

**Program Endorsement Brief: 2105.40/Forensics, Evidence, and Investigation
Crime Scene Investigation**

Orange County Center of Excellence, May 2021

Summary Analysis

Program Endorsement:	Endorsed: All Criteria Met <input checked="" type="checkbox"/>	Endorsed: Some Criteria Met <input 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 checked="" type="checkbox"/>	No <input 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 one middle-skill occupation: *forensic science technicians* (19-4092). Middle-skill occupations typically require some postsecondary education, but less than a bachelor’s degree.¹ Although this occupation typically requires a bachelor’s degree, it is considered middle-skill because approximately one-third of workers in the field have completed some college or an associate degree. 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 *forensic science technicians* in the region. Furthermore, more than one-third of the current workforce in this occupation has completed an associate degree or some college, and entry-level wages exceed the living wage in both Los Angeles and Orange counties. **Therefore, due to all the criteria being met, the COE endorses this proposed program.** Detailed reasons include:

Demand:

- **Supply Gap Criteria** – Over the next five years, there is projected to be **129 jobs available annually** in the region due to new job growth and replacements, **which is more than the 68 awards conferred annually** by educational institutions in the region.
- **Living Wage Criteria** – Within Orange County, **typical entry-level hourly wages** for forensic science technicians are **\$33.92, which is higher than the California Family**

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.

Needs Calculator hourly wage (living wage) for one adult in the region (\$17.36 in Orange County).²

- **Educational Criteria** – The Bureau of Labor Statistics (BLS) lists a **bachelor's degree** as the **typical entry-level education for forensic science technicians**.
 - However, the national-level educational attainment data indicates **37.2% of workers in the field have completed some college or an associate degree**.

Supply:

- There are **3 community colleges** in the LA/OC region that issue awards related to forensics, evidence, and investigation, conferring an average of **54 awards annually** between 2017 and 2020.
- Between 2016 and 2019, there was an average of **14 awards conferred annually** in related training programs by non-community college institutions throughout the region.

Occupational Demand

Exhibit 1 shows the five-year occupational demand projections for *forensic science technicians*. In Los Angeles/Orange County, the number of jobs related to these occupations is projected to increase by 7% through 2024. There will be more than 100 job openings per year through 2024 due to job growth and replacements.

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 Counties³

Geography	2019 Jobs	2024 Jobs	2019-2024 Change	2019-2024 % Change	Annual Openings
Los Angeles	801	860	58	7%	103
Orange	206	221	15	7%	26
Total	1,008	1,081	73	7%	129

Wages

The labor market endorsement in this report considers the entry-level hourly wages for *forensic science technicians* in Orange County as they relate to the county's living wage. Los Angeles

² Living wage data was pulled from California Family Needs Calculator on 5/18/2021. For more information, visit the California Family Needs Calculator website: <https://insightcced.org/2018-family-needs-calculator/>.

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.

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 typical entry-level hourly wages for *forensic science technicians* are \$33.92, which is above the living wage for one adult (\$17.36 in Orange County). Experienced workers can expect to earn wages of \$55.93, which is higher than the living wage estimate. Orange County's average wages are above the average statewide wage of \$41.98 for this occupation.

Los Angeles County— The typical entry-level hourly wages for *forensic science technicians* are \$36.03, which is above the living wage for one adult (\$15.04 in Los Angeles County). Experienced workers can expect to earn wages of \$59.32, which is higher than the living wage estimate. Los Angeles County's average wages are above the average statewide wage of \$41.98 for this occupation.

Job Postings

There were 40 online job postings related to *forensic science technicians* listed in the past 12 months. The highest number of job postings were for biometric fingerprinting technicians, forensic specialists, polygraph examiners, and fingerprint technicians. The top skills were: customer service, administrative functions, application support, cleaning, and DNA. The top employers, by number of job postings, in the region were: PAE Incorporated, Potomac Case Management Services, City of Downey, City of Los Angeles, and City of Santa Ana.

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

The Bureau of Labor Statistics (BLS) lists a bachelor's degree as the typical entry-level education for *forensic science technicians*. However, the national-level educational attainment data indicates 37.2% of workers in the field have completed some college or an associate degree. Of the 83% of *forensic science technician* job postings listing a minimum education requirement in Los Angeles/Orange County, 88% (29) requested a high school diploma, 9% (3) requested an associate degree and 3% (1) requested a high school diploma.

Educational Supply

Community College Supply—Exhibit 2 shows the three-year average number of awards conferred by community colleges in the related TOP code: Forensics, Evidence, and Investigation (2105.40). The colleges with the most completions in the region are: East LA and Long Beach. Over the past 12 months, there was one other related program recommendation request from a regional community college.

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
2105.40	Forensics, Evidence, and Investigation	East LA	34	35	31	33
		El Camino	6	6	4	5
		Long Beach	8	15	23	15
		LA Subtotal	48	56	58	54
Supply Total/Average			48	56	58	54

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 *forensic science technicians*. Exhibit 3 shows the annual and three-year average number of awards conferred by one institution in the related Classification of Instructional Programs (CIP) Code: Forensic Science and Technology (43.0106). Due to different data collection periods, the most recent three-year period of available data is from 2016 to 2019. Between 2016 and 2019, four-year colleges in the region conferred an average of 14 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
43.0106	Forensic Science and Technology	CSU-Los Angeles	10	12	19	14
Supply Total/Average			10	12	19	14

Appendix A: Occupational demand and wage data by county

Exhibit 4. Orange County

Occupation (SOC)	2019 Jobs	2024 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)
Forensic Science Technicians (19-4092)	206	221	15	7%	26	\$33.92	\$43.42	\$55.93

Exhibit 5. Los Angeles County

Occupation (SOC)	2019 Jobs	2024 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Entry-Level Hourly Earnings (25th Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75th Percentile)
Forensic Science Technicians (19-4092)	801	860	58	7%	103	\$36.03	\$46.07	\$59.32

Exhibit 6. Los Angeles and Orange Counties

Occupation (SOC)	2019 Jobs	2024 Jobs	5-Yr Change	5-Yr % Change	Annual Openings
Forensic Science Technicians (19-4092)	1,008	1,081	73	7%	129

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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May 2021

