C·O·E CENTERS OF EXCELLENCE
FOR LABOR MARKET RESEARCH

Business Management

Inland Empire/Desert Region (Riverside and San Bernardino counties)

Summary

Business Management
(TOP 0506.00)
Community College Program

Provides training for
1 Bachelor's Degree-level
2 Community College-level
Occupations
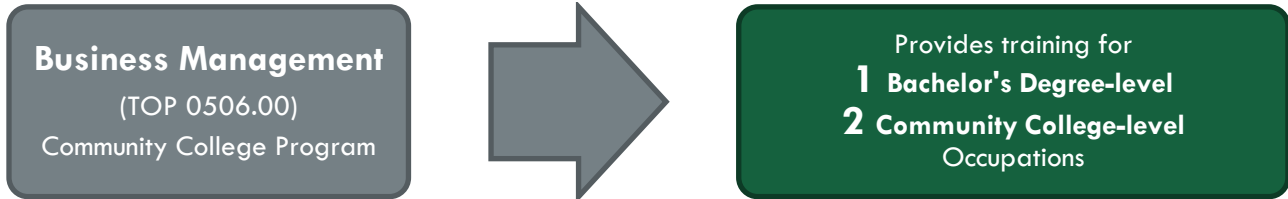
Over the next five years (2021-2026), community-college-level business management employment is projected to

Increase Employment by 15%

3,116 Annual Job Openings

10th percentile Hourly Earnings between **$23.52 to $23.82** Above the Hourly Living Wage Standard ($21.82)

3,833 Total Annual Awards
In Business Management Programs
1,907 Program Awards from Community College Programs
1,926 Program Awards from Other Postsecondary Education Providers

The Inland Empire/Desert Centers of Excellence
👍 **Recommends**
business management program expansion
to meet the need for more workers in the region

Introduction

This report provides data on programs and occupations related to business management. The California Community College programs most likely to prepare students for business management employment are the business and commerce, general (TOP 0501.00), business administration (0505.00), and business management (0506.00) programs. Program definitions are provided in this report's student completions and program outcomes section.

The knowledge, skills, and abilities trained by business management programs lead to three distinct occupations, collectively referred to as the business management occupational group in this report. The business management occupational group is separated into community college-level and bachelor's degree-level occupations to illuminate job opportunities for individuals with varying education levels.

The **community college-level business management occupations** in this report typically require a bachelor's degree and previous work experience. However, these occupations are considered community college-level because approximately one-third of incumbent workers in these occupations have a community college-level education, some college or an associate degree, as their highest level of education. The community college-level occupation included in the business management occupational group is:

- General Operations Managers (SOC 11-1021)
- Administrative Services Managers (11-3012)

The **bachelor's degree-level business management occupation** included in this report typically requires workers to obtain a bachelor's degree before employment. Students enrolled in a business management program may gain transferable skills. Approximately 20% of incumbent bachelor's degree-level workers hold a community college-level of educational attainment. The bachelor's degree-level business management occupation included in this report is:

- Project Management Specialists (SOC 13-1082)

This report's educational supply and employment demand portions focus solely on the community college-level jobs students will likely obtain after completing a business management program.

Job Counts and Projections

In 2021, there were 30,099 total business management jobs in the region; approximately 84% of regional business management jobs were community college-level, and 16% were bachelor's degree-level. By 2026, community college-level employment is projected to increase by 15%; 3,116 job openings are expected annually due to the region's new job growth and replacement needs. Exhibit 1 displays the job counts, five-year projected job growth, openings, and the share of incumbent workers aged 55 years and older.

Exhibit 1: Five-year projections for the business management occupational group, Inland Empire/Desert Region, 2021-2026

Occupation	2021 Jobs	2026 Jobs	5-Yr % Change	5-Yr Openings (New + Replacement Jobs)	Annual Openings (New + Replacement Jobs)	% of workers age 55+
Bachelor's Degree-level						
Project Management Specialists	4,800	5,454	14%	2,693	539	24%
Community College-level						
General and Operations Managers	23,050	26,663	16%	14,374	2,875	24%
Administrative Services Managers	2,249	2,479	10%	1,207	241	34%
Community College Total	**25,298**	**29,143**	**15%**	**15,581**	**3,116**	**25%**
Total	**30,099**	**34,597**	**15%**	**18,275**	**3,655**	**25%**

Source: Lightcast 2023.1

An online job advertisement (ad) search for jobs in the business management occupational group revealed the employers seeking these workers, including the median posting duration, earnings information, and in-demand skills. Over the last 12 months, there were 4,347 job ads posted for the business management occupational group in the region.

Exhibit 2 shows the number of job ads posted during the last 12 months and the regional median posting duration for these jobs. The average regional online job is open for 28 days, indicating that employers may face fewer challenges filling jobs in the business management occupational group as they do other jobs.

Exhibit 2: Job ads and median posting duration, Inland Empire/Desert, March 2023 – February 2022

| Occupation	Job Ads	Median Job Posting Duration (Days)
Bachelor's Degree-level		
Project Management Specialists	744	26
Community College-level		
General and Operations Managers	3,275	28
Administrative Services Managers	328	23
Total	**4,347**	**25**

Source: Lightcast 2023.1

Earnings

Community colleges should ensure their training programs lead to employment opportunities that provide a living wage. The MIT living wage calculator estimates that an individual must earn $21.82 per hour or $45,386 annually in California to be self-sufficient (Glasmeier, 2023).

Exhibit 3 displays the hourly earnings for the business management occupational group in the Inland Empire/Desert Region. The 10th percentile hourly earnings for the business management occupational group are between $23.52 and $27.36 per hour, above the living wage standard.

Exhibit 3: Hourly earnings by percentile for the business management occupational group, Inland Empire/Desert Region, 2021
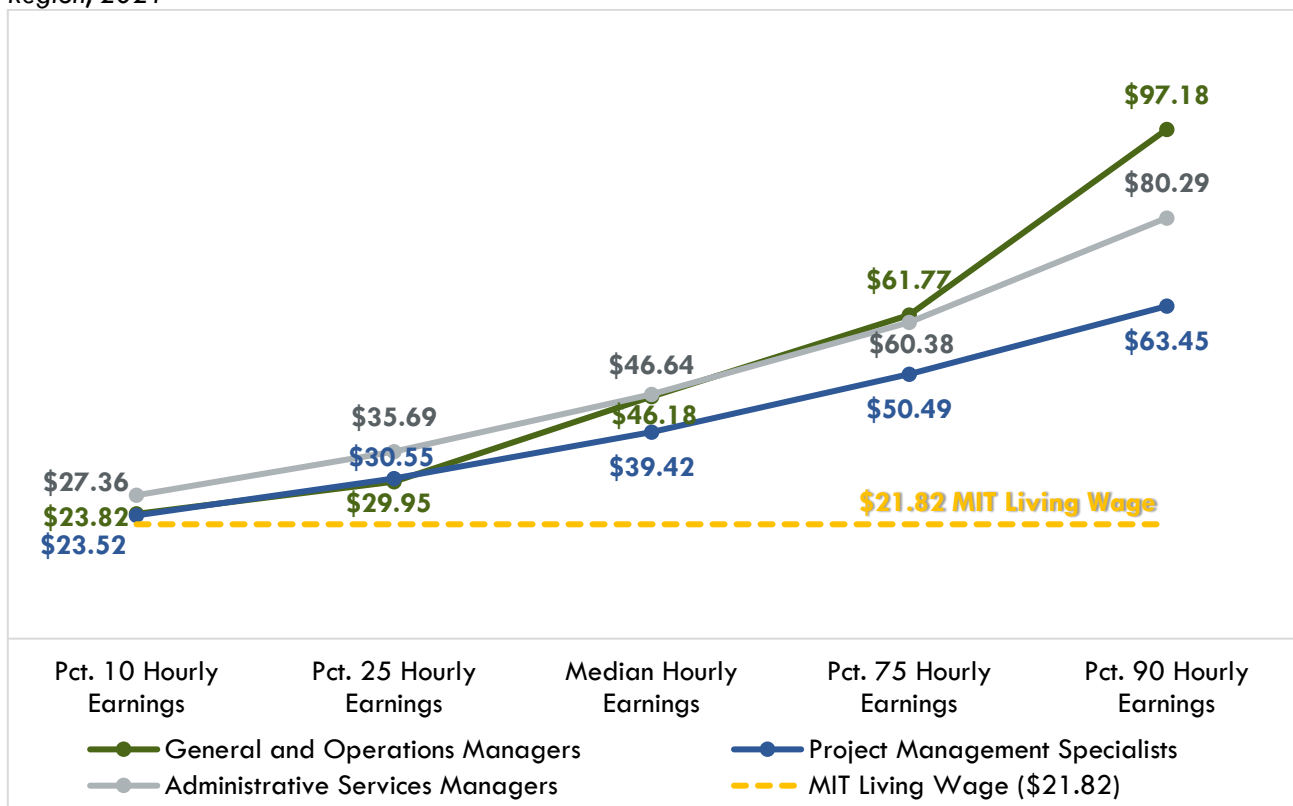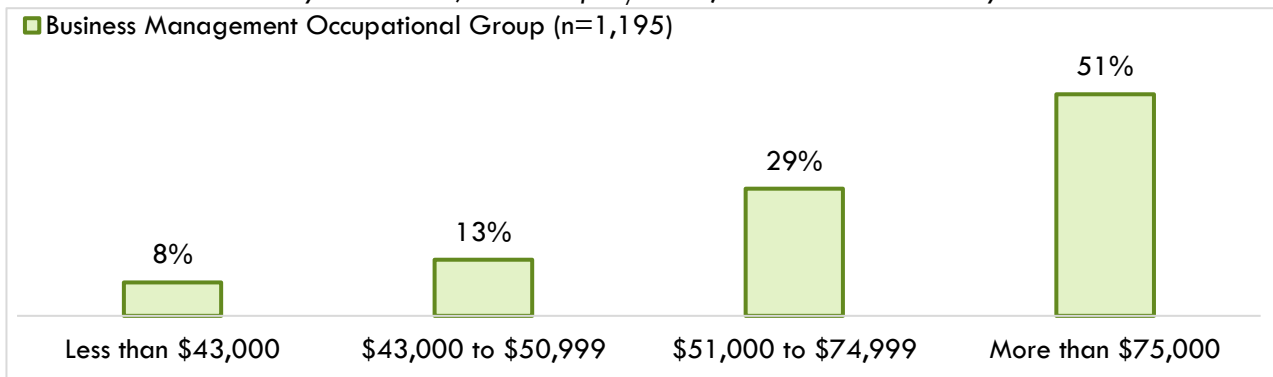

Source: Lightcast 2023.1

Advertised Salary from Online Job Ads

Exhibit 4 displays online job ad salary data for the business management occupational group over the last 12 months. Online job ad salary information reveals employers are willing to pay business management workers more than $75,000 annually, above the region's $45,386 annual ($21.82 hourly) living wage standard. Consider the salary information with caution since only 27% (1,195 out of 4,347) of online job ads for these occupations provided salary information.

Exhibit 4: Advertised salary information, Inland Empire/Desert, March 2023 – February 2022

◻ Business Management Occupational Group (n=1,195)

			51%
		29%	
8%	13%		
Less than $43,000	$43,000 to $50,999	$51,000 to $74,999	More than $75,000

Source: Lightcast 2023.1

Job Titles, Employers, Skills, Education, and Work Experience

Exhibit 5 displays the job titles most frequently included in ads for the business management occupational group over the last 12 months. Displaying job titles may provide insight into the positions available to students after completing a program. The most frequently sought job title over this period was operations manager.

Exhibit 5: Job titles most frequently included in job ads for the business management occupational group, Inland Empire/Desert, March 2023 – February 2022

Job Title	Job Ads
Operations Managers	442
Operations Supervisors	341
Project Managers	303
General Managers	200
Operations Shift Supervisors	156
Managers-in-Training	155
Directors of Operations	94
Assistant General Managers	91
Operations Coordinators	56
Operations Shift Managers	53
All other job titles	*2,416*
Total	**4,347**

Source: Lightcast 2023.1

Exhibit 6 displays the employers that posted the most job ads during the last 12 months. Showing employer names provides insight into where students may find employment after completing a program. CVS Health posted the most job advertisements for the business management occupational group in the region, primarily seeking operations managers for store locations.

Exhibit 6: Employers posting the most job ads for the business management occupational group, Inland Empire/Desert, March 2023 – February 2022

Employers	Job Ads
CVS Health	82
Target	71
GXO Logistics	69
University of California, Riverside	54
Deutsche Post DHL Group	52
Elevance Health	50
XPO Logistics	48
Marriott International	43
GEODIS	40
Walmart	36
FedEx	31
Penske Automotive Group	30
All other employers	*3,741*
Total	**4,347**

Source: Lightcast 2023.1

Exhibit 7 lists a sample of specialized and employability skills employers seek for workers to fill positions in the business management occupational group. Specialized skills are occupation-specific skills that employers request for industry or job competency. Employability skills are foundational skills that transcend industries and occupations; this category is often referred to as "soft skills." The skills requested in job ads may be utilized to guide curriculum development.

Exhibit 7: Sample of in-demand skills from employer job ads, Inland Empire/Desert, March 2023 – February 2022

Specialized skills (n=4,347)	Employability skills
• Operations Management	• Communication Skills
• Warehousing	• Customer Service
• Process Improvement	• Leadership
• Auditing	• Planning
• Profit and Loss (P&L) Management	• Problem-Solving
• Supply Change	• Sales
• Performance Management	• Writing
• Project Management	• Coordinating

Source: Lightcast 2023.1

Exhibit 8 displays the minimum advertised education requirements for the business management occupational group. Approximately 56% of employers posting job ads for the business management occupational group sought candidates with a bachelor's degree.

Exhibit 8: Minimum advertised education requirements for the business management occupational group, Inland Empire/Desert, March 2023 – February 2022.

☐ Business Management Occupational Group (n=4,347)

Education	Percent
Bachelor's degree	56%
Associate degree	7%
High school or GED	36%
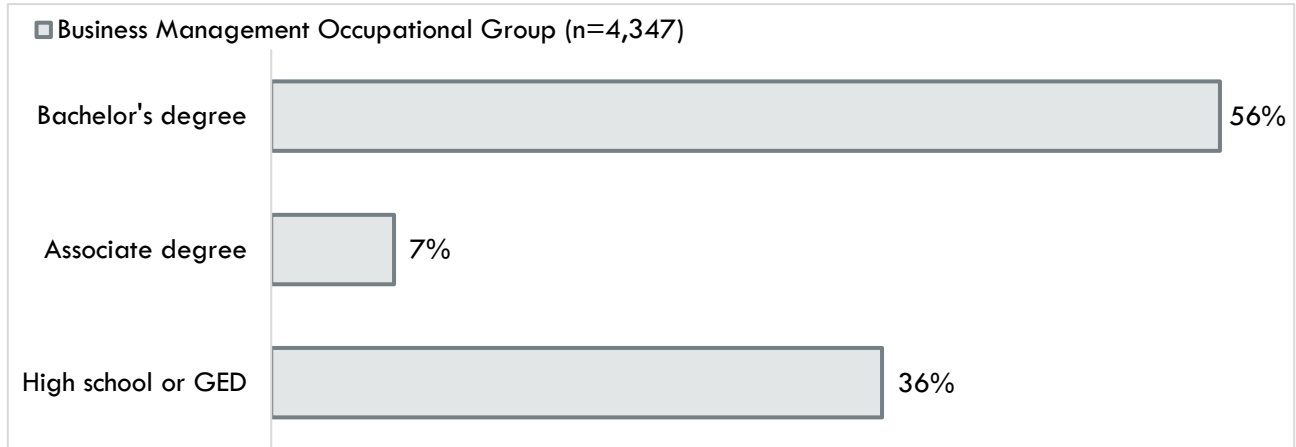
Source: Lightcast 2023.1

Exhibit 9 displays the real-time work experience requirements from employer job ads. Of job ads with experience requirements, about 88% indicated that employers were seeking candidates with two or more years of previous work experience.

Exhibit 9: Real-time work experience requirements, Inland Empire/Desert, March 2023 – February 2022

☐ Business Management Occupational Group (n=3,472)

Experience	Percent
0 to 1 year	12%
2 to 3 years	37%
4+ years	52%
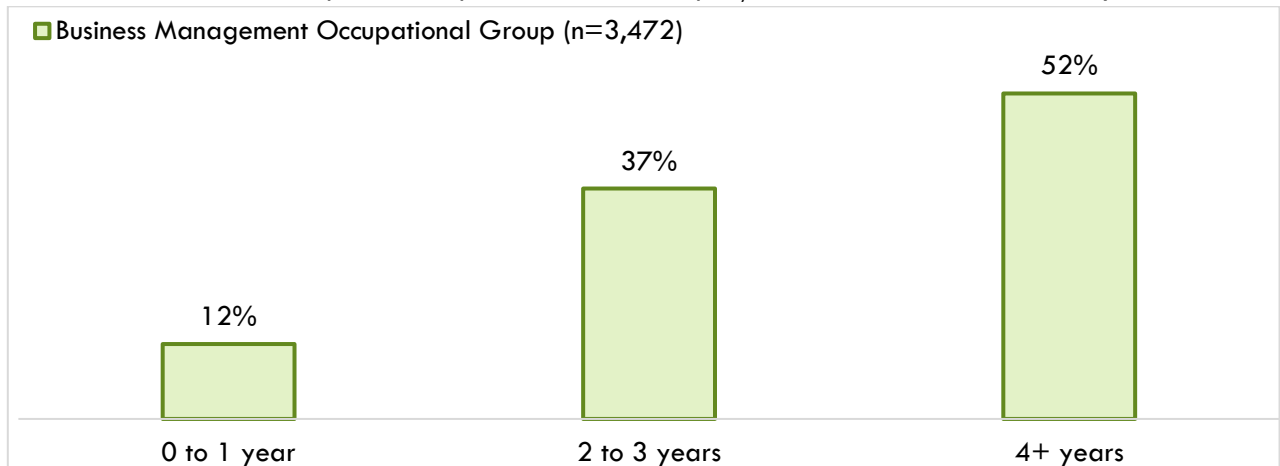
Source: Lightcast 2023.1

Student Completions and Programs Outcomes

Regional community colleges use three program codes for their business management programs; business and commerce, general (top 0501.00), business administration (0505.00), and business management (0506.00).

Combined, regional community colleges have issued 1,907 awards annually in programs related to business management.

Business and Commerce, General (0501.00): Processes, principles, and procedures of purchasing, selling, producing, and interchanging goods, commodities, and services to prepare a person for a position of responsibility, management, and/or ownership (Taxonomy of Programs, 2012).

Business Administration (0505.00): Programs designed to give a broad, balanced introduction to professional careers in business, usually including business law, economics, mathematics, managerial accounting, and computer systems. Includes transfer programs (Taxonomy of Programs, 2012).

Business Management (0506.00): Planning, organizing, directing, and controlling business operations. Includes various theories, tools, and practical applications used to maintain business sustainability through the management of capital, financial, and human resources (Taxonomy of Programs, 2012).

Exhibits 10 – 12 display student completions for business and commerce, general (TOP 0501.00), business administration (0505.00), and business management (0506.00) programs. Program completion and student outcome methodologies can be found in the appendix.

Exhibit 10: Annual average community college awards for business and commerce, general programs, Inland Empire/Desert Region, Academic Years 2019-2022

TOP 0501.00 – Business and Commerce, General (Local Program Title)	Academic Year 2019-20	Academic Year 2020-21	Academic Year 2021-22	Total CC Annual Average Awards, Academic Years 2019-22
Barstow Community College (Business)				**19**
Associate Degree	21	23	13	19
Chaffey College (Arts Business Management)				**0**
Certificate 16 < 30-semester units	0	0	0	0
Copper Mountain College (General Business)				**4**
Associate Degree	5	2	6	4
College of the Desert (General Business, Small Business)				**12**
Associate Degree	5	5	11	7
Certificate 16 < 30-semester units	4	5	5	5
Moreno Valley College (Business Administration: General Business)				**10**
Associate Degree	6	3	5	5

TOP 0501.00 – Business and Commerce, General (Local Program Title)	Academic Year 2019-20	Academic Year 2020-21	Academic Year 2021-22	Total CC Annual Average Awards, Academic Years 2019-22
Certificate 30 < 60-semester units	6	3	6	5
Norco College (Business Administration: General Business)				**16**
Associate Degree	4	7	9	7
Certificate 30 < 60-semester units	7	11	11	10
Riverside City College (Business Administration: General Business General Business, Gig: The Solopreneurs Adventure)				**35**
Associate Degree	11	10	18	13
Certificate 30 < 60-semester units	15	20	20	18
Certificate 6 < 18-semester units	1	2	1	1
Noncredit award < 48 hours	0	8	0	3
Victor Valley College (Business, Business Administration)				**91**
Associate Degree	88	79	107	91
Total	**173**	**178**	**212**	**188**

Source: MIS Data Mart, COCI

Exhibit 11: Annual average community college awards for business administration programs, Inland Empire/Desert Region, Academic Years 2019-2022

TOP 0505.00 – Business Administration (Local Program Title)	Academic Year 2019-20	Academic Year 2020-21	Academic Year 2021-22	Total CC Annual Average Awards, Academic Years 2019-22
Barstow Community College (Business Administration, Business Administration 2.0, Customer Service and Digital Literacy)				**47**
Associate for Transfer Degree	24	51	48	41
Noncredit award 48 < 96 hours	0	0	18	6
Chaffey College (Business Administration 2.0, General Business)				**331**
Associate for Transfer Degree	251	326	306	294
Associate Degree	15	35	8	19
Certificate 16 < 30-semester units	15	26	10	17
Copper Mountain College (Business Administration, Business Administration, 2.0)				**25**
Associate for Transfer Degree	16	18	13	16
Associate Degree	13	10	5	9
Crafton Hills College (Business Administration, 2.0)				**69**

TOP 0505.00 – Business Administration (Local Program Title)	Academic Year 2019-20	Academic Year 2020-21	Academic Year 2021-22	Total CC Annual Average Awards, Academic Years 2019-22
Associate for Transfer Degree	61	74	73	69
College of the Desert (Business Administration, Business Administration, 2.0)				**168**
Associate for Transfer Degree	176	159	169	168
Moreno Valley College (Business Administration, 2.0)				**68**
Associate for Transfer Degree	59	66	79	68
Mt. San Jacinto College (Business Administration, Business Administration, 2.0)				**246**
Associate for Transfer Degree	169	189	203	187
Associate Degree	43	65	51	53
Certificate 16 < 30-semester units	8	6	5	6
Palo Verde College (Business Administration, Business Management)				**20**
Associate for Transfer Degree	6	2	2	3
Associate Degree	10	21	19	17
Norco College (Business Administration 2.0)				**126**
Associate for Transfer Degree	107	130	141	126
Riverside City College (Business Administration, Business Administration 2.0 for Transfer CSUGE)				**266**
Associate for Transfer Degree	210	266	322	266
San Bernardino Valley College (Business Administration, Business Administration 2.0)				**149**
Associate for Transfer Degree	134	121	113	123
Associate Degree	21	20	34	25
Certificate 16 < 30-semester units	0	0	5	2
Victor Valley College (Business Administration 2.0)				**32**
Associate for Transfer Degree	13	36	48	32
Total	**1,351**	**1,621**	**1,672**	**1,548**

Source: MIS Data Mart, COCI

Exhibit 12: Annual average community college awards for business management programs, Inland Empire/Desert Region, Academic Years 2019-2022

TOP 0506.00 – Business Management (Local Program Title)	Academic Year 2019-20	Academic Year 2020-21	Academic Year 2021-22	Total CC Annual Average Awards, Academic Years 2019-22
Barstow College (Management)				**19**
Associate Degree	21	14	14	16
Certificate 16 < 30-semester units	1	4	2	2
Chaffey College (Management)				**30**
Associate Degree	15	24	12	17
Certificate 16 < 30-semester units	18	9	12	13
Crafton Hills College (Business Administration, Business Management)				**6**
Associate Degree	2	6	9	6
Certificate 30 < 60-semester units	0	1	0	0
Moreno Valley College (Business Administration: Management, Project Management Professional)				**8**
Associate Degree	3	4	4	4
Certificate 30 < 60-semester units	3	4	5	4
Mt. San Jacinto College (Management/Supervision)				**11**
Associate Degree	6	7	7	7
Certificate 16 < 30-semester units	7	1	5	4
Norco College (Business Administration: Management Concentration)				**12**
Associate Degree	1	8	7	5
Certificate 30 < 60-semester units	5	8	8	7
Riverside City College (Business Administration: Management Concentration, Business Administration: Human Resources, Business Administration: Management, Management)				**80**
Associate Degree	36	29	43	36
Certificate 30 < 60-semester units	46	31	46	41
Certificate 6 < 18-semester units	2	4	4	3
Victor Valley College (Management)				**6**
Certificate 30 < 60-semester units	4	2	11	6
Total	**170**	**156**	**189**	**172**

Source: MIS Data Mart, COCI

California program outcome data may provide useful insight into the likelihood of success for the proposed program. Community college student outcome information based on the selected TOP code and region is provided in Exhibits 13 – 15.

Exhibit 13: 0501.00 – Business and commerce, general strong workforce program outcomes, Inland Empire/Desert Region, Academic Year 2019-2020 (Unless Noted)

Strong Workforce Program Metrics: 0501.00 – Business and Commerce, General	Inland Empire/Desert Region	California
Unduplicated count of enrolled students (2020-21)	7,382	64,559
Completed 9+ career education units in one year (2020-21)	31%	32%
Students who completed a noncredit CTE or workforce preparation course (2020-21)	44%	65%
Students who earned a degree, certificate, or attained apprenticeship (2020-21)	131	1,587
Transferred to a four-year institution (transfers)	433	5,584
Job closely related to the field of study (2018-19)	60%	68%
Median annual earnings (all exiters)	$29,664	$31,796
Median change in earnings (all exiters)	34%	33%
Attained a living wage (completers and skills-builders)	51%	44%

Sources: LaunchBoard Community College Pipeline and Strong Workforce Program Metrics

Exhibit 14: 0505.00 – Business administration strong workforce program outcomes, Inland Empire/Desert Region, Academic Year 2019-2020 (Unless Noted)

Strong Workforce Program Metrics: 0505.00 – Business Administration	Inland Empire/Desert Region	California
Unduplicated count of enrolled students (2020-21)	4,578	46,190
Completed 9+ career education units in one year (2020-21)	41%	38%
Students who completed a noncredit CTE or workforce preparation course (2020-21)	63%	72%
Students who earned a degree, certificate, or attained apprenticeship (2020-21)	1,498	15,975
Transferred to a four-year institution (transfers)	475	5,147
Job closely related to the field of study (2018-19)	71%	72%
Median annual earnings (all exiters)	$32,504	$34,044
Median change in earnings (all exiters)	28%	29%
Attained a living wage (completers and skills-builders)	57%	45%

Sources: LaunchBoard Community College Pipeline and Strong Workforce Program Metrics

Exhibit 15: 0506.00 – Business management strong workforce program outcomes, Inland Empire/Desert Region, Academic Year 2019-2020 (Unless Noted)

Strong Workforce Program Metrics: 0506.00 – Business Management	Inland Empire/Desert Region	California
Unduplicated count of enrolled students (2020-21)	3,397	39,996
Completed 9+ career education units in one year (2020-21)	35%	37%
Students who completed a noncredit CTE or workforce preparation course (2020-21)	78%	88%
Students who earned a degree, certificate, or attained apprenticeship (2020-21)	111	1,966
Transferred to a four-year institution (transfers)	250	3,569
Job closely related to the field of study (2018-19)	69%	77%
Median annual earnings (all exiters)	$34,692	$38,656
Median change in earnings (all exiters)	25%	23%
Attained a living wage (completers and skills-builders)	60%	55%

Sources: LaunchBoard Community College Pipeline and Strong Workforce Program Metrics

Exhibit 16 displays awards for other postsecondary education providers reported in business administration and management, general (CIP 52.0201) programs. Completion data is compiled from the Integrated Postsecondary Education Data System (IPEDS) for the most recent three years. Over the last three academic years, nine postsecondary education providers in the region issued 1,926 annually in business administration and management, general programs.

Exhibit 16. Business administration and management, general training programs from other educational providers, three-year annual average credentials, Inland Empire/Desert Region, Academic Years 2017-2020

52.0201 – Business Administration and Management, General	Academic Year 2017-18	Academic Year 2018-19	Academic Year 2019-20	Other Educational Providers Annual Average Credentials, 2017-2020
California State University-San Bernardino				**986**
Bachelor's degree	936	927	1,096	986
La Sierra University				**33**
Bachelor's degree	35	38	27	33
Oak Valley College				**3**
Bachelor's degree	0	0	8	3
Platt College-Ontario				**11**
Associate Degree	11	11	12	11
Bachelor's degree	0	0	0	0
Postsecondary awards	0	0	0	0
Platt College-Riverside				**15**
Associate Degree	10	15	20	15
Bachelor's degree	0	0	0	0
Postsecondary awards	0	0	0	0
Summit College				**14**
Award < 1 academic year	17	24	0	14
The University of America				**6**
Bachelor's degree	18	0	0	6
University of California-Riverside				**647**
Bachelor's degree	605	620	715	647
University of Redlands				**211**
Bachelor's degree	288	253	91	211
Total	**3,372**	**3,153**	**2,853**	**3,126**

Source: IPEDS

Summary of Findings

Community college business management programs provide the knowledge, skills, and abilities that prepare students for employment in two community college-level occupations and one bachelor's degree-level occupation. While the community college-level occupations in this report typically require a bachelor's degree, approximately one-third of incumbent workers hold a community college-level educational attainment. The community college-level business management occupations are expected to have 3,116 annual job openings through 2026, increasing employment by 15%. The 10th percentile hourly earnings for the community college-level business management occupational group are between $23.82 and $27.36 per hour, above the living wage standard. It should be noted that about 88% of job ads indicated that employers were seeking candidates with two or more years of previous work experience.

Regional community colleges have issued a combined total of 1,907 awards annually in business and commerce, general (TOP 0501.00), business administration (0505.00), and business management (0506.00). Over the last three academic years, nine postsecondary education providers in the region issued 1,926 annually in business administration and management, general programs. Combined, postsecondary education providers in the region have issued 3,833 awards in programs related to business management.

The COE recommends expanding business management programs due to the high hourly earnings and strong demand for business management workers in the region. Students with previous work experience and willing to continue their education at a four-year institution should have the qualifications to secure a job in community college-level business management occupations. Colleges considering this program should partner with applicable employers to document their demand for more workers in this field.

Contact
Michael Goss
Paul Vaccher
Centers of Excellence, Inland Empire/Desert Region
michael.goss@chaffey.edu
March 2023

References

California Community Colleges Chancellor's Office. LaunchBoard. (2023). *California Community Colleges LaunchBoard*. Retrieved from https://www.calpassplus.org/Launchboard/Home.aspx

California Community Colleges Chancellor's Office. LaunchBoard. (2023a). *Strong Workforce Program Metrics Data Element Dictionary*. Pg. 3. Retrieved from https://www.calpassplus.org/MediaLibrary/calpassplus/launchboard/Documents/SWP-DED.PDF.

California Community Colleges Chancellor's Office. (2023). *Chancellor's Office Curriculum Inventory (COCI), version 3.0*. Retrieved from https://coci2.ccctechcenter.org/programs

California Community Colleges Chancellor's Office Management Information Systems (MIS) Data Mart. (2023). *Data Mart*. Retrieved from https://datamart.cccco.edu/datamart.aspx

California Community Colleges Chancellor's Office, Curriculum and Instructional Unit, Academic Affairs Division. (2012). *Taxonomy of Programs, 6th Edition, Corrected Version*. Retrieved from https://www.cccco.edu/-/media/CCCCO-Website/About-Us/Divisions/Digital-Innovation-and-Infrastructure/Research/Files/TOPmanual6200909corrected12513.ashx?la=en&hash=94C709CA83C03808 28415579395A5F536736C7C1

Carnevale, A. P., Jayasundera, T., & Repnikov, D. (n.d.). Understanding Online Job Ads Data. Retrieved from https://cew.georgetown.edu/wp-content/uploads/2014/11/OCLM.Tech_.Web_.pdf

Glasmeier, A. K. (2023). Massachusetts Institute of Technology. Living Wage Calculator. *Living Wage Calculation for California*. Retrieved from https://livingwage.mit.edu/states/06

Lightcast. (2023). *Datarun 2023.1*. Retrieved from https://www.economicmodeling.com/

National Center for O*NET Development. (2023). *O*NET OnLine*. Retrieved from https://www.onetonline.org/

U.S. Department of Education. Institute of Education Sciences, National Center for Education Statistics. Integrated Postsecondary Education System (IPEDS). (2023). Retrieved from https://nces.ed.gov/ipeds/use-the-data

Appendix: Occupation definitions, sample job titles, five-year projections, and earnings for business management occupations

Occupation Definitions (SOC code), Education and Training Requirements, Community College Education Attainment

General and Operations Managers (11-1021)

Plan, direct, or coordinate the operations of public or private sector organizations, overseeing multiple departments or locations. Duties and responsibilities include formulating policies, managing daily operations, and planning the use of materials and human resources, but are too diverse and general in nature to be classified in any one functional area of management or administration, such as personnel, purchasing, or administrative services. Usually manage through subordinate supervisors. Excludes First-Line Supervisors.

Sample job titles: Business Manager, General Manager (GM), Operations Director, Operations Manager, Plant Superintendent, Store Manager

Entry-Level Educational Requirement: Bachelor's degree
Training Requirement: None
Work Experience: Five years or more
Incumbent workers with a Community College Award or Some Postsecondary Coursework: 35%

Administrative Services Managers (11-3012)

Plan, direct, or coordinate one or more administrative services of an organization, such as records and information management, mail distribution, and other office support services.

Sample job titles: Administrative Coordinator, Administrative Director, Administrative Manager, Administrative Officer, Administrator, Business Administrator, Business Manager

Entry-Level Educational Requirement: Bachelor's degree
Training Requirement: None
Work Experience: Less than five years
Incumbent workers with a Community College Award or Some Postsecondary Coursework: 32%

Project Management Specialists (13-1082)

Analyze and coordinate the schedule, timeline, procurement, staffing, and budget of a product or service on a per project basis. Lead and guide the work of technical staff. May serve as a point of contact for the client or customer.

Sample job titles: N/A

Entry-Level Educational Requirement: Bachelor's degree
Training Requirement: None
Work Experience: None
Incumbent workers with a Community College Award or Some Postsecondary Coursework: 20%

Appendix: Methodology

Exhibits 10 – 12 display the average annual California Community College (CCC) awards conferred during the three academic years between 2019 and 2022 from the California Community Colleges Chancellor's Office Management Information Systems (MIS) Data Mart. Awards are the combined total of associate degrees and certificates issued during the timeframe, divided by three to calculate an annual average. This is done to minimize the effect of atypical variations that might be present in a single year.

Community college student outcome information is from LaunchBoard and is based on the selected TOP code and region. These metrics are based on records submitted to the California Community Colleges Chancellor's Office Management Information Systems (MIS) by community colleges, which come from self-reported student information from CCC Apply and the National Student Clearinghouse. Employment and earnings metrics are sourced from California's Employment Development Department's Unemployment Insurance database records. When available, outcomes for completers are reported to demonstrate the impact that earning a degree or certificate can have on employment and earnings. For more information on the types of students included for each metric, please see the link for LaunchBoard's Strong Workforce Program Metrics Data Element Dictionary in the References section (LaunchBoard, 2023a). Finally, employment in a job closely related to the field of study comes from self-reported student responses on the CTE Employment Outcomes Survey (CTEOS), administered by Santa Rosa Junior College (LaunchBoard, 2023a).

Job ad data is limited to the information provided by employers and the ability of artificial intelligence search engines to identify this information. Additionally, preliminary calculations by Georgetown Center on Education and the Workforce found that "just 30 to 40 percent of openings for candidates with some college or an associate degree, and only 40 to 60 percent of openings for high school diploma holders appear online" (Carnevale et al., 2014). Online job ads often do not reveal employers' hiring intentions; it is unknown if employers plan to hire one or multiple workers from a single online job ad or collect resumes for future hiring needs. A closed job ad may not be the result of a hired worker.

Table 1. 2021 to 2026 job growth, wages, entry-level education, training, and work experience required for the business management occupational group in the Inland Empire/Desert Region (Riverside and San Bernardino Counties combined)

Occupation (SOC)	2021 Jobs	5-Year Change	5-Year % Change	Annual Openings (New + Replacement Jobs)	Entry-Experienced Hourly Wage (10th to 90th percentile)	Median Hourly Wage (50th percentile)	Average Annual Earnings	Entry-Level Education & On-The-Job-Training	Work Experience Required
Bachelor's Degree-level									
Project Management Specialists (13-1082)	4,800	654	14%	539	$23.52 to $63.45	$39.42	$92,300	Bachelor's degree & None	None
Community College-level									
General and Operations Managers (11-1021)	23,050	3,614	16%	2,875	$23.82 to $97.18	$46.18	$110,300	Bachelor's degree & None	None
Administrative Services Managers (11-3012)	2,249	230	10%	241	$27.36 to $80.29	$46.64	$104,800	Bachelor's degree & None	None
Community College-level Total	**25,298**	**3,844**	**15%**	**3,116**	-	-	-	-	-
Total	**30,099**	**4,498**	**15%**	**3,655**	-	-	-	-	-

Source: Lightcast 2023.1