

Program Endorsement Brief: 2105.40/Forensics, Evidence, and Investigation Investigations

Los Angeles/Orange County Center of Excellence, February 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 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 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 the occupation, *forensic science technicians*, 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 occupation.

Based on the available data, there appears to be a supply gap for *forensic science technicians* in the region. **Therefore, the COE endorses this proposed program.** Detailed reasons include:

Demand:

- **Supply Gap Criteria** – Over the next five years, there is projected to be **142 jobs available annually** in the region due to new job growth and replacements, **which is more than the 49 awards conferred annually** by educational institutions in the region.

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.

- **Living Wage Criteria** – Within Los Angeles County, **all of the annual job openings** for forensic science technicians have **entry-level wages above the county’s living wage** (\$15.04/hour).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 **that 33% of workers in the field have completed some college or an associate degree**.

Supply:

- There are **three community colleges** in the LA/OC region that issue awards related to forensic science technology, conferring an average of **48 awards annually** between 2016 and 2019.
- Between 2014 and 2017, there was **one award conferred** in a related training program by a non-community college institution in 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 for forensic science technicians is projected to increase by 8% through 2024. There will be nearly 150 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	816	879	63	8%	113
Orange	208	225	17	8%	29
Total	1,024	1,104	80	8%	142

² Living wage data was pulled from California Family Needs Calculator on 1/28/2021. 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.

Wages

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

Los Angeles County—The entry-level hourly wage for forensic science technicians, \$35.69, is above the living wage for one adult (\$15.04 in Los Angeles County). Experienced workers can expect to earn \$59.22 per hour, which is higher than the living wage estimate.

Orange County—The entry-level hourly wage for forensic science technicians, \$33.72, is above the living wage for one adult (\$17.36 in Orange County). Experienced workers can expect to earn \$55.84 per hour, which is higher than the living wage estimate.

Job Postings

There were 14 online job postings related to forensic science technicians listed in the past 12 months. The top job titles included in advertisements were polygraph examiner, forensic specialist, and forensic examiner. The top skills were: law enforcement or criminal justice experience, digital photography, scientific analysis, laboratory equipment, and data collection. The top employers, by the number of job postings, in the region were: the City of Los Angeles, City of Downey, and Santa Ana Police Department.

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 that 33% of workers in the field have completed some college or an associate degree as their highest of education.

Of the 57% of forensic science technician job postings listing a minimum education requirement in Los Angeles/Orange County, 75% (6) requested a high school diploma and 25% (2) requested an associate degree.

Educational Supply

Community College Supply—Exhibit 2 shows the annual and three-year average number of awards conferred by community colleges in the related TOP code: Forensics, Evidence, and Investigation (2105.40). The college with the most completions in the region is East LA. 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), 2016-2019

TOP Code	Program	College	2016-2017 Awards	2017-2018 Awards	2018-2019 Awards	3-Year Award Average
2105.40	Forensics, Evidence, and Investigation	East LA	28	34	35	32
		El Camino	2	6	6	5
		Long Beach	11	8	15	11
		LA Subtotal	41	48	56	48
Supply Total/Average			41	48	56	48

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 these institutions 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 2014 to 2017. Between 2014 and 2017, Chapman University's forensic science and technology program conferred one award over the last three academic years.

Exhibit 3: Regional non-community college awards, 2014-2017

CIP Code	Program	College	2014-2015 Awards	2015-2016 Awards	2016-2017 Awards	3-Year Award Average
43.0106	Forensic Science and Technology	Chapman University	-	1	-	1
Supply Total/Average			-	1	-	1

Appendix A: Occupational demand and wage data by county

Exhibit 4. 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)	816	879	63	8%	113	\$35.69	\$45.84	\$59.22

Exhibit 5. Orange 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)	208	225	17	8%	29	\$33.72	\$43.27	\$55.84

Exhibit 6. Los Angeles and Orange Counties

Occupation (SOC)	2019 Jobs	2024 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Typical Entry-Level Education
Forensic Science Technicians (19-4092)	1,024	1,104	80	8%	142	Bachelor's degree

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)

For more information, please contact:

Luke Meyer, Director
Los Angeles/Orange County Center of Excellence
lmeyer7@mtsac.edu

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