

# Transportation-STEM Academy (T-STEM):

A playbook for developing transformational educational experiences  
through industry-academia partnerships



U.S. Department of Transportation  
**Federal Highway  
Administration**



THE UNIVERSITY OF  
**MEMPHIS**  
Southeast Transportation  
Workforce Center







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# Introduction

As we approach a time in the history of transportation where technology will rapidly advance and change the nature of not only how the transportation system operates but also how we do work, it is crucial that we prepare the next generation workforce to rise to the challenges that these advances create. This changing environment is further complicated by the limited number of students aware of and choosing to pursue transportation career pathways. Thus, it is critical that we not only paint a picture of the transportation industry so that students understand the diverse and exciting career opportunities but also that we reimagine traditional education to provide much more meaningful and industry-engaged learning experiences.

The Transportation-STEM (T-STEM) Academy at East High School in Memphis, TN was founded in 2017 as an innovative response to these transportation workforce challenges. **Because transportation is something that we all are involved in every day – whether in traveling to school or work or in placing an order and expecting next day delivery – it has become almost invisible in terms of the design, operations, maintenance and system management required to make these expectations realities.** Programs such as the T-STEM Academy put these realities into perspective and help students understand the tremendously important role of our transportation system in our everyday lives and communities.

The T-STEM Academy at East High School launched in Fall 2017 with its first class of nearly 100 freshmen studying engineering, aviation, or logistics. The program was developed through a collaborative effort between Shelby County Schools (the local district), the Southeast Transportation Workforce Center (SETWC) at the University of Memphis, and a host of other academic and industry partners dedicated to creating a unique experience to prepare students for the transportation workforce. With a new class of freshmen added each year, as of 2019, T-STEM provided a transformative educational experience to more than 350 freshmen, sophomores, and juniors through its original program tracks and a new state-of-the-art diesel mechanics program. T-STEM will produce its first class of graduates in the spring of 2021.





# About this Playbook

This Playbook focuses specifically on the development of a successful transportation-focused high school program using the experience from the East High Transportation-STEM Academy in Memphis, Tennessee as a case study. The intent is to provide a framework for other communities to use in developing similar programs and translating successful practices from T-STEM.

This playbook includes:

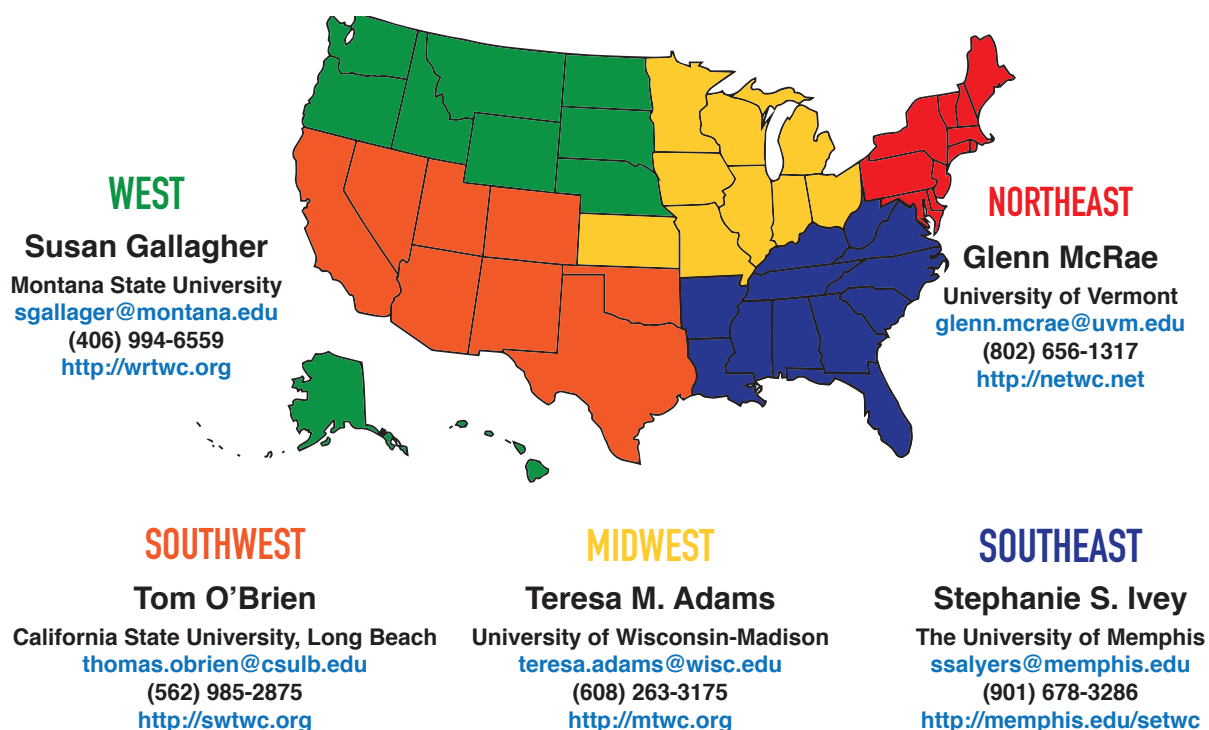
- Details of the T-STEM Academy at East High School model
- Successful strategies for all stages of program development – from concept to reality
- Best practices for maintaining partner engagement
- Lessons learned that are valuable for informing future programs

## How to use this Playbook

The T-STEM Academy Playbook is designed to be used as a guide to enable communities to develop a plan for a sustainable transportation-STEM model at the high school level. However, many of the recommendations contained within this guide are transferrable to other settings as well. The intent is that the guidance offered within this Playbook is flexible, and should be adapted to local needs, and components of the T-STEM model can be selected in whole or in part to create a workable framework for other communities.

## About SETWC/the National Network for the Transportation Workforce

The Southeast Transportation Workforce Center (SETWC) is one of five regional centers of excellence that together comprise the National Network for the Transportation Workforce (NNTW). SETWC has a broad transportation workforce agenda, but also provides specific expertise related to diversity in transportation, transportation operations, and freight transportation workforce development. The NNTW is dedicated to advancing research and best practice to move the needle related to transportation workforce issues. The Federal Highway Administration (FHWA) founded the NNTW and each of the regional centers via a competitive grant process.



# The Transportation-STEM (T-STEM) Academy Model.

The transportation industry is evolving, offering opportunities to individuals who have technical and analytical skills as well as the core skills needed for collaboration and communication. And, rapid changes in technology are driving innovation and creating an environment of nearly constant change in the transportation industry. Likewise, preparing the transportation workforce of the future requires an innovative approach. The T-STEM Academy model includes all of these elements in a practical approach to STEM that is delivered through a unique and highly collaborative process.

## Connecting Transportation and STEM.

There is very little recognition by the general public of the connection between transportation and STEM, or that a large percentage of transportation jobs require STEM competencies, certifications, or degrees. The T-STEM academy addresses this issue by not only intertwining both terms in its name but also by creating a strong STEM program that uses transportation as the lens through which students apply what they are learning.

## An Academic Program that Promotes STEM for All.

Students in the T-STEM Academy follow a rigorous project-based learning curriculum. Three distinct academic pathways are offered: Engineering, Aviation, and Diesel Mechanics. Within each program track, students have the opportunity to earn relevant industry certifications and credentials and college credit through dual enrollment and dual credit courses. And, beginning with 2020, students will also have the option to be engaged in an engineering apprenticeship that will connect dual enrollment and work based learning experiences to provide students with even more advanced preparation for college and careers.

## A Space that Supports a Culture of Career.

The T-STEM Executive Principal, Lischa Brooks, had a vision for her school and its space – and there was nothing traditional about it. Classrooms were designed as collaborative workspaces. A board room provides opportunities for class presentations and meetings between students and industry partners. Labs have state-of-the-art equipment that is used in industry. Everything about the T-STEM Academy was created to support a mindset of career exploration and professionalism, and to spark interest in learning.

## Industry and Community Engagement.

Industry and community partners are fully engaged in the T-STEM Academy by providing resources, curriculum guidance, mentors and enrichment activities such as company visits and field trips. Students at the T-STEM Academy will interact with professionals from more than 40 companies over the course of their high school experience.

*The T-STEM Academy exists today because of the shared vision and partnership between SCS, SETWC, and countless industry partners. Our students benefit in so many ways: curricular enhancements, access to cutting edge technology and the development of robust student success programming. Together we are creating a model for success that can be replicated nationwide.”*

**–Lischa Brooks, Executive Principal, East High T-STEM Academy**

# Best Practice Spotlight: CEO Series

The CEO Series is a monthly event hosted at the T-STEM Academy designed to showcase diverse professionals, their career pathways, and their segment of the transportation industry. Each speaker provides insight into transportation careers and advice to students as they begin to think about their career options. Students have the opportunity to ask questions and interact with the professionals each month as they learn about a new area of the transportation industry.

The CEO Series provides:

- Real-world connections to content students are learning in their courses,
- A broader understanding of transportation careers through the diversity represented by the speakers (modes, disciplines, backgrounds),
- An opportunity to network with and learn from high-level professionals that students may otherwise never meet.

## TRANSPORTATION CEO SERIES

Brought to you by the Southeast Transportation Workforce Center (SETWC)



AALIYAH JATTA



ALIA BURROWS



DAVID OPPONG



JOHN ZACHER

We are excited to feature a panel discussion with 'Future CEOs' for our November session!

You will meet Aaliyah Jatta (Supply Chain Undergraduate), John Zacher (Graduating Senior - Civil Engineering), David Oppong (Graduate Student - Civil Engineering), and Alia Burrows (recent graduate and Operations Agent with Expeditors) - four very intelligent, hard-working, and engaging young professionals, each at different points in their career journey. Learn why they are all excited about transportation careers and get advice as you consider your future opportunities!

Come prepared to listen, learn, and ask questions!!!  
For more info: [memphis.edu/setwc](http://memphis.edu/setwc)

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## TRANSPORTATION CEO SERIES

Brought to you by the Southeast Transportation Workforce Center (SETWC)



LAURIE MATKOWSKI

SETWC is thrilled to announce the February CEO Series event for the students of the T-STEM Academy at East High!

Join us each month as we host a leader in the transportation industry who will share:

- Details of their diverse and exciting career paths
- Examples of many types of transportation-related companies and job opportunities
- Insight regarding skills and education that are required to be successful
- Advice for how you can achieve your goals!

Our February speaker is Laurie Matkowski. Laurie is the Connected and Automated Vehicle (CAV) Services Director for Gannett Fleming. Spanning an over 20 year career in both public and private sectors in planning and engineering, she has a Civil Engineering degree from Clemson University. Laurie is considered a Subject Matter Expert on strategic planning for future technologies in the transportation industry, including CAV, Automated Driving Systems (ADS) readiness, Transportation Systems Management and Operations (TSMO), traffic and transportation engineering, planning, multimodal connections, Mobility-as-a-Service (MaaS), Smart Cities/Communities, Intelligent Transportation Systems (ITS), and Traffic Incident Management (TIM). Join us as Ms. Matkowski discusses exciting career opportunities in transportation!

Come prepared to listen, learn, and ask questions!!!  
For more info: [memphis.edu/setwc](http://memphis.edu/setwc)

East Transportation Workforce Center | U.S. Department of Transportation Federal Highway Administration





# T-STEM Partner Organizations



Photo by Marc-Olivier Jodoin  
on Unsplash

## **Core Partners**

Shelby County Schools  
Southeast Transportation Workforce Center

## **Academic Partners**

Embry Riddle Aeronautical University  
Southwest Tennessee Community College  
Tennessee College of Applied Technology  
University of Memphis

## **Industry and Community Partners**

AutoZone  
Barge Design Solutions, Inc.  
City of Memphis  
Cummins Inc.  
CN  
Commercial Advisors  
FedEx Express  
FedEx Freight  
Greater Memphis Alliance for a Competitive  
Workforce  
Greater Memphis Chamber of Commerce  
Greater Memphis IT Council  
HDR  
IMC Companies Inc.

Jeff Land & Associates  
Memphis Area Transit Authority  
Mallory Alexander International Logistics National  
Operations Center of Excellence  
Ozark Motor Lines  
Peer Power  
Penske  
Peterbilt Truck Centers  
Ryder  
Snapon  
SSR, Inc.  
Summit Truck Group  
Tag Truck Center  
Tennessee Department of Transportation  
Tennessee Section Institute of Transportation Engineers  
Truckish  
US Department of Labor – Office of Apprenticeship  
(Memphis)  
Vaco Logistics



# Play 1: Do Your Homework and have Industry in the Huddle

It takes a full team and a game plan. For the T-STEM Academy, it began with a research focus and the **Job Needs and Priorities Report** prepared by the Southeast Transportation Workforce Center at the University of Memphis.

Regional information was analyzed from Federal, State, and private sector research, technical reports, conference presentations, case studies, strategic plans, and human resource documents. Private and public industry stakeholders were engaged through interviews and focus groups. The end result was a detailed analysis of regional priority occupations and the education or training requirements and unique skillsets needed for successful employment in these occupations.

## TIP:

Engage industry partners in all aspects of your project from initial planning to implementation.

The next step was to focus locally and bring the greater Memphis community to the table. Industry partners were on board from the very beginning – providing input into academic curriculum and pathways offered at the school, identifying equipment needed for labs (and providing resources and funding to ensure T-STEM students had access to state-of-the-art technology for each of the program pathways), attending community outreach meetings to speak with prospective students and parents, serving as speakers on specific industry topic areas, providing mentorship for student projects, and so much more.



# T-STEM Diesel Program: Technical Education for Communities (TEC)

The diesel mechanics program was included as a vital component of the T-STEM Academy as a result of extensive research and consultation with industry. Building on the results of the Job Needs and Priorities Report prepared by the Southeast Transportation Workforce Center (SETWC) one of the most significant findings was the need for diesel mechanics.

Cummins, a major engine manufacturer which continues to experience a shortage of diesel mechanics, saw an opportunity to create a model program at East High School. Cummins has existing similar programs in locations around the globe, but none in the U.S. With their leadership, a new committee, Technical Education for Communities (TEC), was formed to develop the diesel program for T-STEM at East High School.

One of the first tasks was to recruit TEC members. With the engine company's leadership and help from educational partners, a broad and diverse group of industry associates including trucking companies, equipment manufacturers, truck dealers, the local transit agency, and the local chamber of commerce joined the committee.



The initial order of business was to get commitments from all parties to a Memorandum of Understanding (MoU) regarding the goals, commitments, expectations, and governance of the partnership. This was very important as it added a level of formality – this was not just another committee but it was to become the collaborative group of industry and education professionals focused on implementation and results.

Other activities during the first year of the committee's work were to develop a process and steps for program roll-out, to review the results of a survey which examined technician competency levels – expected versus actual, and to begin to explore curriculum content and dual enrollment opportunities. TEC also provides tools which are instrumental in reviewing potential candidates for the school's instructor.

One issue that received unanimous support from all was the need for communication, interpersonal, and other soft skills. This led to integration of a soft skills component in the curriculum. Once again, the development of the program was aided by the fact that Cummins TEC has experience with a capable provider who is able to offer their proven program to train the teachers to train the soft skills needed at the T-STEM Academy

Not to be overlooked was the financial support needed and received to support the program. School funds alone were not sufficient to support the program. Industry partner companies have provided specialized curriculum, engines, equipment, tools, and other necessary items. TEC continues at each meeting to review progress, collaborate and review program needs – what is needed and how can it be secured.

*Through this partnership, uniting our TEC: Technical Education for Communities program with local communities here in Memphis, we are able to teach students industry-relevant technical skills that will help our communities thrive now and in the future.*

**-Jenny Bush, Vice President, Cummins Inc.**



# Play 2: Build Your Team

For a Transportation-STEM Academy model to be successful (and sustainable), collaboration is the key. And, all partners must be invested in the program to create an authentic and enriching learning experience for students. This requires intentional selection of partners to ensure needed expertise is at the table. And, it requires significant forethought to make sure partner roles are well defined. For the T-STEM Academy, partner roles included:

## School and District Leadership

- Bring vision and leadership to the project
- Provide program delivery expertise
- Navigate policy and political challenges
- Set realistic expectations for programs and students
- Provide funding for capital improvements and equipment

## TIP:

Look for opportunities to deliver quick wins to demonstrate value of partnerships from the outset.

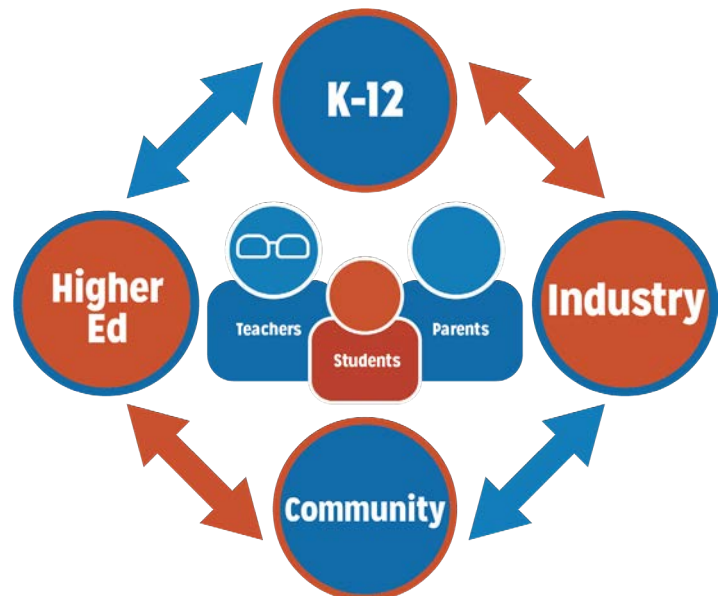
## Higher Education Partners

- Provide transportation context expertise
- Identify and engage relevant industry partners
- Coordinate and deliver enrichment activities (such as CEO Series and Summer Transportation Academy)
- Develop dual enrollment, statewide dual credit, and apprenticeship opportunities
- Develop grant proposals to drive education research

## Industry and Community Partners

- Provide transportation industry expertise
- Identify workforce needs and skills gaps
- Bring real-world context to student experiences
- Share insight and guidance on career options with students, teachers, and parents
- Provide investments to enhance and expand labs, technologies, and learning experiences

Partner engagement must be well planned – with goals and deliverables identified at the outset of each meeting. From the outset, it must be clear that the effort underway is intended to produce results – not just to be an academic exercise and discussion. Look for opportunities for quick wins and rapid deliverables right from the start to demonstrate the value of the partnership to everyone involved.



# Play 3: Call Plays that Use the Whole Field

The breadth and depth of supportive activities contribute to the uniqueness and success of the T-STEM program. These activities are an integral part of the program and are built on the strong partnerships between industry, higher education partners, and the T-STEM Academy.

Some of the activities designed for T-STEM include:

**CEO Series** - Leaders from both public and private sector roles tell their stories and provide inspirational messages and guidance to students. Care is taken to ensure diverse professionals are represented among the speakers, including gender, race/ethnicity, background, discipline, and area of the industry. University partners identify the speakers and coordinate the series for T-STEM.

**Genius Projects** - An innovation designed by the T-STEM Executive Principal, industry professionals and university faculty serve as advisors to student teams completing projects on current hot topics. One example project involved students developing technologies to prevent distracted driving.

**Choosing Transportation Summit** - This one-day event held at the University of Memphis each year brings together students, higher education and employers and includes student competitions, workshops, and a college & career expo.

**Resumania and Mock Interviews** - Companies bring a team of professionals to the T-STEM campus for resume review and mock interview sessions to prepare students to look for their first jobs. Highlights of the event include industry partners helping students understand how to take seemingly irrelevant work experiences (such as working at a fast food restaurant) and demonstrate skillsets of value for more technically focused positions.

**Field Trips** - At T-STEM, students participate in field visits quarterly during the year – coinciding with the Rail-River-Runway-Road theme that is used across all academic pathways. The Tennessee Department of Transportation, the City of Memphis Traffic Engineering office, and area logistics companies are just a few examples of organizations that have welcomed student groups and have demonstrated first-hand the variety of transportation career opportunities.







## Play 4: Continue Training in the Off-Season

Another important aspect of the T-STEM Academy model is the opportunity for students to continue learning year-round. Each year, the University of Memphis Herff College of Engineering has offered a Summer Transportation Academy for T-STEM students. The summer academy has two distinct programs:

- **Frosh Camp** – For entering freshmen, this camp is designed to introduce students to transportation through industry speakers and field trips, engaging hands-on design challenges, and college and high school mentors (graduate and undergraduate students in transportation-related majors and upperclassmen from T-STEM Academy serve as mentors during this program week).
- **Level 2 Academy** – Open to rising sophomores, juniors, or seniors, this camp provides more in-depth exposure to specific transportation topics. The content changes annually, so students are able to participate every year and have a new experience. The core model is the same as that for Frosh Camp, with speakers and field trips, design challenges, and college mentors.

With the first group SETWC developed a series of lesson plans and utilized existing resources to create the curriculum for the summer programs. External resources included freely available lesson plans from both the Institute of Transportation Engineers (ITE) STEM Resources and NanoSonic. The ITE STEM Resources site includes a wide range of transportation-focused activities for students (elementary through high school), including a research project developed by SETWC for T-STEM. The NanoSonic resource includes a comprehensive set of lesson plans (for both middle and high school students) to introduce Intelligent Transportation Systems to students and includes detailed guidance for teachers implementing the lessons. Links to lesson plans from SETWC, ITE, and NanoSonic are provided in the Resources section at the end of this Playbook.





## Play 5: Showcase Diversity

There is no ‘one size fits all’ career. Thus, diversity must be at the heart of all program design to have the greatest potential for impacting students. As the term implies, diversity comes in many forms – academic pathways, focus of student projects and professionals engaging with students, to name a few. It is important for students to understand that even within a single discipline, there are many career options. Take civil engineering for example. A student interested in transportation might pursue civil engineering to design roadways and bridges, signal systems, Intelligent Transportation Systems, airport facilities, rail facilities or to be involved in transit system operations or transportation planning (and much more!).

Similarly, it is important to provide students with access to diverse professionals in terms of gender, race/ethnicity, academic background and interests.

The more diversity can be highlighted for students through the curriculum, projects, people and extra-curricular experiences, the more likely students are to connect with a career path that is a good fit for them and to envision themselves as successful.

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**TIP.** Highlighting diversity in transportation helps students ‘find their fit’.

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# Spotlight on Highway Construction

The highway construction industry is booming, yet the necessary workforce to keep pace with projects is difficult to attract and retain. This industry is a great example of diversity of career paths. There is demand for workers who are interested in roadway construction (trades and technicians), roadway maintenance, materials testing, environmentalists, construction inspection, and construction management. These areas require people in the trades or with technical skills, engineering, and business expertise. Industry partners in the Memphis area, including representatives from the Associated General Contractors, Fisher & Arnold, Lehman Roberts, SSR, Inc., TDOT and Tennessee Road Builders Association, are working with SETWC to provide students with insight into highway construction career pathways. Strategies include:

- Identifying certifications that are valuable for internships and first jobs (such as OSHA 10-hr or FAA license for drone operation) that can be provided in school (T-STEM has already added OSHA, and had 3 students earn this certification in 2018-19).
- Providing speakers for the CEO Series and Summer Transportation Academy to highlight career options.
- Sharing messaging that conveys the importance of the highway construction industry to our communities.
- Showcasing new construction delivery methods such as Accelerated Bridge Construction (ABC) used for the TDOT MemFix 4 project (<https://www.tn.gov/tdot/projects/region-4/memfix4.html>).
- Providing internship and apprenticeship opportunities to students in a range of construction-related occupations.

*Everyone knows that doctors have a positive impact on patients every day. As someone in the highway construction industry, you have 200,000 patients every day that you are charged with making sure they get to where they are going safely. And, your work will still be here many years from now - the work you do today will impact millions of people now and in the future!*

*--Nick Taylor, Construction Manager, SSR, Inc.*





## Play 6: Create a Sustainable Model

For a program such as T-STEM to be sustainable, ultimately it has to deliver value – to its students, parents, teachers, and industry and community partners. T-STEM has seen success in all of these areas as evident by:

- Enrollment growth from **90 to 357 students in three years**
- Recruitment efforts have attracted a diverse student body, with enrollment demographics including: 52% female students, 71% African-American, 18% White, 5% Hispanic, 5% Two or more Race Categories, 1% Asian, and 45% from economically disadvantaged households.
- In 2018, East High scored **4 out of 4** in terms of academic achievement from year to year for the student body as a whole, as well as for subgroups of African American and Economically Disadvantaged students (TN Department of Education State Report Card)
- In 2018-19, T-STEM students scored on-track/mastered on end-of-course exams for English II, US History, Geometry, and Algebra II at rates **7-70%** higher than Tennessee students statewide!
- **39 students** earning certifications in 2018-19
- **7 different certifications** earned by students in 2018-19 (including OSHA 10, CompTIA, and Autodesk Inventor)
- **124 Students** enrolled in **167 dual enrollment** or statewide dual credit courses for 2019-20
- T-STEM advisory committees with more than **30 industry, higher education, and community organizations actively participating**





# Lessons Learned

With any new initiative, there will be bumps in the road, unexpected happenings, and things that just don't work. The beauty of the partnerships assembled for T-STEM is that there are always people willing to brainstorm, troubleshoot and develop work-arounds. Lessons learned from the T-STEM experience include:

- **It is crucial to identify a leader with vision** who can motivate stakeholders (including students and parents!) and get everyone on board. In the case of the T-STEM Academy, **Executive Principal Lisha Brooks is the driving force behind the vision.**
- We learned early in our endeavors that it was critical to address misperceptions about transportation with students **AND** their parents. Our initial community meetings and recruiting efforts were less than stellar until we changed the conversation about transportation – it is essential to demonstrate its importance to our communities, the variety of career pathways available, and that there are **EXCELLENT** jobs (that are high paying!) in transportation' whether you pursue employment immediately after high school, technical or community college, or university degrees. **There is something for everyone!**
- **Engage the entire community** – students, parents, public and private sector industry partners, school board/K-12 academic community, higher education, community organizations, **EVERYONE!**
- Be sure to thoughtfully engage partners and demonstrate quick wins early so that every one sees value in the partnership.
- **Keep in mind that you are painting the picture for students about the transportation industry and remember the importance of diversity** – in industry area, mode, background, gender, ethnicity, etc.
- **Don't be afraid to fail-** and to ask partners for help in trouble shooting and developing the next iteration of the program/event/etc. There will always be issues to address with any new program, and asking partners for help leads to the most rapid and innovative solutions.
- **Create a culture of career** – not just school – to motivate students and ensure they are uniquely prepared.

# Resources

Transportation – STEM Academy at East High School: <https://www.memphiststemacademy.org>

Southeast Transportation Workforce Center (SETWC): <https://www.memphis.edu/setwc/>

SETWC Transportation Academy Lesson Plans: <https://www.memphis.edu/setwc/education/index.php>

National Network for the Transportation Workforce (NNTW): <http://nntw.org>

NNTW Career Pathway Reports: <http://nntw.org/career-pathways>

NanoSonic Transportation-STEM Lesson Plans: <http://nanosonic.com/education/>

Institute of Transportation Engineers (ITE) STEM Lesson Plans:  
<https://www.ite.org/technical-resources/councils/transportation-education-council/science-technology-engineering-and-math-stem-resources/>

Technical Education for Communities: <https://www.cummins.com/company/global-impact/corporate-responsibility/community-impact/technical-education-communities>

SETWC Job Needs and Priorities Report: [https://www.memphis.edu/setwc/job\\_needs\\_and\\_priorities\\_report/index.php](https://www.memphis.edu/setwc/job_needs_and_priorities_report/index.php)

Ivey, S. S. (2019). Inspiring the Next Generation Mobility Workforce through Innovative Industry-Academia Partnerships. In T. Reeb (Ed.), Empowering the New Mobility Workforce. p. 317-348, Elsevier, <https://doi.org/10.1016/B978-0-12-816088-6.00015-8>.

# Playbook Checklist

## **Play 1: Do Your Homework and have Industry in the Huddle**

Engage industry partners from the beginning. Their input is invaluable in determining program focus areas, thinking through course curriculum, and designing state-of-the-art lab spaces. This also ensures they are invested in seeing the vision become a reality.

## **Play 2: Build Your Team**

Consider all of the diverse expertise you will need at the table and don't be afraid to add more partners as you need them. Set clear expectations for engagement and outcomes.

## **Play 3: Call Plays that Use the Whole Field**

Play on the strengths of your team to create unique experiential learning opportunities for students. It is the engagement of diverse partners that leads to the most innovative and impactful programs.

## **Play 4: Continue Training in the Off-Season**

Determine opportunities for keeping students immersed in transportation learning even in the summer. Summer camps, internships, and apprenticeships can provide opportunities for students to gain much more in-depth industry knowledge.

## **Play 5: Showcase Diversity**

Create an opportunity for every student to connect in some way – whether through an academic pathway, a project or an industry expert. By intentionally showcasing diversity, you will help more students find their fit in transportation.

## **Play 6: Create a Sustainable Model**

The ultimate end game is high quality programming. Tracking outcomes and progress will lead to sustainability by providing points of pride to share and build upon.





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