



IDAHO STEM

ACTION CENTER

STRATEGIC PLAN

FISCAL YEARS 2023 – 2026

JULY 2022

Idaho STEM Action Center (STEM AC)

FY23 – FY25 Strategic Plan

Agency Overview, Core Functions, and Idaho Code

During the 2015 Idaho legislative session, a group of legislators, education leaders, and industry stakeholders began a STEM Caucus that led to legislation creating the Idaho STEM Action Center ([Idaho Code §67-823](#)). House Bill 302 became law on July 1, 2015. Guided by this legislation the Center coordinates science, technology, engineering, and math (STEM) education opportunities aligned to Idaho's workforce needs from PreK to career. Decisions about the STEM Action Center are guided by a nine (9) member Advisory Board appointed by the Governor. The STEM Action Center is staffed by an Executive Director and five professional staff that support STEM and computer science (CS) programming, grants and contracts management, financial management, and data analytics.

STEM education is an interdisciplinary approach to learning that provides opportunities for students to build problem-solving tied to real-world applications through the integration of science, technology, engineering, and math. Coordinated statewide STEM-focused efforts support Idaho as an in-demand business destination and supports a workforce with the necessary STEM skills that employers are demanding. A highly skilled STEM workforce leads to increased investment and business opportunities throughout Idaho. Through STEM Action Center's work, educators have the necessary STEM skills and resources to engage students and students have access to STEM education. The hands-on, project-based approach of STEM education helps students develop durable skills (i.e., 21st century skills) such as creative thinking, innovation, communication, and collaboration. These are skills that all Idaho employers desire and skills that set students up for success for jobs in or out of STEM fields. The STEM Action Center's collaborative efforts can lead to an increase in the number of businesses throughout the state and an increased number of jobs available to Idahoans. In turn, these strategic partnerships bolster Idaho's economy and lead to long-term economic prosperity for the state and its citizens.

STEM Action Center's enacting legislation ([Idaho Code 67-823](#)) focuses on five broad areas: 1) coordination of regional and state-level STEM-related activities; 2) promotion of STEM through best practices in education; 3) support of high-quality professional development and funding for educators; 4) support of STEM-related student programs such as competitions, fairs, and camps; and 5) engagement of private industry and non-profits in the development, implementation, and sustainability of STEM opportunities. Fulfilling legislative intent is accomplished through collaboration with partners to create alignment and efficiencies among stakeholders and coordinating opportunities for communities. In addition, legislative intent is accomplished by measuring outcomes from all projects, programs, and initiatives.

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.

To meet the workforce needs in STEM, STEM Action Center has established three goals in line with a theory of change based on *awareness*, *access*, and *alignment*. The first step of engaging a student in STEM is increasing their *awareness* on the value of a STEM education and the job opportunities available to them. Second, STEM education opportunities must be available and *accessible* for students to develop their STEM and 21st century skills. Third, it is essential that STEM education pathways are *aligned* with workforce needs to ensure that STEM opportunities are supporting employers and Idaho's economy.

STEM Action Center's goals are accomplished through strategic partnerships that unite communities and ensure efficiencies while leveraging each other's resources. To accomplish this, STEM Action Center conducts regional outreach through the Idaho STEM Ecosystem, a network of STEM education partners from education, industry, and government. Three regional hubs serve educators and students across the state. Once fully developed, the Idaho STEM Ecosystem will serve all communities and enhance STEM engagement, thereby allowing Idahoans to leverage local resources in collaboration with statewide STEM stakeholders.

A key to STEM Action Center's success is significant employer engagement with programs, projects, and outreach efforts. Idaho businesses have shown they are committed to STEM Action Center and its goals by providing in-kind and cash support to STEM education and workforce development opportunities. This is accomplished through sponsorships of student competitions, integration of collaborative industry-educator projects funded via grants, professional development guided by employer input, STEM professionals serving as mentors on panels and as volunteers, and through various workforce development initiatives such as public-private partnerships. Additionally, STEM Action Center Foundation was created to engage more effectively with a broader network of businesses. The monetary and in-kind support from Idaho business partners and engagement in the Idaho STEM Ecosystem indicates STEM Action Center

partners understand that students develop a STEM identity at an early age and require ongoing STEM experiences to foster interest and confidence, and to consider pursuing STEM at the post-secondary level and/or as a career.

Mission Statement

Advancing innovative opportunities for educators, students, communities, and industry to build a competitive Idaho workforce and economy through STEM and computer science education.

Vision Statement

A diverse STEM-literate Idaho workforce to support the long-term economic prosperity of Idaho.

Goals

GOAL #1: Increase awareness of the importance of STEM + CS education and workforce development.

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

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 Targets
Value of earned media for STEM-related efforts in Idaho. ¹	\$1,881,502.15	\$2,000,000
Reach of earned media for STEM-related efforts in Idaho. ²	3,689,965	4,000,000
Explanations:		
1. Media includes traditional (print, radio, broadcast television, email, newsletters) and digital (online advertising, social media, video streaming services, websites) media. 2. Number of consumer impressions.		

GOAL #2: Advance access to high-quality STEM + CS opportunities for educators, students, and communities.

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 Targets
Number of educator utilizations of i-STEM regional library materials. ¹	72 ²	90 ³
Number of STEM designated schools	7	11 ⁴
Explanations:		
<ol style="list-style-type: none"> 1. i-STEM libraries are regional resource hubs providing access to a standardized repository of high-quality STEM equipment and learning materials and are a collaboration between SDE, higher education, employers, and K-12, designed to fill resource gaps. 2. NIC: 29; LCSC: 7; CWI: 7; CSI: 2; ISU: 18; CEI: 9 3. Based on at least 15 educator utilizations per library site. 4. Four schools are scheduled for approval in FY23. 		

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 Targets
Number of independently generated Public-Private Partnerships proposals funded that involve collaboration of education, government, employer, and/or other stakeholders.	47	50
Number of externships run to connect educators and college and career counselors with employers.	27 ¹	30
Explanations:		
<ol style="list-style-type: none"> 1. FY22 had an initial 42 placements, but external factors reduced placements. 		

Key External Factors

Infrastructure

Contractors, interns, externs, fellows, and VISTAs have been required to help full-time staff fulfill legislative intent for STEM Action Center programs and projects. Additional staffing is needed to maintain continuity and effectively accomplish the seven STEM AC statutes.

Collaboration

The work of STEM AC relies on collaboration with partners including other state agencies, K-12, higher education institutions, employers, and non-profits. For example, employers are needed to host teachers for the Externship program. To facilitate collaborations, the Idaho STEM Ecosystem was developed in FY20 and continues to shape the work of STEM Action Center.

Funding and Economic Conditions

Additional ongoing funding would allow STEM AC to fulfill the intent of the STEM AC 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.