



Montana University System

Office of the Commissioner of Higher Education

560 N. Park Avenue – PO Box 203201 – Helena, Montana 59620-3201
(406) 449-9124 - FAX (406) 449-9171

DATE: November 30, 2022
TO: Education Interim Budget Committee
FROM: Shauna Lyons, MUS Director of Budget & Planning
RE: OTO Information Requests

During the September Education IBC meeting, there were several requests for additional information regarding the one-time-only initiatives funded by the 67th Legislature. This memo and attachments are to provide the requested responses to your questions.

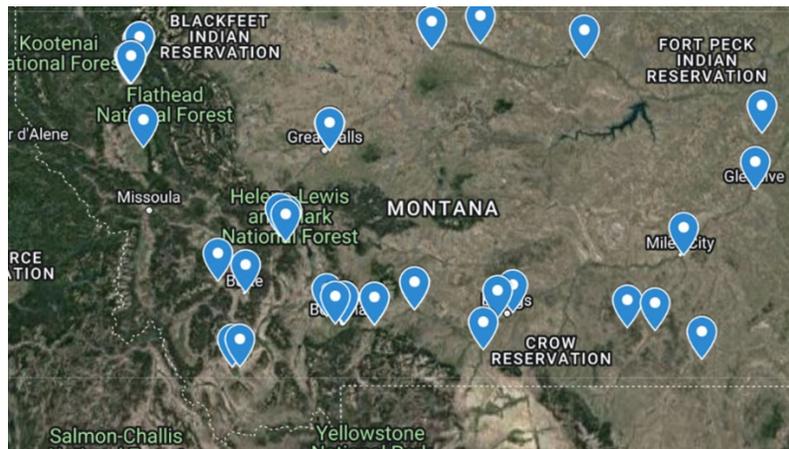
Proficiency Based Education Initiative

There are a myriad of possibilities for PBE moving forward. Central to these is having a clearly articulated and accepted definition of PBE in Montana. The MSU team has worked with stakeholders statewide to glean the current understanding of this and related terms. We have used that 'current state of understanding' in developing the workshops and coursework being offered.

Moving forward it will be important to communicate the reasoning, rationale, and benefits of a proficiency-based model to all stakeholders in the educational ecosystem (students, family members, teachers, school leaders, school trustees, postsecondary admissions committees, teacher preparation faculty).

School leaders from across the state have been invited to share the PBE coursework information with all district educators, including those on a Class 7 license. There could be future possibilities to include the development of specific in-service workshops for Class 7 educators, those on emergency authorizations of employment, and paraprofessionals to understand the principles of proficiency/competency-based education.

Districts currently served with the PBE Initiative:



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CyberHub/CyberMontana Initiative

CyberMontana/CyberHub Outreach Summary November 30, 2022								
			K-12 Programs		Higher Education Certificate of Technical Studies in Cybersecurity (CTS)			
Demographics	Security Awareness Training	Professional Upskilling	STEM Camps	High School Intro to Cybersecurity Enrollment	Program Entry	Program Capstone	Total	% of Total Participants
Inside Missoula County	148	11	51	10	45	32	297	29.91%
Outside Missoula County	294	73	108	23	*	*	498	50.15%
Female	277	15	62	6	79	7	446	44.91%
Tribal	17	0	*	1	*	*	18	1.81%
Veteran	5	15	0	0	*	2	22	2.22%
Total Users	442	84	159	33	201	74	993	
% of Total Participants	44.51%	8.46%	16.01%	3.32%	20.24%	7.45%		
*Data not yet available								

Completers have been able to obtain cybersecurity or IT-related employment within the state of Montana after completing the CTS (12 credit) or the full 2-year program. A number of employers have expressed interest in hiring our program completers including The University of Montana’s Information Technology Department, First Call Computer Solutions, and ELM Locating & Utility Services.

CyberMontana sponsored the Cyber, IT, and Computer Science 1st Annual Speed Networking Event in April, created in partnership with Missoula College. Twenty-seven University of Montana students representing cyber-related academic tracks attended the event. The reception from the 20 community partner attendees, representing 13 different Montana employers, was high with positive comments regarding the relevancy of our student cohorts to their recruitment needs. In addition to the informal group interviews that took place via the speed networking portion of the event, there were also 3 formal interviews conducted on site by employer partner, FYR Diagnostics. To our knowledge, all 3 of these formal interviews conducted later led to offers of employment.

CyberMontana is in contact with all 169 high schools in Montana multiple times each year regarding the 5 cybersecurity early college courses; including the 12-credit Certificate of Technical Studies in cybersecurity. CyberMontana team members visit schools in person and via Zoom to explain our offerings to students and counselors and to answer questions about the early college program.

In September, 2022, CyberMontana was awarded one of the initial Montana’s Future at Work grants to specifically focus on marketing and outreach efforts to high school students in the field of cybersecurity. By January, 2023, the CyberMontana website will contain information from all higher education institutions in Montana regarding their early enrollment opportunities for high school students.

Additionally, CyberMontana’s outreach programs to middle school students continues to build on our successful work in 2022. The program has reached 159 students across the state through camps in Missoula, Bozeman, Helena, Great Falls,

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Billings, Butte, and Miles City. 68% of STEM camp participants are located outside of Missoula County. Middle school outreach is especially important in STEM fields such as cybersecurity. Research indicates girls become interested in STEM around the age of 11 but then lose interest around the age of 15 (Microsoft, 2018).

CyberMontana is offering fee-based statewide Security Awareness Training (SAT) to small and medium businesses as well as K-12 schools and individuals. This program has the capacity to generate revenue equivalent to the OTO funding on an annual basis. The fee-based offering commences in January 2023. In October 2022, CyberMontana received \$250,000 in OTO funding from the Montana Department of Commerce to offset the costs of training and to include subsidies to participating businesses. These funds will serve an important role in transitional funding as fee-based SAT training becomes established.

As an NSA-designated Center of Academic Excellence (CAE) in Cyber Defense, Missoula College is eligible for and has been awarded NSF GenCyber grants for middle school summer camps. These funds have been shared with Great Falls College, a fellow CAE, and collaborative work continues between the two institutions to offer summer programming in cybersecurity to middle school students.

AccelerateMT Initiative

To continue expanding employer-based partnerships across the state another OTO would help bolster the statewide effort. If the state makes another investment in AccelerateMT, those funds would be used to develop more employer-based skills curriculum (a one-time-only cost and the most expensive part of the effort) and provide further marketing & outreach to generate awareness and participation, particularly in the pockets of Montana that need expanded workforce development efforts, such as Lewistown, Hamilton and the Hi-Line.

Without an investment from the state, the focus of the work will not change, but there wouldn't be the means to fulfill the scope of needs that are identified.

This year, there were more than 1,000 students graduate from an AccelerateMT sponsored program. Feedback indicates the program is only scratching the surface of what is possible with employer partnerships in the state.

The program has established a team of ~15 people, who are distributed across Montana. But despite this early success, there are many workforce skills areas needing training programs that will help fill the most urgent needs of the state's economy.

The goal is to continue deploying the workforce development model that has been successful to date, with the hopes of ensuring any Montana-based industry has the opportunity to partner with AccelerateMT and a MUS two-year unit to solve the workforce needs facing our state.

Workforce Recovery Initiative

The industry partners for the Workforce Recovery Initiative have provided many levels of support to the program including financial contributions, tools, equipment, materials, advertising, providing adjunct instructors with industry expertise, educational training for employees, student scholarships, and financial aid assistance.

The program has begun to expand outside of Butte to include the SW Montana region. They have initiated a digital marketing blast campaign to target prospective students throughout SW Montana. This campaign has generated enrollment into the programs supported by the initiative.

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The program is seeking alternative funding sources to continue the efforts supported and enhanced by the OTO initiative. The program plans to grow enrollment in the programs and continue to strengthen the industry partnerships.