



STRATEGIC PLAN

FISCAL YEARS 2024 – 2027

JULY 2023

Idaho STEM Action Center (STEM AC)

FY24 – FY27 Strategic Plan

Agency Overview, Core Functions, and Idaho Code

During the 2015 Idaho legislative session, a group of legislators, education leaders, and industry leaders began a STEM Caucus that led to legislation creating the Idaho STEM Action Center (STEM AC) ([Idaho Code §67-823](#)). House Bill 302 became law on July 1, 2015. Guided by this legislation STEM AC coordinates science, technology, engineering, and math (STEM) education opportunities aligned to Idaho’s workforce needs from PreK to career.

The scope and benefits of STEM education are well framed in guidance from the national STEM strategic plan, which indicates “the best STEM education provides an interdisciplinary approach to learning, where rigorous academic concepts are coupled with real-world applications and students use STEM in contexts that make connections between school, community, work, and the wider world. Modern STEM education imparts not only skills such as critical thinking, problem solving, higher order thinking, design, and inference, but also behavioral competencies such as perseverance, adaptability, cooperation, organization, and responsibility.” Several agencies such as State Department of Education, State Board of Education, the Division of Career and Technical Education, Idaho Department of Labor, and Idaho Workforce Development Council as well as local school districts, community partners, and employers contribute to Idaho’s STEM activity and education efforts. STEM AC provides coordination efforts to ensure efficiency, eliminate duplication, and promote best practices within this complex system. This work is implemented by STEM AC’s Executive Director and seven professional staff. STEM AC’s decisions are also guided by a nine (9) member Advisory Board appointed by the Governor.

STEM AC’s overarching goal is to support Idaho’s efforts to produce a STEM-competitive workforce. Many of Idaho’s employers struggle with finding the skilled workforce they need to succeed. This need will only be compounded by future innovations and advancements in technology. Many educators also lack the experiences and connections outside the classroom which effectively align classroom instruction with present and future employer needs. STEM AC aims to bridge this divide through effective coordination of all relevant parties, fostering environments that make these connections intuitive, effective, and rewarding. With effective support in place, educators across the state can give their students the skills, competencies, and tools to prepare for the fastest-growing, highest-need, and most fulfilling careers in Idaho.

A key component of coordination is gaining a clear picture of the current and future obstacles and opportunities related to STEM education in Idaho. STEM AC uses real-time data gathered through industry process foci, conversations, surveys, programming, and other collaborative means to bolster educator professional development, and to support the acquisition of STEM learning resources for Idaho’s classrooms. Another product of this work is a shared understanding of STEM

education needs within Idaho's communities built alongside the people who live and work there. This information is shared widely for the benefit of all- identifying symbiotic connections, eliminating waste of time, energy, and money, and making recommendations for programming, investments, and partnerships best aligned to the unique features of local communities.

Opportunities identified for programmatic intervention receive support from STEM AC in one of several ways. STEM AC coordinates and provides high-quality STEM professional development for educators and work-based learning opportunities that benefit Idahoans no matter what stage of life they are in. To maximize the inertia developed through direct-service programming, STEM AC also supports the third-party organizations best equipped to provide these programs.

STEM Action Center collaborates with other state agencies and employers to fulfill the following STEM legislation:

- **Computer Science Initiative** ([Idaho Code 33-1633](#), passed 2016). This legislation directs STEM Action Center to focus on critical training and educational needs to help populate Idaho's growing need for a tech-savvy workforce.
- **STEM School Designation** ([Idaho Code 33-4701](#), passed 2017). In collaboration with the Office of the State Board of Education (OSBE), this designation is formally recognized by OSBE and the Governor's Office.
- **Computer Science for All** ([Idaho Code 33-1634](#), passed 2018). This legislation requires all Idaho high schools to offer at least one computer science course by 2020.
- **STEM Diploma** ([Idaho Code 33-523](#), passed 2018). This legislation provides recognition for students who have taken STEM course work that is significantly more rigorous than state graduation requirements.

Mission Statement

Providing coordination for statewide STEM education and activities to enhance opportunities for educators, students, communities, and employers in their work to build a competitive Idaho workforce and economy through STEM and computer science education.

Vision Statement

A diverse STEM-literate Idaho workforce that meets the changing needs of Idaho employers and supports the long-term economic prosperity of Idaho.

Goals

GOAL #1: Increase awareness of the importance of STEM + CS education and employment pathways.

Objective 1A: Increase understanding among students, educators, parents, and community members on the value of STEM + CS education and workforce development that leads to employment.

Objective 1B: Increase awareness of and interest in STEM + CS programs and pathways for students, educators, parents, and community members.

Performance Measures with Targets and Explanations			
Measure	FY 22 Baseline	FY 23 Baseline	FY24 Targets
Value of earned media for STEM-related efforts in Idaho. ¹	\$2,080,064.55	\$2,181,120	\$2,000,000 ²
Reach of earned media for STEM-related efforts in Idaho. ³	3,927,379	4,587,377	4,000,000 ²
Classroom interactions with STEM professionals via the Idaho Connect platform.	--	--	20% increase ⁴
<p>Explanations:</p> <ol style="list-style-type: none"> 1. Media includes traditional (print, radio, broadcast television, email, newsletters) and digital (online advertising, social media, video streaming services, websites) media. 2. FY24 targets for media metrics are held at 2023 target levels to adjust for changes in some agency functions. 3. Number of consumer impressions. 4. Increase in interactions can be accurately measured after a baseline is established. 			

GOAL #2: Increase pursuit of STEM pathways across Idaho

Objective 2A: Coordinate and collaborate with state agencies, K-12, institutes of higher education, non-profits, employers, and other partners to enhance STEM + CS education and workforce development opportunities.

Objective 2B: Identify, pilot, and/or support high quality STEM + CS opportunities that fill gaps in current offerings, including professional development, grants, and programs.

Objective 2C: Improve institutional knowledge of barriers and solutions in broadening participation in STEM + CS education and workforce development.

Performance Measures with Targets and Explanations			
Measure	FY 22 Baseline	FY 23 Baseline	FY24 Targets
Number of STEM designated schools	7	11	13
Access instances for STEM career-connected learning platforms & resources	--	10,300 ¹	11,000

Explanations:

1. With a statewide contract for the Learning Blade platform, 10,300+ Idaho students have now completed an impressive 250,000+ online STEM/CS/CTE lessons, representing an incredible 36,000+ hours spent engaging with career awareness activities online.

GOAL #3: Align STEM + CS education with workforce needs

Objective 3A: Coordinate onramps for employer involvement in STEM + CS education and workforce development initiatives and programs.

Objective 3B: Identify and support employer-led STEM + CS education initiatives that focus on workforce development.

Objective 3C: Coordinate opportunities for students and educators to partner with employers.

Performance Measures with Targets and Explanations			
Measure	FY 22 Baseline	FY 23 Baseline	FY 24 Targets
Number of educator externships run to connect educators and college and career counselors with employers.	27	88	85 ¹
Explanations: <ol style="list-style-type: none">1. Funding support from the Idaho Workforce Development Council and Micron Technology supported a large increase in the number of externships in FY23. While this funding is expected to continue in FY24, we expect the program numbers to normalize around 60 educator externs per year.			

Key External Factors

Collaboration

The coordination work of STEM AC relies heavily on active collaboration with partners including other state agencies, K-12, higher education institutions, employers, and non-profits. For example:

- Strategic planning efforts are necessarily a collaborative enterprise, and can only be successful with the full participation of all relevant parties. As such, collaboration with other agencies (i.e. State Department of Education, State Board of Education, Department of Labor, etc) and partners in the private and nonprofit sectors is essential. STEM AC is increasing internal efforts to collaborate and strengthen these ties.
- Beginning this fiscal year, STEM AC entered into a sponsorship agreement with Idaho Business for Education, who has taken ownership of the Idaho STEM Ecosystem, to better align with founding legislation without losing ground on programming impact created in recent years. The Idaho STEM Ecosystem will run many of the direct-service programming efforts previously administered by STEM AC. STEM AC will support this and similar efforts across Idaho by refocusing on strategy development, teacher professional development, bridging communication and partnership efforts between employers and educators, and making other recommendations to improve the STEM pipeline.
- Employers are needed to host teachers for the Externship program, and the program's overall impact is dependent on active recruitment and participation of the private sector. Additionally, supplemental funding for this program has been provided from the Idaho Workforce Development Council and Micron Technology for FY23 and FY24. The level of participation in this program is expected to normalize after this funding sunsets.

Funding and Economic Conditions

Additional ongoing funding would allow to fulfill the intent of STEM AC's legislation as well as the Computer Science Initiative and Computer Science for All. Partnering with employers will require both increased industry awareness of the value of their investment in education as a driver of workforce development, and continued confidence in the economy.

Teacher Shortage and Turnover

A 2022 State Board of Education survey found that there are over 700 public school teacher vacancies and school administrators reported they are receiving fewer applications than normal to fill these positions. This could translate to unfilled positions and/or inexperienced teachers in hard-to-fill disciplines such as math and science. Because STEM AC works with teachers to implement the agency's goals, teacher turnover and shortage will impact outcomes.