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Free report researches crime influence on travel mode choices; recommends ways to encourage alternatives to driving

Mineta Transportation Institute's report expands on a previous study.

San Jose, Calif., January 19, 2012 – The [Mineta Transportation Institute](http://transweb.sjsu.edu) (transweb.sjsu.edu) has published a free report that studies how neighborhood crime affects the way people travel and recommends ways to encourage alternatives to driving. [*Neighborhood Crime and Travel Behavior: An Investigation of the Influence of Neighborhood Crime Rates on Mode Choice – Phase II*](#) expands on a Mineta-sponsored Phase I report, which appeared to yield counter-intuitive results. Researchers decided on further testing. Principal investigators were Christopher E. Ferrell, PhD, and Shishir Mathur, PhD, with assistance from Justin Meek, AICP, and Mathew Piven. The report is available for free download from transweb.sjsu.edu/project/2802.html

In this second phase, researchers further refined their models to determine if those original results were still valid. Counter-intuitive results still appeared to some degree in the new data, largely validating the original results and offering some new insights to help transportation planners make immediate improvements.

“There are considerable environmental and public health benefits if people walk, bicycle, or ride transit, instead of drive,” said Dr. Ferrell. “However, prior to this study, little work has been done on the effects of neighborhood crimes on transportation mode choice. Intuitively, we understand that possible criminal activity in one’s neighborhood can seriously influence the decision to drive, take transit, walk or ride a bicycle. But prior to this study, little empirical evidence supported this notion, let alone helped guide public infrastructure investments, land use planning, or the allocation of police services.”

This report finds that:

- High crime neighborhoods tend to discourage residents from walking or riding a bicycle
- When comparing a high crime to a lower crime neighborhood:
 - The odds of walking over driving decrease by 17.25 percent for work trips and 61 percent for non-work trips
 - The odds of taking transit over choosing auto increase by 17.25 percent for work trips and 164 percent for non-work trips, indicating that people appear to choose to take transit in a similar way to auto trips, wherein high crime neighborhoods appear to encourage taking transit
 - The odds of walking or biking to a transit station versus driving decrease by 48.1 percent, indicating that transit access trips (walking, bicycling or driving to a transit station) are sensitive to neighborhood crimes as well, wherein high crime neighborhoods discourage walking and bicycling and encourage driving to transit stations

While these results may not be entirely surprising, they can have immediate implications for planners. The arguments in favor of reducing auto dependency through land use and urban design interventions have attracted serious attention in recent years, but these changes and their anticipated benefits take place over the course of decades.

This report suggests that improved crime intervention strategies that can reduce residents' safety concerns in high-crime neighborhoods could deliver more immediate benefits. Therefore, they should be considered as part of a larger package of both short-term and long-term measures to reduce auto dependency.

The complete report, including methodologies, models, and other findings, is available for free download at transweb.sjsu.edu/project/2802.html

ABOUT THE AUTHORS

Christopher Ferrell, PhD, began his planning career in 1995 with the Metropolitan Transportation Commission (MTC) on Intelligent Transportation System (ITS) applications for traffic management. Since 2000, he has worked as a transportation consultant, and 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. His studies focus on the relationships between transportation and land use. His research includes the evaluation of transit facilities, transportation policy analysis, transportation and land use interactions, travel behavior, and the analysis of institutional structures. As a practitioner, he has developed traffic impact studies for mixed-use, infill and transit-oriented projects, analyzed the impacts of specific and general plans, planned and implemented intelligent transportation systems, and developed bicycle and pedestrian plans. He has also taught several graduate planning classes in the San José State University Urban Planning Department and the University of California, Berkeley City and Regional Planning Department.

Shishir Mathur, PhD, is an Associate Professor of Urban and Regional Planning at San Jose State University. He obtained his doctorate in 2003 in urban design and planning from the University of Washington, Seattle, and his master's degree in urban planning from the School of Planning & Architecture, New Delhi, India. He has worked as an urban planner in the USA and India. His professional work in the USA includes research, teaching and consulting in urban economics, housing, public finance, growth management, land use planning, infrastructure planning, strategic planning, and systems analysis. In India he consulted in physical and land use planning, infrastructure finance, project management, architecture, and urban design. For a complete listing of his publications, see <http://works.bepress.com/shishirmathur/>.

ABOUT THE MINETA TRANSPORTATION INSTITUTE

The Mineta Transportation Institute (MTI) conducts research, education, and information and technology transfer, focusing on multimodal surface transportation policy and management issues, especially as they relate to transit. MTI was established by Congress in 1991 as part of the Intermodal Surface Transportation Efficiency Act (ISTEA) and was reauthorized under TEA-21 and again under SAFETEA-LU. The Institute has been funded by Congress through the US Department of Transportation's (DOT) Research and Innovative Technology Administration, by the California Legislature through the Department of Transportation (Caltrans), and by other public and private grants and donations, including grants from the US Department of Homeland Security. DOT selected MTI as a National Center of Excellence following competitions in 2002 and 2006. The internationally respected members of the MTI Board of Trustees represent all major surface transportation modes. MTI's focus on policy and management resulted from the Board's assessment of the transportation industry's unmet needs. That led directly to choosing the San José State University College of Business as the Institute's home. Visit transweb.sjsu.edu

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