



## Fire Academy (TOP 2133.50)

April 2022

Prepared by the South Central Coast Center of Excellence for  
Labor Market Research

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### Program Recommendation

This report was compiled by the South Central Coast<sup>1</sup> Center of Excellence to provide regional labor market data for the program recommendation – Fire Academy. This report can help determine whether there is demand in the local labor market that is not being met by the supply from programs of study (CCC and non-CCC) that align with this occupation group.

### Key Findings

- In the South Central Coast region, **the number of jobs related to Fire Academy are expected to increase** for Fire Inspectors and **remain steady** for the other three related occupations.
- Fire Academy is anticipated to experience **a medium risk of automation** for Firefighters, and a **low risk** for the other three related occupations.
- In 2020 there were 614 regional completions in programs related to the occupations identified as related to Fire Academy and 217 openings, indicating an **oversupply**.
- Typical entry-level education is a **high school diploma or equivalent** for Miscellaneous First-Line Supervisors, Protective Service Workers, and a **Postsecondary nondegree award** for the other three related occupations.
- Completers of Fire Academy programs from the 2018-2019 academic year in the South Central Coast region had a **median annual wage upon completion of \$152,902**.
- 59% of students are **employed within a year** after completing a program.
- 86% of students **attained a living wage** within a year of completion.
- Completers experienced an average of +15% **change in earnings after exiting**.
- 95% of students were **part time**, 29% **skill builders**, 5% **first-generation**, and 26% **economically disadvantaged**.

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<sup>1</sup> The South Central Coast Region consists of San Luis Obispo County, Santa Barbara County, Ventura County, and the following cities from North Los Angeles County: Canyon Country, Castaic, Lake Hughes, Lancaster, Littlerock, Llano, Newhall, Palmdale, Pearblossom, Santa Clarita, Stevenson Ranch, and Valencia.

## Occupation Codes and Descriptions

There are four occupations in the standard occupational classification (SOC) system that were identified as related to Fire Academy for this analysis. The occupation titles and descriptions, as well as reported job titles are included in Exhibit 1.

**Exhibit 1 – Occupation, description, and sample job titles**

<b>SOC Code</b>	<b>Title</b>	<b>Description</b>	<b>Sample of Reported Job Titles</b>
33-1020	<b>First-Line Supervisors of Fire Fighting and Prevention Workers</b>	Directly supervise and coordinate activities of workers engaged in firefighting and fire prevention and control.	--
33-1090	<b>Miscellaneous First-Line Supervisors, Protective Service Workers</b>	All protective service supervisors not listed separately above.	--
33-2010	<b>Firefighters</b>	Control and extinguish fires or respond to emergency situations where life, property, or the environment is at risk. Duties may include fire prevention, emergency medical service, hazardous material response, search and rescue, and disaster assistance.	--
33-2020	<b>Fire Inspectors</b>	Inspect buildings to detect fire hazards and enforce local ordinances and state laws, or investigate and gather facts to determine cause of fires and explosions.	--

Source: O\*NET Online

## Current and Future Employment

In the South Central Coast region, the number of jobs related to Fire Academy are expected to increase for Fire Inspectors and remain steady for the other three related occupations.

**Exhibit 2 – Five-year projections for Fire Academy in the South Central Coast region**

SOC	Occupation	2020 Jobs	2025 Jobs	2020-2025 Change	2020-2025 % Change
33-1020	First-Line Supervisors of Fire Fighting and Prevention Workers	166	172	6	4%
33-1090	Miscellaneous First-Line Supervisors, Protective Service Workers	381	384	3	1%
33-2010	Firefighters	2,091	2,116	25	1%
33-2020	Fire Inspectors	69	74	5	7%

Source: Economic Modeling Specialists International (EMSI)

## Earnings

In the South Central Coast region, the average wage for the listed occupations is \$39.87 per hour.

Exhibit 3 contains hourly wages and annual average earnings for these occupations. Entry-level hourly earnings are represented by the 25<sup>th</sup> percentile of wages, median hourly earnings are represented by the 50<sup>th</sup> percentile of wages, and experienced hourly earnings are represented by the 75<sup>th</sup> percentile of wages, demonstrating various levels of employment.

**Exhibit 3 – Earnings for Fire Academy in the South Central Coast region**

SOC	Occupation	Entry-Level Hourly Earnings	Median Hourly Earnings	Experienced Hourly Earnings
33-1020	First-Line Supervisors of Fire Fighting and Prevention Workers	\$44.33	\$66.78	\$94.79
33-1090	Miscellaneous First-Line Supervisors, Protective Service Workers	\$21.69	\$28.97	\$36.96
33-2010	Firefighters	\$31.02	\$40.82	\$56.14
33-2020	Fire Inspectors	\$36.09	\$48.43	\$67.01

Source: Economic Modeling Specialists International (EMSI)

## Employer Job Postings

In this research brief, real-time labor market information is used to provide a more nuanced view of the current job market, as it captures job advertisements for occupations relevant to the field of study. Employer job postings are consulted to understand who is looking in the field, and what they are looking for in potential candidates. To identify job postings related to Fire Academy the following standard occupational classifications were used:

33-1021	First-Line Supervisors of Fire Fighting and Prevention Workers
33-1099	First-Line Supervisors of Protective Service Workers, All Other
33-2011	Firefighters
33-2021	Fire Inspectors and Investigators

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## Top Occupations

In 2021, there were 196 employer postings for the occupations related to Fire Academy.

**Exhibit 4 – Top occupations in job postings and risk of automation tables**

<b>SOC Code</b>	<b>Occupation</b>	<b>Job Postings, Full Year 2021</b>
33-2011	Firefighters	76
33-1099	First-Line Supervisors of Protective Service Workers, All Other	70
33-1021	First-Line Supervisors of Fire Fighting and Prevention Workers	25
33-2021	Fire Inspectors and Investigators	25

Source: Labor Insight/Jobs (Burning Glass)

<b>SOC Code</b>	<b>Occupation</b>	<b>Risk of Automation</b>
33-2011	Firefighters	Medium
33-1099	First-Line Supervisors of Protective Service Workers, All Other	Low
33-1021	First-Line Supervisors of Fire Fighting and Prevention Workers	Low
33-2021	Fire Inspectors and Investigators	Low

Source: Labor Insight/Jobs (Burning Glass)

### **Top Titles**

The top job titles for employers posting ads for jobs related to Fire Academy are listed in Exhibit 5. Security Shift Supervisor is mentioned as the job title in 14% of all relevant job postings (27 postings).

**Exhibit 5 –Job Titles**

<b>Title</b>	<b>Job Postings, Full Year 2021</b>
Security Shift Supervisor	27
Firefighter EMT	9
Fire Chief	8
Director of Infection Prevention	6
Wildland Firefighter Hand Crew	5

Source: Labor Insight/Jobs (Burning Glass)

### **Top Employers**

Exhibit 6 lists the major employers hiring professionals in the Fire Academy field. The top employer posting job ads was Allied Universal. The top worksite cities in the region for these occupations were Santa Clarita, Palmdale, Ventura, Santa Maria, and Oxnard.

**Exhibit 6 – Top Employers (n=168)**

<b>Employer</b>	<b>Job Postings, Full Year 2021</b>
Allied Universal	54
Wildfire Defense Systems	16
Northrop Grumman	8
California Conservation Corps	7
Chumash Casino Resort	4

Source: Labor Insight/Jobs (Burning Glass)

## Skills

Staff Management is the most sought after skill for employers hiring for jobs related to Fire Academy.

**Exhibit 7 –Job Skills (n=157)**

Skills	Job Postings, Full Year 2021
Staff Management	59
Handling of Crisis or Emergency Situations	56
Operations Management	42
Fire Suppression	33
Cardiopulmonary Resuscitation (CPR)	29
Fire Protection	27
Life Support	21

Source: Labor Insight/Jobs (Burning Glass)

## Industry Concentration

Exhibit 8 shows the industries with most Fire Academy postings in the South Central Coast. Note: 23% of records have been excluded because they do not include an industry. As a result, the chart below may not be representative of the full sample.

**Exhibit 8 – Industries employing the most in the Fire Academy field, 2021**

Industry	Occupation Group Jobs in Industry	% of Occupation Group in Industry
Public Administration	83	55.3%
Professional, Scientific, and Technical Services	17	11.3%
Manufacturing	12	8.0%
Administrative and Support and Waste Management and Remediation Services	11	7.3%
Health Care and Social Assistance	9	6.0%

Source: Labor Insight/Jobs (Burning Glass)

## Education and Training

Exhibit 9 shows the typical entry-level education requirement for the occupations of interest, along with the typical on-the-job training needed to attain competency in the occupation.

**Exhibit 9 – Education and Training Requirements**

SOC	Occupation	Typical entry-level education	Typical on-the-job training
33-1020	<b>First-Line Supervisors of Fire Fighting and Prevention Workers</b>	Postsecondary nondegree award	Moderate-term on-the-job training
33-1090	<b>Miscellaneous First-Line Supervisors, Protective Service Workers</b>	High school diploma or equivalent	None
33-2010	<b>Firefighters</b>	Postsecondary nondegree award	Long-term on-the-job training
33-2020	<b>Fire Inspectors</b>	Postsecondary nondegree award	Moderate-term on-the-job training

Source: Bureau of Labor Statistics Employment Projections (Educational Attainment)

## Regional Completions and Openings

There were 614 regional completions (2020) and 217 regional openings (2020) in the South Central Coast region in programs related to the occupations identified as aligned with Fire Academy.

**Exhibit 10 – Completions and Openings**

<b>9</b> Regional Institutions had Related Programs (2020)	<b>614</b> Regional Completions (2020)	<b>217</b> Annual Openings (2020)
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Source: Economic Modeling Specialists International (EMSI)

## Related Programs

CIP Code	Program	Completions (2020)
43.0201	Fire Prevention and Safety Technology/Technician	188
51.0904	Emergency Medical Technology/Technician (EMT Paramedic)	323
03.0501	Forestry, General	33
43.0203	Fire Science/Fire-fighting	58
43.0299	Fire Protection, Other	10
43.0112	Securities Services Administration/Management	2

Source: Economic Modeling Specialists International (EMSI)

## Student Outcomes

The CTE LaunchBoard provides student outcome data on the effectiveness of CTE programs. The following student outcome information was collected from exiters of Fire Academy Program (TOP: 0956.00) in the South Central Coast region for the 2018-19 academic year.

- Completers of Fire Academy programs from the 2018-2019 academic year in the South Central Coast region had a **median annual wage upon completion of \$152,902.**
- 59% of students are **employed within a year** after completing a program.
- 86% of students **attained a living wage** within a year of completion.
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## Sources

O\*Net Online, Labor Insight/Jobs (Burning Glass), Economic Modeling Specialists International (EMSI), MIT Living Wage Calculator, Bureau of Labor Statistics (BLS) Education Attainment, California Community Colleges Chancellor's Office Management Information Systems (MIS) Data Mart, CTE LaunchBoard, Statewide CTE Outcomes Survey, Employment Development Department Unemployment Insurance Dataset

## Notes

Data included in this analysis represent the labor market demand for relevant positions most closely related to Fire Academy. Traditional labor market information was used to show current and projected employment based on data trends, as well as annual average awards granted by regional community colleges. Real-time labor market information captures job post advertisements for occupations relevant to the field of study and can signal demand and show what employers are looking for in potential employees, but is not a perfect measure of the quantity of open positions. All representations have been produced from primary research and/or secondary review of publicly and/or privately available data and/or research reports. The most recent data available at the time of the analysis was examined; however, data sets are updated regularly and may not be consistent with previous reports. Efforts have been made to qualify and validate the accuracy of the data and findings; however, neither the Centers of Excellence for Labor Market Research (COE), COE host district, nor California Community Colleges Chancellor's Office are responsible for the applications or decisions made by individuals and/or organizations based on this study or its recommendations.