2007-08Annual Report





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The Mineta Transportation Institute (MTI) was originally designated by Congress as a non-technical, policy research and education center in the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 and reaffirmed by the Institute's Board of Trustees after reauthorization in the Transportation Equity Act for the 21st Century (TEA-21) in 1998. MTI undertakes research, education, and information/technology transfer programs relative to the policy control and management of all surface transportation modes. Within those parameters, MTI produces case studies of the best examples of surface transportation policy and management activities in the world, accumulates those into peer-reviewed publications, and communicates best practices to MTI's professors, students, and the nation's transportation leaders.

During the 1991 ISTEA, 1998 TEA-21 and 2005 SAFETEA-LU debates, Congress strongly expressed the desire to assure

the international competitiveness of the nation's transportation systems. Because much larger motor vehicle fuel taxes are available in other industrialized countries, the U.S. will not be able to outspend so it must outsmart the competition. Therefore, MTI's objective is to identify through research, to teach through education, and to broadly disseminate through information/technology transfer programs the best transportation practices in use throughout the world. MTI's work encompasses all modes of surface transportation, including the interface between those modes.

MTI is organized by function, with directors operating in each of four departments – Research (including the National Transportation Finance Center), Education, Transportation Security (the National Transportation Security Center of Excellence for both US DOT and DHS), and Information/Technology Transfer and Special Projects.



Research



Trixie Johnson Research Director

Trixie Johnson was appointed as research director for the Mineta Transportation Institute in 1999, and until this year also managed the Institute's forums and symposiums. (During this year, the responsibility for events and for security projects was transferred to MTI Communications and Special Projects Director Leslee Hamilton and then to her replacement, Donna Maurillo.) As research director, Ms. Johnson conducts an annual research needs assessment and request for proposals, and manages projects from the approval process through peer review and final publication.

During her tenure she has managed 100 research projects and 21 events. Before joining MTI, Ms. Johnson served the full limit of two terms on the San José City Council (1991-1998). Recognized as a specialist in land use and the environment, her Council service included two years as vice mayor and several years as the chair of the city's Transportation, Development, and Environment Committee. Her other public service included chair of the Environmental Quality Committee; member of the board of directors for the League of California Cities; vice-chair of the Energy, Environment, and Natural Resources Committee of the National League of Cities; and member of the Bay Area Air Quality Management District Board. Specifically in transportation, she was a founding board member of the Santa Clara Valley Transportation Authority (VTA), chair of its Congestion Management Committee of the American Public Transit Association (APTA). Ms. Johnson was Phi Beta Kappa with honors at the University of Utah, earning a BA in history, and she received her MA in English from the University of Washington.

Research Program Goals

The Mineta Transportation Institute Research Program seeks to involve a diverse and growing number of certified Research Associates (RA) and student Research Assistants in a wide spectrum of research projects judged by peers and other experts to advance the body of knowledge in intermodal transportation policy and management. MTI does only directly applicable, not theoretical, research projects, which are selected by way of a thorough needs assessment involving the US DOT, Caltrans, and the Institute's board of trustees.

The People

MTI actively recruits academic involvement from many departments at San José State University (SJSU). However, the program is different from most other transportation centers because research teams may also include faculty from other colleges and universities and private sector consultants. The experience and knowledge of individuals from public and private organizations outside academia can bring a "real world" and very practical perspective to MTI research and to the classroom when research is shared with students. Each team includes at least one SJSU academic member and one SJSU student. Projects are conducted in an academic format, including research methodology, report writing, and rigorous peer review of work prior to publication.

MTI certifies all Research Associates prior to their involvement in any project. Certification requires a completed application with references, a résumé, and a sample of published research. The Research Associates Policy Oversight Committee (RAPOC), composed of the six department heads or representatives of the SJSU academic departments with which MTI works most closely, reviews the applications and recommends certification where appropriate.

Research Projects

The annual project selection begins with an extensive and structured needs assessment involving staff, Caltrans, the US DOT Western Resource Center, and MTI's Board of Trustees (BOT). On completion of the assessment, MTI issues a formal Request for Proposals (RFP) to the MTI RAs and broadly announces the availability of the funding opportunity beyond the MTI community. RAPOC, Caltrans, and a representative from the US DOT subject all qualified proposals to peer review. The reviews are then discussed in detail at a selection meeting. Few proposals are recommended for funding as submitted; many are tentatively selected subject to revision by the principal investigator, and others are rejected.

Following selection, research proposals and budgets are refined and revised according to RAPOC's direction. In some cases, additional review by the committee occurs before the final project description and budget are written and approved by Caltrans and the SJSU Foundation. That approval marks the real beginning of the research project, which is then entered into the TRIS Research in Progress system and posted on the MTI website as a Project Description.

This research needs assessment, project identification, RFP, proposal review, research method refinement, and

project selection process is time consuming but guarantees the identification of needed research projects and selection of an optimal research team and methodology.

MTI also offers a Seed Grant program for amounts up to \$5,000.The program's dual purpose is

to interest new SJSU faculty in the MTI research program and to facilitate the development of their first full-fledged research proposal. Seed grants require a white paper summarizing the research and findings and in most cases the work results in proposal for funded research in the primary research program.

MTI emphasizes policy and management research, rather than technical research, and seeks projects that improve the development and operation of the nation's surface transportation systems, improve transportation decision making, and ensure the global competitiveness of the United States. MTI selects only research products with immediate and practical value for transportation officials and practitioners. To that end, MTI, at the direction of the BOT, has adopted in priority order the following areas of emphasis:

- Safety and security of transportation systems
- Financing of transportation infrastructure and operations
- Transportation, land use, the environment, and the economy interrelationships
- Transportation planning and policy
 development
- + Intermodal connectivity and integration
- Sustainability of transportation systems
- Collaborative labor-management issues and strategies
- Transportation decision making and consensus building







Transfer of Research Information

All research is professionally published and printed following successful peer review, author revisions, and editing. Additionally, every new report is available on MTI's web site, www. transweb.sjsu.edu. MTI has developed a number of other approaches to information transfer, including sponsoring summits, funding post-research travel for researchers to address professional conferences such as TRB, providing financial incentives for publishing in peer-reviewed journals, and developing cost-effective formats to present research summaries for distribution to practitioners.





Research Program Accomplishments

A Full and Varied Program

MTI contracted for six new research projects in this fiscal year. These joined 24 projects already in progress. Five projects moved to completion during the year, but two projects never reached the contract stage and were cancelled. Two of the projects were held in abeyance by subcontract issues or waiting for team members to complete other projects. Many of the ongoing projects are currently in peer review or editing and will be published by the fall.

A new RFP was issued in February, and 18 qualified proposals were submitted for peer review to the RAPOC committee, Caltrans, and representatives of the US DOT in the Western Resource Center. After a rigorous discussion, the group selected only one project to proceed and two to proceed after minor revisions. Five were asked to do major revisions and resubmit. To assure there will be at least the 10 new projects needed to meet MTI's research goals, the institute will conduct another RFP and selection process in the fall. A more complete description of the anticipated research is at the end of the Research text section.



MTI Responds to Special Requests for Research

MTI is pleased that both our federal and state sponsors look to the Institute to help them address special research needs. Sometimes MTI can do the research as part of the UTC grant, but other requests are managed under separate contracts. The requests demonstrate an appreciation for the quality of the Institute's work and its ability to undertake specific projects. MTI also conducts research and special projects for other sponsors. These special projects are discussed in the Information Transfer and Special Projects section of this report because they are managed by Donna Maurillo, the MTI Director for that area.

MTI Counterterrorism Research Spreads Far and Wide

MTI Research Associate and NTSC Deputy Director Dr. Frances Edwards was asked by the SJSU President's office to undertake an update of the university's campus emergency operations plan (EOP). MTI coordinated the project and then saw an opportunity to expand the work for transportation purposes. Dr. Edwards and team member Dan Goodrich examined all the transportation agencies that might serve a college campus and be involved in an emergency situation. The EOP master was extended so that any campus could use it as a model for revising their campus plans to coordinate with the transportation agencies in their area. The study is now in peer review.

MTI Publication #05-03, Dr. Brian Taylor, PI, still has "legs." He was invited to a Transportation Security Administration meeting on the future of transit security. The background reading for the meeting was a summary of that report. He also reported that a presentation at the TRB annual meeting in January ended with a complete citation for the report on the presentation screen – introduced as the best and most comprehensive document on the topic of transit security that presenter had found in his research.

The Aspen Institute in Washington's Homeland Security Program invited Brian Jenkins to participate in their spring 2008 roundtable at the Center for Risk and Economic Analysis of Terrorism Events (a DHS Center located at the University of Southern California). The invitation specifically cited Jenkins' MTI work as the reason for the invitation. Jenkins also spoke to the Caltrans Planning Conference in Long Beach in February on the response issues that arise in wide-scale emergencies such as a major terrorist attack. Further abroad, the Ottawa, Canada Citizen on March 15 published an article titled, "When terrorists' enemies become friends," which hailed Brian Michael Jenkins as the "dean of terrorism experts."

Finally, the Mass Transit magazine blog (in an entry by magazine editor Fred Jandt) referred to the recent MTI report, Selective Screening of Rail Passengers, in a discussion about funding for transit security.



Focus on Finance

Last year's report on financing options for the State of California continued to be newsworthy. Pl Asha Agrawal was interviewed by KQED radio (San Francisco public radio) and was invited to present her findings at two conferences. The Keston Institute for Public Finance and Infrastructure Policy (USC) conference in March (Sacramento) was titled "Paying for Tomorrow's Infrastructure: Options and Strategies for Sustainable Financing." A blog reporter covering the session for the American River Parkway Preservation Society cited two highlights among the presentations - and one was Dr. Agrawal's - "informative presentation of recent survey results that suggested a major generation gap in attitudes toward financing innovation." At the other end of the state in May, the Leonard Transportation Center at Cal State San Bernardino in partnership with the Women's Transportation Seminar and the Inland Empire Economic Partnership presented "For Whom the Road Should Toll?" Dr. Agrawal joined a distinguished and well-known group of speakers as an early invitee to the program.

Early results from Dr. Agrawal's current project studying environmentally related fees and taxes for transportation were deemed worthy of public release, even though the detailed analysis is not yet complete. The release attracted attention from several reporters and was sent to select members of the California State Legislature who were carrying bills which included such financing/environmental mechanisms.

TRB Annual Meeting Participation Increased; MTI Video an Award Winner

MTI research informed five TRB presentations, and 15 other sessions featured MTI Research Associates presenting other research. The highlight of the meeting occurred during the poster session on "Communicating Transportation Concepts to the Public." The video produced as part of MTI Project #2404 by Drs. Susan Shaheen and Caroline Rodier, designed as training for seniors using transit, received the highest award in the Communicating with John and Jane Public Competition. At the award ceremony, Dr. Shaheen spoke highly of the support provided by MTI for their research over the years.

The MTI Research Associates selected for presentation were:

- Dr. Daniel Hess, Project #2402
- Drs. Asha Agrawal and Jennifer Dill, Project #2408 (Dr. Agrawal created the workshop panel and moderated.)
- Drs. Susan Shaheen and Caroline Rodier, Project #2404 (Award Winner)
- Geoffrey Gosling (Dr. Richard Lee), Project # 2303
- Dr. Gregory Thompson (Dr. Jeffrey Brown), Project #2608
- MTI Research Associates or student assistants participating in other non-MTI sessions: Caroline Rodier, Susan Shaheen, Chris Ferrell, Jennifer Dill, Greg Thompson, Jan Botha, Robert Johnston, Shengyi Gao, and Lisa Callaghan.



Assorted Successes

MTI encourages researchers to present their work at conferences and to print in journals or books. Several past reports and work by SJSU professors moved to a more public realm in the past year. Drs. Asha Agrawal, Jennifer Dill, and Shishir Mathur all received travel grant awards to present papers at the Association of Collegiate Schools of Planning Annual Meeting in July 2007 (MTI Projects #2427 [Finance] and #2408 [Workforce Development]). The first MTI award for publishing a journal article based on MTI research went to Drs. Agrawal and Dill, again for Project #2427. John Niles used a travel grant award for the first presentation of Project#2704 (Interim BRT) at the American Pubic Transportation Association (APTA) Bus and Paratransit Conference in May 2007.

Events organized by MTI to present research are covered in detail in the Information Transfer section of this report, but as a research success, both #2408 and #2501 served as the bases for national summits in the past year. The Workforce Development Summit was covered by an article in APTA's Passenger Transport publication.

The long-awaited report on land-use planning around airports was ready for presentation at the 2008 TRB Annual Meeting. As a direct result of a presentation by Geoffrey Gosling, case studies from the report will be made available for use by the Aviation Cooperative Research Program's project on Enhancing Airport Land Use Compatibility. Additionally, Ashraf Jan (FAA coordinator of the ACRP committee) has asked for a presentation of the MTI study to the committee once it is published.

Dr. Allison de Cerreño's first high speed rail report was heavily quoted by the environmental blog Gristmill in a June 10, 2008 article by Jon Rynn, "High Speed Train to Victory." He called it an "excellent study" – full of just the information he needed.

Another MTI study with "long legs" has been the pedestrian preference report (MTI Publication #06-06) by PI Dr. Marc Schlossberg. Team member Dr. Asha Agrawal spoke to the Silicon Valley Leadership Group's housing action network about this walkability study, adding more mileage to what is already MTI's most public non-security study. The same report was covered in the New Jersey Institute



of Technology transportation center's publication, InTransition. The coverage was a point-counterpoint discussion in the Winter 2008 issue.

Dr. Schlossberg, who has completed two very successful research projects with MTI and is considering a third (Walking to School) was recognized in December as one of the top 20 researchers at the University of Oregon (UO) to receive a Fund for Faculty Excellence award. The award is for performance at the forefront of their areas of research and for raising the level of academic excellence at UO. The award included funding to support research and to supplement his salary for five years, and is renewable. Dr. Schlossberg was appointed Chair of the Department of Planning, Public Policy and Management in the School of Architecture and Allied Arts at OU last September. The value of the MTI research program's ability to form research teams, including faculty from many campuses and the private sector, is certainly evident in our association with Dr. Schlossberg.

MTI began its Bus Rapid Transit work by assisting Caltrans with their BRT Handbook project (MTI Publication #06-02). Don Dean, Branch Chief, Caltrans Division of Research and Innovation, had very quotable comments on the handbook: "The handbook is a lifesaver." "The Handbook for Partners has been one of our most successful projects in terms of visibility." Dean also reported the handbook would be used for the BRT section of Caltrans training sessions run by the National Transit Institute in November 2007 and March 2008. Research Director Johnson has participated in meetings related to implementation of the recommendations in the report, and PI Tom Larwin will be continuing in that role. A current BRT study (#2605, Bus Rapid Transit/Light Rail Implemented on One Dedicated Lane: Operational Feasibility, Practicality and Systems Analysis), currently in peer review, has attracted considerable attention for its unique approach to solving a major problem in many areas (lack of space for full two-way operations). The Federal Transit Administration (FTA) has expressed interest in the study. Venkat Pindiprolu, the Team Leader for Service Innovation Team (TRI-12) in the Office of Mobility Innovation of the FTA, reviewed the preliminary draft of the report and continues a dialogue with the researchers, Drs. Jacob Tsao and Wenbin Wei, Caltrans is also interested, to the point that Sonya Sun of their Mass Transportation Division supported funding for the second phase of the project by PATH (Partners for Advanced Transit and Highways at UC Berkeley). That funding was awarded at the end of this fiscal year, allowing unbroken development of the concept.

Dr. Anastasia Loukaitou-Sideris' research, an earlier companion to her current MTI project addressing women's fears about using transit (#2611) was featured in a USA Today story in late December, "Designers push to make cities more female-friendly." After citing examples from Canada and the United Kingdom where agencies have pro-actively pursued programs to make women more comfortable in transit environments, she shared that her research on U.S. public transit agencies found only three of 132 surveyed agencies were specifically addressing the needs of female customers. And finally, MTI was approached by the Caltrans Aeronautics Division to become their first university partner in the Alliance for Sustainable Air Transportation. California is hoping to join Florida as a major testing platform for technologies and procedures in the development of Next-Gen, the new air traffic control system. MTI/SJSU joined the Alliance in June and is looking forward to research projects related to the land-side issues. SJSU has the only Aviation Department in a California university and is a natural research home for the effort. Research Director Johnson is coordinating MTI's participation.

MTI Research Director Activities

Director Johnson again returned to the classroom for sessions with an environmental studies program at DeAnza Community College and a second visit to a graduate class in transportation planning for the Department of Urban and Regional Planning.

The highlight of her university year was selection as "Friend of the Department" by the Department of Urban and Regional Planning. In presenting the award at the graduation ceremony in May, Dr. Earl Bossard kindly joked that whenever the faculty has difficulty with a question, someone says, "Call Trixie." The special joy of the day, however, was watching nearly a dozen of the students who had worked on MTI research projects receive their hoods and enter the professional world with their graduate degrees.



Completed Research Projects

The following projects were described in more detail in prior Annual Reports. They are listed here in chronological order to assure that all completed projects are acknowledged, regardless of which grant or authorization period they represent.

Impacts of the North American Free Trade Agreement on Transportation in the Border Areas of the United States: With Emphasis on the California Border with Mexico

Project #9700 Publication #99-2 Principal Investigator: George Gray

Analysis of Policy Issues Relating to Public Investment in Private Freight Infrastructure

Project #9701 Publication #99-3 Principal Investigator: Dan Evans, J.D.

Why Campaigns for Local Transportation Funding Initiatives Succeed or Fail: An Analysis of Four Communities and National Data

Project #9702 Publication #00-1 Principal Investigator: Peter Haas, Ph.D.

NAFTA II: California Border Zone Land

Transportation Issues Project #9802 Publication #01-06 Principal Investigator: George Gray

Land Use and Transportation Alternatives: Constraint or Expansion of Household Choice?

Project #9803 Publication # 01-19 Principal Investigator: Jonathan Levine, Ph.D.

Applying an Integrated Urban Model to the Evaluation of Travel Demand

Management Policies in the Sacramento Region Project #9804 Publication #01-03 Principal Investigator: Robert Johnston

Protecting Public Surface Transportation Against Terrorism and Serious Crime: Continuing Research on Best Security Practices

Project #9805 Publication #01-07 Publication #01-14 Protecting Public Surface Transportation Against Terrorism and Serious Crime: An Executive Overview Principal Investigator: Brian Michael Jenkins

GIS for Livable Communities: Using GIS to Improve Transportation Planning and Community Livability

Project #9806 Publication #01-09 Principal Investigator:Tom Horan, Ph.D.

A New Planning Template for Transit-Oriented Development

Project #9807 Publication # 01-12 Principal Investigator: Dick Nelson

The Travel Behavior and Needs of the Poor: A Study of Welfare Recipients in Fresno County, California

Project #9808 Publication #01-23 Principal Investigator: Evelyn Blumenberg, Ph.D.

Implementation of Zurich's Transit Preferential Program

Project #9809 Publication #01-13 Principal Investigator: Andrew Nash

Envisioning Neighborhoods with Transit-Oriented Development Potential

Project #9810 Publication #01-15 Principal Investigator: Earl G. Bossard, Ph.D.

Best Practices in Developing Regional Transportation Plans

Project #9811 Publication #01-10 Principal Investigator: Donald R. Rothblatt, Ph.D.

Construction of Transit-Based Developments: New Policy Initiatives for Governments

Project #9901 Publication #01-05 Principal Investigator: Scott Lefaver, DPA, AICP

How to Best Serve Seniors on Existing Transit Services

Project #9902 Publication #01-04 Principal Investigator: David Koffman

Effects of Online Shopping on Vehicular Traffic Patterns

Project #9903 Publication #01-20 Principal Investigator: Joseph J. Giglierano, Ph.D.

Factors Influencing Voting Results of Local Transportation Funding Initiatives with a Substantial Rail Transit Component: Case Studies of Ballot Measures in Eleven Communities

Project #9904 Publication # 01-17 Principal Investigator: Richard A. Werbel, Ph.D.

Developer-Planner Interaction in Transportation and Land Use Sustainability

Project #9905 Publication #01-21 Principal Investigator: Aseem Inam, Ph.D.

Transit Labor Relations Guide Project #9906 Publication #01-02 Principal Investigator: Herb Oestreich, Ph.D.

Non-Pricing Methods to Optimize High Occupancy Vehicle Lane Usage

Project #9908 Publication #01-11 Principal Investigator: George Gray

A Statewide Study for Bicyclists and Pedestrians on Freeways, Expressways, Tunnels and Toll Bridges

Project #9909 Publication #01-01 Principal Investigator: Thomas C. Ferrara, Ph.D.

Using the Internet to Envision Neighborhoods with TOD Potential

Project #2001 Publication #01-24 Principal Investigator: Earl G. Bossard, Ph.D.

Applying an Integrated Urban Model in the Evaluation of Travel Demand Management

Policies in the Sacramento Region: Year Two Project #2002 Publication # 01-08 Principal Investigator: Robert Johnston

The California General Plan Process and Sustainable Transportation Planning

Project #2003 Publication #01-18 Principal Investigator: Richard Lee, Ph.D., AICP

Trucks, Traffic, and Timely Transport: A Regional Freight Logistics Profile

Project #2004 Publication #02-04 Principal Investigator: John S. Niles

Increasing Transit Ridership: Lessons from the Most Successful Transit Systems in the 1990s

Project #2005 Publication #01-22 Principal Investigator: Brian D. Taylor, Ph.D.

Using Fiber Networks to Stimulate Transit Oriented Development: Prospects, Barriers and Best Practices

Project #2007 Publication #01-16 Principal Investigator:Walter Siembab

Bridging the Gap: Planning Interjurisdictional Transit Services

Project #2102 Project Cancelled Principal Investigator: Patrick McGovern, Ph.D., J.D.

Toward Sustainable Transportation Indicators

for California Project #2106 Publication #02-05 Principal Investigator: Richard Lee, Ph.D.

Modeling Long-Range Transportation and Land Use Scenarios for the Sacramento Region, Using Citizen-Generated Policies

Project #2107 Publication #04-02 Principal Investigator: Robert Johnston

Verifying the Accuracy of Regional Models Used in Transportation and Air Quality

Project #2108 Publication #02-03 Principal Investigator: Caroline Rodier, Ph.D.

Impact of Ethnic Diversity on Transit: How Do Various Population Groups View and Utilize Various Transit Modes?

Project #2109 (An MTI Seed Project) There is no publication for this phase of the project. Principal Investigator: Richard A. Werbel, Ph.D.

Making Growth Work for California's Communities

Project #2111 Publication #02-01 Principal Investigator: Kenneth R. Schreiber, AICP

Best Practices in Shared Use of High Speed Rail Systems

Project #2113 Publication #02-02 Principal Investigator: Andrew Nash (Former Title: Shared Use of Rail Infrastructure by High-Speed Rail: Best Practices in Design and Operations)

Saving City Lifelines: Lessons Learned in the 9-11 Terrorist Attacks

Project #2114 Publication #02-06 Principal Investigator: Brian Jenkins

The Future of Transportation Education: A Needs Assessment for the Transportation Management Program at San José State University

Project #2201 Publication #03-01 Principal Investigator: Linda Valenty, Ph.D. (Former Title: Needs Assessment: Transportation Management Program at San José State University)

Can Consumer Information Tighten the Transportation/Land Use Link? A Simulation Experiment

Project #2202 Publication # 05-03 Principal Investigator: Daniel Rodriguez, Ph.D. (Former title: Decision Making Influences in Land Use and Transportation: An Experiment on the Impact of Transportation and Housing Information)

Using Spatial Indicators for Pre- and Post-Development Analysis of TOD Areas: A Case Study of Portland and the Silicon Valley

Project #2203 Publication # 03-03 Principal Investigator: Marc Schlossberg, Ph.D. (Former Title: A Pre- and Post-Construction Analysis of Transit-Oriented Developments Using Spatial Indicators: A Case Study of Portland and Silicon Valley)

Higher Density Plans: Tools for Community Engagement

Project #2204 Publication #03-02 Principal Investigator: Kenneth Schreiber, AICP (Former Title: Assessing the Effectiveness of Tools and Information that Respond to Community Fears and Resistance about the Densification of Communities)

The Impact of Telecommuter Rail Cars on Modal Choice

Project #2205 Publication #04-01 Principal Investigator: James Hayton, Ph.D.

Designing and Operating Safe and Secure Transit Systems: Assessing Current Practices in the U.S. and Abroad

Project #2301 Publication # 05-03 Principal Investigator: Brian D.Taylor, Ph.D. (Former title: System Design for Transit Security)

Verifying the Accuracy of Land Use Models Used in Transportation and Air Quality Planning: A Year-Two Validation Study

Project #2302 Publication #05-02 Principal Investigator: Caroline Rodier, Ph.D.

High-Speed Rail Projects in the United States:

Identifying the Elements for Success Project #2304 Publication #05-01 Principal Investigator: Allison de Cerreño, Ph.D.

The Pasadena Gold Line: Development Strategies, Location Decisions, and Travel Characteristics along a New Rail Line in the Los Angeles Region

Project #2305 Publication #04-03 Principal Investigator: Hollie Lund, Ph.D.

High-Speed Rail Projects in the United States: Identifying the Elements for Success – Part 2

Project #2401 Publication #06-03 Principal Investigator: Allison de Cerreño, Ph.D.

Video Transit Training for Older Travelers: A Case Study of the Rossmoor Senior Adult Community, California

Project #2404 Publication #06-04 Principal Investigator: Susan Shaheen, Ph.D. (Former Title: The Elderly and Public Transit: Minimizing Barriers and Maximizing Service)

How Far, by Which Route, and Why? A Spatial Analysis of Pedestrian Preference

Project # 2406 Publication #06-06 Principal Investigator: Marc Schlossberg, Ph.D.

Beyond Uncertainty: Urban Models in Transportation and Air Quality Planning

Project #2407 Publication #07-01 Principal Investigator: Caroline Rodier, Ph.D.

Bus Rapid Transit: A Handbook for Partners

Project # 2426 Publication #06-02 Co-Principal Investigators:Tom Larwin and George Gray (Former title: Bus Rapid Transit Guidebook)

The Evolving Nature of Terrorist Acts against Surface Transportation: Capturing Lessons Learned

Project #2501 Publication #06-07 Selective Screening of Rail Passengers Principal Investigator: Brian Michael Jenkins NOTE: This is the first part of a two-part project.

Exploration of Data Sources for Air Cargo Studies (A Seed Project)

Project #2525 Publication #VVP07-01

Projects Completed in the Past Year



A Consumer Logistics Framework for Understanding Preferences for High-Speed Rail Transportation

Project #2206 Publication #05-04 Principal Investigator: **Kenneth Gehrt, Ph.D.**

The purpose of this study was to reach a fuller understanding of the potential for highspeed rail (HSR) usage in the United States. The theoretical framework of Consumer Logistics (CL) theory was used for a survey that will inform efforts to develop and market HSR service in the San Francisco-Los Angeles (SF-LA) corridor. The team members have successfully used CL to better understand the choice between traditional, ATM, and online banking. The theory lends itself equally well to an examination of the choice between competing transportation modes.

This study uses the consumer logistics framework to help understand how various demographic groups, various groups defined by public transportation usage frequency, and various groups defined by HSR usage intention level perceive various logistical aspects of HSR service. The consumer logistics framework is also be used to develop a macro model that examines the relationship between performance of consumer logistics functions, perceptions of HSR travel value (consisting of travel efficiency and effectiveness), and HSR travel intention for intercity business commuters. The results show the manner and the extent to which the logistics of HSR are likely to lead to customer intentions to use it for inter-city transportation and how HSR service providers, by enhancing their consumer logistics capabilities, can encourage intended HSR usage between San Francisco and Los Angeles for business commuters.

Seven logistics themes were explored in this study:

- Information
- Safety and cleanliness
- On-board amenities
- Transportation connections
- Station arrival and departure
- Computer connections
- Station amenities

Research revealed that safety and cleanliness and transportation connections were the two most important consumer considerations when making the decision to use proposed HSR services.



Neighborhood Crime and Travel Behavior

Project #2405 Publication #07-02 Principal Investigator: **Christopher Ferrell**

While much attention has been given to the influence of urban form on travel behavior in recent years, little work has been done on how neighborhood crimes affect this dynamic. This research project studied seven San Francisco Bay Area cities, and found substantiation for the proposition that neighborhood crime rates have an influence on the propensity to choose non-automotive modes of transportation for home-based trips. Specifically, high vice and vagrancy crime rates were associated with a lowered probability of choosing transit in suburban cities for both work and non-work trips. High property crime rates were associated with a lower probability of walking for work trips in urban cities and inner-ring suburban cities. High violent crime rates were associated with a lower probability of walking for work trips in suburban study cities, while higher property crime rates in San Francisco were associated with an increased probability of walking for non-work trips. While the signs of these significant relationships generally conformed to the author's expectations—i.e., that high crime rates reduce the probability of choosing non-automotive modes of travel-the authors did not find statistically significant relationships for all city/trip model runs, suggesting that these relationships differ depending on the urban form and trip type contexts.

This project has the following policy and research implications:

- I. Digital crime data with detailed location information are available from an increasing number of local police departments as computerized database record keeping systems are introduced. While these data can be difficult to obtain depending on the technical sophistication and data-sharing policies of the police departments in question, the availability of these data for research and public policy analytic purposes is improving.
- 2. To the extent a causal relationship can be identified between neighborhood crime rates and mode choice, crime data may (with further research and substantiation) prove a useful supplement to the data collected and regularly analyzed for mode-choice models in travel demand forecasting models.
- 3. If a causal relationship is identified, policies and programs that seek to reduce neighborhood crime rates and increase a sense of personal security may be as or more cost effective than efforts to increase transit services to a target neighborhood or more long-term efforts to increase urban density and pedestrian-friendly infrastructure improvements.



Connecting Transportation Decision Making with Responsible Land Use: State and Regional Policies, Programs, and Incentives

(Former Title: Strategies for Connecting Transportation Funding and Smart Growth: State and Regional Best Practices and Incentives) *Project #2607* Publication #07-03 Principal Investigator: Gary Binger, AICP

A growing number of state and regional initiatives are aimed at curbing unsustainable land use patterns through the use of targeted transportation funding. Just as a disconnect between transportation decision making and land use planning can develop and continue sprawling urban conditions, the linkage between the two processes can, in contrast, foster responsible growth.

This report is intended to provide planning agencies at various levels of government with tools that can be used to strengthen the connection between transportation and land use planning. This report showcases 17 jurisdictions in the United States that have developed policies, programs, and incentives to connect transportation funding with various "smart growth" efforts. These jurisdictions are both state governments and regional planning agencies. The programs reviewed have had varying levels of success and have implemented a range of approaches in order to meet program goals. This variety of approaches shows that there is no single formula for achieving a strong linkage between transportation funding and responsible land use planning. These various approaches show that success in linking transportation planning with land use decision making most likely depends on creating context-specific strategies.

The team searched for strategies that could produce:

- Compact land use patterns
- Transit-oriented development
- Job housing proximity
- Public transit
- Affordable housing

A total of 40 programs are reviewed in the reports. Nine addressed all five of the listed elements: the Atlanta Regional Commission's Livable Centers Initiative and Community Choices Toolkit, the State of California's Proposition IC and Community-Based Transportation Planning Grants, the Denver Regional Council of Government's Mile High Compact, the Metropolitan Transportation Commission's Housing Incentive Programs, the State of new jersey's Plan Endorsement process, the Sacramento Area Council of Governments' Blueprint Initiative, and the Twin Cities Metropolitan Council's Livable Communities Grant Program.



An Ambit-Based Activity Model for Evaluation Green House Gas Emission Reduction Policies

(Former title: Evaluation of Greenhouse Gas (GHG) Emission Reduction Policies in the Transportation Sector of California) *Project #2613 (An MTI Seed Project)* **Publication #WP07-02 Principal Investigator: Asim Zia, Ph.D**.

The proposed research will be focused on evaluating greenhouse gas (GHG) emission reduction policies in the transportation sector, which are being pursued/planned by governmental agencies in California to mitigate adverse global climate change. This topic carries extensive salience in the current policy world because transportation sector is one of the leading contributors of GHG emissions, both in terms of existing GHG stocks and expected flows in the future. The seed grant will be used to undertake review of the existing scientific literature and to develop a full grant proposal for this policy evaluation study. A mix of quantitative and qualitative methodologies will be developed to explore this topic after critical review of statistical/quantitative models in the current literature and a few pilot interviews with relevant stakeholders.



Creating an Educational Network in California to Assess and Address its Future Transportation Education Challenges

(Former Title: Exploring the Future of California's Transport System) Project #2614 (An MTI Seed Project) Publication #WP07-03 Principal Investigator: **Triant Flouris, Ph.D.**

The author posits that transportation plays a critical role in enabling California's economic development, yet there exists no significant coordinated, multidisciplinary and systematic effort to understand where this state's transport network is heading, could or should head, or how it can be more effectively linked to other domestic and international transportation networks.

There is a need for a statewide research program to integrate the efforts of industry, government, non-profit entities and university who are already engaged in a wide range of very high quality and valuable research projects. There is no synergy from their findings. A multi-disciplinary exploration of California's transportation future offers the best opportunity to help leaders in industry and government reach the decision they will face in resolving problems that are no on the horizon and thus help with the effective development of California's transportation sector as well as its overall economy.

The white paper outlines issue areas that should be the focus of the work: environmental and safety issues; resource and technological issues; economic, social, and governance issues. Flouris discusses research integration and support services for the network, building on existing efforts, and the role of education in producing future experts and professionals. He then outlines scenarios and specific research questions associated with those scenarios.

Ongoing Research Projects



Impact of Ethnic Diversity on Transit: How Do Various Population Groups View and Utilize Various Transit Modes? – Phase II Project #2207

Principal Investigator: Richard Werbel, Ph.D.

MTI Project #2109 was the first phase of this project. This second phase was to include a full survey and analysis of three main ethnic groups (Asian, African-American, and Hispanic), in addition to a control group of Caucasians. The research plan used on-board interviews to identify survey participants, who were then to be interviewed by telephone. Early on the project dropped the Asian component because the large number of different Asian languages complicated the interview process, and not enough participants from the same ethnic group were identified to provide useful data for analysis. The research plan worked well for the Caucasian and African-American populations, but ran into difficulty with the Hispanic interviews. Though a sufficient number of participants was identified by the on-board interviews, a large number of the potential contacts did not work – generally because the telephone number provided was inaccurate. The survey firm did attempt to identify if the problem was caused by interviewers eager to complete forms, but that did not appear to be the issue. Though the PI did not attempt a more scientific assessment of the exact cause, he and the survey firm concluded that fear of immigration enforcement action might have caused the problem.

Concurrently with the failure of the interviews, the PI requested a suspension of the project for personal reasons, which still pertain. Given the passage of time, completion of a survey raises major problems, and the institute will be requesting the PI complete a white paper summarizing the work he was able to complete and discussing the methodology issues that derailed the project.



Applying Smart Growth Principles and Strategies to Resolving Land Use Conflicts Around Airports Project #2303

Principal Investigator: Richard Lee, Ph.D.

Note: This long running project is finally drawing to a close. The research and writing is complete, but the length of the report (488 pages) has led to very long review, editing, and proofreading times. The report should be in print by the time this document is published.

The research addresses the potential role of smart growth principles to enhance airport land use compatibility planning and the implementation of regional airport development strategies, as well as how the existing airport-compatible land use planning process can be strengthened to better achieve well-suited land uses near airports.

In many large metropolitan areas, there are significant constraints on the ability to continue to expand existing commercial airports. Renewed consideration will have to be given to developing new airports on greenfield sites or providing commercial service at former military airfields or general aviation airports. Since feasible sites are likely to be in relatively undeveloped areas some distance from existing urban development, such a strategy will have important implications for land use planning in the vicinity of new airports and a significant impact on urban growth patterns.

Thus, alternative development strategies that could be pursued as part of the regional airport system planning process will need to balance trade-offs between the continued expansion of existing airports and the development of new ones. There has been relatively little effort to understand the nature of these trade-offs within the context of smart growth and associated regional development policies.



Barriers to Using Fixed-Route Transit for Older Adults *Project #2402* Principal Investigator: **Michael Peck, Ph.D., MSW**

This research is intended to enhance public transit utilization by older adults by identifying perceived and actual barriers and presenting public transit policy and design solutions to meet the needs of older adults.

The team will use focus groups and surveys in two communities (Rochester/Erie County, New York and San Jose/Santa Clara County, California) and several data sources to assess older adults' perceptions of (1) safety on public transit, (2) safety traveling from home to public transit stops and stations, (3) the ease of using public transit facilities and vehicles, (4) the ease of traveling between home and public transit stops and stations, and (5) the availability and accessibility of public transit information. The research will also assess factors that inform older adults' decision to use public transit.

The survey process, which included an advance mailing, a cash "thank-you" included with the survey, and a reminder card produced a very high rate of return in both communities and a wealth of data for analysis. The research team is currently writing the draft report.



Welfare to Work: A Simulation of Land Use and Transportation Policies Project #2403

Principal Investigator: **Robert Johnston**

Data suggest that there is great variation in the rate at which welfare recipients transfer to self-sufficiency across counties within California. It is possible that this wide variation in success is due in part to differences in the spatial distribution of low-income residences, low-skill jobs, and connecting transportation networks in each region.

Sacramento County has the fourth highest number of welfare cases among California counties. Although the total caseload has decreased by 34% since 1997, the rate of decrease slowed in recent years. A somewhat smaller, but more difficult, number of recipients remains, even though the actual individual recipients change over time. It is important to understand this group of recipients and its relationship with neighborhood characteristics, the location of relevant employment, land use policies affecting apartment construction, and transportation policies affecting transit service. If these relationships can be determined statistically, the team can then recommend policies to reduce unemployment for welfare recipients.

The Sacramento region travel model will be used to evaluate several policies to improve job access for welfare recipients in Sacramento County. The team will examine policies for better transit, subsidized auto purchases, and more multi-family zoning in suburban areas, and determine through analysis whether these policies would provide employment opportunities for welfare recipients.

This report is currently in Peer Review.

Paving the Way: Recruiting Students into the Transportation Professions Project # 2408

Principal Investigator: Asha Weinstein Agrawal, Ph.D.

Public agencies and private firms face increasing challenges finding transportation engineers and planners to fill their job openings. The problem is particularly acute for public agencies. Existing research on the issue had focused on examining why current transportation employees chose the field. However, a comprehensive approach to attracting engineers and planners to the transportation profession must also look further back to examine the process of attracting students to transportation disciplines and what affects the decision to complete a degree in a field relevant to transportation agencies and firms. Without knowing more about students' decision processes, transportation educators and employers have no way of knowing which recruitment programs are likely to be the most effective.

The research team will survey university transportation programs and current students to determine practical short and long-term strategies that state DOTs, universities, and others can use to attract a larger pool of students focusing on transportation. The findings from the interviews and student surveys will be used to recommend specific programs and practices with good potential to enlarge the pool of potential transportation employees by increasing the number of excellent students completing civil engineering and planning degree programs who have coursework experience and interest in transportation. The recommendations will include both short- and long-term strategies for implementation.

This report is currently in Peer Review.





The Evolving Nature of Terrorist Acts Against Surface Transportation: Capturing Lessons Learned Project #2501

Principal Investigator: Brian Michael Jenkins

NOTE: A portion of this project has been completed and published – see #2502/#06-07 in Completed Projects Section (Selective Screening of Rail Passengers)

MTI is committed to conducting ongoing, top-quality research of terrorist strikes against transportation targets to distill lessons learned and determine the best practices for deterrence, response, and recovery. Those best practices are taught to transportation and security professionals to provide secure surface transportation for the nation.

Using the case study approach developed during MTI's previous 16 investigations into terrorist attacks on public transportation, the counterterrorism team will identify lessons learned from the attacks in Madrid, London, Mumbai, and possibly Moscow – from preventing attacks to response/recovery and business continuity.

This report has been delayed as the PI pursued high-priority research on motor carrier security (see Special Projects section).



Caltrans Statewide Cultural Properties Information System Project #2502 Principal Investigator: Eric Ingbar

The lack of an information-management model and tool that can be utilized by Caltrans statewide has hampered environmental management in several significant ways. First, no global view of Caltrans performance on environmental commitments or stewardship is possible. Second, each district that contemplates automating cultural resource information is tempted to build its own system, further hampering effective oversight. Third, the proliferation of independent systems makes it difficult to come up with management processes that are consistent, because such processes typically rely upon uniform, timely, data information (about cultural resources, impacts, other resources, etc.). Fourth, training agency staff in using electronic tools is very difficult when each office has its own interfaces, applications, and conventions.

This project will develop a statewide data-management model for cultural resources in surface transportation settings in a series of steps:

- Needs assessment definition (redefinition and confirmation)
- Logical data model revisit, re-formulation and formalization, review
- Application revisit, re-formulation, specification, and review
- Prototype (draft) data system roll-out
- Rapid evaluation of prototype and elaboration of it into final system by rapid iterative testing with Caltrans staff

- Training of staff trainers and system managers
- Oversight of staff training session conducted by Caltrans staff trainers
- Presentation of system design and results to multiple DOTs through on-line project report

Anticipated outcomes include technical products, policy and guidance for their utilization, and an enhanced stewardship by Caltrans of cultural resources nearby to surface transportation projects. Policy and planning products and outcomes include the ability to better forecast where cultural resources will be problematic in surface transportation projects; the ability to see planning as a continuous process within the 10-, 5-, and 3-year planning cycles of the agency, and more opportunities for pre-project planning in advance of NEPA, facilitating project evaluation and completion by minimizing and predicting likely impacts.

Anticipated technical products include a functional enterprise-data system for entering, querying, and displaying cultural resources information and a spatial analysis tool for exploring different areas of potential effect on cultural resource values. This project empowers decision making within the agency by making available the millions of dollars of cultural resources fieldwork the agency has undertaken.

This project will be a first for MTI by including the testing of the products developed and training Caltrans staff in their use. It will be more than practical; it will be in practice by its completion.

The above paragraphs describe the project that Caltrans originally requested. Since that time, they have identified a preferred system developed by one of their districts and have asked the PI to use that as the platform. The PI will present the program to Caltrans for approval prior to writing the final MTI report which will discuss the issues, the process, and the results, along with recommendations on doing similar work in the future.



Collaborative Funding to Facilitate Airport Ground Access *Project #2503* Principal Investigator: **Geoffrey Gosling, Ph.D.**

Note: This report has been delayed while the PI completed the extensive, time-consuming and detailed work associated with 2303. The actual work on this project will begin in the fall of 2008.

Airports are the principal interchange nodes in the passenger transportation system where local and regional transportation systems interface with those for national and international travel. Airports also play a vital role in facilitating the transfer of air cargo between the surface transportation system and the air transportation system, as well as sometimes serving as major sorting and distribution centers for freight that may be moved entirely by surface transportation.

However, all too often projects to improve the connectivity between the surface trans-

portation system (including private vehicles, buses, and light and heavy rail systems) and the airport circulation and terminal facilities are hampered by project funding regulations that limit the type and location of projects eligible for funding from the various programs administered by the Federal Aviation Administration (FAA), Federal Highway Administration (FHWA), and the Federal Transit Administration (FTA). Policies regarding the use and allocation of these funds are often so restrictive that projects are unable to be implemented or are rendered much less effective at improving intermodal connectivity.

It is anticipated that the research will result in two products:

- I. A guide to collaborative funding of intermodal airport ground access projects that will document the various funding programs available and review their current limitations and collaborative strategies to overcome these limitations, as well as present case studies of successful efforts to develop collaborative funding strategies for airport ground access projects.
- 2. A final report that will present an analysis of the past experience with collaborative funding of airport ground access projects and present recommendations for changes to policies and funding allocation procedures at the federal and state levels.



Evaluating the Environmental Justice Effects of Land Use Scenarios in the Sacramento Region with the PECAS Activity Allocation Model Project #2601

Principal Investigator: Caroline Rodier, Ph.D.

In 1994, a Presidential Executive Order directed every federal agency to make environmental justice (EJ) part of its mission by identifying and addressing adverse effects of its programs, policies, and activities on minority and low-income populations. It is widely recognized, however, that modeling tools currently used by transportation agencies have a very limited ability, if any, to perform such analyses.

Concurrently, there has been increased recognition of the potentially harmful social, economic, and health effects of highway-induced sprawl on low-income and minority groups in the U.S. In response, many have advocated smart growth and/or transit-oriented development (TOD) policy strategies to redress these effects and improve access for disadvantaged groups.

In recent years, the Sacramento region has undertaken an ambitious planning process called the Blueprint Project. This participatory process included over 5,000 residents and established a long-range regional vision rooted in smart growth and TOD principles, which was named the Preferred Blueprint scenario. The process was initiated with the Base Case scenario, which projected Sacramento's future assuming the continuation of current land use and transportation plans and policies, and is equivalent to an urban sprawl scenario.

The Sacramento region's ambitious planning efforts have been accompanied by equally ambitious model development efforts, which have included the development and partial calibration of the advanced PECAS activity allocation model.

The proposed research will enhance the calibration of the PECAS activity allocation model and use the model to simulate the EJ effects of a smart growth scenario (Preferred Blueprint) and an urban sprawl scenario (Base Case). The EJ effects simulated with the PECAS activity allocation model will include a consumer surplus measure for each of the 16 income household classes, which will represent changes in household access to jobs and payments for goods and services (including household rents and transportation costs). In addition, the employment categories will allow for some assessment of benefits and losses to low-wage and/or minority-dominated labor categories by location (e.g., service and agricultural workers). The developers of the PECAS model, Drs. Hunt and Abraham (of the University of Calgary and HBA Specto Inc.), will lead the calibration of the model and provide the guidance necessary to simulate the scenarios and analyze the results.





Tribal Corridor Management Plan

Project #2604 Principal Investigators: Mary Scoggin, Ph.D., Joy Adams, Ph.D.

Caltrans and local tribes have expressed interest in creating a plan for design features that highlight Native American culture where a state highway runs through tribal land, a Tribal Corridor Management Plan (TCMP). Tribal symbols, information kiosks, fencing, native plantings, and other non-standard design features can be made consistent with existent transportation and downtown plans. The non-standard principles of the highway project will help guide future transportation plans, construction projects and maintenance activities when located on or near Native American reservations or rancherias in California. This project will also give the public a sense of place when entering tribal lands, and an awareness of the history, culture, and vitality of the area.

In addition to developing a set of guidelines that can be used to develop tribal corridors along highways throughout Caltrans District 1, this project will also create a plan specific to the creation and management of a tribal corridor through the Hoopa territory along Highway 96. The Hoopa have both a Transportation Plan and a Traffic Calming and Safety Enhancement Plan for their downtown area, and the more advanced state of their planning efforts led to the choice of their area for the pilot testing of the TCMP guidelines. The iterative process will allow the real-world experience of working with tribal organizations and other stakeholders to inform the development of and test ("ground truth") the utility and completeness of the general guidelines.

This is a specialized, context-sensitive solutions project. By reflecting the tribe's strong sense of pride, it can help deter vandalism and help reduce maintenance and repair costs. Additionally, it might enhance the experience of the traveling motorist and contribute

to cross-cultural understanding and appreciation, as well as community pride and economic growth.

The project will produce a Tribal Corridor Management Plan guideline, suitable for application in any tribal area, a more specific plan for the Hoopa area (both products for delivery to Caltrans), and an MTI publication that will document the process used, decisions made, and recommendations. The MTI publication will include the draft Caltrans products as appendices.

Bus Rapid Transit/Light Rail Implemented on One Dedicated Lane: Operational Feasibility, Practicality and Systems Analysis Project #2605

Principal Investigators: Wenbin Wei, Ph.D.; Jacob Tsao, Ph.D.

The ultimate goal of this study is to develop a methodology that can be used to determine if a one-dedicated-lane BRT or light rail system would be feasible and practical for any given urban corridor, and, if so, how the one-dedicated-lane BRT or light rail system should be operated so as to achieve the highest possible performance. To maximize the realism of the underlying assumptions, a particular corridor in California will be used as the reference model.

In many urban areas, the current demand for bus transportation or light-rail is so low that dedicating two full lanes for exclusive use by buses or light-rail trains has led to or would lead to underutilization of the right-of-way, usually amid heavy automobile traffic during the peak commute hours.

With the presence of a one-dedicated-lane BRT or light rail system constructed in the absence of severe public resistance, demand for higher density residential developments might increase gradually and eventually lead to higher density developments along the corridor and to public will for dedicating two lanes of right-of-way for expansion of the BRT or light rail system. With such a potential solution, the transit-oriented development (TOD) concept championed by Santa Clara Valley Transportation Authority (VTA) and other transit operators not only might work for corridors already being served by existing light rail or BRT services, but also may achieve its full potential with many new light rail or BRT systems.

Following discussions with transit operators, the team will develop and specify a system of operational rules sufficiently detailed for estimating system performance. Tasks will include the preparation of sketches of a cross station for both at-grade and elevated platforms. The team will evaluate the throughput capacity of the system and the delay to bus travel at crossing stations of the proposed system. Two expansion alternatives will be developed to satisfy possible significant growth in demand. They will assess the practicality of the system with respect to operator acceptance, public acceptance, public policy and other identified systems issues. Throughout the project feedback will be sought from transit operators.

This project is in Peer Review.





Improving Bus Priority Lane Effectiveness in Congested Urban Centers Project #2606 Principal Investigator: Asha Weinstein Agrawal

This study will examine the policies and strategies governing the enforcement of bus lanes in major congested urban centers. It will also examine the effectiveness of current bus lane enforcement strategies in several major U.S. cities. The project will be a case study of several municipalities including Midtown and the Upper East Side in New York City, San Francisco, Boston, Chicago, Los Angeles, and London, UK as a best practice case, examining policies and strategies regarding ongoing enforcement of BRT lanes.

The research team will conduct interviews with transportation departments and law enforcement agencies about their enforcement policies and use the results to produce descriptions of findings for each city, a table comparing legal frameworks in all cities, and a typology of enforcement strategies; and "best practices" case studies. In three cities, the research team will measure bus priority lane "availability," defined as the share of time that no stopped vehicles are blocking the lane. Statistical analysis of the data collected will provide insight into the variation in bus lane availability by time of day and method of enforcement. It will also provide information on the frequency and duration of lane blockages by vehicle type (passenger cars, delivery trucks, emergency vehicles, etc.). They will also develop guidelines for evaluating the extent to which bus lane violations pose a problem for bus operations, and the types of solutions that are likely to be effective in different situations, along with specific policy recommendations.



The Influence of Service Planning Decisions on Rail Transit Success or Failure

Project #2608 Principal Investigator: Jeffrey Brown, Ph.D.

The final product of this research will be a handbook offering guidance to regional policy makers in methods for improving benefits derived from rail transit investments in their regions. The handbook will illustrate successful strategies for regional rail transit and bus service integration. The team anticipates that the successful concepts will integrate bus and rail services so that users can reach dispersed suburban retail, commercial, and employment destinations.

Using II case studies, the team will collect data and estimate a time-series model in which transit patronage is a function of population, economic activity and its distribution, motor fuel price, and a set of transit fare and service variables. The results of the statistical analysis will be used to develop an interview guide for in-depth telephone interviews of transit agency managers and local policymakers in each metropolitan area to obtain information about the specific service strategies they have pursued as part of their efforts to increase patronage and/or that they pursued with their rail transit investment. The questions will be structured to elicit responses on various dimensions of rail system plan-

ning including: locating the routes, relationship with bus transit planning, fare policy decisions (structure, level, transfer policies, etc.), and station-area parking issues. They will also seek to obtain station-specific patronage figures, including transfer rates, from the various transit agencies. Additional questions will cover land use policies, including TOD, and other external factors that might be influencing the ridership trends in their urban area.

Analysis of the data collected through these two research efforts should yield conclusions about the role of rail transit service planning decisions in explaining variation in transit system performance among the || case study areas.

This project is in Peer Review.



Effects of Suburban Transit-Oriented Developments on Residential Property Values Project #2609 Principal Investigator: Shishir Mathur, Ph.D.

The goal of this study is to objectively examine the effects of transit-oriented development (TOD) on the property values of single family swellings near those developments. Several suburban TODs along the San Francisco Bay Area's BART line will be reviewed. The study will highlight and objectively measure the benefit of transit capital improvements.

While the increase of TOD is a desirable planning goal, the development of successful TODs often encounters several barriers. These barriers include: lack of inter-jurisdictional cooperation, auto-oriented design that favors park-and-ride lots over ridership generating uses, and community opposition. Like any new high-density development, TODs are likely to face community opposition. This opposition may be more vocal in suburban areas where residents of predominantly single-family neighborhoods may feel that the proposed high-density, mixed-use development will bring noise, air pollution, increased congestion, and crime into their area. While community opposition to TOD has been very pronounced in some areas, very little research exists that indicates whether this opposition is well founded.

The study will use a literature review, housing-related data from proprietary sources and the assessor's office, neighborhood and jurisdiction level data from the U.S. Census, housing supply and demand data from the relevant entities, and GIS data. An hedonic regression method will be used to develop a series of empirical models. Each suburban TOD effect on its surrounding residential neighborhoods will be separately estimated. The final report will present conclusions and findings about the effects of TOD on housing prices in their neighborhoods.

This project is in Peer Review.



Best Practices for Context Sensitive Solutions in Urban Areas *Project #2610* Principal Investigator: **Allison de Cerreño**

Note: This project will begin in the fall of 2008. Delay in issuing the subcontract to the Principal Investigator's university by the San José State University Foundation is resulting in a late start. A new team member has been added to provide additional capacity at New York University.

This study will clarify the use of the CSS process in finding transportation solutions for planners, designers, and engineers in city and state agencies working in urban areas. CSS and its predecessor, Context Sensitive Design (CSD), are defined in a number of ways around the country. While some practitioners utilize CSD and CSS interchangeably, the general trend has been to move toward utilization of the phrase CSS to emphasize the process involved with finding transportation solutions rather than focusing solely on the design elements themselves.

The project will include an in-depth literature review to identify potential locations for case studies. For cases that look promising, additional information-gathering discussions will be held with individuals at the agencies involved to fill in the gaps and gain a better understanding of the specific dynamics involved in the CSS process.

At least four cases will be developed. Comparisons will be made between these cases to look for similarities and differences and how they affected the end results. The goal is to develop a set of best practices and key features or elements of which practitioners should be aware.

How to Ease Women's Fear of Transportation Environments: Case Studies of Best Practices

Project #2611 Principal Investigator: Anastasia Loukaitou-Sideris, Ph.D.

The relationship between women's safety and the built environment has been the subject of research, with clear findings that women feel unsafe in many locations. Cities and municipalities around the world have addressed this issue by implementing different programs to assess and remedy safety gaps in the built environment. Some of these programs have looked at transportation settings, but little academic research has specifically focused on this topic.

Whether traveling by bus, automobile, or other modes, women's fear of transportation facilities – such as parking lots, buses, and bus stops – in turn affects the way women engage in travel. This study will focus on the safety concerns and needs of women riders. As such, it will continue and extend ongoing research on the topic by assessing the women's perspectives on issues of transit safety, and documenting lessons from case studies of model programs and best practices targeting women's safety in transit environments.



Carsharing and Public Parking Policies: Assessing Benefits, Costs and Best Practices

Project # 2612 Principal Investigator: Susan Shaheen, Ph.D.

This study will increase awareness of the benefits of carsharing programs in urban areas, and also propose solutions regarding the parking needs of carsharing programs. It will provide recommendations to program planners on how to best communicate the benefits of carsharing to those who can benefit most from these programs, including low-income households and college students. An increasing body of empirical evidence now indicates that carsharing is an effective tool to reduce auto ownership, vehicle miles traveled (VMT), and vehicle emissions, and increase transit use, and allow for more efficient use of roadways and parking facilities.

This project will examine car sharing programs in existence or under consideration in several U.S. cities, including San Francisco, San Diego, Portland, Seattle, Philadelphia, Evanston, Washington DC, Boston, and Arlington, VA.

Cancelled Projects

Walking and Biking to School: An Assessment of Modal Choice and Urban Form Project #2602

Principal Investigator: Marc Schlossberg, Ph.D.

The PI first requested deferral of this project, and then cancelled it. He was appointed department chair, which, added to already extensive responsibilities in the new Oregon UTC (OTREC), reduced the time available for this work. He is currently evaluating the potential for updating the project and utilizing new OTREC resources. If he is able to reinstate the project, it will be given a new number and possibly a new title.

The Business Case Potential for Public/ Private Partnerships (PPPs) for Various Caltrans Intelligent Transportation System (ITS) Assets Project #2603 Principal Investigator: To Be Determined

This project was deferred, pending a re-examination by Caltrans of the problem statement and scope of the project. The slightly modified problem statement was included in the Spring 2008 Request for Proposals and attracted one proposal. That proposal was not deemed worthy of funding by the selection committee (RAPOC).

Caltrans has requested that the SJSU faculty member who submitted the rejected proposal work with their staff and experts to fashion a better proposal that could possibly be started after special RAPOC consideration, rather than waiting for the usual Spring 2009 RFP. The topic remains a high priority for Caltrans.

If a new project is approved, it will be assigned a new number and probably have a new title.

New Projects



Public Support for Environmental Transportation Taxes and Fees? A Survey of Californians Project #2701 Principal Investigator: Asha Weinstein Agrawal, Ph.D.

Dr. Agrawal conducted a special research project for Caltrans, published in October 2006 (MTI Publication #06-01) which explored the political viability of a wide range of transportation finance opportunities for the state. One interesting finding of that report was the emerging support for finance mechanisms that were tied to positive environmental outcomes. This project is designed to explore that opportunity in depth.

Project 2701 will investigate how likely California residents are to support transportation taxes and fees that are set at variable rates, with lower rates for more environmentally-friendly vehicles and transportation services, and higher rates for less environmentally-friendly ones. If this type of variable approach to transportation taxes and fees is shown to be politically acceptable—or even popular—then lawmakers can adapt the transportation finance system to achieve two benefits at once: encouraging drivers to choose more sustainable transportation options at the same time as raising revenue for state transportation programs.

The heart of the project will be an extensive public survey of 1500 California residents, though there will also be a literature review of other polls testing similar approaches. The survey will cover: attitudes towards the environment and mobility, knowledge about how travel choices impact the environment, support for different environmental taxes and fees for transportation, current travel behavior, neighborhood characteristics, and demographics.

Detailed analysis of the survey results will lead to conclusions and recommendations for potential environmentally-based finance options.



Carsharing and Carbon Dioxide Emission Reduction Across Density and Transit Quality Gradients in the U.S. *Project #2702* Principal Investigator: Susan Shaheen, Ph.D.

Carsharing is one mobility management strategy that shows significant potential to reduce CO2 emissions. This study reviews the international literature on CO2 reduction strategies, develops a methodology for calculating CO2 reductions for carsharing, and then applies this methodology to three urban regions in the U.S. (i.e., Philadelphia, Chicago, and San Francisco), using existing program data that varies in timeframe and collection method.

The results of this limited study will be a study methodology and an understanding of the relative magnitude of CO2 reduction that may be possible from wider implementation of carsharing strategies in major urban areas compared to other CO2 reduction policies that are currently being contemplated in California, the U.S., and the world. In addition, researchers will survey members of these organizations to identify their auto ownership and VMT levels before and after joining the carsharing organizations (during the same timeframe and using the same survey tools for consistency across the study population). Researchers will then apply the CO2 reduction methodology developed in the current study, which will account for low-emission fleet characteristics, to estimate CO2 reduction benefits of different types of carsharing programs. Finally, the study will produce as a set of recommendations to aid cities in developing carsharing policies that produce optimal CO2 reduction benefits.

Linking Highway Improvements to Changes in Land Use with Quasi-Experimental Research Design: A Better Forecasting Tool for Transportation Decision Making

Project #2703 Principal Investigator: Hilary Nixon, Ph.D.

Previous studies have examined the induced population and economic impacts from new highway infrastructure in metropolitan regions. In this study, the team will evaluate a mix of urban and smaller town highway projects to examine the possibility of differential effects. Specifically, they will examine and model changes in population and employment growth before and after three major state highway system developments in the 1990s: 1) the West Valley Freeway (SR 85) in the Santa Clara Valley, 2) the Highway 87 extensions, also in the Santa Clara Valley, and 3) the Highway 99 Livingston Bypass in the San Joaquin Valley.

There are four objectives. First, the team will develop and test a geographic information system that will accurately measure the proximity of populations and economic activities to access points for transportation improvements (on-ramps, for example). Second, they will develop and test a quasi-experimental matching method that selects, as controls, regions similar in every respect to those receiving (or in proximity to) transportation

Photo not available improvements, except that the controls lacked any similar sort of intervention. Third, they will develop and calibrate a forecasting model that incorporates the experimental and control groups in a way that enables predictions of population and employment change under both build and no-build scenarios for future transportation projects. Fourth, they will integrate the results to create a practical tool that will assist the development and execution of state and local transportation policy.

The proposed research builds upon regional growth forecasting models developed by team member Marlon Boarnet (1992, 1994, and 2005) and incorporates elements of quasi-experimental research design that directly relate the enhancement of transportation infrastructure to changes in population and employment location while controlling for no-build historical counterfactuals.

The research planned for this project will focus on the integration of land use planning and transportation at the state and local level. The primary product of the research is an analytical tool that would improve decision-making regarding transportation infrastructure development, a need identified as an important priority in this topic area.



Case Studies of Incremental Bus Rapid Transit Projects in North America Project #2704 Principal Investigator: John Niles

Many transit agencies are taking an incremental approach to implementing Bus Rapid Transit (BRT) systems. As described in the BRT Handbook for Partners developed by the Mineta Transportation Institute and Caltrans, agencies that take this approach implement BRT infrastructure and service elements in distinct phases over time. This enables transit service improvements to be implemented quickly and at low cost, thus helping to build transit ridership and take cars off the road in the short-term. In the longer term, the incremental approach can build transit demand to a level that justifies investments in higher capacity transit systems.

To create this "best practices" guide, the research team will develop four detailed case studies of urban transit agencies that have implemented phased BRT projects. The case studies will be based on interviews with the transit system managers and local planners, as well as any available research and analysis on these systems. The researchers will select a diverse set of case study sites, to enable the report to compare and contrast different phased BRT applications. Their interviews will explore both positive and negative lessons learned on all phases of BRT deployment: planning and funding, implementation, operations and future plans.

The objective is to create a report that will be a complementary extension to the MTI BRT Handbook by studying how the lessons learned about phased BRT implementation as described in the BRT Handbook are being applied in enhancing bus service incrementally along existing routes in urban areas.



Phase Two: Evaluating the Environmental Justice Effects of Land Use and Transportation Scenarios in the Sacramento Region with the PECAS Activity Allocation Model and an Advanced Travel Demand Model Project #2705

Principal Investigator: Caroline Rodier, Ph.D.

This project is the second phase of Project #2601. In 1994, a Presidential Executive Order directed every federal agency to make environmental justice (EJ) part of its mission by identifying and addressing adverse effects of its programs, policies, and activities on minority and low income populations. It is widely recognized, however, that modeling tools currently used by transportation agencies have a very limited ability, if any, to perform such analyses. Not surprisingly, the U.S. Department of Transportation (DOT) order summarizing and expanding the Executive Order charges federal, state, and regional transportation agencies to identify, develop, and implement the analytical capabilities necessary to identify EJ effects of transportation projects, plans, and policies.

Concurrently, there has been increased recognition of the potentially harmful social, economic, and health effects of highway-induced urban sprawl on low income and minority groups in the U.S. In response, many have advocated smart growth and/or transit oriented development (TOD) policy strategies to redress these effects and improve access for disadvantaged groups. Today, there are more than 100 existing TOD projects in the U.S., and this number is growing.

The Sacramento region's ambitious planning efforts have been accompanied by equally ambitious model development efforts, which have included the development and partial calibration of the advanced PECAS activity allocation model. This model can currently allocate employment and population into buildings and other built forms and simultaneously calculate space, rents, flows of goods, services, and labor, and consumer surplus for each household and employment activity type.

Phase Two study expands the research by linking the current Sacramento travel demand model to the PECAS activity allocation model. The linking of these two models will enable the evaluation of the EJ consumer surplus effects not only from changes in land uses in the Preferred Blueprint scenario (relative to the urban sprawl or Base Case scenario), but also from changes in travel time and cost from the transportation projects included in those scenarios. More specifically, the model allows comparison of the emphasis on transit investment in the Preferred Blueprint scenario versus highway investment in the Base Case scenario. In sum, Phase One will allow examination of EJ consumer surplus effects from changes in land use only, but Phase Two will allow examination of EJ consumer surplus effects from both changes in land uses and transportation investment scenarios.


The Role of Transportation in a Campus-Level Emergency *Project #2727* Principal Investigator: **Frances, Edwards, Ph.D.**

Colleges represent a concentration of the population that is generally ill prepared for emergency response. Campus Emergency Operations Centers tend to focus their emergency plans on immediate response by the college police, and by local fire and EMS personnel. For many emergencies there has to be a close working relationship with the city transportation department to manage road access and service restoration and priority setting; with the local transit agency for rolling stock to support the response, including movement but also sheltering; with the state highway agency for access issues for bringing materiel to the campus for response and recovery, and for evacuation/movement planning; and with heavy rail for movement of goods and personnel. Most Emergency Operations Plans show transportation as a unit under Logistics that deals with rolling stock. There should also be a unit under Operations that involves the integration of transportation personnel and assets in the response phase.

The State of California Office of Emergency Services provides the basic template for Emergency Operations Plans (EOP) that complies with ICS/SEMS/NIMS mandates. The Local Government EOP will be the base model used to develop the campus plan.

The principal researcher, a certified emergency manager, will draw on 25 years of emergency management experience in California to customize the template for campus and transportation considerations. The Team Member is a certified emergency manager and a security specialist. He will draw on nine years of civilian and ten years of military emergency management experience to develop the transportation-related materials for law enforcement, and to review and augment the overall EOP.

The project will include a report on the role of transportation in emergency management, and a model Emergency Operations Plan for use in campus Emergency Operations Centers.

Future Research

MTI conducted an RFP process in the spring of 2008. Of the 18 proposals submitted, only one was approved outright. Two proposals were conditionally approved, subject to minor revisions which required the oversight and approval of a RAPOC member. Five proposals were recommended for resubmission in a fall selection round. The fall RFP was posted in June 2008 with selection scheduled for early October. Because of MTI's strategic plan, the goal is to have at least 10 new projects underway in the fall. Additionally, two potential research projects will be developed to respond to concerns expressed during MTI's bicycle forum at the end of June. One will focus on the Bicycle/Rail connection for commuters and the other on safety education for bicycle riders and drivers.

All of these projects will be listed as new projects in the 2009-2009 Annual Report.



Executive Director's Summary

Background

The Mineta Transportation Institute (MTI), formally known as the Norman Y. Mineta International Institute for Surface Transportation Policy Studies, has grown significantly since designation in the Intermodal Surface Transportation Efficiency Act of 1991 as a policy research center attached to the College of Business at San José State University (SJSU). At that time, MTI was the only university transportation center in the nation not affiliated with a college of engineering. At the end of ISTEA nine years ago, MTI had a total annual budget of \$500,000 and four research projects in process. We were offering a newly accredited Master of Science in Transportation Management (MSTM) and a graduate Certificate in Transportation Management (CTM), but we had only a handful of students. Though we had a web site, funding shortages precluded frequent updates.

In 1998, MTI was authorized to receive a four-year Transportation Equity Act for the 21st Century (TEA-21) grant for \$750,000 per year through the U.S. Department of Transportation's Research and Special Programs Administration (RSPA). The California Legislature provided a matching grant through the California Department of Transportation (Caltrans). TEA-21 required that the 17 Group B and C University Transportation Centers (UTCs) compete, with ten to be selected to continue at \$1 million each per year for the final years of the authorization. After an extremely competitive application and interview process, MTI was chosen one of the ten continuing Centers of Excellence. Caltrans matched the federal grant, confirming their commitment to MTI. During this evolutionary period, MTI's ISTEA surface transportation policy and management legislative mandate was honored and became focused on three specialties: 1) security and emergency response management, 2) finance, and 3) land use, transportation, and environment interrelationships. These issues were emphasized in MTI's 2006 SAFETEA-LU competition against 36 of the nation's top universities. MTI was proud to be chosen one of the country's ten Tier 1 UTCs. MTI has become a preeminent resource to the national transportation community on these three priority topics, although other issues are studied when requested by U.S. DOT Western Resource Center, Caltrans, and the MTI Trustees.

Research

Since 1999, MTI has published 48 expertly conducted, peer-reviewed policy research projects and has 30 more under contract and in process. Research supported by the TEA-21 and Caltrans grants engaged 90 [needs update] of MTI's 191 certified Research Associates (RA), most of whom are Ph.D.s, as well as 135 student research assistants. Significant research and information transfer efforts (local and regional forums, national symposia or summits, etc.), often sponsored by non-grant funds, have also been completed. Research topics are selected annually through a carefully structured needs assessment process involving designated U.S. DOT and Caltrans committees, the internationally prominent MTI Board of Trustees, and other national transportation leaders. The projects and research teams are chosen annually after a structured bidding and selection process. Final project selection and RA team contract approvals are made by the MTI Research

Associate Policy Oversight Committee (RAPOC), which is made up of the seven chairs, or their designees, of the interdisciplinary academic departments at SJSU that are associated with MTI.

Education

Eighty-four California State University accredited Master of Science in Transportation Management (MSTM) degrees have been granted since 1999, 15 of which were conferred this fiscal year. Forty-four professional Certificates in Transportation Management or Transportation Security Management, requiring completion of 12 core units from the MSTM program, were conferred during that time. Currently, 86 active students are enrolled in the MTI MSTM and certificate programs at SISU. Those students are receiving instruction via the Caltrans 24-site, statewide videoconference network. To support this unique instructional capacity, Caltrans installed a state-of-the-art videoconference origination site for MTI, which has been upgraded recently. Student counseling, syllabi, assignments, homework, testing, and a chat room for each class are provided through the education section of MTI's web site (www.transweb.sjsu.edu).

These MSTM and certificate programs, specifically granted to MTI by the California State University Board of Trustees, are supplemented by the related traditional SJSU undergraduate and graduate programs in Business, Criminal Justice, Engineering, Library Science, Political Science, Public Administration, Urban Planning, Psychology, Sociology, and others. A significant number of students from those programs pursue transportation careers, and many of the professors provide transportation policy research through MTI. Consequently, MTI provides recruitment and scholarship assistance to selected aspects of those traditional programs.

The MTI Alumni Association, including current students as well as prior MSTM and certificate recipients, met to elect new officers prior to the 17th Annual MTI Board of Trustees Scholarship Awards Banquet on June 28, 2008. This association assists MTI in tracking the graduates, and it offers the opportunity for peer support and networking.

Information/Technology Transfer and Non-Grant Projects

To promote information/technology transfer, MTI has conducted and published the proceedings of nine national symposia and summits and nine regional or statewide forums since 1999. Two more national symposia and one more regional and statewide forum will be conducted and published before the end of the coming fiscal year. During the past year, MTI Research Associates and staff have testified before legislative committees, given several dozen speeches and panel presentations on transportation issues throughout the world, and conducted more than 100 media interviews related to MTI research and transportation issues. Those outreach successes will be summarized in the following sections.

In addition, MTI continues to publish World in Motion three times per year. This newsletter is distributed to nearly two thousand national transportation leaders by mail and to many thousands more electronically and by way of the MTI web site.

TransWeb, the MTI web site, received awards for excellence in the late 1990s. But it gradually became obsolete, so it underwent a major upgrade in 2007-08. Prior to the upgrade, during the TEA 21 contract, TransWeb averaged about 150,000 uses and 5,000 downloaded documents per month. Although the evaluation period is limited, TransWeb experienced more than 220,000 uses and almost 50,000 downloaded documents in June 2008, the month after the majority of the upgrade became effective.

MTI's research capacity has become more developed because of RITA and Caltrans grants, leading to a growth in non-grant projects from other governmental organizations. That service will be provided at MTI's cost to promote the dissemination of MTI Research Associates' knowledge for the public's general benefit. Those projects will be described in more detail in the Information/Technology Transfer and Non-Grant Project portion of the report. Finally, MTI continues to be an adviser in the development of several of the new SAFETEA-LU centers. As MTI executive director, I continue to attend national UTC-related meetings, assist with the negotiation of more UTC support for the U.S. DOT modal administrations, have just concluded a term as chair of the national Council of University Transportation Centers, and provide other related service as directed by the Governor of California and SJSU President.

Staffing

MTI has a creative, hard-working and congenial staff, which is expanding to meet the needs of our country's transportation systems. The Hon. Trixie Johnson, Dr. Peter Haas, and Viviann Ferea continue to accrue their many years of service in Research and Education. Former Communications and Special Projects Director Leslee Hamilton accepted the position of executive director for the Guadalupe River and Parks Project, San Jose's central park. She was replaced by Donna Maurillo, an experienced public relations and project management executive. Interim Director for MTI's new US DHS Transportation Security Center of Excellence Frank Biehl is developing that program's strategic plan, along with part-time Deputy Director Dr. Frances Edwards, a respected emergency response expert. Internationally recognized security threat analyst Brian Michael Jenkins will assume the combined DHS and DOT National Transportation Security Center Directorship part-time during the coming year. MTI's now fully fledged National Transportation Finance Center is directed part-time by Dr. Asha Agrawal, a talented professor and researcher, and has a compelling body of work relating to new sources of transportation funding. Meg Fitts has joined MTI to support the Research and Transportation Security functions. Lynda Ramirez Jones (part time) and Iill Carter have become central to our office management, along with a talented team of part-time San

Jose State University students including Vince Alindogan, JP Flores, Kristin Nwakobi, Chris O'Dell, Israr Qumer, and Sahil Rahimi.

Research Associate recruitment, concentrating on only the finest PhD-level talent, continues with certification required by MTI's SJSU Research Associate Policy Oversight Committee (RAPOC). Certification is required before the RAs are allowed to propose on MTI projects. Note that, although some of the RAs are not located at SJSU, every MTI research team must have at least one SJSU RA and one student assistant to bring the research knowledge to the university.

Conclusion

During the final year of the TEA 21 authorization, MTI reduced activity levels to retain liquidity during that uncertain time. With SAFETEA-LU enacted and the Tier I competition successfully completed, MTI is now at full capacity and expects to retain that level of vigor for the remainder of the SAFETEA-LU contract period. The staff enjoys this extraordinary opportunity to identify, teach, and share with the nation the world's best surface transportation policy and management practices. Indeed, the U.S. transportation community, with the help of the national University Transportation Center program, will outsmart the competition and prevail in the global geo-economic competition of the 21st century.

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Rod Diridon, Sr. Executive Director











Leslee Hamilton

Director of Communications (until January 2008)

A former Peace Corps volunteer, Leslee Hamilton has extensive administrative and communications experience from her work with environmental organizations, on election campaigns, and as former communications director for San Jose Mayor Ron Gonzales. She has a BA in business economics from UC Santa Barbara. Ms. Hamilton has worked to increase the exposure and use of MTI's research products. She is active on numerous community boards and is an advocate for improving the accommodations for bicycles on roads and transit.



Donna R. Maurillo

Director of Communications and Special Projects (beginning January 2008)

Donna Maurillo built her career in communications, primarily with technology companies and PR agencies. She earned her BA from UC Santa Cruz, where she delivered the commencement address, and she is currently a graduate student with our MSTM program. For many years, she operated a corporate communications consulting business, providing counsel to clients in higher education, health care, municipal governments, technology, and election campaigns. She also participates in Rotary, where she was named her club's Rotarian of the Year, and she has served on or presided over the boards of several organizations helping the arts and social services. Ms. Maurillo has published numerous magazine and newspaper articles focusing on business, travel and politics. She is a columnist for a daily newspaper and an accomplished photographer.

Overview

The ITT and Special Projects function at MTI is a valuable resource for transportation professionals around the world, providing:

- Symposia and other events to collaborate with leading professionals about key topics such as transportation security, workforce development, transportation finance, bicycle safety, and other issues
- Summaries and reports from those meetings, along with the most current and relevant research reports, pubtlished as hard copy, PDF and HTML documents
- Information resources for a broad variety of transportation topics – available on our Web site, at the libraries, or through our network of other transportation sites
- Educational resources to help young people consider the math and science courses that may lead to careers in transportation, or to help post-grads learn about our accredited Masters of Science in Transportation Management program
- The latest news about MTI's research, information about national transportation issues, opinion polls, insights about mobility trends, transportation funding forecasts, and other timely issues
- Special research or other special projects funded outside of our usual grants.

Martin Luther King, Jr. Library

SJSU's Martin Luther King Jr. Library has assigned Research Librarian Diana Wu to the transportation area. In addition to functioning as the librarian for the MTI collection and all other transportation issues, Ms. Wu is also a member of the MTI academic advisory committee, the Research Associates Policy Oversight Committee (RAPOC). Through contacts with other transportation librarians, including Rita Evans at the Institute for Transportation Studies at UC Berkeley, Ms. Wu provides a wide network of resources for students and researchers working on MTI projects.



Forums and Symposia

Each year MTI sponsors regional forums and state or national symposia. These events accomplish multiple purposes, such as sharing recent research with practicing professionals, other academics, and the larger community; exploring issues needing further research (part of needs assessment); providing opportunities for networking; and creating a record of proceedings that can be shared with a wider audience online and/or in print.

Norman Y. Mineta National Summit on the Crisis in Workforce Development Project 2751

Project Manager: Leslee Hamilton, MTI

On October 6, 2007, the Mineta Transportation Institute hosted the Norman Y. Mineta National Policy Summit on The Crisis in Workforce Development, a one-day session for policy makers and senior managers to discuss the pending loss of experienced transportation workers as they reach retirement age. The event was held in Charlotte, NC.

Highlights of the symposium included presentations and panel discussions by APTA President William Millar defining the challenges and possible solutions; Hampton Roads Transit President and CEO Michael Townes discussing options that his agency has considered; RITA Deputy Associate Administrator Ron Hynes discussing the impact of an aging workforce and the emergence of technology; Rahall Appalachian Transportation Institute Workforce Development Coordinator Dr. Diana Long speaking about a workforce study that she participated in; AASHTO Director Janet Oakley explaining how state DOTs are reacting to changing workforce demographics; Gilbert Tweed Associates CEO Stephanie Pinson discussing the effects of the crisis on recruitment and retention for her private recruitment firm; and MTI Research Associate Dr. Asha Agrawal examining why students do or do not select transportation as their academic major. A panel discussion included Dr. John Collura, Stephanie Pinson, Janet Oakley, and Ron Hynes responding to Dr. Agrawal's study; Senator Robert Plymale discussing how inflexibility will lead to a serious crisis for government transportation institutes; former U.S. Secretary of Transportation Norman Mineta discussing ways to attack the



problem at the local level; and Congressman Nick Rahall explaining the social implications of continued workforce mismanagement.

The symposium was sponsored by the Mineta Transportation Institute and the Rahall Appalachian Transportation Institute, and co-sponsored by the American Association of Railroads, the American Association of State Highway Transportation Officials, the American Public Transportation Association, the Federal Railroad Administration, the Federal Transit Administration, and the National Railroad Passenger Corporation. Numerous policy makers, transit executives, and human relations staff charged with recruiting staff were invited to participate in an open forum.

Topics of discussion included the imminent retirement of the baby boomer generation, the migration of "core" worker skills and techniques for successful recruitment, and retention of employees in transportation. With the baby boomer generation retiring and a large chunk of the transportation workforce eligible to retire soon after, transportation is entering a workforce crisis. To solve this problem, several innovative recruitment techniques must be implemented to recruit and train the best and brightest. These techniques include targeting grade school and college students, creating retention programs such as smarter benefits packages, and encouraging internal training and education.

Town Hall Meeting on Our Bicycle Safety Crisis

Project 2753 Publication number pending Project Manager: Donna Maurillo, MTI

MTI co-sponsored the Town Hall Meeting on Our Bicycle Safety Crisis on Saturday, June 28, at the San Jose (Calif.) City Hall Rotunda. The event was a product of increased injuries and deaths for bicyclists as more people use alternative transportation. Many cyclists are inexperienced and may not understand basic rules of the road, while vehicle drivers may not be as observant about sharing the road with a growing number of riders.

Over the past 10 years, nearly 200 Bay Area bicyclists have been killed and more than 25,000 injured, according to the California Highway Patrol. During that same time, Santa Clara County had the highest number of fatalities and injuries per capita compared to the nine other Bay Area counties. Those numbers have been rising at an alarming rate, both locally and nationally. The purpose of the forum was to help determine what individuals, governments and other agencies can do to make the roads safe for everyone. Bicycling advocates say that one solution is to raise motorists' awareness that bicyclists have the right to u se the roadways and to firmly enforce existing laws against drivers involved in collisions with bicyclists. Several states have passed laws requiring drivers to give bicyclists a minimum three-foot berth as they pass. However, an attempt in 2007 by Assemblyman Pedro Nava to pass a similar law in California was unsuccessful. The forum set out to determine the alternatives.

Will Kempton, director of California DOT (Caltrans) opened the meeting with his department's findings. He was followed by a panel that included Bijan Sartipi, regional director for the California Department of Transportation; Ian McAvoy, chief of development at CalTrain; John Brazil, bicycle and pedestrian program coordinator for the City of San Jose Department of Transportation; Therese McMillan, deputy executive director for policy, San Francisco Bay Area Metropolitan Transportation Commission; Corinne Winter, executive director of the Silicon Valley Bicycle Coalition; Chris Augenstein, deputy director of planning for Santa Clara Valley Transportation Authority; and Linda Jackson, Olympic cyclist and founder of Team TIBCO Women's Pro Cycling program. Attendees included Secretary Norman Y. Mineta, San Jose Mayor Chuck Reed, CTC Commissioner Carl Guardino, San Jose Department of Transportation Director Jim Helmer, and other leaders.

Discussion centered on the highway improvements made to accommodate bike riders, the facilities on board Caltrain, the investigation of a bike-share program similar to that employed in Copenhagen, school safety programs, adult bike skills classes, trending based on safety-related statistics, and other topics. The forum generated a great number of possible solutions that could help to address various facets of the problem. As a follow up, MTI is planning two research studies for the upcoming fiscal year. The forum was co-sponsored by the California Department of Transportation, Cal-Train, City of San Jose, Friends of the Guadalupe River Park & Gardens, San Francisco Bay Area Metropolitan Transportation Commission, Silicon Valley Bicycle Coalition, Silicon Valley Leadership Group, and Santa Clara Valley Transportation Authority. It drew a large public crowd and regional media attention.

Eighth National Garrett Morgan Symposium on Sustainable Transportation

Project 2750 Publication number pending Project Manager: Donna Maurillo, MTI

The 2008 Garrett Morgan Symposium on Sustainable Transportation's national videoconference was conducted on Tuesday, April I. MTI Trustees sponsored one high school class and five middle-school classes for this year's symposium, along with staff assistance and technical facilities for the event. AASHTO Executive Director John Horsley sponsored Leonardtown High School from Leonardtown, Maryland; Caltrans Director Will Kempton sponsored Edna Brewer Middle School from Oakland, MacArthur Fundamental Intermediate School from Santa Ana, and George Flamson Middle School from Paso Robles, all in California; APTA President Bill Millar sponsored Argyle Middle School from Silver Spring, Maryland (although the school had to withdraw at the last minute due to a pending state proficiency exam); and Hampton Roads Transit General Manager Michael Townes, sponsored The School of International Studies at Meadowbrook from Norfolk, Virginia.

By way of a two-way video-conference, Deputy Secretary of Transportation Thomas Barrett and former Secretary of Transportation (ret.) Norman Mineta greeted the participants and discussed careers in transportation. Each class made a project presentation that addressed one or more elements of sustainable transportation. The broadcast sites were interconnected through the Caltrans network operations center in Sacramento.

Edna Brewer Middle School students were judged as the winners for their presentation on a dual-fuel car that runs on solar and bio-diesel. The teacher and student representatives were honored in June at the MTI Scholarship Awards Banquet in San José, California, receiving a plaque and a check for \$1000 for their school. This was MTI's eighth national videoconference symposium on sustainable transportation, given in support of the U.S. Department of Transportation's Garrett A. Morgan Technology and Transportation Futures Program. The program is designed to stimulate the minds of young people and encourage them to excel in mathematics and sciences, which could lead to careers in transportation. The 2008 Garrett Morgan program also received media coverage, including an article in BusRide News that featured the students from the School of International Studies at Meadowbrook and described their project.

The published proceedings will be available online in the Garrett Morgan section at www.transweb.sjsu.edu/research/publications.

Special Projects

MTI has developed a growing reputation for its transportation policy and research skills. As a result, the Institute receives additional funds from Caltrans, non-profits, and other organizations and government agencies to conduct special research projects, symposia, and other events and projects. These are managed under the Special Projects function.

Great Lakes Environmental Protection Project

Project 2755 Publication number pending Project Manager: Donna Maurillo, MTI

MTI was contracted by the Great Lakes Protection Fund of Chicago, III. to help the governments of Canada and the United States, as well as the governmental corporations that operate the St. Lawrence Seaway, with recommendations for environmental policies and incentives covering ships entering and/or using the Great Lakes. MTI created the project to draw upon the best thinking and practice that might link improved environmental outcomes to incentives, such as using toll structures or other means to incent clean shipping. This would specifically, though not exclusively, relate to biological pollution associated with ballast and hull fouling. Improved security is a possible ancillary benefit of the project.

During the first phase, MTI produced a white paper that addressed ship-mediated invasive species problems, provided background on legislation and administrative actions by the U.S. and Canada to address those issues, and set forth options for raising financial incentives that could motivate shippers and their customers to play an active role in resolving the problem. In the second phase, MTI organized a blue ribbon panel of experts in shipping, environmental issues, transportation, legislation, and business development.

Panelists included Dr. Asha Agrawal, assistant professor of urban and regional planning at SJSU; Jack Basso, COO and business development director for AASHTO; Anne Canby, president of the Surface Transportation Policy Project; Allegra Cangelosi, senior policy analyst with the Northeast-Midwest Institute and project manager for the Great Ships Initiative; Mortimer Downey III, president of PB Consult; John Horsley, executive director of AASHTO; Brian Michael Jenkins, counter-terrorism authority; Capt. Philip Jenkins, president of Philip T. Jenkins Assoc. Ltd. and former chief of marine services for the St. Lawrence Seaway Authority; Secretary Norman Mineta (ret.), partner with Hill & Knowlton; and Daniel Sheehan, consultant on national and international maritime safety, security and environmental issues.

The panel met in Washington, D.C. for two days of roundtable discussion, out of which came several proposed recommendations. A report summarizing those recommendations is forthcoming in the next fiscal year.

Motor Carrier Security Study

Project 2627 Publication number pending Project Managers: Leslee Hamilton and Donna Maurillo, MTI

When a tanker truck crashed and burned under an overpass at a major freeway interchange in Oakland, Calif., it compromised the steel structure to the point of collapse. After the accident, Caltrans realized that terrorists might be inspired to use hazmatcarrying motor carriers to severely damage highway infrastructures. They approached MTI to conduct a study about the various ways terrorists might use highway-borne hazardous materials to create casualties and damage or destroy highway infrastructures.

That study, ongoing until the middle of the next fiscal year, was composed of two parts. The first part addresses terrorist attacks using tankers carrying flammable liquids such as gasoline to create casualties and destroy highway and other infrastructure. The second part is broadened to include attacks using flammable gases such as heavier-than-air propane and truckload explosives against highway infrastructure. MTI will gain added value from this study, allowing the Institute to evaluate more attack scenarios; determine more authoritatively the most probable attacks that would cause the greatest loss of life and property; and recommend mitigating strategies that can best deter or prevent the most damaging attacks or limit their consequences.

The principal investigator is Brian Michael Jenkins, internationally-known counterterrorism expert, assisted by Bruce Robert Butterworth, research associate and a transportation security expert. Other researchers who contributed to the study include Douglas Reeves, a hazmat security expert recently retired from the federal government; William Poe, a nationally known explosives expert; Joseph Trella, security expert; Karl Shrum, transportation security expert also recently retired from the federal government; James D'Albora, SJSU graduate student providing data analysis; and Janet DeLand, report editor.

A redacted summary will be presented at a transportation industry meeting during the next fiscal year.



Aviation Weather Systems Study Project 2725 Project Manager: Donna Maurillo, MTI

Near the close of the fiscal year, Caltrans approved funding for Phase 2 of a project that will help to make ground-level weather information available to aviation in areas with little or no coverage from airport weather systems. In Phase I, the Western Transportation Institute at Montana State University created methods to collect ground-level weather data from a variety of sources and convert it into the aviation formats used by pilots. MTI will collaborate with WTI for Phase 2, which will research the most useful and efficient methods to deploy this information. MTI was chosen because SJSU has aviation and meteorology departments, and it has access to a variety of test areas, including coastal, mountain, urban, rural and more.

Ideally, the converted weather information will be useful for rescue helicopters and general aviation aircraft that often operate in remote areas or use small rural airports. Phase 2 work will continue into the next fiscal year.

Marketing Strategy Development for Caltrans Project 2726

Project Manager: Dr. Peter Haas, Donna Maurillo, MTI

State transportation agencies frequently develop research products and other forms of innovation that fail to attract adequate interest from stakeholders due to lack of effective communication. Similarly, many agencies lack appropriate skills and background to develop marketing strategies for their new and potentially innovative efforts. To address that problem, MTI created "Developing Marketing Strategies for Research Products at the California Department of Transportation." This project entailed bringing individual research project directors under the tutelage of a marketing expert, who worked with these individuals to help them develop appropriate marketing strategies for their products. Results of the project suggest that infusing a group of project directors with marketing concepts and techniques can help enhance the effectiveness of their efforts to publicize and disseminate their products.

MTI Web Site

Information and Technology Transfer also manages MTI's web site, TransWeb (www. transweb.sjsu.edu), a transportation information site widely used by people and organizations outside of the Institute. The site provides information about our purpose, research (including downloadable publications in PDF and HTML formats), education programs, special events, news coverage, and links to national and international sites related to surface transportation and policy.

The MTI strategic plan identifies two web site quality control variables to be tracked: 1) the number of uses per month, and 2) the number of downloaded documents per month. Although TransWeb won several national awards of excellence in the 1990s, the web site gradually became obsolete, so underwent a major upgrade in FY 2007-08. The upgrade, elements of which continue into the next Fiscal Year, incorporates advanced technology, easier navigation procedures, additional links, and a more attractive design. Out of necessity, parts of the site were taken down at various points during the year. The site has been fully functioning for external use since June 2008. The site upgrade will be fine tuned during the early part of FY 2008-09, when the rebuild will be completed.

The following table indicates the monthly average for the number of site uses and the number of downloaded documents for the TEA 21 contract (1998-2006), for the first SAFETA-LU and Tier 1 competition agreement period (2006-08), and for the first month after completing the majority of the web site upgrade (June 2008). Note that the latter two columns depict only the months for which data are available (*). Next year's report will include the full effect of the web site upgrade so will be more definitive.

Monthly Average	FY 1998/2006	FY 2006-May 2008*	FY 2007-08, June only*
Uses per Month	173,985	192,416	223,078
Downloaded Docs per Month	5,000 (approx.)	15,569	49,957

Most notable is the document download rate increase to 49,957 in June 2008. That month, the most popular downloaded document was MTI Report 07-03, Connecting Transportation Decision Making with Responsible Land Use: State and Regional Policies, Programs and Incentives, which generated 25,346 downloads, or more than 50% of the total. That could represent an atypical spike, although the steady climb in uses and downloads over time does suggest that MTI is providing valuable research information for site visitors.

The MTI Research pages on TransWeb provide research proposal information, downloadable forms for research associates, project descriptions for all active research, and links to full-text files for all MTI final research reports, including those completed before the University Transportation Center grant program required online posting. Graduate Transportation Management Program (GTMP) students benefit from additional TransWeb content and functions. The GTMP pages are designed especially for current students, who can view upcoming class schedules, register for classes on an interactive form, and request information about the program. MTI expects to streamline the process in the next fiscal year. Video streaming of all classes, which we will be improving over the next fiscal year, also allows busy professionals to keep up with their lessons, review important sessions, and take advantage of guest speakers from past sessions. Course instructors use TransWeb to post course syllabi and assignments, conduct exams, accept and grade assignments, and provide links to bulletin boards, white boards, and chat areas.



MTI Newsletter

MTI's World in Motion newsletter is an effective medium to inform the transportation community about ongoing MTI surface transportation policy research and education programs. MTI also posts the newsletter online.

First published in 1994, World in Motion updates researchers and others about MTI education, research, and information transfer. Every issue includes an update from Executive Director Rod Diridon, columns from Education Director Peter Haas and Research Director Trixie Johnson, as well as Information Transfer reports and statistics. The profile of a selected Board of Trustees member is featured in every issue.

The Research column includes information about new and ongoing projects, awards and presentations, program development, research associates, and student assistants. The Education column features graduate student awards and accolades, as well as changes and course enhancements in the program. The Information Transfer section covers new publications, events presented or co-hosted by MTI, and updates on the TransWeb site.

Media Coverage

By way of active media pitching, MTI has established a growing reputation as a resource for expert opinions about surface transportation issues. During this last fiscal year, MTI was an important part of many news stories in print, online, and in the broadcast media. Executive Director Rod Diridon was often solicited for opinions on gasoline taxes, high speed rail, highway infrastructure, traffic safety, and many other issues. Our researchers and other associates also were interviewed on their topics of expertise, and the media picked up stories about our symposia and other events.

Based only on actual interview placements, direct story placements, and media inquiries, MTI averaged three broadcast placements (radio and TV) and eight print placements per month. It is impossible to calculate actual metrics for every placement because news stories are customarily picked up by several other media, including blogs and local news services, and repeated into their own markets. Therefore, when all multiplying factors are taken into account, actual news coverage is significantly higher.



Other Successes

Videoconference Upgrade

This year, we also upgraded our videoconference equipment to keep current with new technology and to improve significantly the broadcast quality and reliability. Nearly all GTMP classes are broadcast from the MTI conference room by way of two-way videoconferencing, with hook-ups at Caltrans district offices throughout California. This allows students, most of whom have families and full-time employment, to participate at a nearby site. At the same time, they have full interaction with teachers and classmates during each class session. The combination of videoconference and web-based technology offer high-quality distance learning content for a rich graduate education.

CUTC Summer Meeting

Executive Director Rod Diridon served as president of the Council of University Transportation Centers (CUTC) this year. In June, MTI hosted the organization's summer meeting at SJSU. The event attracted more than 150 attendees, far exceeding projections, for a four-day gathering of university-based transportation leaders. The program included presentations by U.S. Secretary of Transportation (ret.) Norman Mineta, RITA Administrator Paul Brubaker, AASHTO Executive Director John Horsley, APTA President William Millar, and many other transportation experts throughout the U.S. The program also included a popular track for administrators, where they exchanged insights about grant management and other critical administrative issues.



<u>Station</u>



Honorable Rod Diridon, Sr.

Executive Director diridon@mti.sjsu.edu

Rod Diridon is considered the father of modern transit in California's Silicon Valley. His political career began in 1971 on the Saratoga City Council. Due to term limits, he retired in 1994 after five terms and six times as chair of both the Santa Clara County Board of Supervisors and its transit board. He is the only person to chair the nine-county, 110-city, 27-transit-district San Francisco Bay Area's three regional governments: Metropolitan Transportation Commission, Bay Area Air Quality Management District, and Association of Bay Area Governments.

Mr. Diridon chaired more than 100 international, national, state, and local activities, most regarding transportation and the environment. He is chair emeritus and the governor's appointee to the California High Speed Rail Authority Board and chair of the American Public Transportation Association's High Speed and Intercity Rail Committee. He chaired the American Public Transit Association in Washington DC, was vice chair of the International Transit Association in Brussels, and continues as a director. Mr. Diridon chaired the National Association of Counties' Transit and Railroads Committee, advised the Federal Transit Administration, and chaired the Transportation Research Board's Transit Cooperative Research Program.

In 2007/8 Mr. Diridon chaired the national Council of University Transportation Centers Board. He also serves on the corporate advisory board of Wells Fargo Bank and the corporate board of Empire Broadcasting Company. From 1969 to 1976, he founded and served as president of the Decision Research Institute, which developed a "shared survey" research procedure adopted by UNICEF. He frequently provides testimony to Congress and speaks throughout the world on sustainable transportation. Mr. Diridon earned a BS and an MBA at San José State University, served two combat tours as a US Navy officer in Vietnam, has been listed in Who's Who in America since 1974, and was recently cited by International Metro Magazine as one of the 50 who most influenced mass transit in North America in the past century. He has received top awards from the American Public Transportation Association, the national High Speed Ground Transportation Association, and others. The area's main railroad station was renamed the San Jose Diridon Station upon his retirement in 1994 from elected office.

Directors



Frank Biehl

Interim Security Research Director

Frank Biehl has established the groundwork for MTI's National Transportation Security Research Center, creating the strategy, developing initial grant application targets, and training the staff. He relies on his significant experience as a business owner in the occupational therapy products industry, where he played a key role in increasing a regional \$150K operation into a \$21.5 million international organization. To do so, he developed the marketing and sales materials, established the international sales division with distribution in 39 countries, secured exclusive US distribution rights for five European manufacturers, and achieving a 20 percent market share in the \$100 million niche. In the process, he became a market driver, creative problem solver, strategist, administrator and senior executive.

Mr. Biehl's career also includes board memberships and leadership positions with several non-profit organizations, including the Silicon Valley Economic Development Corporation and Benetech. He is an elected trustee for the East Side Union High School District in San Jose, Calif., and he has been a management analyst with the Santa Clara County Sheriff's Department and a field representative for the California State Assembly. He earned his Bachelor's Degree in Political Science from San Jose State University.



Dr. Peter J. Haas

Education Director

A member of the faculty in MTI's Graduate Transportation Management Program (GTMP) since 1999, Dr. Peter Haas was appointed Education Director in 2001. He earned a Ph.D. in political science (public policy and public administration) from the University of North Carolina at Chapel Hill in 1985. Dr. Haas is a former director of the SJSU Master of Public Administration Program, and he has experience consulting at every level of government and for nonprofit agencies. He is the author of numerous reports and other publications in the field of transportation and is the co-author of the text Applied Policy Research: Concepts and Cases. A Fulbright scholar, Dr. Haas also regularly contributes to MTI research projects as a Research Associate, and he has co-authored studies in the areas of transportation security, transportation finance, and transit management.



Honorable Trixie Johnson

Research Director

Ms. Johnson was appointed as research director for the Mineta Transportation Institute in 1999. As research director, Ms. Johnson conducts an annual research needs assessment and request for proposals, and manages projects from the approval process through peer review and final publication.

During her tenure she has managed 80 research projects and 21 events. Before joining MTI, Ms. Johnson served the full limit of two terms on the San José City Council (1991 through 1998). Recognized as a specialist in land use and the environment, her council service included two years as vice mayor and several years as the chair of the city's Transportation, Development, and Environment Committee.

Her other public service included chair of the Environmental Quality Committee; member of the board of directors for the League of California Cities; vice-chair of the Energy, Environment, and Natural Resources Committee of the National League of Cities; and member of the Bay Area Air Quality Management District Board. Specifically in transportation, she was a founding board member of the Santa Clara Valley Transportation Authority (VTA), chair of its Congestion Management Committee, and vice-chair of the CalTrain board. She also served on the Legislative Committee of the American Public Transit Association (APTA).

Ms. Johnson was Phi Beta Kappa with honors at the University of Utah, earning a BA in history, and she received her MA in English from the University of Washington.



Donna Maurillo

Information/Technology Transfer and Special Projects Director

Donna Maurillo manages all communications vehicles and special events such as symposia, forums, and public meetings. She also has oversight for office operations and student assistants.

Ms. Maurillo joined MTI after managing corporate communications for Silicon Valley technology companies. She also managed venture capital and technology accounts for Hill & Knowlton and other PR agencies, and she was a teacher and consultant in corporate communications for many years.

She has published many newspaper and magazine articles, including a weekly column. Her Rotary Club named her Rotarian of the Year, and she served as president or board member of several non-profit groups, primarily in the arts and social services. Originally from Syracuse NY, she settled in California, where she earned her degree at the University of California and delivered the commencement address. She achieved her 30 minutes of fame as a contestant on Jeopardy and bring that intellect and wit to work with her every day.

Support Staff



Jill Carter

Assistant Office Manager

Jill Carter is experienced with business operations, applying her skills to MTI administrative management and support. She and her husband own a successful automobile repair facility, where she managed office operations, accounting, staffing, sales and general administration. As a librarian for the Campbell School District, Ms. Carter purchased books and equipment, instructed library skills, and organized the book fair. At Bank of America, she was a bookkeeper and teller.

She is involved with the activities of her five children, including sports, fundraisers, PTA and classroom support. She attended San Jose State University, where she majored in liberal arts.



Viviann Ferea

Education Program Assistant

Viviann Ferea was appointed to the position of Education Program Assistant in August 2000. In this role, Ms. Ferea is the primary contact for the Graduate Transportation Management Program's marketing and administration. She holds many responsibilities including continued recruitment for the certificate and master's programs, maintenance and revision of the MTI web site's Education section, and planning and scheduling courses. She also is a valuable resource for the program's graduate students networking and MTI's MSTM Alumni Association.

Ms. Ferea received her BS in business marketing from the University of California, Davis. Her studies in public relations and her experience in media sales are assets that help her promote the program's continued growth and success.



Meg Fitts

Communications and Research Assistant

Meg Fitts joined the MTI staff in December 2007, first as a communications assistant and then as a research assistant. She manages the organization's budget and financial records, assists the Research Director with contracts, budget tracking, and the publication transportation studies for use by both the public and private sectors. She also supports the Communications Director in special projects, meetings and events.

She has a background in finance industry recruitment in New York City and locally, as well as sales support in the high-tech industry in Southern California. She attended Chaminade University of Honolulu and State University of New York, Old Westbury as a math major. Ms. Fitts is active in community boards, is vice-president of the Rotaract Club of Silicon Valley, and is an advocate of service above self. She is completing her degree as a part-time student at SJSU.



Lynda Ramirez Jones

Office Manager

As office manager, Lynda Ramirez Jones oversees all requisitions, contracts, and other operational documents. She also supervises the student staff and purchases all office supplies and equipment. Previously, she was a management analyst and executive assistant with the Santa Clara Valley Water District board of directors, where she served for 17 years. She also has been a job training supervisor, a home/school consultant with the Migrant Education Program in Medford OR, and a legislative aide to California State Assemblymember Dominic Cortese.

She has been a member of many boards and commissions, and she has worked with several political campaigns. Her education includes paralegal and business management courses at Santa Clara University and West Valley College. She intends to shift to part-time next year.

Student Assistants



Vincent Alindogan *Graphic Designer*

Majoring in BFA graphic design with a minor in photography.Vince is also vice president of the BFA Graphic Design Program. Photo not Available

Chris O'Dell Office Operations Assistant

Majoring in Management Information Systems. Chris plays handball on the SJSU team.



JP Flores Graphic Designer

Majoring in Graphic Design



Israr Qumer Technology Assistant

Majoring in International Business. Israr returned to school after having been a network administrator for Microsoft and working in IT-related services for other companies. He is active in community leadership.



Jonathan Kibrick Research Assistant

Majoring in International Affairs with a minor in music. Jonathan spent time studying at Trinity College in Ireland, and he is a certified train conductor.



Sahil Rahimi Technology Assistant

Majoring in Aerospace Engineering



Kristin Nwakobi Office Operations Assistant

Majoring in Management Information Systems. Kristin volunteered in post-Katrina recovery, and she is involved in student-based community service.

Management

Institute activities are overseen by a prestigious board (see inside back cover) that meets twice a year to provide guidance to staff. MTI's Board of Trustees winter meeting was held on January 13, 2008 in Washington DC. Afterwards, one of the MTI graduate students was part of a group honored by the Council of University Transportation Centers (CUTC) at an awards banquet.

The Board's summer meeting was held on June 28, 2008 and was followed that evening by the 17th Annual MTI Board of Trustees Scholarship Awards Banquet and the graduation of this year's 15-member Masters of Science in Transportation Management (MSTM) class. Former U.S. Department of Transportation Secretary Norman Mineta, RITA Administrator Paul Brubaker, Congressman Mike Honda, and California Department of Transportation Director Will Kempton delivered the commencement addresses. The banquet raises scholarship funds for MTI's MSTM and professional certificate students.

Facilities

Mineta Transportation Institute facilities are part of San José State University (SJSU), the oldest and among the largest of the 26 California State University campuses. Located in downtown San Jose, the campus is at the heart of Silicon Valley. Six full-time and two part-time employees, and six part-time student assistants work in offices provided by SJSU.

Financial Controls

MTI uses a QuickBooks accounting system to provide real-time, project-based budget and expenditure information. MTI relies on this system to track expenditures in detail and to supplement the grant-based monthly accounting statements of the SJSU Research Foundation, which provides state and federal fiscal reports and annual audits.



Partnerships

California University Transportation Centers (Cal UTC)

In 1999, encouraged by MTI's executive director, Caltrans created the Cal UTC group consisting of the directors of the California UTCs and Caltrans staff. The group meets three times a year and is hosted by each of the centers on a rotating basis or by Caltrans in Sacramento. Its objective is to avoid redundancy and to share the best research and education practices.

<u>Council of University Transportation</u> <u>Centers (CUTC)</u>

After serving as vice chair in 2006, MTI Executive Director Rod Diridon was elected chair of CUTC at the June 2007 meeting. For a number of years, Mr. Diridon has been working with CUTC leadership to increase the coordination between UTCs and state DOTs. CUTC is also working with RITA on a number of cooperative ventures, including workforce development issues and a national transportation library.

Jointly Sponsored Symposia, Forums, and Projects

During the past fiscal year, MTI has co-sponsored or is in the process of co-sponsoring projects with organizations including AAR, AASHTO, APTA, ARTBA, California Business Roundtable, Caltrans, DHS/TSA, FHWA, FTA, FRA, Transit Cooperative Research Program of TRB, Transportation Trades Department of AFL/CIO, California State Automobile Association, San Francisco Bay Area MTC, Commonwealth Club of California, Bay Area Rapid Transit District, Silicon Valley Leadership Group, and others. These partnerships generated attendance and/or financial support for MTI programs, and they delivered substantial outreach and media attention for MTI and UTC. More importantly, these events allow MTI to transfer its research to public users.

Community Involvement

MTI Executive Director Rod Diridon, Research Director Trixie Johnson, and Education Director Dr. Peter Haas are recognized transportation experts with extensive contacts in the local, national, and international transportation circles. For example, Mr. Diridon is past vice chair of the International Transit Association (UITP) in Brussels, chair emeritus of the California High Speed Rail Authority and a member of several other transportation boards and committees. Ms. Johnson is active in Rotary, is sought after as a speaker on transportation and environmental issues, and serves on several related boards and committees. Dr. Haas, a Fulbright Scholar, is frequently asked to provide expert testimony on both education and transportation topics.

Interim Transportation Security Research Director Frank Biehl and I/TT & Special Projects Director Donna Maurillo are actively engaged in community activities, as well. Mr. Biehl serves as a school board member, has longtime political experience, and has extensive contacts in local and international business circles. Ms. Maurillo is a longtime Rotarian, she has served on or chaired a number of nonprofit boards, and she has many Silicon Valley contacts. We expect that, when hired, our new Transportation Security Research Director will bring his or her own industry expertise and professional involvements.

These activities are encouraged by SJSU and the MTI Board of Trustees with the understanding that MTI responsibilities come first and that no MTI funding is used to discharge these duties. MTI and the national UTC programs are always mentioned during their presentations. The benefit conferred to the community is obvious, but these efforts also promote a support network for MTI and the UTC program that is valuable for program effectiveness, development of jointly-sponsored projects, general outreach, and scholarship support for MTI's graduate students.

Challenges

The Mineta Transportation Institute is expanding rapidly with the addition of the National Transportation Center of Excellence by US DHS and will be challenged to integrate that new responsibility while continuing to exceed the US DOT UTC strategic plan goals. That integration is well advanced, and MTI will to continue to deliver an excellent graduate education program and produce currently applicable, high-quality, and timely research while working within the SAFETEA-LU grant's reduced funding.





Education Directors



Peter Haas, Ph.D.

Education Director

A member of the faculty in MTI's Graduate Transportation Management Program (GTMP) since 1999, Dr. Peter Haas was appointed Education Director in 2001. He earned a Ph.D. in political science (public policy and public administration) from the University of North Carolina at Chapel Hill in 1985. He is a former director of the SJSU Master of Public Administration Program, and he has consulted at every level of government and for nonprofit agencies. Dr. Haas has authored numerous reports and other publications in the field of transportation and co-authored the text Applied Policy Research: Concepts and Cases. A Fulbright scholar, he also regularly contributes to MTI research projects in various subject areas.



Viviann Ferea

Education Program Assistant

Viviann Ferea was appointed to the position of education program assistant (EPA) in August 2000. As EPA, she is the primary contact for marketing and administration of the Graduate Transportation Management Program. Among her many responsibilities are continued efforts to recruit for the certificate and master's programs, to revise and maintain the Education portion of the MTI website, and ro plan and schedule courses. Ms. Ferea received her BS in business marketing from the University of California, Davis. Her studies in public relations and experience in media sales enhance her ability to promote the program's continued growth and success.

Education Program Goal

GTMP was created to develop and administer a multidisciplinary, state-of-the-art program via videoconferencing and Internet technologies. It consists of coursework and experiential learning that provides students the skills and knowledge to manage and lead transportation systems.

Overview

Enrollment Trends

During Academic Year 2007-2008, the graduate program recorded 207 graduate student enrollments. These enrollments were associated with more than 86 individual, active students. Fifty-five matriculated Master of Science in Transportation Management students were enrolled during the academic year, and 15 program graduates were recognized during the summer of 2008. These numbers reflect a significant increase from the prior academic year, including a notable increase in the number of matriculated students and a large increase in the number of enrollments and graduates. Approximately 62 students are expected to register for the first fall session classes, which would represent a continuing trend of increases over the past several years.

Summer Transportation Institute

During July 2007, the Education Program again offered the "Summer Transportation Institute" (STI). The program, which is funded by the FHWA via the California Department of Transportation (Caltrans), is a national effort to provide career orientation and educational experiences to motivate secondary school students toward professions in the field of transportation. The transportation industry will continue to need individuals who are prepared to provide the leadership to build the nation's transportation system for the next century. The primary aim of STI is to encourage high school students – particularly from traditionally underrepresented backgrounds - to seek professional careers in transportation through obtaining a college education. Participants were engaged in a variety of activities including a college-level environmental science class with an emphasis on transportation issues, field trips to a variety of area transportation centers, guest speakers from the industry, hands-on projects, and related enrichment activities.

Education Program Accomplishments

Courses Offered

In Academic Year 2007-2008, the GTMP offered 11 courses. Class sites follow each course listing below:

Fall 2007

<u>MTM 201: Fundamentals of Transportation Management</u> Caltrans Sacramento HQ, Caltrans D4-Oakland, Caltrans D6-Fresno, Caltrans D10-Stockton, Caltrans, Metropolitan Transportation Authority (MTA)-Los Angeles, and San Jose State University (SJSU).

<u>MTM 214:Transportation Policy and Regulation</u> Students enrolled in, D4-Oakland, D6-Fresno, Transportation Monterey Transit Authority (TMAC), MTA-Los Angeles, D10-Stockton, Sacramento HQ and SJSU.

<u>MTM 226B: Security Issues for Transportation</u> <u>Professionals</u> – Students enrolled in D3-Marysville, D6-Fresno, D4-Oakland, D10-Stockton, Sacramento HQ, and SJSU.

<u>MTM 203:Transportation Markets and Business</u> <u>Development</u> – Students enrolled in D4-Oakland, D6-Fresno, Metropolitan Transportation Authority (MTA)-Los Angeles, D8-San Bernardino, Sacramento HQ, and SJSU.

<u>MTM 215:Transportation Systems and Development</u> – Students enrolled in D4-Oakland, D6-Fresno, D8-San Bernardino, D10-Stockton, Transportation Monterey Transit Authority (TMAC), Sacramento HQ, and SJSU.

Spring 2008

<u>MTM 202: Introduction to Transportation Funding</u> <u>& Finance</u> – Students enrolled in D4-Oakland, D11-San Diego, Sacramento HQ, and SJSU.

<u>MTM 226A: Emergency Management Issues for</u> <u>Transportation Professionals</u> – Students enrolled in D4-Oakland, D6-Fresno, D7-Los Angeles, D8-San Bernardino, D10-Stockton, D11-San Diego, Sacramento HQ, and SJSU.

<u>MTM 283: Independent Research</u> – Students enrolled in D4-Oakland, Monterey Transit Authority (TMAC), Sacramento HQ and SJSU.

<u>MTM 217: Leadership and Management of Transportation</u> <u>Organizations</u> – Students enrolled in D4-Oakland, Sacramento HQ, D7-Los Angeles, Monterey, and SJSU.

<u>MTM 296B: Labor Relations</u> – Students enrolled in D6-Fresno, Metropolitan Transportation Authority (MTA)-Los Angeles, and SJSU.

<u>MTM 290: Strategic Management in Transportation</u> – Students enrolled in D4-Oakland, D6-Fresno, Sacramento HQ, MTA-Los Angeles, and SJSU.



Graduates

The faculty and staff of MTI and the College of Business at SJSU were proud to present the graduating class of 2008 at the 16th Annual MTI Board of Trustees Awards Banquet on June 28, 2008. Fifteen students earned their MSTM degrees. We admire the dedication of these students, each of whom completed 30 hours of coursework while meeting the duties of full-time professional employment.

The following MSTM graduates were hooded during MTI's annual scholarship banquet. Copies of their capstone research projects are available upon request.

Joe Basuino John Carlston Alva Carrasco Brandi Childress Said El-Khatib James Foster Ryan Kauffman Anand Kapoor Sharad Mulchand Eric Napralla Larry Orcutt Joseph Rouse Raymond Wang Sadegh Yazdi Wesley Zinke In addition to our MSTM graduates, three students received MTI's graduate Certificate in Transportation Management (CTM):

Scott Boim Michael P. Harvey Scott McKay

Four students received MTI's graduate Certificate in Transportation Security Management (CTSM):

Sharad Mulchand Eric Napralla Robert Navarro Wesley Zinke The 12-unit CTM and CSTM programs are rigorous and intense, each consisting of four core courses from the MSTM program. These students' hard work and determination during this academic year have helped them successfully complete the CTM or CSTM programs. Many students earn their certificates as a significant step toward achieving their MSTM degree.

Continuing Student Performance (CSP) Fellowships

Twice a year, subject to funding availability, MTI awards \$1,000 MSTM Fellowships. Thanks to this generous program, students can continue their studies while meeting their other financial obligations. In the 2007-2008 Academic Year, MTI awarded more than \$44,000 through this program to the following qualified MSTM students:

- Bruce Buck John Carlston* Kaki Chen Brandi Childress* David Dias Rachel Donovan Boris Deunert Said El-Khatib*
- Garth Fernandez* Carolyn Helmke Daren Grilley * Paul M. Harvey Ashish John Anand Kapoor* Ryan Kaufmann* David Lor
- Christine Miktarian Roger Martin Chris Morfas Eric Napralla* Robert Navarro* Bonny Nyaga* Lawrence Orcutt* Denise Patrick*
- John Raaymakers Nina Rohlich Ray Salvano Wayne Wassell Sadegh Yazdi* George Yurek Wesley Zinke

* received multiple awards



Student Successes

US DOT Outstanding Student of the Year

Brandi Childress was selected as the U.S. Department of Transportation's Outstanding Student of the Year. In 2001, she was hired as a Public Communication Specialist for the Santa Clara Valley Transportation Authority (VTA) in San Jose, Calif. and was recently promoted to Community Outreach Supervisor. Brandi has managed the community outreach effort on some of the biggest highway interchange projects in Santa Clara County, Calif., including the \$125 million Route 85/U.S. 101 North Interchange Project in Mountain View and the Interstate 880/Coleman Avenue Interchange Project in San Jose. She has also acted as a key team member on community outreach for the \$4.7 billion BART to Silicon Valley Project. In 1996, she successfully helped to communicate a \$1.6 billion dollar sales tax initiative to community leaders and voters in Santa Clara County.

Ms. Childress was selected for her professional and academic achievement, as well as her determination to excel in public transportation. As she continues her pursuit of scholastic and career goals, she applies the knowledge she has gained from her instructors and other transportation leaders who make a difference in the transportation industry.

Eno Foundation Award Winners

Two MSTM students won prestigious fellowships from the Eno Transportation Association Foundation in March 2008. In a national competition, Lawrence Orcutt was selected to participate as a fellow in the 16th Annual Eno Leadership Development Conference in Washington, D.C., May 19-22, 2008. Denise Patrick was selected to participate in the Eno Center for Transit Leadership Executive Development Program in Washington, D.C., July 20-25, 2008. The Leadership Development Conference provides participants a first-hand look at how transportation policy is developed and implemented. It features key government officials, transportation association leaders, Congress members, and their staffs. The Transit Leadership Executive Development Program features rigorous courses that focus on leadership skills and style, with participation from senior-level professionals from transit agencies, the Federal Transportation Administration, and business groups.

APTA Foundation Award Winners

The American Public Transportation Foundation (APTF) scholarship program honored four students from MTI's Graduate Transportation Management Program. APTF provides scholarships to deserving students who will fill future leadership positions in public transportation. The selection criteria included a demonstrated interest in the public transportation industry as a career, academic achievement, and the need for financial assistance.

CTM student Kenneth Johnson won an APTF award of \$1,000. MSTM student Denise Patrick received a \$3000 APTF Hall of Fame renewal of her 2007 award. MSTM student Nina Rolich received a \$4,500 Reba Malone Scholarship. Boris Deunert won a \$4,500 Richard J. Bouchard Scholarship.

Alumni and Student Achievements

MSTM alumnus Nick Deal (2005) was promoted to senior planner at Caltrans. Mr. Deal credits his degree with "helping tremendously" and moving his application "near the top of the pile."

MSMT student Rachel Donovan was named a Professional Engineer in Traffic Engineering by the California Board for Professional Engineers and Land Surveyors. MSTM student Bruce Buck is now fleet maintenance manager for the City of Norwalk/Norwalk Transit.

MSTM student and 2007 U.S. Department of Transportation Student of the Year Brandi Childress was recently promoted to community outreach supervisor for the Santa Clara Valley Transportation Authority (VTA).

MSTM student Joseph Rouse was promoted to statewide coordinator for the HOV-High Occupancy Vehicles Lanes Program at Caltrans.

Faculty Activities

Program Outreach

MTI's Graduate Transportation Management Program continued outreach to locate, contact, and attract eligible students. This included site visits to local transportationrelated agencies and underserved professional groups. Program Director Peter Haas recently appeared at two public transportation conferences as part of the ongoing strategy to publicize the MSTM program and to recruit students. On February 8, he appeared at the 2008 California Transportation Planning Conference in Long Beach, Calif., joining a panel of transportation education professionals from around the state to discuss "You Are the Future of Planning." In April, Dr. Haas participated in an education roundtable at the CalACT 2008 Spring Conference and Expo at Lake Tahoe, Calif.

Marketing Project for Caltrans

Officials in the Division of Research and Innovation of the California Department of Transportation (Caltrans) sought a means of more effectively communicating the results of their research. Under the leadership of Matt Raymond, MSTM faculty member and experienced transportation marketing professional, MTI developed a series of one-day workshops specifically designed to meet this need. One workshop was conducted face-toface in Sacramento, while subsequent meetings used the Caltrans-MTI videoconferencing network and facilities as well as individual interaction via email and telephone. Project events were conducted over a two-month period from January through March 2008 so participants could complete their individual marketing projects.

To enable participants to develop their marketing strategies and campaigns, the project entailed an interactive review of the broad aspects of strategic marketing and communications as they apply to transportation and the public sector. Participants learned how to use business tools to develop and justify appropriate courses of action to address marketing problems associated with transportation research projects. Each had an emphasis on strategic planning, analysis, and problem solving. As a project, this exemplified key components of education, training, and research. Hence, it was an innovative means for MTI to assist transportation agencies to market their less traditional services more effectively.






In 1996, with the approval of the MTI Trustees and with the directorship of Brian Michael Jenkins, MTI established the National Transportation Security Center funded jointly by US DOT and Caltrans grants. Since then, the MTI NTSC has completed 16 detailed case studies with four in process covering every major terrorist attack against a transportation target anywhere in the world since 1990. The NTSC also has created a computer compatible chronology of every reported terrorist attack against a US transportation system since 1920. Security needs assessments for international bridges and major tunnels have been conducted, along with detailed SEMS/NIMS emergency response plan reconciliations and tabletop exercises for the four largest Caltrans districts. MTI NTSC is in process for a university system. Three "Norman Y. Mineta National Policy Summits" on related security issues have been conducted by MTI and co-sponsored by DOT, DHS, AASHTO, APTA, Caltrans and others.

In 2006, US DHS Secretary Michael Chertoff designated MTI as a Transportation Security Center of Excellence, after which the organizational process within DHS began. Recently the strategic plan and operating grant requests were released by DHS and have been completed by MTI Interim Security Research Director Frank Biel, with competitive bids due by mid-October 2008. In August 2008, Brian Jenkins will assume the part-time directorship of the combined and jointly sponsored MTI National Transportation Security Center of Excellence (NTSCOE), with Dr. Frances Edwards as the part-time deputy director. The MTI NTSCOE will then begin operating as a department of MTI with administrative support from Megan Fitts. Although the program will be jointly sponsored, the amounts of funding from each source will be carefully segregated for audit purposes by the SJSU Research Foundation.



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Financial Illustrations

FISCAL YEAR 2007 - 2008





EXPENDITURES

MTI Annual Report // **78**

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Project Team Members

Since the inception of the TEA-21 grant, 115 Research Associates have been active on Research and Information Transfer Projects, with several on more than one project. Those who served as Principal Investigator are listed in bold type.

loy K. Adams, Ph.D. **Gary Binger, AICP Evelyn Blumenberg, Ph.D.** Marlon Boarnet, Ph.D. Earl G. Bossard, Ph.D. Ian Botha, Ph.D. James Brent, Ph.D. Jeffrey Brown, Ph.D. Bruce R. Butterworth Lisa Callaghan-Jerram Dennis Church Steven Colman, AICP Nancy Da Silva, Ph.D. Allison de Cerreño, Ph.D. Donald de la Peña Jennifer Dill, Ph.D. Rod Diridon, Sr. Marilyn Easter, Ph.D Frances L. Edwards, Ph.D. Daniel N. Evans, J.D. Thomas C. Ferrara, Ph.D. **Christopher Ferrell, Ph.D.** Triant Flouris, Ph.D. Richard G. Funderburg, Ph.D. Kenneth C. Gehrt, Ph.D. Shahin Gerami, Ph.D. Larry Gerston, Ph.D. Reed Gibby, Ph.D. Joseph Giglierano, Ph.D. Todd Goldman, Ph.D. Daniel Goodrich Eileen Goodwin **Geoffrey Gosling, Ph.D.** Steven Graham, Ph.D. **George Gray** Peter J. Haas, Ph.D. Stuart Harvey James Hayton, Ph.D. Daniel Hess. Ph.D. Aharon Hibshoosh, Ph.D. Judith Hilliard

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Student Team Members

One hundred thirty-five students ranging from senior-level undergraduates to Ph.D. candidates have served as research and project assistants on MTI studies, with several on more than one project. They attend school at San José State University, University of Michigan, University of California at Davis, Claremont Graduate School, California State University at Chico, University of California at Los Angeles (UCLA), University of California at Berkeley, California Polytechnic State University (Cal Poly) at San Luis Obispo and Pomona, and University of Buffalo (State University of New York, SUNY), University of Oregon, Portland State University.

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Instructor Associate Transportation Planner at Caltrans MTM 215 - Transportation Systems Planning and Development

Hon. Rod Diridon

Lecturer Executive Director, Mineta Transportation Institute MTM 290 - Strategic Transportation in Management "Capstone"

Dr. Frances Edwards

Associate Professor Political Science MTM 226A - Emergency Issues for Transportation Professionals

Dan Goodrich

Lecturer Research Associate, MTI MTM 226B - Security Issues for Transportation Professionals

Dr. Peter Haas

Professor Political Science MTM 201 - Fundamentals of Transportation Management

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Lecturer Director/CEO, San Joaquin Regional Transit District MTM 296D - Public Transportation in California

Therese McMillan

Lecturer Deputy Director, Metropolitan Transportation Commission MTM 202 - Introduction to Transportation Funding and Finance

Gary Richards

Lecturer San Jose Mercury News MTM 236 - Contemporary Issues in Transportation

Dr. Ron Sylvia

Professor Political Science MTM 296B - Labor Relations in Public Sector Transportation

William Taylor, JD

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Lecturer Director, Resource Management Agency MTM 217 - Leadership & Management of Transportation Organizations

Acknowledgements

US Department of Transportation (US DOT) California Department of Transportation (Caltrans)

The Board of Trustees and staff of the Mineta Transportation Institute gratefully acknowledge the administrators and staff of the Research and Innovative Technology Administration (RITA) of the US DOT and of the Caltrans' Division of Research and Innovation (DRI) for their support throughout the year. Thanks to RITA Administrator Paul Brubaker, UTC Program Director Curt Tompkins and especially Robin Kline and Amy Sterns. We are also grateful to Caltrans Director Will Kempton and Chief Deputy Director Randell Iwasaki, Chief of Research and Innovation Larry Orcutt, Nancy Chinlund, Nicole Longoria, Christine Azevedo, and support staff.

MTI is grateful to the Caltrans Network Technology staff, including Supervisor Tony Moreshed, Telecommunications Engineer Ismael Briseno, Assistant Information Systems Analyst Gregg Duke, and Assistant Information Systems Analyst Cherice Luckey, for their continued support for our videoconference classroom.

San José State University San José State University Research Foundation

The Mineta Transportation Institute is under the College of Business as part of San José State University (SJSU), the oldest and one of the largest universities in the California State University System. The University's College of Business, Martin Luther King Jr. Library, and the SJSU Research Foundation provide valuable support to MTI. On behalf of the University, the College of Business Dean oversees MTI, particularly the education program. Thanks to former SJSU President Don Kassing, former Interim Dean of the College of Business Dr. Nancie Fimbel, and their staff for supporting MTI. MTI looks forward to working with new COB Dean David Steele and President Jon Whitmore. The SJSU Research Foundation manages MTI's funds and oversees administrative areas such as human resources. Thank you to COO Mary Sidney, Deputy COO Jerri Carmo, and staff Cheree Aguilar, Sara Aujla, Steve Barranti, Steve Constantine, Lan Duong, Ranjit Kumar, Ha Ngo, Michele Vaccaro, and Rick Yoneda and the many others who support the MTI programs.

Research Librarian Diana Wu, Acquisitions Coordinator Carole Correa-Morris, and Periodicals Specialist Elaine Seto assure that the Martin Luther King, Jr. Library provides excellent service to those who use the MTI collection, including faculty, students, and the community. Special thanks to each of them.

Annual Report Production Team

MTI staff produced this report in-house at no additional cost, except for printing. Under the guidance of Communications and Special Projects Director Donna Maurillo, the design was created by graphic arts students Vincent Alindogan and JP Flores. The collaboration team included international policy student Jonathan Kibrick, MIS students Kristin Nwakobi and Israr Qumer, and aerospace engineering student Sahil Rahimi. MTI is honored to have such a talented and dedicated student staff.

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