

2021 Legislative Session Exceptional Item Request

CRITICAL NEED IN MANUFACTURING WORKFORCE DEVELOPMENT TRAINING 2022-23

REQUEST: \$5 million over 2020-21 funding levels; General Revenue

PROGRAM BACKGROUND

COVID-19 had a detrimental impact on Texas' manufacturing economy. While Texas was named the number one job creator in 2019 in the U.S. by adding 342,800 jobs, the grim reality is that the recent COVID-19 pandemic has resulted in 50,900 jobs being lost in March 2020 alone. For Texas to remain a globally competitive manufacturing leader in a post-digital economy and responsive in the midst of a global pandemic, both small and large employers across the state are being required to work in tandem with partners such as the Texas A&M Engineering Experiment Station (TEES) to transform the development and delivery of education and workforce strategies in ways that embrace a culture of continuous learning and empower fluid adoption of technology in an ever-changing world.



PROGRAM GOALS

TEES will provide key support toward securing the future of Texas manufacturing. We do this by aligning the program with the goals set forth by the Texas Higher Education Coordinating Board 60x30TX plan and by training 25-34-year-old Texans and displaced workers. TEES will create and deliver workforce development programs such as additive manufacturing, human-machine collaboration and cybersecurity to prepare Texas' critical manufacturing workforce currently being negatively impacted across four sustainability and competitive domains:

1. Increasing baby boomer retirements - baby boomers make up 36% of Texas workforce and will be retiring in large quantities during the next five years;
2. Shortage of qualified labor - 71% of Texas firms report having difficulty finding middle-skill employees in engineering, skilled trades and precision manufacturing, and with middle-skills jobs accounting for roughly half of the fastest growing occupations, the more training and education options Texans have to move into these positions, the more competitive the state's economy will be;
3. Changing skill sets – skills that include technology and computer skills, problem-solving and critical thinking needed for advanced manufacturing; and
4. Misconception about manufacturing among the public – the perception of manufacturing must be changed with a need for emphasis on technical education to reflect their status as high-tech professions with stable and well-paying jobs.



Texas A&M Engineering
Experiment Station

tees.tamu.edu

Norman Garza

Assistant Vice Chancellor for
Government Relations

512.543.7846

ngarza@tamu.edu

TEES TRAINING CAPABILITIES

For over 105 years, TEES has been executing the state agency mission of developing cutting-edge research in emerging fields and transferring knowledge through workforce training programs across Texas. TEES has an elite education and workforce development program that deploys training across multiple emerging fields to address vital industry needs.



51,200



professional education
participants over
the last 4 years

15,000

STUDENTS and

9,000

EDUCATORS

impacted yearly by TEES
PK-12 STEM Programs

350

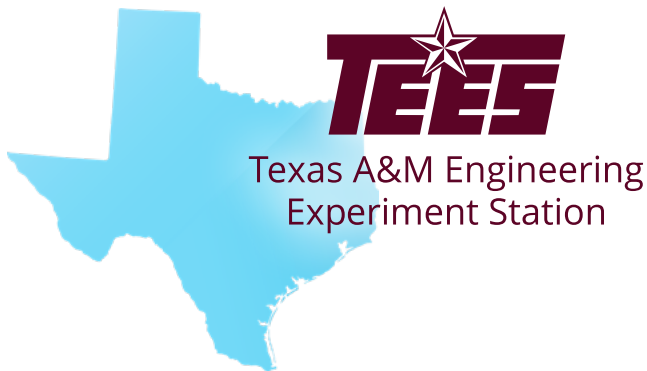
STUDENTS

admitted annually to
TEES Engineering
Academies in partnership
with 7 Community
Colleges and Industry

22



TEES regional divisions
across Texas and New Mexico



BENEFITS TO TEXAS

This program will address Texas' future talent-related opportunities and challenges by encouraging individuals to seek change rather than resist it. The program outcomes shown below employ a train-the-trainer model, allowing for a statewide impact through a significant multiplier effect. Completion of this program will result in an enhanced Texas workforce through the delivery of skilled workers necessary for Texas to maintain its critical manufacturing competitive and productivity edge.



**TEES SUBJECT
MATTER EXPERTS**
create a **UNIQUE
TRAIN-THE-TRAINER**
model



COMMUNITY COLLEGE
faculty complete a **TEES
CERTIFICATE PROGRAM**
and become **EMERGING
TECHNOLOGY TRAINING
PROFESSIONALS (ETTPs)**



**EMERGING TECHNOLOGY
CERTIFICATE** training
sessions offered in **LOCAL
COMMUNITIES** by **ETTPs**

2,500 Certificates Awarded by 2023