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Improving Transportation Access Through Interdisciplinary Collaboration

Noelle Fields
University of Texas, Arlington


Courtney Cronley
University of Texas, Arlington

Kate Hyun
University of Texas, Arlington

Stephen Mattingly
University of Texas, Arlington

multiple additional authors

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NITC

NATIONAL INSTITUTE
for TRANSPORTATION
and COMMUNITIES

IMPROVING TRANSPORTATION ACCESS THROUGH INTERDISCIPLINARY COLLABORATION

Transportation planners and engineers often struggle to serve at-risk communities and environmental justice (EJ) populations such as older adults, people with low income, low socioeconomic status, racial and ethnic minorities, and individuals with disabilities—all groups who are at an increased risk for transportation disadvantage. Evidence of these struggles manifest as unequal transportation system outcomes related to access and opportunity. Meanwhile, social workers often struggle to connect with the planners and engineers whose transportation designs impact the individuals and communities that they work with. Noelle Fields, a researcher in the University of Texas at Arlington (UTA) School of Social Work, headed an interdisciplinary research team with co-investigators Courtney Cronley, Kate Hyun and Stephen Mattingly of UTA. They sought opportunities for enhanced collaboration, educational training, and application of technology.

Adequately serving EJ populations requires re-evaluating long-held assumptions and practices within the transportation and social work professions—specifically understanding their mobility gaps. Collecting data on their needs and how these vulnerable populations currently use the transportation system helps both sides reframe their assumptions. To gather that travel habit data, the research team created strategies for using two Android apps (Safe Activity and My Amble) developed at UTA. These apps improve upon traditional pen-and-paper-based daily transportation diaries in terms of quantity and quality of data collected.

Researchers held six focus group involving social workers, transportation planners and civil engineers. Participants reported utility in collecting longitudinal, crowd-sourced/real-time data with the MyAmble and Safe Activity apps. Across all three disciplines, the majority of participants agreed that it was important to apply interdisciplinary collaboration to address the underserved mobility needs of EJ populations. The research team provided specific recommendations for enhancing interdisciplinary collaboration around transportation equity for EJ populations.

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Better connections and cross-disciplinary collaboration between transportation engineers, transportation planners, and social workers could offer significant benefits to transportation-disadvantaged populations who use social services.

How Can Interdisciplinary Teams Leverage Emerging Technologies to Respond to Transportation Infrastructure Needs? (#2019-1176)

Noelle Fields, University of Texas, Arlington

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