Coordinating Commission for Postsecondary Education
Review of Existing Instructional Programs

Institution: Central Community College **Program:** Automotive Technology

I certify the following:
- the information provided regarding this program is accurate
- the above named institution has in place a procedure for reviewing instructional programs
- such review took place and was presented to the institution's governing board on **May 19, 2022**
- the governing board's action was: _____

Signed: _____ _____
(Chief Academic Officer or designated representative) (Date)

Evidence of Demand and Efficiency

		16-17	17-18	18-19	19-20	20-21	5 yr avg
Student Credit Hours (SCH)		2,517	2,131	1,962	2,044	1,988	**2,128.40**
Faculty Full-time Equivalency (FTE)		5.61	5.44	5.50	5.75	5.04	**5.47**
SCH/Faculty FTE		448.66	391.73	356.73	355.48	394.44	**389.25**
Number of Degrees and Awards *(list degrees/ awards separately)*	**AAS**	9	19	11	10	11	12
	Diploma	19	17	12	13	8	13.8
	Certificate	89	90	136	95	79	97.8
	Total Awards	117	126	159	118	98	123.6
	# of Unduplicated Graduates	59	54	119	64	56	70.4

Evidence of Need (provide a detailed explanation below or attach documentation)

See attached

Justification if the program is below either of the CCPE thresholds—complete page 2

_____
For CCPE use: reviewer/date

Justification if the program is below CCPE thresholds—check one or more boxes and provide a detailed explanation or attach a document

☐ Program is critical to the role and mission of the institution (detailed explanation).

☐ Program contains courses supporting general education or other programs (detailed explanation).

☐ Interdisciplinary program (providing the program meets the requirements set in the existing policy
for interdisciplinary programs) (explain).

☐ Student or employer demand, or demand for intellectual property is high and external funding would be jeopardized by discontinuing the program (explain).

☐ Program provides unique access to an underserved population or geographical area (explain).

☐ Program meets a unique need in the region, state, or nation (explain).

☐ Program is newly approved within the last five years (no additional justification needed).

☐ Other (detailed explanation).

Central Community College

Automotive Technology

Coordinating Commission Seven-Year Review
2022

Information in this report reviewed and recommended to cabinet:

Central Community College Educational Services, 4/28/2022

Recommended continuation of programs without monitoring:

Central Community College College Cabinet, 05/11/2022
Central Community College Board of Governors, XXXXXX

Kyle Finecy – Program Faculty
Nicholas Kelley – Program Faculty
John Oberheide – Program Faculty
Robert Schuster – Program Faculty

Alison Feeney – Associate Dean of Instruction, Skilled & Technical Sciences
Dr. Nate Allen – Dean of Instruction, Skilled & Technical Sciences
Dr. Jerry Wallace – Division Vice President, Skilled & Technical Sciences

Automotive Technology

Program Review Summary – Dr. Nate Allen

The Automotive Technology (AUTO) program continues to be a successful program within the Skilled & Technical Sciences division at Central Community College serving the automotive industry from the Hastings campus with three full-time instructors located at the college, and one full-time instructor teaching pathway students at Hastings High School. There are also two adjuncts teaching CCC courses at the Janssen Ford dealership in Holdrege for high school students in the Holdrege area. Additionally, Grand Island Senior High and Columbus High School offer CCC certificate level AUTO courses. These pathway programs provide an avenue for students to be introduced to automotive technology and continue to the program upon high school graduation.

Economic Modeling Specialist International (EMSI) data suggests the industry needs for Automotive technicians is growing and will continue to grow within the CCC service area, the state of Nebraska, and nationally. The offering of the ASE Entry Level Certifications along with NC3 curriculum allows our students to be more marketable upon graduation and have the opportunity for higher wages upon hire.

Enrollment in the program is strong with an 86% graduation rate, which ranks as one of the higher completion rates amongst the college.

The program continues to provide a laddered structure of program awards with four certificates, one diploma, and an AAS degree. Over the past five years, the number of degrees awarded annually have ranged from 9-19 with a five-year average of 12. The trend over the last five years for total awards earned in the Automotive Technology program has varied but has averaged a total of 123.6 total awards since 2016.

The Automotive Technology program has had some beneficial additions in the last two years to enhance the teaching experience for our students. The program received a new TPMS4 certification in the fall of 2020 and used it for the spring of 2021 first year students. The program also acquired the old equipment from Lexington High School. This equipment allows more students to work through lab projects quicker and more efficiently. This equipment includes a Bosch Bench Brake Lathe, older model Hunter tire machine and an older model Hunter tire balancer. Even though it is older equipment, it is still industry relevant. The program could still benefit from some late model vehicles for more modern technology. Finally, the program integrates Z-space 3D computer modeling into the curriculum and is also a great recruiting tool.

The Automotive Technology program exceeds the minimum thresholds for student credit hours, student credit hours to full-time equivalent faculty (FTEF) ratio, and number of graduates. Skilled & Technical Sciences leadership recommends continuation of the program.

I. **Program:** **Automotive Technology (AUTO)**

II. **College Mission: Central Community College maximizes student and community success.**

III. **College Vision: The Best Choice –**

for students to achieve their educational goals.
- quality education
- personal service and individualized attention
- exceptional and passionate faculty and staff
- extraordinary value

for developing a skilled workforce.
- employability and/or successful credit transfers
- graduates who advocate for CCC
- business and industry partnerships
- state-of-the-art facilities and technologies

for advancing communities.
- educational partnerships
- strong alumni support
- foster economic development
- sustainability leaders

IV. **Program Mission Statement:** To maximize student success in the Automotive Industry and provide the best possible employee for industry.

V. **Program Vision Statement:** To be the best choice for prospective Automotive Technicians.

EMSI Q4 2021 Data Set

EMSI data is a hybrid dataset derived from official government sources such as the US Census Bureau, Bureau of Economic Analysis, and Bureau of Labor Statistics. Leveraging the unique strengths of each source, our data modeling team creates an authoritative dataset that captures more than 99% of all workers in the United States. This core offering is then enriched with data from online social profiles, resumes, and job postings to give you a complete view of the workforce.

Report Parameters

1 Occupation

Automotive Service Technicians and Mechanics (SOC 49-3023):

Diagnose, adjust, repair, or overhaul automotive vehicles. Excludes Automotive Body and Related Repairers (49-3021), Bus and Truck Mechanics and Diesel Engine Specialists (49-3031), and Electronic Equipment Installers and Repairers, Motor Vehicles (49-2096).

Sample of Reported Job Titles:

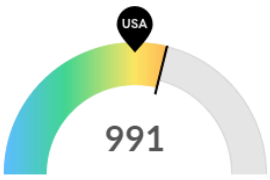
- Transmission Rebuilder
- Mechanic
- Master Automotive Technician
- Lube Technician
- Automotive Technician (Auto Technician)
- Automotive Mechanic (Auto Mechanic)
- Master Technician
- Automobile Mechanic (Auto Mechanic)
- Service Technician

Related O*NET Occupations:

- Automotive Master Mechanics (49-3023.01)
- Automotive Specialty Technicians (49-3023.02)

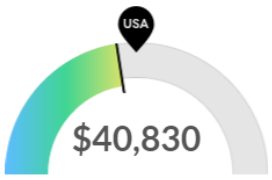
Executive Summary

Average Job Posting Demand Over a Deep Supply of Regional Jobs



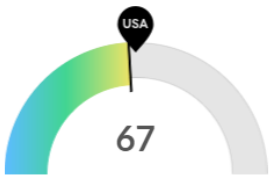
Jobs (2021)

Your area is a hotspot for this kind of job. The national average for an area this size is 796* employees, while there are 991 here.



Compensation

Earnings are about average in your area. The national median salary for Automotive Service Technicians and Mechanics is $41,737, compared to $40,830 here.



Job Posting Demand

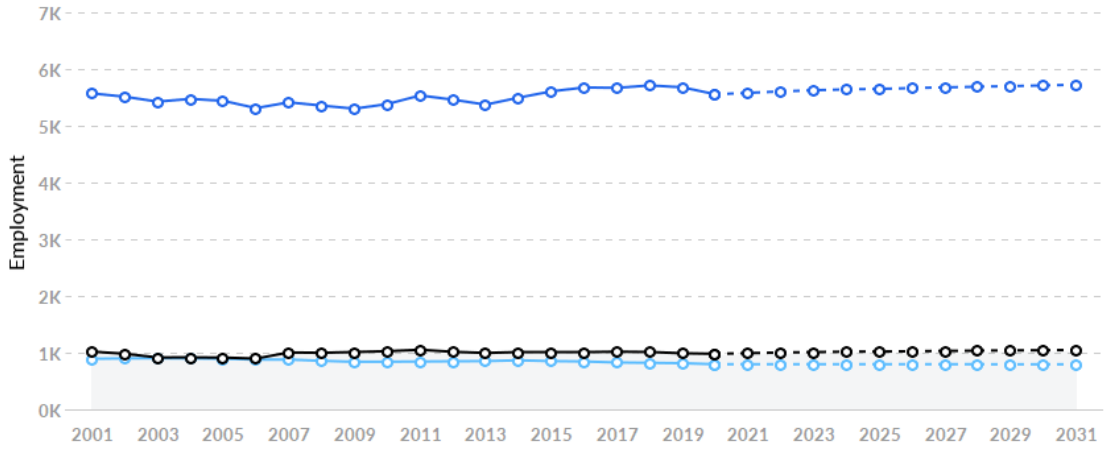
Job posting activity is about average in your area. The national average for an area this size is 70* job postings/mo, while there are 67 here.

*National average values are derived by taking the national value for Automotive Service Technicians and Mechanics and scaling it down to account for the difference in overall workforce size between the nation and your area. In other words, the values represent the national average adjusted for region size.

Jobs

Regional Employment Is Higher Than the National Average

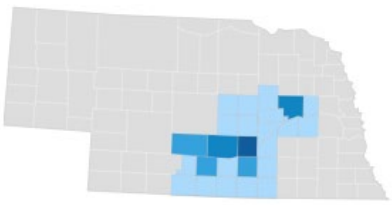
An average area of this size typically has 796* jobs, while there are 991 here. This higher than average supply of jobs may make it easier for workers in this field to find employment in your area.



	Region	2021 Jobs	2026 Jobs	Change	% Change
●	CCC Service Area	991	1,025	34	3.4%
●	National Average	796	796	-1	-0.1%
●	State of Nebraska	5,580	5,664	84	1.5%

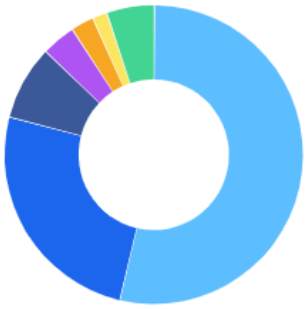
*National average values are derived by taking the national value for Automotive Service Technicians and Mechanics and scaling it down to account for the difference in overall workforce size between the nation and your area. In other words, the values represent the national average adjusted for region size.

Regional Breakdown



County	2021 Jobs
Hall County, NE	208
Platte County, NE	164
Buffalo County, NE	147
Adams County, NE	81
Dawson County, NE	63

Most Jobs are Found in the Automotive Repair and Maintenance Industry Sector

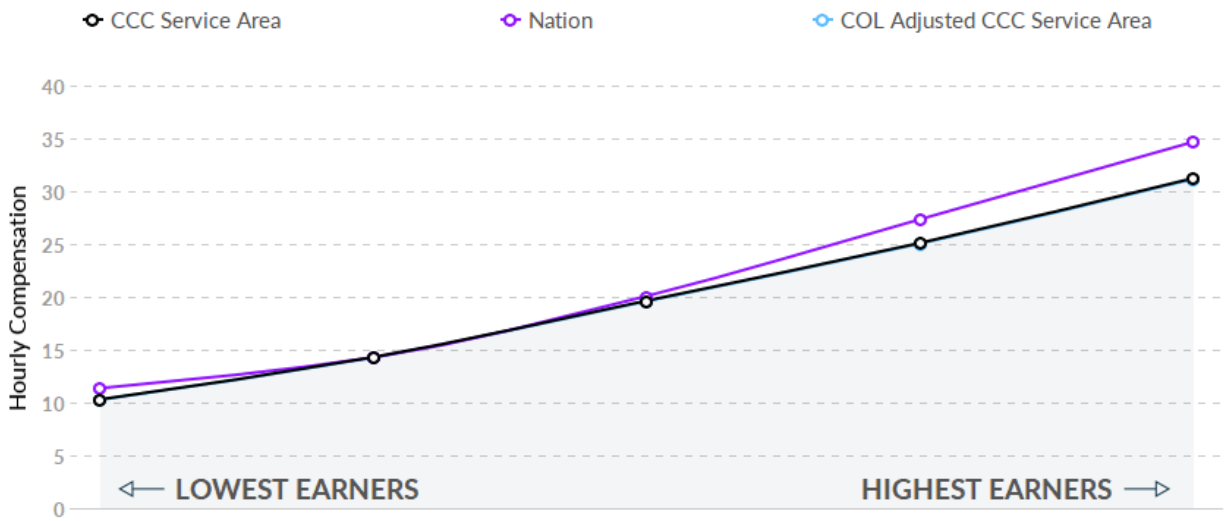


Industry	% of Occupation in Industry (2021)
Automotive Repair and Maintenance	53.6%
Automobile Dealers	25.4%
Automotive Parts, Accessories, and Tire Stores	8.1%
Gasoline Stations	3.7%
Local Government, Excluding Education and Hospitals	2.5%
Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers	1.6%
Other	5.2%

Compensation

Regional Compensation Is 2% Lower Than National Compensation

For Automotive Service Technicians and Mechanics, the 2020 median wage in your area is $19.63/hr, while the national median wage is $20.07/hr.



Job Posting Activity

320 Unique Job Postings

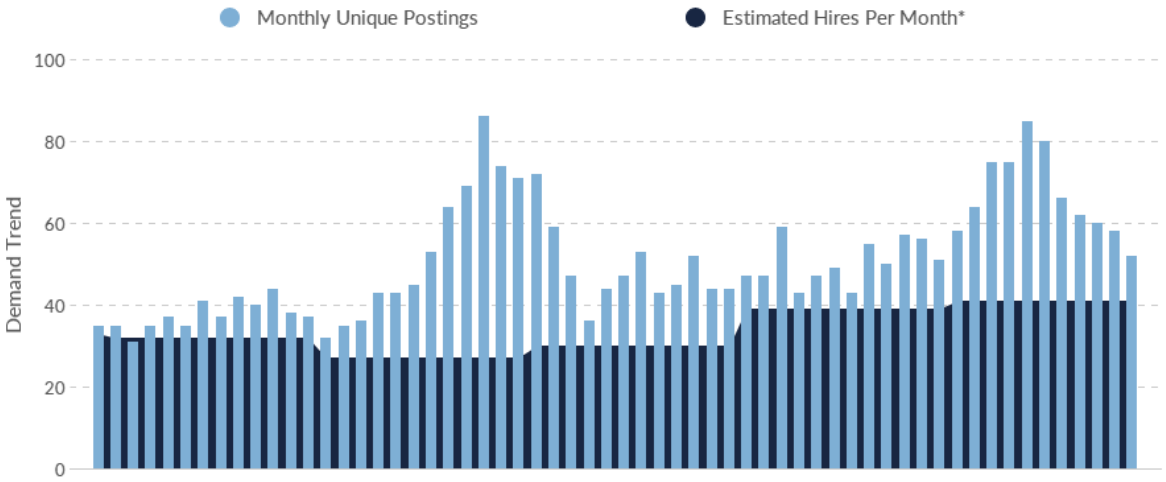
The number of unique postings for this job from Jan 2021 to Nov 2021.

95 Employers Competing

All employers in the region who posted for this job from Jan 2021 to Nov 2021.

32 Day Median Duration

Posting duration is 3 days longer than what's typical in the region.



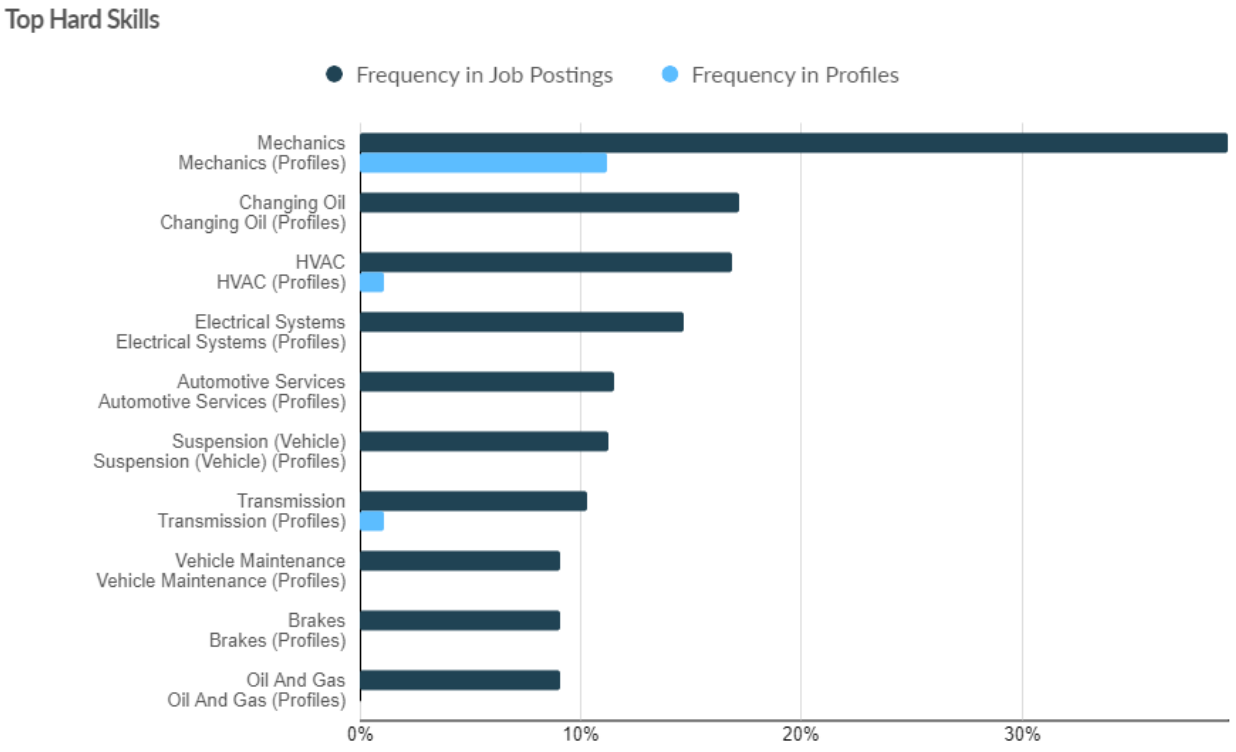
Occupation	Avg Monthly Postings (Jan 2021 - Nov 2021)	Avg Monthly Hires (Jan 2021 - Nov 2021)
Automotive Service Technicians and Mechanics	67	41

*A hire is reported by the Quarterly Workforce Indicators when an individual's Social Security Number appears on a company's payroll and was not there the quarter before. Emsi hires are calculated using a combination of Emsi jobs data, information on separation rates from the Bureau of Labor Statistics (BLS), and industry-based hires data from the Census Bureau.

Top Companies	Unique Postings
Walmart	19
Jiffy Lube	15
United States Army	14
Army National Guard	9
GPAC	9
BOSSELMAN TANK & TRAILE	7
Werner Construction	6
Appalachian Railcar Services, I	5
Kearney Tire & Auto Service	5
Lyman-Richey Corporation	5

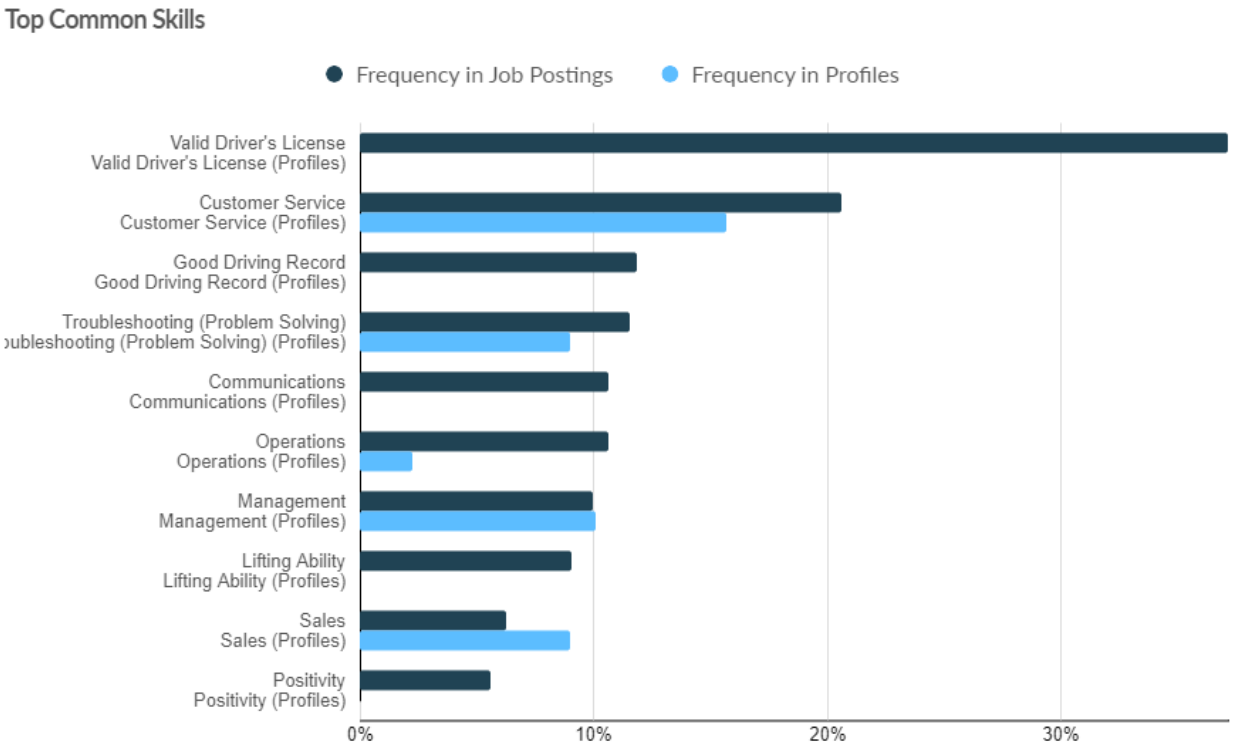
Top Job Titles	Unique Postings
Service Technicians	44
Automotive Technicians	42
Automotive Technicians/Mecl	24
Lube Technicians	19
Wheeled Vehicle Mechanics	14
Automotive Service Technicia	13
Fuel Island Attendants	11
Light Wheel Vehicle Mechanic	9
Automotive Mechanics	8
Field Service Technicians	8

Top Hard Skills



Skills	Postings	% of Total Postings	Profiles	% of Total Profiles
Mechanics	126	39%	10	11%
Changing Oil	55	17%	0	0%
HVAC	54	17%	1	1%
Electrical Systems	47	15%	0	0%
Automotive Services	37	12%	0	0%
Suspension (Vehicle)	36	11%	0	0%
Transmission	33	10%	1	1%
Vehicle Maintenance	29	9%	0	0%
Brakes	29	9%	0	0%
Oil And Gas	29	9%	0	0%

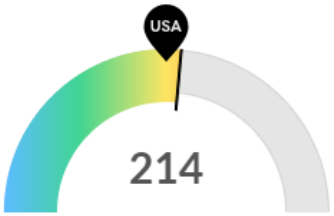
Top Common Skills



Skills	Postings	% of Total Postings	Profiles	% of Total Profiles
Valid Driver's License	119	37%	0	0%
Customer Service	66	21%	14	16%
Good Driving Record	38	12%	0	0%
Troubleshooting (Problem Solving)	37	12%	8	9%
Communications	34	11%	0	0%
Operations	34	11%	2	2%
Management	32	10%	9	10%
Lifting Ability	29	9%	0	0%
Sales	20	6%	8	9%
Positivity	18	6%	0	0%

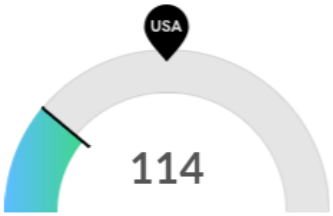
Demographics

Retirement Risk Is About Average, While Overall Diversity Is Low



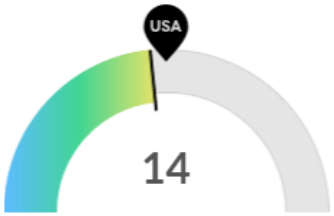
Retiring Soon

Retirement risk is about average in your area. The national average for an area this size is 197* employees 55 or older, while there are 214 here.



Racial Diversity

Racial diversity is low in your area. The national average for an area this size is 317* racially diverse employees, while there are 114 here.



Gender Diversity

Gender diversity is about average in your area. The national average for an area this size is 15* female employees, while there are 14 here.

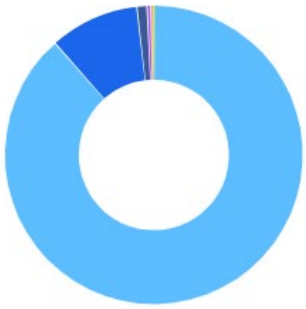
*National average values are derived by taking the national value for Automotive Service Technicians and Mechanics and scaling it down to account for the difference in overall workforce size between the nation and your area. In other words, the values represent the national average adjusted for region size.

Graduate Pipeline

Occupation Age Breakdown

	% of Jobs	Jobs
14-18	1.5%	15
19-24	9.5%	93
25-34	24.1%	237
35-44	21.9%	215
45-54	21.1%	207
55-64	17.5%	171
65+	4.4%	43

Occupation Race/Ethnicity Breakdown

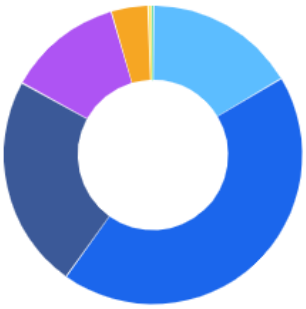


	% of Jobs	Jobs
White	88.4%	866
Hispanic or Latino	9.7%	95
Black or African American	1.1%	11
Two or More Races	0.4%	4
Asian	0.3%	3
American Indian or Alaska Native	0.1%	1
Native Hawaiian or Other Pacific Islander	0.0%	0

Occupation Gender Breakdown

	% of Jobs	Jobs
Males	98.6%	966
Females	1.4%	14

National Educational Attainment



	% of Jobs
Less than high school diploma	16.4%
High school diploma or equivalent	43.4%
Some college, no degree	23.2%
Associate's degree	12.5%
Bachelor's degree	4.0%
Master's degree	0.4%
Doctoral or professional degree	0.2%

3 Programs

Of the programs that can train for this job, 3 have produced completions in the last 5 years.

323 Completions (2020)

The completions from all regional institutions for all degree types.

113 Openings (2020)

The average number of openings for an occupation in the region is 28.

CIP Code	Top Programs	Completions (2020)
47.0605	Diesel Mechanics Technology/Technician	151
47.0604	Automobile/Automotive Mechanics Technology/Technician	118
47.0603	Autobody/Collision and Repair Technology/Technician	54

Top Schools	Completions (2020)
Central Community College	323

2022 Summary of EMSI Data:
EMSI Executive Summary shows that Automotive Technician compensation is (on average), slightly lower for our area than the national average. This is a subject we have been discussing with our Advisory Committee members. We are planning on a more strategic approach to this subject in our next Advisory Board meeting, focusing on Industry's entry level expectations, compensation increase standards, and entry level wage potential.

Jobs Graph indicates our area is higher than the national average for available jobs which may have a negative effect on wages, however, it should also be an indicator for our students to find entry level jobs easier and more often. The Sector graph indicates that a majority of the available jobs are Repair and Maintenance, Dealership and Tire type repair facilities. The AUTO faculty have been working to build and add to current curriculum that would support these sectors.

A. Supporting Data

a. Awards

Degree/ Credential Awarded	16-17	17-18	18-19	19-20	20-21	5-yr avg
AAS	9	19	11	10	11	12
Diploma	19	17	12	13	8	13.8
Certificate	89	90	136	95	79	97.8
Total Awards	117	126	159	118	98	123.6
# of unduplicated graduates	59	54	119	64	56	70.4

2022 Summary of Awards:
The AUTO program exceeds the threshold for degrees and diplomas, as well as certificates. Like most programs in the Skilled and Technical Sciences division at CCC, program awards are laddered beginning with certificates and building up to a diploma and up to an AAS degree. Thus more certificates are awarded than diplomas or degrees.

The graduating class of 2021 was a smaller class that had to adjust and work with new teaching and delivery methods, both in AUTO and all of their General Education classes. 2020-2021 was also a challenging year for AUTO faculty as we were still dealing with the effects of COVID- 19 in the first semester (FA20) of the school year. These challenges consisted of continuing with newer ways of delivering course material to students who were not accustomed to online or hybrid course delivery, including CCC's WebEx and VidGrid to record and deliver course material. First-year students also had to adjust to the switch from Moodle to Canvas as the course management system for curriculum. Some of our students struggled with General Education classes and had to retake over the summer. AUTO instructors continue to encourage and emphasize to students the importance of General Education course completion and have worked diligently to find and register students for courses that are more easily accessible. This includes course delivery method (hybrid or online) and course offering location (other CCC campuses or learning centers if possible). It should be noted here that we were not able to do any recruiting in high schools for the entire year of 2020-2021 due to the pandemic.

b. Student Credit Hours Produced per Faculty FTE

	16-17	17-18	18-19	19-20	20-21	5 yr avg
Student Credit Hours (SCH)	2,517	2,131	1,962	2,044	1,988	2,128.40
Faculty Full-time Equivalency (FTE)	5.61	5.44	5.50	5.75	5.04	5.47
SCH/Faculty FTE	448.66	391.73	356.73	355.48	394.44	389.25

2022 Summary of the Student Credit Hours per Faculty FTE:
The five-year average of student credit hours and faculty FTE in the AUTO program are strong resulting in the ratio of student credit hours to faculty FTE being well above the threshold set by CCPE. The enrollments and having five full-time faculty in the program have been relatively stable.

Looking forward, even without recruiting in 2020-2021, the program accepted a very large FA21 class. We anticipate student credit hours to reach back up to the five-year average. At the same time, we did not replace a full-time instructor position at Kearney high school which will have an impact on student credit hours dropping and also faculty FTE lowering by one. We are hoping to see FTE increase and bring our numbers above the 5yr average. Recruiting has increased for the FA21 and SP22 semesters, so we are optimistic that the FA22 enrollment numbers will also move up. We are also looking forward to larger pathway student numbers with the addition of the high school program in Holdrege.

2022 Summary Statement:
Automotive Technology 2020-2021 academic year presented some new challenges to overcome, however with lessons learned from the last year we were able to make it a very productive and positive academic year. The Central Community College implementation of Canvas meant all programs had to decide when and how transitioning from Moodle to Canvas would be completed. AUTO decided to introduce Canvas with first-year students in the SP21 semester. It was very smooth, with students adapting well. AUTO also decided to make all courses hybrid, giving us the option to go online if and when we needed too. This has been beneficial even without major COVID concerns; students and AUTO Faculty now have flexibility and an established course template to complete online studies in a variety of ways if needed. We were also able to utilize used equipment from our lost Lexington High School pathway program to increase student lab productivity, and we are hoping more budgeted equipment updates will be coming soon. AUTO lost another pathway program, Kearney High School, after the SP21 Semester. Albeit, with FA21 registration

numbers high, we are not yet fully aware of the effect of this loss. All things considered; we are optimistic we can still maintain a working relationship with the KPS system to keep Kearney High students interested in the Automotive Technology program. KPS is using CCC AUTO equipment, so students should still be learning needed hands-on skills for Hastings CCC AUTO. The high school program in Holdrege has acquired another part-time (adjunct) instructor; we are hopeful that we will start to see students from this high school pathway program soon. We have restarted recruiting efforts for full-time and high school as of 2021-2022, and we are looking forward to positive results. AUTO faculty continued to add and expand curriculum; this included making adjustments as needed to the new Canvas course management system, NC3 and CDX coursework implementation into Canvas and lab modifications, as needed, to facilitate a safe and robust learning environment. The faculty was not able to attend any live training over the SU20 semester for ASE accreditation due to COVID restrictions; however, the three on-campus AUTO instructors did attend an ASE approved VISION online seminar that was a weeklong and met ASE accreditation criteria. Also noteworthy for 2021-2022, AUTO is working on ASE accreditation renewal and plans on attending ASE instructor training in Dallas, TX during SU22 semester to fulfil accreditation requirements.

AUTO exceeds the thresholds for both student credit hour: faculty FTE ratio and number of graduate awards for both degrees and diplomas.