



Mineta Transportation Institute

Annual Report

2004-2005



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Center Theme

As originally designated by Congress in ISTEA in 1991 and reaffirmed by the Institute's Board of Trustees after reauthorization in TEA-21 in 1998, the Mineta Transportation Institute (MTI) undertakes research, education, and technology/information transfer programs relative to the policy control and management of all surface transportation modes. In short, 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 those "best practices" to MTI's professors, students, and the leaders of the nation's transportation community.

During the 1991 ISTEA and 1998 TEA-21 debates, Congress strongly expressed the desire to assure the international competitiveness of the nation's transportation systems. Because of the availability of much larger motor vehicle fuel taxes in other industrialized countries, the U.S. will not be able to outspend the competition, so we must instead outsmart them. MTI's objective is, therefore, to identify through research, to teach through education, and to broadly disseminate through technology/information transfer programs the best transportation practices in use throughout the world. MTI's work encompasses all modes of surface transportation, including the interface between modes.

MTI is organized by function, with principal staff operating in each of four departments: Administration, Research, Education, and Technology/Information Transfer.



A Note from the Executive Director



Hon. Rod Diridon, Sr.
MTI Executive Director

Background:

The Mineta Transportation Institute (MTI), formally known as the Norman Y. Mineta International Institute for Surface Transportation Policy Studies, has experienced a metamorphosis during the past six years. Seven years ago, with an annual budget of \$500,000, MTI had four research projects in process and was offering both a Master of Science in Transportation Management (MSTM) and graduate Certificate in Transportation Management (CTM), with fewer than a dozen students enrolled. Though a webpage existed, funding shortages precluded frequent updates.

In 1998, a four-year Transportation Equity Act for the 21st Century (TEA-21) grant for \$750,000 per year was authorized for MTI through the U.S. Department of Transportation's Research and Special Programs Administration (RSPA). A matching grant from the California Legislature was provided through the California Department of Transportation (Caltrans). Delays resulted in MTI receiving three fiscal years of grant funding between April 1999 and July 2000, creating an abnormally high level of effort for the following two years.

TEA-21 required that the 17 Group B and C University Transportation Centers (UTCs) compete, with 10 to be selected to continue at \$1 million each per year for the 2002 and 2003 final years of

the authorization. After an extremely competitive application and interview process, MTI was chosen as one of the 10 continuing Centers of Excellence. Though the State of California faced a major budget deficit, Caltrans matched the federal grant, confirming the state's remarkable level of support for MTI programs.

Research:

Since mid-1999, MTI has published 39 peer-reviewed research projects and has eight more under contract and in process. Research supported by the TEA-21 and Caltrans grants has engaged 88 of MTI's 120 certified Research Associates (RA), most of whom are Ph.D.s, as well as 90 student research assistants. Significant research and information transfer efforts (local and regional forums, national symposia, etc.) 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 MTI Board of Trustees, and other national transportation leaders. The projects and research teams are chosen after a structured bidding and selection process. Selection is made by the MTI Research Associate Policy Oversight Committee made up of the seven chairs, or their designees, of the academic departments at San José State University (SJSU) that are associated with MTI.

Education:

Fifty-six California State University accredited Master of Science in Transportation Management (MSTM) degrees have been granted since 1999, eight of which were conferred this fiscal year. Current attendance in the degree and certificate programs has reached 22 fully-matriculated MSTM students plus 17 pre-matriculation or Certificate in Transportation Management (CTM) students. The Caltrans-provided 24-site, statewide videoconference network is now supplemented with two-way online, videostreaming instruction, available to mobility-impaired and out-of-state students. Caltrans installed a state-of-the-art videoconference origination site in the SJSU Foundation Research Center for MTI. The student counseling, syllabi, assignments, homework, testing, and a chat room for each class are provided through the education section of MTI's webpage (<http://transweb.sjsu.edu>).

Prior to the 14th Annual MTI Scholarship Banquet on June 25, 2005, the MTI Alumni Association, including all of the current students as well as prior MSTM and CTM recipients, met to elect new officers. This association assists MTI in tracking the graduates and offers the opportunity for peer support and networking between the members.

Continuing the trend of prior years, our MSTM students received two national scholarships and awards during the past year. This brings to 22 the number of national honors that our MSTM students have received during this authorization period.

Technology/Information Transfer:

TransWeb, MTI's website, has been expanded to provide searchable HTML and/or PDF versions of all MTI publications. Support of the education program has also been significantly enhanced. *TransWeb* has won several national awards and, remarkably, averages over 130,000 unique visitors per year and 5,000 pages downloaded each month. Major portions of the annual research needs assessment, request for proposal distribution, and proposal responses are conducted through e-mail and the website.

To promote information transfer, MTI has conducted and published the proceedings of six national symposia and eight regional forums and/or statewide summits since 1999. One more national and two more regional and statewide forums will be conducted and published before the end of the calendar year. During the past year, Research Director Trixie Johnson, Education Director Dr. Peter J. Haas, several MTI Research Associates, and I have given several dozen speeches and panel presentations on transportation issues throughout the U.S. and conducted over 100 media interviews related to MTI research. Those outreach successes will be summarized in the following sections.

In addition, MTI continues to publish *The World in Motion*. This quarterly newsletter is distributed to nearly two thousand national transportation leaders by mail and electronically via *TransWeb*.

Staffing:

MTI reluctantly saw Office Manager Amy Yan leave after nearly six years as a member of the student and then professional staff. The Institute was fortunate to hire Brendan McCarthy, formerly a scheduler with Senator Boxer's office, as her replacement. Jim Swofford was hired temporarily to coordinate information transfer events and has performed so well that he will be hired full time for the next fiscal year.

Conclusion:

The past year continued MTI's remarkable growth. 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.



Administration

The Administrative Department provides general management and support of areas such as budget control, grant acquisitions and management, personnel functions, facilities support, office management, coordination and support to the Board of Trustees, the Research Associate's Policy Oversight Committee and university, state, and federal relations, and both internal and external communications.





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Honorable Rod Diridon, Sr.

Executive Director

Rod Diridon, Sr. has directed MTI's efforts since its inception. Known as the father of modern transit service in Silicon Valley, Mr. Diridon has chaired over one hundred national, state, and local programs and projects, most related to transit and the environment. Before leading the MTI team, Mr. Diridon completed five terms, serving six times as chair, of both the Santa Clara County Board of Supervisors and Transit Board. He has also served as chair of the American Public Transit Association and as North American Vice President of the Union Internationale des Transports Publics (International Transit Association) in Brussels, where he continues to be a member of the board of directors. Mr. Diridon chaired the National Association of Counties' Transit and Railroads Committee for 18 years. He has been a member of the Federal Transit Administration's Transit Industry Technical Advisory Committee and the Transportation Research Board's Transit Cooperation Research Program, of which he was elected to chair in 1995. He is also on the Executive Committee of the Council of University Transportation Centers and chairs the national Research Education and Training Reauthorization Coalition. In 2001, the governor appointed him to the California High Speed Rail Authority Board and he was chair. Mr. Diridon served two combat tours as a Navy officer in Vietnam. He has received numerous honors and was recently named by *International Metro Magazine* among the 50 people who have most influenced transit in North America in the last 100 years. He is frequently asked to speak internationally as well as to provide testimony to congressional committees. He has a Bachelor of Science in accounting and an MSBA from San José State University and was president of a private research corporation for seven years before being elected to office.



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Leslee Hamilton

Communications Director

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



Brendan McCarthy

Office Manager

Brendan McCarthy was hired in February to replace Amy Yan, who resigned to pursue an MBA. Mr. McCarthy earned a BA in political science from UC Santa Barbara and previously worked for U.S. Senator Barbara Boxer. He will be enrolling in San José State University's Master of Public Administration program.

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Administrative Successes:

In January 2005, MTI submitted a semi-annual report to U.S. DOT-RITA. The report presented summaries of MTI successes from the preceding six months. Those relating to the Administration Department will be updated in the following section.

MTI's Board of Trustees annual meeting was held on June 25, 2005. The 14th Annual Mineta Transportation Institute Board of Trustees Scholarship Awards Banquet and the graduation of this year's Masters of Science in Transportation Management (MSTM) class followed. California Department of Transportation Director Will Kempton was the commencement speaker. The banquet raises scholarship funds for MTI's MSTM and professional Certificate in Transportation Management students.

Facilities:

MTI is located in the Research Center of San José State University (SJSU), the oldest and one of the largest of the 23 California State University campuses. Located in downtown San Jose, the Research Center is in the heart of Silicon Valley. Six full-time staff members, two part-time employees, and five part-time student assistants work in offices provided by SJSU.

Financial Controls:

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

Office Administration:

Office Manager Brendan McCarthy coordinates travel and scheduling for senior staff and supervises the student employees. He maintains and updates an extensive office procedures manual that documents and streamlines practices in all program areas. The manual is an ongoing effort that the staff, under Mr. McCarthy, continues to refine as MTI evolves.

Partnerships:

California University Transportation Centers

In 1999, encouraged by the MTI Executive Director, Caltrans created the UTC Cal Group consisting of the directors of the three California UTCs and Caltrans staff. The group meets three times a year and is hosted by the three centers on a rotating basis. Its objective is to avoid unplanned redundancy and to share the best research and education practices.

Council of University Transportation Centers (CUTC)

MTI Executive Director Rod Diridon is a member of the CUTC Executive Committee and has been active in several other CUTC committees. Mr. Diridon and Research Director Trixie Johnson participated as presenters in the CUTC annual meeting in June 2005 in Boston, MA.

University Transportation Centers' Directors Association (UTCDA)

Mr. Diridon founded the UTC's Directors Association in 1995 and chaired the group until 2000, when he nominated Mike Kyte and Steve Albert as co-chairs. MTI has contributed several policy documents and assisted the organization's members to work together to benefit the total national UTC program. In 2005, the UTCDA merged into CUTC.

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 the following organizations: AAR, AASHTO, APTA, 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, National Public Radio, Bay Area Rapid Transit District, Silicon Valley Leadership Group, San Jose Downtown Association, and Silicon Valley Chamber of Commerce, as well as others. These partnerships generated attendance and/or financial support for MTI programs and also resulted in substantial outreach and media attention for MTI and UTC efforts.

Community Involvement

MTI Executive Director Rod Diridon, Research Director Trixie Johnson, and Education Director Dr. Peter Haas are recognized transportation experts and have extensive contacts in the local, national, and international transportation community. For example, Mr. Diridon chairs a NRC/TRB/TCRP panel on "Combating Global Warming Through Sustainable Transportation Policy" and is a member of several other transportation boards and committees. Ms. Johnson is active in the leadership of the regional Rotary Club, 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.

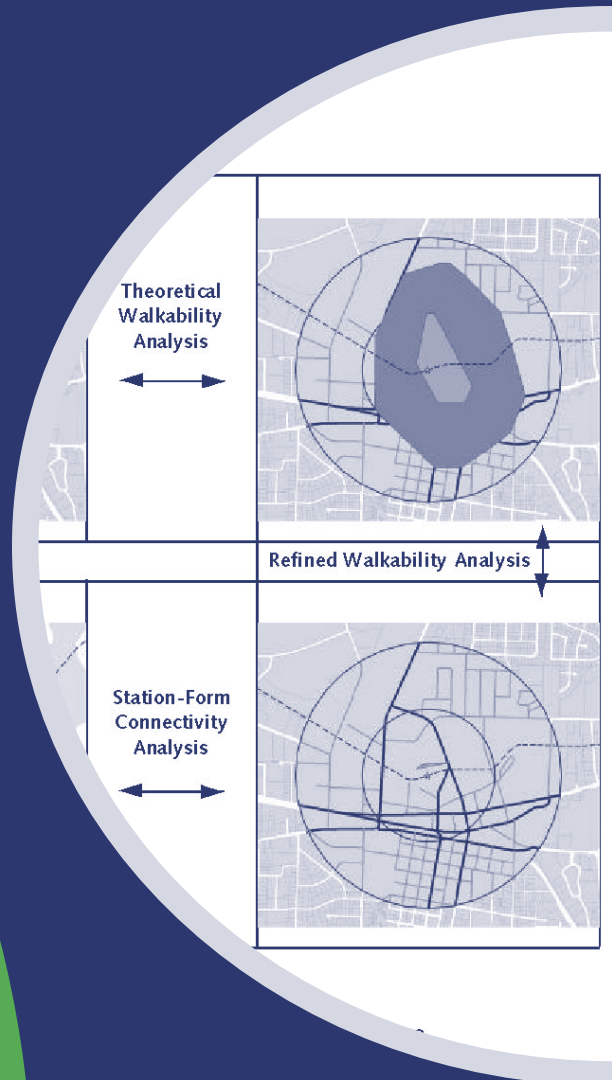
These activities are encouraged by SJSU and the MTI Board of Trustees with the understanding that MTI responsibilities come first and that no MTI funding is used to discharge these duties. MTI and the national UTC programs are always mentioned during these presentations. The benefit conferred to the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

Challenges:

The Mineta Transportation Institute is committed to continuing to deliver an excellent graduate education program and to producing currently applicable, top quality, and timely research while dealing with the uncertainty of reauthorization.

Research

The Research Program manages selection and completion of research projects and sponsors symposia and fora. The Research Director coordinates the selection and efforts of MTI's research associates, who now number 120 professionals and educators. The research staff works closely with the Information and Technology Transfer area to publish the final research reports and event proceedings.





Trixie Johnson

Research Director

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Before joining the Mineta Transportation Institute in 1999, Trixie 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.

Research Program Goals

The Mineta Transportation Institute Research Program seeks to involve a diverse and growing number of certified Research Associates and student research assistants in a wide spectrum of research projects judged by peers and other experts to advance the body of knowledge in transportation policy and management from an intermodal perspective.

The People

MTI actively recruits academic involvement from several departments at San José State University (SJSU) and from other colleges and universities. MTI also taps the experience and knowledge of individuals from public and private organizations to build research teams. Each team includes at least one academic member and one student, and projects are conducted in an academic format, including research methodology, report writing, and 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 department heads or representatives of the SJSU academic departments with which MTI works, reviews the applications and recommends certification where appropriate. Certification is approved by the Executive Director and must be renewed every five years. A major recertification effort took place during this fiscal year.

Projects

Project selection begins with an extensive needs-assessment process by staff, Caltrans, and MTI's Board of Trustees (BOT). MTI also requests ideas from the U.S. DOT Western Resource Center. On completion of the needs assessment, the Institute issues a formal Request for Proposals (RFP). RAPOC, Caltrans, and a representative from the U.S. DOT subject all proposals to peer review. The reviews are then discussed in detail at a selection meeting. Few proposals are recommended for funding as submitted; most are tentatively selected subject to revision by the principal investigator. The selections are referred to the BOT for comment, after which the executive director makes the final decision.

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 has adopted the following areas of emphasis:

- Transportation planning and policy development
- Intermodal connectivity and integration
- Interrelationships among transportation, land use, the environment, and the economy
- Sustainability of transportation systems
- Collaborative labor-management issues and strategies
- Safety and security of transportation systems
- Transportation decision making and consensus building
- Financing of both public and private sector transportation improvements

Transfer of Research Information

All research is published, following successful peer review, and every new report is available on MTI's website, <http://transweb.sjsu.edu>. MTI has developed a number of other approaches to information transfer, including sponsoring symposia, funding post-research travel for researchers to address groups of practitioners, and developing cost-effective formats to present research summaries for distribution to practitioners.

Research Program Accomplishments

Research Portfolio Expands

The ongoing federal reauthorization process and a protracted contracting process for matching state funds could have paralyzed the MTI research program this year. However, MTI had completed a research selection process in May 2004, hoping to have sufficient funds in this reporting year to begin the 10 selected projects. The Institute received permission to use funds from prior years that had been held in reserve, and in the spring was able to start moving projects through the approval process with Caltrans and the SJSU Foundation. Projects 2401 through 2407 have been fully approved and are under contract. Descriptions can be found in the New Projects section of this report. Project 2408 (*Paving the Way: Recruiting Students into the Transportation Professions*) was approved just after the close of the year and will be in the next MTI report. The two remaining project selections will also begin in the coming year. Additionally, Project 2426 (*Bus Rapid Transit (BRT) Guidebook*) was undertaken at the request of Caltrans. The project will provide guidance for Caltrans district employees and their partners who are implementing BRT projects. The report and other ancillary implementation materials are a research project under the UTC grant. Thus, a relatively full complement of eight new projects has begun this year.

Two other projects not funded by the UTC program represent more success for the research program. Project 2425 (*Ridership Enhancement*) is funded by a \$90,000 sole-source grant from the Federal Transit Administration and explores the effectiveness of four innovations for improving transit ridership: 1) employer passes, universal and “ECO” passes, 2) guaranteed ride home programs, 3) day passes, and 4) online fare media purchase programs. Project 2427 (*Transportation Financing Opportunities for the State of California*), funded by Caltrans, will research a wide range of potential financing strategies and mechanisms and then test them in an extensive public opinion survey. A separate project under the \$200,000 grant will then conduct a number of outreach activities to bring the research to a statewide audience and help focus the dialogue on this critical issue.

MTI was a team member for TCRP Report 104, *Public Transportation Board Effectiveness: A Self-Assessment Handbook*. Staff Members Rod Diridon, Dr. Peter Haas, and Trixie Johnson conducted the field test of the draft handbook and analyzed the results for the final publication. The work took advantage of Mr. Diridon’s contacts in the transit field to recruit participants for the survey. Dr. Haas and Ms. Johnson conducted the test and the follow-up interviews and wrote the report for the document. Both Mr. Diridon and Ms. Johnson had been members of transit boards, and Dr. Haas was the first director of the San José State University Master of Public Administration program. These backgrounds were helpful in the task and of value to the team effort as a whole.

Three projects were completed this year and four others have submitted draft reports that are completing the cycle of peer review and final editing before publication.

MTI Research Has an After-Life

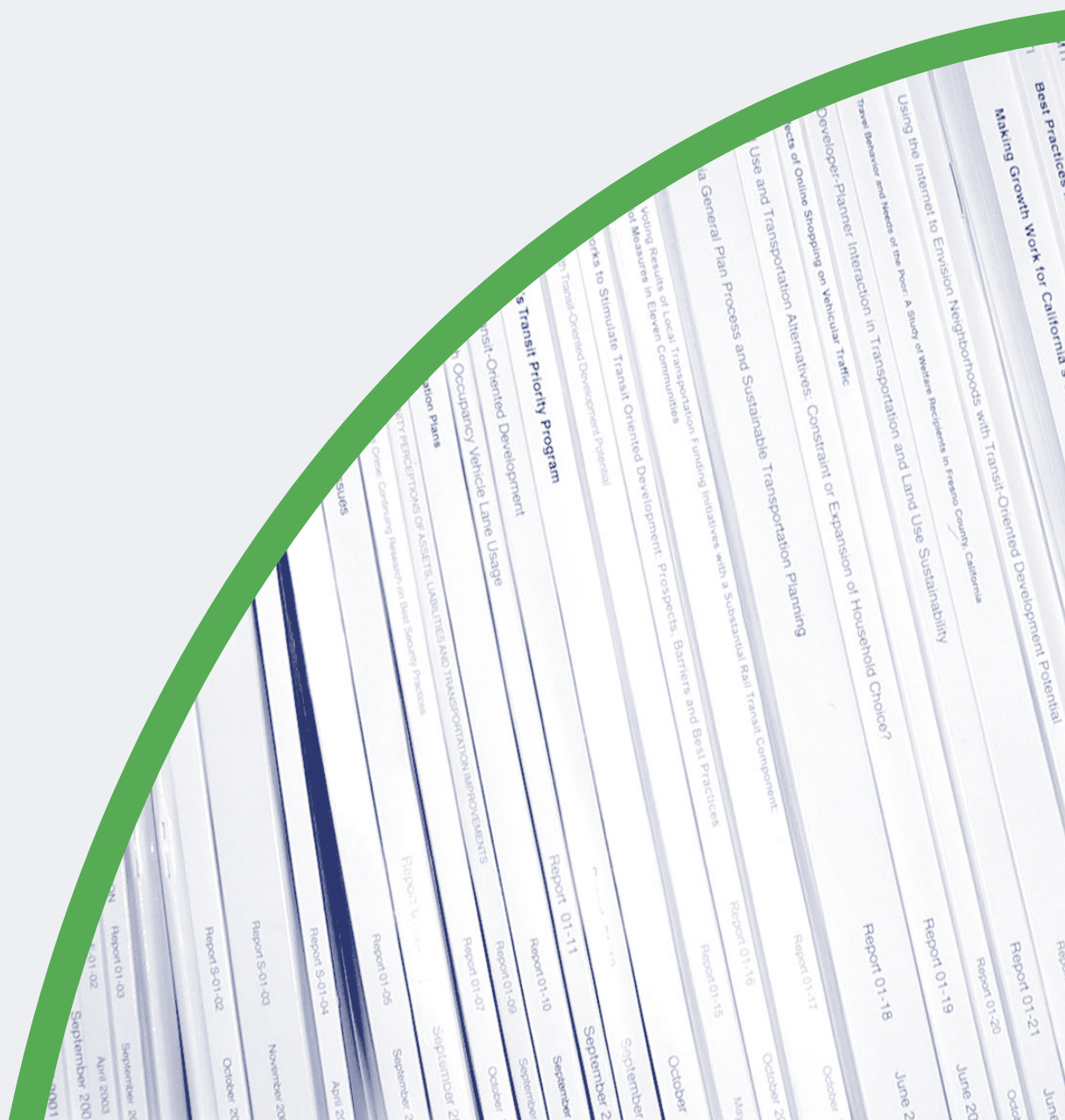
MTI research has a purpose – to make a positive difference in U.S. transportation. That requires dissemination and, if all goes well, some evidence that end-users found the research helpful. MTI encourages researchers to present at conferences and to publish their work in respected journals. The Institute offers travel grants to presenters and a stipend for publication to reinforce the importance of disseminating research. Several MTI projects, for example, were presented at the TRB 2005 Annual Meeting. Robert Johnston and Dr. Caroline Rodier were both speakers in Session #472 – Land Use Modeling Applications. Chris Cherry and Ellen Cavanaugh, student assistants on the 2301 transit security project, were part of the Eisenhower Showcase at TRB. Mr. Johnston also presented at a TRB meeting on Sustainable Transportation in Baltimore in mid-July, the Sacramento Regional Chamber of Commerce, the Environmental Council of Sacramento, the Sacramento Regional Transit Board, and press conferences on Earth Day. He has also been appointed by the National Research Council to the Committee for Determination of the State of the Practice in Metropolitan Area Travel Forecasting.

Two MTI projects were featured at the American Planning Association Annual Meeting in March. Dr. Marc Schlossberg and graduate student Page Paulsen presented results from a companion study to his published MTI report (*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). The techniques for exploring walkability developed in the MTI study were applied to the hot topic of walking to school. Some of the refinements made during the school project will be used in his new MTI project, #2406 (*How Far, by Which Route, and Why? A Spatial Analysis of Pedestrian Preference*). Three members of the team working on Project # 2301 (*Designing and Operating Safe and Secure Transit Systems: Assessing Current Practices in the U.S. and Abroad {Formerly System Design for Transit Security}*) led a lively session that attracted a very large audience. Dr. Martin Wachs, Dr. Anastasia Loukaitou-Sideris, and Ph.D. candidate Camille Fink provided a broad overview of the findings of this lengthy report, which has completed peer review but is undergoing extensive editing.

The Schlossberg report mentioned above and another recent publication, *Higher Density Plans: Tools for Community Engagement*; Project #2204, Publication #03-02, have garnered considerable attention in the past year. Both were featured in the University News section of the TRB electronic newsletter (November 22 and December 21, 2004). Schlossberg's 2004 TRB paper, "Comparing Transit-Oriented Developments Based on Walkability Indicators," will be published in the Transportation Research Record. Research Director Johnson appeared on five regional television and radio programs to discuss more broadly the two reports and transportation issues. Most notable was a full hour on a live call-in show at 8 p.m. on KGO radio, whose signal reaches from Washington State to Arizona. The density report received top billing in the acknowledgements for a forthcoming Urban Land Institute (ULI) publication tentatively titled *Winning Community Approval: New Tips and Tools for Developers and Planners*. ULI author Doug Porter cites the useful discussion of the tools and techniques for gaining community acceptance of proposed developments and assigns particular value to the specific visualization tools and resources that were incorporated into the ULI book with MTI's permission.

An editor for RAIL magazine contacted MTI and Principal Investigator Dr. Hollie Lund for permission to review the findings of the peer reviewed (but not then published) Gold Line report for an article they were doing about the line. They found the Research Project Description on the MTI website -- one of many examples of the website doing just what it is designed to do.

Past MTI research by Dr. Jonathan Levine (*Land Use and Transportation Alternatives: Constraint or Expansion of Household Choice?*; Project #9803, Publication #01-19 and *Developer-Planner Interaction in Transportation and Land Use Sustainability*; Project #9905, Publication #01-21 -- both projects with Dr. Aseem Inam and Dr. Richard Werbel) has led to a new book, to be released in September 2005. *Zoned Out: Regulation, Markets, and Choices in Transportation and Metropolitan Land Use* will be published by Resources for the Future Press.



Best Practices	Report 01-21	June 2005
Making Growth Work for California	Report 01-20	October 2004
Using the Internet to Envision Neighborhoods with Transit-Oriented Development Potential	Report 01-19	June 2004
Travel Behavior and Needs of the Poor: A Study of Welfare Recipients in Fresno County, California	Report 01-18	June 2004
Developer-Planner Interaction in Transportation and Land Use Sustainability	Report 01-17	October 2004
Effects of Online Shopping on Vehicular Traffic	Report 01-16	May 2004
Use and Transportation Alternatives: Constraint or Expansion of Household Choice?	Report 01-15	October 2003
General Plan Process and Sustainable Transportation Planning	Report 01-14	September 2003
Measuring Results of Local Transportation Funding Initiatives with a Substantial Rail Transit Component	Report 01-13	September 2003
Measuring Results in Eleven Communities	Report 01-12	September 2003
Measures to Stimulate Transit-Oriented Development Potential	Report 01-11	September 2003
Transit-Oriented Development Potential	Report 01-10	September 2003
Transit Priority Program	Report 01-09	September 2003
Transit-Oriented Development	Report 01-08	September 2003
Transit-Oriented Development	Report 01-07	October 2003
Occupancy Vehicle Lane Usage	Report 01-06	October 2003
Transit-Oriented Development	Report 01-05	September 2003
Transit-Oriented Development	Report 01-04	April 2003
Transit-Oriented Development	Report 01-03	November 2002
Transit-Oriented Development	Report 01-02	October 2002
Transit-Oriented Development	Report 01-01	September 2002

MTI Transportation Security Research

Counter-terrorism research is continuing at MTI with the system design project under the leadership of Dr. Brian Taylor, which will be published in the fall of 2005. But prior research by MTI's primary research team continues to reach new audiences and benefit practitioners around the world. The Melbourne Victoria Police Department, Australia, is using research by Brian Jenkins' team to prepare for the Melbourne 2007 Commonwealth Games, finding the "...research regarding protection of transport systems and patrons from terrorist activities extremely valuable." Margaret Purdy, Special Advisor to the Deputy Minister of Transport, Canada, invited Brian Jenkins to brief senior officials of the Canadian government's security and intelligence organizations in April 2005. He focused on the evolution of global terrorism using material primarily developed during past MTI work.

Closer to home, the Orange, California, Police Department inquired about ongoing research, since they found the reports on *TransWeb* to be helpful in their prevention and response planning. In October 2004, Mr. Jenkins was a guest of the New York Police Department for a major symposium. Following that appearance, they contacted MTI and asked to establish a more formal relationship, resulting in an agreement to support mutual library collections and to link websites.

On December 15 and 16, 2004, MTI co-sponsored the annual meeting of the California Alliance for Advanced Transportation Systems (CAATS). The theme for the session was *Transportation Safety and Security: Deploying Technology to Improve Transportation*, and MTI was asked to organize a panel featuring Mr. Jenkins and Dr. Frances L. Edwards, MTI's emergency response expert. Executive Director Rod Diridon moderated a panel on the second day of the meeting. MTI also recorded the full event and will publish a summary proceeding for publication in hardcopy and on the websites of both organizations. The conference was organized by the Center for Innovative Transportation at the University of California, Berkeley. This cooperative working relationship with the more technical groups at UC Berkeley, including PATH, is a continuing effort on MTI's part to assist Caltrans in their goal of a more integrated working relationship with their various university partners. Mr. Jenkins took advantage of the occasion to appear on several radio stations, including a one-hour session on KGO radio.

MTI research also played a role in SJSU's award of the Warburton Award of Merit to MTI counter-terrorism team member Dr. Larry Gerston. The award recognizes a faculty member in the College of Social Sciences who has achieved the highest level of scholarship by demonstrating an outstanding record of publications and scholarly papers before prestigious professional organizations.

MTI counter-terrorism research has also been quoted in other research and publications, including *On the Ground: Protecting America's Roads and Transit Against Terrorism*, by Arnold Howitt and Jonathan Makler, and published in 2005 by the Brookings Institute.

MTI Research Director Activities

As part of their annual development of a research agenda, Caltrans and PATH conducted several day-long workshops for Caltrans division representatives. The process is designed to develop research problem statements addressing needs in the field and having a commitment for deployment by an operating division. That same list of problem statements has become Caltrans' needs assessment input for MTI's Request for Proposals. Consequently, MTI Research Director Johnson was invited to join the workshop on policy, planning, and behavioral research on August 25, 2004. The day provided an opportunity to explore research needs but also to discuss common research problems and solutions.

In November 2004, the Golden Key Honor Society inducted Ms. Johnson as an honorary member of the SJSU chapter in recognition of her campus leadership and support of students. A side benefit to this honor will be access to the e-mail addresses of the best students on campus for recruiting student research assistants.

When a national transportation story needs a local perspective, MTI Executive Director Diridon and Research Director Johnson are often sought for interviews. Such was the case when the House of Representatives passed the transportation reauthorization bill, and Ms. Johnson was interviewed by the NBC television affiliate about what reauthorization could mean for the Bay Area.

The Association of Bay Area Governments (ABAG) has requested a working relationship with MTI to assist them in their research projects, and ABAG staff members are available to work on a limited basis as a part of an MTI research teams. The obvious advantages of this relationship include facilitated access to a much wider circle of local government contacts and the opportunity to broadcast research results.

Sometimes outreach and research work in reverse order. MTI hopes this might happen with recent developments related to the El Camino Real/The Alameda Grand Boulevard Initiative. At the end of June, MTI hosted Santa Clara County interested parties to hear a presentation about San Mateo County efforts to create a grand boulevard along the length of El Camino Real. This state highway is a main street through many cities in both counties, and it presents opportunities for BRT development and smart growth redevelopment along many miles of a critical transportation corridor. San Mateo County has expressed an interest in helping to fund a study of grand boulevard developments in other parts of the U.S. and internationally, as well as a baseline study of the efforts along this corridor. As with the recent Gold Line light rail study, this could be the start of a longitudinal study about the impacts of concerted land use and transportation planning along a corridor.

Completed Research Projects

The following projects were described in more detail in prior Annual Reports. They are listed here to assure that all projects completed during the current grant period are acknowledged.

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, Ph.D.,
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.

*Sustainable Transportation
Indicators for California*

Project #2106

Publication #02-05

Principal Investigator: Richard Lee, Ph.D.

*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

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*)

*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 following projects have been completed in the past year:



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

The Sacramento, California, region engaged in an innovative, long-range visioning process during 2004 and 2005 in which the regional transportation planning agency defined and modeled several 50-year growth scenarios. The authors of this report worked with environmental and social equity citizen groups to define policies that would reduce emissions, serve lower-income travelers better, and preserve habitats and agricultural lands in the region. The citizen groups rejected the new freeways planned for the region, as well as the substantial freeway widening for HOV lanes. In addition, they defined a more ambitious transit system, involving new bus rapid transit lines and shorter headways for all rail and bus services. This transit-only plan was modeled by itself and along with a land use policy for an urban growth boundary and a pricing policy for higher fuel taxes and parking charges for work trips. Using a new version of the MEPLAN model to simulate these scenarios over 50 years, the authors described their findings regarding total travel, mode shares, congestion, emissions, land use changes, and the economic welfare of travelers.

The development of the MEPLAN model occurred over several years as this project was continually adapted to allow inclusion of new improvements. A major step forward involved the adoption of the MEPLAN model by the Sacramento Area Council of Governments (SACOG) and their cooperation in providing data to assure that parallel runs of their standard model and the MEPLAN model would be more meaningful. The final report encompassed the original goals of testing the model for use by citizen groups and creating a more robust model that more closely describes the complex factors of travel demand and behavior.



The Impact of Telecommuter
Rail Cars on Modal Choice
Project #2205
Publication #04-01
Principal Investigator: James Hayton, Ph.D.
Former Title: *Forecasting the Impact of Telecommuter
Rail-Cars on Modal Choice: A Behavioral
Disaggregate Demand Model*

Telecommuter technologies on rail cars enable travelers on public transit to access the Internet, thereby enhancing their ability to work while commuting. This technology brings new opportunities for employers to expand their potential labor pool and for employees to shift the costs of work-related travel. Research into more traditional forms of telecommuting, such as working from home, using a dedicated telecenter, or traveling on business, has resulted in numerous benefits for society, employers, and employees.

This study asked to what extent the opportunity to engage in paid work while commuting to and from the workplace results in a shift in commuter modal choice away from automobile travel and toward public transit. There is evidence that consumer demand for public transit is particularly elastic with respect to the value of time spent traveling. Research was conducted in the San Francisco Bay Area and employed a survey of employers as well as data on commuter preferences from the National Household Travel Survey conducted by the Bureau of Transportation Statistics.

The report provides evidence that by implementing telecommuter technology on rail cars, society could benefit through a significant increase in ridership on public transit. Such benefits should encourage relevant stakeholders to pursue the implementation and promotion of this technology.



*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.

The Pasadena Gold Line—a recent extension of the Los Angeles Metro System—has experienced a boom in transit-oriented development (TOD) along its corridor. Total ridership, however, has been significantly lower than anticipated. This study, conducted less than one year after the commencement of rail service, provides an initial assessment of the travel behavior and residential location choice among TOD residents, baseline data for future assessments, and an exploratory analysis of development issues along a new rail corridor.

The study used a combination of quantitative and qualitative approaches. Quantitative travel and location choice data were collected through household surveys of residents in multi-family buildings within walking distance of a Gold Line station. Interviews with developers and property managers provided new understandings of the influencing factors and logic behind rail station development and the extent to which rail access was incorporated into building management strategies along new rail lines. By maintaining consistency with a similar statewide TOD study conducted by Lund, Cervero, and Willson in 2003, this research enables comparisons to other rail systems across California.

Overall, the research indicates that providing housing within rail station areas can be an effective strategy for encouraging ridership. Surveyed station area residents were 2.5 times more likely to use transit compared to residents living in the same area in 2000, before the commencement of rail service. This ridership gain was realized despite the fact that most residents were attracted to the station area because of neighborhood quality and housing factors rather than transit access. Residents are also exhibiting moderately high levels of pedestrian and bicycling activity.

The survey and interview results support the need for further examination and implementation of transit-supportive policies and development practices. Specific issues include affordable housing, the identification of appropriate land use mixes and parking requirements, the creation of transit-oriented (as opposed to transit-adjacent) projects, and the promotion of more transit-supportive workplace policies. The surveys also suggest that greater ridership gains could be realized if TODs were able to attract more transit-dependent populations—those with fewer vehicles, lower incomes, and older populations. Although the initial findings are encouraging, future studies should be conducted to monitor ridership and development trends as the Gold Line and its station areas mature.

Ongoing Research Projects



Decision Making Influences in Land Use and Transportation: An Experiment on the Impact of Transportation and Housing Information

Project #2202

Principal Investigator: Jonathan Levine, Ph.D.

This study seeks to build knowledge in both location and mode choice behavior by implementing an information experiment in a university setting. The project was modified, though the original intent of the experiment remains the same. The research was designed to test how strongly a policy of disseminating integrated transit and housing information over the Internet could influence individuals' residential location and commute choices. The basic question was whether

transportation information could be used to influence travel behavior through the intermediate step of affecting residential location decisions.

Rather than providing the information to the experimental group prior to their housing selection by means of a website – a procedure not implemented by the University of Michigan housing office as planned – the graduate students will work with similar information in a controlled survey, using similar graphic presentations to those originally planned for the website.

This study will help fill the gap in research about the role transportation information can play in housing choices.



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

Project #2206

Principal Investigator: Kenneth Gehrt, Ph.D.

The purpose of this study is to reach a fuller understanding of the potential for high-speed rail (HSR) usage in the U.S. The theoretical framework of Consumer Logistics (CL) theory will be used for a survey that will inform efforts to develop and market HSR service in the San Francisco-Los Angeles 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 incorporates CL theory in the context of channels research that hypothesizes relationships between:

- Performance of CL functions;
- Development of consumer value (efficiency and effectiveness); and
- Satisfaction/usage intention.

Research methodologies include literature review, focus group interviews, and pretests and administration of a survey of SF-LA business air commuters, as they present a likely source of HSR passengers. The survey will also compare CL sensitivity profiles of transportation mode preference categories (HSR, conventional rail, air, and auto commuters). The resulting data will be analyzed using exploratory factor analysis, structural equation modeling/LISREL, and regression analysis. The findings will suggest how CL strategies and tactics can be deployed to maximize HSR usage. The report is currently being peer reviewed.



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 includes a full survey and analysis of three main ethnic groups (Asian, African-American, and Hispanic), in addition to a control group of Caucasians. This phase will include on-board interviews to identify survey participants, administration of a telephone survey, analysis of the data, and a final report. Translators and interviewers with facility in the required languages will be employed when necessary.

By increasing understanding of the behaviors and attitudes of these groups, including generational differences within groups, transit providers may be able to tailor marketing and service provision and, thereby, increase transit usage and satisfaction.



Designing and Operating Safe and Secure Transit Systems: Assessing Current Practices in the U.S. and Abroad (Formerly System Design for Transit Security)

Project #2301

Principal Investigator: Brian D. Taylor, Ph.D.

Currently, concerns about transit security rank very high among transportation officials and transit riders. Detering and minimizing terrorist attacks involves assessments of vulnerabilities, mitigation of weaknesses in the system, and the development of effective response and emergency plans. Yet planning for transit security to date has largely been ad hoc and often ambiguous. For example, surface transportation security tends to focus less on deterrence and more on mitigation, quick response, and the rapid restoration of services after an incident.

This research will approach responses to terrorist incidents as a process over an extensive time frame, approximating the life of the transit system. The framework is sketched below, though an element of the research will be to expand and refine this model:

- Stage One: Planning, Designing, and Building – From conception through construction, system design should address the potential damage of incidents. Materials choices, ventilation systems, communications systems, and architecture should minimize vulnerability, maximize continued function, and facilitate emergency response.
- Stage Two: Planning for Incident Response – Periodic vulnerability assessments allow the refinement of plans for

response to evolving threats. Inter-agency cooperation and passenger information should be ongoing.

- Stage Three: Immediate Response to Incidents – Deconstruct the role of system design and operations in exacerbating or minimizing the effects of an attack. This information can then be used to improve future planning and operations.
- Stage Four: Long-term Recovery – Based on these lessons, transportation officials will be able to redesign, reconstruct and operate the system with a design for better security.

By combining resources with another grant available to the team, they have been able to add international case studies to the report, including the train bombing in Madrid.

The study is in the final stages of editing prior to publication.



Verifying the Accuracy of Land Use Models Used in Transportation and Air Quality Planning: A Year-Two Validation Study
Project #2302
Principal Investigator: Caroline Rodier, Ph.D.

The results of this validation study of the Sacramento MEPLAN model (an integrated land use and transportation model) will be compared to the results of the validation study of the Sacramento Regional Travel Demand Model (a traditional model using consensus-based land use projections) to assess the improvement gained from the land use representation in the Sacramento MEPLAN model. Validation will have important consequences for both air and transportation planning at the regional level.

This study will be a 10-year validation case study of the Sacramento MEPLAN model. It is the second phase of work begun with MTI study #2108, now published as report 02-03, *Verifying the Accuracy of Regional Models Used in Transportation and Air Quality Planning*. Building on the results of the previous historical validation study, this project will address two key questions: first, will newly implemented land use models significantly improve the accuracy of forecasts, and second, with what degree of precision can such models validly be applied in policy studies and in regulatory decisions?

Four tests will be applied in the simulations: model accuracy, travel model accuracy, land use model accuracy, and induced travel accuracy. Then the results of this year-two validation study of the Sacramento MEPLAN model will be compared to the results of the year-one validation study of the Sacramento Regional Travel Demand Model to assess the improvement gained from the land use representation in the Sacramento MEPLAN model.

The final report will address the relevance of the findings of the two reports to policy studies and regulatory decisions. The report is in the final editing stage.



*Applying Smart Growth Principles and Strategies
to Resolving Land Use Conflicts Around Airports*

Project #2303

Principal Investigator: Richard Lee, Ph.D.

This research will identify and document the extent to which the principles of smart growth have been applied to airport system planning in the State of California. Furthermore, it will explore the effectiveness of existing airport land use compatibility planning procedures in California from the perspective of smart growth policies.

The research will address 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 is likely to 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.



*High-Speed Rail Projects in the United States:
Identifying the Elements for Success*
Project #2304
Principal Investigator: Allison de Cerreño, Ph.D.

The goal of this study is to identify lessons learned for successfully developing and implementing high-speed rail (HSR) in the United States. Given the early stages of these projects, success cannot be based on implementation, but rather upon whether a given HSR project is still actively pursuing development and/or funding.

Since the 1960s, high-speed rail has held out the promise of fast, convenient, and environmentally sound travel within the United States. Congress first authorized studies aimed at deploying HSR with the High Speed Ground Transportation Act of 1965. However, despite numerous initiatives by state and federal governments, nearly all U.S. high-speed rail projects have failed.

The U.S. government has been reluctant to develop such projects. Aside from Amtrak, the federal government has restricted its role to funding pilot studies and technological research. With the Intermodal Surface Transportation Efficiency Act of 1991, and later the Transportation Equity Act for the 21st Century of 1998, the Federal Rail Administration (FRA) formally designated 11 HSR corridors. According to the FRA, designation “allows a corridor to receive specially targeted funding for highway-rail grade crossing safety improvements, and recognizes the corridor as a potential center of HSR activity.” Beyond these efforts, there is no dedicated HSR funding source.

While several authors have summarized a number of failed initiatives, they have not assessed common elements of failure or success, nor have they looked back to the initial legislation in as much detail as this project. Other reports, such as AASHTO’s *Intercity Passenger Rail Transportation*, do provide some assessment of criteria for success or obstacles that can lead to failure, but they focus broadly on intercity rail and do not deal specifically with HSR. Therefore, this project will cover a new area of research that could provide guidance for HSR development in the future.

The report is in the final stages of editing.

New Projects

In May 2004, MTI selected 10 research projects, but final approval and action to begin the studies was deferred pending more information about the timing of funding related to the extension of TEA-21 and/or the success of the new reauthorization process. In May and June of 2005, eight of the ten were submitted to Caltrans and the SJSU Foundation for final approval. The remaining two will be submitted in the first quarter of FY 2005-2006.



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

Project #2401

Principal Investigator: Allison de Cerreño, Ph.D.

This study is the second part of an effort currently underway and scheduled for completion in summer 2005. The overall goal of both the current and proposed studies is to identify lessons learned for successfully developing and implementing HSR in the United States.

The initial study identified 19 cases of high speed ground transportation that are or have been pursued in the United States since the 1980s. Within the scope of that study, the researchers further analyzed three of those cases. However, the following additional cases merit assessment: the Chicago Hub Network, the Northeast Corridor, and the Texas Triangle. The Chicago Hub Network is one of the most extensive of the American HSR efforts, crossing a number of states and running parallel to freight rail efforts. The Northeast Corridor is the only case in which HSR is currently running. It offers perhaps an anomaly compared to the other cases, but bears further exploration. The Texas Triangle provides another example of a failed project and would help highlight the interplay between rail and aviation. Detailed analysis of these three cases, along with the cases explored in the current study, will provide a good basis for strengthening any recommendations. Additionally, the team will revisit the three corridors studied in the first part (Florida, California, and the Pacific Northwest) to determine if more recent developments suggest the need for revised findings. Should the cursory review indicate the need for a more detailed case study, the team may request the option of negotiating additional time and funding to accommodate the additional work, which is not included in the scope of this project.



Barriers to Using Fixed-Route Transit for Older Adults

Project #2402

Principal Investigator: Michael Peck, Ph.D., MSW

The mobility provided by transportation is critical to a feeling of well-being in life. For the increasing population of older adults, unmet transportation needs are linked to reduced well-being. Mobility is a critical element of overall life satisfaction because it facilitates the completion of tasks and helps to maintain links with family, friends, and community. For older adults who can no longer own or drive their own automobiles, public transportation is even more critical. The same disabilities that prevent people from driving also inhibit their use of public transportation. Many perceive public transportation as unsafe or unable to accommodate them. Understanding the barriers to use of public transit by older adults will help make our communities increasingly accessible.

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.



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.



*The Elderly and Public Transit:
Minimizing Barriers and Maximizing Service*
Project #2404
Principal Investigator: Susan Shaheen, Ph.D.

The increasing number of seniors unable to drive has led to substantial research, including a comprehensive Transportation Research Board (TRB) Report (TCRP 82 *Improving Transit Options for Older Persons*), which identified for the elderly population (1) trends, changes, and travel implications; (2) mobility preferences and barriers from focus groups and a synthesis of the literature; (3) public transit improvements to address preferences and barriers; and (4) strategies for public transportation agencies to implement these improvements. The TRB study found that like other travelers, older travelers want public transit that is reliable (e.g., no waiting in poor weather), proximate (e.g., door-to-door service), flexible (e.g., carrying packages), and responsive (e.g., longer service hours). However, “some are reluctant to try new experiences, and riding public transportation will be a new experience for many seniors, who will seek more than the usual level of information and assistance before feeling comfortable with a new way of travel.” The TRB report recommends improvements such as methods to welcome seniors, better information, and shared-ride demand-responsive services. General strategies to implement such services include “developing mobility planning and training programs to help older persons make a transition from driving to public modes of travel.” A recent report sponsored by Caltrans on the use of public transit by non-traditional riders also recommended the development of “senior education and outreach programs.” (California Department of Transportation [April 2003]. *An Analysis of Public Transportation to Attract Non-Traditional Transit Riders in California*. Final Report.)

This study picks up where previous studies leave off by applying principles of social learning and marketing to develop specific interventions that introduce and transition the elderly to public transit use. This study will develop, implement, and evaluate interventions in the Rossmore retirement community in Walnut Creek (East San Francisco Bay Area). The study will produce a transit education instrument (likely a video) that could be adapted for use in other contexts, as well as a list of

marketing interventions (potential applications and cost-effectiveness) that could be used by transit agencies to encourage transit use among the elderly. The team also expects to propose a subsequent pilot study to test the effectiveness of the interventions.



Neighborhood Crime and Travel Behavior

Project #2405

Principal Investigator: Christopher Ferrell

This study hypothesizes that urban density and neighborhood crime have been confused in the minds of the public, as well as in the conceptual and statistical models of transportation researchers, and proposes to study the effects of neighborhood crime on mode choice.

This study will be of interest to three categories of urban and transportation planning professionals: urban transportation demand modelers, urban transportation planning researchers, and transit agency professionals. Travel demand modelers may be provided with a new source of data that could significantly improve their modeling techniques. By providing a clearer empirical picture of the effects of urban form and crime on travel decision-making, policy-level efforts to jointly plan transportation and land use to increase the use of transit and non-motorized modes may also be improved. If researchers and policy-makers can be shown a clearer picture of the effects of urban density on travel behavior while controlling for the effects of crime, a clearer and more substantial case can be made by backers of smart growth and transit-oriented development. Transit agency planners who are seeking to enhance transit ridership may also benefit from this research. While it may be assumed that increasing transit services to a neighborhood is the most effective way of increasing ridership, these efforts may be thwarted by high levels of neighborhood crime. In some cases, a more intensive and community-based policing program for a neighborhood might be the most cost-effective means to increase ridership and neighborhood residents' mobility using existing transit routes.

By combining datasets from San Francisco Bay Area law enforcement agencies, census data, and the Bay Area Transportation Survey (BATS) 2000 data using computer database and GIS applications, the relationships between urban form, travel behavior, and crime can be measured. Models developed in this study will likely focus on home-based trips so that crime rates and the demographic and land use characteristics of the traveler can be studied. Categories of potential trip types to be studied include home-based work, school, and shopping trips.



How Far, by Which Route, and Why?
A Spatial Analysis of Pedestrian Preference
Project # 2406

Principal Investigator: Marc Schlossberg, Ph.D.

This research will complement and extend the existing literature on pedestrian behavior and walkable environments, as well as the existing methods used to graphically display highly localized environmental data.

This study will develop new, highly localized techniques that capture the pedestrian environment on individual blocks and at intersections, with the resulting maps showing information such as the conceptualized and hypothesized characterizations of TODs in terms of likely walkability and spatial analyses of actual paths chosen by transit users who access transit stops by foot.

The study results will provide three distinct outcomes: 1) highly specific information about how far people walk to access TODs, 2) an understanding of what environmental features attract or discourage pedestrians, and 3) a set of visual, map-based tools that can be used to educate policy makers, practitioners, and the general public. All three of these results have direct application for planners, policy makers, and community leaders interested in making their communities more walkable. It is important to note as well that both the methods used and the anticipated results are applicable not only to pedestrians walking to transit stations, but for communities trying to encourage walking to schools, parks, retail areas, or many other local destinations.



Beyond Uncertainty: Urban Models in
Transportation and Air Quality Planning
Project #2407

Principal Investigator: Caroline Rodier, Ph.D.

Due to the limitations of travel demand models and recent changes to regulatory requirements, state and regional governments across the U.S. are beginning to implement more advanced land use models and travel demand models (e.g., Sacramento, CA; Springfield-Eugene and Portland, OR; and Salt Lake City, UT). Land use models, however, are subject to many of the same sources of inaccuracy as travel demand models. Given the complexity and data requirements of these models, it may not be unreasonable to expect that their uncertainty might be equal to or greater than that of travel demand models. Moreover, it is possible that theoretical improvements with respect to the representation of the land use and transportation interaction in the simulation methods could be swamped by the errors of a more complex model set.

Until recently, however, very few studies had been conducted to quantify errors and their sources in travel and land use models, the policy implications of these errors, and/or the respective advantages and

disadvantages of the different model capabilities. Indeed, uncertainty in models has traditionally been ignored not only by the transportation profession, but in policy analysis in general. The Mineta Transportation Institute has contributed funding to a multi-year case study of uncertainty in a state-of-the-practice travel demand model (SACMET) and an advanced integrated land use and transportation model (MEPLAN) in the Sacramento region.

This will be a three-part study that expands on and synthesizes the findings of the Sacramento case study by addressing key planning and policy questions surrounding uncertainty in travel and land use models. The study will employ three key methods: 1) expert interviews, 2) literature synthesis, and 3) modeling to illustrate an innovative approach to policy analysis under uncertainty. The modeling will address the twin goals of acknowledging uncertainty and identifying stakeholders' values and objectives. The anticipated result should be relevant policy analysis that accommodates values, goals, and strategies without being distracted by technical debates on the adequacy of the available tools.



Bus Rapid Transit Guidebook

Project # 2426

Principal Investigator: George Gray

In April 2005, the Caltrans Division of Research and Innovation (DRI) asked MTI to assist with the research for and publication of a guidebook for use by Caltrans employees who work with local transit agencies and jurisdictions in planning, designing, and operating Bus Rapid Transit (BRT) systems that involve state facilities. The guidebook should also be of assistance to transit operators, local governments, community residents, and other stakeholders dealing with the development of BRT systems. At least three areas in the state have experienced such projects (San Diego, Los Angeles, and Alameda County) and DRI wished to use that experience to guide future efforts and identify needed changes in statutes, policies, and other state concerns.

Caltrans convened a working group from the Divisions of Research and Innovation, Mass Transportation, and Operations, together with stakeholders representing many of those involved with the BRT activities around the state. Prior to MTI's involvement, this group produced a white paper on the topic, a series of questions, and an outline of the guidebook that MTI will write and produce.

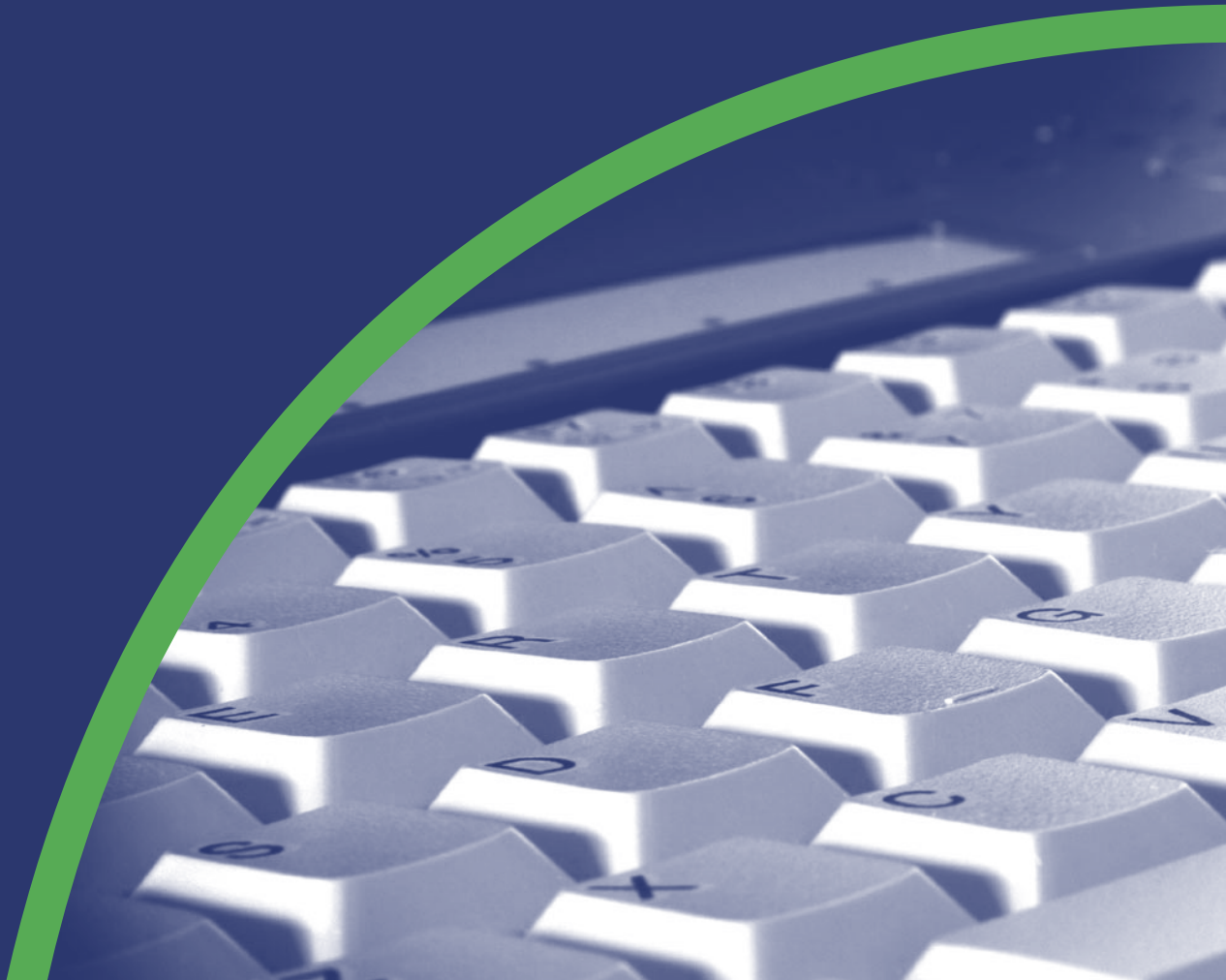
The MTI team will conduct case studies of the major efforts in California, along with less developed studies of some of the other BRT programs under development or in early implementation phases around the state. The purpose will be to clarify those issues that need to be addressed in the guidebook, as well as to compile information for an additional report that will identify items needing legislative or regulatory action and items that Caltrans will need to address through district directives or other internal measures. A literature scan will be used to develop a bibliography for future reference. The MTI team will also develop the Caltrans director's policy document, which provides the basis for Caltrans' actions.

This is a fast-track project, due to the substantial BRT activity in the state and Caltrans' desire to provide guidance to their district staff in how to be a positive and helpful partner in facilitating implementation.



Information and Technology Transfer

The area of Information and Technology Transfer manages hardcopy and online dissemination of surface transportation policy information, including information resulting from MTI research, education, fora, and symposia programs. Among other projects, this area includes *TransWeb*, the library program, and all publications.





Sonya Carter

Research and Publications Assistant

With a career as varied as a buyer and a program director for a NASA program, Research and Publications Assistant Sonya Carter brings a fresh approach to one of MTI's most important assignments, that of publishing transportation studies for use by both the public and private sectors.

A lifelong Bay Area resident, Ms. Carter served as the Education Program Director for NASA Ames Research Center's STELLAR education program. In that position, she was the recipient of several awards for program excellence, including the National Rotary Award in Space Education in 1999 and 12 Specific Productivity Awards from NASA Ames from 1985 to 1996.

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Barney Murray

Web Administrator

Web Administrator Barney Murray brings over 25 years of computer expertise and creativity to the Mineta Transportation Institute as the mastermind and creative force for *TransWeb*, the Institute's website. Mr. Murray took charge of the site in October 2000. The number of hits and visitors to the site continues to increase under his management.

Mr. Murray's computer background includes working in computer science research and development, hard drive failure analysis, and website design. Knowledgeable in all aspects of Internet technology, and proficient in programs used to design websites, Mr. Murray is always searching for ways to improve the user experience and available functions.

Using skills in Internet marketing and web analytics, Mr. Murray uses both creativity and data to determine the future direction of *TransWeb*.

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Information Transfer

Goals

The goals of the Information and Technology Transfer Program are to provide transportation professionals around the world with:

- Research results published both in high-quality printed documents and online,
- Discussion summaries on significant transportation issues, and
- Library and Internet-based resources for a wide range of transportation interests.

Library

Diana Wu, Research Librarian for the SJSU King Library, has been assigned 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 an expansive network of resources for students and researchers working on MTI projects.

Recently, Ms. Wu supervised Library Sciences graduate student Daniel Blackaby in a research project to create a database of juried journals that might be interested in articles based on MTI research. This tool will be provided to all MTI research teams to assist them in preparing articles for publication, furthering the goal of information transfer.





This past year, MTI continued a long relationship with the Commonwealth Club of California, conducting two regional forums on traffic congestion relief. One was on the development of Bus Rapid Transit (BRT) in the San Francisco Bay Area, and another was on the extension of the Bay Area Rapid Transit (BART) service to Silicon Valley. Both of these controversial subjects were addressed by MTI in the open and collegial manner needed to move toward consensus. MTI also co-sponsored a symposium on transportation safety and security with the California Alliance for Advanced Transportation Systems (CAATS) at their 2004 Annual Meeting. And, once again, MTI conducted another successful Garrett Morgan Symposium on Sustainable Transportation. MTI publishes a summary of all forums and symposia in hardcopy and electronically on *TransWeb*.

Bus in the Fast Lane:

A Transportation Forum on Bay Area Bus Rapid Transit

Project #2451

Publication # F-04-01

Project Manager: James Swofford, MTI

MTI presents occasional forums on regional transportation “hot spots” to provide an opportunity for focused discussion and developing consensus (or next steps) in resolving issues related to a topic. MTI continued the series on November 12, 2004 in Oakland, California, with a look at Bus Rapid Transit (BRT) in the San Francisco Bay Area.

Alameda County is leading the region in deploying BRT with a Rapid Bus service that is being extended into new areas, possibly using dedicated bus-only lanes in some neighborhoods. Elsewhere in California, the Los Angeles Metropolitan Transportation Agency (LA-MTA) is implementing various levels of BRT on multiple corridors with differing results.

Critics of BRT fear that automobile traffic flow will suffer, businesses will lose parking and be hurt during construction, and local agencies will inherit unknown maintenance costs. Thus, BRT is both a reality and a possibly contentious new transit service – the perfect topic for such a forum.

The audience was made up of transportation professionals, elected and appointed officials, community-action groups, and interested citizens. Steve Heminger, Executive Director of the San Francisco Bay Area Metropolitan Transportation Commission (MTC) and an MTI Trustee, made the opening keynote address to present BRT in context with the MTC's overall transportation goals for the region.

Panel presentations followed.

- James Cunradi, BRT Project Manager for the Alameda-Contra Costa Transit Agency (AC Transit), explained the project and the basics of BRT.
- Cyrus Minoofar, manager of the Alameda County Congestion Management Agency's SMART Corridors program, discussed the system's technical, financial, and organizational interdependencies.
- Jon Twichell, Transportation Planning Manager for AC Transit, discussed operational and financial issues, challenges, and possible responses for various neighborhoods.
- Peggy Thomsen, City of Albany Councilmember and CMA board member, provided a small community's perspective on the benefits and trade-offs.
- Kriss Worthington, City of Berkeley Councilmember and CMA board member, provided a larger community's perspective on the proposed program.

An audience question-and-answer period followed the presentations, led by Therese McMillan, MTC Deputy Director for Policy.

Rex Gephart, LA-MTA Director of Regional Transit Planning made the final presentation. His summary provided a national and international perspective and described BRT development in one of the nation's largest and most congested cities, a region where the "car culture" is deeply ingrained.

Co-sponsors for this event were the Alameda County Congestion Management Agency, AC Transit, the Metropolitan Transportation Commission, the California Department of Transportation/District 4, the Commonwealth Club of California, and the League of Women Voters of the Bay Area.



Transportation Safety and Security: Deploying Technology to Improve Transportation

California Alliance for Advanced Transportation Systems (CAATS)
2004 Annual Meeting summary

Project #2452

Project Manager: James Swofford, MTI



MTI was a co-sponsor of the California Alliance for Advanced Transportation Systems (CAATS) 10th Annual Meeting in Santa Clara, California, on December 15th and 16th, 2004. The theme of this two-day event was *Transportation Safety and Security: Deploying Technology to Improve Transportation*, which included panel discussions on national and international transportation policy and technology issues.

MTI had a leadership role, with Executive Director Rod Diridon as moderator of the keynote panel on Transportation Security Policy during the December 16 session. Mr. Diridon used the opportunity to inform the 150 transportation technology executives and professionals in attendance about the MTI Master of Science in Transportation Management program and to describe the Institute's activities in security and policy research.

Panel presentations followed.

- Brian Michael Jenkins, Director of the National Transportation Security Center at MTI, discussed the changing state of the terrorist threat.
- Dr. Francis Edwards, MTI Research Associate and Director of Emergency Preparedness for the City of San José, discussed the development and implementation of the Urban Area Security Initiative program in the region.
- Greg Hull, Director of Operations, Safety and Security Programs for the American Public Transportation Association, addressed transit applications for counter terrorism and response programs.
- Patricia Kuhar, Chief Information Security Officer for the California Department of Transportation, described the universal communication and response capacity within Caltrans.
- Stephen N. Roberts and Katrina J. Lee from the law firm of Nossaman, Guthner, Knox & Elliott, LLP discussed legal issues to consider when developing and implementing transportation security policies and systems.

The MTI-led panel was followed by another panel discussing transportation security technology. Panel presentations on transportation safety policy and technology were conducted on the opening day of the conference.

Keynote speakers for the meeting included MTI Trustee Will Kempton, in one of his first public speaking appearances as the newly appointed Director of the California Department of Transportation, and California Highway Patrol Commissioner Michael Brown.

Garrett Morgan Symposium on Sustainable Transportation

Project #2453

Project Manager: James Swofford, MTI

MTI continued its support of the U.S. Department of Transportation's Garrett A. Morgan Technology and Transportation Futures Program by conducting the Fifth National Garrett Morgan Symposium on Sustainable Transportation, which concluded May 9, 2005 with a videoconference opened by Transportation Secretary Norman Y. Mineta.

The middle-school level curriculum includes a class/team project on sustainable transportation and culminates in a national videoconference symposium featuring presentations by each of the participating classes and is designed to increase students' awareness of transportation issues, interest them in careers in transportation, and motivate them to take math and science classes in high school that will prepare them for management and engineering majors in college.

U.S. Secretary of Transportation Norman Y. Mineta welcomed the students participating in this year's event from the APTA site in Washington, D.C. Secretary Mineta encouraged the young people to pursue careers in transportation, saying, "Whether we are moving cargo or moving people, we are going to need bright, motivated, energetic people like all of you to pave the way to the future."

The success of the Garrett Morgan symposium is due in large part to the volunteer efforts of MTI Trustees and members of their organizations who sponsor the participating schools. In 2005, presentations were made by six schools, with the following host:

- Ron Barnes, Deputy Director, Miami-Dade Transit, sponsoring Homestead High School, Homestead, Florida;
- David Conrath, Dean, San José State University College of Business, sponsoring Meadows Elementary School, San Jose, California;
- John Horsley, Executive Director, American Association of State Highway and Transportation Officials (AASHTO), sponsoring Leonardtown High School, Leonardtown, Maryland;
- William Millar, President, American Public Transportation Association (APTA), host to Secretary Mineta and sponsor of Argyle Middle School, Silver Spring, Maryland; and
- Michael Townes, General Manager, Hampton Roads Transit, sponsor of Kemps Landing Magnet School, Virginia Beach, Virginia, the winner of this year's competition.

For the winning presentation, Kemps Landing student Krista O'Connell, her father, and teacher Dennis Borgerding received an expense-paid trip to the June 2005 MTI Scholarship Awards Banquet in San Jose, California, plus a \$500 check for the school. The

teachers of all participating classes received a \$50 gift certificate for classroom supplies, awarded upon completion of the post-conference evaluation form.



BART to Silicon Valley – What's Next?

Project #2454

Project Manager: James Swofford, MTI

The MTI “hot spots” forum series continued with a look at the project that would extend the Bay Area Rapid Transit (BART) system to “Silicon Valley” – downtown San José, California and the nearby

Mineta International Airport – from Alameda County. This April 21, 2005 event, subtitled *What's Next?*, was the second MTI forum on the subject; the first was *How Now?*, presented in 2001 after voters approved funding for the project.

Since then, however, the money available to do the work has shrunk with the economy. The Santa Clara Valley Transportation Authority (VTA) was forced to cut existing services and look for new financing. Although funds already had been spent on the project, controversy arose anew when federal transportation officials changed the funding guidelines and the VTA board began contemplating new taxes.

MTI provided the public with an opportunity to review the BART-to-Silicon Valley project and consider the alternatives prior to the pending VTA board action. Transportation, political, and community leaders filled the Santa Clara County Sheriff's Department auditorium in San Jose and engaged in a lively, yet collegial, discussion.

The keynote speech was delivered by California Department of Transportation Director Will Kempton. He challenged the panelists to explore project development alternatives and commended MTI for providing a forum to help them move toward consensus.

Mr. Kempton also used the MTI event to announce the *Go California* concept developed to meet congestion demands expected by the year 2025. He described a building-block approach that emphasizes intelligent transportation systems, system preservation, traffic-demand and transportation-demand management, and new ways to add transportation.

Co-sponsors for this event were the Metropolitan Transportation Commission, the California Department of Transportation/District 4, the Commonwealth Club of California, and the Leagues of Women Voters of Santa Clara County.

Other Events

Several events are in the planning stages at MTI. Foremost is a symposium on rail security, scheduled for September 29, 2005 in partnership with a number of national organizations, including the American Association of Railroads (AAR), the American Association of State Highway and Transportation Officials (AASHTO), the American Public Transportation Association (APTA), the Federal Railroad Administration (FRA), the Federal Transit Administration (FTA), the National Association of Rail Passengers (NARP), and the Transportation Security Administration (TSA).

Additionally, following completion of research on California transportation funding issues next spring, MTI will conduct an outreach campaign to be funded by a separate Caltrans grant. This campaign might include symposia and other meetings around the state. MTI also is reviewing several regional issues that may qualify as “hot spot” forum topics.

The Information and Technology Transfer area includes MTI's website, *TransWeb* (<http://transweb.sjsu.edu>) – a transportation information hub widely used by individuals and organizations outside of the Institute. *TransWeb* provides links to national and international sites related to all modes of surface transportation and surface transportation policy.

TransWeb continues to achieve an impressive number of visitors and provides demonstrated service to the research and transportation community. The strong growth in *TransWeb* usage is a testament to the continuing efforts of Web Administrator Barney Murray.

	FY 2001 - 2002	FY 2002-2003	FY 2003-2004	FY 2004-2005
Number of Hits	1,185,758	1,318,247	1,489,034	2,087,829
All Visitors	160,072	202,267	236,785	316,831
Unique Visitors	68,698	85,451	101,065	130,033

The MTI Research Program pages provide research proposal information, standard forms used by research associates, research project descriptions of all active Institute research, and links to full-text files of all MTI final research reports, including those completed before online posting was a requirement of the University Transportation Center grant program.

Graduate Transportation Management Program (GTMP) students are beneficiaries of additional *TransWeb* content and functions. The GTMP pages are first and foremost designed for current students, who are able to view upcoming class schedules, register for classes on an interactive form, and request information about the program. Video streaming of all classes allows busy professionals to keep up with their classes, repeat important sessions, and take advantage of guest speakers from past sessions. Course instructors utilize *TransWeb* by posting course syllabi and assignments, conducting exams, and providing links to bulletin boards, white boards, and chat areas. Students and instructors alike supplement the videoconference class sessions with these other aspects of distance learning for a rich, interactive graduate education experience.

There is also a section for pending Information Transfer events, separate from the section describing research in progress. In addition to the usual event announcements in *What's New* or on the home page, this section helps to provide a more accurate picture of the work currently in progress. The finished event reports also have their own subsection on the *TransWeb* publications page.

World in Motion

The *World in Motion* quarterly newsletter is an effective medium for informing the transportation community about ongoing MTI surface transportation policy research and education programs. Printed circulation is 1,957 with additional readership through the Internet on *TransWeb*.

First published in 1994, the *World in Motion* keeps researchers and the public informed about MTI education, research, and information transfer efforts. 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.

Front page feature articles this past year profiled MTI Board of Trustee members Will Kempton, Director of the California Department of Transportation (Spring 2005); Ronald L. Barnes, Deputy Director, Miami-Dade Transit (Winter 2005); Mortimer L. Downey III, President, PB Consult, Inc. (Fall 2004); and Stephanie L. Pinson, President and Chief Operating Officer, Gilbert Tweed Associates (Summer 2004).

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



Mineta Transportation Institute

1998-2005 Research and Information Transfer*

Projects/Publications (TEA-21)

Project Title	Publication Number	Principal Investigator
*Advanced Technologies in Smart Growth (White paper written but not published. Event cancelled in response to change in Caltrans research process.)	2119	MTI Staff
Applying an Integrated Urban Model to the Evaluation of Travel Demand Management Policies in the Sacramento Region	9804 01-03	Robert A. Johnston
Applying an Integrated Urban Model in the Evaluation of Travel Demand Management Policies in the Sacramento Region: Year Two	2002 01-08	Robert A. Johnston
Applying Smart Growth Principles and Strategies to Resolving Land Use Conflicts Around Airports	2303	Dr. Richard Lee
Barriers to Using Fixed-Route Transit for Older Adults	2402	Dr. Michael Peck
*BART to Silicon Valley: How Now? (Regional Forum)	9913 F-01-01	MTI staff
*BART to Silicon Valley – What's Next? (Regional Forum)	2454	MTI Staff Jim Swofford
Best Practices in Developing Regional Transportation Plans	9811 01-10	Dr. Donald N. Rothblatt
Best Practices Shared Use of High Speed Rail Systems (Formerly Shared Use of Rail Infrastructure by High Speed Rail: Best Practices in Design and Operations)	2113 02-02	Andrew Nash
Beyond Uncertainty: Urban Models in Transportation and Air Quality Planning	2407	Dr. Caroline Rodier
Bridging the Gap: Planning Interjurisdictional Transit Services (Project Cancelled)	2102	Dr. Patrick McGovern, J.D.
Bus Rapid Transit Guidebook	2426	George Gray
*Bus in the Fast Lane: A Forum on Bus Rapid Transit in the Bay Area	2451 F-04-01	MTI Staff Jim Swofford

Project Title	Publication Number	Principal Investigator
The California General Plan Process and Sustainable Transportation Planning	2003 01-18	Dr. Richard Lee
*California Security Summits (National Symposium)	2118 S-01-04	MTI Staff
Construction of Transit-Based Developments: New Policy Initiatives for Governments	9901 01-05	Dr. Scott Lefaver
A Consumer Logistics Framework for Understanding Preferences for High-Speed Rail Transportation	2206	Dr. Kenneth Gehrt
*Crossing the Bay: Water Transit Initiative Forum (Regional Forum)	9814 F-00-1	MTI Staff
Decision Making Influences in Land Use and Transportation: An Experiment on the Impact of Transportation and Housing Information	2202	Dr. Jonathan Levine
Designing and Operating Safe and Secure Transit Systems: Assessing Current Practices in the U.S. and Abroad (Formerly System Design for Transit Security)	2301	Dr. Brian Taylor
Developer-Planner Interaction in Transportation and Land Use Sustainability	9905 01-21	Dr. Aseem Inam
Effects of Online Shopping on Vehicular Traffic Patterns	9903 01-20	Dr. Joe Giglierano
The Elderly and Public Transit: Minimizing Barriers and Maximizing Service	2404	Dr. Susan Shaheen
Envisioning Neighborhoods with TOD Potential (Includes Demonstration CD)	9810 01-15	Dr. Earl G. Bossard
Factors Influencing Voting Results of Local Transportation Funding Initiatives with a Substantial Transit Component (Formerly: Passing Local Transportation Tax Measures: A Follow-up Study)	9904 01-17	Dr. Richard Werbel

*Fast Tracks in the Golden State: Symposia on California High-Speed Rail	2253 S-02-02	MTI Staff Jim Swofford
* Garrett Morgan Youth Videoconference Symposium on Sustainable Transportation	2351 S-03-01	MTI Staff
The Future of Transportation Education: A Needs Assessment for the Transportation Management Program at San José State University (Formerly Needs Assessment for the Transportation Management Program at San José State University)	2201 03-01	Dr. Linda Valenty
*(Garrett Morgan) Youth Videoconference and Symposium on Sustainable Transportation (National Symposium)	9911 S-01-01	Dr. Dongsung Kong
*2005 Garrett Morgan National Symposium and Videoconference on Sustainable Transportation in the 21 st Century	2353	MTI Staff Jim Swofford
GIS for Livable Communities: Using GIS to Improve Transportation Planning and Community Livability	9806 01-09	Dr. Tom Horan
Higher Density Plans: Tools for Community Engagement (Formerly Assessing the Effectiveness of Tools and Information that Respond to Community Fears and Resistance about the Densification of Communities)	2204 03-02	Ken Schreiber
High-Speed Rail Projects in the United States: Identifying the Elements for Success	2304	Dr. Allison de Cerreño
High-Speed Rail Projects in the United States: Identifying the Elements for Success – Part 2	2401	Dr. Allison de Cerreño
How to Best Serve Seniors in Existing Transit Services	9902 01-04	David Koffman
How Far, by Which Route, and Why? A Spatial Analysis of Pedestrian Preference	2406	Dr. Marc Schlossberg
Impact of Ethnic Diversity on Transit: How Do Various Population Groups View and Utilize Various Transit Modes? (Phase I has no published report.)	2109 NA	Dr. Richard Werbel
Impact of Ethnic Diversity on Transit: How Do Various Population Groups View and Utilize Various Transit Modes? – Phase II	2207	Dr. Richard Werbel
The Impact of Telecommuter Rail Cars on Modal Choice (Seed Grant that does not produce a publication)	2116 NA	Dr. James Hayton

The Impact of Telecommuter Rail Cars on Modal Choice (Formerly Forecasting the Impact of Telecommuter Rail-Cars on Modal Choice: A Behavioral Disaggregate Demand Model)	2205 04-01	Dr. James Hayton
Implementation of Zurich's Transit Preferential Program	9809 01-13	Andrew Nash
Increasing Transit Ridership: Lessons from the Most Successful Transit Systems in the 1990s	2005 01-22	Dr. Brian D. Taylor
Land Use and Transportation Alternatives: Constraint or Expansion of Household Choice (Formerly Transportation and Land Use Innovation: Impacts on Household Residential Choice)	9803 01-19	Dr. Jonathan Levine
*Lessons Learned: Tax Referenda and Why They Succeed or Fail (National Symposium)	2101 S-01-03	MTI Staff
Making Growth Work for California's Communities (Formerly An Assessment of the Receptivity of Smart Growth Land Use and Transportation Planning Concepts at the Local Level in California)	2111 02-01	Ken Schreiber
A Model for Assessing Demand-response vs. Prescheduled Paratransit Systems (Seed Grant that does not produce a publication)	2115 NA	Dr. J. Michael Pogodzinski
Modeling Long-Range Transportation and Land Use Scenarios for the Sacramento Region, Using Citizen-Generated Policies (Formerly Regional Transportation Planning for Smart Growth)	2107 04-02	Robert A. Johnston
NAFTA II: California Border Zone Land Transportation Issues	9802 01-06	George Gray
*National Garrett Morgan Sustainable Transportation Symposium -- 2003	2103 S-02-01	Dr. Dongsung Kong
*National Rail Transit Security Symposia (Working Title)	2353	MTI Staff
Neighborhood Crime and Travel Behavior	2405	Christopher Ferrell
A New Planning Template for Transit-Oriented Development	9807 01-12	Dr. Dick Nelson
Non-Pricing Methods to Optimize High Occupancy Vehicle Lane Usage	9908 01-11	George Gray
*No Road, No Rage (Water Transit Forum, November 21, 2002)	2251 F-01-02	MTI Staff
The Pasadena Gold Line: Development Strategies, Location Decisions and Travel Characteristics Along a New Rail Line in the Los Angeles Region	2305 04-03	Dr. Hollie Lund

Protecting Public Surface Transportation Against Terrorism and Serious Crime: Continuing Research on Best Security Practices	9805 01-07	Brian Jenkins
Protecting Public Surface Transportation Against Terrorism and Serious Crime: An Executive Overview	9805 01-14	Brian Jenkins
*Protecting Public Surface Transportation Against Terrorism and Serious Crime: A National Summit (National Symposium)	2110 S-01-02	MTI Staff, Brian Jenkins
Saving City Lifelines: Lessons Learned in the 9-11 Attacks (Formerly Public Surface Transportation: Lessons Learned in the 9-11 Terrorist Attacks)	2114 02-06	Brian Jenkins
Statewide Safety Study of Bicyclist and Pedestrian Accommodation and Safety on Freeways, Expressways, Toll Bridges, and Tunnels	9909 01-01	Dr. Thomas C. Ferrara
Sustainable Transportation Indicators for California	2106 02-05	Dr. Richard Lee
Transit Labor Relations Guide	9906 01-02	Dr. Herb Oestreich
*A Transportation Hot Spot Forum on the Marin/Sonoma/101 Corridor (Regional Forum)	2112 F-01-02	MTI Staff
*A Transportation Hot Spot Forum on the Highway 152-156 dilemma. Tentative title: Farm Road or Freeway? (Cancelled; may be rescheduled as a new project)	2252	MTI Staff Jim Swofford
*Transportation Safety and Security: Deploying Technology to Improve Transportation (Summary Proceedings of the California Alliance for Advanced Transportation Systems Annual Meeting)	2452	MTI Staff Jim Swofford
The Travel Behavior and Needs of the Poor: A Study of Welfare Recipients in Fresno County, California (Formerly Transportation and Welfare Reform: The Travel Behavior and Needs of Welfare Recipients)	9808 01-23	Dr. Evelyn Blumenberg
Trucks, Traffic, and Timely Transport: A Regional Freight Logistics Profile (Formerly Designing a Template for Understanding Freight Movement and Logistics at the Metropolitan Region Level)	2004 02-04	John S. Niles
Using Fiber Networks to Stimulate Transit Oriented Development: Prospects, Barriers and Best Practices	2007 01-16	Walter Siembab
Using the Internet to Envision Neighborhoods with TOD Potential	2001 01-24	Dr. Earl B. Bossard

Using Spatial Indicators for Pre-and Post-Development Analysis of TOD Areas: A Case Study of Portland and Silicon Valley (Formerly A Pre-and Post-Construction Analysis of Transit-Oriented Developments Using Spatial Indicators: A Case Study of Portland and Silicon Valley)	2203 03-03	Dr. Marc Schlossberg
Verifying the Accuracy of Regional Models Used in Transportation and Air Quality	2108 02-03	Dr. Caroline Rodier
Verifying the Accuracy of Land Use Models Used in Transportation and Air Quality Planning: A Case Study in the Sacramento, California, Region (Formerly Verifying the Accuracy of Land Use Models Used in Transportation and Air Quality Planning: A Year-Two Validation Study)	2302	Dr. Caroline Rodier
*Visioning: A Forum with U.S. DOT Secretary Rodney Slater	F-00-2	MTI Staff
Welfare to Work: A Simulation of Land Use and Transportation Policies	2403	Robert Johnston

Projects Under Separate Contracts

Sustainable Communities/ San Joaquin Valley Growth	Caltrans	Ken Schreiber
Ridership Enhancement: A Quick Study	2425 FTA	Dr. Peter Haas
Transportation Financing Opportunities for the State of California	2427 Caltrans	Dr. Asha Weinstein

Mineta Transportation Institute

Research and Information Transfer*

Publications (ISTEA)

Publication Number	Title	Authors
94-1	Assessment of Needs for Management Training and Education in Surface Transportation in the United States and Canada	J. Giglerano R. Vitale
95-1	Planning for Surface Transportation and Land Use: A Symposium	95-1
96-1	Terrorism in Surface Transportation: A Symposium	MTI Staff, Brian Jenkins
96-2	Conduct of Background Research for the Establishment of an International Surface Transportation Policy Conference in California—Global Cooperation Through Transportation: Joining Forces Across Borders	G. Murray, et al.
96-3	Development of a Statewide Surface Transportation Network Utilizing the International Transportation Information System	S. Belanger, et al.
96-4	Issues Relating to the Emergence of the Information Superhighway and California Societal Changes	J. Botha, et al.
97-1	Public Land with Private Partnerships for Transit Based Development	S. Lefaver, et al.
97-2	Toward a Cooperative Future? Labor-Management Relations in Surface Transportation: A Symposium	MTI Staff
97-4	Protecting Surface Transportation Systems and Patrons from Terrorist Activities: Case Studies of Best Security Practices and a Chronology of Attacks	B. Jenkins, et al.
97-5	Capital versus Operating Grants for Transit: Economic Impacts for California	P. Haas, et al.
S-98-1	Sustainable Transportation in the 21 st Century: A National Videoconference Symposium with Elementary School Children in Support of the Secretary of Transportation's Garrett A. Morgan Technology Futures Program	MTI Staff
F-98-1	Rail Transit: Issues and Opportunities for the Bay Area and California	
99-1	Maintenance and Continued Development of the IISTPS Transportation Information System, TRANSWEB™	S. Belanger S. Kwan

99-2	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	G. Gray
00-1	Why Campaigns for Local Transportation Funding Initiatives Succeed or Fail: An Analysis of Four Communities and National Data	Dr. Peter J. Haas

Publications in print are available from MTI:

<http://transweb.sjsu.edu>

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Education

The Education Department sponsors and supports the Graduate Transportation Management Program at San José State University. The program offers a Master of Science in Transportation Management degree and a Graduate Certificate in Transportation Management.





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A member of the faculty in the Graduate Transportation Management Program (GTMP) since 1999, Dr. Peter Haas was appointed Education Director in October 2001. Dr. Haas earned a Ph.D. in political science (public policy and public administration) from the University of North Carolina at Chapel Hill in 1985. A former director of the SJSU Master of Public Administration program, he also has experience consulting at every level of government and for nonprofit agencies. Dr. Haas 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*. Additionally, he received a Senior Specialist grant from the Fulbright Foundation to teach and study in Latvia.



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Vivianne Ferea was appointed to the position of Education Program Assistant (EPA) in August 2000. As EPA, Ms. Ferea is the primary contact for marketing and administration of the GTMP. Among her many responsibilities are ongoing efforts to recruit for the Certificate and Masters programs, revision and maintenance of the GTMP website, and course planning and scheduling. Ms. Ferea received her BS in business marketing from UC Davis. Her studies in public relations, as well as her experience in media sales, enhance her ability to promote the growth and success of the program.

Education Program Goal

The goal of the GTMP is to develop and administer a multidisciplinary, state-of-the-art program consisting of coursework and experiential learning to provide students with the skills and knowledge to manage and lead transportation systems. Courses are delivered via videoconferencing and Internet technologies.

Overview

Enrollment Trends

During Academic Year 2004-2005, the GTMP recorded 112 graduate student enrollments. These enrollments were associated with 36 individual active students. Twenty-two matriculated Master of Science in Transportation Management (MSTM) students were enrolled during the academic year, and eight program graduates were recognized during the summer of 2005. These numbers reflect a slight decrease over the prior academic year that presumably resulted from the dire budget situation in California and attendant layoffs at many transportation agencies. However, spring session enrollments reflected an increase in enrollment over the fall, suggesting that the trend may be reversing. The program staff continues to enhance recruitment efforts to enable the program to continue to thrive.

Summer Transportation Institute

In the summer of 2004, the Education Program again offered a “Summer Transportation Institute” (STI). The STI program, which originated as a pilot program on the South Carolina State University campus in 1992, 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 needs, and will continue to need, individuals who are prepared to provide the leadership to build and operate the nation’s transportation system. The primary aim of the STI is to encourage high school students – particularly from traditionally underrepresented backgrounds – to seek professional careers in transportation by obtaining a college education. A total of 2,230 secondary school students have completed the national program, which is hosted by thirty-four colleges and universities in twenty-three states across the nation. The program was funded by a contract grant of \$40,000 in Federal Highway Administration funds, supplemented by a \$10,000 match from the California Department of Transportation.

The program was successfully completed on the San José State University campus in July 2004. Participants engaged in a variety of activities, including field trips to area transportation centers, guest speakers from the industry, hands-on projects, and related enrichment activities.

Program Accomplishments

Courses Offered

In Academic Year 2004-2005, the GTMP offered eleven courses; details on enrollment and class sites follow each course listing below.

Fall 2004

MTM 201: Fundamentals of Transportation Management.

14 students enrolled in Los Angeles, Oakland, Sacramento, Salinas, San Diego, San José, San Luis Obispo, Santa Ana, and Stockton.

MTM 214: Transportation Policy and Regulation.

11 students enrolled in Fresno, Marysville, Oakland, Redding, and Salinas.

MTM 236: Contemporary Issues in Transportation.

9 students enrolled in Los Angeles, Marysville, Oakland, Redding, San Bernadino, and San José.

MTM 215: Transportation Systems and Development.

15 students enrolled in Fresno, Los Angeles, Oakland, San Diego, San José, and Santa Ana.

BUS 296D: Public Transportation in California.

8 students enrolled in Oakland, Redding, San José, and San Luis Obispo.

Spring 2005

MTM 202: Introduction to Transportation Funding & Finance.

15 students enrolled in Los Angeles, Oakland, Sacramento, San Bernadino, and San José.

MTM 296C: Transportation and the Environment.

8 students enrolled in Fresno, Oakland, San José, and San Luis Obispo.

MTM 217: Leadership and Management of Transportation Organizations.

13 students enrolled in Los Angeles, Oakland, San Bernadino, San José, and Santa Ana.

BUS 286: Project Management.

9 students enrolled in Fresno, Monterey, Oakland, and San José.

MTM 283: Research Internship.

2 students enrolled in Fresno and San Diego.

MTM 290: Strategic Management in Transportation.

8 students enrolled in Marysville, Redding, San Diego, San José, and San Luis Obispo.

Graduates

The faculty and staff of MTI and the College of Business at SJSU were proud to present the graduating class of 2005 at the 14th Annual MTI Board of Trustees Awards Banquet on June 25, 2005. Eight students earned their MSTM degree. The dedication of these students, each of whom completed 30 hours of coursework while meeting the duties of full-time professional employment, is admirable.

The following is a list of the eight MSTM graduates who were hooded during MTI's banquet. Copies of their capstone research projects are available upon request.

MSTM graduates:

Nicholas Deal	Wishing John Lima
Edujie Imoisili	Joseph Rye
Gregory Kausch	William Sutherland
Michael Lewis	Florante Tanada

In addition to our MSTM graduates, the following students received the graduate Certificate in Transportation Management (CTM):

Robert Bach	Phyllis Walker
Alejandro Esparza	Christina Watson

The twelve-unit CTM program is rigorous and intense, consisting of four core courses. These students' hard work and determination during this academic year have led to their successful completion of the CTM program. Many students earn the CTM as a meaningful step towards achieving their MSTM degree.

Continuing Student Performance (CSP) Fellowships

Twice a year, subject to the availability of funding, MTI awards \$1,000 MSTM Fellowships. Thanks to this generous program, students are able to continue their studies in the MSTM program. In the 2004-2005 Academic Year, \$25,000 was awarded to the following qualified students:

Glen Mark Collins*	Sharad Mulchand*
Nicholas Deal	Wajahat Nyaz
Stephen Goodwin	Sepideh Reghabi
Zahir Gulzadah	John Robertson
Edujie Imoisili	Jaime Rodriguez
Kenneth Kao	Joseph Rye*
Faiz Khan	William Sutherland*
Michael Lewis*	Florante Tanada*
Wishing John Lima*	Koko Widyatmoko

* indicates receipt of multiple awards



The Graduating Class of 2005

Twice a year, subject to the availability of funding, MTI awards \$500 CTM Fellowships. Thanks to this generous program, deserving students are assisted in their efforts to continue their studies in the GTMP. \$2,000 was awarded to the following CTM students:

Joseph Basuino	Sharad Mulchand
Abeba Haile	Russell Taft

Success Stories

MTI Outstanding Student of the Year

Based on the strength of his academic work, leadership, research, and contributions to the field, Nicholas Deal was selected by the Education Program faculty as MTI's Student of the Year for 2004. He was honored in a ceremony in Washington, D.C., in January 2005. Officials from the U.S. Department of Transportation (DOT) were on hand to present awards given to outstanding students from University Transportation Centers across the nation. Employed as a transportation planner at Caltrans, Marysville, Nick participates in all aspects of transportation planning, from attendance at hearings to the administration of state and federal grant programs. Nick's distinguished career includes being selected as the winner of the American Public Transportation Foundation's (APTF) Donald C. Hyde Memorial Essay Award for best overall essay. Nick is also a fellowship winner of the Graduate Certificate in Transportation Management and the Master of Science in Transportation Management many times over.

MSTM Program Publicized at TRB

MTI Education Director Peter Haas delivered a paper at the 2005 annual meeting of the Transportation Research Board that described the philosophy and evolution of the Graduate Transportation Management Program. Dr. Haas appeared on a panel entitled, "Professional Development for Careers in Transportation," on Monday, January 10, 2005. Dr. Haas also published an article about the program in the California Transit Association's bi-monthly publication, *Transit California*.

Serving on Disadvantaged Business Enterprise Conference Planning Committee

MSTM Alumna Sarah Picker (MSTM '01) is serving on the conference planning committee for the first Western Region Disadvantaged Business Enterprise (DBE) Economic Summit/Conference. Attending the conference will help DBEs, prime contractors, and DOT agencies/grantees from Arizona, Nevada, and the entire state of California. The conference is scheduled for June 22 and 23, 2005.

Alumnus James Chai Moves to VTA

After working with California Department of Transportation for 10 years in various capacities, James Chai (MSTM '02) recently took a Transportation Engineering Manager position with the Santa Clara Valley Transportation Authority (VTA). In this new capacity, James works with VTA's management team to manage the Tunnel Segment of the Preliminary Engineering Design Contract for the Silicon Valley Rapid Transit (BART to San Jose) Project. James believes that MTI's MSTM program provided him with invaluable training and development that is vital to his success in previous and current assignments.

Alumna Publishes

Kathleen Bergeron's (MSTM '04) article "The Future Is Now" was published in the May/June 2004 issue of *Public Roads*. This article highlights successful projects from around the country, setting the stage for a new approach to highway design, construction, and maintenance. Kathleen is the Marketing Communications Coordinator for the U.S. DOT's "Highways for LIFE Program."



Bringing in the Experts

A continuing goal of the GTMP is to use elective coursework to enhance the breadth of knowledge students receive. This academic year, another distinguished expert, Mr. Douglas Slakey, P.E., joined the MSTM faculty.

Mr. Slakey has an M.S. in Civil Engineering from the Massachusetts Institute of Technology and extensive experience in planning, engineering, design, and construction management of highway and transit systems. He has published numerous articles and is a member of the American Society of Civil Engineers and the Consulting Engineers and Land Surveyors of California.

Outreach

The Education Program's outreach work continues to be a vital part of ongoing development efforts to locate, contact, and attract eligible students. In the 2004-2005 Academic Year, the GTMP continued outreach efforts to include site visits to local transportation-related agencies and under-served professional groups. These efforts included appearances at the annual meeting of the California Transit Association and several on-site visits to Caltrans and the Metropolitan Transit Administration of Los Angeles.



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\$339,005

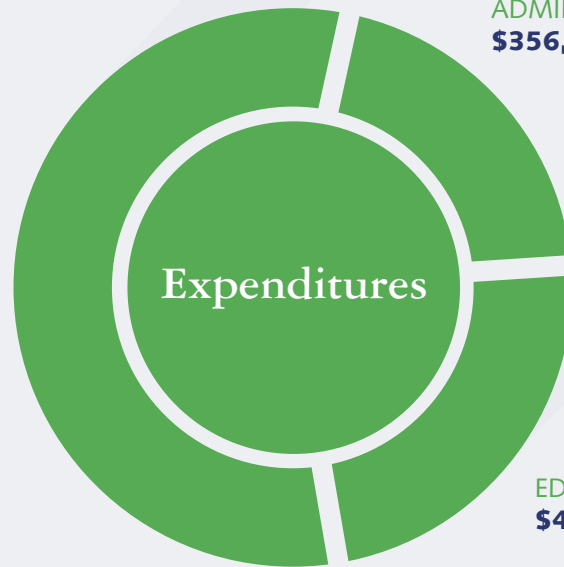
US DOT
\$952,000

CALTRANS
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ADMINISTRATION
\$356,717

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\$1,008,168



EDUCATION
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Ninety students ranging from senior level undergraduate to Ph.D. candidates have served as Research and Project Assistants on MTI studies during the TEA-21 period, 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 (CalPoly) at San Luis Obispo and Pomona, and University of Buffalo (State University of New York, SUNY).

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Caltrans and U.S. DOT

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 U.S. Department of Transportation and of the Research and Innovation Division of Caltrans for their support and advice throughout the year. To RSPA employees Sam Bonasso, Robin Kline, and Amy Stearns, and Caltrans Director Will Kempton and staff Randell Iwasaki, Wesley Lum, Larry Orcutt, Sallybeth Scott, George Smith, and Frank Taylor and all those who work with them, many thanks.

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San José State University and San José State University Foundation

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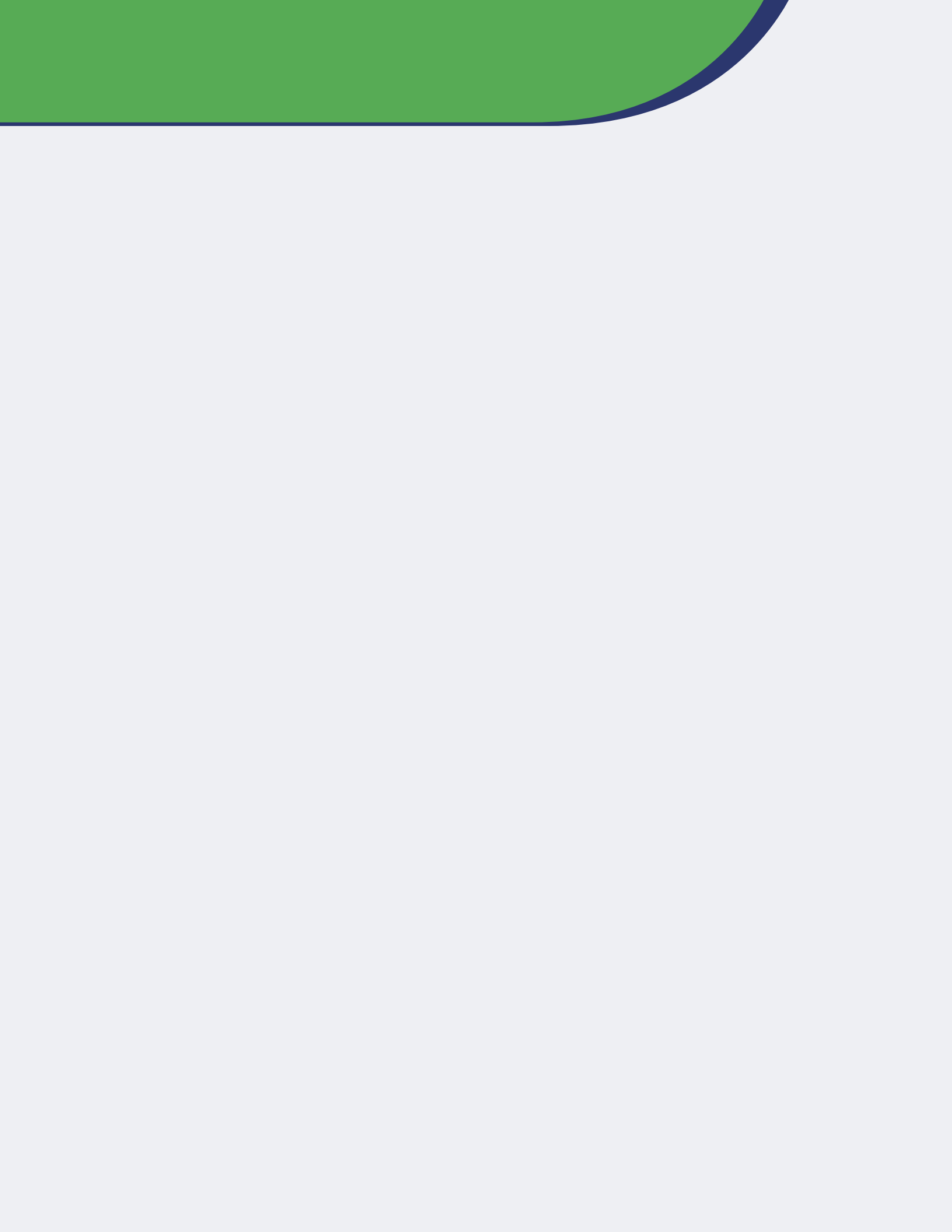
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Research Librarian Diana Wu, Acquisitions Coordinator Rae Ann Stahl, and Periodicals Specialist Elaine Seto assure that the new Martin Luther King, Jr. Library provides excellent service to faculty, students, and community users of the MTI collection.

Annual Report Credits

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