

# Defining and measuring equity in public transit service provision

Friday, October 3, 2014  
3:00pm to 4:30pm

Please join us in College Avenue Commons room 425 📍



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Determining whether a public transit network provides equitable service to different demographic groups is an ongoing challenge. Although the Federal Transit Administration (FTA) requires public transit and regional transportation planning agencies to conduct specific equity-related analyses, results are often limited by imprecise data and differing operationalizations of public transit benefits. In this talk, we illustrate these limitations and develop alternatives based on detailed transit route and schedule data. For example, equity analyses typically use proximity to stops or routes to quantify the costs and benefits of service changes on different groups. But the benefits of transportation investments are properly understood to result from accessibility – the ease with which destinations can be reached. Proximity to transit is not useful if a nearby route does not reach a desired destination. More robust equity analyses would consider how proposed investments change accessibility and for whom. To this end, we develop and demonstrate the utility of a highly spatially and temporally resolved accessibility indicator with an application to the Phoenix metropolitan region. The indicator is calculated using newly-available public data sources, including the US Census Bureau's Longitudinal Employer-Household Dynamics dataset and transit route and schedule information in the General Transit Feed Specification (GTFS) format. This measure has clear application to FTA equity analysis. Previous academic work on accessibility has not translated well to practice in part because the calculation of accessibility relied upon regional travel demand model outputs that were difficult to obtain. This work thus addresses an important gap in the literature and practice by tying advances in data and methods to FTA-required analysis and ultimately to equitable planning outcomes.



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