

Grant Deliverables and Reporting Requirements for UTC Grants

UTC Project Information	
Project Title	Routing Traffic for Community Health: The Case with Safety-Conscious Travelers
University	University of California, Davis
Principal Investigator	Michael Zhang
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Funding Source(s) and Amounts Provided (by each agency or organization)	USDOT: \$61,932 UCD: \$30,966
Total Project Cost	\$92,898
Agency ID or Contract Number	Sponsor Source: Federal Government CFDA #: 20.701 Agreement ID: 69A3551747119
Start and End Dates	Start date: 12/01/2017 End date: 09/30/2019
Brief Description of Research Project	The proposed research studies the traffic routing and equilibrium with traffic safety rather than travel time or fuel use as the main factor that affects travelers' routing choice. The safety (i.e. accident risk) is described as a random variable that depends on traffic conditions and location specific characteristics for each road. Network equilibrium models will be developed for two distinct scenarios, namely, each traveler minimizes his or her own accident risk (user-optimal) and travelers cooperated to minimize the total accident risk in the network (system-optimal). System performance, such as total travel cost, total risk of accidents, equity of safety among all travelers, will be evaluated for both scenarios.
Describe Implementation of Research Outcomes (or why not implemented) Place Any Photos Here	This research breaks the tradition of transportation planning that assigns trips to the network based on efficiency rather than safety. It will take some time for the transportation planning community to accept such changes.

Impacts/Benefits of Implementation (actual, not anticipated)	No implementation was carried out.
Web Links <ul style="list-style-type: none">• Reports• Project website	http://ctech.cce.cornell.edu/final-project-reports/