

## 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. Idaho Department of Labor reports that Idaho will fall significantly short in the number of individuals needed to fill projected positions, ranging from construction and service jobs to medical and technology positions. In 2017 alone, approximately 6,000 STEM-related jobs remained unfilled. As a result, Idahoans lost nearly \$355 million in unclaimed personal income and \$20 million went unrealized in state tax revenue. Many of these projected positions involve STEM-related skills and knowledge, and the consequence to our state's economy in lacking this STEM-trained workforce is costly. 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**, 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 skills, including the traditional STEM and Career Technical Education (CTE) disciplines, as well as health care, economics, psychology, and accounting.

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 the projected jobs by 2020 will require a college degree or certificate beyond a high school diploma. According to a recent CompTIA report, Idaho's technology sector is the second fastest growing in the nation and STEM AC seeks to support this economic segment. STEM AC also 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. Through 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 the 21<sup>st</sup> 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

STEM AC's legislation (Idaho Code 67-823) focuses on five broad areas: a) student learning and achievement (targeting underrepresented populations); b) student access to STEM, including equity issues; c) teacher professional development and opportunities; d) college and career STEM pathways; and e) industry and workforce needs. 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.

The legislative intent of the Computer Science (CS) Initiative (Idaho Code 33-1633) is to increase statewide efforts in CS awareness and access from kindergarten through career. These efforts will continue to be driven by the needs of Idaho's industry and will be developed in partnership with industry, the State Board of Education, Career-Technical Education (CTE), the State Department of Education, administrators, educators, and the community as a whole. The goal is to secure industry participation in and funding for the state's CS education initiative.

Another major role for STEM AC is 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 STEM AC Foundation was created to engage more effectively with a broader network of businesses.

**Revenue and Expenditures**

<b>Revenue</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
General Fund		547,300	2,420,700	4,489,500
Dedicated		100,000	2,204,578	2,100,300
<b>Total</b>	N/A	647,300	4,625,278	6,589,800
<b>Expenditure</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
Personnel Costs		183,200	329,335	390,185
Operating Expenditures		312,800	3,266,449	3,603,507
Capital Outlay		62,200	28,477	7,054
Trustee and Benefit Payments		N/A	N/A	2,018,994
<b>Total</b>	N/A	558,200	3,624,261	6,019,740

**Profile of Cases Managed and/or Key Services Provided**

<b>Cases Managed and/or Key Services Provided</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
Student interactions through competitions, camps and classroom grants	N/A	10,428 student interactions	204,000 student interactions	406,239 student interactions
Educator interactions through professional development and grants	N/A	1,200 educator interactions	4,800 educator interactions	12,633 educator interactions
Community STEM Events hosted throughout Idaho	N/A	45 STEM events were hosted	140 STEM/CS/Career community events were hosted	143 STEM/CS/Career community events were hosted

**Part II – Performance Measures**

<b>Performance Measure</b>		<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>
<b>Goal 1: Coordinate and facilitate implementation of high-quality STEM programs throughout Idaho</b>						
1. Number of student interactions from STEM AC opportunities	actual	N/A	10,428	204,000	406,239	-----
	target	N/A	N/A	25,000	204,000	406,239
2. Number of educator interactions from STEM AC opportunities	actual	N/A	1,200	4,800	12,633	-----
	target	N/A	N/A	5,000	5,000	12,633
3. Total number of grant opportunities offered	actual	N/A	3	12	35	-----
	target	N/A	N/A	7	12	35
4. Percentage of applicants receiving funding via competitive opportunities	actual	N/A	22%	70%	67%	-----
	target	N/A	N/A	30%	70%	70%

Performance Measure		FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
<b>Goal 2: Align STEM education and workforce needs throughout Idaho</b>						
5. Value of industry contributions, grants, and donations to STEM AC (as cash, cash equivalent, and in-kind)	actual	N/A	\$72,000 cash, in-kind was not tracked in FY16	\$205,000 cash + \$662,000 in cash equivalent and in-kind donations	\$736,928 cash + \$1,742,217 in cash equivalent and in-kind donations	-----
	target	N/A	N/A	Increase contributions until \$500,000 is reached annually by FY20	\$300,000 cash + \$750,000 cash equivalent and in-kind contributions	\$1M cash + \$1.7M in-kind and cash equivalent
6. Number of opportunities for workforce engagements in high-demand fields	actual	N/A	0	1	32	-----
	target	N/A	N/A	Target will be set after the FY17 baseline data is collected and analyzed	2	40
7. Number of mentors and students involved in STEM AC's virtual, project-based mentorship platform	actual	N/A	0	0	60 mentors and 50 educators utilized the portal in FY18 (March-June)	-----
	target	N/A	N/A	IDLA constructed the Mentorship Platform during FY17	The Mentorship Platform launched in March 2018	500 educators and mentors will utilize the portal
<b>Goal 3: Increase awareness of STEM throughout Idaho</b>						
8. Number of monthly communication efforts	actual	N/A	4 newsletters reached 1,500 subscribers	10 newsletters reached 4,300 subscribers	10 newsletters reached 4,768 subscribers STEM AC has nearly 1,600 Facebook followers in addition to Twitter and SnapChat	-----
	target	N/A	N/A	10 newsletters reaching 2,000 subscribers	10 newsletters will reach 6,000 subscribers by 2021	10 newsletters will reach 6,000 subscribers by 2021; continued increase in social media presence

Performance Measure		FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
9. Number of grants and professional development (PD) opportunities which target traditionally underrepresented populations	actual	N/A	3 grants and 1 PD were offered	3 grants and 2 PDs were supported in both STEM and CS (10 total)	100% of STEM AC opportunities (35 grants and 78 PDs) now include requirements to indicate how traditionally under-represented populations are supported.	-----
	target	N/A	N/A	Support at least three grants and two PDs in both STEM and CS by FY20	Continue to support at least 3 grants and 2 PDs in both CS and STEM	100% of STEM AC opportunities will continue to require support for under-represented populations in STEM

**Performance Measure Explanatory Notes (Optional)**

STEM AC received no significant increase in general fund operating expenses for FY18. However, due to industry contributions, better data collection methods, and the establishment of the STEM AC Foundation, it was anticipated that changes in numbers impacted would increase accordingly. Project and program support will shift as successful programs are scaled. Based on the number of performance measures that were met with significant results, STEM AC is succeeding in accomplishing its mission to ensure equitable STEM opportunities for all Idahoans and to support the development of Idaho’s STEM-competitive 21<sup>st</sup> century workforce.

**For More Information, Contact:**

Contact Name: Angela Hemingway  
 Title/Position: Executive Director  
 State Agency: Idaho STEM Action Center  
 Address: 802 W. Bannock St., Suite 900  
 Boise, ID 83702  
 Phone: (208) 332-1726  
 E-mail: [Angela.Hemingway@STEM.idaho.gov](mailto:Angela.Hemingway@STEM.idaho.gov)