## STEM in Alabama

In Alabama, unmet demand for afterschool programs has reached an all-time high, with more than 335,000 children who would be enrolled in a program if one were available to them. Access to out-of-school time programs is not equal, especially in rural and low-income communities.[1]

Jobs in STEM are growing nearly double the rate of non-STEM professions in Alabama, while state business leaders are struggling to find the STEM talent they need to stay competitive. This is likely due to the disappointing statistics that Alabama students are not making academic progress in mathematics and have little access to hands-on learning in science.[2]

Math proficiency for 8th grade students in Alabama is 19%. Not enough students - least of all students of color - have the math and science learning opportunities to prepare for college and careers. In comparison to white students, Hispanic students score 19 points lower, and Black students 30 points lower in math on average.[3]

1 Afterschool Alliance. 2020. "Alabama After 3PM."
https://afterschoolalliance.org/AA3PM/data/geo/Alabama/overview
2 Education Commission of the States. 2017. "Vital Signs: Alabama"
https://files.eric.ed.gov/fulltext/ED584398.pdf
3 NAEP. The Nation's Report Card: 2022 Mathematics Snapshot Report: Alabama Grade 8. 2022.
https://nces.ed.gov/nationsreportcard/subject/publications/stt2022/pdf/2023011AL8.pdf
4 Ibid

### Alabama Expanded Learning Alliance

Through an extensive network of partners, professional development, advocacy and more, the **Alabama Expanded Learning Alliance (AELA)** is at the forefront of expanding STEM learning throughout the state.

The Alabama Expanded Learning Alliance (AELA) is transforming the pathways into engineering, the sciences, and advanced manufacturing. AELA is working towards equal opportunities to keep children engaged and learning STEM in the out-of-school time (OST) hours across the state.

Together, women and people of color make up more than 50% of Alabama's population. However, they are much less likely to earn STEM degrees or become STEM professionals, especially in computing and engineering fields.[4] AELA is working to close these gaps.

As an active member of STEM Next's Million Girls Moonshot, AELA is expanding STEM across the state by cultivating key partners, building the capacity of afterschool and summer staff, elevating the voice of youth and increasing engagement of thousands more young people in STEM in the hours beyond the school day.

stemnext OPPORTUNITY FUND

Alabama Expanded Learning Alliance

## STEM Reach in Alabama Afterschool & Summer

**8,852** PROGRAMS

**20,987** EDUCATORS

**46,400** YOUTH

**22,950** GIRLS

**76%** YOUTH FROM LOW-INCOME HOUSEHOLDS

**25%** RURAL YOUTH

**26%** BIPOC YOUTH

Based on state-level partners' reports of their reach in each of the three program years, adjusted for likely duplication across reporting periods.

# Engaging More Youth in Science, Technology, Engineering, Math (STEM)

## Million Girls Moonshot Alabama Flight Crew

AELA launched the Alabama STEM Flight Crew - a youth ambassador program sharing out-of-school experiences and sparking interest in STEM. Alabama Flight Crew offers girls a seven-month out-of-school learning opportunity to introduce them to STEM careers and role models. Monthly virtual meetings shared local women scientist profiles, offered near-peer mentoring by the Flight Crew, and problem-solving activities. Twelve girls completed the program in 2024.

The Flight Crew share the importance of out-of-school time learning and the need for more girls in STEM at convenings like the Alabama Community Education Association (ACEA) Annual Conference.

# Shifting Adult Practice

Through the Moonshot, AELA provides technical assistance to afterschool programs using an evidence-based observation tool called the Dimensions of Success (DoS). With the DoS observation and coaching process, AELA has increased STEM quality in out-of-school-time learning throughout the state.

The Alabama Expanded Learning Alliance invested in the professional development of more than 20,000 afterschool and summer educators. Some notable professional development includes:

### STEM Professional Development

A six-part virtual series was offered to the Dallas County STEM Collaborative Regional Hub Directors. More training was provided for the Leadership Academy and Selma City Schools. AELA's support extended to establishing a **STEM Professional Learning Community** in the Black Belt region, an area characterized by high poverty and rural settings.

### Afterschool Coaching for Reflective Educators in STEM (ACRES)

AELA engages OST professionals in ACRES training where they learn to spark curiosity, experimentation, and problem-solving in youth. They also learn how to earn STEM micro-credentials from the National Afterschool Alliance (NAA).

# Raising Awareness and Cultivating Partners

### Regional Hubs

AELA operates five regional hubs that bring together afterschool/summer programs and community partners to share, learn and collaborate to enhance/expand out-of-school time programs and STEM for children and youth in their counties.

### Workforce Development

AELA hosted the **STEM Education Workforce Development Forum** with the Alabama Mathematics, Science, Technology and Engineering Coalition, A+ Education Partnership and Alabama Community Education Association. The forum aims to prepare the next generation of STEM leaders, with insights from Change the Equation, Alabama Workforce Council, Mercedes Benz, Rolls Royce, and NASA.

### Advocacy

AELA advocates for increased investment and resources in OST and STEM education. AELA engages influential policy-makers, educators, business and community leaders. AELA brought nationally recognized OST advocate Terry Peterson to Alabama for the State Leader Meeting, which worked togarner support for OST and STEM initiatives from influential state leaders including the Lt. Governor, State Superintendent of Education, Director of the Alabama Council of Arts, President of Trenholm State Community College, State Senator Bobby Singleton, State Representative A.J. Campbell, and others.

STEM Next's premier initiative, the Million Girls Moonshot, partners with afterschool and summer programs in all 50 states, leveraging the 50 State Afterschool Network, which has access to more than 10 million youth and 100,000 afterschool programs.

The Moonshot equips community and state leaders with resources, toolkits, training, and expert partners to support the expansion of afterschool STEM in urban, suburban, rural, frontier, and Indigenous communities nationide. The Moonshot raises awareness among educators for what great STEM looks like as well as creates national campaigns that elevate STEM in out-of-school time. Working together, national, state, and local partners are transforming the pathways into engineering, the sciences, advanced manufacturing, and more.

Learn more at www.milliongirlsmoonshot.org