Strategic Plan

Fiscal Years 2022 – 2025

August 2021

Idaho STEM Action Center (STEM AC)

FY22 – 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 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 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 equitable access to STEM education. STEM education provides students with the 21st century skills that all Idaho employers require: critical thinking; problem-solving; collaboration; and innovation. 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 AC'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 promising practices in education; 3) support of high-quality professional development and grants for educators; 4) support of STEM-related competitions, fairs, camps, and student programs; 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. In addition, legislative intent is accomplished by coordinating grant and professional development opportunities to educators, programming for students, and opportunities for communities, and measuring outcomes from those activities.

STEM AC 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 AC 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 AC 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 *access*ible 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 AC goals are accomplished through strategic partnerships that unite communities and ensure efficiencies while leveraging each other's resources. To accomplish this, STEM AC conducts regional outreach through the Idaho STEM Ecosystem. 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 AC's success is significant employer engagement with programs, projects, and outreach efforts. Idaho businesses have shown they are committed to STEM AC and its goals by providing in-kind and cash support to STEM education and workforce development opportunities. In FY21 alone, employers provided over $1.65 M in cash and $1.6 M of in-kind support to STEM AC for STEM opportunities throughout the state. 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 and volunteers, and through various workforce development initiatives such as public-private partnerships. Additionally, STEM AC Foundation was created to engage more effectively with a broader network of businesses. The monetary and in-kind support from Idaho business partners indicate they 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	Baseline	FY 22 Targets
Value of earned media for STEM-related efforts in Idaho.[1]	FY 21 $742,005	$800,000[2]
Reach of earned media for STEM-related efforts in Idaho.[3]	FY 21 2,537,523	3,000,000[2]
Explanations: 1. Media includes traditional (print, radio, broadcast television, email, newsletters) and digital (online advertising, social media, video streaming services, websites) media. 2. Target based on baseline and STEM AC's FY22 focus on outreach and communication. 3. Number of consumer impressions.		

GOAL #2: Advance equitable 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	Baseline	FY 22 Targets
Number of educator utilizations of i-STEM regional library materials.	FY21 Establish common tracking platform[2]	60[3]
Number of STEM designated schools	FY21 6	9[4]
Explanations: 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. In FY21, STEM AC improved the library materials, strengthened the collaboration, and built a tracking system. 3. Based on at least 10 educator utilizations per library site. 4. Three schools are scheduled for review in FY22.		

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	Baseline	FY 22 Targets
Number of independently generated Public-Private Partnerships proposals funded that involve collaboration of education, government, employer, and/or other stakeholders.	FY 21 48	50[1]
Number of externships run to connect educators and college and career counselors with employers.	FY 21 26	30[1]
Explanations: 1. FY22 target developed from previous fiscal year number.		

Key External Factors

Infrastructure

Contractors, interns, externs, fellows, and VISTAs have been required to help full-time staff fulfill legislative intent for STEM AC programs and projects. Additional staffing is needed to maintain continuity and 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. To facilitate this collaboration, the Idaho STEM Ecosystem was developed in FY20 and continues to shape the work of STEM AC.

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, STEM School Designation, 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.

COVID-19

Many STEM AC-funded programs are still experiencing delays, alterations, and other complications due to COVID-19. COVID-19-related changes to programs have had significant impacts on several metrics identified within this Strategic Plan.