

Labor Market Analysis: 2105.40/Forensics, Evidence, and Investigation

Crime and Intelligence Analysis (Certificate requiring 8 to < than 16 semester units)

Los Angeles Center of Excellence, December 2022

Summary

Program Endorsement:	Endorsed: All Criteria Met		Endorsed: Some Criteria Met		Not Endorsed				
	Program Endo	orsement C	riteria						
Supply Gap:	Yes 🗹			No					
Living Wage: (Entry-Level, 25 th)	Yes 🗹 No 🗆								
Education :	Yes 🗹 No 🗖								
	Emerging Occupation(s)								
Yes 🗹 No 🗆									

The Los Angeles Center of Excellence for Labor Market Research (LA COE) prepared this report to provide regional labor market supply and demand data related to one middle-skill occupation:

• Forensic Science Technicians (19-4092) Collect, identify, classify, and analyze physical evidence related to criminal investigations. Perform tests on weapons or substances, such as fiber, hair, and tissue to determine significance to investigation. May testify as expert witnesses on evidence or crime laboratory techniques. May serve as specialists in area of expertise, such as ballistics, fingerprinting, handwriting, or biochemistry;¹

and one emerging occupation:

• Intelligence Analysts (33-3021.06) Gather, analyze, or evaluate information from a variety of sources, such as law enforcement databases, surveillance, intelligence networks or geographic information systems. Use intelligence data to anticipate and prevent organized crime activities, such as terrorism.²

Middle-skill occupations typically require some postsecondary education, but less than a bachelor's degree.³ Although forensic science technicians typically require a bachelor's degree, it is considered a middle-skill occupation because approximately one-third of workers in the field have completed some college or an associate degree. Since intelligence analysts is an emerging

¹ Forensic Science Technicians (bls.gov)

² <u>33-3021.06 - Intelligence Analysts (onetonline.org)</u>

³ 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.

occupation for which data collection is currently underway, real-time labor market information via job postings is included in this report to gauge local employer demand for this occupation. 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, entry-level wages exceed the self-sufficiency standard wage in both Los Angeles and Orange counties, and more than one-third of current workers in the field have completed some college or an associate degree. Therefore, due to all the criteria being met, the LA COE endorses this proposed program. Detailed reasons include:

Demand:

- Supply Gap Criteria Over the next five years, 166 jobs are projected to be available annually in the region due to new job growth and replacements, which is more than the three-year average of 57 awards conferred by educational institutions in the region.
 - There were 306 online job postings related to forensic science technicians and intelligence analysts listed in the past 12 months. The majority of job postings (89%) were for intelligence analysts, followed by forensic science technicians (11%).
 - The highest number of job postings were for intelligence analysts, signal intelligence systems engineers, artificial intelligence consultants, data intelligence analysts, and intelligence specialists.
- Living Wage Criteria Within Los Angeles County, typical entry-level hourly wages for forensic science technicians are \$35.41, which is higher than the self-sufficiency standard hourly wage (living wage) for one adult in the region (\$18.10 in Los Angeles County).⁴
- 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% of workers in the field have completed some college or an associate degree.

Supply:

- There are **3 community colleges** in the greater LA/OC region that issue awards related to forensics, evidence, and investigation, conferring an average of **57 awards annually** between 2018 and 2021.
- Currently, there are no non-community college institutions in the greater LA/OC region that have conferred subaccalaureate awards for *forensic science technicians* in the past three years.

⁴ Self-Sufficiency Standard wage data was pulled from The Self-Sufficiency Standard Tool for California. For more information, visit: <u>http://selfsufficiencystandard.org/california</u>.

Occupational Demand

Exhibit 1 shows the five-year occupational demand projections for *forensic science technicians*. In the greater Los Angeles/Orange County region, the number of jobs related to these occupations is projected to increase by 8% through 2026. There will be approximately 166 job openings per year through 2026 due to job growth and replacements.

Geography	2021 Jobs	2026 Jobs	2021-2026 Change	2021-2026 % Change	Annual Openings
Los Angeles	953	1,024	71	7%	133
Orange	227	248	20	9%	33
Total	1,180	1,271	91	8%	166

Exhibit 1: Occupational demand in Los Angeles and Orange Counties⁵

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 self-sufficiency standard wage. Orange County wages are included below in order to provide a complete analysis of the greater LA/OC region. Detailed wage information, by county, is included in Appendix A.

Los Angeles County— The typical entry-level hourly wages for *forensic science technicians* are \$35.41, which is <u>above</u> the self-sufficiency standard wage for one adult (\$18.10 in Los Angeles County). Experienced workers can expect to earn wages of \$60.98.

Exhibit 2: Hourly Earnings for Occupations in LA County

Occupation	Entry-Level Hourly Earnings (25 th Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75 th Percentile)
Forensic Science Technicians (19-4092)	\$35.41	\$47.31	\$60.98

Orange County— The typical entry-level hourly wages for *forensic science technicians* are \$33.95, which is <u>above</u> the self-sufficiency standard wage for one adult (\$20.63 in Orange County). Experienced workers can expect to earn wages of \$56.80.

Exhibit 3: Hourly Earnings for Occupations in Orange County								
Occupation	Entry-Level Hourly Earnings (25 th Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75 th Percentile)					
Forensic Science Technicians (19-4092)	\$33.95	\$44.61	\$56.80					

⁵ Five-year change represents new job additions to the workforce. Annual openings include new jobs and replacement jobs that result from retirements and separations.

On average, the entry-level earnings for the occupations in this report are \$35.09; this is above the living wage for one single adult in Los Angeles County (\$18.10). Exhibit 4 shows the average wage for the occupations in this report, from entry-level to experienced workers.



Exhibit 4: Average Hourly Earnings for Forensic Science Technicians in LA/OC

Job Postings

There were 306 online job postings related to forensic science technicians and intelligence analysts listed in the past 12 months. Exhibit 5 displays the number of job postings by occupation. The majority of job postings (89%) were for intelligence analysts, followed by forensic science technicians (11%). The highest number of job postings were for intelligence analysts, signal intelligence systems engineers, artificial intelligence consultants, data intelligence analysts, and intelligence specialists. The top skills were intelligence analysis, computer science, algorithms, data analysis, and artificial intelligence. The top three employers, by number of job postings, in the region were Boeing, Deloitte, and Cedars-Sinai. Employers posting specifically for jobs related to crime intelligence were Security Industry Specialists, Manufacturers Bank, and the City of Santa Ana.





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% of workers in the field have completed some college or an associate degree. Of the 70% of

job postings listing a minimum education requirement in the greater Los Angeles/Orange County region, 12% (26) requested high school or vocational training, 7% (15) requested an associate degree, and 81% (174) requested a bachelor's degree.

Educational Supply

Community College Supply—Exhibit 6 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 colleges with the most completions in the region are: East LA and Long Beach. Currently, there are no non-community college institutions in the greater LA/OC region that have conferred awards for *forensic science technicians* in the past three years.

Exhibit 6: Regional community college awards (certificates and degrees), 2018-2021

ТОР	Program	College	2018-19 Awards	2019-20 Awards	2020-21 Awards	3-Year Average
	East LA	35	31	28	31	
2105.40	Forensics, Evidence, and Investigation	El Camino	6	4	6	5
2103.40		Long Beach	15	23	22	20
		LA Subtotal	56	58	56	57
Supply Total/Average			56	58	56	57

Appendix A: Occupational demand and wage data by county

Exhibit 7. Los Angeles County

Occupation (SOC)	2021 Jobs	2026 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)	953	1,024	71	7%	133	\$35.41	\$47.31	\$60.98	

Exhibit 8. Orange County

Occupation (SOC)	2021 Jobs	2026 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)	227	248	20	9%	33	\$33.95	\$44.61	\$56.80

Exhibit 7. Los Angeles and Orange Coonnes								
Occupation (SOC)	2021 Jobs	2026 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Typical Entry-Level Education		
Forensic Science Technicians (19-4092)	1,180	1,271	91	8%	166	Bachelor's degree		

Exhibit 9. Los Angeles and Orange Counties

Appendix B: Sources

- O*NET Online
- Labor Insight (Burning Glass Technologies)
- Lightcast (formerly Emsi)
- Bureau of Labor Statistics (BLS)
- California Employment Development Department, Labor Market Information Division, OES
- California Community Colleges Chancellor's Office Management Information Systems (MIS)
- Self-Sufficiency Standard at the Center for Women's Welfare, University of Washington
- Chancellor's Office Curriculum Inventory (COCI 2.0)

For more information, please contact:

Luke Meyer, Director Los Angeles Center of Excellence <u>Lmeyer7@mtsac.edu</u>

