



ANNUAL REPORT

2021



MISSION

The STEM Action Center is Utah's partner in promoting Science, Technology, Engineering and Math education through the identification and support of best practices and leveraging of resources across education, industry, government and community partners to support economic prosperity.



CONTENTS

4 ABOUT

7 SUCCESSES

10 2021 EVOLUTION

12 PERFORMANCE MEASURES

16 GRANTS AWARDED &
BUDGET INFORMATION

19 CLOSING

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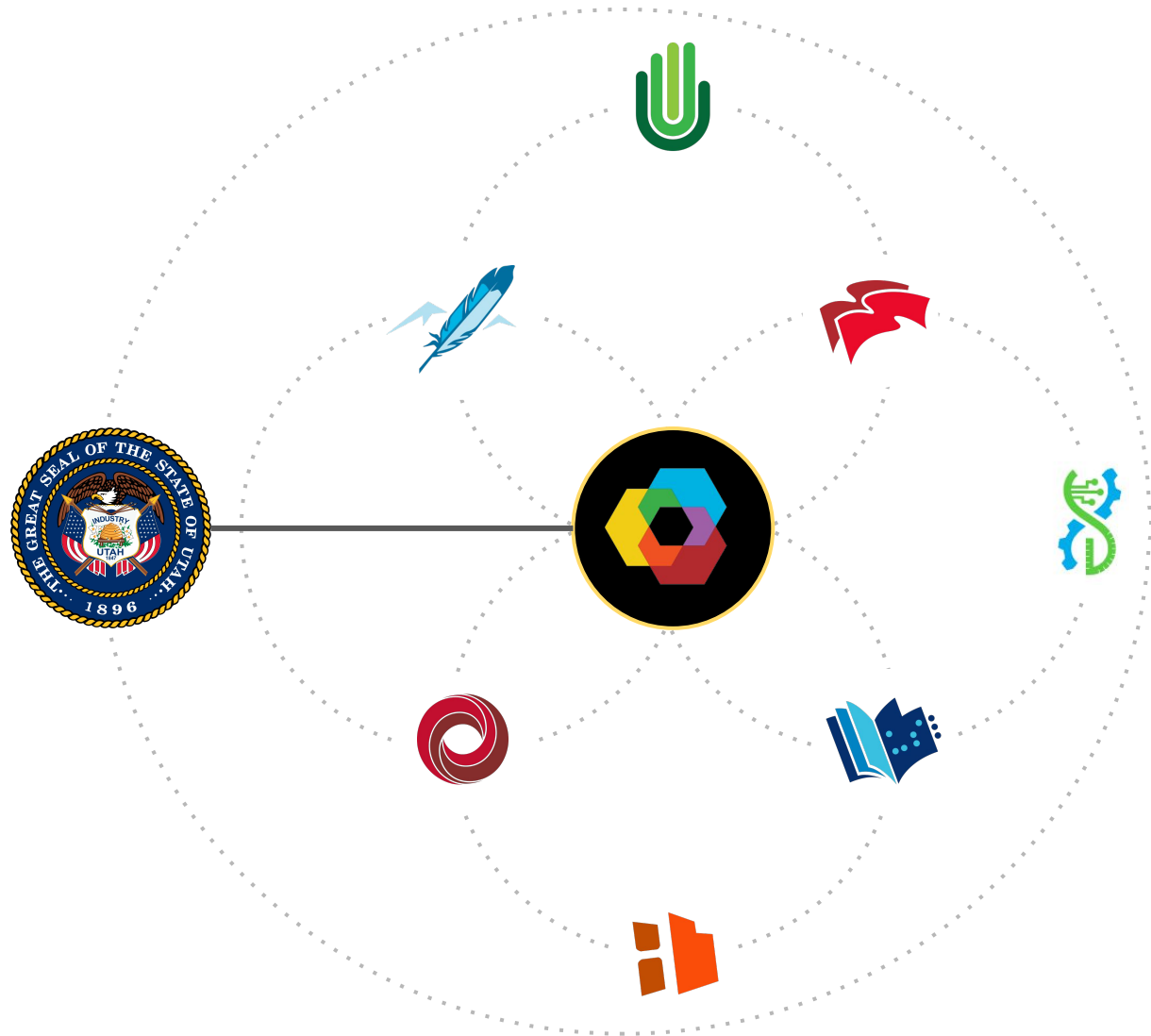
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CCE DEPARTMENT HIERARCHY

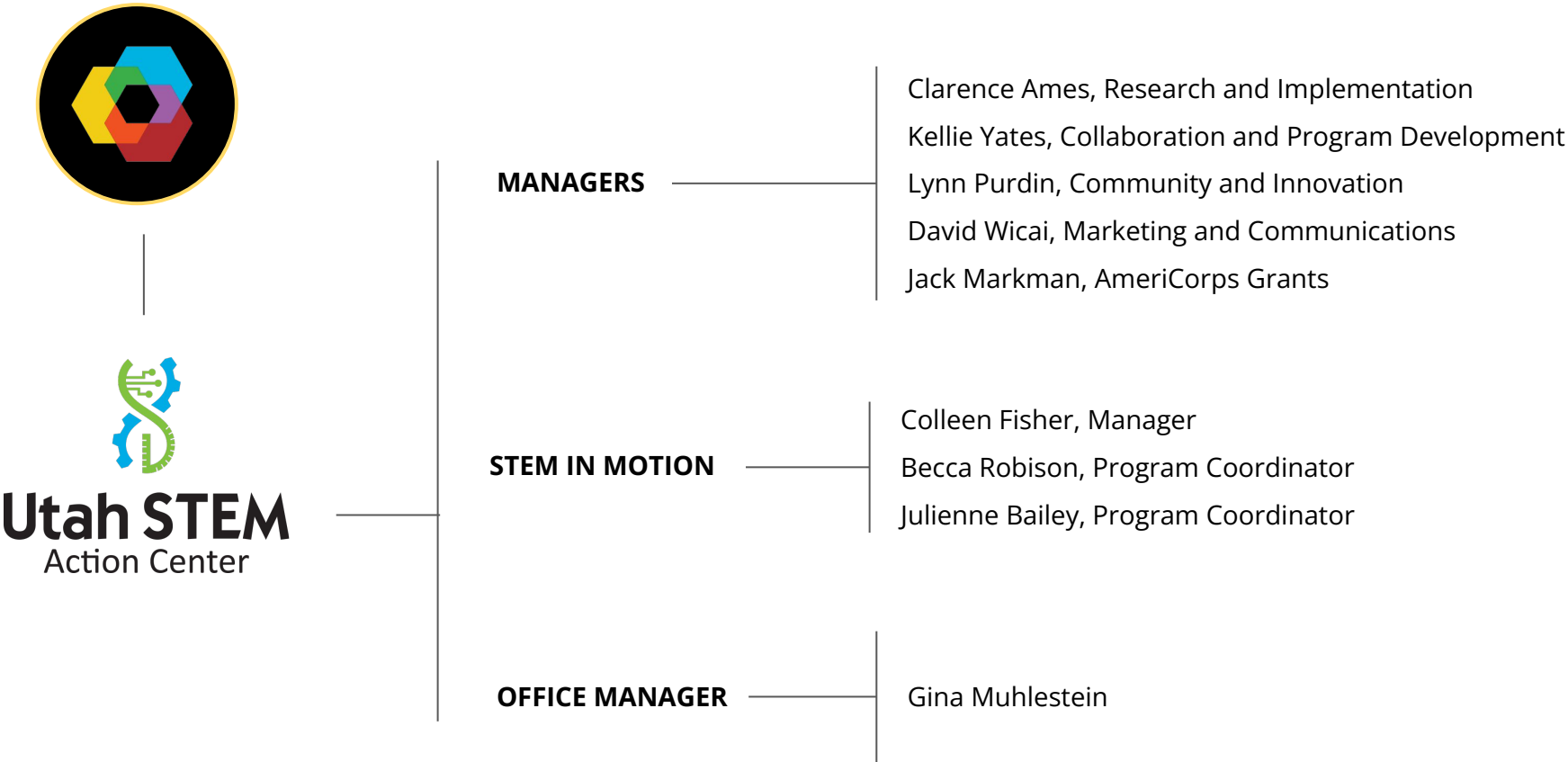
The Utah Department of Cultural & Community Engagement collaborates internally and aligns through to the Utah Governor's office to create a vibrant place for all state residents to thrive.

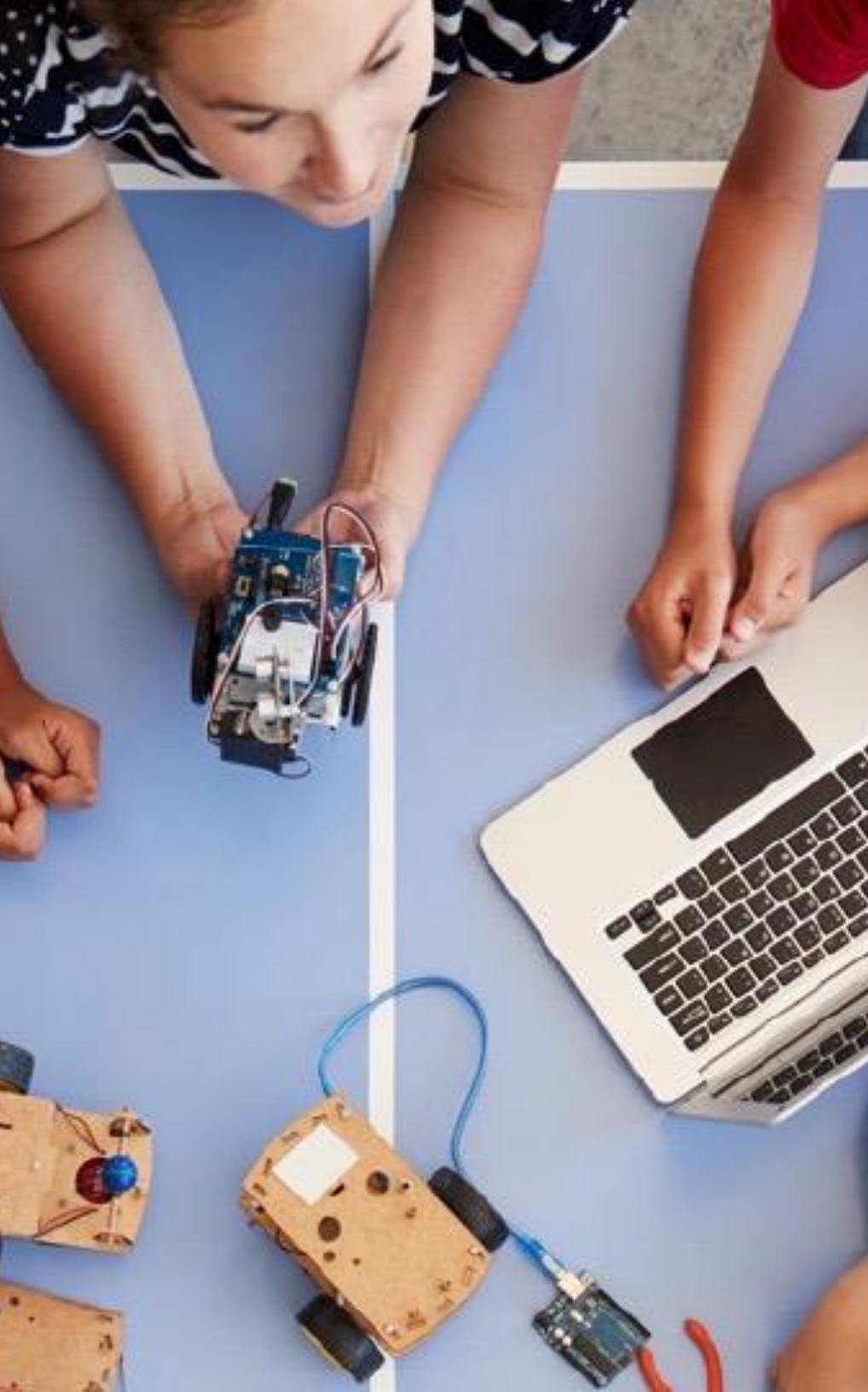
Each of seven divisions strive to achieve each of three overarching goals through unique programs that serve all corners of Utah

- 1 Create opportunities for community understanding and civic engagement throughout Utah.
- 2 Ignite curiosity and passion for learning and service.
- 3 Preserve, protect, and activate Utah's historical and cultural treasures.



STEM ACTION CENTER ORGANIZATION





PRIORITY SUCCESS

LAUNCHED STRATEGIC PLAN

7

The strategic planning process was initiated in March 2020 and completed in December 2020. It offers a comprehensive analysis of accomplishments, stakeholder input and attention to measuring success for the center.

The plan, including recommendations from partners and collaborators, reflects the center's commitment to ensure programs and activities are aligned to the needs of students, educators and their communities. The center strives to work "with" and not "in" schools and leverage community resources to achieve optimal sustainability.



PRIORITY SUCCESS

OPENED INNOVATION HUB

The Utah STEM Action Center Innovation Hub is a community-based makerspace that hosts several anchor programs to integrate STEM into engaging and innovative programs.

The new programs address key gaps, such as a need for integrated STEM resources for early learning and greater access to inclusive, welcoming resources for communities. Anchor programs include competitive robotics, STEM Artist in Residence, Makers for Equity, STEM Spots, and scheduled field trips and community events. The hub supports a statewide network of connected makerspaces affiliated with schools and community-based partners, such as state libraries.



This was a fantastic opportunity for our school. It created excitement for STEM; not only for the students but also the teachers!

— Utah STEM in Motion
Classroom Kit recipient

CHANGES TO EXISTING PROGRAMS



STEM IN MOTION

The STEM in Motion team quickly shifted from in-class teaching to a kit-style program to adjust to the pandemic. The team worked with educators to develop the best model for the new kit program, and it resulted in a highly successful shift. Schools selected from 11 different curricula to check out for two weeks, including video and PDF lesson plans and follow-up activities. Teachers were so impressed with the new program. Once we are able to safely enter the classrooms, we will combine our kits with in-classroom teaching.

The two-week checkout allowed more classrooms to participate — more than 8,000 students in 70 schools during the 2020-2021 school year. We delivered kits to 26 different school districts in the state. Some 90 percent of educators said the program introduced students to new material, while 99 percent said they would recommend to other educators.



STEM FEST AND BEST PRACTICES

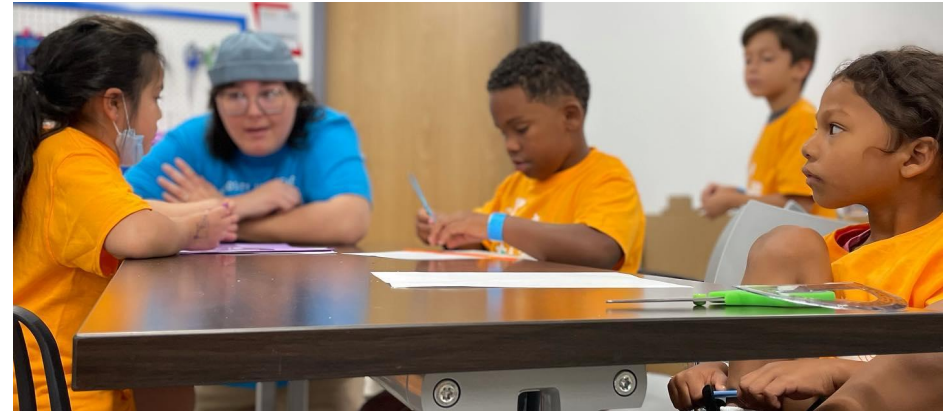
Both STEM Fest and the STEM Best Practices Conference shifted to a virtual format, which helped us reach more people and provide more resources and activities to students, parents, educators, community members and industry partners throughout the year. While we plan to return to in-person events, we will also incorporate virtual experiences for those who aren't able to attend in person..

NEW PROGRAMS



STEM SPOTS

Piloted in the summer of 2021, STEM Spots are enclosures that serve as free outreach posts for consumables, such as books and To Learn Kits. Initial funding will support installation of 15 Spots (in partnership with Utah State University/4-H Extension and the Utah STEM Industry Coalition). UServe Utah will recruit volunteers to build an outpost at the STEM AC Innovation Hub. Park City Center for Advanced Professional Studies will design Spots for smaller communities, while rural communities such as Parowan and Moab have committed to enlisting local builders and designers. The Northrop Grumman STEM Club has committed to volunteer with the STEM Spots as well.



STEM EDUCATION EQUITY COALITION

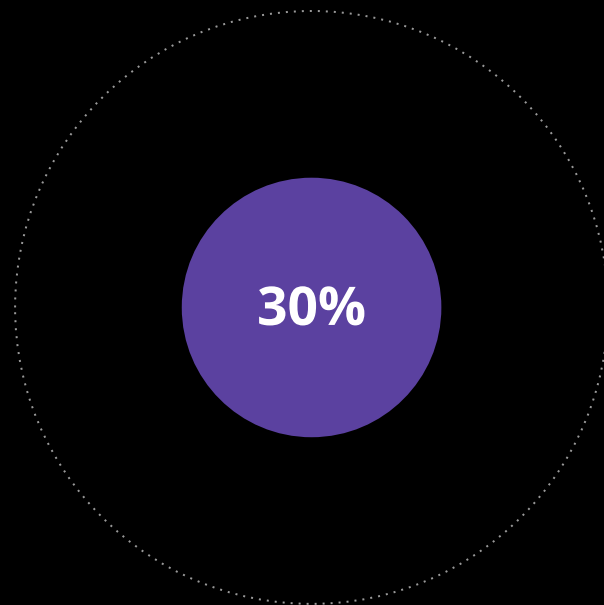
This new initiative, in partnership with other state organizations, focuses on identifying gaps and barriers to STEM education and resources for underrepresented communities. Partners, educators and community representatives identified these goals:

- Develop greater understanding of gaps/needs of underrepresented communities;
- Increase community programming that responds to and meets the needs of communities;
- Better leveraging of resources through collaboration and innovation;
- Greater success in meeting benchmarks;
- Increased impact and benefit for our target group and communities.

The coalition will determine the structure for their work, then define terms and measurements.

PERFORMANCE MEASURES

Prioritize STEM education to develop Utah's workforce of the future by emphasizing services to communities off the Wasatch Front by measuring the percent of grants and dollars awarded off the Wasatch Front
(Target = 40 %)



40% Target

9 out of 18 STEM Community Impact Sponsorship grants awarded went to organizations off the Wasatch Front (50%); \$10,625 of \$25,095 awarded went to organizations off the Wasatch Front (40%).

14 of 37 Innovation Incubator Classroom grants awarded went to educators in communities off the Wasatch Front (38%); \$17,318 of \$40,918 awarded went to classrooms off of the Wasatch Front (42%).

10 of 29 LEAs (school districts and charters schools) participating in the **Professional Learning** grant program were located off of the Wasatch Front (34%); \$730,392.00 of \$3,498,453.93 awarded went to LEAs off of the Wasatch Front (21%).

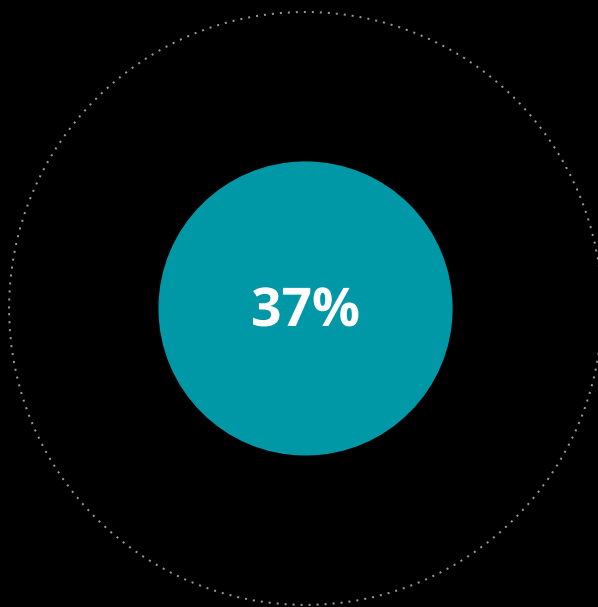
12 of 17 LEAs (school districts and charters schools) participating in the **Computing Partnerships** grant program were located off of the Wasatch Front (71%); \$687,391.62 of the \$1,092,859.59 awarded went to LEAs off of the Wasatch Front (63%).

8 of 23 Innovation Incubator Competition grants were awarded to schools off the Wasatch Front (35%); \$12,626 of \$37,802 awarded went to LEAs off of the Wasatch Front (33%)

37 of 97 LEAs participating in **Math Personalized Learning** grants were off the Wasatch Front (38%); \$822,898.23 of \$3,965,297.91 went to provide software licenses to students off the Wasatch Front (21%).

PERFORMANCE MEASURES

Prioritize STEM education to develop Utah's workforce of the future by emphasizing services to communities off the Wasatch Front by measuring percent of visits by STEM bus to schools/locations off the Wasatch Front.



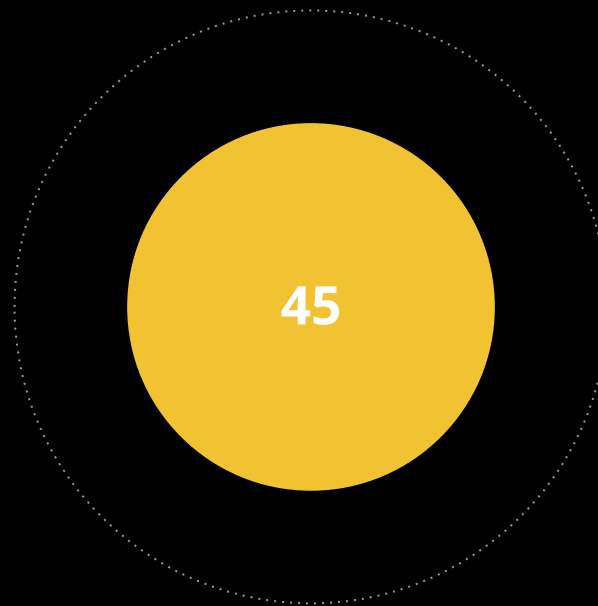
40% Target

The STEM in Motion (SIM) team provided services to 26 out of 70 LEAs (school districts and charter schools) located off of the Wasatch Front (37%).

In FY22, the SIM team will partner with Southern Utah University's STEM Center to help deliver STEM curriculum kits to schools in the southern half of the state. This partnership supports their mission in STEM education and will enhance the STEM AC's ability to increase access to students and schools across the state.

PERFORMANCE MEASURES

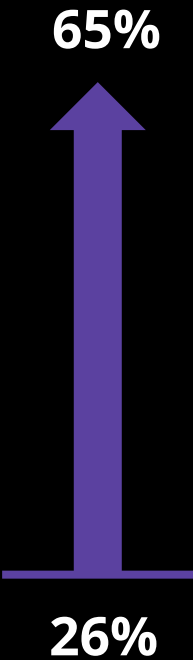
Prioritize STEM education to develop Utah's workforce of the future preparing the workforce to take on meaningful and gainful STEM careers by measuring the number of students attending STEM events that include engagement with corporate partners.



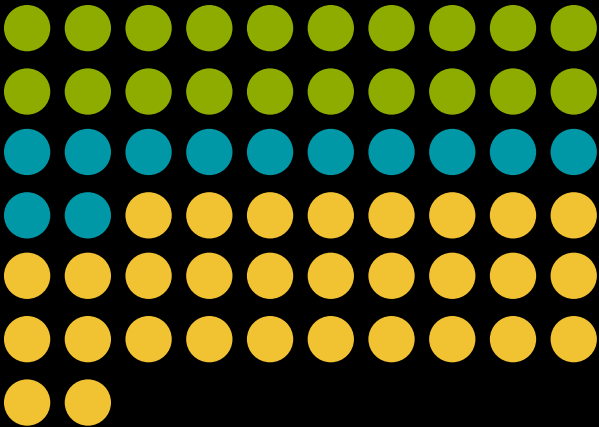
50 Target

PERFORMANCE MEASURES

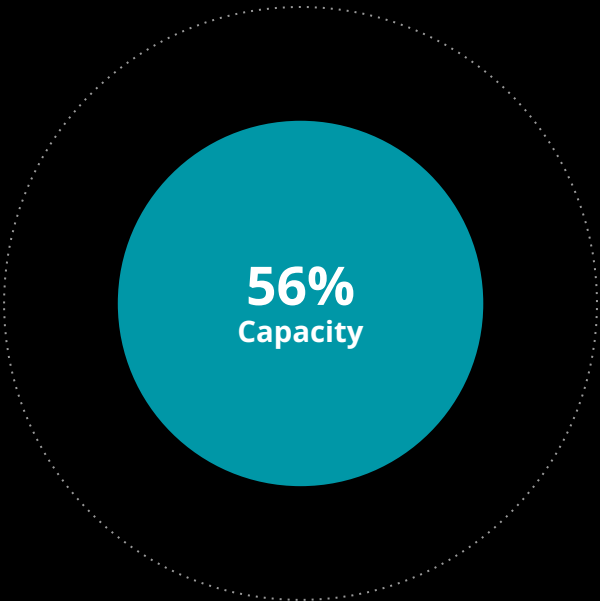
STEM in Motion (SIM) classroom kits. Through survey responses we found that student interest in STEM increased from 26% to 65% before and after the kit experience. The new kit program had a great response from teachers; 97% of teachers said they would recommend the STEM in Motion program to other teachers.



Increased work-based learning opportunities in Computing. While the pandemic reduced the number of opportunities, Spring semester data shows that 20 internships, 12 apprenticeships and 30 job shadows were accomplished. The student interns earned 5 industry-recognized certifications.



Increased makerspace opportunities for students. During the Spring Semester of the 2020-21 school year, 10,711 elementary, 267 middle school, and 130 high school students participated in makerspaces and makerspace kits sponsored through the Computing Partnership grants. The frequency of makerspace use was reported as approximately 56% at least 1 time per week, with 11% using them daily.



LIST OF GRANT PROGRAMS & GRANTEES

K-12 PERSONALIZED DIGITAL MATH

To view school recipients of this grant program, visit this [link](#).

PROFESSIONAL LEARNING

To view school recipients of this grant program, visit this [link](#).

COMPUTING PARTNERSHIPS

To view grant recipients, visit this [link](#).

INNOVATION INCUBATORS

To view grant recipients, visit this [link](#).

COMPETITION GRANTS

To view schools who received this grant, visit this [link](#).

COMMUNITY IMPACT SPONSORSHIPS

To view a list of grantees, visit this [link](#).

ADMINISTRATION BUDGET

		FY19	FY20	FY21
Revenue	General Fund		1,367,100	6,370,600
	Restricted Revenue			
	Dedicated Credits			22,300
	Federal Funds		42,600	317,300
	Transfer Funds			50,000
	Pass Through			
	Beginning Balance		288,600	102,200
	Closing Balance (Non-lapsing)		(121,000)	(276,400)
	Lapsing Balance			
	Total Revenue	-	1,577,300	5,462,400
Expenditures	Personnel		884,600	1,115,500
	In-State Travel		3,200	900
	Out-of-State Travel		5,900	-
	Current Expense		333,400	530,700
	Data Processing Current Expense		49,700	54,800
	Data Processing Capital Expense			
	Capital Expenditures			
	Pass-Through		300,500	(1,500)
	Total Expenditures	-	1,577,300	1,700,400

STEM PROGRAMS

		FY19	FY20	FY21
Revenue	General Fund		5,484,300	3,869,400
	Restricted Revenue			
	Dedicated Credits		500	-
	Federal Funds			
	Transfer Funds			
	Pass Through			
	Beginning Balance			18,800
	Closing Balance (Non-lapsing)			(1,123,600)
	Lapsing Balance			(780,800)
	Total Revenue	-	5,484,800	3,888,200
Expenditures	Personnel		55,000	55,000
	In-State Travel			
	Out-of-State Travel			
	Current Expense		4,255,600	3,972,600
	Data Processing Current Expense		1,174,200	-
	Data Processing Capital Expense			
	Capital Expenditures			
	Pass-Through			2,841,800
	Total Expenditures	-	5,484,800	6,869,400



FINAL NOTES | TAMI GOETZ

This past year left an indelible mark on our communities, and we have all had to adapt to engage and communicate. There has been an odd sense of being suspended in time, static and not changing from day-to-day as we work and learn remotely, yet there has been an unsettling and overwhelmingly pervasive infusion of instability and uncertainty. Through all of this, the STEM Action Center team saw partners maintain and strengthen their commitment to support students, educators, and communities to help them stay healthy and continue to learn and grow.

This annual report reflects a small part of what was achieved in FY21 by students, educators and our communities. It doesn't tell the full story of the resilience and compassion of educators, formal and informal, who didn't waiver in their commitment to support students. This report can't come close to fully expounding the impact that the year had on students and their families. It also can't share all of the stories of how communities, business, and government continued to work together to support students and educators.

What can be taken away from this report? It's clear that even a global pandemic can't stop the joy of learning, even if it has to be online or socially distanced. Now more than ever, it's important that students have access to opportunities to collaborate and learn through thinking, creating, and building. This report shares just one chapter of a growing story of how STEM is helping students learn how they can and will contribute to a brighter future.

[STEM ACTION CENTER STRATEGIC PLAN](#)
[STEM STORIES](#)

UTAH STEM ACTION CENTER

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Utah Department of
**Cultural & Community
Engagement**



Utah STEM
Action Center