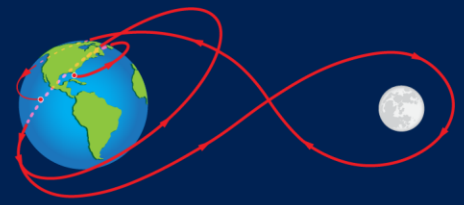
CONNECTICUT'S MISSION:
EMPOWER EVERY LEARNER'S JOURNEY



CONNECTICUT
Education

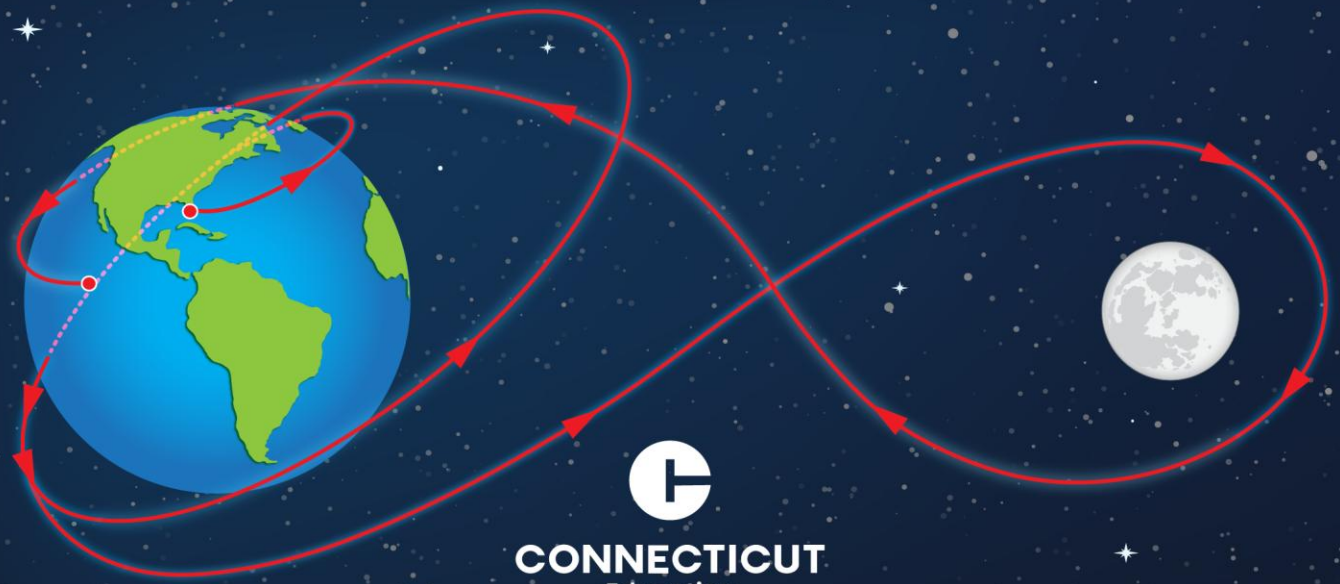
Keynote Address:
Jeremy Anderson
CEO National Math and Science Initiative

and

Amanda Jarrell Billot
Vice President of HR, Talent and Organizational Health at Pratt & Whitney/RTX.

CONNECTICUT'S MISSION:
EMPOWER EVERY LEARNER'S JOURNEY

SCHOOL YEAR 2026–27



CONNECTICUT
Education

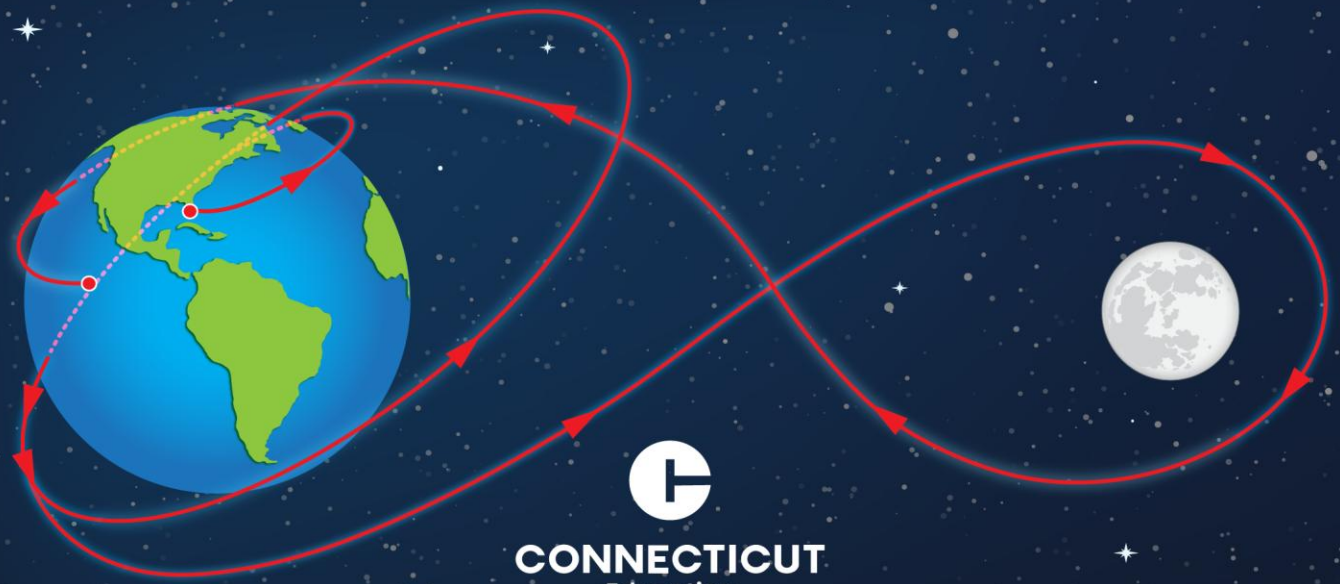
Inspired by the Artemis II mission


ARTEMIS
NASA
REID WISEMAN
VICTOR GLOVER
CHRISTINA H. KOCH
JEREMY HANSEN



CONNECTICUT'S MISSION:
EMPOWER EVERY LEARNER'S JOURNEY

SCHOOL YEAR 2026–27



CONNECTICUT
Education

Inspired by the Artemis II mission

NATIONAL
MATH + SCIENCE
INITIATIVE

Thank You!

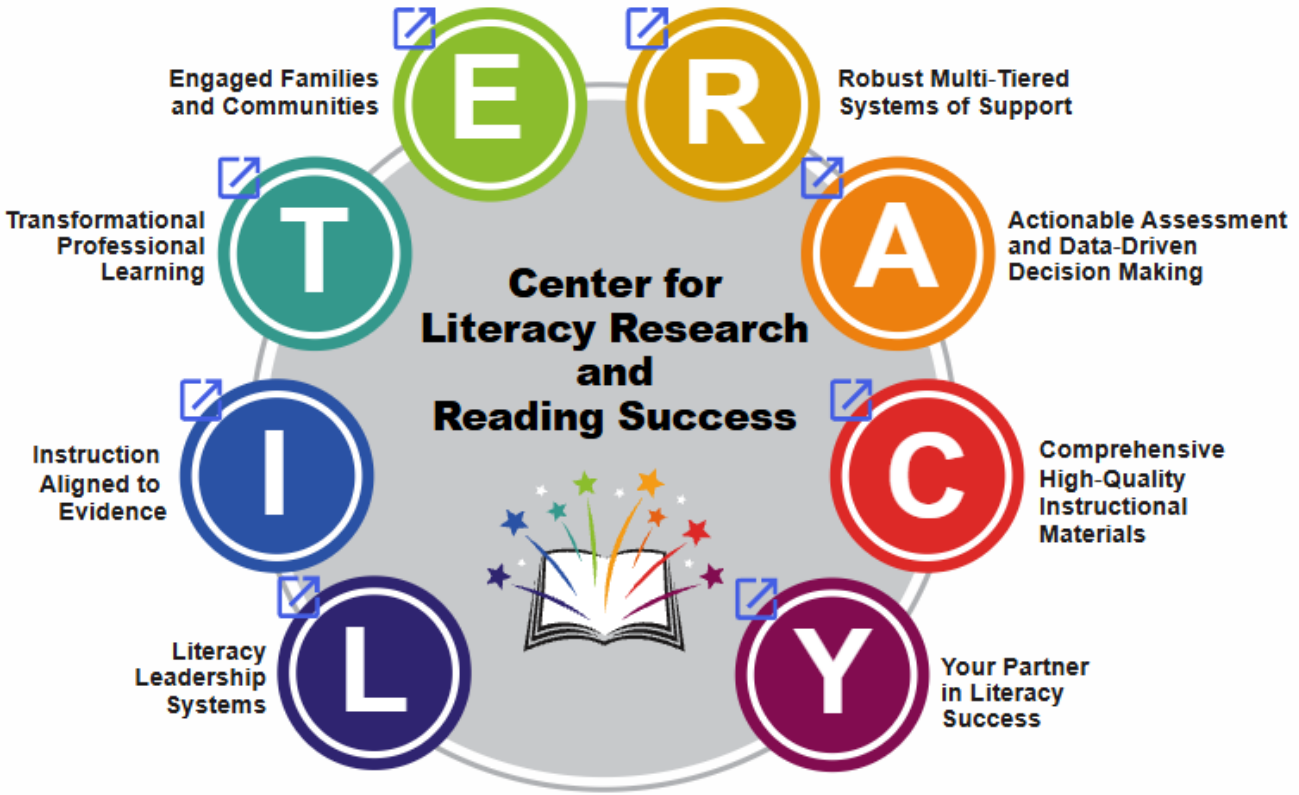


OUR MISSION

To advance STEM education ensuring all students, **especially those furthest from opportunity**, thrive and reach their highest potential as problem solvers and tackle the world's toughest challenges

Early Literacy Matters!

CT's Literacy System Components



Every Connecticut student has the right to read at or above grade level independently and proficiently by the end of third grade.

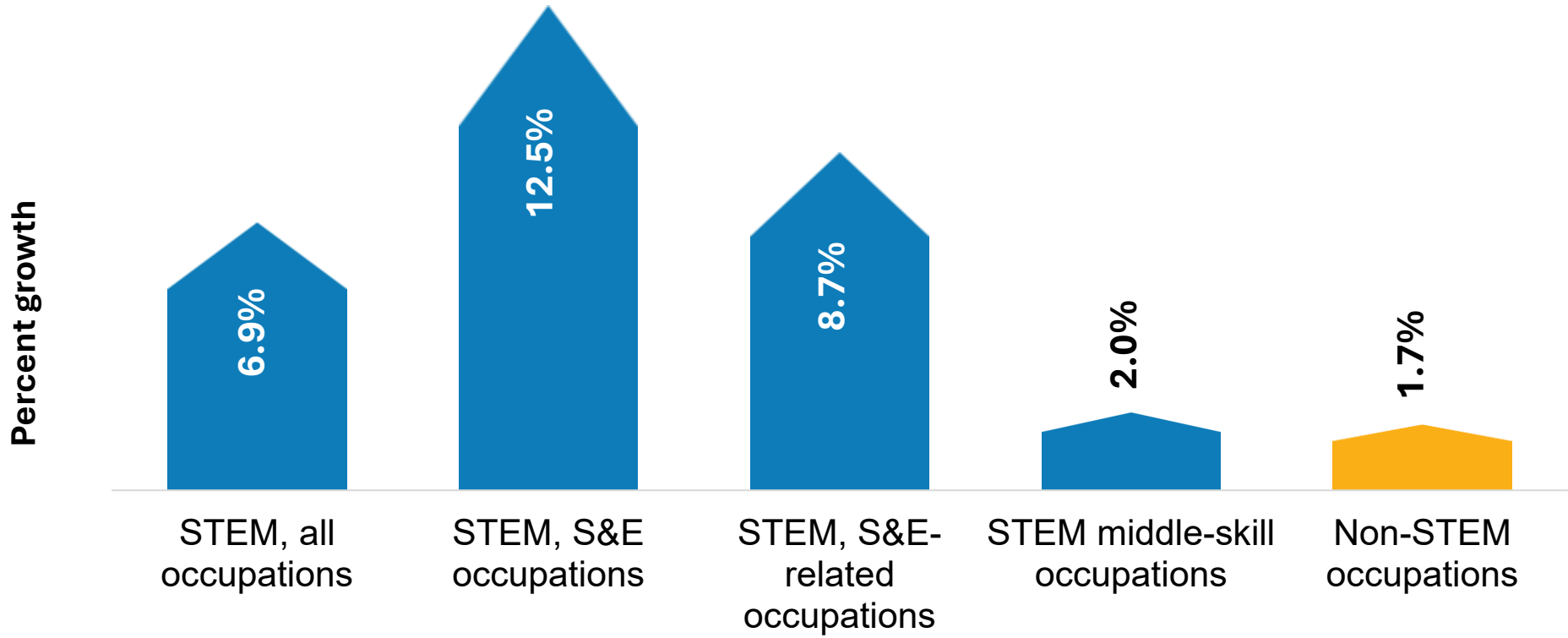
Equip Educators to Prepare Students With Essential Skills for Future STEM Jobs

Major Science Award Map

- Semi-Conductor Plant
- STEM Engine Initiatives
- Tech Hubs
- Electric Batteries
- Electric Vehicles
- Solar
- Nuclear



The STEM Workforce will grow 3.5 times faster than any other industry from 2023 - 2032



S&E = science and engineering. Source: National Science Foundation

STEM occupations continue to grow

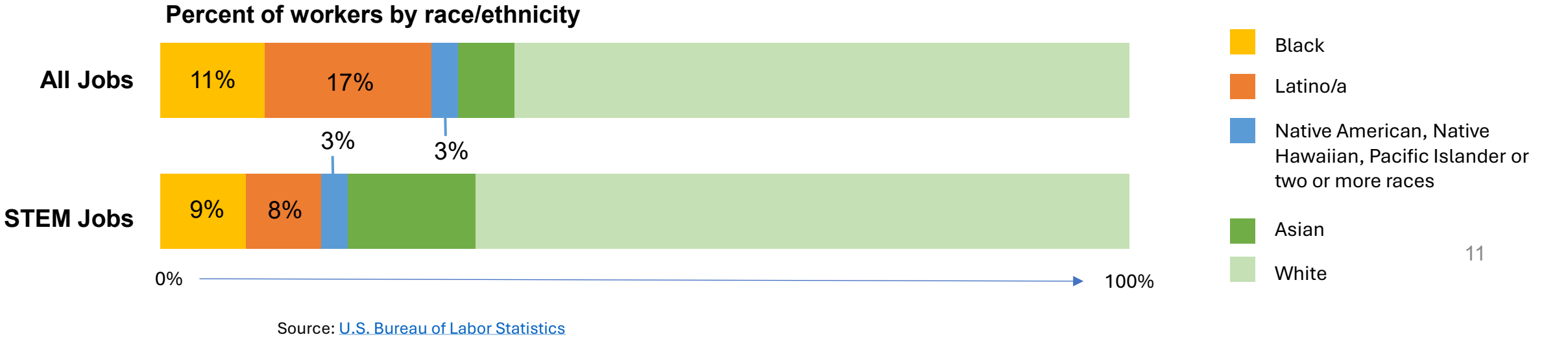
10.5%

Is the projected growth for **STEM occupations** from 2020 to 2030, faster than non-STEM occupation

2.2X

Is the expected **median annual wage increase** for STEM jobs - more than double compared to non-STEM occupations

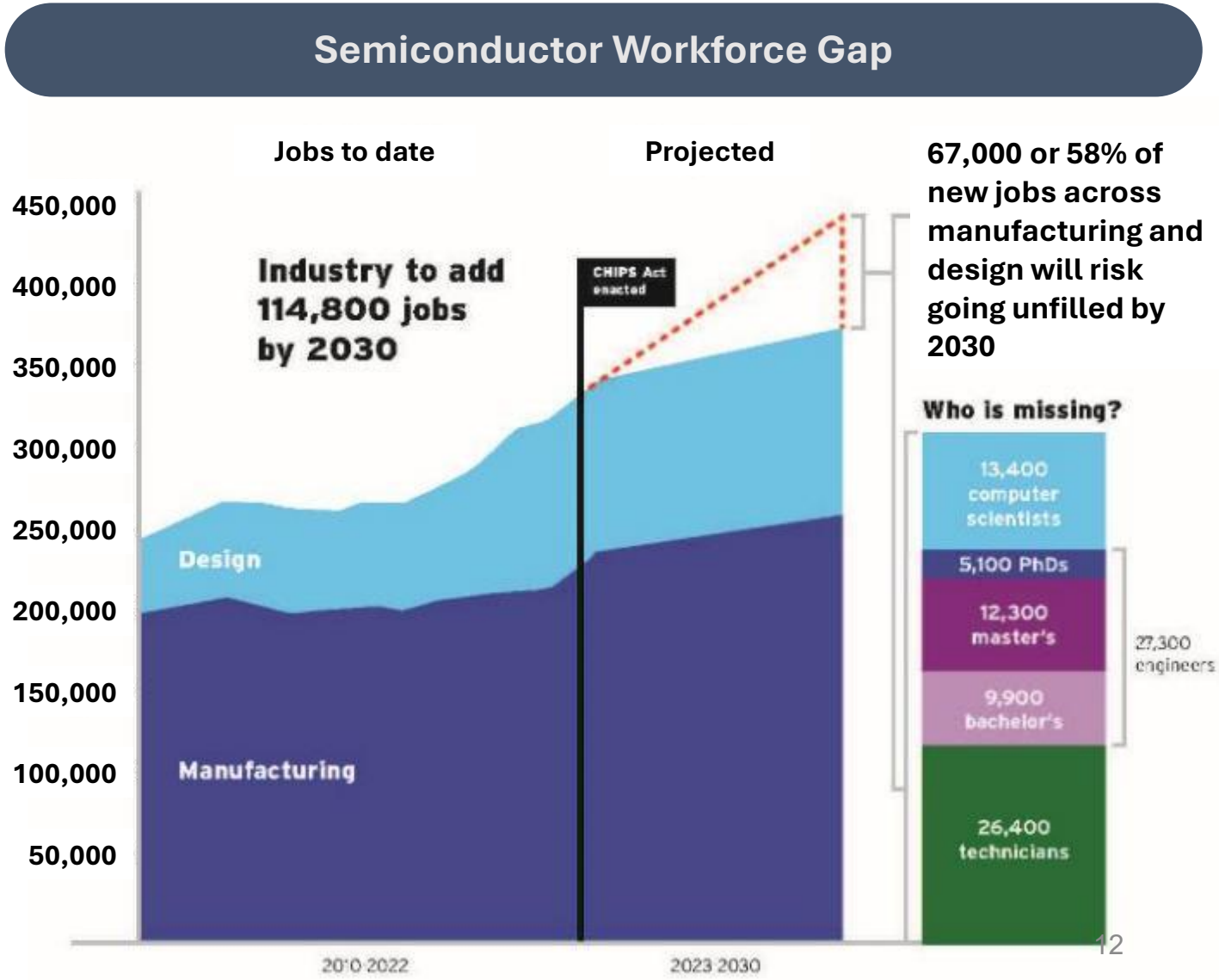
But, access is not yet equitable



Source: U.S. Bureau of Labor Statistics

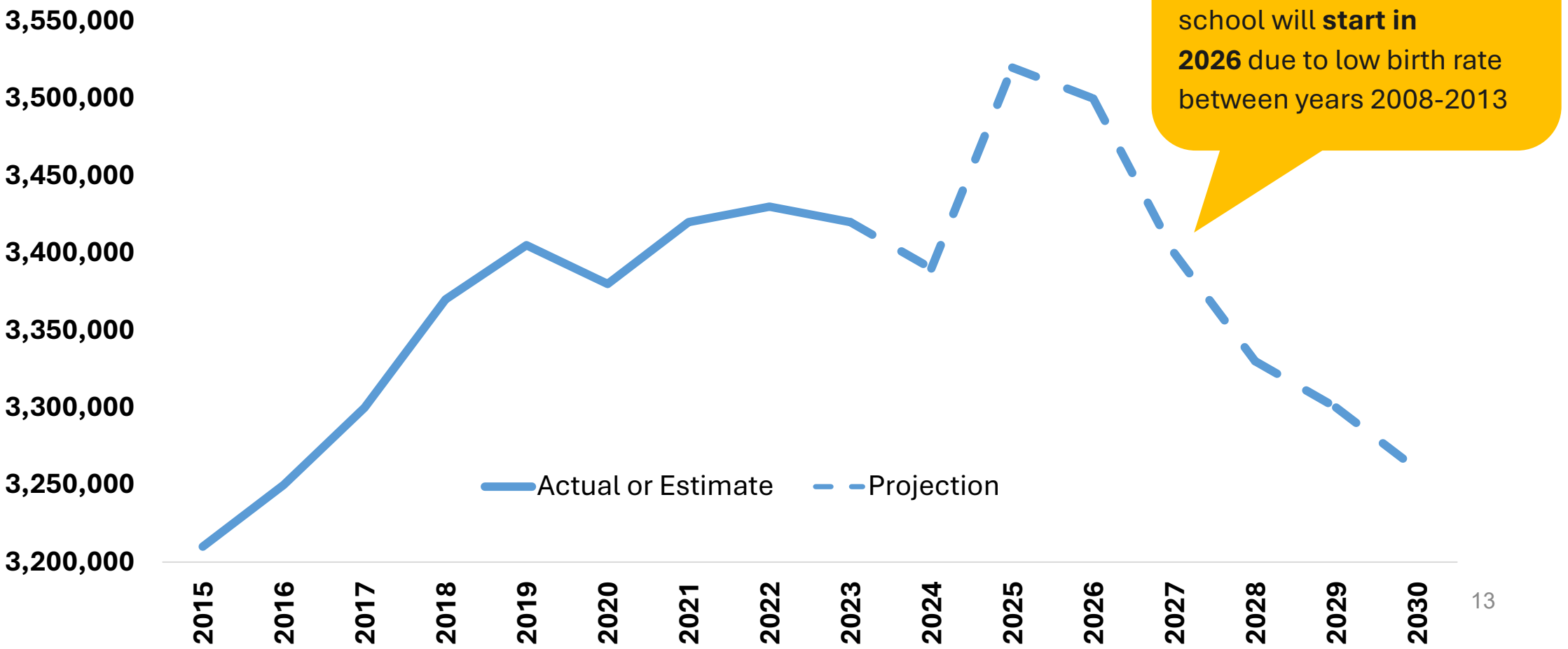
Expand the Talent Pipeline to Meet the STEM Workforce Demand

Nationally, there will be a gap of 1.4 million STEM workers across the US economy by 2030



Source: Semiconductor Industry Association

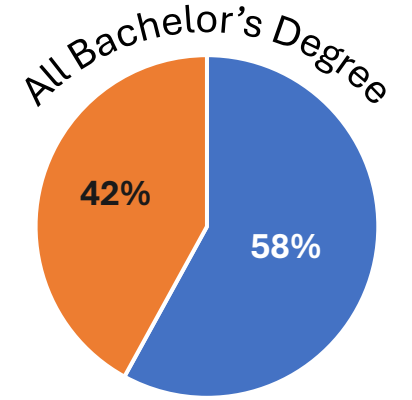
We'll Soon Face a Low Number of High School Graduates

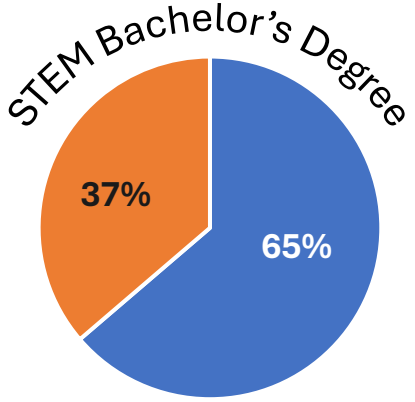


Decline in the number of students graduating high school will **start in 2026** due to low birth rate between years 2008-2013

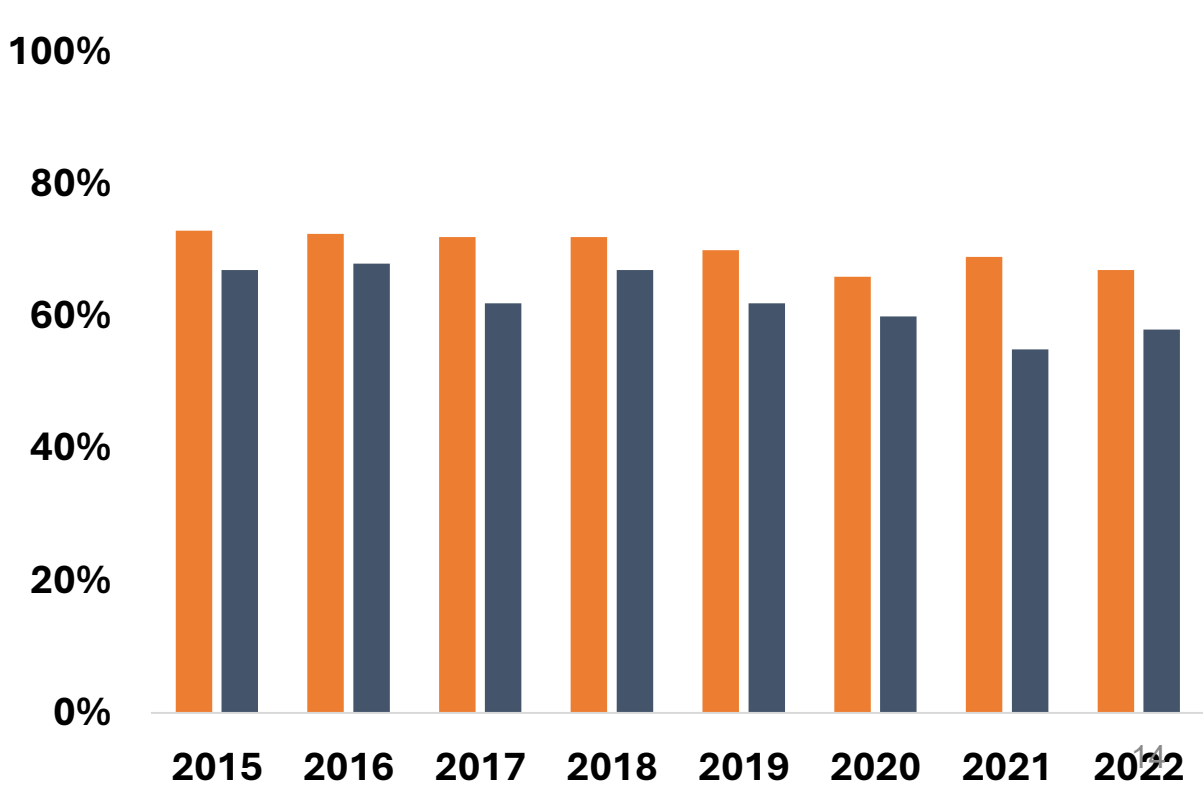
Degrees Earned are Decreasing Each Year

Bachelor Degrees Earned by Gender

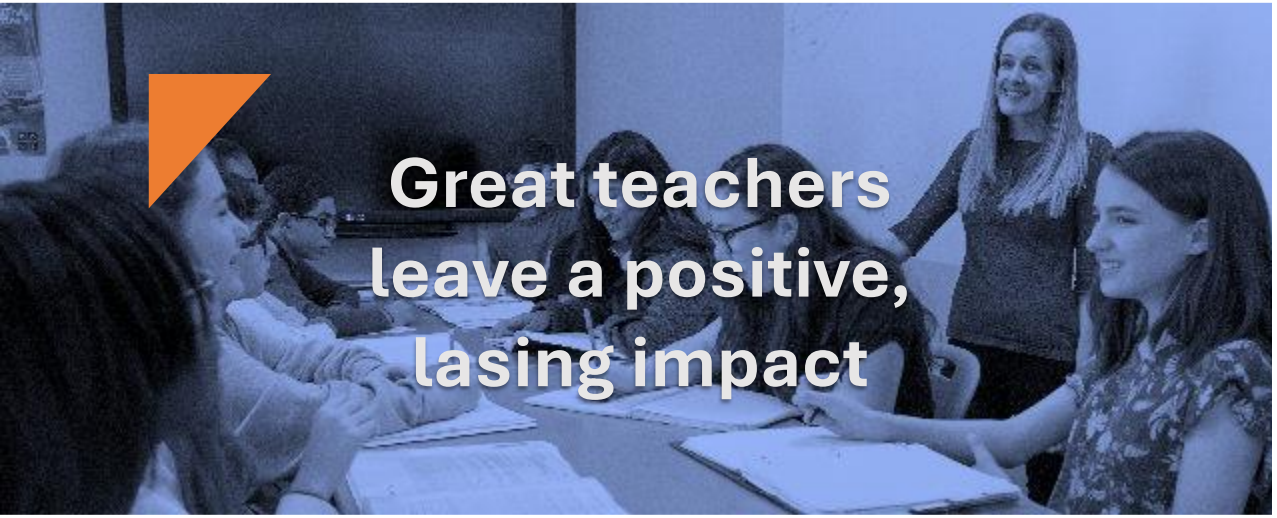




Percentage of High School Graduates Enrolled in a 2-year or 4-year College by Gender



Math and STEM Educator Professional Development is Crucial for Impactful Learning





Research indicates that teachers have an impact that is **2-3x more** than other factors that help K-12 students succeed

Despite an average spend of $18K per teacher per year, only about **40% of teachers** report receiving effective professional development

Source: RAND, TNTP The Mirage

Why STEM Identity Matters

and How Starting **STEM Professional Development in Middle School** is Key

All Students Can Develop Their STEM Identity



About 75% of Gen Z are interested in STEM fields, but **only 29% aspire to pursue** careers in STEM



The most dramatic decline in STEM interest happens when **female students transition to middle school**



Intentionally **preparing educators** through effective professional development helps students envision themselves in STEM

Source: Technology & Engineering Teacher, International Journal of Gender, Science, and Technology, K-12 Dive

It Begins With High-Quality Professional Development

Department of Defense DoDSTEM
Science · Technology · Engineering · Mathematics

11,000 Middle School Students

150 NMSI-trained Middle School Teachers

3 One-year Cohorts (2021-2024)



Student perceptions of succeeding in **STEM courses** increased



Algebraic reasoning and **problem-solving** skills significantly improved year over year



Consistent **academic improvements** across all demographics



Student interest in pursuing **STEM careers** soared

We Make A Profound Impact Beyond High School

NMSI college graduates earn STEM degrees at twice the national average

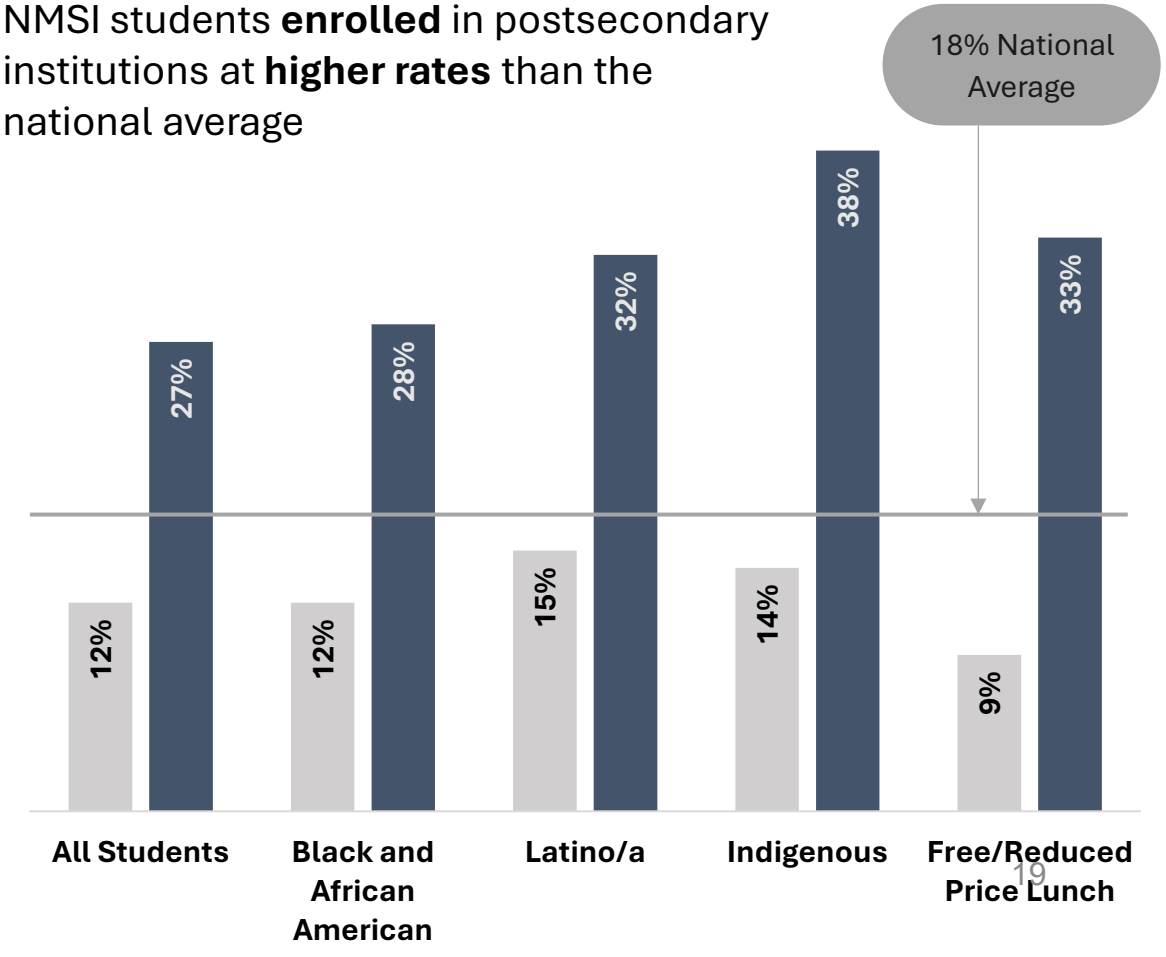
22%

of national students graduating college earned STEM degrees

47%

of NMSI students graduating college earned STEM degrees

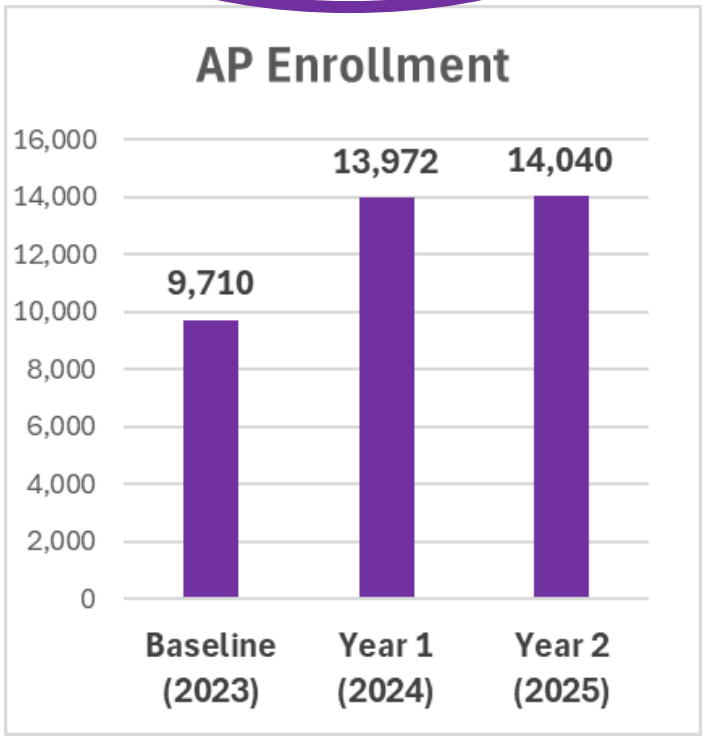
NMSI students **enrolled** in postsecondary institutions at **higher rates** than the national average



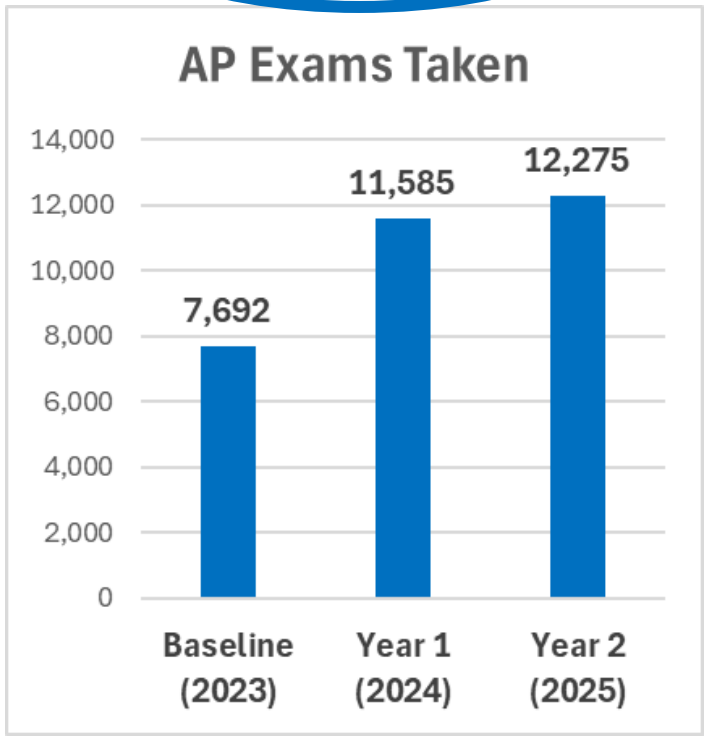
Building on Success at DallasISD

Outcomes from Current TI Foundation Grant

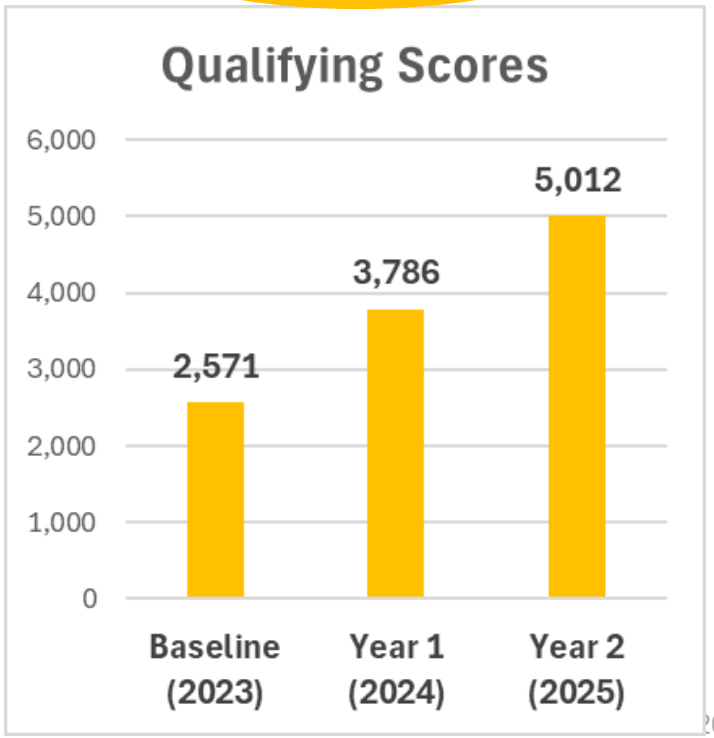
45% increase in # of students enrolled in AP



60% increase in # of AP exams taken



95% increase in # of AP qualifying scores earned



COLLINS AEROSPACE | PRATT & WHITNEY | RAYTHEON

Investing in Today's Education Fuels Tomorrow's Workforce



Amanda Jarrell Billiot:

Vice President of HR, Talent and Organizational Health at Pratt & Whitney/RTX


CONNECTICUT'S MISSION:
EMPOWER EVERY LEARNER'S JOURNEY
SCHOOL YEAR 2026–27
CONNECTICUT
Education
Inspired by the Artemis II mission

NATIONAL
MATH + SCIENCE
INITIATIVE

Thank You!

