

UTC Project Information	
Project Title	Shared Mobility Options for the Commute Trip: Opportunities for Employers and Employees
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Funding Source(s) and Amounts Provided (by each agency or organization)	University of Washington PacTrans \$180,000 University of Washington \$80,000 Washington State Department of Transportation \$40,000 University of Idaho \$60,000
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Agency ID or Contract Number	69A3551747110
Start and End Dates	September 16, 2020-December 15, 2022
Brief Description of Research Project	<p>This multi-institutional research project consists of <b>two components</b> that were conducted, respectively, by the University of Washington (UW) team members and the University of Idaho (UI) team members. <b>The UW component explores the commuting experience of essential workers during the COVID-19 pandemic, using the University of Washington as a case study.</b> The empirical work started with a quantitative analysis of the UW transportation needs assessment survey data to depict and model commute mode choice of essential workers before and during the pandemic. It found that most pre-pandemic public transit riders switched to other modes, especially driving alone, whereas almost all the essential workers who drove alone, biked, or walked before the pandemic continued to do so. The shift to driving alone was most pronounced among essential workers with high incomes, whereas public transit remained as a primary mode choice of lower-income groups. A qualitative analysis, which was based on a series of focus group discussions with UW employees, was then performed to gain deeper insights into essential workers' travel constraints and corresponding decision making. It revealed that most participants switched away from transit at the beginning of the pandemic due to safety concerns related to virus infections and issues with transit frequency, schedules, and reliability. It showed that incentives such as a fully subsidized transit pass and free carpool parking would encourage a reversed mode shift from driving alone to transit or carpooling post-pandemic. Together, results of the UW study suggest the need for timely adjustments of TDM policies in response to the evolution of the pandemic, as well as to expand the mobility options for employees, especially the essential workers.</p> <p><b>The UI component, which uses the University of Idaho as a case study, investigates the travel behavior of university students from rural and</b></p>

	<p><b>suburban communities and how their experience with non-automobile modes of transportation affects their mode choice.</b> This research component was implemented through surveys, which were aimed at identifying any relationship between previous multi-modal experience and current travel behavior, and an experiment, which took participants on a 90-minute tour of the community by bus, bike, and walking and then evaluated the impact of the tour on the participants’ travel behavior. The results showed that students from rural communities who frequently drove to high school and had little experience with public and private transit were more likely to be driving currently, and participating in the experiment increased the students’ use of bus, bike, and walking.</p>
<p>Describe Implementation of Research Outcomes (or why not implemented)</p> <p>Place Any Photos Here</p>	<p>The research findings were shared with planners working for University of Washington Transportation Services and University of Idaho Parking and Transportation Services, respectively. The research findings will serve as useful input for future innovations in shared mobility services in these two academic institutions aimed at making commuting easier and more reliable for essential workers, especially during major disruptions, and increasing the use of shared and nonmotorized travel modes among students.</p> <p>We believe that our research findings have also positively influenced other employers and some transit agencies through our presentations at several regional, national, and international academic conferences, including the annual conference of Transportation Research Board in January 2023.</p>

<p>Impacts/Benefits of Implementation (actual, or anticipated)</p>	<p>Results from the UW research component demonstrate the critical role of publicly provided mobility services in safeguarding transportation equity during major disruptions. In addition, the resiliency shown by biking and walking as commute options during the pandemic should serve as a reminder that non-motorized transportation is a fundamental element of the urban transportation system that needs to be carefully planned, designed, and built and adequately supported. The results also show the dynamic nature of commuters' perception and behavior during a pandemic, which suggests the importance of making timely adjustments of policies to better address the evolution of and recovery from a pandemic. Recovery planning and post-pandemic policies will benefit from the expansion of fully subsidized transit pass and free or reduced-cost for park-and-ride and carpool parking.</p> <p>The results of the UI study show in a convincing way that education about and exposure to alternative modes have a measurable effect on both behavior and attitudes. Transit operators and active travel staff must work with youth to increase their awareness of the available alternative transportation modes, and that colleges and employers should help create opportunities and provide support for college students and young workers to use the environmentally more desirable commute options.</p>
<p>Web Links</p> <ul style="list-style-type: none"> <li>• Reports</li> <li>• Project Website</li> </ul>	