



CSTEM

STATE OF STEM EDUCATION STAKEHOLDER REPORT

**A 24-YEAR JOURNEY MEASURING HOW
STUDENTS AND TEACHERS PERCEIVE STEM**

JUNE 5, 2026



ACKNOWLEDGMENTS

The 24th C-STEM Report would not be possible without the teachers and students who participate in the organizations PreK-20 programs; including teacher training, camps, competitions, showcases, and college/university internships. These individuals generously share their perceptions, attitudes, confidence levels, and experiences related to STEM teaching, learning, programming, participation, performance, and interest.

This report exists because of their voices, insights, and willingness to engage.

June 5, 2026

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EXECUTIVE SUMMARY

The 2025–2026 academic year underscores both the urgency and the opportunity facing STEM education. As artificial intelligence, infrastructure resilience, and water management become increasingly central to economic competitiveness and community well-being, students need earlier, more relevant, and more equitable exposure to STEM learning.

The need is clear. Texas serves **more than 5 million public school students**, and recent national assessment data show that academic recovery remains incomplete. In 2024, Texas eighth-graders scored **269 in mathematics**, below the national average of **272**; **44%** scored below the NAEP Basic level, while only **18%** scored at or above the Proficient level. Nationally, eighth-grade science performance also declined, with the average score **4 points lower than in 2019**, alongside a lower share of students at or above Proficient. At the same time, access to advanced STEM opportunities remains uneven: nationally, only **50% of public high schools offered computer science**, **48% offered calculus**, and **61% offered physics** in the 2021–22 Civil Rights Data Collection. These gaps are sharper in schools serving high proportions of Black and Latino students.

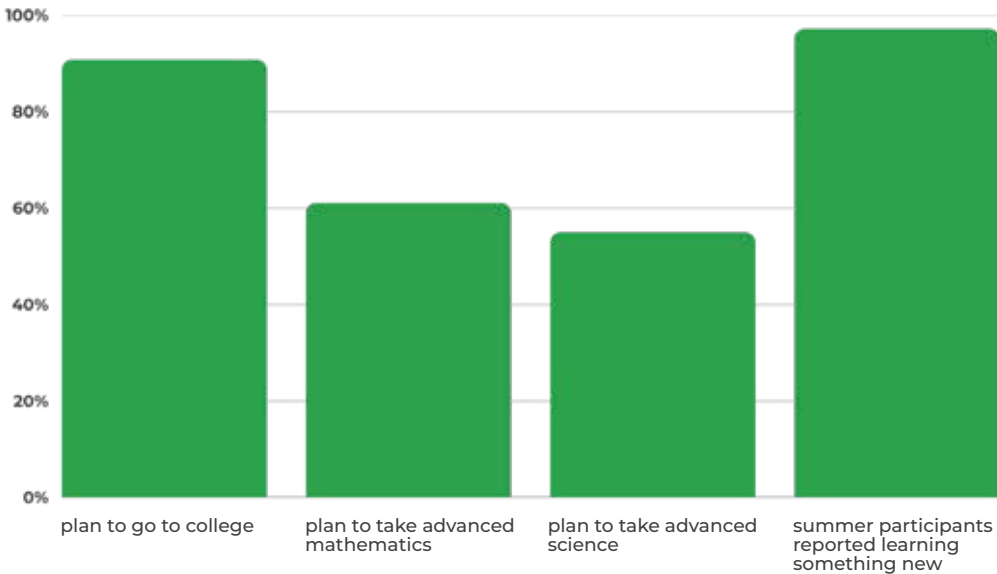
Against that backdrop, C-STEM's 2025–2026 results show why locally grounded, culturally responsive, project-based STEM programming matters. From the student survey data, **95.4%** of students said they plan to participate in future STEM programs, **90.8%** said they plan to go to college, **61.1%** said they plan to take advanced mathematics, and **55.0%** said they plan to take advanced science. Among elementary respondents alone, **85.1%** said they were interested in a STEM-related career. In the 2025 summer camp data, **90.4%** of participants reported enjoying the experience, and **97.2%** reported learning something new.

Teacher implementation data reinforce that impact. From the 2025–2026 ICTI training survey, **96.3%** of respondents rated themselves a 4 or 5 for confidence in implementing the curriculum, and most core training quality items were rated **4 or 5 by 88.9%–92.6%** of respondents.

Together, these findings suggest that C-STEM is helping to close a critical gap between the broad systemic need and the student-level possibility. When students are given real-world challenges, such as **AI and Water Management for a Better World**, they do not simply learn STEM content; they begin to see themselves as problem-solvers, innovators, and future contributors to their communities.

STUDENT ASPIRATIONS (C-STEM SURVEY DATA)

College intent, STEM participation, advanced coursework intent



“When students are given real-world challenges, they do not simply learn STEM— they begin to see themselves as innovators and problem-solvers.”

C-STEM’s model demonstrates that early exposure, culturally relevant programming, and real-world application can significantly shift student trajectories.

INTRODUCTION

This year's theme, **AI and Water Management for a Better World**, sits at the intersection of two pressing realities: the growing demand for AI literacy and the need for more resilient environmental infrastructure. For students in Houston and across Texas, water management is not abstract. It is tied to flooding, drainage, water quality, heat, community planning, and public health. AI adds another dimension: prediction, modeling, sensing, analysis, and smarter decision-making.

"AI adds another dimension: prediction, modeling, sensing, analysis, and smarter decision-making."

This theme also responds to a broader educational context. The Texas Education Agency frames STEM readiness not only in terms of technical knowledge but also in terms of "STEM fluency skills" such as communication, creativity, critical thinking, collaboration, resilience, adaptability, and innovation. Those skills are essential for a future workforce shaped by data, automation, sustainability, and interdisciplinary problem-solving.

C-STEM's 2025–2026 programming used this theme to connect classroom learning to real-world relevance. Students

THE STATE OF NEED: TEXAS AND NATIONAL STEM EDUCATION CONTEXT

The broader STEM education landscape continues to reveal both progress and structural barriers.

In Texas, public education operates at an enormous scale, serving **more than 5 million students** statewide. Yet academic performance data suggest that many students are still not on a strong trajectory for advanced STEM study. On the 2024 NAEP mathematics assessment, Texas eighth-graders scored below the national average, and less than one in five reached Proficient. Texas also trailed many other states and jurisdictions, with its average eighth-grade math score lower than **25 states/jurisdictions** and higher than only **8**.

National science results are similarly concerning. The 2024 NAEP science assessment found that eighth-grade science scores were lower than in 2019, with declines for middle- and lower-performing students and a smaller share of students reaching Proficient. That matters for the future STEM pipeline because science confidence, science achievement, and access to rigorous science experiences are tightly connected to later participation in engineering, computing, environmental science, and health fields.

Course access also remains inequitable. Federal civil rights data released in 2025 show that:

39% of public middle schools serving grades 7 or 8 did not offer Algebra I.

Of about 27,000 public high schools, only 76% offered chemistry, 67% offered advanced mathematics, 61% offered physics, 50% offered computer science, and 48% offered calculus.

Among schools with high Black and Latino enrollment, only 35% offered calculus and 42% offered computer science, compared with 54% and 54%, respectively, in schools with low Black and Latino enrollment.

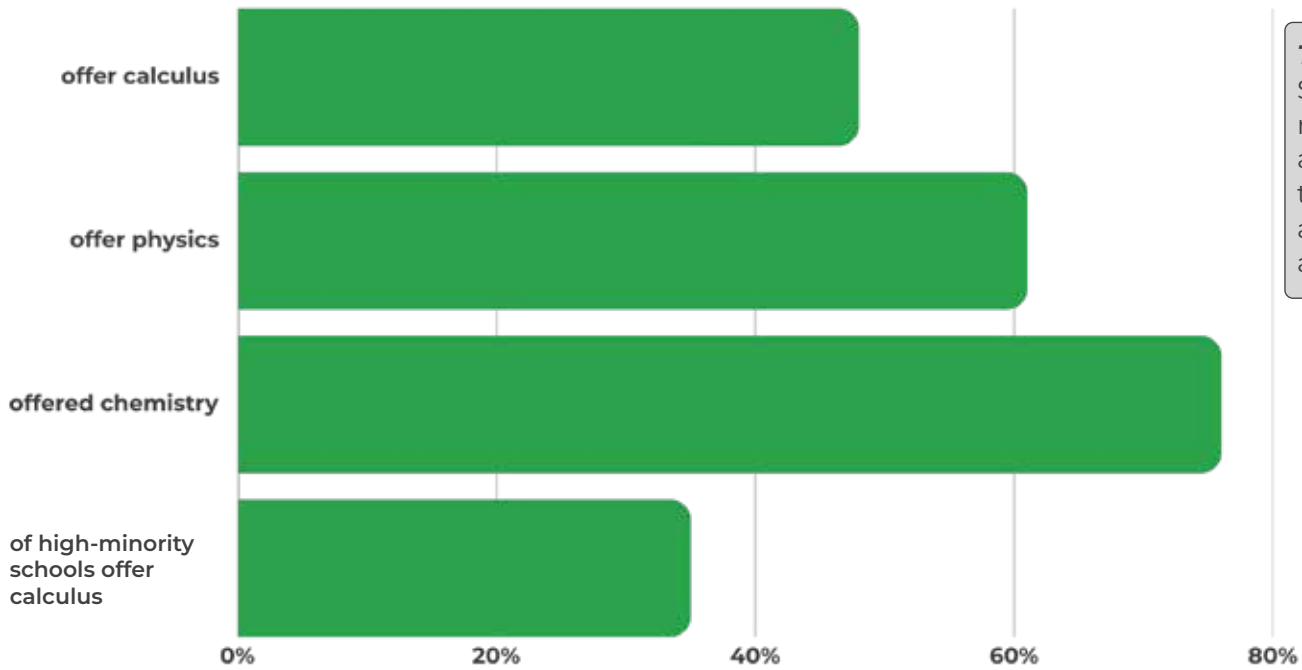
These figures clarify the challenge: it is not only about student motivation. It is also access, exposure, and opportunity structure.

At the same time, there are reasons for optimism. Nationally, NCES reports that in 2019, between 95% and 98% of high school graduates across locales earned at least some STEM credits, showing that broad participation is possible. The challenge is depth, rigor, continuity, and equitable access to advanced pathways.

Texas higher education enrollment also reached a new milestone in fall 2025, surpassing 1.6 million students enrolled in Texas colleges and universities. That record suggests a strong opportunity to strengthen the bridge from K–12 STEM learning to postsecondary persistence, especially for students from historically underrepresented communities.

STEM COURSE ACCESS (NATIONAL COMPARISON)

% schools offering CS, calculus, physics, chemistry



The Challenge:
STEM gaps are not only about achievement, they are about access, exposure, and opportunity.

THE OPPORTUNITY

- ▶ Texas serves **5+ million students**
- ▶ Higher education enrollment exceeds **1.6 million students**

This creates a critical opportunity to **strengthen the STEM pipeline** through early engagement and sustained programming.

LOCAL PERFORMANCE AND IMPACT: WHAT C-STEM DATA SHOW

While state and national indicators point to continuing need, C-STEM's 2025–2026 local data show what is possible when students are engaged early and consistently.

From the elementary and middle/high school student survey files, C-STEM calculated the following combined results across **131 student respondents**:

- **95.4%** said they will participate in future STEM programs
- **90.8%** said they plan to go to college
- **61.1%** said they plan to take advanced mathematics
- **55.0%** said they plan to take advanced science

Elementary student responses were especially promising. Among 87 elementary respondents:

- **97.7%** said they would participate in future STEM programs
- **85.1%** said they are interested in a STEM-related career
- **92.0%** said they plan to go to college
- **63.2%** said they plan to take advanced mathematics
- **54.0%** said they plan to take advanced science

Among 44 middle/high school respondents:

- **90.9%** said they would participate in future STEM programs
- **88.6%** said they plan to go to college
- **56.8%** said they plan to take advanced mathematics
- **56.8%** said they plan to take advanced science

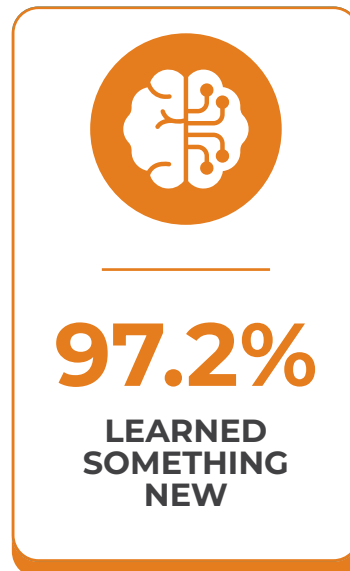
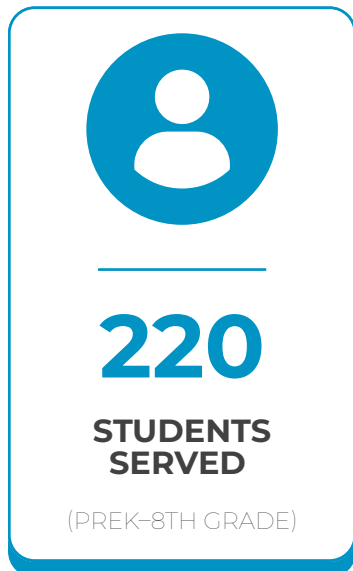
These are important signals. In a national environment where access to advanced STEM remains uneven, C-STEM students are demonstrating aspiration, persistence, and a willingness to continue.

Summer learning data strengthens that story. The 2025 C-STEM summer camp partnership program reached **220 students ages 5–13** across two sites, with **142 pre-survey** and **74 post-survey** responses. The report found that **90.4%** of camp respondents enjoyed the C-STEM activities and **97.2%** reported learning something new. It also noted that the program achieved over **45% female participation**, an important marker for broadening participation in STEM.

The same summer report also surfaced a strategic challenge: only **18.8%** of students expressed interest in science, **6.3%** in both math and science, while **59.4%** preferred math. That finding is useful because it suggests that C-STEM's future programming should continue to strengthen science identity, especially through applied, environmental, and design-centered experiences.



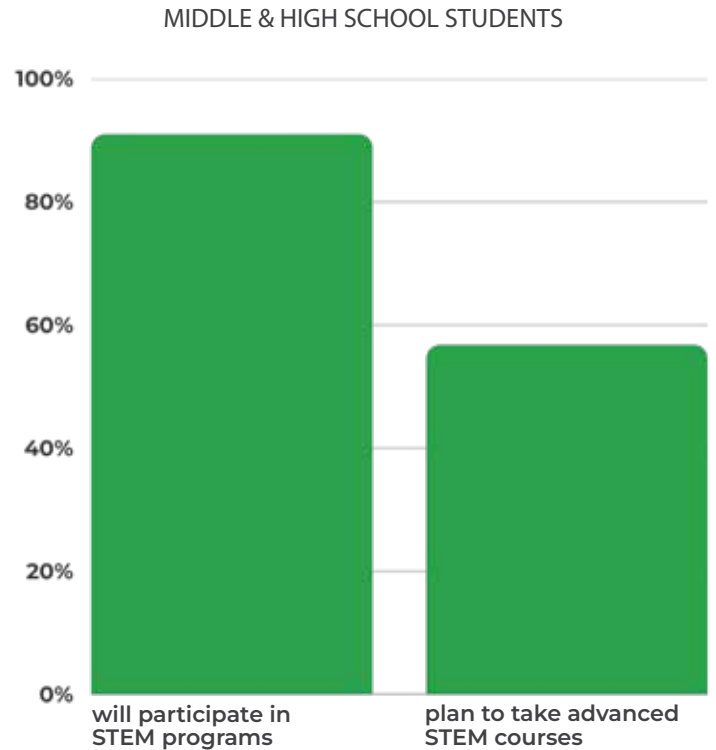
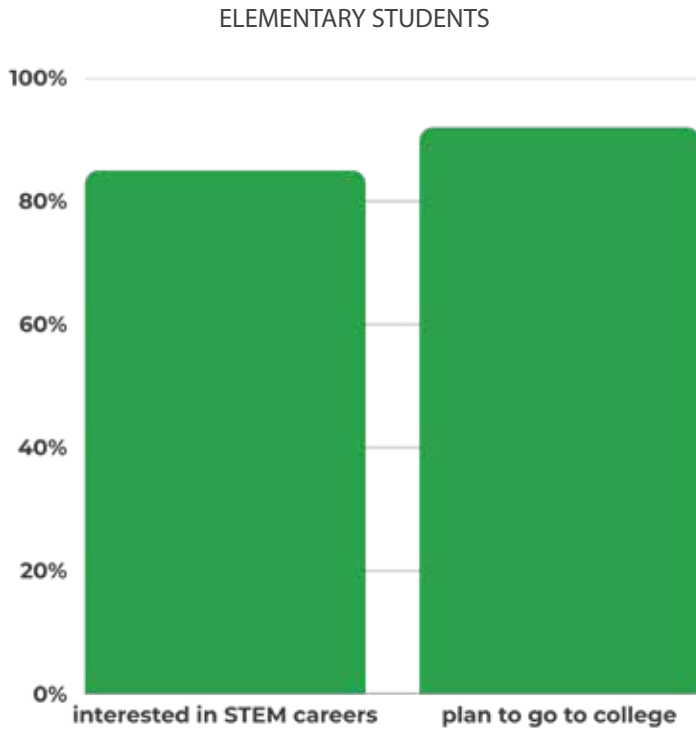
SUMMER CAMP ENGAGEMENT ENJOYMENT, LEARNING, PARTICIPATION



STUDENT VOICE & ENGAGEMENT TRENDS

(elementary vs middle/high)

Survey data reveal strong student motivation:



Critical Insight:

- Math interest is strong
- Science interest remains underdeveloped

Opportunity Area:

Increase applied science experiences tied to real-world challenges.

TEACHER READINESS AND IMPLEMENTATION CAPACITY

A comprehensive story of STEM education must include educators, not only students. Student engagement is strongest when teachers feel prepared, supported, and confident in implementing rigorous, hands-on experiences.

From the uploaded 2025–2026 ICTI training survey, I calculated the following across **27 respondents**:

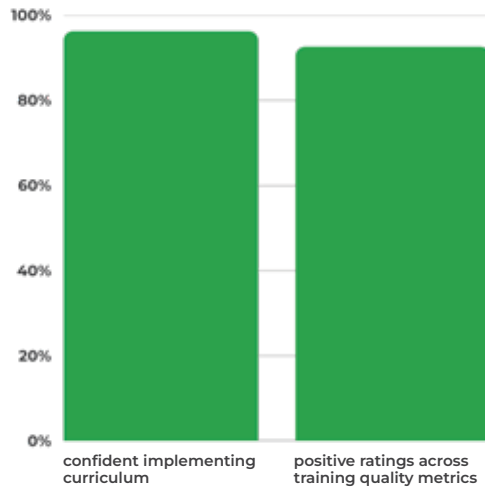
- **96.3%** rated their confidence in implementing the curriculum as a 4 or 5
- **92.6%** rated the training as clear
- **92.6%** said the training demonstrated preparation
- **92.6%** said the delivery methods supported engagement
- **92.6%** said the knowledge gained would positively affect STEM instructional performance
- **88.9%** said the training answered their questions
- **88.9%** said the content was appropriate and enhanced the training

These results indicate that C-STEM is not only engaging students but also building educator capacity. That matters because one-off enrichment experiences, while valuable, do not shift systems unless teacher confidence and implementation quality grow alongside student interest.

ICTI TRAINING OUTCOMES

Integrated C-STEM Training Institute

Teacher readiness is a key driver of student success.



Key Insight:

C-STEM is not only engaging students, it is building instructional capacity at scale.

“When teachers are confident, students are engaged.”



WHY AI AND WATER MANAGEMENT MATTER NOW

This year’s theme offers a strategic response to both local relevance and future workforce needs.

Water management is a community issue in Houston and across Texas. AI is an economic and technological issue at the national and global levels. Together, they create a powerful interdisciplinary frame that allows students to explore engineering, environmental science, data analysis, design, ethics, and computational thinking in one coherent learning experience.

This approach is well aligned with both current educational needs and future workforce expectations. If only half of U.S. high schools currently offer computer science, and even fewer offer calculus, then students need more opportunities to encounter the ideas and practices behind those fields through accessible, project-based experiences earlier in the pipeline.

C-STEM’s theme-based model helps fill that gap by giving students a reason to use STEM, not just study it.

AI AND WATER MANAGEMENT IN ACTION

- Sea Turtle Sculpture
- Mosaic Mural
- Debate
- Coder
- Photography
- Innovation
- Robotics
- Film



OUTCOME:

Students shifted from:

- Passive learners → **Active problem-solvers**
- Consumers → **Creators**

STEM WORKFORCE PIPELINE:

The future workforce requires:

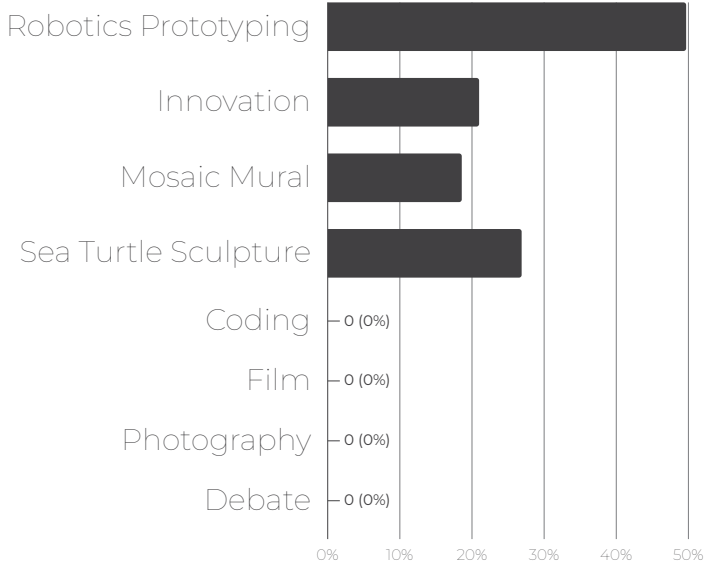
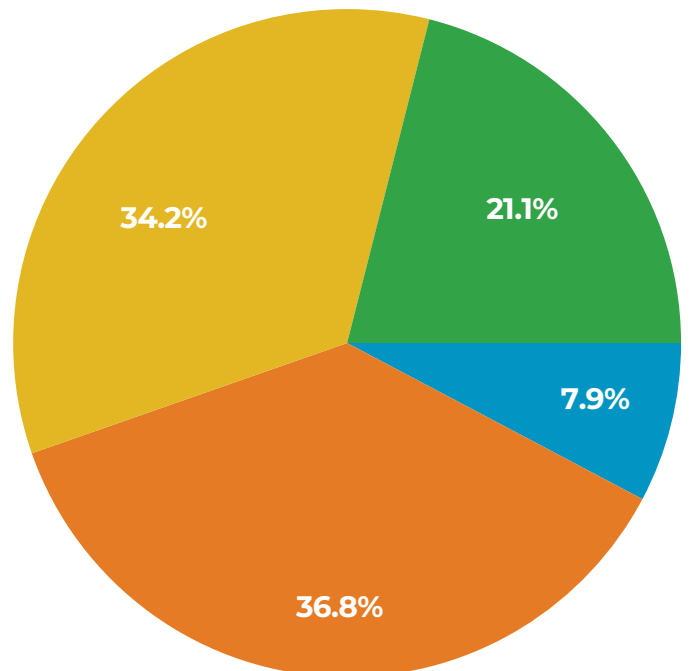
- AI literacy
- Environmental systems knowledge
- Engineering and data skills

Student Career Interests

- Engineering
- Computer Science
- Environmental Science
- Health Sciences

STEM CAREER INTEREST DISTRIBUTION

- Not at all Interested
- Not So Interested
- Interested
- Very Interested



Key Insight:

Early exposure drives long-term workforce participation.

ALIGNING EDUCATION, INNOVATION, & INFRASTRUCTURE FOR A BETTER WORLD

The findings in this report point to a clear conclusion: the future of STEM education cannot be addressed through isolated interventions. It requires **coordinated action across policy, systems, and community ecosystems** to ensure that all students, regardless of background, have access to meaningful, future-ready learning experiences.

At the national and state levels, the data reveal persistent structural challenges. Academic performance gaps remain, access to advanced coursework is uneven, and exposure to emerging fields like artificial intelligence is inconsistent. At the same time, industries tied to infrastructure, energy, sustainability, and technology are rapidly evolving, creating an urgent demand for a workforce equipped with interdisciplinary STEM skills.

C-STEM's local data demonstrate that when students are provided with **relevant, hands-on, and culturally responsive learning opportunities**, their engagement, confidence, and aspirations increase significantly. The implication for policymakers and system leaders is not simply to expand STEM broadly, but to **rethink how STEM is delivered, who it reaches, and how it connects to real-world challenges**.

FROM FRAGMENTATION TO ALIGNMENT

One of the most critical system-level challenges is fragmentation. STEM education often exists in silos, separated across disciplines, disconnected from workforce pathways, and inconsistently implemented across schools and districts.

The integration of **AI and Water Management** in this year's programming offers a model for overcoming this fragmentation. It demonstrates how interdisciplinary learning can:

- Connect science, technology, engineering, and mathematics in meaningful ways
- Bridge classroom instruction with real-world applications
- Foster systems thinking and problem-solving skills

Policy frameworks should move toward supporting **integrated STEM models** that align curriculum, assessment, and workforce relevance, rather than treating STEM as a collection of separate subjects.

REPOSITIONING OUT-OF-SCHOOL TIME AS ESSENTIAL INFRASTRUCTURE

The data also reinforce a critical insight: **out-of-school time (OST) programs are not supplemental, they are essential**.

Summer camps, afterschool programs, and community-based learning environments:

- Provide early exposure to STEM concepts
- Offer flexible, hands-on experiences that schools often cannot
- Reach students who may not otherwise have access to advanced opportunities

Given their demonstrated impact, OST programs should be recognized and funded as part of the broader education system. This includes:

- Dedicated funding streams at the state and federal levels
- Stronger alignment with school-day instruction
- Integration into long-term student success strategies





CLOSING THE ACCESS GAP TO ADVANCED STEM PATHWAYS

While student interest in STEM is high, access to advanced coursework remains a significant barrier. National data show that many schools, particularly those serving historically underserved populations, do not offer key courses such as calculus, physics, or computer science.

This creates a disconnect between **student aspiration and opportunity**.

To address this, system-level strategies should include:

- Expanding access to advanced STEM coursework across all districts
- Embedding foundational skills earlier in the K-12 pipeline
- Creating alternative pathways (e.g., project-based learning, dual credit, industry certifications) that prepare students for STEM careers

C-STEM's feeder pattern model offers a practical example of how to build continuity from early exposure through advanced learning.

INVESTING IN TEACHER CAPACITY AS A CORE LEVER

Teachers are the linchpin of effective STEM education. The strong results from C-STEM's ICTI training underscore that when educators are equipped with high-quality tools and professional development, they can deliver engaging and impactful instruction.

Policy and system leaders should prioritize:

- Ongoing, high-quality STEM professional development
- Training that integrates emerging fields such as AI and data science
- Support structures that allow teachers to implement project-based learning with fidelity

Investing in teacher capacity is not optional, it is foundational to scaling impact.

STRENGTHENING CROSS-SECTOR PARTNERSHIPS

No single institution can address the complexity of STEM education alone. Effective systems require **collaboration across education, industry, government, and community organizations**.

Partnerships play a critical role in:

- Providing real-world context and relevance
- Expanding access to resources and expertise
- Building direct connections to workforce pathways

The collaboration between C-STEM, school districts, community organizations, and industry partners demonstrates how cross-sector alignment can amplify impact. Policymakers should incentivize and support these partnerships as part of a broader STEM strategy.

ADVANCING DATA-DRIVEN DECISION MAKING

Finally, the ability to measure and track progress is essential for system improvement. C-STEM's longitudinal data, capturing student perceptions, engagement, and aspirations, provide valuable insights into what works.

At a system level, this approach should be expanded to include:

- Longitudinal tracking of student outcomes
- Integration of qualitative and quantitative data
- Use of data to inform policy, funding, and program design

Data should not only measure outcomes, it should **guide action and continuous improvement**.

A SYSTEMS-LEVEL OPPORTUNITY

The convergence of AI, environmental challenges, and workforce transformation presents a unique opportunity to reimagine STEM education.

The path forward requires:

- **Alignment** across systems
- **Investment** in proven models
- **Expansion** of access and opportunity
- **Integration** of real-world challenges into learning

C-STEM's work illustrates what is possible when these elements come together. The task ahead is to scale these insights into broader policy and system-level change, ensuring that all students are prepared not only to participate in the future, but to shape it.

STRATEGIC RECOMMENDATIONS

1. EXPAND AI INTEGRATION

Embed AI across STEM disciplines starting in elementary grades.

3. STRENGTHEN SCIENCE ENGAGEMENT

Increase applied, real-world science experiences.

5. SCALE PROVEN MODELS

Invest in programs with demonstrated impact like C-STEM.

2. INVEST IN OUT-OF-SCHOOL LEARNING

Summer and afterschool programs are critical equity drivers.

4. BUILD CROSS-SECTOR PARTNERSHIPS

Align education, industry, and community stakeholders.

What Works:

Early exposure + hands-on learning + cultural relevance = sustained STEM engagement

CONCLUSION: A CALL TO ACTION

The 2026 State of STEM Education story is not simply that students need more STEM. It is that they need **earlier access, stronger continuity, deeper relevance, and more equitable opportunity.**

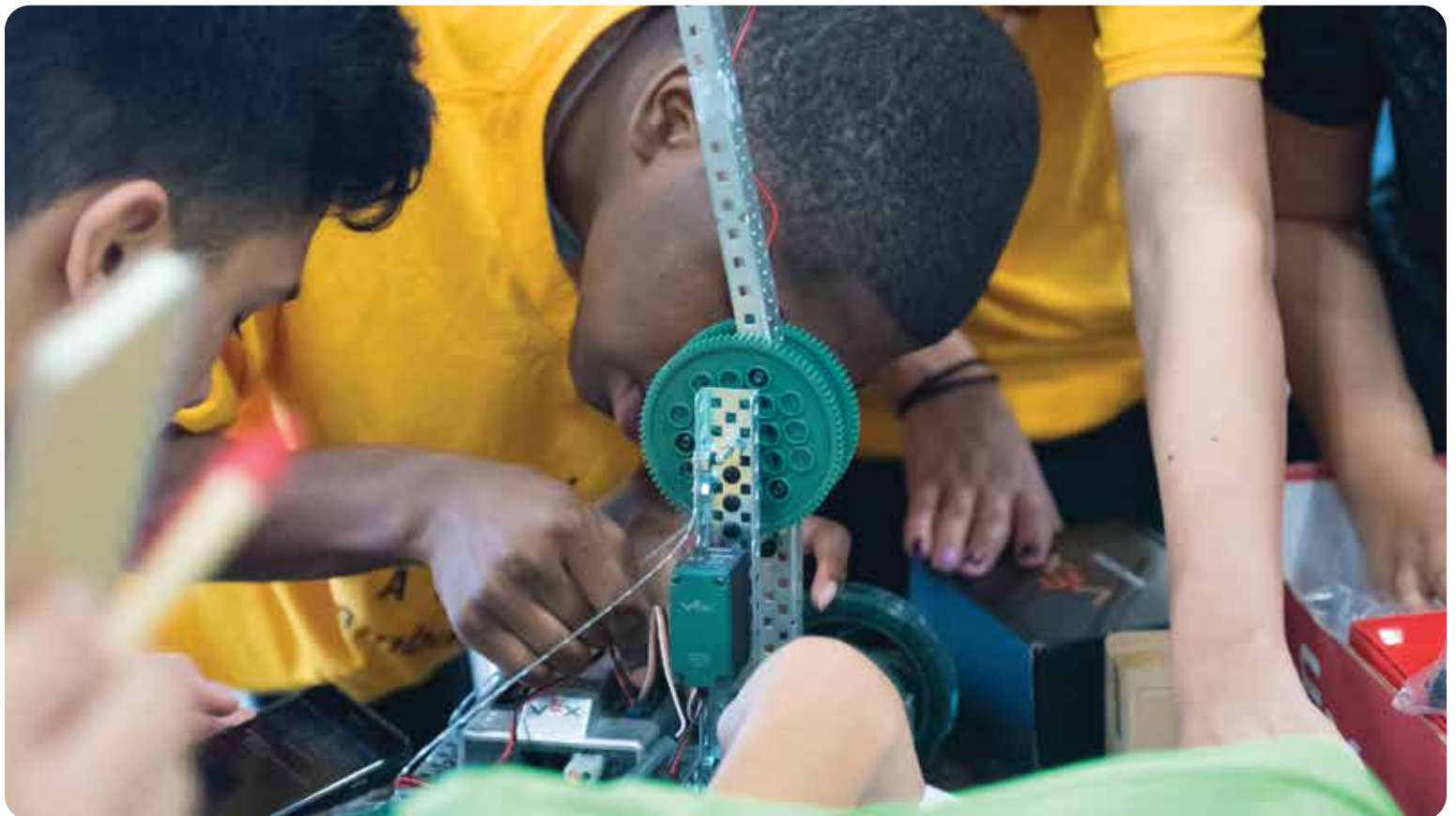
Texas and national data show why this work cannot wait. Academic recovery remains uneven. Access to advanced STEM courses is still limited in many schools. Science performance has declined nationally. Computer science, calculus, and physics remain unavailable to too many students, especially those in historically underserved communities.

Yet C-STEM's local data show a different possibility. Students are saying yes to future STEM participation. They are planning for college. They are willing to take advanced coursework. Summer programming is generating joy and learning. Teachers report strong confidence in implementation. These are not minor outcomes; they are the early indicators of a stronger STEM pipeline.

The next phase is to build on that momentum: deepen science engagement, scale AI-integrated learning, strengthen advanced-course pathways, and continue using local evidence to inform policy, philanthropy, and partnership.

That is how a more comprehensive **STEM** story is told, from need to performance to impact to next steps.

“When students are given the opportunity to solve real problems, they don’t just learn STEM, they become the future of STEM.” - **DR REAGAN FLOWERS**



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