

Program Endorsement Brief: 0952.20/Electrical
Electrical Apprentice; General Industrial Electrician; Traffic Signal Technician
 Los Angeles/Orange County Center of Excellence, October 2018

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 electrical. 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 electricians is projected to increase by 10% over the next five years. More than 3,100 job openings will be available annually due to new job growth and replacement need (e.g. retirements).
- Over the past 12 months, there have been 1,536 online job postings for electricians in Los Angeles and Orange Counties. Of these job postings, 69 were for industrial electricians and seven postings mentioned working with traffic signals.
- Three colleges in the region have electrical programs (TOP 0952.20).
- Between 2014 and 2017, community colleges in the region conferred an average of 165 awards (associate degrees and certificates) in related training programs.

Occupational Demand—In Los Angeles/Orange County, the number of jobs for electricians is projected to increase by 10%. There will be more than 3,100 job openings per year through 2022 (Exhibit 1) due to new job growth and replacement need (e.g. retirements).

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	14,422	15,395	973	7%	1,815
Orange	8,863	10,201	1,338	15%	1,302
Total	23,284	25,595	2,311	10%	3,116

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 and median hourly wages for electricians positions in the region are \$14.91 and \$28.68, respectively. Entry-level wages are higher than the MIT Living hourly wage for one adult in Los Angeles County (\$13.54), and lower than the MIT Living hourly wage in Orange County (\$15.31). Experienced workers earn \$46.97, which is higher than the living wage.

Job Postings—There were 1,536 online job postings for electricians listed in the past 12 months. The majority of job postings are for electrician, journeyman electrician, and maintenance electrician. Top specialized skills are: electrical work/systems, wiring, and transformers. The top three employers, by number of job postings, in the region are: Outsource (staffing agency), HomeAdvisor (referral service) and Edison International.

Of these job postings, 69 were for industrial electricians. Top specialized skills for industrial electricians are: electrical work, industrial electrical experience and repair. Top employers, by number of job postings, in the region are: Outsource (staffing agency) and Armstrong World Industries.

The keywords “traffic signal” were mentioned in seven of the electrician job postings. Top specialized skills are: repair and electrical work. Employers hiring traffic signal electricians include: Econolite, City of Los Angeles, and City of Huntington Park.

Educational Attainment—The BLS lists a high school diploma or equivalent as the typical entry-level education for this occupation. The national-level educational attainment data indicates 47% of workers in the field have completed some college or an associate degree. In Los Angeles/Orange County, 93% of job postings request high school or vocational training.

Community College Supply—Appendix A shows the annual and three-year average number of awards conferred by community colleges in the related TOP codes: Electrical (0952.20). The colleges with the most completions in the region are: LA Trade-Tech and Santiago Canyon. Between January and September 2018, there was one other community college request for data related to a similar program.

Appendix A: Regional community college awards (certificates and degrees), 2014-2017

TOP Code	Program	College	2014-15 Awards	2015-16 Awards	2016-2017 Awards	3-Year Award Average
0952.20	Electrical	Irvine	4	5	6	5
		LA Trade-Tech	131	145	130	135
		Santiago Canyon	45	28	1	25
Total			180	178	137	165

Appendix B: Occupational demand and wage data by county

Exhibit 3. 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
Electricians (47-2111)	14,422	15,395	973	7%	1,815	\$15.15	\$29.98	\$47.78

Exhibit 4. 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
Electricians (47-2111)	8,863	10,201	1,338	15%	1,302	\$14.44	\$26.31	\$44.27

Exhibit 5. 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
Electricians (47-2111)	23,284	25,595	2,311	10%	3,116	\$14.91	\$28.68	\$46.97

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

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