

Program Endorsement Brief: 0948.00/Automotive Technology

Automotive Management

Automotive Emission Control Specialist

Automotive Engine Performance

Automotive Fabrication Specialist

Automotive Maintenance Specialist

Automatic Transmission Specialist

Automotive Technology

Orange County Center of Excellence, October 2019

Summary Analysis

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 two middle-skill occupations: electronic equipment installers and repairers, motor vehicles (49-2096), and automotive service technician and mechanics (49-3023). Middle-skill occupations typically require some postsecondary education, but less than a bachelor's degree.¹ 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.

Based on the available data there appears to be a supply gap for these automotive technology occupations in the region. **Therefore, the COE endorses this proposed program.** Reasons include:

Demand:

- Over the next five years, there is projected to be **2,638 jobs available annually** in the region due to new job growth and replacements, **which is more than the 1,174 awards conferred annually** by educational institutions in the region.
- The national-level educational attainment data indicates **between 34.8% and 40.6% of workers in the field have completed some college or an associate degree.**

Supply:

- There are **15 educational institutions in the region, all of which are community colleges**, that have automotive technology programs, conferring an average of **1,542 awards annually** between 2015 and 2018.

Occupational Demand

Exhibit 1, on the following page, shows the five-year occupational demand projections for these automotive technology occupations. In Los Angeles/Orange County, the number of jobs related to these occupations is projected to increase slightly, by less than 1% through 2023. There will be more than 2,600 job openings per year through 2023 due to new job growth and replacements.

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.

Exhibit 1: Occupational demand in Los Angeles and Orange Counties²

Geography	2018 Jobs	2023 Jobs	2018-2023 Change	2018-2023 % Change	Annual Openings
Los Angeles	20,539	20,343	(196)	(1%)	1,905
Orange	7,317	7,539	222	3%	733
Total	27,856	27,881	25	0%	2,638

Wages—Typical entry-level hourly wages for automotive technology occupations throughout the region are between \$13.35 and \$13.60.³ Entry-level wages for these occupations are lower than the California Family Needs Calculator hourly wage for one adult in the region (\$15.04 in Los Angeles County and \$17.36 in Orange County).⁴ Experienced workers can expect to earn between \$18.02 and \$27.38, which is higher than the California Family Needs Calculator wage estimates for both counties. Regional average wages are below the average statewide wage of \$22.35 for these occupations. Wage information, by county, is included in Appendix A.

Job Postings—There were 5,905 online job postings related to automotive technology listed in the past 12 months. The highest number of job postings were for auto technician, auto mechanic, service technician, lube technician, and automotive service advisor. The top skills were: auto repair, customer service/customer contact, automotive services industry knowledge, vehicle maintenance, and vehicle inspection. The top three employers, by number of job postings, in the region were: Chrysler, Pep Boys, and AutoNation. Of the 5,905 online job postings, 41% listed a minimum education requirement.

Educational Attainment—The Bureau of Labor Statistics (BLS) lists a postsecondary non-degree award as the typical entry-level education for automotive service technician and mechanics, and a high school diploma as the typical entry-level education for electronic equipment installers and repairers, motor vehicles. The national-level educational attainment data indicates between 34.8% and 40.6% of workers in the field have completed some college or an associate degree. Of the 41% of automotive technology job postings listing a minimum education requirement in Los Angeles/Orange County, 97% (2,332) requested a high school diploma and 3% (67) requested an associate degree.

Supply

Community College Supply—Exhibit 2, on the following page, shows the three-year average number of awards conferred by community colleges in the related TOP code: Automotive Technology (0948.00). The colleges with the most completions in the region are: LA Trade-Tech, Cypress and Santa Ana. Over the past 12 months, there were eight other related program recommendation requests from regional community colleges.

² Five-year change represents new job additions to the workforce. Annual openings include new jobs and replacement jobs that result from retirements and separations.

³ Entry-level wage is defined as the twenty-fifth percentile hourly wage. Wages for experienced workers are defined as the seventy-fifth percentile hourly wage.

⁴ Living wage data was pulled from California Family Needs Calculator on 10/22/19. For more information, visit the California Family Needs Calculator website: <https://insightcced.org/2018-family-needs-calculator/>.

Exhibit 2: Regional community college awards (certificates and degrees), 2015-2018

TOP Code	Program	College	2015-2016 Awards	2016-2017 Awards	2017-2018 Awards	3-Year Award Average	
0948.00	Automotive Technology	Cerritos	37	52	57	49	
		Citrus	69	81	85	78	
		Compton	26	25	21	24	
		East LA	70	53	84	69	
		El Camino	45	60	97	67	
		LA Pierce	138	103	137	126	
		LA Trade-Tech	220	245	147	204	
		Long Beach	3	0	0	1	
		Pasadena	24	46	40	37	
		Rio Hondo	151	38	85	91	
		LA	783	703	753	746	
		Cypress	126	225	173	175	
		Fullerton	7	16	49	24	
		Golden West	37	46	37	40	
		Saddleback	29	44	23	32	
		Santa Ana	207	78	1,291	525	
		OC	406	409	1,573	796	
			Total/Average	1,189	1,112	2,326	1,542

Appendix A: Occupational demand and wage data by county

Exhibit 4. Los Angeles County

Occupation (SOC)	2018 Jobs	2023 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)
Automotive Service Technicians and Mechanics (49-3023)	20,036	19,918	(118)	(1%)	1,860	\$13.08	\$19.46	\$26.58
Electronic Equipment Installers and Repairers, Motor Vehicles (49-2096)	502	425	(77)	(15%)	45	\$13.02	\$15.47	\$17.41
Total	20,539	20,343	(196)	(1%)	1,905			

Exhibit 5. Orange County

Occupation (SOC)	2018 Jobs	2023 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)
Automotive Service Technicians and Mechanics (49-3023)	7,117	7,364	247	3%	715	\$15.11	\$21.67	\$29.29
Electronic Equipment Installers and Repairers, Motor Vehicles (49-2096)	200	175	(25)	(13%)	18	\$14.34	\$17.01	\$19.14
Total	7,317	7,539	222	3%	733			

Exhibit 6. Los Angeles and Orange Counties

Occupation (SOC)	2018 Jobs	2023 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)
Automotive Service Technicians and Mechanics (49-3023)	27,154	27,281	127	0%	2,575	\$13.60	\$20.02	\$27.38
Electronic Equipment Installers and Repairers, Motor Vehicles (49-2096)	703	600	(103)	(15%)	63	\$13.35	\$15.84	\$18.02
Total	27,856	27,881	25	0%	2,638			

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
- Employment Development Department, Unemployment Insurance Dataset
- Living Insight Center for Community Economic Development
- 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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October 2019

