

Youth STEM Entrepreneurship: A Landscape Analysis



EDUCATION
OUTREACH
DIVERSITY

EPSCoR—the Established Program to Stimulate Competitive Research—enhances Montana’s research infrastructure by strengthening our capacity and capability in science, technology, engineering and mathematics.

Program Goals

- Catalyze research capability in Montana and with partner jurisdictions
 - Establish STEM professional development pathways
 - Broaden participation of diverse groups/institutions in STEM
 - Increase engagement in STEM at the national and global level
 - Grow economic development in Montana

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The goal of this report is to examine the landscape of youth entrepreneurship programs—particularly those focused on or with an aspect of STEM—in Montana and in other NSF EPSCoR jurisdictions.

We believe that support of youth STEM entrepreneurship follows the national EPSCoR program’s mission, especially:

- establish STEM professional development pathways, and
- impact jurisdictional economic development.

Additionally, this work dovetails with Montana NSF EPSCoR’s strategic goals surrounding workforce development, youth STEM outreach and commercialization.

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Methodology

First, we examined how programs in other states have approached this area of focus, and we also met with key Montana community members and organization leaders to uncover the existing support framework for youth entrepreneurship in Montana. An internet search of youth entrepreneurship in our state was

conducted to identify initial organizations of interest. As we connected with leaders at those organizations, they referred us to other individuals of interest.

Repeating this process a few times, we conducted informational interviews or research briefs on the following organizations:

- DECA
- Youth Entrepreneurs
- Montana Career Information Systems
- University of Montana Blackstone Launchpad
- Montana Accelerate Rural innovation Initiative (MTARII)
- Montana Libraries
- Wyoming Afterschool Alliance
- New Mexico Afterschool Alliance

We were sure to consistently stress that our goal is to fill in a gap of support, not out-compete anyone already in the youth entrepreneurship space. This approach made all interactions very friendly and helpful for everyone involved. Each Montana organization is providing a unique form of entrepreneurship education or support to youth in Montana. The table illustrates the coverage that each organization provides relating to our

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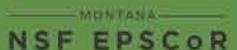


Table 1: Features of Youth STEM Entrepreneurship programs in Montana (Spring 2021)

Program	Age range	Availability	STEM content?	Entrepreneurship education?	Venture coaching?	Available in afterschool setting?
Youth Entrepreneurs (YE)	Middle and high school	Curriculum available to educators after training	Varies	●	●	At instructors'/ students' discretion
MCIS (Montana Career Information System)	No restriction	●	●	●	—	Varies
Blackstone Launchpad	Collegiate students	Only at MSU and U of M	Varies	—	●	●
MTARII	No restriction	●	Varies	●	●	●
Montana Libraries*	All ages	●	●	●	●	●
Code Girls United	Middle and high school	Girls only	●	—	—	●
DECA	Mostly high school students	Only available in schools with DECA chapters	Limited	●	●	—

project. (*note: the Montana Libraries Project is not yet active as of the writing of this report. The project seeks to harness centralized resources at Montana libraries to provide information to youth entrepreneurs, while also giving them basic venture consulting through trained library staff.

Overview

The organization most central to the type of support we hope to provide is Youth Entrepreneurs. YE has a network of over 50 Montana schools/organizations that use their curriculum. Beyond Montana, YE is present in most states to some degree. From our conversation with the Montana YE coordinators, each state appears to have a meaningful measure of freedom in how they run their program.

The YE curriculum was described as very flexible, customized by each instructor. Our next step is to meet with YE again to get a more in-depth picture of what their programs look like across the state. As mentioned, we hope to introduce STEM-focused entrepreneurial support and do so in the afterschool arena. It is not yet clear if both of those

criteria are currently met by YE. If they are not yet comprehensive in those ways, we could partner with Youth Entrepreneurs and use their existing network to provide students with STEM-entrepreneurship support during the afterschool time. Specifically, we want to explore the possibility of using the Venture Labs curriculum for that purpose.

Venture Labs is an entrepreneurship education curriculum designed for K-12 students. It includes training for instructors and can be taught inside or outside of the classroom. Importantly, it emphasizes STEAM (science, technology, engineering, art, and math) in its curriculum. We hope to make Venture Labs, or a similar form of support, available to youth in Montana for two reasons: first, the nature of the curriculum appears to fill the gap in youth entrepreneurship support in Montana. Second, with support from the Mott Foundation, that curriculum could be free of cost.

Finally, we are considering how to dovetail our project with current Education-Outreach-Diversity efforts of Montana NSF EPSCoR and perhaps even collaborations

with other EPSCoR jurisdictions. Both Alaska EPSCoR and New Mexico EPSCoR shared promising programs and ideas in the youth entrepreneurship field. The role of EPSCoR is to build the science-technology research infrastructure in the state of Montana, and we see youth STEM entrepreneurship as a key aspect of this mission.

Next steps

Now that we have a clear picture of the existing landscape for youth STEM entrepreneurial support in Montana, we can move forward with developing a program that will fill in any existing gaps. Our immediate next steps are to communicate more with existing organizations to determine if partnerships would be appropriate and to consider both how youth STEM entrepreneurship could be part of the Montana NSF EPSCoR strategic plan and whether collaborations with other EPSCoR jurisdictions may be possible.

Ideas? Want to learn more?

<http://mtnsfepscor.org>
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