



TRAVIS COUNTY ASSET MAPPING REPORT

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- Austin Community College (ACC)
- Texas State Technical College (TSTC)
- Workforce Solutions Capital Area (WFSCA)
- Workforce Solutions Rural Capital Area (WFSRCA)
- Opportunity Austin (OA)
- Travis County Independent School Districts and Charter Schools

About ESC 13

Education Service Center Region 13 (ESC 13) is one of twenty service centers that serve Texas' educational needs. We are a non-regulatory agency; our relationship with school districts is collaborative and supportive. Our purpose is to aid teachers and administrators in their role as educators of our children. We liaise between the Texas Education Agency, the local school districts, and the schools they serve by disseminating information, conducting training, and consulting for federal and state programs.



About the Tri-Agency



THE TRI-AGENCY WORKFORCE

Initiative, launched in 2016 to support Governor Abbott's workforce development goals, is a collaboration between the Texas Education Agency, Texas Higher Education Coordinating Board, and Texas Workforce Commission. Its goal is to increase economic prosperity in Texas by linking education and industry.

Summary

Workforce development stakeholders in Travis County, Texas, are diligently working to build college and career pathways that support young people in attaining their educational and career goals, pay a living wage, and offer opportunities for career growth. The slide deck includes gaps and assets aligned to Travis County's targeted industries, which include healthcare, information technology, manufacturing, skilled trades, and transportation/mobility. It provides baseline data that will serve as a foundation for strategic planning and the implementation of goals. The ESC 13 team completed the gap and asset data collection for Travis County from October to December 2023 utilizing state secondary and postsecondary data collected during the 2022 – 2023 school year

A full report of the success and gaps identified in this report can be found at:



INDUSTRY-SPECIFIC SUCCESSSES AND GAPS

Targeted Industries

As the Travis County economy grows, it's imperative that secondary, postsecondary, and workforce development institutions continually track labor market information (LMI) and adjust programming based on industry demand. Workforce Solutions Capital Area (WFSCA) analyzes LMI to develop a list of targeted industries and occupations. To create the list of targeted industries and occupations, WFSCA looks at:

Rapid growth

Low Turnover

**Immediate employment
opportunities for
jobs with
high-earning potential**

**Demand
supported by local
knowledge and employer
input**

Targeted Industries

Two other key indicators that are taken into consideration when identifying targeted occupations are:

**Does the position
offer an hourly living
wage rate?**

**If not, are there
opportunities to
springboard into advanced
career occupations that
offer an hourly living wage
rate?**

Targeted Industries

Based on the criteria identified above. WFSCA identified the following five targeted industries:

Source: (Workforce Solutions Capital Area, 2023)

Healthcare

Manufacturing

Skilled Trades

**Information
Technology**

**Mobility
/Infrastructure**

Mobility and Infrastructure

The **Mobility and Infrastructure (M+I) industry** currently employs over 222,646 workers and is projected to expand to 404,033 workers by 2040, outpacing all other sectors except the professional and business service occupation. M+I jobs include a crossover of construction and transportation-oriented occupations, which include:

- Frontline mobility occupations Example: Bus, semi, and rail drivers
- Skilled trades Example: Electrical, pipefitting, welding
- Fleet maintenance and repair Example: Auto and diesel mechanics
- Operations and supervision Example: Foreman and superintendents
- General construction Example: Construction worker, surveyor, and inspector.

Mobility & Infrastructure Successes



Austin, Del Valle, Elgin, Manor, and Pflugerville ISDs have established construction, skilled trades, and automotive programs at many high schools.

When off-campus WBL opportunities are unavailable for M+I students, secondary schools have developed innovative approaches to hosting on-campus experiences. For example, a senior-level automotive class might work on customer cars, or a capstone construction class might build a tiny home to donate to the community.

Institution of Higher Education partners offer 16 local training programs to prepare students for working with vehicles or in construction. Multiple degree levels are available for students.

13+ apprenticeship programs are available with local unions and independent organizations to prepare apprentices for opportunities in skilled trades.

Mobility and Infrastructure Gaps

In Travis County, 278 students concentrated, and 113 students completed a program of study sequence in architectural design, carpentry, construction management, or electrical trades during the 22 - 23 school year, which is far below the current demand for 4,777 workers in the construction trades.

In Travis County, 271 students concentrated, and 152 students completed a program of study sequence in automotive technology during the 22 - 23 school year, far below the current demand for 2,972 fleet maintenance and auto repair workers.

18,810 male students completed a construction or automotive course compared to 4,670 female students.

More paid off-campus WBL opportunities, such as internships and youth apprenticeships, are needed to attract students to complete their M+I CTE program of study.

Healthcare

As the population of the Austin MSA increases, so does the demand for healthcare workers. Healthcare CTE programs continue to thrive as some of the most popular programs on secondary and postsecondary campuses. Healthcare occupations are often broken down into five pathways that offer employment opportunities for various interests.

They are:

- Therapeutic Services Example: Physicians, nurses, and dental assistants
- Diagnostic Services Example: Optometrist, occupational therapist, phlebotomist
- Health Informatics Example: Project manager, health information administrator, clinical coder
- Support Services Example: Biomedical/clinical engineer, healthcare administrator, community health worker
- Biotechnology Research and Development Microbiologists, pharmaceutical sales representatives, quality assurance technician

The majority of Travis County labor shortfalls are in the therapeutic and diagnostic career pathways.

Healthcare Successes

Labor projections indicate that Travis County will need 6,663 healthcare workers annually. Travis County has 1,182 healthcare CTE concentrators. The Austin MSA has 3,152 students enrolled in 2-year health professions programs and 5,494 in 4-year health professions programs.

The Central Texas Healthcare Partnership, led by WFSCA, has been a critical driver in developing public-private partnerships between the major hospitals, clinic systems, and higher education. This group's work has significantly improved students' opportunities to explore healthcare careers.

More high school students pass the certified clinical medical assisting (CCMA) certification (142 earned) than any other industry-based certification offered in Travis County schools.

Healthcare Gaps



1,862 students in Travis County are healthcare program of study concentrators. Only 36% of students completed their healthcare program of study (672 total).

More paid secondary off-campus WBL opportunities, such as internships and youth apprenticeships, are needed to attract students to complete their healthcare program of study.

Only 216 students received dual credit for secondary health science classes.

Skilled Trades and Construction

As the economy grows and more people arrive in the capital city, the need for more housing, storefronts, entertainment venues, etc., also increases, leading to a construction boom. Approximately 4,777 general construction workers and skilled tradespeople are needed each year to complete infrastructure and building projects. Construction careers are often broken down into two main categories, general construction and skilled trades, and include but are not limited to the following occupations:

- **General construction**

- Construction managers
- Construction laborer
- Construction equipment operators
- Building Inspectors
- Civil Engineers
- Architects
- Cement Masons
- Concrete Finishers

Skilled Trades and Construction



- **Skilled Trades Carpenters**
 - Electricians
 - Plumbers and pipefitters
 - Sheet metal
 - Fire sprinkler fitters
 - Insulators
 - Ironworking

Skilled Trades and Construction Successes

Austin, Del Valle, Elgin, Manor, and Pflugerville ISDs have established construction and skilled trades programs in many high schools.

13+ Apprenticeship programs are available with local unions and independent organizations to prepare apprentices for skilled trades careers.

When off-campus WBL opportunities are unavailable for construction trades students, secondary schools have developed innovative approaches to hosting on-campus experiences. For example, a level four practicum in construction class might build a tiny home to donate to the community.

Skilled Trades and Construction Gaps



In Travis County, 278 students concentrated, and 113 students completed a program of study sequence in architectural design, carpentry, construction management, or electrical trades during the 22 - 23 school year, which is far below the current demand for 4,777 workers in the construction trades.

16,394 male students completed a course in a construction trades program of study compared to 4,365 females.

More paid off-campus WBL opportunities, such as internships and youth apprenticeships, are needed to attract students to complete their construction or skilled trades program of study.

Manufacturing



With the passing of the Chips and Science Act in 2022, Texas has seen a boom in massive manufacturing projects. Currently, 72,000 people work in the industry, and 32,000 additional jobs will be added in the next ten years. Manufacturing careers are often broken down into two main categories: jobs that require more advanced training or a bachelor's degree and those that require short-term training, apprenticeship, on-the-job training, or certification. Some examples include, but are not limited to:

Manufacturing

Jobs that require short-term training, apprenticeship, on-the-job training, or certification:

- Welders
- Certified production technicians
- Electrical and electronic engineering technologists and technicians
- Industrial engineering technologists and technicians
- Electrical and electronics repairers
- Semiconductor processing technicians

Jobs that require a bachelor's degree or more advanced training Engineers

- Production managers
- Quality management
- Operations management

Manufacturing Success

Austin, Pflugerville, Del Valle, Eanes, Lake Travis, Elgin, Manor, and the Texas School for the Deaf have advanced manufacturing and machinery mechanics programs of study on some of their high school campuses.

Austin Community College offers six manufacturing degree pathways with various degree levels.

TSTC offers three manufacturing degree pathways with various degree levels at the East Williamson County Higher Education Center (EWCHEC).

1,381 students are enrolled in a 2-year engineering or engineering-related degree in Travis County. 883 students are enrolled in a 4-year engineering or engineering-related degree in the Austin MSA.

Manufacturing Gaps



742 secondary students are concentrators in CTE manufacturing programs, and 95 have completed their CTE manufacturing programs.

Female secondary students completed 351 courses in a manufacturing program of study, compared to 2,825 male course completions.

Only 19 secondary students attained an IBC aligned to a manufacturing program of study, all of which were structural steel certifications.

More paid off-campus WBL opportunities, such as internships and youth apprenticeships, are needed to attract students to complete their manufacturing program of study.

Information Technology

As the world increasingly relies on machine-generated data, the demand for information technology (IT) professionals to interpret, secure, and store that data is growing exponentially. In Travis County, employers have 8,212 IT job openings annually. 41%, or 3,379, of annual openings in the information technology sector are for software engineers. Those interested in an IT career must determine which of the following six pathways they would specialize in.

- Computer Support Examples: Computer user support specialists and computer network support specialists

Information Technology

- Cybersecurity Examples: Cybersecurity analyst and security engineer
- Networks and Systems Examples: Computer network architects and computer systems analysts
- Software Development Examples: Software engineer and software developer
- Web Development Examples: Web developers and frontend developers
- Data Examples: Database administrators and data analyst
- Cloud Computing Examples: Cloud engineer and cloud programmer

Information Technology Successes



3,183 students in Travis County passed an AP computer science class.

Austin Community College offers 17-degree pathways with various degree and certification levels for students training for IT careers.

TSTC offers four online IT degree pathways with various degree levels for students training for IT careers.

There are 3,705 students enrolled in a postsecondary two-year IT program in Travis County and 3,912 students enrolled in a four-year IT-related degree plan in the Austin MSA.

Information Technology Gaps

5,199 students concentrated in an IT program of study compared to 843 who completed, marking an 84% decrease in students completing 2 or more classes in their four-year IT course sequence.

Female secondary students completed 2,121 courses in an IT program of study, compared to 5,186 male course completions.

Only 49 students passed an IT-related IBC.

Black or African American students completed 474 courses in an IT program of study compared to their Hispanic or Latino (3,193 course completions) and White (2,408-course completions) counterparts

WBL opportunities, such as IT internships and youth apprenticeships, are few and far between.



OVERALL RECOMMENDATIONS



Cross-Sector Partnerships



Cross-sector partnerships include partners from industry, K – 12, workforce, and higher education to create systems from secondary education to postsecondary education culminating in a career path in a high-skill and high-demand industry.

Cross-Sector Partnership

Recommendation #1

The convener organization acts as a neutral voice that brokers deals between the other partners to develop programs that lead students to high-skill and high-demand industries where they can make at least a living wage with opportunities to springboard into more advanced jobs. **As more conveners enter the workforce development space, all partners must coordinate efforts to avoid replicating services and support each organization's services.**

Cross-Sector Partnership

Recommendation #2

Industry organizations and employers recognize the need to engage more with secondary schools to build career awareness in middle school and begin workforce training in high school CTE programs. Some growing industry sectors are more advanced in their K - 12 outreach. **Convener organizations must work with growing industries and K -12 to break down barriers and build more robust workforce pipelines.**

Alignment with Labor Market Demand



Alignment with labor market demand leads to jobs in high-wage, in-demand industries with career advancement opportunities.

Alignment with Labor Market Demand

Recommendation #1

Many students make career decisions based on the recommendations of the adults they have close relationships with as opposed to data-driven discussions about industries with high growth. Workforce development partners must increase parent and K - 7 exposure to high-skill and high-demand careers before students choose their CTE program of study and develop a high school graduation plan. **In Travis County, few events target career awareness and exploration for students ages 5-13**

Alignment with Labor Market Demand

Recommendation #2

In a recent survey of secondary administrators, CTE teachers, counselors, and college and career advisors (CCA), 38% of respondents noted that students receive their college and career education from counselors, while 28% acknowledged that college and career advising centers play a vital role in college and career education. **Workforce partners must collaborate to educate counselors and CCAs about career opportunities and postsecondary degree options that will lead students to high-skill and high-demand jobs.**

Links Between Secondary and Postsecondary



Links between secondary and postsecondary propel students to and through postsecondary education.

Links Between Secondary and Postsecondary

Recommendation #1

P-Tech programs that connect high school students to college credit and workforce training are becoming more popular. Travis County has one construction, two IT, one healthcare, and two manufacturing P-Tech programs that train students for the five targeted industries.

Developing more dual credit linkages, modeled after P-Tech programs, to train students for entry-level positions in the five targeted industries will significantly improve secondary to postsecondary linkages.

Links Between Secondary and Postsecondary

Recommendation #2

An analysis of all ACC and TSTC dual credit MOUs identified 122 courses that can be offered for postsecondary credit aligned to the five targeted industries. Of those, 49 had students who received dual credit. **Postsecondary institutions and LEAs should review existing MOUs, identify why so few CTE courses are offered for dual credit, and develop a plan to strengthen and enhance CTE dual credit offerings aligned to the five targeted industries.**

Credential with Value in the Labor Market



Credentials with value in the labor market enable students to compete by earning stackable and portable industry-recognized certifications.

Credential with Value in the Labor Market

Recommendation #1

In Travis County, 10% of secondary students who completed or concentrated in a state-approved program of study passed an industry-based certification. **LEAs must identify why students struggle to pass IBCs and develop a plan to improve learning outcomes and IBC attainment.**

Credential with Value in the Labor Market

Recommendation #2

During the 2022 - 2023 school year, 76 students in ESC 13's ten-county service area earned a level I or II certificate in any workforce development area. **LEAs and Institution of Higher Educations should look at current dual credit CTE crosswalks and develop additional paths to level I and II certification aligned to the five targeted industries.**

Integration of Rigorous Academics & Career-Focused Learning



Integration of rigorous academics and career-focused learning provide CTE programs, dual credit opportunities, and Advance Placement (AP) and International Baccalaureate (IB) options to students.

Integration of Rigorous Academics & Career-Focused Learning

Recommendation #1

53% of respondents to ESC 13's fall 2023 gap and asset analysis survey suggest that students moderately participate in advanced academic programs. **LEAs should consider developing programs of study sequences aligned to the top five in-demand industries that include advanced academic programming aligned with career learning.**

Integration of Rigorous Academics & Career-Focused Learning

Recommendation #2

When respondents to ESC 13's fall 2023 gap and asset analysis survey were asked about the coordination of career education efforts, 15% identified that they would like to create more opportunities for students, and 23% noted that they were unsure how to increase collaboration with employers. **Given the considerable workload of administrators and teachers, LEAs would benefit from designating a district single point of contact or regional convener to facilitate business relations and coordinate the organization of career-focused learning events.**

Effective Advising



Effective advising offers coaching, mentoring, and a range of college and career options through a set of sequenced activities.

Recommendation #1

69% of ESC 13's fall 2023 gap and asset analysis survey noted that counselors play a critical or considerable role in college and career advising. **All workforce partners must work together to educate counselors about the skills, education, and training required to pursue careers of interest in Travis County's top five high-skill and high-demand industries.**

2023 Industry Analysis: Using industry data to determine workforce investment in the Austin metro. (2023, April 1). Workforce Solutions Capital Area Texas Talent Experts Report. https://www.wfscapitalarea.com/wp-content/uploads/2023/04/WFS-TX-Talent-Experts_Target-Industries_April-2023-v1.pdf

Recommendation #2

All educators must have access to the latest information regarding high-skill and high-demand industries. **Workforce development partners must promote regional workforce resources, such as the [WFSCA Climb The Ladder Central Texas](#), to educate students about the most up-to-date skills, education, and training requirements needed to pursue a career of interest in a targeted industry.**

Continuum of Work-Based Learning Experiences



The continuum of WBL experiences includes career awareness activities in elementary school, career exploration in middle school, and preparing for the world of work in high school. As students move toward the end of high school, their capstone WBL experiences include opportunities for internships, on-the-job training (on campus or off), pre-apprenticeship, and youth apprenticeship.

Continuum of Work-Based Learning Experiences

Recommendation #1

In ESC 13's fall 2023 gap and asset analysis survey, respondents were asked to rate the level of WBL coordination between high schools and employers. 23% noted limited coordination, and 45% noted moderate coordination. **Conveners, LEAs, and employers are encouraged to explore developing a more efficient and streamlined approach to facilitate connections between high schools and employers.**

Continuum of Work-Based Learning Experiences

Recommendation #2

When asked about the barriers preventing student participation in WBL, 20% of respondents cited transportation issues, another 20% highlighted a scarcity of opportunities, and 15% pointed to scheduling conflicts affecting WBL programs. **Conveners, LEAs, and employers must collaborate and devise solutions addressing these challenges, specifically focusing on transportation concerns, scheduling conflicts, and the shortage of paid work opportunities for students.**

Conclusion



AUSTIN

The Travis County Asset Mapping Report is a comprehensive analysis of the region's education and workforce development landscape. Prepared by ESC 13, the report identifies the strengths and challenges of the education and workforce systems in Travis County.

Works Cited