



POWERING THE RIO GRANDE VALLEY'S AUTOMOTIVE WORKFORCE

A Case Study about
Texas Southmost College

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workcred
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Formed in 2014, Workcred is an affiliate of the American National Standards Institute (ANSI). Its mission is to strengthen workforce quality by improving the credentialing system, ensuring its ongoing relevance, and preparing employers, workers, educators, and governments to use it effectively. Workcred's vision is a labor market that relies on the relevance, quality, and value of workforce credentials for opportunities, growth, and development.

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Texas Southmost College (TSC) is a two-year public, open access institution in Brownsville, Texas. Established in 1926 as the first institution of higher education in the Rio Grande Valley, TSC represents the region's boundless potential, and empowers students, families, and industry through practical, affordable, high-quality education that drives personal success and elevates regional economic growth. TSC is driven to be a nationally-leading, community-rooted, and student-centered institution that transforms lives and uplifts families.

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About Industry Certification + Certificate/Degree Pathways

The practice of integrating or embedding industry credentials like certifications into certificates or degrees is common at community colleges.¹ Embedding refers to a college's alignment of its degree curriculum with an industry-developed credential, although the approach a college may take varies as it seeks to better serve its students and leverage its existing resources. A study among 149 U.S. colleges and four-year institutions by Lumina Foundation found that the most commonly cited benefit of embedding certifications into academic pathways was that it enabled students to earn valuable industry and academic credentials at the same time.² The study also showed that these pathways helped colleges and universities align their curricula with prevailing industry standards.

Certifications are distinct from other credentials because they are awarded after an individual demonstrates acquisition of a set of skills through a standardized assessment (e.g., oral, written, or performance-based). Additionally, certifications must be renewed after a designated period of time and can be revoked for incompetence or unethical behavior. Individuals must meet qualifications such as training and experience that are required prerequisites to take the certification examination. Certifications are awarded and tracked by certification bodies—typically nonprofit organizations, professional associations, industry/trade organizations, or businesses. According to Credential Engine, nearly 7,000 industry-recognized certifications are offered across numerous industry sectors.³



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About the Project

The alignment between the academic curriculum and the skills employers demand in the labor market is critical to students' ability to successfully transition from their educational program to a career. For this alignment to exist and be maintained, there need to be policies and processes in place. This is especially true when the pathways involve industry certificates or certifications. Workcred partnered with Houston City College (HCC) and Texas Southmost College (TSC) to improve the effectiveness of industry certification + certificate/degree (iC+C/D) pathways in Texas by examining opportunities to align education and workforce stakeholders' processes and policies to better support low-income and first-generation students in completing iC+C/D pathways, earning postsecondary credentials of value, and entering the workforce.

This project provided TSC opportunities to review embedded industry credentials and improve student participation and performance in the certifications and licenses within four targeted pathways—computer information systems and cybersecurity; computer-aided drafting; commercial and residential electrician; and automotive technology. These pathways were chosen based on the following criteria:

- » Baseline enrollment of at least 74 students
- » Available data about students' participation and performance in obtaining industry certifications
- » The value these certifications bring to students
- » Strong job demand trends in the region for these certifications and pathways
- » Employer-identified regional competencies for the targeted occupations

This is one of four case studies, two at both HCC and TSC, that highlight the processes used to create and maintain alignment of iC+C/D pathways. This case study focuses on the automotive technology program at TSC, which undergoes continuous technological advancements, making it an ideal program to ensure that the policies and procedures are in place to maintain the alignment of the academic curricula to the industry credentials, thereby creating effective pathways to employment.

Figure 1: Student Demographics at TSC

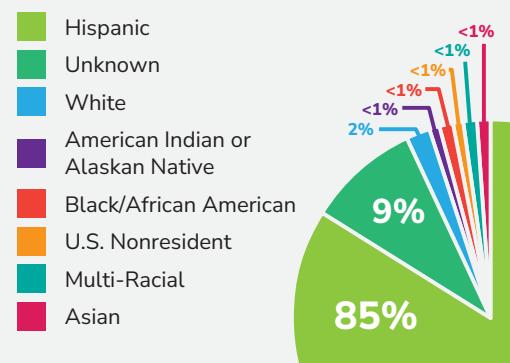
Enrollment⁴

11,594 Total student enrollment
92% of students are age 24 and under
8% of students are age 25 and older

Financial Aid for Undergraduate Students Seeking a Certificate or Degree⁵

66% of students receive Pell grants
14% receive federal student loans

Race and Ethnicity⁶



The other case studies, as well as a guidebook for community colleges, can be found in the following publications:

- » [Aligning Electrician Programs with Industry Demands in the Rio Grande Valley](#)
- » [Integrating Academic Programs, Third-Party Industry Credentials, and Labor Market Skill Needs](#)
- » [Meeting the Need for HVAC Technicians](#)
- » [Strengthening Business Technology Pathways](#)

Growing Demand for Automotive Technicians

Texas has the ninth largest economy in the world and has led the United States in job growth over the past year. By 2036, 70 percent of jobs in Texas will require a postsecondary credential.⁷ Yet, only 54 percent of Texans age 24-34 and 52 percent of those age 35-64 have earned a postsecondary credential.⁸ Texas is also a leader among the states in automotive manufacturing, ranking third, with more than 730 facilities located in the state. And, more than 38,000 Texans are employed in the automotive industry, making it one of the ten largest automotive workforces in the country.⁹

The automotive industry has been part of the Rio Grande Valley economy for more than 60 years, and there is an increasing demand for automotive technicians due to the region's rapid population growth, heavy reliance on personal transportation, and expanding commercial industries that depend on fleet maintenance. As one of the fastest-growing areas in the state, the Rio Grande Valley experiences a constant increase in the number of vehicles on the road, creating a steady need for skilled technicians who can service and repair traditional, hybrid, and electric automotive systems, and run diagnostic tests involving computer-integrated systems that include electronics, cybersecurity, and emerging technologies.

As a result, there continues to be strong employment projections for automotive service technicians and mechanics.¹⁰ The demand is also fueled by retirements and turnover within the current workforce, further creating an urgency to prepare the next generation of technicians who can fill these high-demand roles. TSC is uniquely positioned to support this demand through its automotive technology program.

Bolstering Automotive Technology Pathways

The TSC automotive technology program provides students with access to state-of-the-art labs, industry-aligned curriculum, and faculty who bring real-world expertise into the classroom. TSC offers two credentials in the automotive technology program: Auto Mechanics Technology – Line Specialist Certificate of Proficiency – Level One, and an Automotive Technology Associate of Applied Science (AAS) Degree.

Auto Mechanics Technology – Line Specialist Certificate of Proficiency – Level One

The certificate requires students to take 23 credit hours (7 courses) that focuses on hands-on training in auto mechanic practices, vehicle subsystems, auto mechanic maintenance, and the use of equipment and tools (see Figure 2).¹¹ Students also have the opportunity to complete an Environmental Protection Agency (EPA) approved training program from ASE (the National Institute for Automotive Services Excellence): the Refrigerant Recovery and Recycling Program 609 Certificate within the AUMT 1345: Automotive Climate Control Systems course. Once they complete AUMT 1345, students take the ASE assessment. If they pass the assessment, they will earn the ASE certificate, which is required for anyone who will work to service automotive refrigerant systems, so it is good to have before joining the workforce as it keeps more job opportunities available.

Students can also earn ASE's A5 Brakes Certification as part of the TSC certificate program within the AUMT 1310 course, and the ASE A4 Suspension and Steering Certification as part of AUMT 1316, as shown in Figure 2. The additional costs for these exams are included in the student's tuition. Upon completion of the TSC certificate program, students are able to continue on the path to earning the AAS degree, and/or obtain an entry-level position as a C-class automotive maintenance technician to work on conducting inspections, performing preventative maintenance, checking fluids and filters, and changing tires.

Figure 2: Auto Mechanics Technology—Line Specialist Certificate of Proficiency—Level One Courses and Aligned Industry-Developed Credentials

REQUIRED CERTIFICATE COURSES	ALIGNED INDUSTRY-DEVELOPED CREDENTIALS
AUMT 1305: Introduction to Automotive Technology	
AUMT 1407: Automotive Electrical Systems	
AUMT 1310: Automotive Brake Systems	ASE A5 Brakes Certification
AUMT 2317: Automotive Engine Performance Analysis I	
AUMT 1316: Automotive Suspension and Steering Systems	ASE A4 Suspension and Steering Certification
AUMT 1345: Automotive Climate Control Systems	ASE EPA-Approved Refrigerant Recovery and Recycling Program 609 Certificate
AUMT 1419: Automotive Engine Repair	

Automotive Technology Associate of Applied Science Degree

The AAS degree is designed to provide training in vehicle performance, electrical systems, diagnostics, and repair. Students who earn the AAS degree are qualified to work as a B-level automotive technician.¹² Specifically, graduates enter the field in positions such as: automotive technician, tire technician, diesel mechanic, vehicle inspector, automotive parts (sales), and tug boat mechanic.

As Figure 3 shows, students can earn two additional certifications along the pathway: ASE A6 Electrical/Electronic Systems through course AUMT 2337, and ASE G1 Auto Maintenance and Light Repair through course AUMT 2425 in the AAS program.

Figure 3: Automotive Technology AAS Degree Program Course Requirements and Aligned Industry-Developed Credentials

AAS PROGRAM COURSES	ALIGNED INDUSTRY-DEVELOPED CREDENTIALS
AUMT 1305: Introduction to Automotive Technology	
AUMT 1407: Automotive Electrical Systems	
AUMT 1310: Automotive Brake Systems	ASE A5 Brakes Certification
AUMT 2317: Automotive Engine Performance Analysis I	
AUMT 1316: Automotive Suspension and Steering Systems	ASE A4 Suspension and Steering Certification
AUMT 1345: Automotive Climate Control Systems	ASE EPA-Approved Refrigerant Recovery and Recycling Program 609 Certificate
AUMT 1419: Automotive Engine Repair	
AUMT 2334: Automotive Engine Performance Analysis II	
AUMT: 2301: Automotive Management	
AUMT 2337: Automotive Electronics	ASE A6 Electrical/Electronic Systems Certification
AUMT 2313: Automotive Drive Train and Axles	
AUMT 2425: Automotive Automatic Transmission and Transaxle	ASE G1 Auto Maintenance and Light Repair Certification
AUMT 2328: Automotive Service	
AUMT 2388: Internship - Automobile/Automotive Mechanics Technology/Technician	

Each of these ASE credentials is intended to improve the quality of automotive professionals who are responsible for repairing and servicing vehicles.¹³ To maintain the certifications, students must recertify every five years. TSC is also exploring the opportunity to incorporate vendor-specific certifications from Ford, GM, and Toyota in the future.

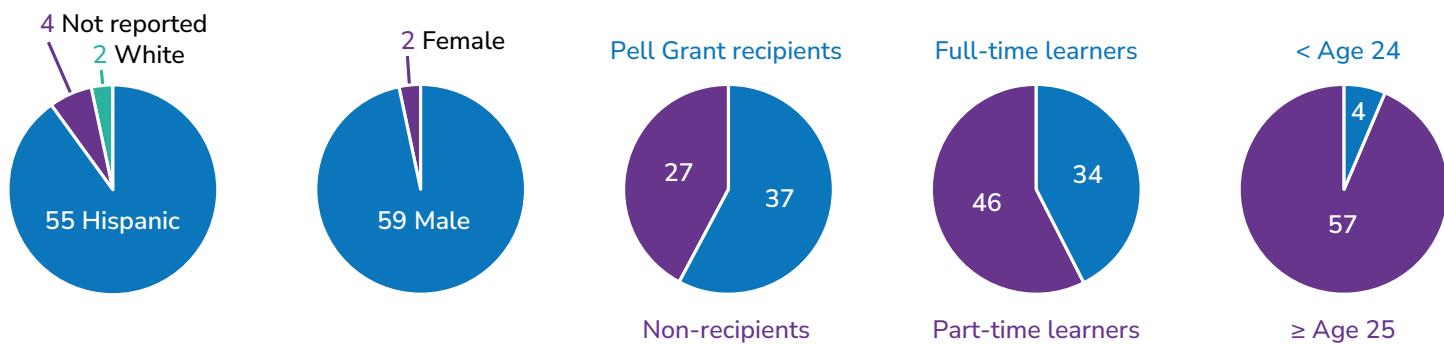
Through these efforts, TSC not only supports the automotive industry by producing highly skilled technicians that meet workforce demand, but also contributing to the economic vitality of the Rio Grande Valley by giving students pathways to stable, well-paying careers. And, by collaborating with local dealerships, independent repair shops, and fleet service providers, TSC strengthens the connection between education and workforce needs and empowers local businesses to thrive.

Automotive Technology Student Demographics

Student enrollment in the automotive technology program has ranged from 63 to 73 students over the past three academic years. Figure 4 provides additional details about the students enrolled in the automotive technology pathway.

Figure 4: Automotive Technology Pathway Student Demographics¹⁴

2022–23	45 in degree	18 in certificate	63 students enrolled
2023–24	35 in degree	38 in certificate	73 students enrolled
2024–25	31 in degree	32 in certificate	63 students enrolled



Texas State Policy Driving Program Alignment with Industry Credentials

During the 89th Texas Legislative session in 2023, House Bill (HB) 8 was passed, which transformed community college funding. HB 8 replaced the existing enrollment-based funding structure for community colleges with a finance model that was based on outcomes and aligned with student success and workforce needs.¹⁵ Specifically, community colleges now need to show the following outcomes to receive funding:

- » The number of high school students who complete 15 semester credit hours in dual credit or dual enrollment courses;
- » The number of community college students who transfer successfully to four-year universities or complete 15 semester credit hours in a structured co-enrollment program; and
- » The number of community college students who earn credentials of value as defined by Texas, which offer purpose in the economy, value in the labor market, and opportunities for good jobs and meaningful careers.

The bill also included a number of strategies that were already underway at TSC to enhance the effectiveness of pathways. For example, the academic and industry credential alignment process is driven by quantitative data, which includes labor market statistics from the Texas Workforce Commission and high-demand job designations determined by state legislation and district-level workforce studies. This data confirmed that automotive service technicians and mechanics continue to be a high-demand occupation both in Texas and the Rio Grande Valley.

Creating a New Certificate Program

As TSC continued to review HB 8 and its impact on the college and its students, the opportunity to offer a new type of certificate, Occupational Skills Award (OSA), emerged. The for-credit OSA certificates are offered in career and technical education (CTE) programs, such as automotive technology. The Automotive Technology OSA is embedded into the Auto Mechanics Technology – Line Specialist Certificate of Proficiency – Level One at TSC. Students who have an interest in working in the automotive industry but need to enter the workforce quickly can complete three courses (AUMT 1305, AUMT 1407, and AUMT 1310) to earn the OSA, get a job as a lube technician, automotive helper, or auto parts counterman, and continue on the path to pursue the Auto Mechanics Technology Certificate or AAS degree if they choose to. Students who complete the Automotive Technology OSA will also take the A5 Brakes certification exam from ASE as part of AUMT 1310. If they pass the exam, they will be awarded the certification.

Enhancing Partnerships with High Schools

HB 8 is also enhancing funding based on the number of high school students earning college credit through dual credit programs. Aligning dual credit pathways is a data-driven process. School districts use the Texas Education Agency (TEA) website to obtain state-wide data and understand the legislative mandates that are used to determine high-demand career programs.¹⁶ As part of the public school accountability system, TEA must include high school students who earn industry certification(s) as an indicator of student achievement.¹⁷ TEA creates a list of approved industry-based credentials that prepare students for career, postsecondary education, and military success.¹⁸ This list is publicly available and is to be used to help secondary schools develop their academic programs.

To further strengthen connections with high school partners, TSC participates in high school partners' CTE advisory committees and works very closely with school district CTE directors to examine which programs align with their students' needs, as well as meet state requirements. TSC also engages in weekly meetings with high school partners to ensure alignment of offerings, operations, and future ventures, and all dual credit programs are reviewed annually. Currently, dual credit for the automotive technology program is offered in two high schools, but there are other school districts that have expressed interest in offering this program for their students as well.

Some high school partners even engage deeper with TSC. For example, one school district's administration meets with TSC dual credit and instruction leadership to discuss the impact of legislative changes and how they can partner to capitalize upon new legislation. Their regular meetings also serve as a time to resolve any issues that may have arisen. By intentionally aligning curriculum with industry demand, TSC's automotive technology program not only fulfills the objectives of Texas HB 8 but also accelerates students' entry into stable, high-paying careers, ultimately fueling economic growth in the region.

Collecting Stakeholder Input

Developing and improving the effectiveness of pathways must be rooted in comprehensive stakeholder input. TSC faculty and administrators gather stakeholder feedback through a variety of mechanisms.

Advisory Committees

Advisory committees play an essential role in program development and sustainability, offering valuable insight into labor market trends, emerging technologies, and employer expectations. This input allows colleges to stay ahead of workforce demands and adapt programs quickly to meet the needs of both students and employers.

TSC advisory committee members are composed of program coordinators, faculty, and industry partners who represent various aspects of their industries. These committees meet twice per year to provide input into the program curriculum, examine program enrollment, review and update marketing materials, discuss changes in skills for relevant occupations, review certifications that are valued by employers, and discuss career opportunities.

Additionally, a focus group composed of advisory committee members as well as program coordinators, employers, and faculty were convened by TSC's chief institutional editor and special projects to identify example occupational job titles to evaluate, key competencies needed to perform in each role, required certifications and/or licenses, amount of experience required, and pay ranges per skill level (see Figure 5). As a follow up to the focus group meeting, committee members were invited to an automotive summit to provide a deeper analysis into the needs of the automotive pathway.

Figure 5: Feedback from the Automotive Technology Focus Group

	ENTRY LEVEL	LEVEL TWO	LEVEL THREE	LEVEL FOUR
EXAMPLES OF OCCUPATIONAL TITLES	Apprenticeship Express maintenance technician Parts specialist	Mainline technician Retail service specialist	Certified technician Assistant manager	Master technician Store manager
KEY KNOWLEDGE, SKILLS, AND ATTRIBUTES	Computer literacy Common sense Positive attitude Coachable Ability to work flexible hours Ability to comprehend basic concepts	General Motors online courses Hands-on experience Computer literacy	Knowledge of store operations Self-motivation Maintaining certifications	Supervisory skills Knowledge of store operations Maintaining certifications
CERTIFICATIONS AND/OR LICENSES REQUIRED	ASE Automotive & Light Truck Certifications A1–A8 ASE Automobile Maintenance and Light Repair (G1) Certification	ASE Automotive & Light Truck Certifications A1–A8	Continue earning more advanced certifications	Continue earning more advanced certifications
EXPERIENCE REQUIRED	0	1–2 years	2+ years	5+ years
PAY RANGE	\$9.50–\$18/hour	\$10–\$18/hour	\$15–\$22/hour	\$35+/hour

Faculty and Administration

Automotive technology faculty and administrators, including the director of curriculum, assessment and quality enhancement plan, and the dean of business, engineering, architecture, and technology (B.E.A.T.), meet to discuss the recommendations from the advisory committee and focus group meetings, and how changes can be made to better align the pathway with industry needs. For example, one of the recommendations that emerged was the need for TSC to offer General Motors and Toyota continuing education courses that would prepare students to take vendor-specific industry certifications in Brownsville. Currently, these courses are not available at TSC because there is another site that offers this training within 75 miles. However, the advisory committee recommended that the college seek an exception to this rule since many students lack transportation.

After faculty and administrators meet, the changes and recommendations are formally submitted to the curriculum and instruction committee for approval. Once that committee approves the updates, the changes are implemented, and the B.E.A.T. dean ensures that it is done in a timely manner.

Industry Partners

Other industry partnerships also play a critical role in helping TSC to align the automotive technology pathway with the evolving needs of the workforce. These collaborations ensure that students gain the required theoretical knowledge as well as the practical, hands-on skills that employers expect. Industry partners also help bridge the gap between education and employment through internships, apprenticeships, and cooperative education opportunities. In AUMT 2388, the final course of the AAS degree, students are placed in an internship with a local automotive dealer like Tipton Ford to provide students with real-world experience that enhances their employability and confidence as they transition from the classroom to the workplace.

For students, industry partnerships also translate into a stronger return on their educational investment. They benefit from updated facilities, access to modern equipment provided through industry support, and increased networking opportunities that often lead to job placement after graduation. For example, TSC is working with industry partners to purchase a new electric car, allowing students to hone their skills on the most up-to-date vehicles.

For employers like Brownsville Toyota, O'Reilly's, and Tipton Ford, partnering with TSC creates a reliable pipeline of skilled workers who are prepared to meet immediate and future workforce needs. And, through these partnerships, TSC is able to identify new career opportunities for students, such as maintaining and repairing tug boats at the Port of Brownsville.

TSC Industry Partner Summits

TSC hosted an Industry Partner Summit to assist in evaluating TSC's automotive technology and auto body repair programs. Attendees, including industry partners and advisory committee members, were given a rubric and asked to review each course in five areas—curriculum content, lab equipment, software and technology, hands-on training, and certification preparation—using a four-point scale (see Figure 6).

Figure 6: Workforce Alignment Rubric

PROGRAM AND COURSE NAME _____																
CURRICULUM CONTENT Is the curriculum meeting current industry standards?																
<table><tr><td>1 Not meeting</td><td>2 Somewhat meeting</td><td>3 Mostly meeting</td><td>4 Fully meeting</td></tr></table>	1 Not meeting	2 Somewhat meeting	3 Mostly meeting	4 Fully meeting												
1 Not meeting	2 Somewhat meeting	3 Mostly meeting	4 Fully meeting													
LAB EQUIPMENT Are lab tools and equipment current or outdated?																
<table><tr><td>1 Outdated</td><td>2 Somewhat outdated</td><td>3 Mostly current</td><td>4 Fully Current</td></tr></table>	1 Outdated	2 Somewhat outdated	3 Mostly current	4 Fully Current												
1 Outdated	2 Somewhat outdated	3 Mostly current	4 Fully Current													
SOFTWARE AND TECHNOLOGY Is the software and technology training aligned with what is used in the workforce?																
<table><tr><td>1 Not aligned</td><td>2 Somewhat aligned</td><td>3 Mostly aligned</td><td>4 Fully Aligned</td></tr></table>	1 Not aligned	2 Somewhat aligned	3 Mostly aligned	4 Fully Aligned												
1 Not aligned	2 Somewhat aligned	3 Mostly aligned	4 Fully Aligned													
HANDS-ON TRAINING Is the training comparable to real-world tasks?																
<table><tr><td>1 Not comparable</td><td>2 Somewhat comparable</td><td>3 Mostly comparable</td><td>4 Fully Comparable</td></tr></table>	1 Not comparable	2 Somewhat comparable	3 Mostly comparable	4 Fully Comparable												
1 Not comparable	2 Somewhat comparable	3 Mostly comparable	4 Fully Comparable													
CERTIFICATION PREPARATION Is the offered certification aligned with industry needs?																
<table><tr><td>1 Not aligned</td><td>2 Somewhat aligned</td><td>3 Mostly aligned</td><td>4 Fully Aligned</td></tr></table>	1 Not aligned	2 Somewhat aligned	3 Mostly aligned	4 Fully Aligned												
1 Not aligned	2 Somewhat aligned	3 Mostly aligned	4 Fully Aligned													
TOTAL SCORE _____																
<table><tr><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td></tr></table>	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
NOTES: _____																

Company representatives at the summit also discussed the advances in the industry and made recommendations for how these changes could be addressed in the academic programs. The data collected from the rubrics provided valuable feedback, which was used to update the skills and competencies that students need to learn to be well prepared to enter the workforce.

Ultimately, industry partners are vital to fulfilling TSC's mission of promoting economic mobility, regional economic development, and workforce readiness. By working closely with local and regional industry leaders and employers, TSC is able to keep the curriculum relevant, provide students with experiential learning opportunities, and strengthen pathways to high-demand careers.

Career Services and Job Readiness

Career services staff play a critical role in preparing students to transition confidently from the classroom into the workforce by offering connections to industry representatives and opportunities to learn about the types of jobs that are available and the skills needed to succeed in those jobs. Career services staff also provide students with comprehensive support that emphasizes three essential components of job readiness: resume development, mock interviews, and job fairs.

Resume development

Resume development is often the first step toward successful job placement. Students may lack experience effectively showcasing their skills, credentials, and accomplishments in a professional format. Career services staff provide individual guidance to help automotive technology students craft resumes that are specifically tailored to the industry, highlight their unique skills, and showcase their ability to apply what they have learned.

Mock interviews

Mock interviews further prepare students to succeed by offering practice in a supportive, feedback-rich environment. These simulated experiences help students build confidence, articulate the skills they have gained, strengthen their communication skills, and learn to respond to common interview questions with clarity and professionalism. Automotive industry partners work with career services staff to provide constructive feedback, enabling students to refine their body language, tone, and overall presence, ultimately enhancing their ability to make a strong impression during real interviews.

Job fairs

Job fairs represent another opportunity for students to connect directly with employers and explore available career pathways and job opportunities. By bringing employer partners to campus, career services staff created a structured setting where students can apply their networking skills, share their resumes, and engage in meaningful conversations with potential employers. These events not only open doors to immediate job opportunities, but also foster long-term professional relationships that can support graduates throughout their careers.

Innovation at TSC and Beyond

While working on enhancing the effectiveness of automotive technology pathways at TSC, other innovations and experimentations emerged and were implemented that can be replicated by other colleges.

Industry Partner Summits

The Industry Partner Summits at TSC create a safe and collaborative space where industry representatives, faculty, and college leadership can come together to exchange ideas and perspectives. These summits not only provide an opportunity for open dialogue, allow industry partners to share their workforce needs, and faculty and administrators can gain valuable insights into how academic programs could be better aligned to meet those demands. The summits also serve as an important validation process—confirming the real and current needs of the programs, ensuring that decisions and alignment are grounded in both industry input and community demand. In addition, industry partners shared that it was their intent to hire TSC students upon completion of their certificate(s) and/or AAS degree programs, and indicated that TSC would be a feeder for their human capital needs.

Industry Partner Meet and Greet Events

In addition to the summits, the B.E.A.T. division hosted its first annual Industry Partner Meet and Greet Event in 2025. It was meant to thank the industry partners for their participation in TSC's advisory committees, focus groups, and summits. TSC also wanted to raise awareness of the college as a venue for networking among the advisory committee members, program faculty, current students, alumni, and college leadership, which included the president and members of the board of trustees. And the event served to solicit informal feedback from participants, gaining awareness of issues and ideas that could be used to further enhance TSC courses and pathways.

From Class to Career: How Industry Certifications Give You the Edge

TSC faculty and administrators developed a workshop for students enrolled in any of the four pathways from this project—computer information systems and cybersecurity, computer-aided drafting, automotive technology, and commercial and residential electrician. During the workshop, the TSC dean, program faculty, and industry representatives presented about the importance of industry certifications and certificates. They addressed how higher education had changed, how these pathways are in high-demand in the Rio Grande Valley, and that graduates can earn good careers and salaries pursuing these pathways. Employers also highlighted the importance of industry certifications to signal that prospective candidates had the knowledge and skills for a specific occupation. Some even said that prospective employees who do not hold the industry certification would not be hired, even if they had the recommended years of experience, which was a very eye-opening statement for the participants. Other key topics of the workshop included the importance of employability skills, such as problem solving, critical thinking, oral and written communication, punctuality, and professionalism.

Future Events

Building the Workforce of the Future Conference

As a result of the successful Industry Partner Summits, the B.E.A.T. division is working on creating a bigger event, "Building the Workforce of the Future Conference," to be held annually. The intent of the conference is to "close the loop" between the education and training provided by TSC and the local and regional hiring processes, by working with employers to make TSC their higher education talent development partner. During the conference, participants will learn about career paths, speak directly with industry representatives to learn about the skills and industry-developed credentials that are valued in the Rio Grande Valley, and connect senior students and alumni with open jobs, thus "closing the loop."

B.E.A.T. Olympics 2026

In the summer of 2026, the B.E.A.T. division will also host its first ever B.E.A.T. Olympics for all its academic programs. Each program will develop its own competition where different types of students (e.g., dual credit, adult learners, full time) will compete in various hands-on activities based on their skill levels. The competitions will be judged by industry representatives and the winners will earn a bronze, silver, or gold medallion and bragging rights.

Conclusion

There has been a shift in higher education where a four-year degree is no longer the universal route for all students, especially when the value of an industry-recognized credential combined with an academic certificate or degree may be preferred by industry. Automotive technology students who earn this combination of credentials are in demand at car dealerships, companies that maintain fleets of vehicles, and the Port of Brownsville.

The state of Texas has also recognized the importance of industry-developed credentials and the need to have alignment between those credentials and academic programs, which is evident by the passage of HB 8. The increased emphasis placed on awarding credentials of value was an important move for Texas as companies continue to select their business locations, in part, based on whether there is an education and training system in place that can develop the workforce. TSC built upon these external factors to strengthen their pathways and offerings to boost students' earning power, while experimenting with new ideas and strategies that enhance alignment between academic programs and industry skill needs.

By preparing skilled automotive technicians, TSC supports both the economic growth of the Rio Grande Valley and the broader needs of Texas. The college not only empowers students with pathways to stable, well-paying jobs but also ensures that communities and businesses thrive and can rely on a strong, homegrown workforce to power the future.

Endnotes

- 1 Michael Prebil and Mary Alice McCarthy, *Building Better Degrees Using Industry Certifications Lessons from the Field* (New America, Education Policy, and Center on Education & Skills, September 17, 2018), <https://www.newamerica.org/education-policy/reports/building-better-degrees-using-industry-certifications>.
- 2 Holly Zanville, Kelly Porter, and Evelyn Ganzglass, *Report on Phase I Study: Embedding Industry and Professional Certifications within Higher Education* (Lumina Foundation, January 2017), <https://www.luminafoundation.org/files/resources/report-on-phase-i-study-embedding-industry-professional-certifications-within-higher-education-january-2017.pdf>.
- 3 *Counting Credentials 2025* (Credential Engine, 2025), <https://credentialengine.org/all-resources/2025-counting-credentials>.
- 4 “DR805 - GTF Workcred Grant Demographics AY25,” Emma Miller, Texas Southmost College, email message to author, September 30, 2025.
- 5 “Texas Southmost College: Enrollment,” Integrated Postsecondary Education Data System, National Center for Education Statistics, 2023-2024, <https://nces.ed.gov/ipeds/institution-profile/227377>.
- 6 “Texas Southmost College: Student Financial Aid,” Integrated Postsecondary Education Data System, National Center for Education Statistics, 2022-2023, <https://nces.ed.gov/ipeds/institution-profile/227377#student-financial-aid>.
- 7 *The State of Readiness: Are Texas Students Prepared for Life After High School?* (Texas 2036 and George W. Bush Institute, 2023), <https://texas2036.org/student-readiness>.
- 8 “Increasing Attainment Rates for Working-Age Texans,” DataBridge, Texas Higher Education Coordinating Board, September 15, 2025, <https://databridge.highered.texas.gov/increasing-attainment-rates-for-working-age-texans>.
- 9 “Texas Automotive Industry,” Texas Economic Development and Tourism Office, Office of the Governor, April 2025, <https://gov.texas.gov/uploads/files/business/Automotive.pdf>.
- 10 2025 Target Occupation List (Workforce Solutions, 2025), <https://wfsolutions.org/images/workforce/GeneralWebsite/Content/HowWeHelp/WorkforceIntelligence/TargetAndDemandOccupations/2025%20Target%20Occupations%20List.pdf>.
- 11 “Auto Mechanics Technology – Line Specialist Certificate of Proficiency – Level One 2025-2026,” Division of Business, Engineering, Architecture, and Technology, Texas Southmost College, accessed October 30, 2025, https://www.tsc.edu/assets/documents/programs_of_study/2025-2026/2025_2026%20CERT1_Auto%20Mechanics%20Tech.pdf.
- 12 “Automotive Technology Associate of Applied Science 2025-2026,” Division of Business, Engineering, Architecture, and Technology, Texas Southmost College, accessed October 30, 2025, https://www.tsc.edu/assets/documents/programs_of_study/2025-2026/2025_2026%20Associate%20of%20%20Applied%20Science_Automotive%20Tech.pdf.
- 13 “Test Series,” ASE, National Institute for Automotive Service Excellence, accessed November 3, 2025, <https://www.ase.com/test-series>.
- 14 “CBM0C1 – Certified Student Census Report,” Emma Miller, Texas Southmost College, email to author, August 31, 2025; and Author’s Note: A student may be counted in more than one subcategory throughout the year. As a result, the subcategory totals may not equal the total student enrollment numbers.
- 15 “Community College Finance Overview,” Texas Higher Education Coordinating Board, accessed November 5, 2025, <https://www.highered.texas.gov/community-college-finance>.
- 16 “Preparing Texas Students for a Successful Future,” Texas College and Career Readiness School Models, Texas Education Agency, accessed November 5, 2025, <https://tea.texas.gov/academics/college-career-and-military-prep/texas-college-and-career-readiness-school-models-ccrsm>.

- 17 "Performance Indicators: Achievement," Education Code Section 39.053, Texas Public Law, Texas Statutes, accessed November 5, 2025, https://texas.public.law/statutes/tex._educ._code_section_39.053.
- 18 "Industry-based Certifications," Texas Education Agency, accessed November 4, 2025, <https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/industry-based-certifications>; and "Industry-Based Certifications List for Public School Accountability," Texas Education Agency, accessed November 4, 2025, <https://tea.texas.gov/about-tea/news-and-multimedia/correspondence/taa-letters/industry-based-certifications-list-for-public-school-accountability-0>.