



Innovative High School Models Grant

Final Report

Tennessee Department of Education | November 2023



Executive Summary

In Spring 2021, the Tennessee Department of Education (the department) provided funds to increase innovation in Tennessee public schools. The COVID-19 pandemic revealed major challenges and opportunity gaps in preparing young learners for successful transitions to college and early careers. In 2021, the department [released the Innovative High School Model Grants](#), which were intended to foster and provide a vision of high schools of the future by reimagining time, space, and learning experiences to invest in students and their postsecondary success. A total of 75 districts submitted an intent to apply for the grant, with 61 districts submitting completed applications which requested over \$79.5M. A total of 21 proposals were awarded across the state, ranging from \$750,000 to \$2M, totaling \$30M in grant funding and impacting 24 school districts. This initial grant program was funded with federal Elementary and Secondary School Emergency Relief Fund (ESSER). The Innovative High School Models grant later served as initial funding for the department's overall [Innovative School Model program](#).

Key Findings

- The 24 school districts and associated business partnerships that received funding reported continued strides in providing early postsecondary opportunities (EPSOs), work-based learning (WBL), and industry certifications.
- Over 32,000 students across the state were impacted by this grant in its two-year period.
- Grant funds directly supported the promotion and expansion of EPSOs, with over 3,900 students enrolling in 150+ courses for college credit.
- Students earned over 6,300 industry credentials.
- Over 6,600 students participated in WBL opportunities at approximately 150+ organizations between 2021-23. Additionally, school districts established and expanded partnerships in their regions, reporting over 100 partnerships that support reimagining the high school experience for students.

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Introduction

In Spring 2021, the Tennessee Department of Education opened a competitive application process for the Innovative High School Models (IHSM) grant with the goal of fostering local community partnerships that boost student readiness and prepare high schoolers for jobs and careers in their local communities. The IHSM grant provided a vision for high schools of the future, by reimagining the classroom to meet the demands of the 21st century, and “breaking the mold” to best engage, educate, and prepare our state’s youth for success.

The goal of the IHSM grant was to support new approaches to increase student postsecondary attainment through groundbreaking partnerships that elevate equity for all students in alignment with the department’s Best for All strategic plan. The IHSM grant objectives sought to empower Tennessee districts to reimagine the use of time, space, partnerships, and modes of learning, and to accelerate and increase student attainment of high-quality, in-demand, and postsecondary credentials, including:

- high-quality college and career advisement throughout K-12;
- rigorous early postsecondary opportunities (EPSOs) and work-based learning (WBL) opportunities throughout high school; and
- seamless vertical alignment between K-12, postsecondary programs, and career opportunities because of effective partnerships among school districts, higher education institutions, employers, and community organizations.

In 2021, a total of 75 districts submitted an intent to apply, with 61 districts submitting completed applications that requested over \$79.5M. Twenty-one proposals were awarded across the state, ranging from \$750,000 to \$2M, totaling \$30M in grant funding and impacting 24 school districts.

Innovative High School Models sought to reimagine time, space, partnerships, and modes of learning for the high school experience.

LEA	Region	Project Title
Alcoa City Schools	East Tennessee	"Funneling" Students into Successful Healthcare Careers
Bradley County Schools	Southeast	Regional PIE Innovation Center
Bristol City Schools	First Tennessee	Viking Career Center
Carter County Schools	First Tennessee	NSCC Middle College and Workforce Development Center
Cheatham County Schools	Upper Cumberland	Expanding In-Demand Programs of Study
Collierville Schools	Southwest	Reducing Barriers to Pivotal Career Pathways
Cumberland County Schools	Mid-Cumberland	Creating Career Pathways in Flight
Gibson, Milan, and Trenton Special School Districts	Northwest	Pathways to Success Project
Hamblen County and Cocke County Schools	First Tennessee	Turning Pathways into Highways
Hamilton County Schools	Southeast	Micro-College and Micro-Credentialing Programs
Hardeman County Schools	Southwest	Future Ready for All Project
Jackson Madison County Schools	Southwest	Innovation Impact Institutes
Macon County Schools	Upper Cumberland	TAPping Beyond Boundaries
Clarksville-Montgomery County Schools	Mid Cumberland	Hybrid Early Technical College
Oak Ridge Schools	East Tennessee	Oak Ridge i-School
Rutherford County Schools	Mid Cumberland	Empowering Today's Students to Grasp Tomorrow's Opportunities
Sequatchie County Schools	Southeast	Reimagine Sequatchie County High School by Building UP STEAM
Memphis-Shelby County Schools	Southwest	AgriSTEM High School
Tullahoma City Schools	South Central	Creating Tullahoma Virtual Academy
Wayne County Schools	South Central	Bevis Educational Forestry Training Center
Wilson County Schools	Upper Cumberland	Wilson County Early College

Results

The 21 proposals that received the IHSM grant reported strides in growing partnerships and providing EPSOs, WBL, and industry certifications for students over two years of grant implementation. Over 32,000 students across the state were impacted by this grant during the two years of implementation.

IHSM grant funds directly supported the promotion and expansion of statewide EPSOs. In the grant's first year, 1,720 students enrolled in at least one early postsecondary opportunity. By 2023, over 3,900 students were enrolled in 150+ courses for college credit. The grant also made it possible for students to earn over 6,600 industry credentials. Among all 24 districts, WBL participation doubled with almost 5,000 students working at approximately 150+ organizations. Additionally, school districts established and expanded partnerships in their regions, reporting over 100 partnerships that supported reimagining the high school experience.

The IHSM grant would serve as the foundation for Tennessee's historic \$500 million investment in the Innovative School Model Initiative

Highlights: West Tennessee

Memphis-Shelby County Schools (MSCS): AgriSTEM High School

The goal for Memphis-Shelby County School's IHSM project was to transform Bolton High School into a prominent AgriSTEM high school where time, space, partnerships, and modes of learning have been reimagined to put students on a pathway to success. Moving into its second year, MSCS has prioritized increasing their focus on manufacturing to accommodate the opening of Blue Oval City in Haywood County, TN.

MSCS has also focused on increasing industry credentials, dual enrollment courses, and supervised agricultural and WBL experiences for students. Over the past year, the project has also included increasing AgriSTEM networking opportunities for students, teachers, and industry partners. This has expanded student exposure to college, career, and entrepreneurship pathways in AgriSTEM, and improved accessibility of AgriSTEM experiential learning.

Since launching the IHSM project, Bolton High School saw an enrollment increase of 24 percent, which necessitated the hiring of one assistant principal, vice principal, and a professional learning community (PLC) coach in addition to the previous full-time principal. The grant has enabled teachers to visit Rosemark Fair and receive professional development from the U.S. Department of Agriculture (USDA) and the University of Tennessee. It also furthered collaboration among many school partners, including the Bolton Trust, the AgriCenter, Ford, University of Tennessee, the Tennessee Valley Authority, FedEx, and other organizations across the state. MSCS heavily relied on the Chicago Agriculture School to advise on their

course coding structure as well as local education institutions [i.e., University of Memphis and Tennessee College of Applied Technology (TCAT) Bartlett] to bring student awareness to mechatronics moving forward.

Jackson Madison County Schools (JMCSS): Innovation Impact Institutes

The IHSM grant enabled the school district to reimagine Career & Technical Education (CTE) classes into various distinct Innovative Impact Institutes. Some institutes are school-specific while others span the district. Over the past year, JMCSS has identified specific traits that make Impact Institutes different from typical CTE classrooms.

Additionally, the IHSM grant also helped develop the Department of Innovation at the district level, which was a natural evolution out of grant programming and support. This department has been a powerful model for the district and one that other districts can follow. JMCSS has solicited very strong business, industry, and educational partnerships that have supported students as they blend their academic and workforce learning.

Overall, JMCSS has seen more teachers show interest in participating in Impact Institutes, students taking greater ownership over their work, and an increase in opportunities for local workforces as a result of this grant.

Gibson, Trenton, Milan Special School District (SSD) Consortium: Pathways to Success Project

The IHSM project is a consortium between Gibson, Trenton, and Milan SSDs. All three districts utilize career and work support coaches to provide students with flexible scheduling and transportation to and from their workplace. In the 2022-23 school year, 207 students worked at 86 different locations. With flexible scheduling, students have a wide range of availability to work during the school day. The career readiness and workplace readiness courses facilitated at all schools have a strong focus on soft skills, including employer communication and career exploration.

The grant has built strong relationships with industry partners, with increasing interest in the program and hiring students – currently, the number of jobs outnumbers the students available to work in them. Students are placed in jobs based on their YouScience results and alignment to either a CTE program of study or a field they are interested in pursuing after high school.

Additionally, the grant purchased vans to transport students back and forth between school, work, and sometimes home, which has been a huge benefit for students. Students are earning anywhere from \$8-\$18/hour and up to \$500-\$600/week.

Highlights: Middle Tennessee

Clarksville Montgomery County Schools: Hybrid Early Technical College

The IHSM grant at Clarksville-Montgomery County High School created a hybrid early technical college as the high school is located on the campus of a local Tennessee College of Applied Technology (TCAT). High school juniors and seniors can participate in one of five programs of study that are offered, including: diesel power, HVAC, farming tech, pre-practical nursing, and pharmacy tech. Students attend classes for a half day and start working much sooner than they would be able to in a typical high school setting.

Juniors work with a success coach to begin job shadowing aligned to academic standards. The success coach also supports students as they adjust to blended learning and the transition students experience as they spend half their day in college courses and the other half in work field placements.

Macon County Schools: TAPping Beyond Boundaries

Macon County Schools used IHSM funds to create a virtual Teacher Apprenticeship Program (TAP) program at one of the high schools in their district. Previously, students wanted to enroll in TAP courses, but the district was unable to afford a teacher.

IHSM enabled Macon County Schools to offer virtual instruction, as well as expand the project to two other neighboring counties. The TAP program offers local dual credit with Tennessee Tech and industry certifications to students, including Occupational Safety and Health Administration (OSHA) 10 and cardiopulmonary resuscitation (CPR). Additionally, a mobile, electric bus will be available in future years for students to travel to K-5 schools within their district for tutoring and classroom lessons.

Highlights: East Tennessee

Bradley County Schools: Regional PIE Innovation Center

Bradley County Schools' IHSM grant supported the creation of the Partnerships in Industry and Education (PIE) Innovation Center, which offers students an innovative school experience that utilizes collaboration between business, industry, and nonprofit organizations under one roof to enhance career pathways, provide experiential learning in science, technology, engineering, and math (STEM), expand WBL, and promote design thinking. The building contains the secondary, postsecondary, and business and industry partners all in one place – a capstone experience in one building.

The PIE Center initially included three different areas: a commons (where events have been hosted that have provided dual enrollment opportunities for students); a compass space where dual enrollment math and English courses are taught; and a traditional classroom space.

Through the various CTE and WBL courses and opportunities, students can currently receive their HVAC certificate, plumbing, and pre-apprenticeship certifications with Cleveland State Community College. The district hopes that both history and additional dual enrollment courses through Cleveland State Community College can be taught in the PIE Center in the upcoming years.

Additionally, the PIE Center is growing the mechatronics and machine technology programs of study. A nursing program has also been brought into the PIE Center, as the district has been approved for a fully licensed practical nurse (LPN) program that began this fall.

Carter County Schools: Northeast State Community College Middle College and Workforce Development Center

Carter County Schools partnered with Northeast State Community College and TCAT Elizabethton to create two different programs for students: a Middle College option with Northeast State Community College where high school juniors and seniors can complete an associate's degree, and a Technical College option with TCAT Elizabethton. TCAT Elizabethton students can join the welding program as second-semester juniors based on interest and skill level. Students are in the classroom between five and seven hours each day. Graduates of the program are entering the workforce with a starting wage between \$24-\$35 per hour, in addition to their TCAT diploma in welding and their American Welding Society (AWS) certification. Since its inception, nearly one hundred percent of students have finished the program and found employment, with instructor support from industry connections.

The IHSM grant will also support the purchase of a new facility to expand and maintain the welding program. The facility is more centrally located between all four high schools, which will increase access for all Carter County Schools students. The district is also looking to add more programs in its new space.

Hamilton County Schools: Micro-college and Micro-credentialing Programs

The IHSM grant supported two projects in expanding EPSOs to students: a micro-credentialing program, focused on creating and attaining micro-credentials for students on an app; and a micro-college program, focused on expanding student access to dual enrollment courses. Both programs were designed to eliminate historical barriers that have previously limited access to underrepresented students in EPSOs. The micro-credentialing program uses an eLab network and digital fabrication labs to create a list of credentials that students can work through within Hamilton County. There are current plans to have seven EPSO pathways offered via micro-credentials, starting as early as elementary school. Local industries including BlueCross BlueShield are also meeting with district leaders to further the project's reach and impact.

The second project, micro-college, focuses on increasing dual enrollment opportunities, particularly for underrepresented populations. The grant also allowed for the hiring of an EPSO Coordinator, who works as a liaison with Chattanooga State Community College to discuss various opportunities available for students in dual enrollment. This grant also led to the development and creation of an EPSO dashboard, which allows students and teachers to see every available EPSO offering as well as divide EPSOs by student subgroup.

The district is working closely with industry partners to assess their employment needs as well as listen to student preferences. Additional local dual credit, statewide dual credit, CTE, and industry certification courses will be available to students.

Oak Ridge Schools: Oak Ridge i-School

The IHSM grant supports an advanced manufacturing and STEM fabrication lab at Oak Ridge High School. The program partners with Roane State Community College to offer dual enrollment in mechatronics, and to mirror and align the programming and manufacturing facility used for WBL. During the four courses, students work closely with local industry partners to solve real-life problems, such as designing wheels that can turn in any direction and creating a mechanism that can have a dolly operate in both interior and exterior environments. The goal is for students to gain confidence to design and manufacture products using the technology available to them in class. Students come out of their courses with the knowledge to operate machinery in addition to the process of design thinking in application to any problem. Students learn Scrum, a project management system, working with teams, cooperation, and technical machine skills. In the third-level course, students will use artificial intelligence (AI) to drive a project and use the same concepts for a school-based enterprise in their fourth-level course. To date, Oak Ridge is establishing an agreement with UT- Knoxville to work with their Center for Industrial Services to provide automation and design services to companies.

Conclusion

The Innovative High School Models grant would later serve as initial funding for Tennessee’s overall Innovative School Model program. As part of the department’s ongoing commitment to bring Innovative School Models (ISMs) to every public middle and high school in the state, the department awarded over \$560 million across 137 public school districts and 45 public charter schools to invest in students and their postsecondary success.

Through a statewide application process, grant recipients received \$1 million per high school, \$500,000 per middle school, and \$200,000 per school serving less than 100 students. The goal of the ISM initiative is to encourage strong, strategic, and innovative partnerships between Tennessee public school districts, public charter schools, postsecondary education institutions, and local employers to prepare students with real-world, in-demand skills, credentials, and knowledge. The 21 districts across the state initially awarded funding in 2021 have made incredible strides in boosting student readiness through exemplary ISM programming.

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