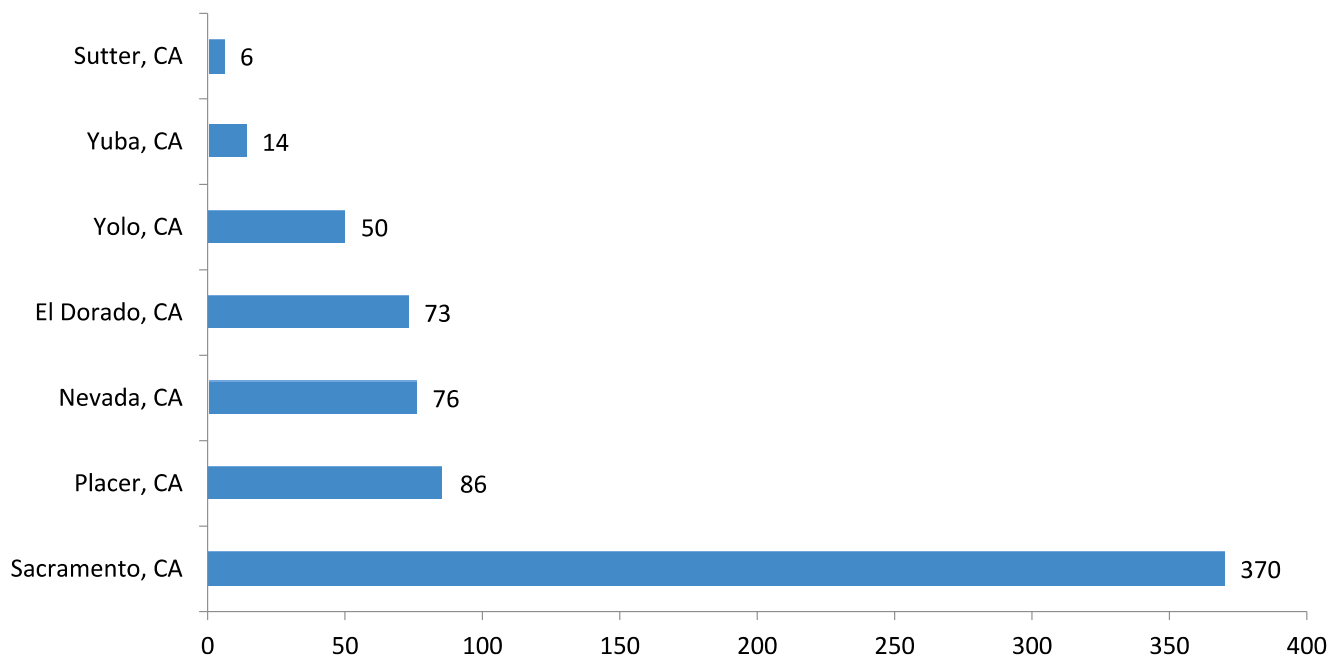
⁷ Ibid.

Exhibit 7: Top Skills among Selected Occupations⁸

Skills in Greatest Demand in Greater Sacramento	Number of Job Postings	Percent (n = 470)
Cardiopulmonary Resuscitation (CPR)	190	40.4%
Scheduling	107	22.8%
Customer Service	78	16.6%
Teaching	66	14.0%
Budgeting	59	12.6%
Guest Services	48	10.2%
Cleaning	46	9.8%
Music	38	8.1%
Annuities	33	7.0%
Cryptography	33	7.0%

Exhibit 8 shows the number of job postings, by county, for the selected occupations.

Exhibit 8: Top Locations listed for Selected Occupations⁹



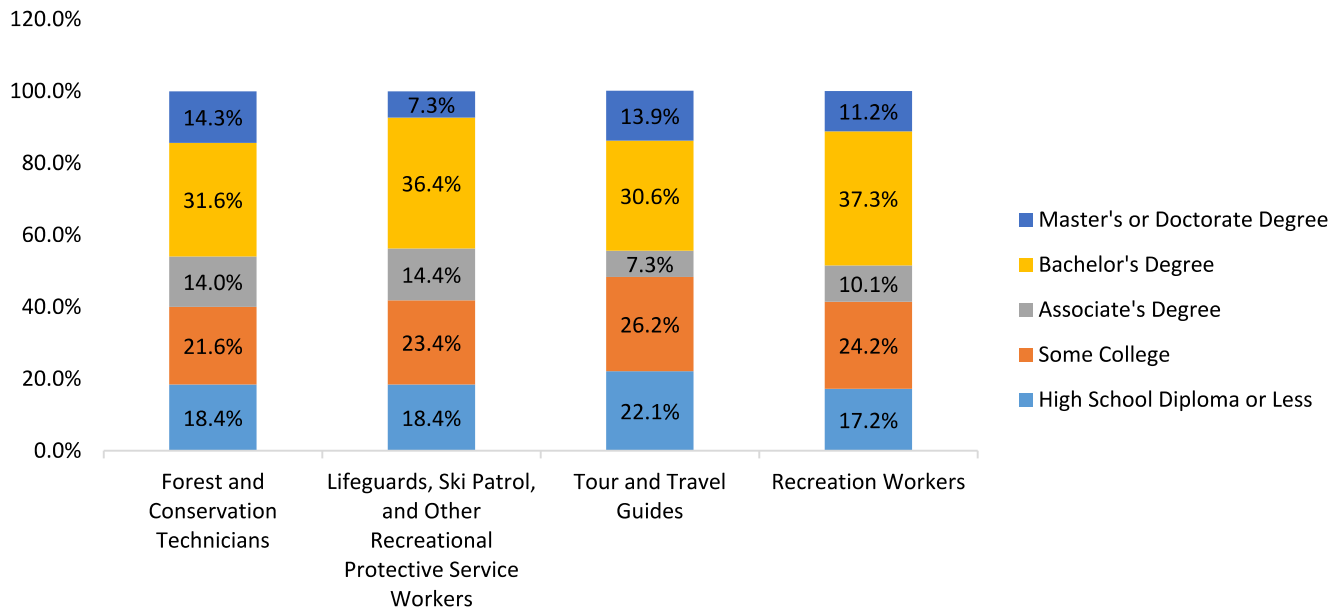
⁸ Ibid.

⁹ Ibid.

EDUCATIONAL ATTAINMENT AND SUPPLY

According to the Bureau of Labor Statistics, educational attainment for the existing workforce in the four occupations is similar and shows a range of existing workers at all education levels¹⁰. Exhibit 9 breaks down the educational attainment percentages by occupation.

Exhibit 9: Typical Educational Attainment for Selected Occupations, Nationally¹¹



There are two Taxonomy of Programs (TOP) codes closely related to Lake Tahoe’s Wilderness Education and Outdoor Leadership Program: Parks and Outdoor Recreation (0115.10) and Recreation (0836.00). Five schools in the North/Far North region that offer related training, including American River College, Butte College, Feather River College, Lake Tahoe Community College, and Sierra College. All of these colleges offer Associate degree level programs, while only two (Butte and Sierra) offer certificate programs. Sierra College is the largest provider of associate degrees; Butte College is the largest provider of certificates.

¹⁰ Current Population Survey, Educational Attainment for Workers 25 Years and Older by Detailed Occupation, 2016-2017, https://www.bls.gov/emp/ep_table_111.htm.

¹¹ Ibid.

Exhibit 10 shows the total number of awards by colleges for the selected TOP codes during the past three academic years.

Exhibit 10: Total Awards Conferred by North/Far North Community Colleges, 2015-2018¹²

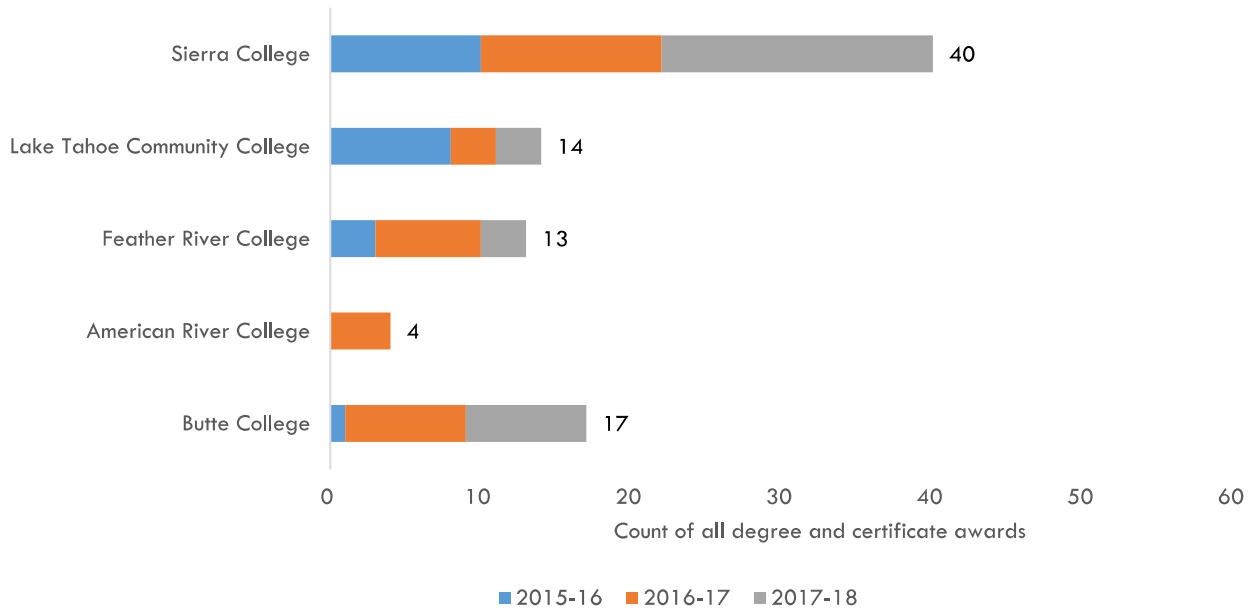


Exhibit 11 shows the distribution of Certificates and Associate degrees for the selected TOP codes over the last three academic years.

Exhibit 10: Certificates and Associate Degrees Conferred by North/Far North Community Colleges, 2015-2018¹³

	Certificate			Associate		
	2015-16	2016-17	2017-18	2015-16	2016-17	2017-18
Butte College	0	8	7	1	0	1
American River College	0	0	0	0	4	0
Feather River College	0	0	0	3	7	3
Lake Tahoe Community College	0	0	0	8	3	3
Sierra College	0	0	0	10	12	18
Totals	0	8	7	22	26	25

¹² COE Supply Tables, California Community Colleges Chancellor's Office DataMart, Integrated Postsecondary Education Data System (IPEDS).

¹³ Ibid.

FINDINGS

- Overall local, regional employment opportunities in occupations associated with Wilderness Education and Outdoor Leadership are exhibiting ordinary growth, and are on par with job growth in the same occupations across the state and in the 22-county North/Far North region.
- One occupation has faster than average growth in both the Greater Sacramento and North/ Far North regions--Tour and Travel Guides--at 9.4% and 9.8%, respectively. However, the average number of annual job openings will comprise less than 3% of all job openings across the four occupations due to the small number of jobs.
- Recreation Workers represent approximately 66 percent of the jobs across the four occupational groups in the local region. This group will also provide the most number of annual openings in the years to come; Recreation Workers are expected to have 635 openings per year, with a significant portion of those jobs (almost 87%) due to replacement.
- A majority (87%) of annual openings in these four occupations are due to replacement, perhaps indicating high turnover and retirements.
- Wages for selected wilderness and outdoor related occupations are below the Sacramento living wage of \$26.40 per hour. The highest median wages are for Tour and Travel Guides, at \$19.18 per hour for the Greater Sacramento region, while the lowest is for Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers at \$12.68 in the same region.

RECOMMENDATIONS

Lake Tahoe's Wilderness Education and Outdoor Leadership program offers a unique combination of class- and field-based coursework, with a high degree of specialization, designed to prepare students to work in recreation and public safety-related roles in the wilderness. This uniqueness and specialization, however, are not well-captured in labor market data as the program concentrations do not map well to traditional Standard Occupational Codes (SOCs). Additional recommendations include:

- **Wages are concerning.** Occupations that showed the strongest demand typically had lower wages or fewer job opportunities associated with them. The WEOL pathway should look to explore and connect with employment opportunities beyond recreation that are related to natural resource protection and land management. Occupations, such as Park Naturalists and Foresters, provide access to higher median wages, but also have higher typical education requirements. This could represent an opportunity to provide additional training and clearer pathways for transfer to other related job opportunities with higher wages.
- **Additional research could use job titles to explore more specific opportunities related to the program.** The program provides a natural foray into a wide variety of careers that will require a wide range of skills. However, it is not clear how a student earning a WEOL degree or certificate should move to pursue those other options. Providing and marketing clear pathways to sustainable and well-paying careers would benefit not only the students but the program as they could potentially attract more students interested in this field.

COE Recommendation

- Move Forward with Program
- Program is Not Recommended
- Additional Information Needed

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)

For more information, please contact:

Ebony J. Benzing, Research Manager
Center of Excellence, North-Far North Region
Ebony.Benzing@losrios.edu

April 2019