

Program Endorsement Brief: 0956.80/Industrial Quality Control Industrial Applied Science Core Competencies

Los Angeles/Orange County Center of Excellence, March 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 quality assurance/quality control workers. 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:

- The number of jobs for the two occupations of interest is projected to decrease by 7% over through 2022; however, approximately 3,325 job openings will be available annually due to retirements and workers leaving the field.
- Over the past 12 months, there were 4,884 online job postings for jobs related to quality assurance/quality control in Los Angeles and Orange Counties.
- One other related program recommendation request was received in 2018 from a regional community college.
- Ten colleges in the region have Manufacturing and Industrial Technology programs.
- Between 2014 and 2017, community colleges in the region conferred an average of 55 awards annually (associate degrees and certificates) in related training programs.

Occupational Demand—In Los Angeles/Orange County, the number of jobs related to quality assurance/quality control (QA/QC) is projected to decrease by 7%. However, there will be more than 3,300 job openings per year through 2022 due to retirements and workers leaving the field (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 | 20,413 | 18,590 | (1,823) | (9%) | 2,257 |
| Orange | 9,504 | 9,109 | (395) | (4%) | 1,067 |
| Total | 29,917 | 27,699 | (2,218) | (7%) | 3,325 |

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.

Wages—Entry-level wages for QA/QC-related workers in the region are between \$10.55 and \$11.11. Entry-level wages for these occupations are lower than the MIT living hourly wage for one adult in the region (\$13.54 in Los Angeles County and \$15.31 in Orange County). Experienced workers earn between \$24.00 and \$32.67, which is higher than the living wage.

Job Postings—There were 4,884 online postings for jobs related to QA/QC listed in the past 12 months. The majority of job postings are for quality inspector, quality control inspector, quality assurance inspector, quality assurance specialist, and inventory specialist. Job postings indicate employers require the following skills and machine/tools knowledge: quality assurance and control; micrometers; calipers; quality management; and coordinate measuring machine (CMM).

Educational Attainment—The BLS lists a high school diploma or equivalent as the typical entry-level education for these occupations. The national-level educational attainment data indicates between 34% and 38% of workers in the field have completed some college or an associate degree. In Los Angeles/Orange County, 92% of job postings request a high school diploma or vocational training.

Community College Supply—Appendix A shows the annual and three-year average number of awards conferred by community colleges in Manufacturing and Industrial Technology (0956.00). Currently, Industrial Quality Control (0956.80) is offered at Cerritos College and Santiago Canyon, but there have been no awards granted in the past three academic years. The colleges with the most completions in the region are: Santiago Canyon and Mt. San Antonio. In 2018, there was one other related program recommendation request from a regional community college.

Appendix A: Regional community college awards (certificates and degrees), 2015-2018

| TOP Code | Program | College | 2015-16 Awards | 2016-17 Awards | 2017-2018 Awards | 3-Year Award Average |
|----------------------|---|-----------------|----------------|----------------|------------------|----------------------|
| 0956.00 | Manufacturing and Industrial Technology | Cerritos | 4 | 3 | 6 | 4 |
| | | Compton | - | - | 2 | 2 |
| | | El Camino | 1 | 3 | 3 | 2 |
| | | Fullerton | 10 | 3 | 11 | 8 |
| | | Irvine | 9 | 7 | 1 | 6 |
| | | LA Valley | 3 | 4 | 2 | 3 |
| | | Mt San Antonio | 12 | 19 | 9 | 13 |
| | | Saddleback | 6 | 5 | 9 | 7 |
| | | Santa Ana | 4 | - | 1 | 3 |
| | | Santiago Canyon | - | - | 27 | 27 |
| Total/Average | | | 49 | 44 | 71 | 55 |

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 |
|--|------------------|------------------|--------------------|----------------------|------------------------|------------------------------------|-------------------------------|------------------------------------|
| Inspectors, Testers, Sorters, Samplers, and Weighers (51-9061) | 16,847 | 15,107 | (1,740) | (10%) | 1,914 | \$10.94 | \$18.40 | \$33.82 |
| Weighers, Measurers, Checkers, and Samplers, Recordkeeping (43-5111) | 3,566 | 3,483 | (83) | (2%) | 344 | \$10.50 | \$13.46 | \$24.35 |
| Total | 20,413 | 18,590 | (1,823) | (9%) | 2,257 | | | |

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 |
|--|------------------|------------------|--------------------|----------------------|------------------------|------------------------------------|-------------------------------|------------------------------------|
| Inspectors, Testers, Sorters, Samplers, and Weighers (51-9061) | 7,718 | 7,342 | (376) | (5%) | 895 | \$11.95 | \$18.77 | \$30.88 |
| Weighers, Measurers, Checkers, and Samplers, Recordkeeping (43-5111) | 1,786 | 1,767 | (19) | (1%) | 173 | \$11.04 | \$14.36 | \$23.51 |
| Total | 9,504 | 9,109 | (395) | (4%) | 1,067 | | | |

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 |
|--|------------------|------------------|--------------------|----------------------|------------------------|------------------------------------|-------------------------------|------------------------------------|
| Inspectors, Testers, Sorters, Samplers, and Weighers (51-9061) | 24,564 | 22,450 | (2,114) | (9%) | 2,809 | \$11.11 | \$18.51 | \$32.67 |
| Weighers, Measurers, Checkers, and Samplers, Recordkeeping (43-5111) | 5,352 | 5,249 | (103) | (2%) | 516 | \$10.55 | \$13.79 | \$24.00 |
| Total | 29,917 | 27,699 | (2,218) | (7%) | 3,325 | | | |

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)

For more information, please contact:

Lori Sanchez, Director
 Center of Excellence, Los Angeles/Orange County Region
Lsanchez144@mtsac.edu

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