

## Part I – Agency Profile

### Agency Overview

Idaho is facing a crisis: Idaho 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. According to a report published by the Idaho Department of Labor, Idaho will be lacking a significant number of individuals needed to fill projected positions ranging from construction and service jobs to medical and technology positions. In 2016, over 3,800 STEM related jobs were unfilled in Idaho, resulting in nearly \$240 million of unclaimed personal income and \$14 million in unrealized state tax revenue. Many of these projected positions involve STEM-related skills and knowledge. The Idaho STEM Action Center (STEM AC) has defined 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 2016 report by CompTIA, Idaho's technology sector is the second fastest growing in the nation and STEM AC seeks to help support this economic segment. STEM AC supports the recommendations of the Idaho Task Force for Improving Education, and the State Board of Education's STEM Strategic Plan, including the state's goal of having 60% of Idaho's high school graduates continuing onward in order to gain some form of post-secondary degree or certificate. Through collaborative efforts, we will meet the workforce needs of Idaho business and industry.

As a result 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 have the necessary STEM skills and tools to engage students. Students will possess the 21<sup>st</sup> century skills that employers require: critical thinking, problem-solving, collaboration, and innovation. The result of this multi-tiered approach will be an increase in the number of businesses throughout the state and the number of STEM jobs available for Idahoans, which will serve to bolster Idaho's economy and lead to long-term economic prosperity for the state and its citizens.

### Core Functions/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. This is accomplished by offering grant and professional development opportunities to educators, communities, and students, and measuring outcomes from these activities. 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 opportunities to engage with professionals to pose solutions to real-world issues.

The legislative intent of the Computer Science (CS) Initiative is to increase statewide efforts in CS awareness and access, 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 at large. The ultimate goal is to secure industry participation in the funding of the state's CS education initiatives.

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, professional development, the creation of a virtual mentorship platform, and

through various workforce development initiatives. Finally, a STEM AC Foundation is being created in order to engage more effectively with a broader network of businesses.

### Revenue and Expenditures

Revenue	FY 2014	FY 2015	FY 2016	FY 2017
General Fund			547,300	2,420,700
Dedicated			100,000	2,204,578
<b>Total</b>	N/A	N/A	647,300	4,625,278
Expenditure	FY 2014	FY 2015	FY 2016	FY 2017
Personnel Costs			183,200	329,335
Operating Expenditures			312,800	3,266,449
Capital Outlay			62,200	28,477
<b>Total</b>	N/A	N/A	558,200	3,624,261

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

Cases Managed and/or Key Services Provided	FY 2014	FY 2015	FY 2016	FY 2017
Student competitions and classroom grants	N/A	N/A	10,428 students received services from STEM AC	204,000 students received services from STEM AC
Educator professional development and grants	N/A	N/A	1,200 educators received services from STEM AC	4,800 educators received services from STEM AC
Community STEM Events	N/A	N/A	36 STEM events were hosted throughout Idaho	45 STEM/CS/Career community events were hosted throughout Idaho

### FY 2017 Performance Highlights

STEM recognized a significant increase in the number of students, educators, and communities impacted as funding was increased in FY17. Additional funds allowed STEM AC to implement the majority of the mandates in Idaho code 67-823 and 33-1633, including increasing the number of professional development (PD) opportunities, grants awarded, and services provided to traditionally underrepresented populations in STEM and computer science. STEM AC is now positioned to undertake a critical component of our legislation: Coordination of STEM policies and programs throughout Idaho. This will be the overarching focus of FY18.

## Part II – Performance Measures

Performance Measure		FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
<b>Goal 1: Coordinate and facilitate implementation of high quality STEM programs throughout Idaho</b>						
1. Number of students receiving services from the STEM Action Center	actual	N/A	N/A	10,428	204,000	-----
	target	N/A	N/A	N/A	25,000	210,000
2. Number of educators receiving high quality STEM professional development	actual	N/A	N/A	1,200	4,800	-----
	target	N/A	N/A	N/A	5,000	5,000
3. Total number of grant opportunities offered	actual	N/A	N/A	3	12	-----
	target	N/A	N/A	N/A	7	12

Performance Measure		FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
4. Percentage of applicants receiving funding	actual	N/A	N/A	22%	70%	-----
	target	N/A	N/A	N/A	30%	70%
<b>Goal 2: Align education and workforce needs throughout Idaho</b>						
5. Amount of industry contributions and personal donations to STEM AC	actual	N/A	N/A	72,000	\$205,000 cash donations + \$662,000 in cash equivalence and in-kind donations	-----
	target	N/A	N/A	N/A	Increase contributions until \$500,000 is reached annually by FY20	\$300,000 cash donations + \$750,000 in-kind/cash equivalent contributions
6. Number of opportunities for workforce certifications in high-demand fields	actual	N/A	N/A	0	1	-----
	target	N/A	N/A	N/A	Target will be set after the FY17 baseline data is collected and analyzed	2
7. Number of mentors and students involved in the Center's virtual, project-based mentorship platform	actual	N/A	N/A	0	0	-----
	target	N/A	N/A	N/A	A contractor (IDLA) was selected and the platform was built during FY17	The platform launches in August 2017. Baseline data will be available for the next performance report
<b>Goal 3: Increase awareness of STEM throughout Idaho</b>						
8. Number of monthly communication efforts	actual	N/A	N/A	4 newsletters reached 1,500 subscribers	10 newsletters reached 4,300 subscribers	-----
	target	N/A	N/A	N/A	10 newsletters reaching 2,000 subscribers	10 newsletters will reach 6,000 subscribers by 2020
9. Number of grants and professional development opportunities which target traditionally underrepresented populations	actual	N/A	N/A	Three grants and one professional development opportunity were offered	Three grants and two professional development opportunities we supported in both STEM and CS	-----
	target	N/A	N/A	N/A	Support at least three grants and two professional development opportunities in both STEM and CS by FY20	Continue to support at least three grants and two professional development opportunities in both CS and STEM

**Performance Measure Explanatory Notes**

STEM AC received no significant increase in general fund operating expenses for FY18; however, due to budget savings, industry contributions, and the establishment of the STEM AC Foundation, it is anticipated that incremental 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 in year one with significant results, STEM AC is succeeding in accomplishing its mission to ensure equitable STEM opportunities for all Idahoans and the development of Idaho's STEM-competitive 21<sup>st</sup> century workforce.

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