

Part I – Agency Profile

Agency Overview

Idaho is facing a crisis: citizens are not entering the STEM (Science, Technology, Engineering, and Mathematics) pipeline at a rate that will meet the current and future workforce needs of Idaho employers to sustain Idaho's economic development and secure future prosperity. The Idaho Department of Labor reports that Idaho will fall significantly short in the number of individuals needed to fill projected STEM positions, and the consequence to our state's economy in lacking this STEM-trained workforce is costly. In 2018 alone, over 6,300 STEM-related jobs remained unfilled. As a result, Idahoans lost nearly \$413 million in unclaimed personal income, and \$22 million went unrealized in state tax revenue. The Idaho STEM Action Center (STEM AC) functions as an agency whose mission is to engineer and implement lasting solutions to this growing economic crisis. STEM AC defines STEM to be **integrated** and **cross-disciplinary**, mirroring the real-life practices of STEM professionals. STEM AC also defines STEM **broadly**, encompassing the 184 occupations listed by the Idaho Department of Labor that require STEM and computer science (CS) skills, including the traditional STEM and Career & Technical Education (CTE) disciplines, as well as healthcare, economics, accounting, and psychology.

Numerous research studies, including those produced by Idaho Business for Education, the Idaho Department of Labor, and the Georgetown Center for Education and the Workforce, demonstrate that more than 60% of available jobs will require a college degree or certificate beyond a high school diploma. STEM AC supports the recommendations of the Idaho Task Force for Improving Education, the Higher Education Task Force, the Workforce Development Task Force, and the State Board of Education's STEM Strategic Plan, including the state's goal of achieving 60% of Idaho's high school graduates continuing onward to gain a post-secondary degree or certificate. According to a recent CompTIA report, Idaho's technology sector is the second fastest growing in the nation, and STEM AC also seeks to support this economic segment. Through these collaborative efforts, we will meet the workforce needs of Idaho business and industry.

Because of these coordinated statewide efforts, Idaho will become a STEM business destination. Idaho will have a citizenry that not only recognizes the importance of STEM but also possesses the necessary STEM skills for the workforce. A highly skilled STEM workforce will lead to increased investment and business opportunities throughout Idaho. Educators will be equipped with the necessary STEM skills and tools for engaging students. Students will possess both the technical STEM skills and the 21st century skills that employers require: critical thinking, problem solving, collaboration, and innovation. As a result of this multi-tiered approach, Idaho will experience an increase in the number of STEM-focused businesses throughout the state which will translate into an increase in the number of STEM jobs available for Idahoans. Having a citizenry available and prepared to accept existing and future jobs will bolster Idaho's economy, leading to long-term economic prosperity for the state and its citizens.

Core Functions and Idaho Code

The requirements and objectives of the STEM Action Center include: state-level coordination of STEM-related activities; promotion of STEM through best practices in education; support of high-quality professional development and grants for educators; facilitation of STEM-related competitions, fairs, camps, and student programs; and engagement of private industry in the development, implementation, and sustainability of STEM Action Center programs [Section 67-823, Idaho Code]. Progress in these areas is accomplished by offering grant and professional development opportunities to educators, communities, and students, and by measuring outcomes from these activities. Moreover, many STEM AC projects require evidence of Project-Based Learning (PBL). PBL has been shown to connect classroom learning to real-world experiences by providing students with opportunities to formulate solutions for real-world issues by interacting with professionals and solving problems that are relevant to them and their communities.

STEM AC has also been involved in partnering with other state agencies and businesses to bring forth new STEM legislation. In 2016, the Computer Science Initiative was passed (Idaho Code [33-1633](#)). This legislation directs STEM AC to focus on critical training and educational needs to help populate Idaho's growing demand for a tech-savvy workforce. These efforts will continue to be driven by the needs of Idaho's industry and will be developed in

partnership with industry, the Office of the State Board of Education (OSBE), Career & Technical Education (CTE), the State Department of Education (SDE), administrators, educators, and local communities. The goal is to secure industry participation in and funding for the state's CS Initiative which will serve to enhance the state's investment in CS education. Public-private partnerships have allowed the CS Initiative to expand more rapidly than with state funding alone.

In 2017, STEM AC worked collaboratively with OSBE to pass legislation which allows Idaho schools to apply for STEM School Designation (Idaho Code [33-4701](#)). This designation is formally recognized by OSBE and the Office of the Governor. The first four designated schools were identified in FY 2019 and more are actively applying for the FY 2020 designation cycle.

In 2018, STEM AC worked collaboratively with various educational and industry groups to pass legislation that would require all Idaho high schools to offer at least one computer science course by 2020 (Idaho Code [33-1634](#)). In addition, all Idaho schools can now offer a STEM diploma for students who have taken STEM course work that is significantly more advanced than state graduation requirements ([Idaho Code 33-523](#)).

By partnering with education and industry groups, STEM AC continues to ensure that Idaho employers will have access to the workforce they need—a workforce that possesses the skills necessary for a successful transition from school to employment. Moreover, STEM AC serves as a representative on the Workforce Development Council. This partnership ensures that there is significant collaboration without duplication. STEM AC continues to actively seek engagement from Idaho businesses and industries. This is currently accomplished through sponsorships of student competitions, integration of collaborative industry-educator projects funded via grants and professional development, the creation of a virtual mentorship platform, and through various workforce development initiatives. Finally, the Idaho STEM Action Center Foundation was created to more effectively engage with a broader network of businesses. These partnerships serve to enhance state funding and expand the reach of STEM AC throughout the state while bolstering educator training and student awareness of STEM+CS workforce opportunities throughout Idaho.

Mission Statement: Engineering 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, equitable, thriving ecosystem for a prosperous, STEM-literate Idaho.

Revenue and Expenditures

Revenue	FY 2016	FY 2017	FY 2018	FY 2019
General Fund	547,300	2,420,700	4,489,500	2,575,900
Dedicated	100,000	2,204,578	2,100,300	2,100,700
Total	647,300	4,625,278	6,589,800	4,676,600
Expenditure	FY 2016	FY 2017	FY 2018	FY 2019
Personnel Costs	183,200	329,335	390,185	482,169
Operating Expenditures	312,800	3,266,449	3,603,507	4,966,057
Capital Outlay	62,200	28,477	7,054	11,437
Trustee and Benefit Payments	N/A	N/A	2,018,994	N/A
Total	558,200	3,624,261	6,019,740	5,459,663

Profile of Cases Managed and/or Key Services Provided

Cases Managed and/or Key Services Provided	FY 2016	FY 2017	FY 2018	FY 2019
Student interactions through competitions, camps, and classroom opportunities	10,428	204,000	406,239	442,318
Educator engagements through professional	1,200	4,800	12,633	35,768

development, grants, and sponsorships				
STEM Outreach Activities	45	140	143	288

Red Tape Reduction Act

Each agency shall incorporate into its strategic plan a summary of how it will implement the Red Tape Reduction Act, including any associated goals, objectives, tasks, or performance targets. This information may be included as an addendum.

	As of July 1, 2019
Number of Chapters	0
Number of Words	0
Number of Restrictions	0

FY 2019 Performance Highlights

STEM AC was noted as one of Governor Little’s top accomplishments in his first 100 days for designating Idaho’s first four STEM schools per Idaho Code [33-4701](#).

STEM AC led Idaho’s efforts to become only the 2nd state in the nation to be recognized for strong and essential CS policies that will lead to an increase in statewide computer science awareness and access.

STEM AC surpassed its fundraising goal of \$1 million by raising \$1,340,500 from external donors and through grant writing efforts. These funds serve to enhance state funding and provide valuable interactions between local companies and educators. In total, 48 financial partnerships were formed and significant in-kind support from business professionals who served as mentors, judges, and volunteers for STEM AC activities was recorded.

Sixteen Idaho businesses each hosted an Idaho teacher who served as a summer extern. These 16 Idaho educators were placed into businesses and learned valuable real-world workforce skills that will translate into classroom learning experiences for their students.

Part II – Performance Measures

Performance Measure		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Goal 1: Advance equitable access to high-quality STEM+CS opportunities for educators, students, and communities						
1. Number of student interactions	actual	10,428	204,000	406,239	442,318	-----
	target	N/A	25,000	204,000	406,239	331,000
2. Number of educator engagements	actual	1,200	4,800	12,633	35,768	-----
	target	N/A	5,000	5,000	12,633	26,800
3. Total number of grant opportunities offered	actual	3	12	35	10	-----
	target	N/A	7	12	35	4
4. Percentage of applicants receiving funding via grant opportunities	actual	22%	70%	67%	66%	-----
	target	N/A	30%	70%	70%	50%
Goal 2: Align STEM education and workforce needs throughout Idaho						
5. Value of industry contributions, grants, and donations (as cash, in-kind, and cash equivalent)	actual	\$72,000 cash, in-kind was not tracked	\$205,000 cash + \$662,000 cash	\$736,928 cash + \$1,742,217 cash equivalent and in-kind	\$1,340,500 cash + \$4,446,511 cash equivalent	-----

Performance Measure		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
		in FY16	equivalent and in-kind donations	donations	and in-kind donations	
	target	N/A	\$250,000 cash and create system to track in-kind	\$500,000 cash + \$750,000 in-kind and cash equivalent	\$1M cash + \$1.7M in-kind and cash equivalent	\$1M cash + \$2M in-kind and cash equivalent
6. Number of opportunities for workforce engagements in high-demand fields	actual	0	1	32	48	-----
	target	N/A	Data collected	2	40	36
7. Number of mentors and educators involved in STEM AC's virtual, project-based mentorship platform	actual	0	0	60 mentors and 50 educators	100 mentors and 365 educators	-----
	target	N/A	Platform construction	Platform launch	500 mentors and educators	500 mentors and educators
Goal 3: Increase awareness of the importance of STEM throughout Idaho						
8. Number of monthly communication efforts	actual	Newsletters reached 1,500 subscribers	Newsletters reached 4,300 subscribers	Newsletters reached 4,768 subscribers; 1,600 social media followers	4,941 newsletter subscribers, 2,476 social media followers, 17,365 website visits	-----
	target	N/A	Newsletters will reach 2,000 subscribers	Newsletters will reach 5,000 subscribers by 2021	Newsletters will reach 5,000 subscribers by 2021; continued increase in social media presence; track website utilization	Newsletters will reach 5,000 subscribers, 2,800 social media followers; 17,500 website visits
9. Percentage of grants and PD opportunities which include support for traditionally underrepresented populations in STEM	actual	Not tracked	50%	100%	100%	-----
	target	N/A	25%	50%	100%	100%*
10. Resources and Best Practices Database Utilization	actual	N/A	N/A	Database was designed and developed	179 visitors/month	-----
	target	N/A	N/A	N/A	Database launch	500 visitors/month by 2023

*Metric #9 will be phased out as all STEM opportunities now require that underrepresented populations are supported.

Performance Measure Explanatory Notes

In FY 2020, STEM AC received \$1 million for the CS Initiative (Idaho Code [33-1633](#)). This funding represents a smaller cash appropriation than was received in FY 2017 – FY 2019 for this legislation. While STEM AC raised more than \$1 million through external funding, it should be noted that industry and grant funding was not intended to supplant state funding for CS. In addition, 99% of the funds received from external sources were restricted funds, directed at a specific program, event, or activity. Restricted funds do not allow STEM AC to meet all the statewide mandates in the CS Initiative. As a result of the change in the cash appropriation, STEM AC is expecting a significant decrease in the number of educators, students, and communities it can serve. Since the

\$1 million cash appropriation reduction represents 25% of our total operating expenditures, it is anticipated that there will be a 25% reduction in our impact numbers and a 50% reduction in our CS impact number. This will delay Idaho's ability to expand statewide access to and awareness of CS and will slow the effort to prepare a STEM-literate workforce.

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