



## **Abstract**

Montana has 2,934 TAA-eligible workers certified since 2007. The state's TAA-impacted workers effectively signify the tail end of the downsizing of the timber and mining industries for the past two decades that has dramatically shifted the economic base of the forested western third of the state. Slowly arising from the ashes of the timber industry are robust pockets of advanced manufacturing activity scattered throughout this western region. In Eastern Montana exploitation of oil and gas resources has created a need for more than 18,000 workers over the next 10 years and has led to a rapid and foundational shift in Eastern Montana's population workforce needs.

Additionally, Montana has a large population of veteran, as 10% of its population has served in the military. Further, Montana has an aging population which means that its workforce must draw from individuals who are not the high school graduates or traditional age college students who typically fill advanced manufacturing and energy positions.

The fundamental challenge for Montana's public education and workforce system is this: How do you re-train a dispersed group of experienced miners, timber workers, returning veterans and aging workers in underemployed positions for the emerging jobs in advanced manufacturing and energy fields?

A consortium of 13 Montana two-year colleges is seeking funding from the Department of Labor to develop a statewide approach to address these challenges through variety of and industry recognized credentials, such as short-term certificates and more long-term applied degrees.

The Strengthening Workforce Alignment in Montana's Manufacturing and Energy Industries (SWAMMEI) project responds to rapidly increasing employer demand in energy and manufacturing sectors through four primary activities:



(1) The project creates or duplicates short-term certificate programs in advanced manufacturing and energy, thoughtfully designed in collaboration with local businesses to align with important occupations. These latticed credential programs provide workers more on and off-ramps into training and re-training programs and reduce the length of time students need to spend in training prior to re-entering the workforce. The specific occupations under consideration at this point in the planning include machinists, welders, production technicians, automation and flexible manufacturing technologists, maintenance technicians, other manufacturing technologists, minors, commercial truck drivers, solar installation or maintenance technicians, geothermal installation or maintenance technicians, solar or energy panel installers, civil engineers, CNC operators, bioenergy technicians, diesel mechanics, GIS, drafting, and oilfield technicians.

(2) Using the National Career Readiness Certificate.<sup>TM</sup> This project will improve the ability to measure and align workers with academic and occupational paths well aligned with their existing competencies. “Workforce navigators,” positions that bridge two-year colleges and the public workforce system, will help participants efficiently access training and employment opportunities and strengthen the bridge between Montana’s colleges and the public workforce system.

(3) because math remains a significant barrier to achieving a college-level credential, participating colleges will also work to redesign developmental math where more traditional models still exist.

(4) Last, the SWAMMEI project integrates the use of academic coaching strategies to support student success. By providing students guidance in topics such as effective study skills, coaching has demonstrated an ability to improve student retention and completion rates.