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Center Name: Pacific Northwest Transportation Consortium (PacTrans)

Research Priority: Improving the Mobility of People and Goods

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Project Partners: None identified so far

Research Project Funding: \$150,000 federal; \$150,000 non-federal match

Project Start and End Date: 8/16/2023 – 8/15/2025

Project Description: While PacTrans researchers are experts in various aspects of transportation research, not all researchers have the tools or knowledge to address equity topics in their research or conduct their work following equitable and inclusive practices. This project will help researchers think about and integrate equity into their research and their research practice. The primary objective of this project is to develop a series of workshops that could expand our researchers' (faculty and advanced graduate students) skill set to better integrate equity into research. Through the workshops, we expect that participants will develop new knowledge and skills necessary to integrate transportation equity into future research projects. The workshops will be specific to transportation, making them more appealing than other general DEI training opportunities available to faculty.

US DOT Priorities:

The main focus of this project is to transform the transportation research enterprise at PACTRANS campuses to be more responsive to equity issues, especially in how the research is carried out, in how students and faculty are trained, as well as how students are recruited and retained as research assistants. As such, this project addresses several US DOT priorities and principles. **Addressing equity** is one of the core US DOT strategic goals in the 2022 - 2026 strategic plan. The project also improves **organizational excellence** by improving the performance of research activities and the data, models, researchers, and graduate students engaged in those activities. Finally, **addressing racial equity** is highlighted as an important innovation principle for the US DOT. We contend that this project constitutes **transformational research** as it will transform the research enterprise itself, creating compounding effects as the scholars and graduate students move on to new positions, taking the training they underwent through this project with them into their new endeavors.

Outputs:

This project is divided into several tasks that will produce several different outputs along its timeline, including:

Literature Review

This review will synthesize recent research on incorporating equity into all aspects of transportation research. We will focus on equity related to race, gender identity, income/class, (dis)ability status, and

age. The review will cover research topics (e.g., how transportation research addresses inequities), research methods (e.g., how different methods and data address equity); and the conduct of research (e.g., opportunities and barriers for underrepresented groups as researchers). We plan to post the literature review as a document or website on one or several of the PacTrans member websites.

Inventory of Existing Resources

We will create an inventory of existing resources that support researchers incorporating equity into research. Resources will include training events, workshops, websites, documents, and conferences. The inventory will be broad and include resources not specific to transportation research. The task will assess how useful the resources may be for PacTrans researchers from various disciplines. We plan to post the inventory as a document or website on one or several of the PacTrans member websites.

Survey of PacTrans Researchers

To assist in development of the workshops, we will first explore the current state of understanding and values of the participants in the workshops. To do this, the team will administer a survey of transportation researchers at the PacTrans universities to assess their current understanding of equity as it applies to research, their experiences with equity and research, and their interest in and needs for support to improve their ability to address equity in all aspects of their research.

Workshops in Year Two

A central task of this project is to carry out a series of workshops with PacTrans researchers and students. The workshop will be designed based on feedback received through the survey and build on the inventory of existing resources related to research equity, specifically related to transportation. We may engage with an outside partner to carry out the workshops, depending on the capabilities of PacTrans researchers. The workshops will address research equity as it connects to transportation research, specifically including the following issues:

- Equitable data collection practices
- Equity challenges working with demographic data (e.g., census, big data, etc.)
- Qualitative data methodologies (e.g., in-depth interviews, focus groups, ethnography, etc.)
- Concepts of “mapping justice” “survey justice” “data justice” and “data equity”
- Measuring equity and disparities
- Community engagement / Participatory research approaches (co-production with community)
- Understanding researcher positionality and biases
- Performing culturally-responsive research
- Mentoring new scholars from disadvantaged backgrounds
- Inclusive practices for engaging students in research

Post-workshop surveys

We plan to follow up with participants in the workshop with a short survey to understand the impacts of the workshop. We can use the survey to evaluate the effectiveness of the workshop and develop ideas to improve the workshop for potential future repetition.

Outcomes/Impacts:

A single researcher at a research university may oversee dozens of research projects, including mentoring dozens to even hundreds of students during their careers. Improving sensitivity to equity and justice issues in their research, and how they mentor, and how they relate to community issues and data will create long-lasting impacts on the researchers attending the workshops we develop through this project. The literature review and inventory of equitable research practices could serve as important

Working Towards Operationalizing Transportation Equity into the Research Process

resources for the larger transportation research community throughout the country or perhaps even the world. Arguably there is too little done on this front, and resources like this, including the workshops and other lessons we will learn through this project are at the cutting edge of improving the research practice and its sensitivity to equity impacts. These workshops could even serve as a model for other research units and they could adapt similar contents or approaches to training their personnel and students. Again, we contend that this would have long-lasting impacts as students and scholars going through our workshop will draw from their experience throughout the rest of their careers, potentially creating cascading effects in the work they do and the students that they mentor.

Final Research Report: *will be provided upon completion of the project*