

**Program Endorsement Brief: 0502.00 /Accounting
Bookkeeping Certificate
Foundations of Accounting
General Accounting Certificate**

Orange County Center of Excellence, September 2021

Summary Analysis

Program Endorsement:	Endorsed: All Criteria Met	<input type="checkbox"/>	Endorsed: Some Criteria Met	<input checked="" type="checkbox"/>	Not Endorsed	<input type="checkbox"/>
Program Endorsement Criteria						
Supply Gap:	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>		
Living Wage: (Entry-Level, 25th)	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>		
Education:	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>		
Emerging Occupation(s)						
	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>		

The Orange County Center of Excellence for Labor Market Research (COE) prepared this report to provide Los Angeles/Orange County regional labor market supply and demand data related to five middle-skill occupations: *tax examiners and collectors and revenue agents (13-2081)*, *tax preparers (13-2082)*, *bookkeeping, accounting, and auditing clerks (43-3031)*, *payroll and timekeeping clerks (43-3051)*, and *brokerage clerks (43-4011)*, as well as one above middle-skill occupation: *accountants and auditors (13-2011)*. Middle-skill occupations typically require some postsecondary education, but less than a bachelor’s degree.¹ Although *tax examiners and collectors and revenue agents (13-2081)* typically requires a bachelor’s degree, they are considered middle-skill because approximately one-third of workers in the field have completed some college or an associate degree. Additionally, though *accountants and auditors (13-2011)* is an above middle-skill occupation, it is included because the other occupations included in this report are pathways to that occupation and students and/or working professionals will often take community college courses to become eligible for the CPA exam. 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 community college programs that align with the relevant occupations.

Based on the available data there appears to be a supply gap for these accounting occupations in the region. Furthermore, the majority of annual openings for the occupations in this report typically require a high school diploma or some college. While entry-level wages exceed the living wage in both Los Angeles and Orange counties in only 40% of annual openings, entry-level wages exceed the living wage in Los Angeles for 95% of annual openings and median wages for all annual openings exceed the living wage in both Los Angeles and Orange counties. **Therefore,**

¹ The COE classifies middle-skill jobs as the following:

- All occupations that require an educational requirement of some college, associate degree or apprenticeship;
- All occupations that require a bachelor’s degree, but also have more than one-third of their existing labor force with an educational attainment of some college or associate degree; or
- All occupations that require a high school diploma or equivalent or no formal education, but also require short- to long-term on-the-job training where multiple community colleges have existing programs.

some of the criteria being met, the COE endorses this proposed program this program.

Detailed reasons include:

Demand:

- **Supply Gap Criteria** – Over the next five years, there is projected to be **8,761 middle-skill jobs available annually** in the region due to retirements and workers leaving the field, **which is more than the 3,199 awards conferred annually** by educational institutions in the region.
- **Living Wage Criteria** –Within Orange County, **the majority (97%) of annual job openings for these five middle-skill occupations have entry-level wages below the county’s living wage (\$20.63/hour).**²
 - However, **median hourly wages for the five middle-skill accounting occupations range from \$23.68 to \$42.07, which is higher than the living wage estimate.**
- **Educational Criteria** –Within the LA/OC region, **84% of the annual job openings for the middle-skill occupations related to accounting typically require some college, no degree.**
 - Furthermore, the national-level educational attainment data indicates **between 32% and 49.4% of workers in these middle-skill occupations have completed some college or an associate degree** as their highest level of education.

Supply:

- There are **28 community colleges** in the LA/OC region that issue awards related to accounting, conferring an average of **1,805 awards annually** between 2017 and 2020.
- Between 2016 and 2019, there was an average of **1,394 awards conferred annually** in related training programs by non-community college institutions, all of which were generated by **34 individual four-year colleges throughout** the region.

Occupational Demand

Exhibit 1 shows the five-year occupational demand projections for these six accounting occupations. In Los Angeles/Orange County, the number of jobs related to these occupations is projected to decrease by 2% through 2025. However, there will be more than 14,000 job openings per year through 2025 due to retirements and workers leaving the field. Of those, 61% (8,761) will be for the five middle-skill occupations in this report.

This report includes employment projection data by Emsi which uses EDD information. 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. To the extent that a recession or labor shock, such as the economic effects of COVID-19, can cause long-term structural change, it may impact the projections. At this time, it is not possible to quantify the impact of COVID-19 on projections of industry and

² Living wage data was pulled from California Family Needs Calculator on 9/21/2021. For more information, visit the California Family Needs Calculator website: <https://insightcced.org/2018-family-needs-calculator/>.

occupational employment. Therefore, the projections included in this report do not take the impacts of COVID-19 into account.

Exhibit 1: Occupational demand in Los Angeles and Orange Counties³

Geography	2020 Jobs	2025 Jobs	2020-2025 Change	2020-2025 % Change	Annual Openings
Orange	42,889	42,720	(169)	(0.39%)	4,144
Los Angeles	110,051	106,484	(3,567)	(3%)	10,184
Total	152,940	149,204	(3,736)	(2%)	14,351

Wages

The labor market endorsement in this report considers the entry-level hourly wages for these accounting occupations in Orange County as they relate to the county’s living wage. Los Angeles County wages are included below in order to provide a complete analysis of the LA/OC region. Detailed wage information, by county, is included in Appendix A.

Orange County: The majority (97%) of annual openings for the five middle-skill accounting occupations have entry-level wages below the living wage for one adult (\$20.63 in Orange County). Typical entry-level hourly wages are in a range between \$15.82 and \$32.37. Experienced workers can expect to earn wages between \$28.18 and \$51.60, which are higher than the living wage estimate. Orange County’s average wages are above the average statewide wage of \$29.83 for these occupations.

Los Angeles County: The majority (94%) of annual openings for the five middle-skill accounting occupations have entry-level wages above the living wage for one adult (\$18.10 in Los Angeles County). Typical entry-level hourly wages are in a range between \$17.35 and \$35.03. Experienced workers can expect to earn wages between \$29.20 and \$55.84, which are higher than the living wage estimate. Los Angeles County’s average wages are above the average statewide wage of \$29.83 for these occupations.

Job Postings

There were 41,976 online job postings related to accounting listed in the past 12 months. The highest number of job postings were for bookkeeping, accounting, and auditing clerks, and accountants and auditors. The top skills were: accounting, account reconciliation, general ledger, financial statements, and accounts payable/ accounts receivable. The top three employers, by number of job postings, in the region were: Intuit, KPMG, and Anthem Blue Cross.

It is important to note that the job postings data included in this section reflects online job postings listed in the past 12 months and does not yet demonstrate the impact of COVID-19. While employers have generally posted fewer online job postings since the beginning of the pandemic, the long-term effects are currently unknown.

Educational Attainment

³ Five-year change represents new job additions to the workforce. Annual openings include new jobs and replacement jobs that result from retirements and separations.

In the LA/OC region, the majority of annual job openings (84%) typically require some college, no degree. Furthermore, the national-level educational attainment data indicates between 32% and 49.4% of workers in the middle skill occupations have completed some college or an associate degree as their highest level of education. Of the 68% of job postings listing a minimum education requirement in Los Angeles/Orange County, 72.1% (20,625) requested a Bachelor’s degree and 6.3% (1,805) requested an associate degree.

Educational Supply

Community College Supply—Exhibit 2 shows the three-year average number of awards conferred by community colleges in the related TOP code: Accounting (0502.00). The colleges with the most completions in the region are: East LA, Irvine, Mt. San Antonio, Santa Ana, and Orange Coast. Over the past 12 months, there were two other related program recommendation requests from regional community colleges.

Exhibit 2: Regional community college awards (certificates and degrees), 2017-2020

TOP Code	Program	College	2017-2018 Awards	2018-2019 Awards	2019-2020 Awards	3-Year Award Average
0502.00	Accounting	Coastline	43	49	40	44
		Cypress	5	8	6	6
		Fullerton	28	27	9	15
		Golden West	19	36	17	24
		Irvine	142	201	316	220
		Orange Coast	112	104	124	113
		Saddleback	32	38	36	35
		Santa Ana	86	198	125	136
		Santiago Canyon	55	7	6	23
		OC Subtotal	512	658	679	616
		Cerritos	26	29	49	35
		Citrus	20	18	18	19
		Compton	-	1	-	0
		East LA	397	635	577	536
		El Camino	8	16	13	12
		Glendale	52	63	63	59
		LA City	16	5	7	9
		LA Harbor	4	8	15	9
		LA Mission	8	8	26	14
		LA Southwest	-	1	-	0
LA Trade	26	21	12	20		
LA Valley	45	34	46	42		

TOP Code	Program	College	2017-2018 Awards	2018-2019 Awards	2019-2020 Awards	3-Year Award Average
		Long Beach	36	42	63	47
		Mt. San Antonio	114	174	187	158
		Pasadena	30	23	16	23
		Rio Hondo	17	14	17	16
		Santa Monica	169	78	217	155
		West LA	7	15	6	9
		LA Subtotal	980	1,214	1,371	1,188
Supply Total/Average			1,492	1,872	2,050	1,805

Non-Community College Supply—For a comprehensive regional supply analysis, it is also important to consider the supply from other institutions in the region that provide training programs for accounting. Exhibit 3 shows the annual and three-year average number of awards conferred by these institutions in the related Classification of Instructional Programs (CIP) Codes: Accounting (52.0301), and Accounting Technology/Technician and Bookkeeping (53.0302). Due to different data collection periods, the most recent three-year period of available data is from 2016 to 2019. Between 2016 and 2019, non-community college institutions in the region conferred an average of 1,394 awards annually in related training programs.

Exhibit 3: Regional non-community college awards, 2016-2019

CIP Code	Program	College	2016-2017 Awards	2017-2018 Awards	2018-2019 Awards	3-Year Award Average
52.0301	Accounting	Advanced College	2	-	-	1
		Azusa Pacific University	54	36	35	42
		Biola University	40	51	55	49
		California State Polytechnic University- Pomona	12	12	19	14
		California State University- Dominguez Hills	-	4	-	1
		California State University- Fullerton	68	58	48	58
		California State University- Long Beach	11	18	38	22
		California State University- Los Angeles	29	11	18	19

CIP Code	Program	College	2016-2017 Awards	2017-2018 Awards	2018-2019 Awards	3-Year Award Average
		California State University- Northridge	304	346	299	316
		Chapman University	68	66	66	67
		Claremont McKenna College	23	22	25	23
		DeVry University- California	63	52	30	48
		Los Angeles ORT College- LA Campus	23	16	9	16
		Los Angeles Pacific College	-	-	10	3
		Loyola Marymount College	72	60	72	68
		Mount Saint Mary's College	20	14	20	18
		Pacific States University	5	-	-	2
		Pepperdine University	31	23	14	23
		Pitzer College	2	1	4	2
		PUSD Adult and Career Education	3	3	-	2
		Scripps College	1	2	3	2
		University of California- Irvine	106	118	136	120
		University of La Verne	80	89	76	82
		University of Phoenix- California	25	23	22	23
		University of Southern California	299	332	291	307
		Vanguard University of Southern California	3	6	6	5
		Woodbury University	17	13	12	14
Supply Subtotal/Average			1,361	1,376	1,308	1,348
52.0302	Accounting Technology/Technician and Bookkeeping	ABC Adult School	-	19	22	14
		Advanced College	-	2	1	1
		Hacienda La Puente Adult Education	28	24	20	24
		InterCoast Colleges- Santa Ana	4	1	1	2

CIP Code	Program	College	2016-2017 Awards	2017-2018 Awards	2018-2019 Awards	3-Year Award Average
		Premiere Career College	2	4	2	3
		Trident University International	-	-	5	2
		University of Phoenix-California	1	-	-	0
Supply Subtotal/Average			35	50	51	45
Supply Total/Average			1,396	1,426	1,359	1,394

Appendix A: Occupational demand and wage data by county

Exhibit 4. Orange County

Occupation (SOC)	2020 Jobs	2025 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Entry-Level Hourly Earnings (25 th Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75 th Percentile)
Accountants and Auditors (13-2011)	18,961	19,376	415	2%	1,646	\$25.42	\$34.84	\$47.23
Tax Examiners and Collectors, and Revenue Agents (13-2081)	267	278	11	4%	24	\$32.37	\$42.07	\$51.60
Tax Preparers (13-2082)	1,195	1,238	42	4%	135	\$15.82	\$28.24	\$39.11
Bookkeeping, Accounting, and Auditing Clerks (43-3031)	20,087	19,456	(630)	(3%)	2,100	\$18.61	\$23.68	\$29.23
Payroll and Timekeeping Clerks (43-3051)	1,856	1,814	(42)	(2%)	180	\$19.98	\$26.09	\$30.75
Brokerage Clerks (43-4011)	523	559	35	7%	58	\$20.97	\$24.95	\$28.18
Total	42,889	42,720	(169)	(0.39)	4,144			

Exhibit 5. Los Angeles County

Occupation (SOC)	2020 Jobs	2025 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Entry-Level Hourly Earnings (25 th Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75 th Percentile)
Accountants and Auditors (13-2011)	48,968	48,194	(773)	(2%)	3,944	\$26.70	\$36.62	\$49.63
Tax Examiners and Collectors, and Revenue Agents (13-2081)	1,257	1,291	34	3%	107	\$35.03	\$45.53	\$55.84
Tax Preparers (13-2082)	3,183	3,113	(71)	(2%)	330	\$17.35	\$31.50	\$44.48
Bookkeeping, Accounting, and Auditing Clerks (43-3031)	50,859	48,352	(2,354)	(5%)	5,271	\$18.56	\$23.64	\$29.20
Payroll and Timekeeping Clerks (43-3051)	4,773	4,557	(216)	(5%)	459	\$20.51	\$26.80	\$31.57
Brokerage Clerks (43-4011)	1,011	1,004	(7)	(1%)	96	\$24.90	\$29.65	\$33.50
Total	110,051	106,484	(3567)	(3%)	10,207			

Exhibit 6. Los Angeles and Orange Counties

Occupation (SOC)	2020 Jobs	2025 Jobs	5-Yr Change	5-Yr % Change	Annual Openings
Accountants and Auditors (13-2011)	69,929	67,570	(359)	(1%)	5,590
Tax Examiners and Collectors, and Revenue Agents (13-2081)	1,524	1,569	45	3%	131
Tax Preparers (13-2082)	4,379	4,350	(28)	(1%)	465
Bookkeeping, Accounting, and Auditing Clerks (43-3031)	70,946	67,781	(3,164)	(4%)	7,371

Occupation (SOC)	2020 Jobs	2025 Jobs	5-Yr Change	5-Yr % Change	Annual Openings
Payroll and Timekeeping Clerks (43-3051)	6,629	6,371	(258)	(4%)	639
Brokerage Clerks (43-4011)	1,534	1,563	29	2%	154
Total	152,940	149,204	(3,736)	(2%)	14,351

Appendix B: Sources

- O*NET Online
- Labor Insight/Jobs (Burning Glass)
- Economic Modeling Specialists, International (Emsi)
- Bureau of Labor Statistics (BLS)
- Employment Development Department, Labor Market Information Division, OES
- California Community Colleges Chancellor's Office Management Information Systems (MIS)
- California Family Needs Calculator, Insight Center for Community Economic Development
- Chancellor's Office Curriculum Inventory (COCI 2.0)

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