



2019 CTE Supplemental Review

Automotive Technology

Compton College

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CAREER AND TECHNICAL EDUCATION – SUPPLEMENTAL QUESTIONS

CTE programs must conduct a full program review every 4 years. The full review includes answering these supplemental questions. Every two years (once between full reviews) these supplemental questions must be answered and submitted to Academic Affairs for posting on the College website.

Use labor market data, advisory committee input, institutional data, and the provided CTE 2-year Program Review data to respond to the following questions:

- 1. How strong is the occupational demand for the program? As you analyze demand over the past 5 years and projected demand for next 5 years, address state and local needs for the program.**

Demand for automotive technicians has remained strong over the past five years and is projected to grow over the next four years. In the local area that Compton College serves, job estimates for 2018 were 30% above the national average (in terms of job availability per area). The local area quotient of 1.30 further backs the demand for qualified automotive technicians, showing a high concentration of the occupation in the area. Looking at the job market data for the state of California reveals a 7.4% increase in jobs from 2013-2018 and predicts 4.4% rise in job availability from 2018 to 2022 (both being above the national average).

According to the program's Advisory Committee, the growing economy is allowing consumers to buy new cars which is increasing a demand for qualified technicians at the dealerships. Looking at the charts below, a strong increase can be noted for increased jobs at the new car dealerships from 2013 to 2018 both in the local area (+12%) and in the state (+14%). Additionally, the Program Advisory Committee has also commented that they are seeing an increase in demand for properly trained technicians as cars have become more complex, especially in the areas of automotive electrical systems and powertrain management. Hiring untrained technicians is too risky as the average kid growing up does not possess the basic hands-on skills to be successful learning on the job or when sent to factory/manufacturer training. The industry is losing technicians due to retirements and relies on CTE programs such as ours to fill new positions.

Automotive Technology:

Automotive Service Technicians and Mechanics

Note: The following data reflects the job market in the Compton College 7.5-mile service area.

Job Estimates - 2018: 4,276 (30% above national average in terms of job availability per area)

Percent Change in Number of Jobs from 2013-2018: +3.9% (National average: +5.9%)

Projected Change in Jobs from 2018-2022: +1.9% (National average: +4.3%)

Area Location Quotient: 1.30 (Numbers above 1.00 mean the occupation is more concentrated in the area compared to the nation. Numbers below 1.00 mean the occupation is less concentrated in the area.)

Top 10 Industries Employing Automotive Service Technicians and Mechanics (Compton College Service Area)

Industry	% of Occupation in Industry (2018)	% Change in Industry Jobs (2013-2018)
General Automotive Repair	35.8%	0%
New Car Dealers	16.0%	+12%
Automotive Body, Paint, and Interior Repair and Maintenance	9.7%	+4%
Automotive Parts and Accessories Stores	5.0%	-5%
Other Automotive Mechanical and Electrical Repair and Maintenance	3.6%	-17%
All Other Automotive Repair and Maintenance	2.5%	+2%
Tire Dealers	2.3%	+9%
Car Washes	2.2%	+10%
Local Government, Excluding Education and Hospitals	2.2%	-11%
Motor Vehicle Supplies and New Parts Merchant Wholesalers	2.0%	+35%

Note: The following data reflects the job market in California.

Job Estimates - 2018: 95,421 (**11% below** national average in terms of availability per state)

Percent Change in Number of Jobs from 2013-2018: **+7.4%** (National average: **+5.9%**)

Projected Change in Jobs from 2018-2022: **+4.4%** (National average: **+4.3%**)

State Location Quotient: 0.89 (Numbers above 1.00 mean the occupation is more concentrated in the state compared to the nation. Numbers below 1.00 mean the occupation is less concentrated in the state.)

Top 10 Industries Employing Automotive Service Technicians and Mechanics (California Statewide)

Industry	% of Occupation in Industry (2018)	% Change in Industry Jobs (2013-2018)
General Automotive Repair	34.6%	+6%
New Car Dealers	21.0%	+14%
Automotive Body, Paint, and Interior Repair and Maintenance	7.6%	+4%
Automotive Parts and Accessories Stores	4.3%	-1%
All Other Automotive Repair and Maintenance	3.7%	+7%
Used Car Dealers	2.6%	+11%
Tire Dealers	2.2%	+6%
Local Government, Excluding Education and Hospitals	2.2%	-9%
Other Automotive Mechanical and Electrical Repair and Maintenance	2.1%	-17%
Automotive Transmission Repair	1.8%	-5%

All Occupations Related to Vehicle and Mobile Equipment:

Vehicle and Mobile Equipment Mechanics, Installers, and Repairers

Note: The following data reflects the job market in the Compton College 7.5-mile service area.

Job Estimates - 2018: 9,084 (**15% above** national average in terms of job availability per area)

Percent Change in Number of Jobs from 2013-2018: **+7.0%** (National average: **+8.7%**)

Projected Change in Jobs from 2018-2022: +2.9% (National average: +4.5%)

Area Location Quotient: 1.15 (Numbers above 1.00 mean the occupation is more concentrated in the area compared to the nation. Numbers below 1.00 mean the occupation is less concentrated in the area.)

Top 10 Industries Employing Vehicle and Mobile Equipment Mechanics, Installers, and Repairers (Compton College Service Area)

Industry	% of Occupation in Industry (2018)	% Change in Industry Jobs (2013-2018)
General Automotive Repair	20.4%	+1%
Automotive Body, Paint, and Interior Repair and Maintenance	11.1%	+4%
New Car Dealers	8.6%	+12%
Automotive Parts and Accessories Stores	5.0%	+1%
Local Government, Excluding Education and Hospitals	3.0%	+8%
Other Personal and Household Goods Repair and Maintenance	2.4%	-2%
Tire Dealers	2.3%	+17%
Motor Vehicle Supplies and New Parts Merchant Wholesalers	2.3%	+17%
Other Aircraft Parts and Auxiliary Equipment Manufacturing	2.2%	+17%
Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	2.1%	+4%

Note: The following data reflects the job market in California.

Job Estimates - 2018: 211,934 (16% below national average in terms of availability per state)

Percent Change in Number of Jobs from 2013-2018: +10.6% (National average: +8.7%)

Projected Change in Jobs from 2018-2022: +4.9% (National average: +4.5%)

State Location Quotient: 0.83 (Numbers above 1.00 mean the occupation is more concentrated in the state compared to the nation. Numbers below 1.00 mean the occupation is less concentrated in the state.)

Top 10 Industries Employing Vehicle and Mobile Equipment Mechanics, Installers, and Repairers (California Statewide)

Industry	% of Occupation in Industry (2018)	% Change in Industry Jobs (2013-2018)
General Automotive Repair	18.8%	+8%
New Car Dealers	10.7%	+14%
Automotive Body, Paint, and Interior Repair and Maintenance	9.2%	+7%
Automotive Parts and Accessories Stores	4.5%	+5%
Federal Government, Military	4.3%	+13%
Local Government, Excluding Education and Hospitals	3.0%	+11%
Other Personal and Household Goods Repair and Maintenance	3.0%	-2%
Tire Dealers	2.3%	+13%
All Other Automotive Repair and Maintenance	2.1%	+8%
Used Car Dealers	1.3%	+12%

2. How does the program address needs that are not met by similar programs in the region?

The Compton College Automotive Technology is a small program under reform and has set its focus on training students for the basics of ASE A1-A8. While surrounded by larger schools with a much larger scope of offerings, along with ASE Education Foundation Certification (Formerly NATEF), the Compton College Automotive Technology program serves many students who lack the preparedness to be successful in the rigorous programs of the larger schools, as they arrive straight out of high school. Many of our students enter the program with low Math and English skills along with a lack of the soft skills required to be successful in today’s workforce.

The Compton College Automotive Program is accepting to students of diverse backgrounds and offers a learning environment that is accepting to all, regardless of mechanical skills, educational background, criminal record, or disabilities. We utilize diverse and less traditional teaching strategies to cater to students of various learning styles and spend the time to get to know each of our students an individual. We have found that as students become part of the Compton College Automotive Technology “family”, they enjoy learning and attend classes regularly. This leads to higher completion rates and many move forward

toward attaining a 2-year AS degree, in addition to earning Certificates of Accomplishment and Achievement.

Although limited in resources while working in an under-served community, the Compton College Automotive Technology Program is transforming the lives of students and effectively preparing them for the modern workforce. By offering a supportive and equitable learning environment, we remove roadblocks for students to be successful in our rigorous advanced level courses, regardless of prior math or reading comprehension skills. Ultimately, our students leave with the ability to be gain and sustain employment, learn the theoretical foundation and test taking skills to gain ASE certification, and develop the ability to think critically and analytically—the necessary skills for diagnosing and repairing modern vehicles. Lastly, we are actively partnering with local dealerships as well as independent repair shops to effectively pave a clear pathway for students to gain employment post graduation.

3. What are the completion, success, and employment rates for the students? Discuss any factors that may impact completion, success, and employment rates. If applicable, what is the program doing to improve these rates?

The Compton College Automotive Technology Program has undergone major changes since 2015. In the Fall of 2015, it hired a new full-time instructor who was tasked with reforming the department from a loosely run program to one that is centered on education. Analyzing the data provided below, improvements have been made in all areas related to student success. Two areas that stand out the most are the number of certificates awarded and employment rates. In 2014-2015, only two certificates were awarded to students in the program. This number jumped to 26 in 2015-2016, followed by 25 certificates awarded in 2016-2017. Looking at student employment rates, 2014-2015 had a rate of 35%, which grew progressively to an impressive 90% in 2017-2018.

Degrees awarded jumped from 1 in 2014-15 to 3 in 2017-2018. Being a CTE program, many students enter without the goal of achieving a degree. As students find success in the program, we encourage them to earn a degree. Often, just showing that someone believes in them is enough to encourage a student to strive for earning a degree. As the program continues to grow, we believe that the number of degrees awarded will continue to increase.

Success rates have been improving as well, starting with 67.2% in 2015 and ending with 82.1% in 2018. Considering the rise in rigors of the current program and the fact that every student is held accountable for earning his/her own grades, both through hands-on performance testing and classroom written tests, we are satisfied with the current 82%. However, we will continue to push our students toward further success as we believe that these statistics can continually be improved.

Associate of Science Degrees Awarded

	2014-2015	2015-2016	2016-2017	2017-2018
Automotive Collision Repair & Painting	1	0	0	1
Automotive Technology	1	0	0	3

Certificates Awarded

	2014-2015	2015-2016	2016-2017	2017-2018
Automotive Collision Repair & Painting	6	13	1	6
Automotive Technology	2	26	25	18

Success Rates

	FA2015	SP2016	FA2016	SP2017	FA2017	SP2018
Automotive Collision Repair & Painting	86.3%	83.3%	88.7%	79.7%	75.0%	89.9%
Automotive Technology	67.2%	71.0%	86.2%	78.8%	82.0%	82.1%

Employment Rates

	2014-2015	2015-2016	2016-2017	2017-2018
Automotive Collision Repair (TOP Code: 0949)	14%	40%	47%	79%
Automotive Technology (TOP Code: 0948)	35%	38%	64%	90%

Source: CCCCO CTE Core Indicator Summary Report

- If there is a licensure exam for students to work in their field of study, please list the exam and the pass rate. If there are multiple licensure exams in the program, include them all. Discuss any factors that may impact licensure exam pass rates. If applicable, what is the program doing to improve these rates?

N/A

5. Is the advisory committee satisfied with the level of preparation of program graduates? How has advisory committee input been used in the past two years to ensure employer needs are met by the program? Describe any advisory committee recommendations that the program is either unable to implement or is in the process of implementing.

Both the advisory committee and faculty see the need for growth in the program. Furthermore, the advisory committee understands that the program must be built upon a strong foundation and that time and resources will be needed for the growth to occur. As part of building the foundation, the focus of the program has been on ASE A1 through A8 certification education, in addition to giving students hands-on training to gain employment, retain employment, and to be trainable on-the-job so they can continue to develop skill and move to higher levels of employment.

The advisory committee recommends that the following equipment be updated to meet current industry standards:

- Four wheel alignment machine
- Tire balance machine
- Tire mounting machine

The advisory committee also recommends that the following new equipment be added to the program to better prepare students for the workforce:

- Transmission fluid exchange machine
- Engine coolant flush machine
- Factory scan tools (Various manufactures)
- J2534 Device for module reprogramming
- Thermal imaging camera

California Education Code 78016 requires that the review process for CTE programs includes the review and comments of a program's advisory committee. **Provide the following information:**

- a. Advisory committee membership list and credentials

Compton College Advisory Committee Membership List:

Vartan Balyan	Owner of Pete's Autohouse Independent Repair Shop
Steve Corbin	Napa Auto Parts
Roc Jreisat	State Smog Referee/ Adjunct Faculty at Compton College
Katherine Mishler	Deputy Sector Navigator Regional Director, Los Angeles County Advanced Transportation, and Logistics (AT&L)

Bob Smith	Greater Los Angeles New Car Dealers Association
Gary Narusawa	Compton College Full-time ATEC Faculty
Sidney Cuadra	Alexander BMW
Ronald Gripp	Alexander BMW
Stephanie Suarez	Norm Reeves Honda
Maria Olivares	Norm Reeves Honda
Jason Wilborne	Tool Room Attendant at Compton College
Brent Kooiman	Instructor for Automotive Collision Repair and Paint at Compton College
Alfredo Ortiz	Western States Marketing

- b. Meeting minutes or other documentation to demonstrate that the CTE program review process has met the above Education Code requirement.

**Fall 2019 Compton College ATEC Advisory Committee Meeting
Minutes
December 09, 2019**

Meeting Participants:

Gary Narusawa- Compton College Full-time ATEC Faculty

Katie Mishler- Regional Director AT&L

Sidney Cuadra- Alexander BMW

Ronald Gripp- Alexander BMW

Stephanie Suarez- Norm Reeves Honda

Maria Olivares- Norm Reeves Honda

Nicole Aguirre- ATEC Student

Eric Marquez- ATEC Student

Meeting Minutes:

1. New Technology

- Evolving technology- 70-80 modules in new BMWs communicating through network
 - Creating demand for technicians entering with strong electrical training
 - Dealerships looking to hire students from Automotive programs
 - Students must be able to diagnose complex systems

2. Focus for Student Training

- Strong foundation in Electrical and Engine Performance is key
 - Students can be sent to factory BMW training when hired but need strong foundation to be successful in training
- Need advanced Electrical/Diagnostic classes
- Program should invest in more diagnostic training modules/equipment
- Program should also invest in fluid service/exchange machines
 - Fluid service is profitable for dealerships
- Alexander BMW no longer hires from UTI BMW factory Program
 - Dealership must pay for student's training but no guarantee that students is competent coming out of UTI program
 - Makes more sense to hire from local Automotive programs and send new hires who pass probation to factory training.
- Students must possess proper soft skills
 - Punctual
 - Strong work ethics
 - Look professional
 - Communication skills
- ASE certification is highly valued

3. Building partnerships between Compton College ATEC program and Dealerships

- Field trips to dealerships

- Internship programs with local dealerships
 - Liability issues?
- Path for students entering dealership (Alexander BMW)
 - Start as Lube Tech
 - Move into 6-month apprenticeship
 - Employee sent for factory training
 - Working independently as technician within a year

4. Shop Tour/Equipment Recommendations

- Advisory Committee recommends updating the following equipment:
 - Four-wheel alignment machine
 - Tire balance machine
 - Tire mounting machine
- Advisory Committee recommends purchasing the following new equipment:
 - Transmission fluid exchange machine
 - Engine coolant flush machine
 - Factory scan tools (Various manufactures)
 - J2534 Device for module reprogramming
 - Thermal imaging camera