

How does neighborhood crime influence the way we access transit?

Mineta's phase-three report refines previous results.

San Jose, CA – September 8, 2015 – How does neighborhood crime influence the way riders access various transit modes – or if they will ride transit at all? In a third-phase report, researchers have further refined the investigative techniques and results from their first two studies, which had some inconsistent results. [*Neighborhood Crime and Transit Station Access Mode Choice – Phase III of Neighborhood Crime and Travel Behavior*](#), published by the [Mineta Transportation Institute](#) (MTI), uses the new data to recommend several collaborative ways for transit agencies, police, and public officials to help reduce crime and make non-motorized travel safer. Principal investigator was Christopher E. Ferrell, PhD, working with Shishir Mathur, PhD, and Bruce S. Apleyard, PhD. The free report is available at <http://transweb.sjsu.edu/project/1107.html>

“Most public policy strategies can take years to show results,” said Dr. Ferrell. “But improved crime intervention strategies can reduce residents’ safety concerns much more quickly, even when they live in high-crime neighborhoods. In turn, this can encourage more walking, biking, and riding transit as a way to accelerate reduced automotive emissions and improved health. This new report shows even more reliable evidence to support that idea.”

Further, crime can be prevented when transit agencies, local governments, and emergency service providers collaborate on crime prevention through environmental design methods, such as with transit-oriented development (TOD). This will help maximize the beneficial effects of TOD over the long term, the authors say, because it will help create safe, transit- and pedestrian-oriented communities around transit stations.

Five research improvements were made.

Based on what they learned in their first two reports, the authors made five research improvements to address any previous inconsistencies in the results:

- Tests for the influence of a new travel data set;
- Separate drop-off and drive-alone modes analysis;
- Corridor-level variables;
- Average parcel size variable; and
- Nested logit modeling

They also discuss the reasons for using these improvements, as well as how the improvements positively affected the new results.

Dr. Ferrell said, “The third phase of this research has successfully confirmed our hypothesis that high levels of neighborhood- and corridor-level crimes discourage transit use, walking, and bicycling while encouraging driving. Automobiles may benefit many, but they also bring social ills, such as obesity, emissions, sprawl, and the like. Improved crime prevention strategies can make non-motorized travel more attractive, and they should be considered as part of a larger package of short-term and long-term measures to reduce auto dependence.”

The report includes 18 figures and tables summarizing the regression and logit model results. The report is available for free download from <http://transweb.sjsu.edu/project/1107.html>

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ABOUT THE AUTHORS

Christopher Ferrel, PhD, began his planning career in 1995 working for the San Francisco Bay Area's Metropolitan Transportation Commission, and since 2000 he has been a transportation consultant. In 2010 he co-founded CFA Consultants, a transportation planning and research firm. Dr. Ferrell completed his doctoral studies in City and Regional Planning at the University of California, Berkeley in 2005 focusing on the interactions between transportation and land use.

Shishir Mathur, PhD, is an associate professor of Urban and Regional Planning at San Jose State University. He obtained his PhD in Urban Design and Planning from the University of Washington, Seattle (2003), and Masters in Urban Planning from the School of Planning and Architecture, New Delhi, India (1997). He has been an urban planner in the USA and India.

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ABOUT THE MINETA TRANSPORTATION INSTITUTE

The Mineta Transportation Institute (MTI) conducts research, education, and information transfer programs regarding surface transportation policy and management issues, especially related to transit. Congress established MTI in 1991 as part of the Intermodal Surface Transportation Efficiency Act. MTI won national re-designation competitions in 2002, 2006 and 2012. The Institute is funded through the US Department of Transportation, the US Department of Homeland Security, the California Department of Transportation, and public and private grants. The internationally respected members of the MTI Board of Trustees represent all major surface transportation modes. MTI, the lead institute for the nine-university Mineta National Transit Research Consortium, is affiliated with San Jose (CA) State University's College of Business. Visit transweb.sjsu.edu

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