

Program Endorsement Brief: 0707.20/Database Design and Administration CIS Professional Certificate in SQL

Los Angeles/Orange County Center of Excellence, February 2019

Summary:

The Los Angeles/Orange County Center of Excellence for Labor Market Research (COE) prepared this report to provide regional labor market supply and demand data related to database administrators. 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 relevant occupations.

The following summarizes key findings from this data brief:

- Database administrators are increasing by 5% over the next five years, and nearly 300 job openings will be available annually due to new job growth and replacement need.
- Over the past 12 months, there were 5,669 online job postings related to database administrations in Los Angeles and Orange Counties.
- No other related program recommendation requests were received in 2018 from regional community colleges.
- Two colleges in the region have existing programs closely related to database design and administration.
- Between 2014 and 2017, community colleges in the region conferred an average of eight awards annually (associate degrees and certificates) in related training programs.

Occupational Demand—In Los Angeles/Orange County, the number of jobs for database administrators is projected to increase by 5%. There will be nearly 300 job openings per year through 2022 (Exhibit 1).

Exhibit 1: Occupational demand in Los Angeles and Orange Counties¹

Geography	2017 Jobs	2022 Jobs	2017-2022 Change	2017-2022 % Change	Annual Openings
Los Angeles	2,514	2,650	136	5%	189
Orange	1,305	1,374	69	5%	98
Total	3,819	4,024	205	5%	287

Wages—Entry-level and median wages for database administrators in the region are \$21.42 and \$44.96, respectively. Entry-level wages for database administrators are higher than the MIT Living hourly wage for one adult in the region (\$13.54 in Los Angeles County and \$15.31 in

¹ Five-year change represents new job additions to the workforce. Annual openings include new jobs and replacement jobs that result from retirements and separations.

Orange County). Experienced workers earn \$68.61, which is higher than the living wage. Regional wages are below the average statewide wage for this occupation.

Job Postings—There were 5,669 online job postings related database administrators listed in the past 12 months. The majority of job postings are for data engineer, database administrator, SQL developer, ETL developer and SQL database administrator. Top specialized skills are: SQL, SQL Server, Oracle, Python and Teradata DBA. The top three employers, by number of job postings, in the region are: Deloitte, Amazon and City National Bank.

Educational Attainment—The BLS lists a Bachelor’s degree as the typical entry-level education for this occupation. The national-level educational attainment data indicates 23% of workers in the field have completed some college or an associate degree. In Los Angeles/Orange County, 89% of job postings request a Bachelor’s degree.

Community College Supply—Appendix A shows the three-year average number of awards conferred by community colleges in the related TOP codes: Database Design and Administration (0707.20). The program with the most completions in the region is Mt. San Antonio. During 2018, there were no other related program recommendation requests from regional community colleges.

Appendix A: Regional community college awards (certificates and degrees), 2014-2017

TOP Code	Program	College	2014-15 Awards	2015-16 Awards	2016-2017 Awards	3-Year Award Average
0707.20	Database Design and Administration	Mt San Antonio	3	7	11	7
		Santa Monica	1	1	2	1
Total/Average			4	8	13	8

Appendix B: Occupational demand and wage data by county

Exhibit 2. Los Angeles County

Occupation (SOC)	2017 Jobs	2022 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Entry-Level Hourly Earnings	Median Hourly Earnings	Experienced Hourly Earnings
Database Administrators (15-1141)	2,514	2,650	136	5%	189	\$21.43	\$46.64	\$72.13

Exhibit 3. Orange County

Occupation (SOC)	2017 Jobs	2022 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Entry-Level Hourly Earnings	Median Hourly Earnings	Experienced Hourly Earnings
Database Administrators (15-1141)	1,305	1,374	69	5%	98	\$21.39	\$42.10	\$62.76

Exhibit 4. Los Angeles and Orange Counties

Occupation (SOC)	2017 Jobs	2022 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Entry-Level Hourly Earnings	Median Hourly Earnings	Experienced Hourly Earnings
Database Administrators (15-1141)	3,819	4,024	205	5%	287	\$21.42	\$44.96	\$68.61

Appendix C: Sources

- O*NET Online
- Labor Insight/Jobs (Burning Glass)
- Economic Modeling Specialists, International (EMSI)
- Employment Development Department, Labor Market Information Division, OES
- Employment Development Department, Unemployment Insurance Dataset
- Living Insight Center for Community Economic Development
- California Community Colleges Chancellor’s Office Management Information Systems (MIS)
- MIT Living Wage
- Chancellor’s Office Curriculum Inventory (COCI 2.0)

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