

**Program Endorsement Brief: 0506.00/Business Management  
Business Analytics**

Los Angeles/Orange County Center of Excellence, July 2020

**Summary Analysis**

<b>Program Endorsement:</b>	<b>Endorsed: All Criteria Met</b>	<input type="checkbox"/>	<b>Endorsed: Some Criteria Met</b>	<input checked="" type="checkbox"/>	<b>Not Endorsed</b>	<input type="checkbox"/>
<b>Program Endorsement Criteria</b>						
<b>Supply Gap:</b>	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>		
<b>Meets Living Wage: (Entry-Level, 25<sup>th</sup>)</b>	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>		
<b>Educational Attainment:</b>	HS Diploma or Less	<input type="checkbox"/>	Some College/ Cert./AA	<input type="checkbox"/>	Bachelor's Degree	<input checked="" type="checkbox"/>
					Graduate Degree	<input type="checkbox"/>
<b>Emerging Occupation(s)</b>						
Yes <input checked="" type="checkbox"/>			No <input type="checkbox"/>			

The Los Angeles/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 **business analytics**. 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 is growing demand for business intelligence analysts in the region. Although most employers seeking business intelligence analysts are looking for candidates with a Bachelor's degree, the proposed program could provide a foundation for students looking to transfer to a four-year program, or build upon the existing skillsets of students that have already completed a 4-year program in a related field. Therefore, **the COE endorses this proposed program**. Reasons include:

- Over the next five years, there is projected to be **1,883 jobs available annually** in the region due to new job growth and replacements, **which is more than the 1,039 awards** conferred annually by educational institutions in the region.
- In the past 12 months, there were **8,321 online job postings** for business intelligence analysts in Los Angeles and Orange Counties.
- The vast majority (92%) of these job postings in the past 12 months **specified a Bachelor's degree as the minimum education requirement**.
- The national-level educational attainment data indicates 35% of workers in the field have completed some college or an associate degree.
- The typical **entry-level hourly wage** for business intelligence analysts throughout the region is **\$26.94**, which is **higher than the California Family Needs Calculator** hourly

wage for one adult in the region (\$15.04 in Los Angeles County and \$17.36 in Orange County).<sup>1</sup>

- A business analytics program in the region could be a **pathway for community college students** in pursuit of a Bachelor's degree or could **equip 4-year graduates with the knowledge/skills** needed to work as a business intelligence analyst.

## Introduction

The occupation that aligns most closely with the proposed business analytics program is Business Intelligence Analysts (15-1199.08), which is an emerging occupation. Emerging occupations are not included in the Standard Occupational Classification (SOC) system from the Bureau of Labor Statistics (BLS) due to lower national employment levels, and thus traditional labor market information is not currently available for these occupations. Due to this limitation, this report utilizes real-time labor market information from Burning Glass Technologies, a job posting search engine.

From the data that is currently available, it is difficult to determine if there is an unmet need for community college-level business analytics workers in the LA/OC region, since this is an emerging occupation and field. A traditional supply vs. demand “gap analysis” is difficult to perform for emerging occupations. The demand is not completely clear (detailed below) and the supply data represents a program of study (Business Management - 0506.00) that prepares students for not only business analytics occupations, but for a cluster of occupations more traditionally aligned with business management. Therefore, it is difficult to define the number of students from this TOP code seeking employment in business analytics versus more traditional business management occupations. Despite these difficulties, the demand for this work role in online job postings is strong and has grown rapidly in recent years, thus supporting the need for related training programs.

## Occupation

Business intelligence analysts are similar to data analysts, but typically analyze data related to information technology systems and processes in order to gain insights that add value to their employer. In addition to analyzing data, business intelligence analysts often need other complimentary skills or knowledge based on their field or industry, such as marketing, social media, healthcare, or financial services. Business intelligence analysts typically hold a bachelor's or master's degree.

Below is the occupational title, description, and a sample of job titles from the O\*NET database:

### **15-1199.08 - Business Intelligence Analysts**

Produce financial and market intelligence by querying data repositories and generating periodic reports. Devise methods for identifying data patterns and trends in available information sources.

**Sample of reported job titles:** Business Intelligence Analyst; Business Intelligence Manager; Commercial Intelligence Manager; Competitive Intelligence Analyst; Consultant, Strategic

---

<sup>1</sup> Living wage data was pulled from California Family Needs Calculator on 7/1/20. For more information, visit the California Family Needs Calculator website: <https://insightcced.org/2018-family-needs-calculator/>.

Business and Technology Intelligence; Director of Enterprise Strategy; Director of Market Intelligence; Director, Global Intelligence; Intelligence Analyst; Manager, Market Intelligence

**Occupational Demand**

Exhibit 1 shows the five-year occupational demand projections for the Computer Occupations, All Other (15-1199) SOC Code, the “umbrella” code which includes the Business Intelligence Analysts (15-1199.08) emerging occupation. In Los Angeles/Orange County, the number of jobs related to this occupation is projected to increase by 4% through 2024. There will be nearly 1,900 job openings per year through 2024 due to job growth and replacements. It is important to note that the Computer Occupations, All Other (15-1199) SOC code is an “umbrella” code that includes 12 emerging occupations, including Web Administrators (15-1199.03), Database Architects (15-1199.06), Video Game Designers (15-1199.11), and several others. Therefore, the data in Exhibit 1 is overstated for Business Intelligence Analysts (15-1199.08).

*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 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 Counties<sup>2</sup>**

Geography	2019 Jobs	2024 Jobs	2019-2024 Change	2019-2024 % Change	Annual Openings
Los Angeles	15,757	16,395	638	4%	1,301
Orange	6,832	7,182	350	5%	582
<b>Total</b>	<b>22,589</b>	<b>23,577</b>	<b>988</b>	<b>4%</b>	<b>1,883</b>

**Job Postings**

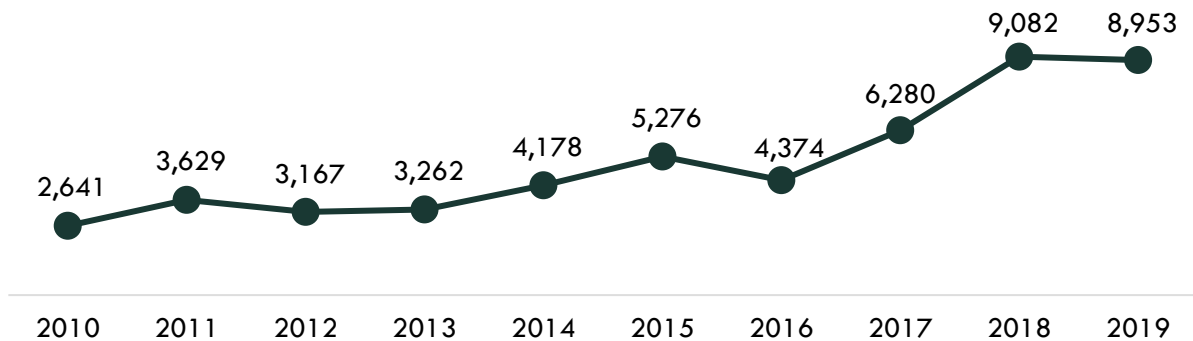
There were 8,321 online job postings specifically for business intelligence analysts listed in the past 12 months (Jul. 1, 2019 to Jun. 30, 2020). The highest number of job postings were for data analysts, business analysts, business intelligence analysts, SAP consultants, business consultants, and business data analysts. The top skills were: data analysis, SQL, Tableau, SAP, project management, python, data warehousing, and Microsoft Excel. The top employers, by number of job postings in the region, were: Anthem Blue Cross, Deloitte, Disney, IBM, and Accenture. The vast majority of job postings (92%) specified a Bachelor’s degree as the minimum education requirement for employment.

---

<sup>2</sup> Five-year change represents new job additions to the workforce. Annual openings include new jobs and replacement jobs that result from retirements and separations.

Despite a 1.42% decrease from 2018 to 2019, the number of job postings for business intelligence analysts have increased since 2010. Job postings for business intelligence analysts have more than doubled since 2016, which indicates more recent, rapidly growing demand for this job in the regional economy.

**Exhibit 2: Job Postings for Business Intelligence Analysts, 2010-2019**



As an emerging occupation, employment projections for business intelligence analysts are not available. In an effort to determine the employment outlook for this emerging occupation, we can look at an occupation related to business intelligence analysts. The occupation, Management Analysts (13-1111), utilizes the information provided by business intelligence analysts to assist managers in operating more efficiently and effectively. According to the BLS, demand for management analysts is projected to increase by 14% from 2018 to 2028, which is much faster than the average occupation<sup>3</sup>. While not a direct measure of demand for business intelligence analysts, demand for management analysts broadly indicates that employment for occupations that assist business decision-makers are increasing.

### Salary

According to the 2020 Robert Half Technology Salary Guide, the current salary for business intelligence analysts in the city of Los Angeles is \$115,500 at the entry-level and \$145,530 at the median-level<sup>4</sup>. Further, these salaries may be 5% to 10% higher for candidates who have obtained certain certifications.

Advertised wages for business intelligence analysts retrieved from online job postings, while not reaching the six-figure level, were still high. The average advertised wage for business intelligence analysts with an associate degree was \$60,000 while the average advertised wage for business intelligence analysts with a bachelor’s degree was \$24,000 higher at \$84,000. Please note that salary figures are prorated to reflect full-time wage status.

<sup>3</sup> Bureau of Labor Statistics (BLS). Occupational Outlook Handbook. <https://www.bls.gov/ooh/business-and-financial/management-analysts.htm>

<sup>4</sup> Robert Half. Technology Salary Data and Hiring Trends. [https://www.roberthalf.com/salary-guide/technology?utm\\_campaign=2019\\_Salary\\_Guide&utm\\_medium=Marketing\\_Collateral&utm\\_source=RHT\\_Salary\\_Guide#calculator](https://www.roberthalf.com/salary-guide/technology?utm_campaign=2019_Salary_Guide&utm_medium=Marketing_Collateral&utm_source=RHT_Salary_Guide#calculator)

## Certifications

As stated above, salaries for business intelligence analysts may be higher for individuals who possess certain certifications. There are several certifications applicable to the job duties of business intelligence analysts, displayed in Exhibit 3 below.

**Exhibit 3: Certifications for Business Intelligence Analysts**

Certification	Issuing Organization	Resource
Certified Business Intelligence Professional (CBIP)	The Institute for Certification of Computing Professionals (ICCP)	<a href="https://www.iccp.org/certified-business-intelligence-professional-cbip.html">https://www.iccp.org/certified-business-intelligence-professional-cbip.html</a>
Core Business Analysis Certifications	The International Institute of Business Analysis (IIBA)	<a href="https://www.iiba.org/certification/iiba-certifications/#core">https://www.iiba.org/certification/iiba-certifications/#core</a>
Microsoft Certified Solutions Expert (MCSE): Data Management and Analytics*	Microsoft	<a href="https://www.microsoft.com/en-us/learning/mcse-certification.aspx">https://www.microsoft.com/en-us/learning/mcse-certification.aspx</a>

\*Certification set to retire January 31, 2021

## Community College Training Programs

According to the Chancellor's Office Curriculum Inventory (COCI), there is only one active business analytics program in California, offered at Folsom Lake College<sup>5</sup>. Their A.A. program in Business Analyst/Data Analytics (TOP 0506.00) is described below:

*The Business Analyst/Data Analytics program focuses on the skills and technical training necessary to conduct business operations analysis in order to control technical and operational budgets and to develop business strategies. The curriculum explores the use of data in decision-making, project management techniques, and the uses of databases to make business decisions.*

While there may be similar programs throughout the state not listed in COCI from alternative TOP codes, Exhibit 4 shows the three-year average number of awards conferred by community colleges in the entire TOP code: Business Management (0506.00). The colleges with the most completions in the region are: Cerritos, Mt. San Antonio, and Coastline. Over the past 12 months, there was one other related program recommendation request from a regional community college.

---

<sup>5</sup> Folsom Lake College Business Programs and Majors <https://flc.losrios.edu/academics/programs-and-majors/business>

**Exhibit 4: Regional community college awards (certificates and degrees), 2016-2019**

TOP Code	Program	College	2016-2017 Awards	2017-2018 Awards	2018-2019 Awards	3-Year Award Average		
0506.00	Business Management	Cerritos	246	405	456	369		
		Citrus	-	1	2	1		
		Compton	11	2	3	5		
		East LA	9	26	29	21		
		El Camino	17	23	23	21		
		Glendale	17	10	9	12		
		LA City	19	15	18	17		
		LA Mission	5	4	3	4		
		LA Pierce	-	-	3	1		
		LA Valley	42	30	33	35		
		Long Beach	15	22	21	19		
		Mt San Antonio	187	161	202	183		
		Santa Monica	10	18	23	17		
		<b>LA Subtotal</b>	<b>578</b>	<b>717</b>	<b>825</b>	<b>707</b>		
		Coastline	175	71	84	110		
		Cypress	2	6	6	5		
		Fullerton	124	11	11	49		
		Golden West	9	8	20	12		
		Irvine	11	9	3	8		
		North Orange Adult	26	24	27	26		
		Orange Coast	3	51	40	31		
		Santa Ana	37	81	64	61		
		Santiago Canyon	3	42	17	21		
		<b>OC Subtotal</b>	<b>390</b>	<b>303</b>	<b>272</b>	<b>322</b>		
		<b>Supply Subtotal/Average</b>			<b>968</b>	<b>1,020</b>	<b>1,097</b>	<b>1,028</b>

**Non-Community College Training Programs**

Since the occupation detailed in this report typically requires a bachelor’s degree for employment, it is important to consider the supply from non-community college institutions in the region that also provide related training. Exhibit 5 shows the annual and three-year average number of awards conferred by these institutions in the related Classification of Instructional Programs (CIP) Code: Business Statistics (52.1302). Due to different data collection periods, the most recent three-year period of available data is from 2014 to 2018. Between 2014 and 2018, non-community colleges in the region conferred an average of 153 awards annually in related training programs.

**Exhibit 5: Regional non-community college awards, 2014-2018**

CIP Code	Program	College	2014-2015 Awards	2016-2017 Awards	2017-2018 Awards	3-Year Award Average
52.1302	Business Statistics	University of Southern California	5	22	-	9
		Whittier College	2	2	2	2
<b>Supply Subtotal/Average</b>			<b>7</b>	<b>24</b>	<b>2</b>	<b>11</b>

**Recommendation**

While traditional labor market information is not available, supplemental data indicates increasing demand for business intelligence analysts. With limited community college programs available, there is an opportunity to create new programs related to business analytics. The primary challenge faced by this program is to identify employers that are seeking business intelligence analysts with less than a bachelor's degree. The COE recommends consulting with relevant employers to better understand their demand for business intelligence analyst workers and the corresponding education, skills, and certifications necessary for gainful employment.

**Appendix A: Occupational demand and wage data by county**

**Exhibit 6. Los Angeles County**

Occupation (SOC)	2019 Jobs	2024 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Entry-Level Hourly Earnings (25 <sup>th</sup> Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75 <sup>th</sup> Percentile)
Computer Occupations, All Other (15-1199)	15,757	16,395	638	4%	1,301	\$27.23	\$40.03	\$55.09

**Exhibit 7. Orange County**

Occupation (SOC)	2019 Jobs	2024 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Entry-Level Hourly Earnings (25 <sup>th</sup> Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75 <sup>th</sup> Percentile)
Computer Occupations, All Other (15-1199)	6,832	7,182	350	5%	582	\$26.30	\$38.63	\$53.15

### Exhibit 8. Los Angeles and Orange Counties

Occupation (SOC)	2019 Jobs	2024 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Entry-Level Hourly Earnings (25 <sup>th</sup> Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75 <sup>th</sup> Percentile)
Computer Occupations, All Other (15-1199)	22,589	23,577	988	4%	1,883	\$26.94	\$39.59	\$54.50

#### Appendix B: Additional Resources

- **Robert Half Technology Salary Guide, 2019:** Details hard-to-staff technology positions, associated skills, certifications, and corresponding salary information: [https://www.saddleback.edu/uploads/jobs/2019\\_salary\\_guide\\_technology\\_na.pdf](https://www.saddleback.edu/uploads/jobs/2019_salary_guide_technology_na.pdf)
- **Indeed Career Guide for Business Intelligence Analysts:** Contains information related to common work tasks, salary, education & training requirements, certifications, and skills: <https://www.indeed.com/career-advice/careers/what-does-a-business-intelligence-analyst-do>

#### Appendix C: Sources

- O\*NET Online
- Labor Insight/Jobs (Burning Glass)
- 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)

For more information, please contact:

Luke Meyer, Director  
 Los Angeles/Orange County Center of Excellence  
[lmeyer7@mtsac.edu](mailto:lmeyer7@mtsac.edu)  
 July 2020

