




Training, Education, and Workforce Development

MISSOURI
S&T

We Dig Research
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Constellation Team Members

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One word:

Pipeline

Vision of the Products

The Training, Education, and Workforce Development Research Constellation will enhance the economic growth of communities by researching the efficacy of existing strategies, structures, and policies while collaborating with organizations, industry, and schools.

These collaborations and community engagement will result in innovative approaches that appeal to foundations, state and national agencies, and industry for large scale funding opportunities that are new or previously unavailable to S&T.

Vision of the Process

The interdisciplinary research produced by members of this constellation will be collaboratively developed using principles of team science; all members will be involved in teams at the outset of project development, and every voice will be valued.

Using research, this constellation will also provide recommendations for university, local, state, and national policies on workforce development and STEM education. This constellation will produce research that enhances access to STEM for all people, not just dominant groups, resulting in a more diverse, creative, entrepreneurial, and skilled workforce.

S&T Existing Resources

- South Central Regional Center for Professional Development
- Relationship with Project Lead the Way
- CAFE
- Missouri Small Business Development Center
- Ozark Field Station
- Testing center

S&T Existing Activities

- Summer camps and other K-12 outreach like Expanding Your Horizons
- Outreach activities conducted by faculty and in partnership with organizations
- Research with high school students
- Diversity conference
- Speaker series
- Infrastructure for short, non credit course development

Research Methodology

The interdisciplinary research conducted in this area includes quantitative, qualitative, and mixed methods as needed to answer the research question.

The emphasis of this constellation is not that these activities are occurring, but **if they are accomplishing the stated outcomes with meaningful impact.**

Potential Barriers

- Time to let initiatives work, longitudinally studies
- Lack of program evaluation expertise
- Systems for dual credit or enrollment by adults
- Staff with workforce development expertise, more training for those interested
- Highly selective status may be intimidating for adult degree completion/workforce development
- Few incentives for developing short course/workforce development resources for industry

2021: New Context

On campus child care center, support for universal preK

Federal education funding (ESSR)

MoExcels funding

Kummer Center for Excellence in STEM Education

University of Missouri system committee on workforce development

High school students graduating with AA degrees, federal funding for free community college

Severe teacher shortage, state funding for “Grow Your Own Teachers”

Kummer Center for Excellence in STEM Education

Summer camps

K-12 field trips and outreach

Mobile STEM lab focused on rural schools

STEM teacher professional development

Community engagement, parent/family education

School lending library for equipment

Future Directions

Path to R1, expansion of non STEM programs and research in these areas

Graduate and undergraduate certificates in constellation-related areas

Mobile STEM Lab for rural schools and community engagement

Including teacher professional development in grants

Partnerships with community and regional organizations, researching effectiveness of programs/interventions

Different types of grants, support for programs that potentially benefit ALL students