



# Program Endorsement Brief

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NURSING IN THE GREATER SACRAMENTO REGION

North/Far North Center of Excellence  
MARCH 2021

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**COVID-19 Statement:** This report includes employment projection data by EMSI. EMSI's projections are modeled on recorded (historical) employment figures and incorporate several underlying assumptions, including the assumption that the economy during the projection period will be at approximately full employment or potential output. To the extent that a recession or labor shock, such as the economic effects of COVID-19, can cause long-term structural change, they may impact the projections. At this time, it is not possible to quantify the impact of COVID-19 on projections of industry and occupational employment. Other measures such as unemployment rates and monthly industry employment estimates will reflect the most recent information on employment and jobs in the state and, in combination with input from local employers, may help validate current and future employment needs as depicted here.

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## Summary

The North/Far North Center of Excellence for Labor Market Research prepared this report to provide regional labor market supply and demand data related to video game design and technology occupations in the North (Greater Sacramento) subregion. This report is intended to help determine whether there is demand in the local labor market that is not being met by the supply from existing community college programs.

Key findings include:

- The North (Greater Sacramento) region held just over 26,000 jobs for registered and licensed vocational nurses in 2019. Nursing jobs are projected to increase by 8% over the next five years.
- Nursing occupations are projected to have 1,844 annual openings in the North (Greater Sacramento) region over the next five years.
- Wage data shows that nurses earn \$12 to \$33 above the subregion's living wage of \$13.18 per hour.
- Thirty-four percent of registered nurses and 74% of licensed vocational nurses have education levels consistent with community college offerings (some college or associate degrees). An additional 53% of registered nurses have a bachelor's degree.
- Awards data analysis shows that postsecondary institutions conferred an average of 672 awards (associate and bachelor degrees) in registered nursing programs and 177 awards (certificates and associate degrees) in licensed vocational nursing programs over the last three academic years.

## Introduction

The North/Far North Center of Excellence was asked to provide labor market information for a proposed program at a regional community college. This report focuses on the following Standard Occupational Classification (SOC) occupations and codes:

- Registered Nurses (29-1141)
- Licensed Practical and Licensed Vocational Nurses (29-2061)
  - California refers to this occupation as Licensed Vocational Nurses (LVNs)

A review of related programs revealed the following program(s) and Taxonomy of Programs (TOP) code(s) are appropriate for inclusion in this report:

- Registered Nursing (1230.10)
- Licensed Vocational Nursing (1230.20)

The corresponding Classification of Instructional Programs (CIP) code(s) are:

- Registered Nursing/Registered Nurse (51.3801)
- Licensed Practical/Vocational Nurse Training (51.3901)

The SOC titles, SOC codes, and job descriptions from the Bureau of Labor Statistics (BLS) and O\*Net OnLine are shown below.

### **Registered Nurses (29-1141)**

Assess patient health problems and needs, develop and implement nursing care plans, and maintain medical records. Administer nursing care to ill, injured, convalescent, or disabled patients. May advise patients on health maintenance and disease prevention or provide case management. Licensing or registration required.

### **Licensed Practical and Licensed Vocational Nurses (29-2061)**

Care for ill, injured, or convalescing patients or persons with disabilities in hospitals, nursing homes, clinics, private homes, group homes, and similar institutions. May work under the supervision of a registered nurse. Licensing required.

## Occupational Demand

Exhibit 1 summarizes the five-year projected job growth for the North (Greater Sacramento) selected occupations, North/Far North, and California.

**Exhibit 1. Employment and projected demand, 2019-2024<sup>1</sup>**

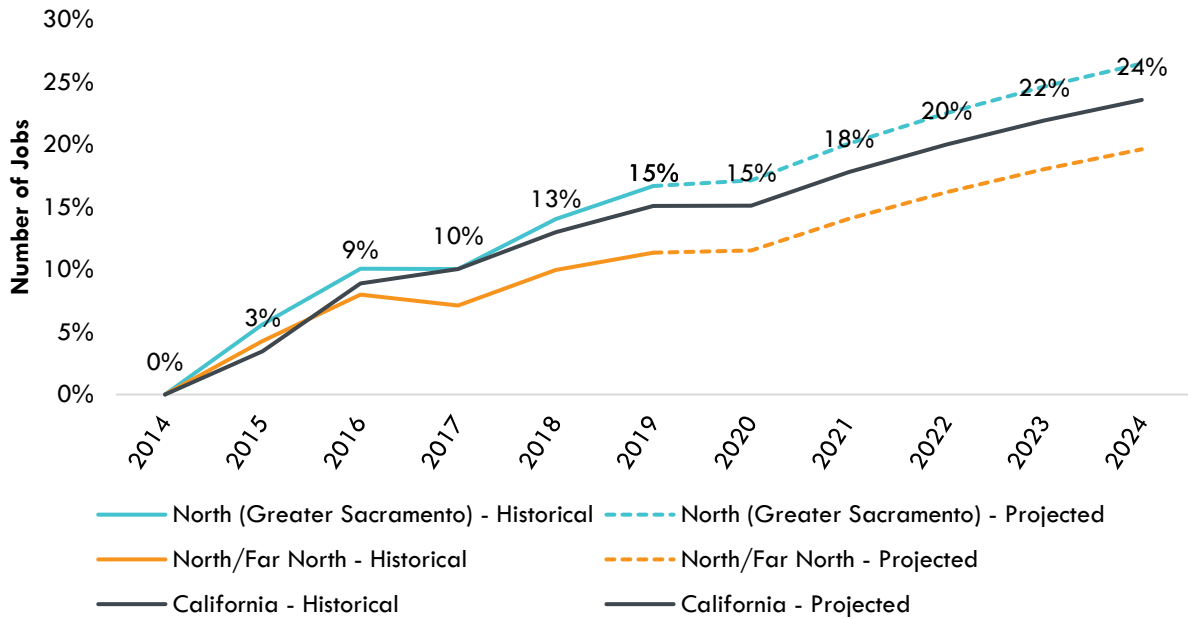
Occupation	2019 Jobs	2024 Jobs	2019-2024 Jobs Change	2019-2024 Jobs % Change	2019-2024 Annual Openings
Registered Nurses	22,197	23,945	1,747	8%	1,441
Licensed Practical and Licensed Vocational Nurses	4,281	4,755	475	11%	403
<b>North (Greater Sacramento)</b>	<b>26,478</b>	<b>28,700</b>	<b>2,222</b>	<b>8%</b>	<b>1,844</b>
Registered Nurses	28,996	31,045	2,048	7%	1,841
Licensed Practical and Licensed Vocational Nurses	5,940	6,485	546	9%	539
<b>North/Far North</b>	<b>34,936</b>	<b>37,530</b>	<b>2,594</b>	<b>7%</b>	<b>2,380</b>
Registered Nurses	313,136	335,131	21,995	7%	19,832
Licensed Practical and Licensed Vocational Nurses	71,804	78,165	6,360	9%	6,436
<b>California</b>	<b>384,940</b>	<b>413,296</b>	<b>28,356</b>	<b>7%</b>	<b>26,268</b>

Exhibit 2 compares the percent change in the number of jobs between 2014 through 2019 and the projected changes through 2024. The rate of change is indexed to the total number of jobs in 2014.

**Exhibit 2. Changes in employment, 2014-2024<sup>2</sup>**

<sup>1</sup> EMSI 2021.1; QCEW, Non-QCEW, and Self-employed.

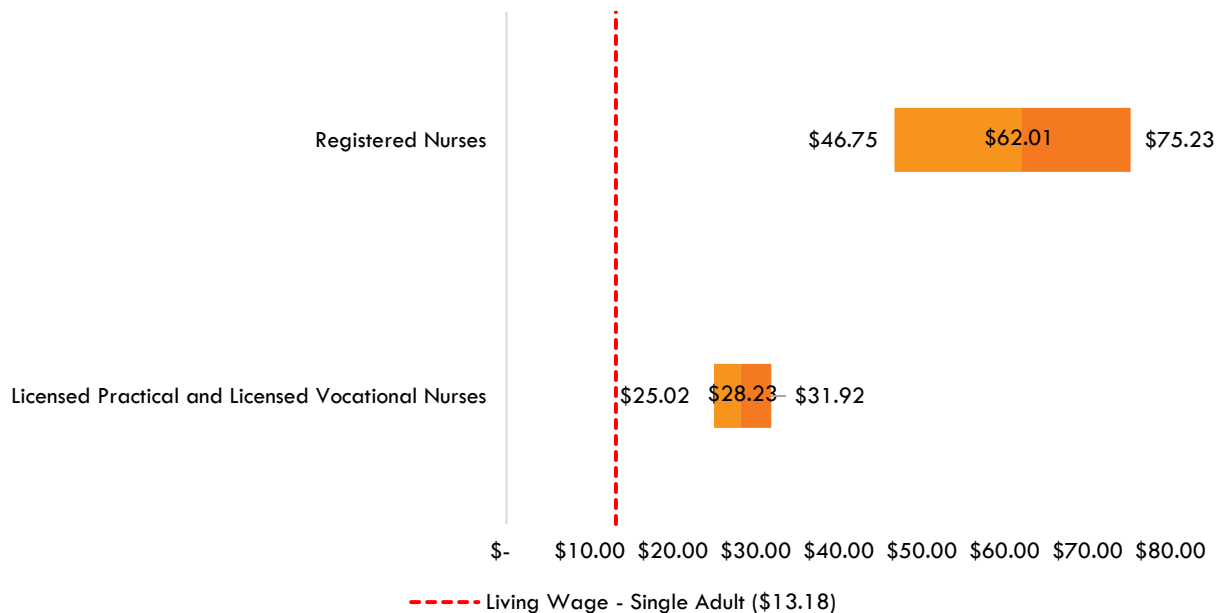
<sup>2</sup> Ibid.



## Wages

Exhibit 3 compares the entry-level, median, and experienced wages for the selected occupations to the North (Greater Sacramento) living wage for a single adult - \$13.18 per hour.<sup>3</sup>

**Exhibit 3. Comparison of wages by occupation, 2019<sup>4</sup>**



<sup>3</sup> Living wage is defined as the level of income a single adult with no children must earn to meet basic needs, including food, housing, transportation, healthcare, taxes, and other miscellaneous basic needs. The 25th-percentile and 75th-percentile hourly wages are used as proxy for entry-level and experienced-level wages.

<sup>4</sup> Ibid.

## Job Postings

This section of the report analyzes recent data from online job postings (real-time LMI). Online job postings may provide additional insight into recent changes in the labor market that are not captured by historical data. Job postings data comes from Burning Glass Labor Insights and represents new listings posted online within the last year, from March 1, 2020, to February 28, 2021. The NFN COE identified 16,739 new online job postings for the selected occupations in the North (Greater Sacramento) region.

### Occupations and Job Titles

Exhibit 4 details the number of online job postings for the selected occupations. Please note that critical care nurses, advanced practice nurses, clinical nurse specialists, and acute nurse specialists are sub-occupations within the registered nurse occupation.

**Exhibit 4. Number of job postings by occupation**

SOC Code	Occupation	Job Postings	Share of Job Postings
29-1141.00	Registered Nurses	12,466	74%
29-1141.03	Critical Care Nurses	2,245	13%
29-2061.00	Licensed Practical and Licensed Vocational Nurses	1,956	12%
29-1141.02	Advanced Practice Psychiatric Nurses	46	0.3%
29-1141.04	Clinical Nurse Specialists	22	0.1%
29-1141.01	Acute Care Nurses	4	0.02%
<b>Total Job Postings</b>		<b>16,739</b>	<b>100%</b>

Exhibit 5 shows the top 10 job titles with the most job postings and the share of job postings. All 16,739 job postings included a job title.

**Exhibit 5. Top jobs titles for selected occupations in North (Greater Sacramento)**

Job Title	Job Postings	Share of Job Postings
Registered Nurse	736	4%
Licensed Vocational Nurse	332	2%
Patient Care Coordinator	78	0.5%
Case Manager	76	0.5%
Licensed Practical Nurse	74	0.4%
Telemetry Nurse	66	0.4%
Home Health Registered Nurse	61	0.4%

Job Title	Job Postings	Share of Job Postings
Registered Nurse - Telemetry	52	0.3%
Registered Nurse - Home Health	49	0.3%
Registered Nurse Case Manager	48	0.3%

## Employers

Exhibit 6 shows the top 10 employers with the most job postings for the selected occupations. Thirty-nine percent of job postings did not include an employer.

### Exhibit 6. Top employers for selected occupations in North (Greater Sacramento)

Employer	Job Postings	Share of Job Postings
Dignity Health	990	6%
Healthcare Travelers	508	3%
Sutter Health	463	3%
Anthem Blue Cross	450	3%
RN Travel Healthcare	317	2%
UC Davis Health	292	2%
University of California, Davis	266	2%
University of California	235	1%
Kaiser Permanente	232	1%
Sutter Health Sacramento Sierra Region	181	1%

## Skills and Certifications

Exhibit 7 shows the specialized skills most requested by employers for the selected occupations.

### Exhibit 7. Top skills for selected occupations in North (Greater Sacramento)

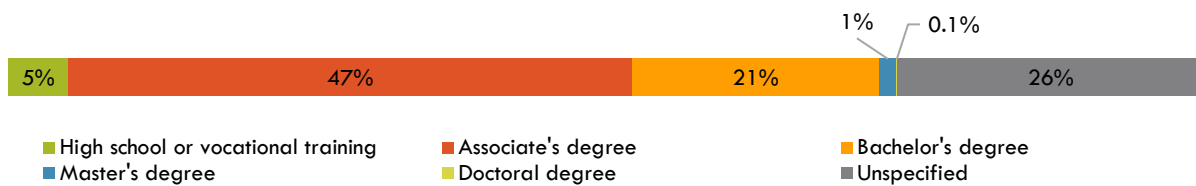
Specialized Skill	Job Postings	Share of Job Postings
Advanced Cardiac Life Support (ACLS)	5,298	32%



Specialized Skill	Job Postings	Share of Job Postings
Patient Care	4,171	25%
Acute Care	3,647	22%
Cardiopulmonary Resuscitation (CPR)	2,729	16%
Telemetry	2,685	16%
Treatment Planning	2,553	15%
Critical Care Nursing	2,366	14%
Pediatrics	2,089	12%
Oncology	1,899	11%
Catheterization Laboratory (CATH LAB)	1,756	10%

Exhibit 8 shows the minimum level of education required by employers for job postings within the selected occupations. Twenty-six percent of job postings did not include a preferred education level.

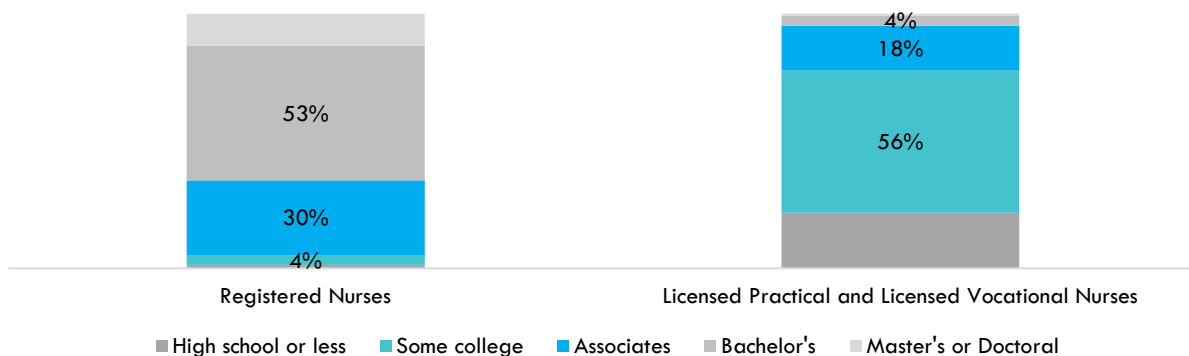
**Exhibit 8. Employer-preferred minimum education levels for selected occupations**



## Education and Training Requirements

The U.S. Census Bureau and Bureau of Labor Statistics collected data on education achieved by workers employed in occupations. Exhibit 11 shows the national-level educational attainment of the current workforce in the selected occupations.

**Exhibit 11. Educational attainment for selected occupations, 2019**



The Bureau of Labor Statistics (BLS) uses a system to assign categories for entry-level education, work experience in a related occupation, and typical on-the-job training to each occupation for which the BLS publishes projections data. Exhibit 12 shows the entry-level job requirements for the selected occupations.

**Exhibit 12. Typical education, training, and work experience for selected occupations**

Occupation	Typical Entry-Level Education Required	Work Experience Required	Typical On-the-job Training Required
Registered Nurses	Bachelor's degree	None	None
Licensed Practical and Licensed Vocational Nurses	Postsecondary nondegree award	None	None

### Educational Supply

Educational supply for an occupation can be estimated by analyzing the number of awards issued in related Taxonomy of Programs (TOP) or Classification of Instructional Programs (CIP) codes. Exhibit 13 shows the TOP and CIP codes related to the selected occupations.

**Exhibit 13. Related TOP and CIP programs and codes for the selected occupations**

TOP Programs and Codes	Aligned CIP Programs and Codes
Registered Nursing (1230.10)	Registered Nursing/Registered Nurse (51.3801)
Licensed Vocational Nursing (1230.20)	Licensed Practical/Vocational Nurse Training (51.3901)

### Registered Nursing Supply

Exhibits 14, 15, and 16 compare the average number of degrees conferred in registered nursing programs by North (Greater Sacramento) postsecondary training providers over the last three academic years. Please note that non-community college supply data lags by one year.

**Exhibit 14. Community college registered nursing awards, 2017-18 through 2019-20**

Program	College	Annual Awards 2017-18	Annual Awards 2018-19	Annual Awards 2019-20	3-Year Annual Awards Average
Registered Nursing - 1230.10	American River	76	74	76	75
	Sacramento City	57	63	69	63
	Sierra	32	35	38	35
	Yuba	57	59	55	57
<b>Grand Totals</b>		<b>222</b>	<b>231</b>	<b>238</b>	<b>230</b>

**Exhibit 15. Other postsecondary registered nursing awards, 2016-17 through 2018-19**

Program	College	Annual Awards 2016-2017	Annual Awards 2017-2018	Annual Awards 2018-2019	3-Year Annual Awards Average
Registered Nursing/Registered Nurse - 51.3801	Carrington College - Sacramento	34	35	58	42
	CSU Sacramento*	453	508	239	400
<b>Grand Totals</b>		<b>487</b>	<b>543</b>	<b>297</b>	<b>442</b>

The asterisk (\*) denotes colleges and universities that issued bachelor's degree awards.

**Exhibit 16. Annual average registered nursing awards by type, 2016-17 through 2019-20**



**Licensed Vocational Nursing Supply**

Exhibits 17 through 19 compare the average number of degrees conferred in licensed vocational nurse training programs by North (Greater Sacramento) postsecondary training providers over the last three academic years. Please note that non-community college supply data lags by one year.

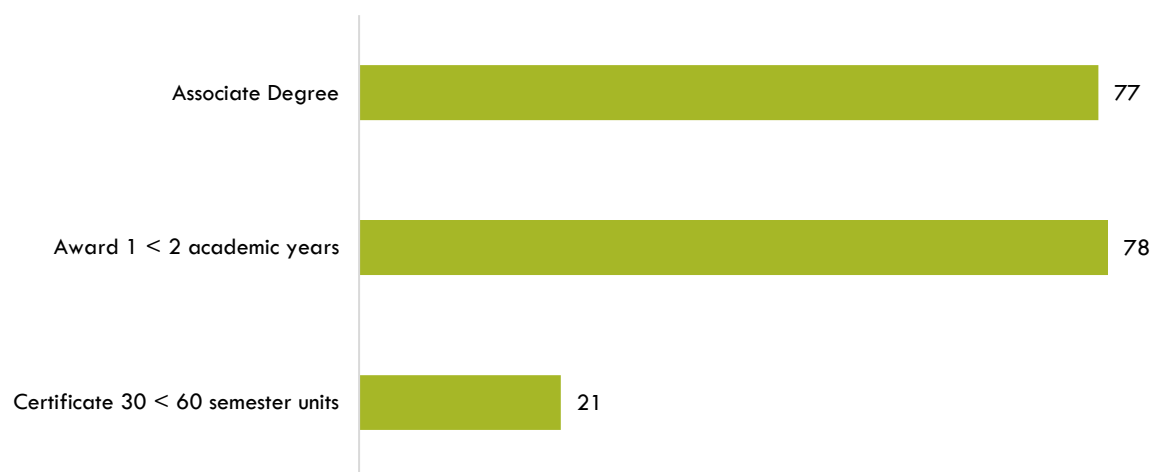
**Exhibit 17. Community college LVN awards (certificates and degrees), 2017-18 through 2019-20**

Program	College	Annual Awards 2017-18	Annual Awards 2018-19	Annual Awards 2019-20	3-Year Annual Awards Average
Licensed Vocational Nursing - 1230.20	Sacramento City	58	45	40	48
<b>Grand Totals</b>		<b>58</b>	<b>45</b>	<b>40</b>	<b>48</b>

**Exhibit 18. Other postsecondary LVN awards (certificates and degrees), 2016-17 through 2018-19**

Program	College	Annual Awards 2016-2017	Annual Awards 2017-2018	Annual Awards 2018-2019	3-Year Annual Awards Average
Licensed Practical/Vocational Nurse Training - 51.3901	Carrington College - Sacramento	63	52	195	103
	Charles A Jones Career and Education Center	33	26	19	26
<b>Grand Totals</b>		<b>96</b>	<b>78</b>	<b>214</b>	<b>129</b>

**Exhibit 19. Annual average LVN awards by type, 2016-17 through 2019-20**



## Findings

- The North (Greater Sacramento) region held 26,478 jobs for nurses in 2019. More than 80% (n = 22,197) of these jobs were held by registered nurses, while licensed vocational nurses had the remaining 17% (n = 4,281).
- Greater Sacramento nursing jobs are projected to increase by 8% over the next five years, adding just over 2,000 new jobs to the subregion. Most new jobs will be for registered nurses.
- Over the next five years, nursing occupations are projected to have 1,844 annual openings in the North (Greater Sacramento) region. More than three-quarters of the projected openings are for registered nurses, with the remaining licensed vocational nurses.
- Wage data shows that nurses earn \$12 to \$33 above the subregion's living wage of \$13.18 per hour. Entry-level wages for licensed vocational nurses are around \$25 per hour, while registered nurses can be expected to earn about \$47 per hour.

- According to real-time labor market information, there were nearly 17,000 online job postings for nurses between March 1, 2020, and February 28, 2021. Thirteen percent of online job postings in the North (Greater Sacramento) subregion were for licensed vocational nurses. The remaining jobs are for registered nurses (including advanced practice, critical care, and clinical specialists).
- While one-quarter of the job postings did not specify a minimum educational level, 47% of job postings required an associate's degree. Twenty-one percent of job postings required a bachelor's degree.
- Thirty-four percent of registered nurses and 74% of licensed vocational nurses have education levels consistent with community college offerings (some college or associate degrees). An additional 53% of registered nurses have a bachelor's degree.
- In addition to educational requirements, both registered nurses and licensed vocational nurses require licensure to practice within California. More information about licensure requirements can be found at the [California Board of Registered Nursing](#) and the [California Board of Vocational Nurses and Psychiatric Technicians](#).
- Awards data analysis shows that postsecondary institutions conferred an average of 672 awards (associate and bachelor degrees) in registered nursing programs and 177 awards (certificates and associate degrees) in licensed vocational nursing programs over the last three academic years.

## Recommendations

- The supply gap analysis shows, based on a three-year average of annual awards in North (Greater Sacramento) region nurse training programs and projected yearly openings, the region seems to have room for new training programs related to these occupations.
  - Registered nurse training programs issued an average of 672 awards over the last three years, and there are 1,441 projected annual openings for registered nurses.
  - Licensed vocational nurse training programs issued an average of 177 awards over the last three years, and there are 403 projected annual openings for licensed vocational nurses.
- The North/Far North Center of Excellence recommends moving forward with the program.
- The North/Far North COE also recommends that any college considering starting a new nursing program work with the North (Greater Sacramento) regional director of health to understand the current climate of nurse training in the area. Challenges for nurse training programs include the pandemic's impact on the availability and capacity for clinical training within the region, the need for residency training support, and the regional demand for specialized and advanced care.

COE Recommendation		
Move forward with the program	Proceed with caution	Program is not recommended
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Appendix A. Methodology and Sources

Occupations in this report were identified using O\*Net. This report's findings 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.

Sources used for data analysis purposes in this report include:

Cal-PASS Plus LaunchBoard. California Community Colleges Chancellor's Office.  
<https://www.calpassplus.org/LaunchBoard/Home.aspx>.

Emsi. <https://www.economicmodeling.com/>. EMSI occupational employment data are based on final EMSI industry data and final EMSI staffing patterns. Wage estimates are based on Occupational Employment Statistics (QCEW and Non-QCEW Employees classes of worker) and the American Community Survey (Self-Employed and Extended Proprietors).

Educational Attainment for Workers 25 Years and Older by Detailed Occupation, 2016-2017. Bureau of Labor Statistics. <https://www.bls.gov/emp/tables/educational-attainment.htm#>.

Integrated Postsecondary Education Data System (IPEDS). National Center for Education Statistics. U.S. Department of Education. <https://nces.ed.gov/ipeds/>.

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<https://labormarketinfo.edd.ca.gov/>.

Management Information Systems (MIS) Data Mart. California Community Colleges Chancellor's Office.  
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<http://www.selfsufficiencystandard.org/>

"Taxonomy of Programs." California Community Colleges Chancellor's Office. June 2012, 6<sup>th</sup> Edition.  
<https://www.cccco.edu/-/media/CCCCO-Website/About-Us/Divisions/Educational-Services-and-Support/Academic-Affairs/What-we-do/Curriculum-and-Instruction-Unit/Files/TOPmanual6200909corrected12513pdf.ashx>.

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