

Potential HB 632 Projects - Montana University System

Montana Research & Economic Development Initiative (MREDI)

Total funding request: \$7.5M; Match \$2.5M

- MREDI is a highly success research and economic development program, first funded in 2015 with \$15M of state support.
- MREDI invested in 11 campus research initiatives that provided a fantastic return on investment for the state. At the end of the funding period in 2017, MREDI projects had generated:
 - 12 new Montana businesses
 - 353 jobs
 - \$57M in additional competitive grant dollars.
- The MUS requests a \$7.5M appropriation, to be matched by \$2.5M from campuses and regional economic development corporations, to build on MREDI's success. This appropriation will support:
 - Tech transfer hubs to facilitate commercialization of university research and small business development in Ag and Life Sciences, Health Sciences, Computer and Data Science, Materials Science, and Natural Resources.
 - A core-facilities voucher program to help new high-tech business leverage university equipment and expertise.
 - A competitive grant program to fund university research that could help to strengthen and diversify Montana's economy.

PERFORMANCE METRICS

- ✓ *Amount of external funding generated from MREDI Projects, for 3-years following*
- ✓ *Number of new businesses and joint ventures resulting from MREDI funding*
- ✓ *3-year and 5-year snapshot of new jobs correlated with MREDI funded projects*

Proficiency Based Education – Montana State University

Total funding request: \$1M

- Proficiency based education is presently a small part of the MSU curriculum but the timing is right for a stronger focus for two reasons: 1) OPI Chap. 58 administrative rules (Educator Preparation Programs) are currently under review and 2) The COVID-19 pandemic has already forced teachers to engage proficiency teaching methods to reach students at varying stages of progress.
- Retooling field experiences comprise the primary expenses of piloting a proficiency-based education model. These experiences consist of a beginning field experience, 2 practicum level courses in the junior year, and student teaching in the senior year.
- This start-up funding will provide:
 - Development of new partnerships with model schools [time and travel expenses]
 - Revision of early field experience (after-school programming), practicum experiences (in local and rural schools), and student teaching experiences for teacher candidates (in local and rural schools); including field support for placement opportunities and supervision

- Training for faculty and field supervisors to integrate proficiency based education into coursework at the undergraduate and graduate levels
- The development of new modules for teacher education and educational leadership coursework

PERFORMANCE METRICS

- ✓ *Inclusion of proficiency-based education modules included as part of Educator Prep Program at Montana State University*
- ✓ *Successful retooling of field, practicum, and student teaching experiences to reflect proficiency-based approach.*

Workforce Recovery from COVID-19 – Montana Tech / Highlands College

Total Funding Request: \$1M

- Montana Tech and Highlands College will launch workforce recovery programs designed specifically to address business & industry needs coming out of the COVID-19 pandemic. The College is prepared to amplify our current offerings through partnerships with local industry to provide on demand, high quality, industry focused training designed to prepare individuals to enter or re-enter the workforce. These programs can range from zero-credit courses to apprenticeships.
- Workforce development programs under consideration:
 - Commercial driver’s license training program
 - Certified nursing assistant
 - Welding and fabrication
 - Civil Engineering Technology
 - Heavy Equipment Program
 - Mining technicians
- Potential partners include Federal Express, UPS, St. James Health, American Foundry Fabrication, Butte Silver Bow, Water & Environmental Technology (WET), Sandfire Resources/Black Butte Copper Mine, and White Sulphur Springs.
- Startup funding will be used to:
 - Match contributions of equipment and training expertise from private partners.
 - Expand work-based learning opportunities for students working with private business & industry partners.
 - Improve specialized training programs and technology to meet regional and statewide workforce needs.

PERFORMANCE METRICS

- ✓ *Number of successfully credentialed (either degree or certificate) Montanans in funded workforce training programs at Montana Tech – Highlands College*
- ✓ *Number of new private industry partnerships that provide tailored curriculum and new work-based learning opportunities.*

AccelerateMT Initiative – University of Montana

Total Funding Request: \$2M

- Establish at UM – “AccelerateMT” – focused on closely partnering with employers and the state to do the following:
 - Provide easy access – in close partnership with employers and industry associations – to training and certification on the in-demand skills employers need...delivered both in person and remotely anywhere in state.
 - Work closely with employers to build short-term, collaborative training programs with clear pathways to jobs. (Have already demonstrated the effectiveness of such an approach with ATG and Jackson Contractor Group here in Missoula.)
 - Work alongside private and public sector employers to develop training programs for their current employees; a “B2B” model that helps employers develop their own workforce. (Already working with employers across the state to develop.)
 - Internship/Apprenticeship programs with employers and industry associations across the state to provide on-the-job learning opportunities for students
 - Strong partnership with Montana DLI to identify workforce needs and provide case management to assist individuals in transition from training to workforce. (UM’s “Become an Alum” program has already proven that such a model works.)
 - Significantly expanded portfolio of UOnline offerings – 2-yr, 4-yr, and certificates – that Montanans can access from anywhere in the state. (Already expanding in this area, but additional resources necessary to grow portfolio of offerings.)
- Startup funding will be used for:
 - Personnel for program development in close partnership with employers, industry associations and the state of Montana Department of Labor and Industry
 - Personnel and marketing to raise awareness of the opportunity, particularly in remote and underserved areas. Strong focus on tribal communities.
 - Marketing and promotion around career awareness, career readiness, and upskilling opportunities.
 - Converting courses to online, asynchronous delivery and expand offerings to include micro-certificates and digital badges.
 - Career coaching (case management) capacity to assist learners in accessing training and finding jobs

PERFORMANCE METRICS

- ✓ *Number of new collaborative training programs with private industry partners (similar to the highly successful UM-ATG partnership)*
- ✓ *Number of participants in, and credentials completed as part of, the UM-DLI “Become and Alum Program”*
- ✓ *Number of new UOnline Program offerings across Montana, tracked by type of program (e.g. certificate, 2-year, 4-year, graduate)*

CyberHub Program – University of Montana

Total funding request: \$1.5 M

- The Montana Cyber Hub for workforce education to serve the entire state of Montana from Missoula College. As Montana’s first Nationally-recognized Center of Academic Excellence for Cyber Defense Education (National Security Agency and the Department of Homeland

Security, 2017), Missoula College is uniquely poised to lead Montana Cyber Hub (Dean of Missoula College has deep background in IT/Technology).

- Remote Learning to deliver education to all regions in the State using remote technologies for both non-traditional short term training (boot camps, code school, and IRC.) and existing certificate and two-year degree programs.
- Start-up funding (\$1-2 million) is necessary for:
 - Cyber Range Hardware, equipment and cloud services to establish a “Cyber Range” that provides education and training capacity for individuals and to prepare businesses for cyber defense readiness.
 - Recruitment & Career Mentoring Personnel to raise awareness of the opportunity, particularly in remote and underserved areas and recruit individuals in a high wage, high demand. Strong focus on tribal communities and a case management approach with the capacity to assist learners in accessing training and finding jobs.
 - Personnel to supplement Missoula College’s existing cybersecurity training programs tailored for remote delivery and accessible across the State.

PERFORMANCE METRICS

- ✓ *Number of CyberHub program participants engaged from outside Missoula County, and through remote delivery technology*
- ✓ *Number of participants and program completers from Montana’s Tribal Communities*

Center for Translational Medicine - Montana State University – Billings

Total funding request: \$2M

- The drive for a Center for Translational Medicine at MSU Billings comes from several sources including Billings’ hospital corridor (Billings Clinic, Riverstone Health, and St. Vincent Healthcare), other local healthcare partners, MSU Billings faculty research interests, as well as the research coordination interests of the Montana Bioscience Alliance. Motivated by the potential economic impact of the center’s activities, Big Sky Economic Development expressed a desire to support grant writing efforts to secure funding to bring a Center for Translational Medicine to MSU Billings.
- The regional healthcare cluster is lacking the enhanced medical research facilities necessary to attract high-caliber medical research professionals and biotech firms—there is no such facility in our fifteen-county service region.
- The Center for Translational Medicine would provide “bench to bedside” services partnering with Billings healthcare organizations and the BioScience Alliance. Laboratory research space will provide space and equipment for collaborative biotechnology and medical research projects.
- Startup funding will support:
 - Procurement of equipment and supplies
 - Seed grants for collaborative projects between community stake holders and MSUB faculty
 - A Director for the Center as well as a staff member to coordinate projects and secure additional financial support for the Center with the goal of establishing a self-support model.

PERFORMANCE METRICS

- ✓ *Number of MSU-community and/or MSU-private sector partnerships generated from seed funding*
- ✓ *Amount of additional external funding generated by research teams funded from seed grants to the MSU Billings Center for Translational Medicine*
- ✓ *Number of new patents, products, and enterprises generated by partnerships funded by seed grants to the MSU Billings Center for Translational Medicine*