

## **Overview.**

Overview The size of America's STEM workforce is waning as the gap between needed jobs and lack of qualified candidates grows, revealing a disconnect between higher education and industry expectations. Inequitable access to training and traditional degree-focused education is a significant barrier to STEM participation, particularly for underserved and underrepresented groups, including those facing financial hardships, limited time, or family responsibilities. Microcredentials, however, offer specialized, focused content that is more convenient, affordable, and accessible, especially for underrepresented or disadvantaged groups. This CAREER project broadly answers: "How do STEM microcredentials influence educational and career pathways, and what factors contribute to their effectiveness in bridging the gap between academic preparation and industry demands?" Consensus on the validity and credibility of microcredentials is needed among higher education and industry to realize microcredentials' potential to fill the STEM workforce gap. Learners need to be included in this consensus building to (1) align current and future microcredentials with learner expectations and input and (2) create pathways between industry-specific jobs and specific microcredentials. Supporting learners' goals requires a transformative approach that builds consensus on value, necessary competencies, and credible attainment.