UTC Project Information	
Project Title	Park and Ride Linkage to Public Transit Service Productivity
University	San José State University Mineta National Transit Research Consortium
Principal Investigator	John S. Niles
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Funding Source(s) and Amounts Provided (by each agency or organization)	Research and Innovative Technology Administration University Transportation Centers Program ($29,963) California Department of Transportation Office of Research—MS42 ($29,963)
Total Project Cost	$59,926
Agency ID or Contract Number	DTRT12-G-UTC21
Start and End Dates	October 2014 – December 2016
Brief Description of Research Project	In the current era of fiscal challenge for transit agencies it's important to understand how to achieve transit ridership cost-effectively. Park and Ride configurations in theory provide a system for efficiently interfacing transit vehicles with geographically dispersed customers. P&R works like this: In order to save time and money by not driving to their ultimate destination, some commuters, rather than walking to bus stops near their homes, drive themselves a few miles to a specially-designated car parking lot where buses stop. Across America, P&R lots with frequent bus service have often proven to be so popular that available commuter parking is regularly filled to capacity. In some cases a fee for parking is charged to modulate demand. Preliminary evidence indicates two important benefits accrue from the P&R service model. The first is stimulation of demand among discretionary riders by providing appropriately-priced or even free parking and frequent express transit service. Second is increased efficiency of transit operations by reducing the need for multi-stop local service to collect commuters. The fundamental questions this study seeks to answer are: How

	does the provision of P&R capacity influence transit productivity? And, how does the effectiveness of Park and Ride investment compare with other transit improvements as a means of increasing transit productivity? We will study five to eight public transit bus systems, including the park and ride lots served by each agency, the fixed routes that serve those P&R lots, and a sample of the other routes that serve low density suburban regions where P&R lots are a reasonable alternative, even though none exist for these routes. We have existing contacts in most of the agencies we are targeting. We will use existing data sets to characterize the location and operational characteristics of P&R lots. We will use regression analysis and factor analysis to determine the influences on the operational productivity characteristics of routes such as boardings per vehicle revenue hour and passenger miles per vehicle revenue hour.
Describe Implementation of Research Outcomes (or why not implemented)	Research in progress. Niles, John. "Park-and-Ride Success: A GIS Analysis." Presentation at the 2015 Environmental Systems Research Institute (ESRI) User Conference, San Diego, CA, July 22, 2015. Niles, John. "Park-and-Ride: A GIS Analysis of Productivity Implications for Transit." Presentation at the 2015 American Public Transportation Association (APTA) Annual Meeting, San Francisco, CA, TBD. Niles, John. "Park & Ride Influence on Public Transit Productivity." Presentation at the King County Metro Briefing, Seattle, WA, May 11, 2015.
Place Any Photos Here	

Impacts/Benefits of Implementation (actual, not anticipated)	End users will be transit management and agency board leadership in U.S. and Canadian cities who would have new insight into the utility of park and ride lots as integral components of the transit system. Our research-based findings, conclusions, and recommendations on this topic, which have not been covered elsewhere, would be a basis for transit investment policies, and potentially for state and Federal grant programs. The apparent lack of rigor applied to this problem so far suggests there are opportunities for incremental improvement in service productivity of suburban commuter routes, as well as a more disciplined approach to transit agency resource allocation.
Web Links • Reports • Project Website	Final report (MNTRC Website): Final report (TRB Website):