



EXPLORING HOW DATA MAKE A DIFFERENCE

Leveraging statewide longitudinal data to improve technical
(NSF Award # 1902019) education pathways

RESEARCH TEAM

This three-year ATE research project will grow the capacity of CTCs by studying how organizational culture at the department level can support faculty's data-informed efforts to improve technical education programs and pathways. Three research questions will guide this work:

1. What information about student outcomes do faculty need to facilitate data-informed improvements to technical education pathways and programs?
2. What longitudinal data can be incorporated into data-informed processes and interactive tools to generate descriptive and predictive analytics for faculty to use to improve technical education pathways?
3. To what extent does the development of interactive tools for data-informed decision-making affect organizational culture around improving technical education pathways and programs?

Community and technical colleges (CTCs) throughout the country are working diligently to recruit a diverse student body and boost completion rates at a time when the nation faces a shortage of technically prepared workers. At the same time, resource constraints limit data analysis of student outcomes to improve technical programs and pathways. Many factors contribute to limited data use, including the lack of knowledge and awareness of relevant data, difficulty accessing available data, shortfalls in quantitative research capacity, and limitations in how data are used to tell stories about student success.

Interested in more information? Please contact Dr. Grant Blume at gblume@uw.edu. To join a listserv for project information and updates please contact Dr. Elizabeth Meza at emeza@uw.edu.

This comparative case study research will serve as the "connective tissue" among five unique resources in Washington State to study how statewide longitudinal data can be leveraged to improve technical pathways and programs:

- Washington State has a robust network of NSF-ATE technician and technical education grants.
- Washington was an early adopter of a comprehensive longitudinal data system, creating one of the most robust data systems linking education and labor market data in the nation.
- The Washington State Board of Community and Technical Colleges' (SBCTC) partnership with Tableau leaves colleges ready to leverage this resource for data visualization.
- Washington State is a recognized innovator in pathways reforms, founding the career pathways model called Integrated-Basic Education and Skills Training (I-BEST), advancing guided pathways, and leading the nation in community college baccalaureate degrees in technical fields.
- An established network of UW researchers with expertise in CTC policy and practice, in partnership with CTC faculty and the SBCTC, are uniquely poised to collaborate on practitioner-oriented research.

PARTNER COLLEGES AND ADVANCED
TECHNICAL EDUCATION PROGRAMS

PROJECT TIMELINE



This research project will unfold across three phases spanning 2019 to 2022:

1. Phase One (Sept. 2019 – Feb. 2020): The research team will document, review, and analyze the landscape of NSF-funded technical education programs and pathways in Washington State to determine what student momentum points and outcomes are relevant to technical education in Washington State.

2. Phase Two (Mar. 2020 – Sept. 2021): Put statewide longitudinal data in the hands of technical

faculty! In partnership with the project's three partner colleges, the research team will implement data dashboards based on three data-informed improvement frameworks – Guided Pathways, Equity Scorecard, and Pathways to Results. The research team will study how these interactive tools for data informed decision making affect each department's organizational culture around improving technical education pathways.

3. Phase Three (Sept. 2021 – Sept. 2022): The research team will disseminate and scale data-informed processes and practices throughout Washington and other states to improve technical education.

(NSF AWARD#)

LEVERAGING STATEWIDE LONGITUDINAL DATA TO IMPROVE TECHNICAL EDUCATION PATHWAYS