AMERICA
SUCCEEDS

ADVANCING EQUITY IN STEM

A Guide for Policy and Advocacy Leaders

INTRODUCTION

In every industry and business sector, securing a skilled, diverse, ready-to-work-and-lead talent pipeline is vital for short-term success and long-term sustainability. That challenge cannot be solved without transforming our education system to truly prepare all students to succeed. America Succeeds' Equity in Education platform pursues five systemic changes to ensure every student has equitable access to quality education and businesses have diverse talent and leadership pipelines for generations to come. Our work is focused on five pillars:

- Advancing equity in STEM
- Strengthening equity through social-emotional learning
- Recruiting and retaining educators of color
- Expanding equity in course access and options
- Achieving funding equity

We gathered BIPOC leaders, advocacy partners, policy experts, and businesses to develop a set of promising policies and practices emerging from across the country to improve equitable outcomes for students. Tapping into our partnership ecosystem's wide breadth of expertise allowed us to amplify leading voices in the conversation, build consensus, and identify impactful solutions to accelerate change and address these challenges.

At America Succeeds, we believe business is a powerful voice in crafting solutions that will dramatically improve the future talent pipeline. Our goal is to ensure business leaders have a seat at the table and can thoughtfully contribute to systemic change alongside other key stakeholders. There are multiple levers businesses can engage in to improve equity and this guide will focus specifically on advancing equity in STEM.

WHAT YOU NEED TO KNOW
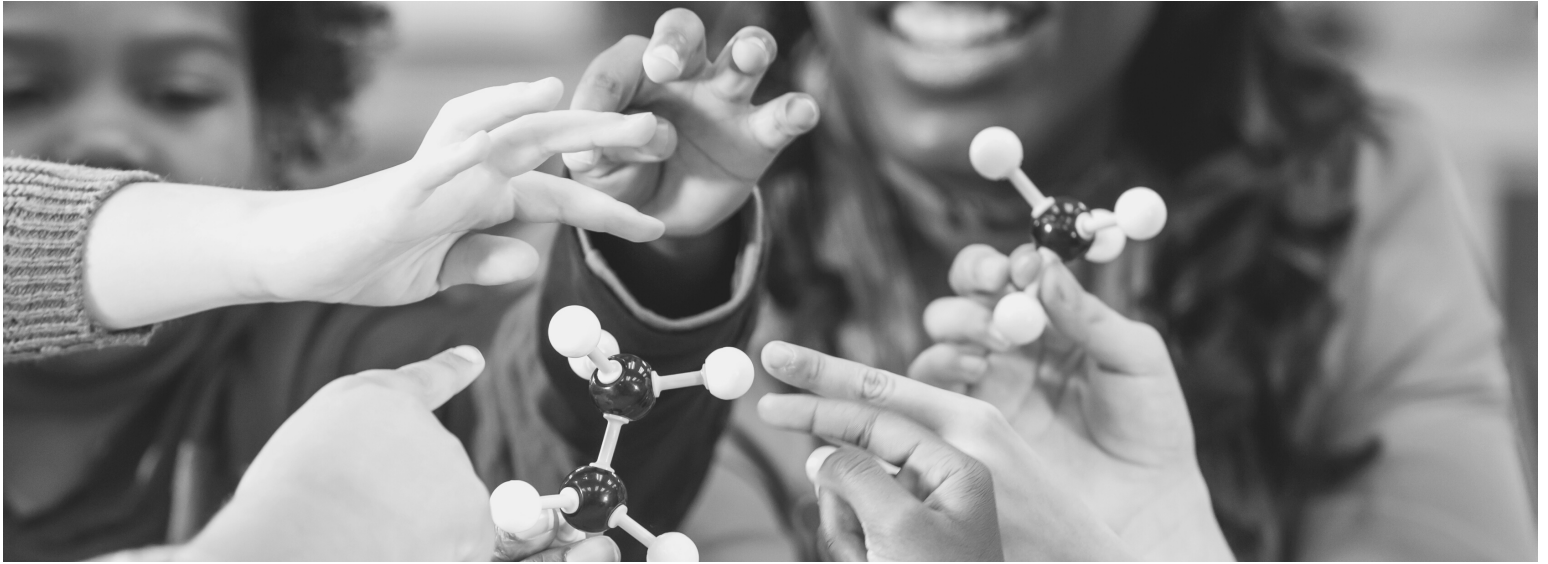
The Problem

Year over year, innovation pushes the boundaries of technology to advance, impacting every facet of the economy and what we need from the workforce. STEM jobs are expanding rapidly to meet the demand. Our education system, however, is not producing an adequate number of students who possess competencies necessary to fill these jobs. Furthermore, the talent supply is also not keeping up with changing demographics, leaving enormous potential for production, innovation, and leadership on the sidelines. The gap between white and non-white workers in STEM fields is striking and demands attention if the United States is going to stay competitive with the rest of the world.
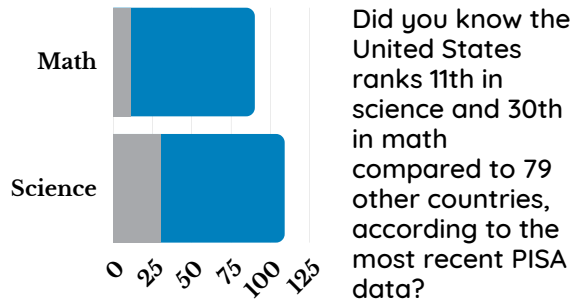
Addressing inequitable educational opportunities and resources in STEM subjects for underserved students is a key component to overcoming this growing and consequential issue. Maintaining a workforce that the economy relies on for innovation and progress is not sustainable when only a fraction of the population is prepared and encouraged to pursue STEM pathways. Our education system must do better.

"There's a huge gap in the opportunity and ability that students might have to engage in computer science in school."
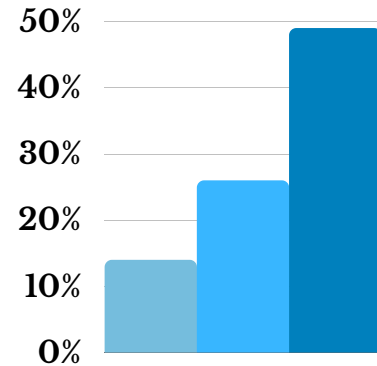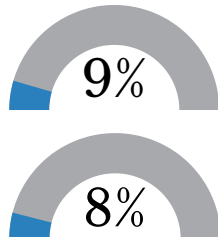
- Dr. Katie Hendrickson, Chief of Staff at Code.org

FACTS & FIGURES

Math

Science

0 25 50 75 100 125

Did you know the United States ranks 11th in science and 30th in math compared to 79 other countries, according to the most recent PISA data?

50%
40%
30%
20%
10%
0%

Proficiency

During the most recent NAEP assessment, only 14 percent of Black students and 26 percent of Hispanic students achieved proficiency in math compared to 49% of their white peers.

Only 9% of the STEM field is Black and only 8% is Hispanic.

9%

8%

SPOTLIGHTS

South Carolina: Providing Computer Science for All

South Carolina was the first state to implement a computer science high school graduation requirement. The state developed it in response to its growing computer science sector and wanting to create further opportunities for growth in the industry. Because the course is required for graduation, South Carolina is leveling the playing field in terms of expectations and access for all students.

Intel: Growing Diversity by Investing in Underrepresented Communities

Intel launched its "Diversity in Technology" initiative with the goal of becoming the first tech company in the U.S. to reach full representation of racial minorities and women. They have invested in scholarship initiatives for Latinos, Native American coding programs, and school district STEM curricula, among others, to make strides in preparing the next generation of STEM workers. It's a bold commitment that highlights the great things that can happen when public/private partnerships are used to address inequities in the workplace.
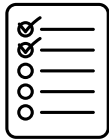
WHAT YOU CAN DO

Include science measures in state-level accountability systems.

Invest in district-level professional development opportunities for STEM-subject educators focused on improving content knowledge and pedagogy.

Adopt computer science as a core high school graduation requirement.

Develop detailed statewide STEM education plans with annual report cards that document student data, equity disparities, progress, and opportunities for STEM education.

Create STEM pathways that bridge classes with work-based learning opportunities.

Invest in STEM-related supports for underserved students through tutoring, activities, and programs.
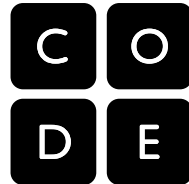
LEARN MORE

The following organizations are leading the charge to advance equity in STEM education:

Black Girls Code:
Black Girls Code works to increase the number of women of color in the digital technology space by introducing them to computer science.

Code.org:
Code.org is dedicated to expanding access to computer science in schools and increasing participation by young women and students from other underrepresented groups.

STEM Equity Initiative:
STEM Equity Initiative provides a new model for the educator to understand and enact efforts to increase access and success within academic programs, particularly for traditionally underrepresented or marginalized groups.

Leading research and resources on STEM education:

- UNESCO's report, **"Exploring STEM Competencies for the 21st Century"**
- Pew Research's **fact sheet** about America's STEM workforce
- The National Academy's guide **"Call to Action for Science Education: Building Opportunity for the Future"**
- Code.org's **policy recommendations** for advancing K-12 computer science education