

Program Endorsement Brief:

Folsom Lake College: Accounting Technician SAP Software Certificate Program

North/Far North Center of Excellence, October 2018

INTRODUCTION

Folsom Lake College is exploring new program opportunities in accounting technicians with a focus on SAP software skills. This report provides an overview of the labor market demand and supply for related accounting occupation in the 7-county Greater Sacramento region¹. It provides an overview of the employment opportunities and existing community college programs that prepare students for the profession.

Key findings include:

- Bookkeeping, accounting, and auditing clerks occupational employment has declined precipitously over the last ten years.
- Projections for annual openings, including retirements and separations, and new jobs total about 1,500.
- About a third of workers have a high school education or less, suggesting an informal labor source for which educational awards may not account.
- In addition, the median wages for the occupation are tepid, ranging from \$16.50 per hour to \$20.50 per hour in the Sacramento region.
- Job postings volume seems to have increased in the last few years, but the growth is not dramatic.
- SAP software did not appear in dominant numbers in the jobs postings.
- Employment in the occupation is often at the middle skill level. About 50 percent have some college or an associate degree.
- Award production data shows community colleges in the 7-county region confer an annual average of just over 300 certificates and associate degrees between 2015 and 2018.

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.

¹ The 7-county Greater Sacramento region includes El Dorado, Placer, Nevada, Sacramento, Sutter, Yolo and Yuba counties.

OCCUPATIONAL DEMAND

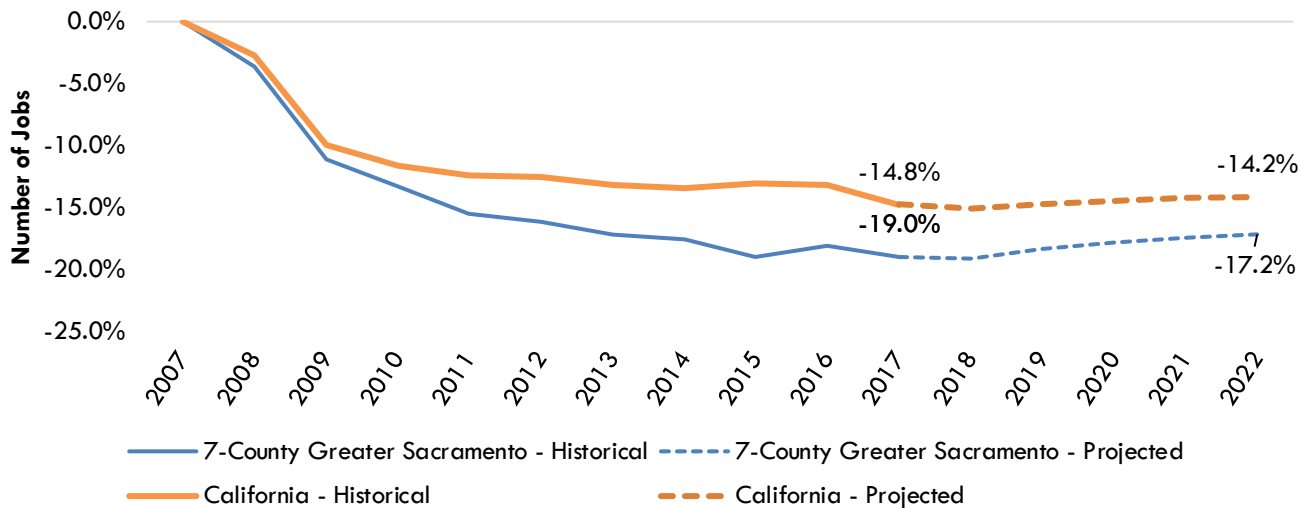
This report analyzes Bookkeeping, Accounting, and Auditing Clerks (SOC code 43-3031) in relation to the proposed program. Exhibit 1 summarizes job trends of the studied occupation in the 7-county Greater Sacramento region, and California.

Exhibit 1: Employment, projected occupational demand²

Geography	2007 Jobs	2017 Jobs	2022 Jobs	2017-22 Jobs % Change	Annual Openings
7-County Greater Sacramento Region	15,244	12,348	12,626	2.3%	1,499
California	249,496	212,558	214,151	0.7%	25,285

Exhibit 2 shows the percentage change in number of jobs between 2007 through 2017 and occupational projections from 2017 through 2022. The rate of change is indexed to the total number of jobs in 2007 as the base year and compares 7-County Greater Sacramento Region and California.

Exhibit 2: Rate of change for Bookkeeping, Accounting, and Auditing Clerks³



Bookkeeping, Accounting, and Auditing Clerks' employment experienced continuous decline in the past ten years at both regional and state levels. Its employment is projected to grow by adding 278 jobs in the region and 1,593 jobs across state between 2017 and 2022. Employers in the region are projected to create on average 1,500 new and replacement job openings annually for this occupation in the next five years, accounted for 6 percent of California's total demand for the same occupation.

WAGES AND JOB POSTINGS

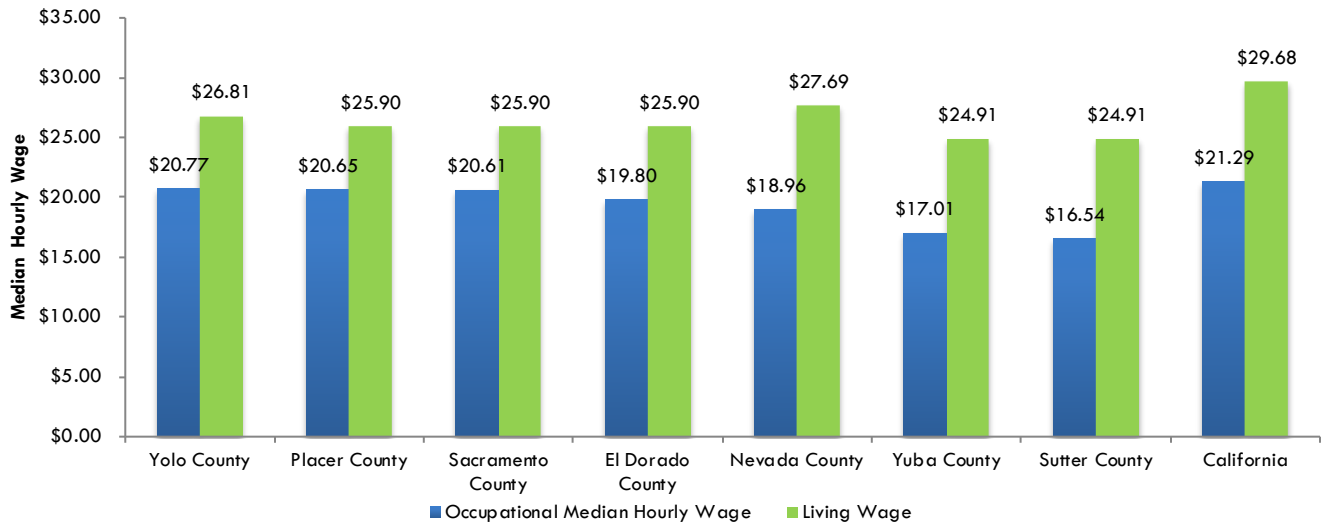
Exhibit 3 displays hourly wages for Bookkeeping, Accounting, and Auditing Clerks (SOC code 43-3031) in the 7 counties compared to each counties' median living wages for a one-adult, one-child household.⁴ The chart also compares the 7 counties to the state for the studied occupation.

² Emsi 2018.4; QCEW Employees, Non-QCEW Employees and Self-Employed.

³ Ibid.

⁴ Living Wage Calculator: Counties and Metropolitan Statistical Areas in California, <http://livingwage.mit.edu/states/06/locations>.

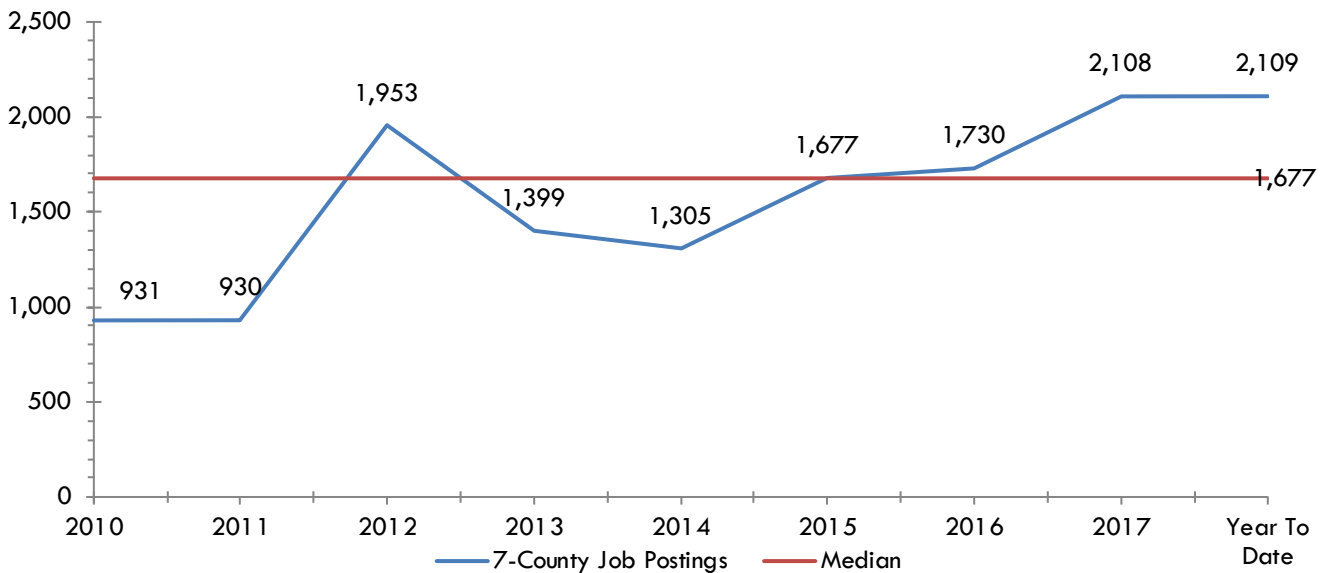
Exhibit 3: Hourly Wages for Bookkeeping, Accounting, and Auditing Clerks⁵



Burning Glass data for job postings identified a pool of 2,444 listings in the 7-County Greater Sacramento region on Bookkeeping, Accounting, and Auditing Clerks (SOC code 43-3031). Among these job postings, only 140 listed SAP software as desired or required skills. Data was pulled for the last year from October 1, 2017 through September 30, 2018.

Exhibit 4 presents the job postings trend for the representative SOC code over the past 10 years compared to the median during the same period for the 7-County region.

Exhibit 4: Job posting trend for Bookkeeping, Accounting, and Auditing Clerks⁶



⁵ Emsi 2018.4; QCEW Employees, Non-QCEW Employees and Self-Employed.

⁶ Burning Glass Technologies, "Labor Insight Real-Time Labor Market Information Tool," 2018.

Exhibit 5 shows the top titles for positions within the selected occupation that were present in the job postings.

Exhibit 5: Top titles for Bookkeeping, Accounting, and Auditing Clerks⁷

Top Titles	Number	Percent (n=2,444)
Bookkeeper	381	15.6%
Accounting Clerk	288	11.8%
Accounting Specialist	198	8.1%
Accounts Payable Clerk	170	7.0%
Accounts Payable Specialist	152	6.2%
Accounts Receivable Specialist	114	4.7%
Seasonal Clerk	109	4.5%
Accounting Assistant	105	4.3%
Accounts Receivable Clerk	88	3.6%
Accounting Technician	58	2.4%

Exhibit 6 shows the top employers for selected occupation jobs postings in 7-county Sacramento Region.

Exhibit 6: Top Employers for Bookkeeping, Accounting, and Auditing Clerks⁸

Top Employer	Number	Percent (n=1,008)
State of California	118	11.7%
Dignity Health	17	1.7%
Los Rios Community College District	16	1.6%
SBM Management	12	1.2%
Sutter Health	12	1.2%
Sprouts Farmers Markets	11	1.1%

Exhibit 7 shows the top specialized and software skills desired within selected occupation positions in 7-county Sacramento Region.

Exhibit 7: Top skills among Bookkeeping, Accounting, and Auditing Clerks⁹

Top Specialized Skills	Number	Percent (n=2,290)
Accounting	1,742	76.1%
Accounts Payable / Accounts Receivable	870	38.0%
Bookkeeping	659	28.8%
Data Entry	583	25.5%
Account Reconciliation	473	20.7%
General Ledger	451	19.7%
Quickbooks	439	19.2%
Customer Billing	436	19.0%
Top Software Skills	Number	Percent (n=2,290)
Microsoft Excel	1,130	49.3%
Microsoft Office	572	25.0%
Quickbooks	439	19.2%
Microsoft Word	297	13.0%
Accounting Software	239	10.4%
Enterprise Resource Planning (ERP)	159	6.9%
SAP	140	6.1%

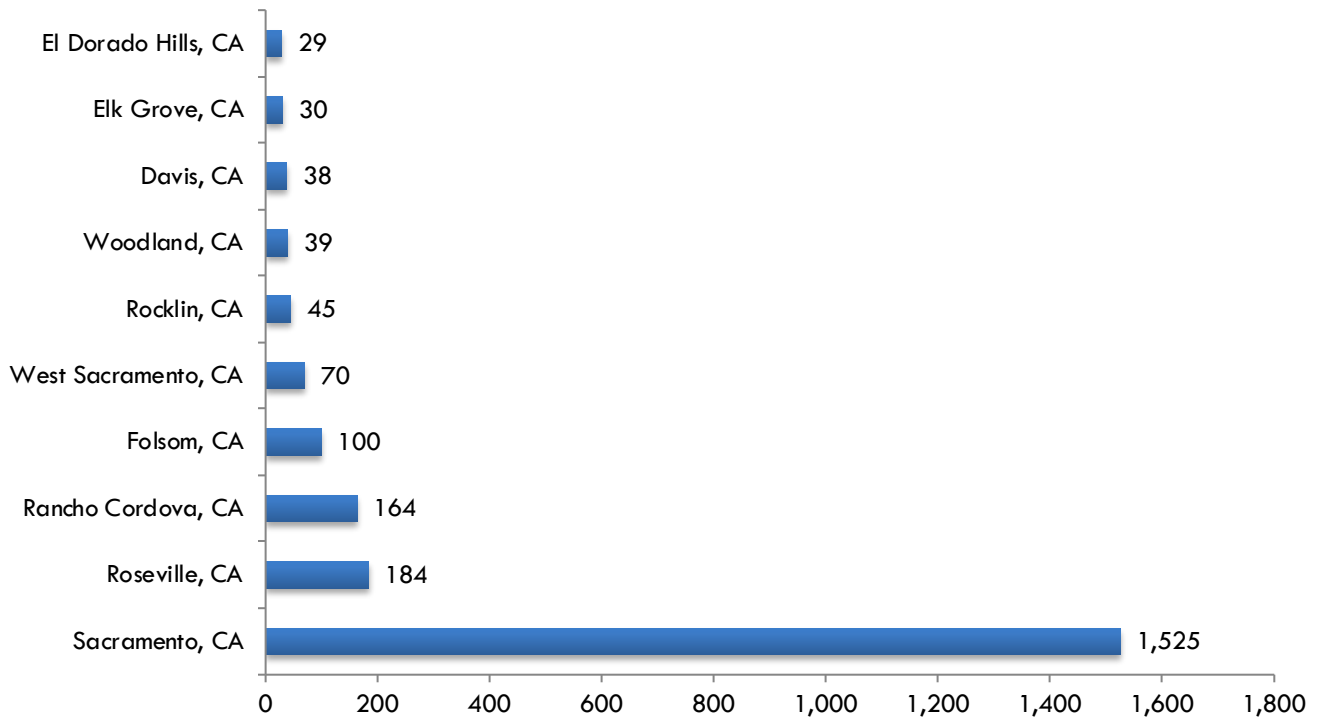
⁷ Ibid.

⁸ Ibid.

⁹ Ibid.

Exhibit 8 shows the cities where the representative occupation postings were located.

Exhibit 8: Top locations listed for Bookkeeping, Accounting, and Auditing Clerks¹⁰

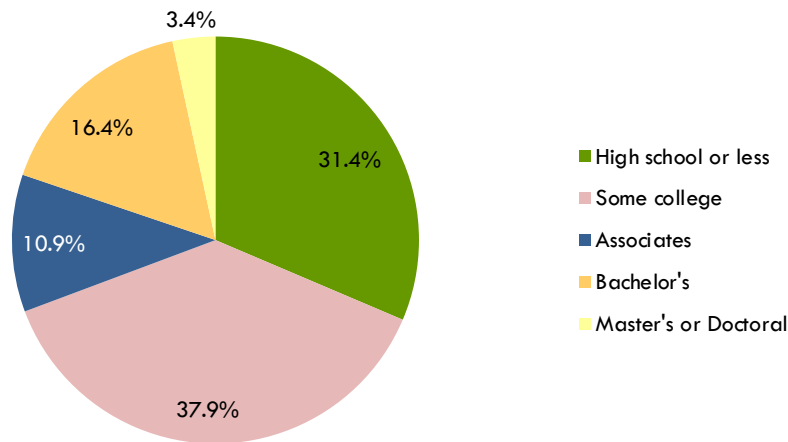


EDUCATIONAL ATTAINMENT AND SUPPLY

At the national level, Bookkeeping, Accounting, and Auditing Clerks typically employs workers who have at least some college education although one third of the workers in this occupation only hold a high school diploma or less. Exhibit 9 breaks down the educational attainment percentages for this occupation.

¹⁰ Ibid.

Exhibit 9: Typical educational attainment for Bookkeeping, Accounting, and Auditing Clerks nationally¹¹

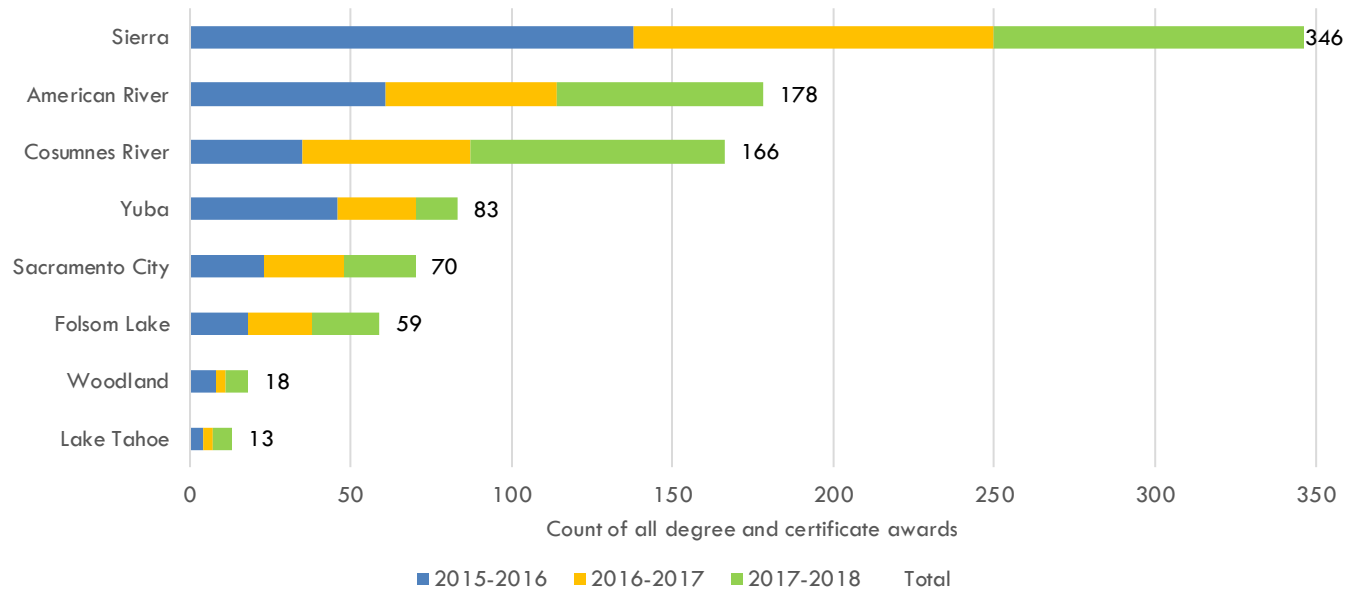


There is one Taxonomy of Programs (TOP) code identified that relates to Accounting Technician: Accounting (0502).

There are eight community colleges in the 7-county Greater Sacramento region that offer related training. Sierra College, American River College and Cosumnes River College confer the majority of awards. Nearly two thirds of all awards are Associate degrees.

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

Exhibit 10: Total awards conferred by 7-county region community colleges, 2015-2018¹²



¹¹ Current Population Survey, Educational Attainment for Workers 25 Years and Older by Detailed Occupation, 2015-2016, https://www.bls.gov/emp/ep_table_111.htm.

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

Exhibit 11 shows the break down between certificates and associate degrees.

Exhibit 11: Certificates and associate degrees conferred by 7-county region community colleges, 2015-2018¹³

	Certificate				Associate			
	2015-16	2016-17	2017-18	3-Yr Avg	2015-16	2016-17	2017-18	3-Yr Avg
Sierra	48	34	33	38	90	78	63	77
American River	23	14	19	19	38	39	45	41
Cosumnes River	19	28	48	32	16	24	31	24
Yuba	25	6	4	12	21	18	9	16
Sacramento City	3	5	5	4	20	20	17	19
Folsom Lake	11	13	12	12	7	7	9	8
Woodland			2	2	8	3	5	5
Lake Tahoe		2	2	2	4	1	4	3
Grand Total	129	102	125	119	204	190	183	192

FINDINGS

- Bookkeeping, accounting, and auditing clerks occupational employment has declined precipitously over the last ten years, declining nearly 20 percent in the Sacramento region since 2007. Growth projections are small.
- Projections for annual openings, including retirements and separations, and new jobs total about 1,500. Compared to the amount of education and training awards at the community colleges—just over 300 on average annually over the last three years—there appears to be a significant gap.
- However, the educational attainment could indicate that many of the workers counted in the occupational category may not have received formal training. About a third of workers have a high school education or less, suggesting an informal labor source for which educational awards may not account. Coupled with the occupational decline, this could pose concerns for adding more workers to the workforce.
- In addition, the median wages for the occupation are tepid, ranging from \$16.50 per hour to \$20.50 per hour in the Sacramento region, between \$5 per hour to \$9 per hour below the living wage for a one adult, one child household.
- Job postings volume seems to have increased in the last few years, but the growth is not dramatic. Postings are generally not considered as reliable measures of demand for a variety of reasons.
- Top employers in the Sacramento region posting for accountants and bookkeepers included public agencies, community colleges, and health insurance providers.
- Folsom Lake College sought information specifically about SAP software for accounting. MS Office and Quickbooks show up in much larger numbers in the jobs postings, but SAP software did make the list.

¹³ COE Supply Tables, California Community Colleges Chancellor's Office DataMart, Integrated Postsecondary Education Data System (IPEDS).

- The educational attainment for the occupation suggests that postsecondary training and education are typical. Employment in the occupation is often at the middle skill level. About 50 percent have some college or an associate degree.
- Award production data shows community colleges in the 7-county region confer an annual average of just over 300 certificates and associate degrees between 2015 and 2018. Sierra College is the largest supplier for accounting awardees in the region.

RECOMMENDATIONS

- ***Wage levels and employment declines pose concerns for program development.*** The wage data and significant decline in the occupational employment in the last ten years pose significant concerns for training accountants and bookkeepers at a below bachelor's degree level. Nonetheless, the openings projections suggest there will be job availability. It is important to note that much of this activity will be due to retirements and separations, not occupational growth. Wage levels are below living wage standards for the threshold level chosen.
- ***Transfer pathways to business-related bachelor's degrees merits emphasis.*** Further research can explore the utility of accounting-related education for transfer pathways, including business degrees in non-accounting majors, that may yield higher wages. This brief research indicates that there will be more value in accounting training that leads to bachelor's-level degrees in accounting and other business degrees, not in training middle skill accountants.
- ***The research did not show that SAP accounting software represents a pressing concern for training.*** The jobs postings data did not show a windfall for positions calling for SAP accounting software. The postings suggest that Quickbooks and MS Office are more important skills.

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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