

Keynote 1 Safeguarding Equitable Transportation: An Examination of ADA Paratransit Usage Change during COVID-19 Pandemic

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Abstract: ADA paratransit serves as a critical transportation means for persons with disabilities to meet their basic needs, but the COVID-19 pandemic poses an unprecedented challenge to service providers. To safeguard transportation equity, this study uses complete records of service trips and riders obtained from the Access Transportation Program in the Seattle region for an empirical analysis aimed at answering two research questions. First, how have the ridership and trip purposes of paratransit changed since the outbreak of COVID-19? Second, what factors explain the users' changing levels of service usage in response to the pandemic? Statistical methods, including a Hurdle model, are employed as the analytical tools. The results show that paratransit ridership has dramatically decreased with the most substantial reductions of working and non-essential personal trips, and that a majority of the remaining trips has been for medical purposes. The results also indicate that riders' service usage during a pandemic is associated with their sociodemographic characteristics, disability conditions, and pre-pandemic travel demand. Most importantly, when controlling for other factors, riders who live in neighborhoods with lower income and lower access to vehicles are more dependent on the service. These findings lead to several recommendations for public transit agencies and paratransit operators as they develop plans to prepare for future disruptive events.