



Mineta
Transportation
Institute

Annual Report

2003-2004





Center Theme 1

A Note from the Executive Director 2

Administration 4

Research 8

Information and Technology Transfer 30

Education 44

Appendices 52

A. Financial Illustrations 53

B. Research Associates Policy Oversight Committee 54

C. Certified Research Associates 55

D. Project Team Members 60

E. Editorial Associates 62

F. Student Editorial Assistants 62

G. MTI Student Assistants 62

H. Graduate Transportation Management Program Faculty 63

I. Acknowledgements 64



Board of Trustees

Founder: Norman Y. Mineta

Honorary Co-Chairs Hon. Don Young

Chair, Transportation & Infrastructure Committee, House of Representatives

Hon. James Oberstar

Ranking Member, Transportation & Infrastructure Committee, House of Representatives

Chair

Hon. John Horsley

Executive Director American Association of State Highway & Transportation Officials

Vice Chair David L. Turney

Chair/President/CEO
Digital Recorders, Inc.

Rod Diridon, Sr.

Executive Director Mineta Transportation Institute

Ron Barnes

Deputy Director Miami-Dade Transit

Rebecca Brewster

President/COO American Transportation Research Institute

Donald H. Camph

President, California Institute for Technology Exchange

Anne P. Canby

President Surface Transportation Policy Project

Dr. David Conrath

Dean, College of Business San José State University

Hank Dittmar

President/CEO Reconnecting America

William Dorey

President/CEO
Granite Construction Inc.

Mortimer Downey

President
PB Consult Inc.

David Gunn

President/CEO Amtrak

Steve Heminger

Executive Director Metropolitan Transportation Commission

Dr. Thomas Larson

Consultant Administrator (ret.) Federal Highway Administration

Brian Macleod

Senior Vice President Gillig Corporation

William W. Millar

President, American Public Transportation Association

Stephanie L. Pinson

President/COO Gilbert Tweed Associates, Inc.

Hans Rat

Secretary General Union Internationale des Transports Publics

Lawrence Reuter

President NYC Transit

Vickie Shaffer

General Manager Tri-State Transit Authority

Paul Toliver

Vice President Transportation Computer Intelligence²

Michael S. Townes

President/CEO Hampton Roads Transit

Edward Wytkind

President Transportation Trades Department, AFL-CIO

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 five years. Six 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, resulting in an abnormally high level of effort for those 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 36 peerreviewed research projects and has 11 more under contract and in process. Research supported by the TEA-21 and Caltrans grants has engaged 78 of MTI's certified research associates, most of whom are Ph.D.s, as well as 86 student research assistants. Significant research and information transfer efforts sponsored by non-grant funds have also been completed. Research topics are selected annually through a carefully structured needsassessment 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 Research Associates Policy Oversight Committee, the composition of which is determined by the seven chairs of the academic departments at San José State University (SJSU) that are associated with MTI. Projects selected in the spring of 2004 will be under contract when Congress approves the next fiscal year's funding.

Building on MTI's remarkable counter-terrorism and transportation security research and training expertise, MTI has created, by a memorandum of understanding, the National Transportation Security Center (NTSC). Administered by MTI, the NTSC will feature the University of California's Lawrence Livermore National Laboratory conducting technical and systems research, the Naval Postgraduate School in Monterey providing security education, and MTI continuing to conduct policy research and information transfer. MTI and the NTSC have

been tasked by Caltrans to conduct extensive security research and training programs and have been requested to provide related proposals to the U.S. Department of Homeland Security.

Education:

Forty-eight California State University accredited Master of Science in Transportation Management (MSTM) degrees have been granted since 1999, 17 of which were conferred this fiscal year. Beyond the graduates, current attendance in the degree and certificate programs has expanded to 33 matriculated MSTM students plus 15 prematriculated or Certificate in Transportation Management (CTM) students. The Caltransprovided 24-site statewide videoconference network is now supplemented with two-way online, videostreaming instruction, available 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 counseling, student 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 13th Annual MTI Scholarship Banquet on June 26, 2004, the MTI MSTM Alumni Association was formed, including all of the current students as well as prior MSTM and CTM recipients, many of whom are top leaders in the national transportation community. This association will not only assist MTI in keeping track of graduates, but will also offer the opportunity for peer support and networking between members.

Continuing the trend of prior years, our MSTM students received five national scholarships and awards during the past year. This brings to over 20 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 online, 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 uses 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 five regional forums and/or statewide summits since 1999. One more national and two more regional and statewide forums will be conducted 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., which will be summarized in the following sections.

In addition, MTI continues to publish the *World in Motion*. This quarterly newsletter is distributed to over 1,500 national transportation leaders by mail and electronically via *TransWeb*.

Staffing:

MTI enjoyed a very stable year with no changes in personnel.

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 global geo-economic competition in the 21st century.





Administration

The Administration Department provides general management in areas such as budget control, grant acquisitions and management, personnel functions, facilities, office management, Board of Trustees and the Research Associates Policy Oversight Committee activities, university, state, and federal relations, and general correspondence and communications.



Executive Director Rod Diridon Mineta Transportation Institute College of Business San José State University San José, CA 95192-0219 Office phone: 408-924-7560 Office fax: 408-924-7565 email: diridon@mti.sjsu.edu

Hon. 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 National Research Council's Transportation Research Board's Transit Cooperation Research Program, which he was elected to chair in 1995. He currently serves as chair of the TRB/TCRP panel on "Combating Global Warming Through Sustainable Transportation Policy" and was appointed by Governor Davis in 2001 to the California High Speed Rail Authority, to which he was elected chair. He is also on the Executive Committees of the national Council of University Transportation Centers and the University Transportation Centers Association. Mr. Diridon served two combat tours as a U.S. Navy officer in Vietnam. He has received numerous honors and is frequently asked to speak to national and

international organizations, as well as to provide testimony to congressional committees. He has a BS in accounting and an MSBA from San José State University and was president of a private research corporation for seven years.



Communications Director Leslee Hamilton Mineta Transportation Institute College of Business San José State University San José, CA 95192-0219 Office phone: 408-924-7564 Office fax: 408-924-7565 email: hamilton@mti.sjsu.edu

Leslee Hamilton Communications Director

A former Peace Corps Volunteer, Leslee Hamilton has extensive administrative and communications experience through 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. An avid outdoor enthusiast, she commutes to work by bicycle and has led MTI's Earth Day and National Transit Week programs.



Office Manager
Amy Yan
Mineta Transportation Institute
College of Business
San José State University
San José, CA 95192-0219
Office phone: 408-924-7561
Office fax: 408-924-7565
email: yan@mti.sjsu.edu

Amy Yan Office Manager

Amy Yan worked for the Mineta Transportation Institute as a student assistant for nearly four years before joining the professional staff in February 2003. An exceptionally effective, detailoriented person, Ms. Yan recently completed her undergraduate degree in business at San José State University and intends to pursue a related course of graduate study.

Administrative Successes:

In January 2004, MTI submitted a semi-annual report to U.S. DOT-RSPA. 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 26, 2004. The 13th Annual Mineta Transportation Institute Board of Trustees Scholarship Awards Banquet followed, during which House Transportation and Infrastructure Committee Ranking Member James Oberstar and California Department of Transportation Acting Director Tony Harris served as keynote speakers. The banquet raises scholarship funds for students in MTI's MSTM and graduate CTM programs.

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 José, the Research Center is in the heart of Silicon Valley. Six full-time staff members, two part-time employees, and seven part-time student assistants work in an office provided by SJSU.

Financial Controls:

Office Manager Amy Yan administers MTI's QuickBooks accounting system to provide real-time project-based budget and expenditure information for all projects and functions. MTI uses this system to track expenditures in detail and to supplement the grant-based accounting reports of the San José State University Foundation. The SJSU Foundation's reports are provided monthly.

Office Administration:

Office Manager Amy Yan coordinates travel and scheduling for senior staff and supervises the student employees. She maintains and updates an extensive office procedures manual that documents and streamlines procedures in all program areas. The manual is an ongoing effort that the staff, under Ms. Yan's direction, continues to refine as MTI activities evolve.

Partnerships:

California University Transportation Centers
In 1999, at the urging of the MTI Executive
Director, Caltrans created the UTC Cal Group,
consisting of the directors of the three California
UTCs and Caltrans liaison staff. The group has
met three times a year since, hosted by the three
centers on a rotating basis. The objective is to
avoid unplanned redundancy and to share the
best research and education practices.

Council of University Transportation Centers
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 2004 in Berkeley, CA.

University Transportation Centers Directors Association

Mr. Diridon founded the UTC 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 important policy documents and assisted the organization's members to work more closely together to benefit the total national UTC program.

Jointly Sponsored Symposia, Forums, and Projects
During the past fiscal year, MTI has been or is
in the process of co-sponsoring projects with
the following organizations: Transit Cooperative
Research Program of TRB, AASHTO, APTA,
Transportation Trades Department of AFL/CIO,
California State Automobile Association, San
Francisco Bay Area MTC, San Francisco Bay Area

Council, Commonwealth Club of California, Los Angeles MTA, National Public Radio, Bay Area Rapid Transit District, Town Hall Los Angeles, Silicon Valley Manufacturing Group, San Jose Downtown Association, and Silicon Valley Chamber of Commerce, as well as others. Most of 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.

Additionally, MTI arranged for a UC Berkeley class to be offered at SJSU. TE-21 – Fundamentals of Systems of Engineering (SE) - was held on April 26 and 27 to introduce a systems engineering approach to planning, design, and implementation of Intelligent Transportation Systems (ITS). The course covered the integration of project management with SE concepts, the SE framework, and a process-oriented approach to planning, developing, implementing, and assessing ITS projects through class exercises. acquired understanding Students an current and emerging standards, engineering requirements, SE organizations/models/tools, resources, references, and best practices. The class was equivalent to the National Highway Institute course designed to help state and local agencies understand and implement the SE requirements.

National Transportation Security Center

In January 2004, MTI brokered a memorandum of understanding with UC Berkeley/Lawrence Livermore National Laboratory (UC/LLNL) and the Naval Postgraduate School (NPS) to create the National Transportation Security Center (NTSC). The objective of this joint effort is for the NTSC members to combine special expertise to provide a unique one-stop capability for the nation. UC/LLNL will conduct technical and policy research, and NPS will focus on formal education, while MTI will administer the NTSC and conduct policy research and outreach. NTSC will allow the U.S. transportation community to more effectively prepare to protect against and recover from future terrorist activities and natural disasters.

Community Involvement

MTI Executive Director Rod Diridon and Research Director Trixie Johnson are recognized transportation experts. Both were asked to provide testimony before the Santa Clara County Grand Jury this year in connection with its investigation of the Valley Transportation Authority.

Mr. Diridon, Ms. Johnson, and Education Director Dr. Peter Haas maintain extensive collateral activities in the local, national, and international transportation community. example, Mr. Diridon was a keynote speaker at the annual International Conference on Sustainable Development in Siena, Italy, 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 received a Fulbright Senior Specialist grant to teach and study in Latvia this year and 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 collateral duties. MTI and the national UTC programs are always mentioned during these presentations. These efforts 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 producing 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 155 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



Research Director
Trixie Johnson
Mineta Transportation Institute
College of Business
San José State University
San José, CA 95192-0219
Office phone: 408-924-7562
Office fax: 408-924-7565
email: johnson@mti.sjsu.edu

Before joining the Mineta Transportation Institute in July of 1999, Trixie Johnson served the full limit of two terms on the San José City Council (1991 through 1998). Recognized as a land use and environmental specialist, 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, with a BA in history. She earned 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 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 projects. 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.

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, MTI issues a formal Request for Proposals (RFP). In coordination with Caltrans, the RFP released in January 2004 included four problem statements developed through the department's new research process. 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, followed by the executive director's 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 transportation professionals.

Research Program Accomplishments

MTI Continues Successful Research Selection

Four of the five proposals identified in May 2003 for revision and resubmission were ultimately approved in October. Even at that point, some revisions were suggested before the proposals were ready for signature by Caltrans, the final approval step in the MTI process. This multi-stage approach yielded proposals that were more methodologically mature and focused by the time they were approved to begin early in 2004. With the addition of these projects to the two already approved for this year's funding, a total of six high-quality projects started work this fiscal year.

During the summer and fall of 2003, MTI worked with Caltrans to help assure their new research agenda program would work with the RFP and selection timing dictated by the requirements of an

academic program. The discussions increased the understanding by various Caltrans divisions about university research and ultimately produced a number of problem statements appropriate for inclusion in the January 2004 RFP. When the May 2004 selection process was conducted, three proposals addressing Caltrans problem statements were approved, along with seven others. One additional proposal may result in a small development grant to test the methodology before considering a full project.

Final approval of the projects from the 2004 RFP will depend on the timing of federal funding from the new authorization bill, or whatever funding Congress provides for the coming fiscal year. Matching funds from Caltrans are available, but they will not be released until the federal funds are appropriated.

MTI Research Leaves the Shelf

Research that sits on a shelf defeats MTI's purpose of producing usable, relevant reports. The following items, along with the discussion later in this report of website usage, demonstrate that MTI research does indeed circulate.

Two MTI studies were featured during the Transportation Research Board (TRB) 2004 annual meeting. Dr. Marc Schlossberg presented the findings from the first stage of his project, *Using Spatial Indicators for Pre- and Post-Development Analysis of TOD Areas: A Case Study of Portland and the Silicon Valley.* This phase discussed walkability indicators and assessed both what those indicators should be and how best to represent them. This TRB presentation was only one of nine made by Dr. Schlossberg in the course of his research. Other audiences included the National Conference of the American Evaluation Association, the National Conference on Public Participation, the Oregon Planning Institute Annual Conference, and the 3rd Annual New Partners for Smart Growth Conference. In part as a result of his visibility with this project, Dr. Schlossberg was selected as a NextGen scholar by the STELLA network, a trans-Atlantic group of transportation scholars looking at issues of transportation and sustainability, with a focus on laying out a research agenda for the next 100 years. He is one of only 15 young scholars chosen from the U.S. for this international effort.

Dr. Caroline Rodier presented the completed research from *Verifying the Accuracy of Regional Models Used in Transportation and Air Quality Planning* at a Mega-Poster Session. By comparing actual results in 2000 with the 1990 projections, Dr. Rodier assessed the validity of the actual model used to prepare the regional transportation plan for the Sacramento, California area. The implications of her findings for air quality planning are the basis of several recommendations to policy makers.

Two MTI reports were included in the Transportation Research Record, Issue 1835: "Understanding Transit Ridership Growth: Case Studies of Successful Transit Systems in the 1990s," a paper based on Dr. Brian Taylor's MTI Report 01-22, and "Implementation of Zurich's Transit Priority Program," based on Andrew Nash's MTI Report 01-13. The latter appeared on the 2003 TRB CD, where it attracted the attention of the Institute of Transportation Engineers Transit Council. They reprinted the abstract in their Spring 2003 newsletter. Mr. Nash has continued to receive a number of inquiries, and the MTI web usage report has shown a flurry of activity.

The Taylor report attracted the attention of Richard F. Krochalis, Federal Transit Regional Administrator for Region 10, who stated, "Given the renewed emphasis on increasing ridership as part of FTA's Strategic Plan, this report was very helpful to the Federal Transit Administration's

(FTA) Region 10 Office. I appreciated the use of surveys from transit agencies, best practices and cause-effect relationships on successful approaches to attracting riders. Data, sources of information and conclusions were well presented with a clear writing style. I certainly recommended this study to my FTA associates. Thanks for providing the transit community with a very useful applied research product."

Furthermore, the Voorhees Transportation Policy Institute at Rutgers, the State University of New Jersey, asked for and received permission to use charts from the Taylor study as course materials.

Although the second of their two research reports on transportation tax measures was published nearly two years ago, the research by Dr. Peter Haas and Dr. Richard Werbel of SJSU continues to be definitive in the field. Dr. Haas was a presenter at the Rail~Volution national conference in September 2003. Additionally, the Center for Transportation Excellence purchased and distributed CDs of the two reports and the proceedings of the 2001 Tax Measure Conference (co-sponsored with APTA) to the 100 participants at the "Transit Initiatives and Communities: Lessons Learned" symposium in Tempe, Arizona in December 2003. (Reports 00-01, 01-17, and S-01-03)

The American Planning Association listed MTI's *Making Growth Work for California's Communities* (02-01) on its website in July 2003 with a link to the MTI website. This probably resulted in many planners visiting *TransWeb* for the first time.

MTI encourages researchers to make their work available through presentations by offering travel grants. Often a research project is completed and the books are closed before an opportunity arises for an appropriate presentation. Travel grants help to assure that the results of the work are conveyed to practitioners and other researchers.

MTI Counter-Terrorism Research Team Continues Successes

The latest MTI counter-terrorism report, Saving City Lifelines: Lessons Learned in the 9-11 Attacks (02-06), attracted considerable attention.

- *TransWeb* recorded 14,000 download transactions in the first three weeks after the report was posted.
- The chronology from this and past reports was used by the wvc3 group, inc. for a U.S. government website on first-responder issues that they are developing for the Department of Homeland Security.
- The American Society for Public Administration announced the publication of the report in their September 15, 2003 online newsletter.
- Co-author Dr. Frances L. Edwards also alerted her fellow emergency response coordinators around the country.
- San José Councilmember Pat Dando provided advance copies to the Transportation Steering Committee of the National League of Cities.

MTI counter-terrorism team leader Brian Michael Jenkins was called to testify before the U.S. Senate Judiciary Committee on April 8, 2004. His presentation, *Keeping America's Mass Transportation System Safe: Are the Laws Adequate?*, advocated a "best practices" approach to transportation security. Mr. Jenkins also submitted written testimony for a June 22, 2004 hearing on rail security to the House Transportation and Infrastructure Committee's Subcommittee on Highways, Transit, and Pipelines.

Mr. Jenkins created a media storm during a visit to the San Francisco Bay Area in early May 2004. In addition to a well-covered presentation to several hundred members of the San José Rotary Club, he had interviews with five radio stations, including an appearance on a one-hour call-in show on KGO, the most widely heard station in the market. He focused on the changing nature of terrorism at home and abroad.

An Australian company charged with emergency planning for preventive measures against terrorist attacks on surface public transport contacted MTI in June 2004. They work with Yarra Trams Melbourne, the second largest rail system in the world, and have asked MTI to open communications and exchange ideas and information, as they found the published research and the Institute's knowledge "invaluable." MTI responded favorably and anticipates additional contact with the firm.

MTI Research Director

Research Director Trixie Johnson briefed the local League of Women Voters (LWV) on the organization of transportation planning and funding from the national to the local level, including the most recent decisions for countywide transportation projects, the addition of bus rapid transit to the list of service types, and issues related to the construction of new light rail lines and BART. She distributed copies of several important reports to assist the LWV in the coming year. This May 2004 presentation was part of a daylong briefing on local government conducted for LWV members.

In June 2004, Mr. Diridon and Ms. Johnson participated in a meeting with leaders of the other California University Transportation Centers and representatives from Caltrans' divisions and districts in a facilitated dialogue to assist Caltrans in developing a long-term research agenda. The meeting concluded with a decision to continue meeting at this level at least annually to improve the mutual understanding of Caltrans' and the universities' research agendas and activities.

Also in June 2004, Ms. Johnson discussed with a graduate class in the Environmental Studies Department how transportation and the environment are linked in planning and legal processes. The focus was on water and air quality issues and, to a lesser extent, materials extraction and production for infrastructure. The students had wide-ranging questions that extended the session well beyond the intended hour.

Research Projects Completed

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-Mexico Border

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 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, D.S.

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 Priority 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 Development: New Policy Initiatives for Government

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

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

Statewide Safety Study of Bicycles and Pedestrians on Freeways, Expressways, Toll Bridges, and

Tunnels

Project #9909

Publication #01-01

Principal Investigator: Thomas C. Ferrara, Ph.D.

Using the Internet to Envision Neighborhoods with Transit-Oriented Development Potential

Project #2001

Publication #01-24

Principal Investigator: Earl G. Bossard, Ph.D.

Applying an Integrated Model to 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

Toward Sustainable Transportation Indicators for California

Project #2106

Publication #02-05

Principal Investigator: Richard Lee, Ph.D., AICP

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

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)





Brian Jenkins

Saving City Lifelines: Lessons Learned in the 9-11 Terrorist Attacks
Project #2114
Publication #02-06

Principal Investigator: Brian Jenkins

The MTI counter-terrorism team undertook a case study of the 2001 events to determine what lessons could be preserved in a comprehensive document. The scope was limited to the evaluation of transit response. Due to the magnitude of damage to and involvement by the New York City transit agencies, the report focuses primarily on that city's experience. The area systems that were affected directly or indirectly and the responding emergency agencies are addressed with regard to prior preparations, the immediate events on September 11, and subsequent alarms. The study includes crisis management, security, and restoration of service.

This report is not an audit of performance, but rather a distillation of lessons learned for use in planning response to future terrorist attacks or natural disasters. These lessons fell into three broad categories: the importance of a uniform command control structure, the importance of all-hazards emergency planning, and the importance of pre-event planning, training, and exercises.



Linda Valenty

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)

This research provides a comprehensive assessment of needs for the Graduate Transportation Management Program at San José State University. The study was commissioned by the Mineta Transportation Institute to examine the current graduate program in transportation management, including a Master of Science and a Graduate Certificate in transportation management. The comprehensive needs-assessment report investigates the best course for the future of the transportation management program at SJSU and provides advice regarding the best way for the SJSU program to proceed to meet the graduate education needs of transportation professionals.

To achieve these ends, the overall analysis incorporated several components: a web-based examination of similar programs, a detailed analysis of student and alumni experiences and opinions, in-depth interviews with transportation professionals from California and across the country, and an overview of the current state of distance learning and related technology.

These analyses reveal unique attributes possessed by the SJSU curriculum and programs, indicate areas in which the curriculum and programs may be expanded and improved, and specify ways in which the delivery of distance learning might be enhanced and made more competitive. Findings are directly applicable to the intent of the transportation management program to continue to evolve and respond to student and industry needs in design, management, and implementation.

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)

Understanding how smart growth theories are translated into practice is an important endeavor for planners, researchers, and the general public to both evaluate past efforts and plan for new ones. This study uses a series of spatial indicators to visualize and quantify eight transit-oriented development (TOD) areas in Portland and Silicon Valley. More specifically, this report uses a spatial-temporal analysis to measure transit usage, urban form, and socio-demographic change prior and subsequent to the incorporation of light rail and transit-oriented development policies in the two regions.

A particular focus of this research is on the consistency of the urban mobility infrastructure with pedestrian access to the transit stops because the capacity for transit users to walk to and from their transit point of entry is a critical component of the overall TOD concept. Three key techniques to visualize and quantify walkability are presented: street network classification, pedestrian catchment areas, and intersection intensities. While such measures have been used elsewhere, this paper introduces the idea of impedance, which is incorporated into each of these measures, presenting a refined method of analysis that distinguishes between an auto-oriented and pedestrian-oriented street network.

The general results of this research show that the change to non-automotive use for work trips is mixed and that Portland is developing much more consistently with smart growth principles than Silicon Valley. More specifically, the impedance-based walkability analysis challenges some theoretical extents of TOD theory, including the idea that road types impact on walkable service areas. Actual areas of potential walkability are dramatically smaller than theoretical areas. With irregular coverage patterns, major roads present spatial barriers between areas of high connectivity and stations, and areas of high connectivity are often spatially separate from transit stops.



Marc Schlossberg

Finally, this report makes extensive use of geographic information system (GIS) technology to both quantitatively and visually capture a series of phenomena related to TOD areas. Focus has been placed on representing the visual images in ways that can enhance a broad understanding of the issues and potential participation by the public in the smart growth policymaking process, an area of policy increasingly pursued in communities throughout the United States.



Ken Schreiber

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)

A crucial strategy for accommodating California's projected growth in a more environmentally and economically sensitive way relies on the densification of existing communities. Such an approach maximizes the efficient use of infrastructure and can reduce the need for sprawl-type growth that can significantly impact the environment and quality of life. A prior study by the same team (*Making Growth Work for California's Communities*, #02-01) found that many communities with a densification strategy were facing significant community opposition to plans and projects, making it difficult for public officials to approve high-density developments. The more successful efforts were those that employed strategies to facilitate community involvement. The strategies for such involvement require funding and skills not always available in many jurisdictions.

This study focuses on the strategies, methods, techniques, and tools that can be used in working with community residents and other stakeholders to increase the intensity of land use, specifically to gain community acceptance of higher-density residential and mixed-use development. The report also provides information that local, regional, and state agencies, planning professionals, and project and plan proponents can use to develop and implement the type of collaborative efforts that involve residents in planning the futures of their communities. The following points summarize the primary research findings:

- 1. It is critical, before planning any participation effort, to understand current and possible future community concerns about higher-density development.
- 2. Overcoming distrust and other emotionally-based barriers requires a genuine, sincere commitment to community involvement.
- 3. Community planning and development are increasingly being approached so as to avoid and prevent conflict.
- 4. Many helpful techniques and tools have been developed and are available for use by local planners in collaborative, community-based

planning processes.

- 5. Elected and appointed officials, senior planners, and other staff and consultants must provide skillful and committed leadership for these processes to work.
- 6. When a group process is chartered, it is valuable to establish broad planning goals and principles at the outset.
- 7. Ensuring feasible outcomes is a key objective of a successful collaborative planning process.
- 8. Careful, accurate documentation of the results of a public participation process is critical to retaining the value of the effort.
- 9. Higher-density projects often maximize benefits to a neighborhood or community only when there is adequate funding to meet infrastructure, facility, and ongoing service needs.
- 10. Collaborative planning processes hold, in principle, great potential to help California promote more concentrated and efficient growth practices, but they will be greatly constrained by the dysfunctional funding of local governments.

Ongoing Research Projects

Bridging the Gap: Planning for Interjurisdictional Transit Services Project #2102

Principal Investigator: Patrick McGovern, Ph.D., J.D.

Transit services are provided within agency boundaries, but passengers often need to cross those borders. Many experts believe that providing seamless service is an important factor in encouraging transit ridership. This study focuses on two interjurisdictional case studies: the Fremont-Milpitas corridor in the Silicon Valley area of the San Francisco Bay Area and the Seattle-Everett Corridor in the Puget Sound region.

The work includes an examination of federal/state/local programs, policies, and legislation for improving transit service across jurisdictional boundaries. It will survey plans, policies, and legislation (both enacted and proposed) to determine the range of tools available to local government and transit providers to make connections and provide better service. A two-stage literature review will cover both general and legal sources.

The team will conduct interviews with fifteen policymakers in each area, ten in public agencies and five representing major high-tech employers, to test both knowledge and the probable success of each mechanism identified by the earlier work. These will be analyzed and summarized.

The principal investigator anticipates producing a report in 2 parts: a research report and a manual to provide research guidance for policymakers in similar communities.



Pat McGovern



Robert Johnston

Regional Transportation Planning for Smart Growth Project #2107

Principal Investigator: Robert Johnston

This research team, in two prior MTI projects (Applying an Integrated Model to the Evaluation of Travel Demand Management Policies in the Sacramento Region, Project #9804, Publication #01-03, and Applying an Integrated Model to the Evaluation of Travel Demand Management Policies in the Sacramento Region: Year Two, Project #2002, Publication #01-08) and on other grants, has developed a very advanced urban model (MEPLAN) for the Sacramento region. This project enhances the model by adding new variables, changing the structure to match the zones in the Sacramento Area Council of Governments (SACOG) plan to allow the results to be compared, and recalibrating the data for 1980, 1990, and 2000.

The Sacramento regional planning process changed during the course of these studies; the area is now considering two beltway freeways. The enhanced model will be applied to more complete smart-growth scenarios to be developed with local environmental and social equity organizations and with agricultural groups in the outlying counties. These scenarios will be compared with the official SACOG results for the "No Build" and "Beltway" scenarios. By joining MEPLAN and UPlan, a GIS companion, and applying them to the complex issues involved, this project applies the team's work in real-world situations.

As the project developed, the team and SACOG began working with Pecas, a more powerful model based on MEPLAN, which was developed by Johnston's Canadian partners in this study and is under consideration for use by the State of Oregon. The final report will encompass 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.



Jonathan Levine

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.

A fundamental tenet underpins the decision of how to travel: the choice of where to live. This study seeks to build knowledge in both location and mode choice behavior by implementing an information experiment in a university setting. Recent events have required a modification of the project, though the original intent of the experiment remains the same. The experiment was designed to test how strongly a policy of disseminating integrated transit and housing information over the Internet can influence individuals' residential location and commute choices. The basic question was whether transportation information can 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 to fill the gap in research about the role transportation information can play in housing choices.

Forecasting the Impact of Telecommuter Rail-Cars on Modal Choice: A Behavioral Disaggregate Demand Model
Project #2205

Principal Investigator: James Hayton, Ph.D.

Commuter rail passengers often spend considerable time in transit in addition to their regular, sometimes very long, hours at their workplaces. This study seeks to determine whether modifying rail cars with telecommuting capacity to accommodate work would encourage employers to recognize commute time as work time. If that were an option, the study then asks, would more car commuters become rail commuters? Furthermore, which workers are more likely to make the modal shift?

The research will be conducted in the San Francisco Bay Area with three commuter rail providers. Two data sources will be used. First, a survey of at least 1,000 San Francisco Bay Area employers (public and private) will determine whether they will accept travel time spent working on a commute train as valid worktime. Second, data on commuter preferences will be drawn from the National Household Travel Survey conducted by the Bureau of Transportation Statistics.

The study will raise employer awareness of this alternative option for job design and its associated benefits with respect to attracting, retaining, and motivating a high-quality workforce.

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



James Hayton



Ken Gehrt

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.

The methodologies to be used 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.



Richard Werbel

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 the 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 the survey participants, administration of a telephone survey, analysis of the data, and the 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.

New Projects

MTI conducted an RFP in early 2003, with a project selection meeting in May. Two projects (2301 and 2302) were selected to begin as soon as funding was approved for FY 03-04. Several other principal investigators were asked to revise and resubmit their proposals for reconsideration in October 2003. The projects selected at that time (2303, 2304, and 2305) began work following final approval by Caltrans in early 2004.

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. Deterring 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.

The research will approach responses to terrorist incidents as a process over an extensive time frame, approximating the life of the transit system. This 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.

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



Brian Taylor



Caroline Rodier

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 be validly 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.



Project #2303

Principal Investigator: Richard Lee, Ph.D., AICP

This research will identify and document the extent to which the principles of smart growth have been applied to airport system planning in California, either explicitly or by implication from the land use planning strategies adopted. 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 in order to better achieve compatible land uses near airports. While the goals of smart growth policies and airport land use compatibility planning are commonly seen as very different issues, there are at least three reasons to consider how they can be better linked:

 To explore how land use planning strategies that are being pursued to respond to smart growth policies can be adapted to meet airport land use compatibility goals;



Richard Lee

- To identify ways in which smart growth policies might adversely affect airport land use compatibility planning; and
- To understand how longer-term airport development strategies, such as expanding or constructing airports on the perimeter of an urban region or encouraging associated commercial development on adjacent land, could come into conflict with smart growth policies.

In many large metropolitan areas, there are significant constraints on the ability to continue to expand the 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 the new airports and significant impacts 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 the trade-offs between continued expansion of existing airports on constrained sites surrounded by established residential communities and development of new airports that will tend to stimulate growth in less developed parts of the region. To date there has been relatively little effort to understand the nature of these trade-offs in the context of the principles 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 those 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 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 states and the federal government, nearly all U.S. high-speed rail projects have failed. Certainly, none have matched the performance levels of the Japanese *shinkansen* or the French TGV.

The U.S. government has been reluctant to develop such projects. Beyond Amtrak, the federal government has restricted its role to funding



Allison de Cerreño

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 throughout the United States. 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.

With the vacuum of HSR leadership in Washington, D.C., states have attempted to take the initiative. Some states have made significant investments. For example, separate from Amtrak's Acela service, New York is investing \$200 million in upgrading its New York City-Albany-Buffalo corridor to support 110-mph service. California has invested several million dollars in an EIR/EIS and is debating when to schedule a bond measure on the ballot to fund the first phase. The history of HSR in the U.S., however, is littered with projects that failed for a number of reasons, including political pressure exerted by competitors, lack of a popular mandate, environmental conflicts, and various financial difficulties.

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 proposes. 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 lines in the future.



Project #2305

Principal Investigator: Hollie Lund, Ph.D.

There are three objectives for this project:

- 1. To understand property developers' perceptions of and responses to development opportunities within new Southern California rail station areas;
- 2. To examine the extent to which the management strategies of property owners and employers are responding to their new rail accessibility and the relationship that these strategies have to the travel behaviors of residents and employees; and
- 3. To provide a more complete data set for future studies of how travel choices, location decisions, and property management decisions within station areas change over time.



Hollie Lund

The Pasadena Gold Line, a recent extension of the Los Angeles Metro Rail System, began operation in August 2003. The new line provides new opportunities for transit-oriented development activity and a focus on a longitudinal study of development patterns and changes in travel behavior. A similar study funded by Caltrans (Lund, Willson, and Cervero, 2004), and conducted in part by two of the team members for this study, allows comparison of travel-related behaviors with those along more established rail lines such as BART, the San Diego Trolley, and the L.A. Metro Blue and Red lines.

The research design consists of two parts: first, quantitative assessments of development patterns along the rail line and travel behavior and location decisions among station areas' residents and employees; and second, a qualitative assessment of the development process. This combined approach will provide a comprehensive understanding of local responses to rail station development while providing baseline data for time comparison studies.



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 Cardenas Research and Publications Assistant



Research and Publications
Assistant
Sonya Cardenas
Mineta Transportation Institute
College of Business
San José State University
San José, CA 95192-0219
Office phone: 408-924-5582
Office fax: 408-924-7565
email: cardenas@mti.sjsu.edu

With a career as varied as a buyer and as a program director for a NASA program, Research Program and Publications Assistant Sonya Cardenas 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. Cardenas most recently 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. Ms. Cardenas enjoys living in Gilroy and takes pleasure in time spent with her teenage son.

Barney Murray Web Administrator



Web Administrator
Barney Murray
Mineta Transportation Institute
College of Business
San José State University
San José, CA 95192-0219
Office phone: 408-924-7563
Office fax: 408-924-7565
email: murray@mti.sjsu.edu

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*.

Information & Technology Transfer Goals

The goals of the Information and Technology Transfer Program are to:

- provide research results in the form of quality publications in print and online for use by transportation professionals around the world;
- disseminate the recorded results from discussions of significant transportation issues; and
- provide library and online resources for a wide range of transportation interests.

Library

The big library news this year is the opening of the new Martin Luther King, Jr. Library, a joint effort between the City of San José and SJSU. The new facility serves as both the university and the city's main library. For the first time in years there is room to add to the net collections, and new technology adds to the truly modern nature of the library. Circulation and visits have skyrocketed this academic year, and the potential visibility for MTI transportation materials has thereby improved. Each MTI item is identified in the catalogue and by a special bookplate that credits the U.S. DOT-RSPA and Caltrans for acquisition funding.

Research Librarian Diana Wu assists MTI and library users by making the transportation materials more accessible. She works with librarians at the University of California at Berkeley Transportation Library to facilitate access to the repository collection on that campus as well.

MTI has arranged for special borrowing privileges for active researchers who are not eligible for access through the California State University system.

Fora and Symposia

Garret Morgan Youth Videoconference Symposium on Sustainable Transportation Project #2351

Project Manager: Leslee Hamilton, MTI Communications Director

MTI hosted the fourth Garrett Morgan Symposium on March 23, 2004. Students made presentations from three teleconference sites linked by satellite and phone lines. In San José, students from Meadows Elementary School were sponsored by MTI and made their presentation from SJSU's Academic Technology Network classroom center; in Washington, D.C., the American Public Transportation Association (APTA) sponsored Argyle Middle School from Silver Spring, Maryland; the American Association of State Highway and Transportation Officials (AASHTO) site hosted a 9th grade class from Leonardtown High School of Leonardtown, Maryland.



Team SkyWeb Express from Meadows Elementary School

U.S. Secretary of Transportation Norman Y. Mineta welcomed the young people from the AASHTO site, challenging students to consider careers in transportation, because "...America needs visionary, bright young leaders in the transportation field."



This all-girl group from Meadows Elementary School advocated for a helium- and solar-powered car.



The winning team from Argyle Middle School mugs for the camera.

After introductions, each class presented one or more projects they had developed that represented sustainable transportation for their century. The competition for best project was intense. The session concluded with an opportunity for students to ask questions of the site sponsor representatives, as well as each other.

Following the selection of their winning project, a delegation from Argyle Middle School attended the MTI Banquet on June 26. Three students and their teacher, Ms. Kimberly McLurkin-Harris, along with a group of parents, were there to cheer and take pictures as student Trevis Smith accepted a \$500 check on behalf of the school. Their winning project, a Maglev train that travels in a vacuum tunnel, demonstrated imagination, understanding of the concepts of sustainability, and considerable teamwork.

A summary proceeding is available in hardcopy and online. Also online are the *Teacher's Guide* and the *Student Workbook* used by the classes.

MTI Participates in "Downtown Dialogue"

The Commonwealth Club of California/Silicon Valley and the San Jose Downtown Association sponsored a forum in their Downtown Dialogue series in September 2003 to explore the impacts of smart growth planning on San José's downtown. MTI was asked to provide a speaker to explain smart growth in that context and represent the pro side of that approach to urban development. Research Associate Ken Schreiber, author of MTI report *Higher Density Plans: Tools for Community Engagement*, on winning community acceptance, graciously accepted MTI's nomination to represent the Institute. His spirited and candid discussion, heavily informed by his research and his decades in city planning, which culminated with service as the planning director for the City of Palo Alto, California, received rave reviews from both the participants and the sponsors.

MTI does not usually participate in pro and con format events, but Mr. Schreiber's positive assessment of the value of that approach in engaging public interest in a topic they do not know well could affect future planning of some MTI outreach events.

Farm Road or Freeway? The Highway 152-156-25 Dilemma (tentative title) Project #2252

Project Manager: Jim Swofford

MTI originally planned to hold this Hot Spot Regional Forum in May 2003. After consulting with the various agencies in the jurisdiction, the Institute agreed to defer the event, pending results of at least one study and additional work by local agencies.

This topic addresses the problem of a mixed-use, agricultural area highway, congested by urban sprawl and inter-urban traffic traveling between major metropolitan areas. The congestion and accident history of Highway 152's Pacheco Pass fully qualify it as a transportation hot spot. The Pacheco Pass problems have grown to affect connecting Highways 156 and 25 and surface streets in the communities of Gilroy and Hollister. Complicating solutions is the large number of agencies involved: three Caltrans districts, three metropolitan planning organizations, three counties, and several cities. There is currently no agreement among them or with other stakeholders on either a solution or how the various proposals will be funded.

The forum, as currently planned, will review the history of the Pacheco Pass dilemma, its current status, and potential solutions. The area is an archetype for many similar rural/urban interfaces (e.g., Highways 4, 12, 24, 56, 74, 76, 118, 126, 132, et al.), which gives the project local, regional, and statewide ramifications. Panel participants will comment on the various proposals from a variety of perspectives intended to explore pros and cons, present options, and start to build some common ground. While MTI would be delighted if this forum led to solutions to the many problems, or even helped to create consensus, the forum should at least clarify issues for an impatient general public not particularly aware of the complexities involved. Given the strong feelings of the various parties, MTI anticipates a lively event.

Still under consideration are the possibilities of expanding the concept of the event to cover a number of similar corridors connecting the San Francisco Bay Area and the Central Valley or more generally addressing the issues that arise when urban growth overtakes a rural, agricultural transportation network.

Other Events

Rail Details: Tracking California's High-Speed Rail into Silicon Valley

On January 29, 2004, MTI co-sponsored a preview of the environmental report on the California High-Speed Rail program. An impressive array of partners participated in this first MTI event to use the meeting facilities in the new Martin Luther King, Jr. Library. The combined efforts of the Commonwealth Club of California/Silicon Valley, the Silicon Valley Manufacturing Group, the Leagues of Women Voters of Santa Clara County, the Silicon Valley Chamber of Commerce, and the San Jose Downtown Association drew an overflow crowd.



Executive Director of the California High-Speed Rail Authority (CHSRA) Mehdi Morshed, MTI Executive Director and CHSRA board member Rod Diridon, and Deputy General Manager for SamTrans Howard Goode made the substantive presentations. Mr. Goode was specifically charged with discussing the connections between the high-speed system and Caltrain, the commuter rail system between San Francisco and Gilroy managed by SamTrans.

Following the presentations, a lively question-and-answer session provided an opportunity to discuss the information, review the maps in more detail, and raise issues sure to be a part of the imminent formal environmental review process.

TransWeb

The Information and Technology Transfer area includes MTI's expanding website, *TransWeb* (http://transweb.sjsu.edu)—a widely used transportation information hub. The site provides links to national and international sites related to all modes of surface transportation and surface transportation policy. *TransWeb* includes MTI's home page and, through that portal, the Research Program and Education Program pages. Other sites, such as the Logistics Association of Australia, have posted links to *TransWeb* to make their sites more useful.

TransWeb continues to achieve impressive numbers and provide demonstrated service to the research and transportation community. In just the first five months of 2004, over 7,000 individuals downloaded information from the Research Publications portion of the site alone. The growth over last year's numbers is a source of pride for Web Administrator Barney Murray.

	FY 2001-2002	FY 2002-2003	Percent Change	FY 2003-2004	Percent Change
Number of Hits	1,185,758	1,318,247	11.00%	1,489,034	12.96%
All Visitors	160,072	202,267	26.40%	236,785	17.07%
Unique Visitors	68,698	85,451	24.40%	101,065	18.27%

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.

MTI's Graduate Transportation Management Program (GTMP) students are the 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. Videostreaming 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.

High school students participating in MTI's second National Summer Transportation Institute (STI) in July 2003 created content for the Kids and Transportation section. Students enrolled in the STI in July 2004 will be asked to develop information about their experiences as well. Encouraging young people to consider careers in transportation is the underlying theme of this *TransWeb* area.

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 at the Institute. The finished event reports have their own subsection on the *TransWeb* publications page.

World in Motion

First circulated in 1994, the quarterly *World in Motion* newsletter keeps researchers and the public informed about the work MTI is encouraging through education, research, and information transfer. Every issue includes an update from Executive Director Rod Diridon and columns from Education Director Dr. Peter Haas and Research Director Trixie Johnson, plus information transfer features and statistics.

The front page always features a profile of a member of MTI's Board of Trustees. Transportation officials profiled in the past year include David L. Gunn, President and CEO of the National Railroad Passenger Corporation (Amtrak); Rebecca M. Brewster, President and COO of the American Transportation Research Institute; Anne P. Canby, President of the Surface Transportation Policy Project; and Brian Macleod, Senior Vice President of Gillig Corporation. The Research column includes information about new projects and those underway, awards and presentations, program development, research associates, and student assistants. The Education column features awards and accolades received by students in the GTMP, as well as changes and course enhancement information. The Information Transfer section presents stories about events hosted or co-hosted by MTI.

With a mailed circulation of 1,762 and availability on *TransWeb*, the newsletter is working to spread the word to the transportation community about MTI's ongoing surface transportation policy research and education efforts.



College of Business San José State University San Jose, CA 95192-0219 Tel 408/924-7565 Fax 408/924-7565 e.moil: mislanti sieu olu

The World In Motion

David L. Gunn Mineta Transportation Institute Board of Trustees Member President and CEO National Railroad



assentger Corporation (Amtrak)

Having led the largest transis systems in the Uz Grands, David L. Gunn brings an international required or strong leader-ship and extensive experience in the rail industry as President and CED of Antrak. Appointed on May 15, 2002, Mr. Gunn directs America's interectly passenger rail systems serving no a receipte 6,500 guests per day in more than 500 communities across 46 states, on 265 daily trains through 22,000 miles of track. Passenger Corporation (Amtrak)

Mr. Gunn most recently served as Chief General Manager of the Toronto Transit Commission from 1995 smil 1999. Managing the largest transit system in Canada, he led 10,000 employes serving 1.3 million dulty passengers within a system of buses, 600 heavy rail cars, and 250 attectors. In this position, Mr. Gunn improved the system's cost recovery rain form on 6 percent to over 80 percent to

Prior to leading the Toronto Transit Commission, Mr. Gunn was the General Manager for the Washington Metropolitan Area Transit Authority (WMATA) from 1991 to 1994. While at WMATA), Mr. Gunn developed an accelerated building plan and initiated construction of three of four remaining segments of the planned 103-mile rail system.

credited for establishing strong fiscal controls, corporate goals and performance measures while rebuilding track, railear and bus fleets at the nation's largest transit system.

From 1979 through 1984, Mr. Gunn was General Manager/Chief Operations Officer at the Southeastern Pennsylvania Transportation Authority (SEPTA). He reduced that system's operating costs from \$138 million to \$97 million while rebuilding and replacing its subway cars, bases, trackless trolleys, and fleets. He also planned and negotiated the takeover of Philadelphia's 400-mile, 800-train-per day commuter and system from

Mr. Gunn graduated from Harvard College in 1959 and continued his education at the Harvard Graduate School of Business, where he received his MBA in 1964, From 1950 to 1962, Mr. Gunn served in the U.S. Naval Reserve. He is a member of the United Church of Canada, the Bras d'or Stewardship Society, and the Appalachian

MTI

Norman Y. Mineta International Institute for Surface Transportation Policy Studies

The World In Motion

Rebecca M. Brewster Mineta Transportation Institute Board of Trustees Member

President and Chief Operating Officer American Transportation Research Institute



affiliated organizations in the areas of safety and human factors: environmental factors: training, technology and efficiency; and transportation security. The American Transportation Research Institute advocates for and conducts research in the transportation community, with an emphasis on the trucking industry's essential role in

Ms. Brewster previously served as ATRI's Vice President, where she was re for the management of a number of trucking industry research initiatives, including serving as principal investigator for a cooperative agreement for research with the Federal Motor Carrier Safety Administration. Ms. Brewster also serves as the Director of the National Incident Management Coalition, a national stakeholder group promoting incident management to improve highway safety and reduce congesti

Ms. Brewster also serves on the Executive Committee of the National Academies' Transportation Research Board and on the Board of Directors of the University of Minnesota's ITS Institute.

for the Cary. North Carolina Chamber of Commerce and a fleet analyst with Moen. Inc. Ms. Brewster holds a Bachelor of Arts from Wofford College and is a Fellow o the North Carolina Institute of Political Leadership.

Inside

Summer 2003

MTI

Surface Transportation Policy Studies

Created by Congress in 1991

The World In Motion

Anne P. Canby Mineta Transportation Institute Board of Trustees Member President

Surface Transportation Policy Project



Anne P. Camby is a nationally recognized leader in the field of transportation, having served in many senior policy roles for more than two decades. From 1993—2000, the was the Secretary of the Delaware Department of Transportation (DOT). At the Delaware DOT, the pensided over dramatic changes, transforming a traditional highway agency into a maltimodal mobility provider, boosting public transportation services in the state, and promoting as open, collaborative decision-making process

During her career, Ms. Canby has been a Deputy Assistant Secretary of the U. S. Department of Transportation (U.S. DOT), Commissioner of the New Jensey Department of Transportation, and Treasurer of the Massachusetts Bay

Prior to serving as Delaware DOT Secretary, Ms. Camby led a consulting practice focusing on institutional and management issues with particular emphasis on the implementation of the Intermodal Surface Transportation Efficiency Act (ISTEA), the foderal transportation reform law passed by Congress in 1991.

Inside

Fall 2003



renewed his activities in the bus industry.

Mr. Macleod is a Mechanical Engineer (SMIT, Australia) and an alumnus of the General Motors Institute (Michigam) and manufacturing. He is a long-time member of SAB and APTA Mr. Macleod chaired APTA's Business Member and AB and APTA Mr. Macleod chaired APTA's Business Member and SAB and APTA Mr. Macleod chaired APTA's Business Member and SAB and APTA Mr. Macleod chaired APTA's Business Member Committee and Board of Directors. He currently serves on the California Tomitic Amociation's Executive Committee and has participated on many others, including the FFA-aptonord Peocurement Streeting Committee, the BRT Characteristics Member Committee and has participated on many others, including the FFA-aptonord Peocurement Streeting Committee, the BRT Characteristics Working, Group, and the Intelligent Vehicle Initiative's Stalesholders Streeting Committee, the own chairs APTA's Espo Committee and is a member of the TRB Tratist Research Analysis Committee.

Research Update

New Medical Medical Cilities are found.

Mr. Macleod helped Gillig grow from a small regional company with less than 8% market share into an industry leader with close to 25% market share and a reputation of stability and customer



• Research Updat

Information Transfer
 Education Program

Winter 2004

Spring 2004

Mineta Transportation Institute 1998-2004 Research and Information Transfer* Projects/Publications (TEA-21)

Project Title	Project/ Publication Numbers	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 Model to the Evaluation of Travel Demand Management Policies in the Sacramento Region	9804 01-03	Robert A. Johnston
Applying an Integrated 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, AICP
*BART to Silicon Valley: How Now? (Regional Forum)	9913 F-01-01	MTI staff
Best Practices in Developing Regional Transportation Plans	9811 01-10	Dr. Donald N. Rothblatt
Best Practices in Shared-Use of High-Speed Rail Systems (Formerly: Shared-Use of Rail Infrastructure by High-Speed Rail: Best Practices in Design and Operation)	2113 02-02	Andrew Nash
Bridging the Gap: Planning Interjurisdictional Transit Services	2102	Dr. Patrick McGovern, J.D.
The California General Plan Process and Sustainable Transportation Planning	2003 01-18	Dr. Richard Lee, AICP
*California Security Summits (National Symposium)	2118 S-01-04	MTI Staff
Construction of Transit-Based Development: New Policy Initiatives for Government	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
Developer-Planner Interaction in Transportation and Land Use Sustainability	9905 01-21	Dr. Aseem Inam
Effects of Online Shopping on Vehicular Traffic	9903 01-20	Dr. Joe Giglierano
Envisioning Neighborhoods with Transit-Oriented Development Potential (Includes Demonstration CD)	9810 01-15	Dr. Earl G. Bossard
Factors Influencing Voting Results of Local Transportation Funding Initiatives with a Substantial Rail 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
Forecasting the Impact of Telecommuter Rail-Cars on Modal Choice: A Behavioral Disaggregate Demand Model	2205	Dr. James Hayton
The Future of Transportation Education: A Needs Assessment for the Transportation Management Program at San José State University (Formerly: Needs Assessment: Transportation Management Program at San José State University)	2201 03-01	Dr. Linda Valenty
* Garrett Morgan Youth Videoconference Symposium on Sustainable Transportation	2351 S-03-01	MTI Staff
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, AICP
High-Speed Rail Projects in the United States: Identifying the Elements for Success	2304	Dr. Allison de Cerreño
How to Best Serve Seniors in Existing Transit Services	9902 01-04	David Koffman

Impact of Ethnic Diversity on Transit: How Do Various Population Groups View and Utilize Various Transit Modes? (Phase I has no published report.)	2109 N/A	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, does not produce a publication)	2116 N /A	Dr. James Hayton
Implementation of Zurich's Transit Priority 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, AICP
A Model for Assessing Demand-Response vs. Prescheduled Paratransit Systems (Seed Grant, does not produce a publication)	2115 N/A	Dr. J. Michael Pogodzinski
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 (Tentative title)	2353	MTI Staff
*National Symposium and Videoconference on Sustainable Transportation	9911 S-01-01	Dr. Dongsung Kong
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	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
Regional Transportation Planning for Smart Growth	2107	Robert A. Johnston
Saving City Lifelines: Lessons Learned in the 9-11 Terrorist Attacks (Formerly: Public Surface Transportation: Lessons Learned in the 9-11 Terrorist Attacks)	2114 02-06	Brian Jenkins
Statewide Safety Study of Bicycles and Pedestrians on Freeways, Expressways, Toll Bridges, and Tunnels	9909 01-01	Dr. Thomas C. Ferrara
System Design for Transit Security	2301	Dr. Brian D. Taylor
Toward Sustainable Transportation Indicators for California	2106 02-05	Dr. Richard Lee, AICP
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. Farm Road or Freeway? (Tentative title)	2252	MTI Staff Jim Swofford
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 Transit-Oriented Development Potential (Includes Demonstration CD)	2001 01-24	Dr. Earl G. 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 Planning	2108 02-03	Dr. Caroline Rodier
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

^{*}Information Transfer Projects include Forums, Symposiums and other activities for conveying research results and exploring issues.

Project Under Separate Caltrans Contract

Sustainable Communities/San Joaquin Valley Growth	Ken Schreiber, AICP
---	---------------------

Mineta Transportation Institute (IISTPS) Research and Information Transfer Publications (ISTEA)

Publication Number	Title	Authors
94-1	An Assessment of Needs for Management Training and Education in Surface Transportation in the United States and Canada	J. Giglerano R. Vitale
97-5	Capital versus Operating Grants for Transit: Economic Impacts for California	P. Haas, et al.

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.
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-Mexico Border	G. Gray
96-4	Issues Related to the Emergence of the Information Superhighway and California Societal Changes	J. Botha, et al.
99-1	Maintenance and Continued Development of the IISTPS Transportation Information System, TRANSWEB TM	S. Belanger S. Kwan
95-1	Planning for Surface Transportation and Land Use: A Symposium	IISTPS 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.
97-1	Public Land with Private Partnerships for Transit Based Development	S. Lefaver, et al.
F-98-1	Rail Transit: Issues and Opportunities for the Bay Area and California	IISTPS Staff
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 and Transportation Futures Program	IISTPS Staff
96-1	Terrorism in Surface Transportation: A Symposium	IISTPS Staff B. Jenkins
97-2	Toward a Cooperative Future? Labor Management Relations in Surface Transportation: A Symposium	IISTPS Staff
00-1	Why Campaigns for Local Transportation Funding Initiatives Succeed or Fail: An Analysis of Four Communities and National Data	P. Haas, et al.

 $Publications \ in \ print \ are \ available \ from \ MTI: \ http://transweb.sjsu.edu/pubs.htm$

San José State University San José, CA 95192-0219

Tel: (408) 924-7560 Fax: (408) 924-7565 mti@mti.sjsu.edu



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.

Dr. Peter Haas Education Director



Education Director Dr. Peter Haas Mineta Transportation Institute College of Business San José State University San José, CA 95192-0219 Office phone: 408-924-5691 Office fax: 408-924-7565 email: haas@mti.sjsu.edu 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 coauthor of the text *Applied Policy Research: Concepts and Cases*. He was recently the recipient of a Senior Specialist grant from the Fulbright Foundation to teach and study in Latvia.

Viviann Ferea Education Program Assistant



Education Program Assistant Viviann Ferea Mineta Transportation Institute College of Business San José State University San José, CA 95192-0219 Office phone: 408-924-7570 Office fax: 408-924-7565 email: ferea@mti.sjsu.edu Viviann Ferea was appointed to the position of Education Program Assistant (EPA) in August 2000. As EPA, Ms. Ferea is the primary contact for the marketing and administration of the GTMP. Among her many responsibilities are continued efforts to recruit for the Certificate and Masters degree programs, revision and maintenance of the Education Program's website, and course planning and scheduling. Ms. Ferea received her BS in business marketing from UC Davis. Her studies in public relations and experience in media sales enhance her ability to promote the continued 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 via videoconferencing and Internet technologies, consisting of coursework and experiential learning that provides students with the skills and knowledge to manage and lead transportation systems.

Overview

The GTMP had a very successful year in 2003-2004, with a record number of program graduates and continued enhancement of the core faculty. Education Director Dr. Peter Haas and Education Program Assistant Viviann Ferea form the administrative/development team that strives to enhance the GTMP as a dynamic, up-to-date, adaptively evolving distance-learning program.

Enrollment Trends

During academic year 2003-2004, the GTMP recorded 151 graduate student enrollments. These enrollments were associated with 48 individual students. These numbers reflect a slight decrease over the prior academic year resulting from the dire budget situation and attendant layoffs at many transportation agencies. Thirty-three matriculated Master of Science students enrolled during the academic year. A record 17 program graduates were recognized during the summer of 2004, an outstanding milestone, but one that may initially reduce course enrollments. The program staff is undertaking recruitment efforts to enable the GTMP to continue to thrive.

Summer Transportation Institute

In the summer of 2003, 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 the nation's transportation system for the next century. The primary aim of the STI is to encourage high school students—particularly from traditionally underrepresented backgrounds—to seek professional careers in transportation through obtaining a college education. A total of 2,230 secondary school students have completed the national program, which is hosted by 34 colleges and universities in 23 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 Caltrans.

The program was successfully delivered on the San José State University campus in July 2003. 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. In the fall of 2003, MTI's Education Program successfully applied for a third year of STI funding. Planning for the July 2004 STI program is underway, with Dr. Maribel Alvarez acting as program coordinator. Funding will again total \$50,000, with Caltrans providing \$10,000 of those funds.

Program Accomplishments

Courses Offered

In Academic Year 2003-2004, the GTMP offered 12 courses, with 151 enrollments. Details on enrollment and class sites follow each course listing below:

Fall 2003

- MTM 201: Fundamentals of Transportation Management. Twenty students enrolled in Redding, Marysville, Oakland, Fresno/Bakersfield, San Diego, Santa Ana, Sacramento, San José State University (SJSU), and via webcast.
- MTM 214: Transportation Policy and Regulation. Fourteen students enrolled in Oakland, San Luis Obispo, Los Angeles (LA), Bishop, San Diego, and SJSU.
- MTM 297: Current Topics in Transportation. Seventeen students enrolled in Eureka, Oakland, Fresno/Bakersfield, LA, Bishop, SJSU, and via webcast.
- MTM 203: Transportation Markets and Business Development. Five students enrolled in San Luis Obispo, Fresno/Bakersfield, and SJSU.
- MTM 215: Transportation Systems and Development. Twelve students enrolled in Oakland, Fresno/Bakersfield, SJSU, and via webcast.
- BUS 286: Project Management. Fourteen students enrolled in Redding, Marysville, Oakland, LA, Bishop, Sacramento, and SJSU.
- MTM 283: Independent Research. Five students enrolled in LA, Bishop, San Diego, Santa Ana, SJSU, and via webcast.

Spring 2004

- MTM 202: Accounting, Finance, & Business Systems. Twenty-five students enrolled in Redding, Marysville, Oakland, San Luis Obispo, Fresno/Bakersfield, LA, San Bernardino, Bishop, Santa Ana, SJSU, and via webcast.
- MTM 296C: Transportation and the Environment. Five students enrolled in LA, San Diego, SJSU, and via webcast
- MTM 217: Leadership and Management of Transportation Organizations. Twelve students enrolled in Redding, Marysville, Oakland, San Luis Obispo, Fresno/Bakersfield, LA, Santa Ana, and SJSU.
- MTM 283: Independent Research. Five students enrolled in Redding, Fresno/Bakersfield, and SJSU.
- MTM 290: Strategic Management in Transportation. Seventeen students enrolled in Eureka, Oakland, LA, San Bernardino, Bishop, San Diego, Santa Ana, SJSU, and via webcast.

Graduates

The faculty and staff of MTI and the College of Business at SJSU were proud to present the graduating class of 2004 at the 13th Annual MTI Board of Trustees Awards Banquet on June 26, 2004. Seventeen students earned their MSTM degree, the most ever for the MTI program. 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 17 MSTM graduates who were hooded during MTI's banquet. Copies of their capstone research projects are available upon request.

MSTM candidates for graduation:

Jacob Armstrong	George Fernandez	Maureen Murphy
Kathleen Bergeron	Hailey Ford	John Naylor
O'Donna Blackstock	Paul Scott Graham	Erica Rankins
David Bloom	Faiz Khan	Lee Rennacker
Melanie Choy	Rodolfo Lemus	Melina Takahashi
Richard Erickson	Htwe (Sandy) Ma	

In addition to our MSTM graduates, the following students received the graduate CTM:

Blanche DeLeon Siew Mei Tan

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 funding availability, MTI awards \$1,000 MSTM Fellowships. Thanks to this generous program, students are able to continue their studies in the MSTM. In the 2003-2004 Academic Year, \$44,000 was awarded through this fellowship program to the following deserving MSTM students:

Carl Anderson	Richard Erickson*	Michael Lewis*	Joseph Rye
Jacob Armstrong*	Hailey Ford	Wishing John Lima	Jaylene Santini
Kathleen Bergeron	Andrea Glerum	Htwe (Sandy) Ma	William Sutherland*
O'Donna Blackstock*	Edujie Imoisili*	Maureen Murphy*	Melina Takahashi*
David Bloom*	Gregory Kausch*	Erica Rankins*	Florante Tanada*
Melanie Choy	Faiz Khan*	Lee Rennacker*	Koko Widyatmoko*
Nicholas Deal	Rodolfo Lemus*	John Robertson*	

^{*}indicates receipt of multiple awards



The Graduating Class of 2004

Twice a year, subject to funding, MTI awards \$500 CTM CSP Financial Awards. Thanks to this generous program, deserving students are assisted in their efforts to continue their studies in the GTMP. Fifteen hundred dollars was awarded to the following CTM students:

Sepideh Reghabi, John Robertson, and Koko Widyatmoko

Capstone Papers Go Online

The final challenge for each MSTM graduate is to complete an independent research project for MTM290, informally known as the capstone paper. Selected examples of these papers are being published online and comprise a portion of our new alumni webpage. Recent contributions include 2002 MSTM Student of the Year Mary Frederick's analysis of the Los Angeles area transportation system and City of San José DOT Director James Helmer's insights into aligning local transportation services with marketing data. Future additions to this page will include career updates from alumni, networking information, career opportunities, and more. These outstanding pieces of scholarship can be viewed or downloaded at: http://transweb.sjsu.edu/educ/capstones/index.htm

Success Stories

MTI Outstanding Student of the Year

Richard Erickson was selected by the Education Program faculty as MTI's Student of the Year for 2003 based on the strength of his academic work, leadership, research, and contributions to the field. He was honored in a ceremony in Washington, D.C. in January 2004. Officials from the U.S. DOT were on hand to present the awards given to outstanding students from University Transportation Centers across the nation. Employed as a senior engineer at Parsons Brinckerhoff, Inc., Richard is currently assigned to providing management services to the Mineta San José International Airport. Richard's distinguished career includes an Airport Employee of the Month award as well as a letter of commendation from the City of San José for his efforts on a recent runway extension project. Richard also received a check for \$1,000 at the ceremony.

MSTM Students Win National Awards

Hailey Ford was awarded the annual Parsons Brinckerhoff-Jim Lammie Scholarship and the Donald C. Hyde Memorial Essay Award by the American Public Transportation Association Foundation (APTAF). This award is given to an applicant dedicated to a career in public transportation. Hailey won the extremely competitive award by writing an essay in response to the question: "In What Segment of the Transportation Industry Will You Make a Career, and Why?" Hailey's paper was based on the theme of his plans to "develop projects that encourage greater transit usage by providing better links between California's transit and highway systems, and in turn, help to improve California's surface transportation system." The Parsons Brinckerhoff-Jim Lammie Scholarship award includes a \$2,500 scholarship, and Hailey received an additional \$500 for the Donald C. Hyde Memorial Essay Award, which recognizes the best essay overall in the competition. The APTAF Annual Meeting and Awards Ceremony was held in Salt Lake City, Utah on September 30.

Andrea Glerum was awarded the Eno Foundation Fellowship, which consists of a trip to Washington, D.C. to participate in a week of high-level briefings with congressional and other transportation experts on various matters of transportation policy. Andrea is currently employed as Project Manager and Civil Engineering Unit Manager for Carter and Burgess, Inc. in Oakland.

Rodolfo "Rudy" Lemus, Construction Inspector with the Santa Clara Valley Transportation Authority, was recently selected as a winner of the 2004 George Krambles Transit Foundation National Scholarship Award. This award encourages students to develop professional skills for future careers in the transit industry and focuses aid on students with a genuine interest in careers in transit or closely related areas; it includes a cash prize of \$2,500.

Jaylene Santini, whose career started as a student assistant with Caltrans, was awarded the Helene M. Overly Memorial Graduate Scholarship from the Women's Transportation Seminar. The award of \$750 was presented at the group's annual fundraising dinner in Sacramento on October 8, 2003.

Alumni Achievements

Jeff Spencer (MSTM 2002), currently an Associate Transportation Planner with the Division of Research and Innovation at Caltrans, has successfully submitted a \$250,000 research proposal for funding by the Transportation Cooperative Research Program (TCRP). Entitled "Ensuring Full Potential Ridership from Transit-Oriented Development," the project will seek to learn how transit agencies can maximize ridership by determining the motivation and behavior of transit-oriented development residents and their mode choice and by creating tools through homeowner or community associations to encourage transit ridership. The results of this research may be used by transit agencies to attract new riders. Funded by the Federal Transit Administration, the TCRP is a key instrument for carrying out applied research concerning transit issues, with the results directed into the hands of organizations and individuals that can use them to solve problems. Further details about the project may be obtained from: http://www4.trb.org/trb/crp.nsf/All+Projects/TCRP+H-27A.

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, two distinguished experts joined the MSTM faculty.

• Dr. Frances Edwards, an expert in the field of emergency management who currently serves as director of the Office of Emergency Services for the City of San José, taught the elective course "Emergency Management Issues for Transportation Professionals" during the Spring "A" session. Dr. Edwards also works with MTI as a research associate on transportation security studies.

Responsible for San José's Office of Emergency Services, whose services include public education programs regarding natural disasters, Dr. Edwards was named one of *Governing* magazine's Public Officials of the Year in 2002. In addition to being responsible for the development of citywide emergency plans, she oversees San José's Emergency Operations Center. Dr. Edwards is a frequent speaker at conferences on emergency preparedness, including addressing the NOAA/FEMA/American Red Cross Long Term Drought Conference.

Dr. Edwards has a Ph.D. in public administration and a Master of Science in urban planning degree from New York University, a Master of Science in political science/international relations from Drew University in Madison, New Jersey, and a certificate in hazardous materials management from University of California at Irvine. She recently completed terms on the California Seismic Safety Commission and the Hospital Building Safety Board. She has been a consultant to the Federal Emergency Management Agency, the Association of Bay Area Governments, the National Center for Earthquake Engineering Research, the Jason Project, the City of Tokyo, and the City of Shizuoka, Japan.

• Also during the Spring "A" session, San Francisco Bay Area Metropolitan Transportation Commission (MTC) Deputy Director for Policy Therese McMillan taught Finance and Accounting (MTM202). As the former manager of MTC's Funding and External Affairs Department, McMillan brings a wealth of expertise to this vital subject area.

McMillan, who has worked at MTC since 1984, earned a BS in environmental policy and planning analysis from the University of California at Davis and a joint Master of Science in city planning/civil engineering science from the University of California at Berkeley. A past president of the San Francisco Bay Area chapter of the Women's Transportation Seminar, McMillan chaired the statewide Regional Transportation Planning Agencies group from 1989 to 1999, and is a member of the Transportation Research Board's Committee on Intergovernmental Relations and Policy Processes.

• MTI was asked by the editor of the *Transportation Engineering Handbook* to recommend a faculty member working in transportation management. GTMP Management and Organization instructor George Whaley was recommended and received a contract to write the chapter "Management of Transportation Organizations" for the handbook, which was published by McGraw-Hill in January 2004.

Outreach

The outreach effort of the Education Program continues to be a vital part of ongoing development efforts to locate, contact, and attract eligible students. In the 2003-2004 academic year, the GTMP continued efforts to include site visits to local transportation-related agencies and underserved professional groups. These efforts included appearances at the annual meeting of the California Transit Association and several on-site visits to Caltrans as well as the Metropolitan Transportation Authority (MTA) of Los Angeles.



Appendices

- A. Financial Illustrations 53
- B. Research Associates Policy Oversight Committee 54
- C. Certified Research Associates 55
 - D. Project Team Members 60
 - E. Editorial Associates 62
 - F. Student Editorial Assistants 62
 - G. MTI Student Assistants 62
 - H. Graduate Transportation

 Management Program Faculty 63
 - I. Acknowledgements 64

Financial Illustrations

Illustration of Funding Sources - Fiscal Year 2003-2004

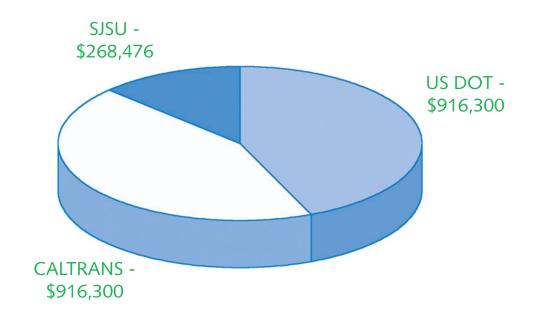
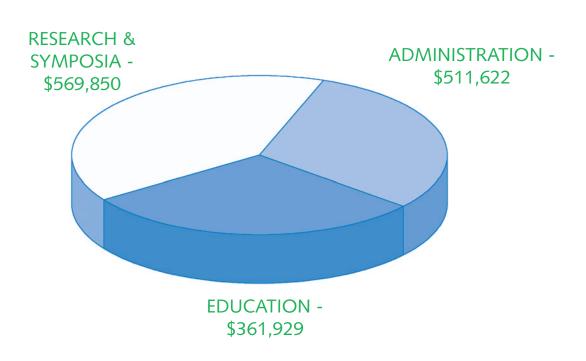


Illustration of Expenditures - Fiscal Year 2003-2004



Research Associates Policy Oversight Committee (RAPOC)

Members

Dr. Jan Botha, Civil & Environmental Engineering
Dr. Howard Combs, Marketing and Decision Sciences
Dr. Dongsung Kong, Political Science
Dr. Arvinda Loomba, Organization and Management
Dayana Salazar, Urban & Regional Planning
Diana Wu, Martin Luther King, Jr. Library

Ex-Officio

Rod Diridon, Executive Director
Trixie Johnson, Research Director
George Smith, California Department of Transportation
Nancy Chinlund, California Department of Transportation
Kathleen Bergeron, Federal Highway Administration
Bob O'Loughlin, Federal Highway Administration

Certified Research Associates

Dr. Gila Albert

Lecturer

Santa Clara University

Lewis Ames

Program Mgmt. Analyst

Municipal Transp. Agency

David Audsley

Consultant

Pinedale, AZ

Arthur Bauer

Principal

Arthur Bauer & Associates

Sandra Belanger

Senior Librarian

Martin Luther King, Jr.

Library

Michael Bernick, J.D.

Attorney

Arnelle & Hastie

Dr. Robert Bertini

Dept. of Civil Engineering

Portland State University

Gary Binger

Director

ULI CA Smart Growth

Initiative

Lisel Blash

Senior Researcher

San Francisco State

University

Dr. Evelyn Blumenberg

Urban Planning

UCLA

Dr. Earl Bossard

Urban & Regional Planning

San José State University

Dr. Jan Botha

Civil Engineering

San José State University

Thomas Brightbill

Principal

CGR Mgmt. Consultants

Clifford Chambers

Principal Consultant

Dennis Church

President

EcoIQ

Dr. Woodrow Clark, II

Sr. Policy Advisor

Governor's Office, CA

Steven Colman

Principal

Dowling Associates

Dr. Howard Combs

Marketing & Decision

Sciences

San José State University

Dr. Robert Cooper

Assoc. VP,

Undergradate Studies

San José State University

David Cyra

Director, CTED (ret.)

CYRA, ettc.

Dr. Nancy Da Silva

Psychology

San José State University

Dr. Allison de Cerreño

Co-Director, Rudin Center for

Transportation Policy & Mgmt.

New York University

Donald de la Peña

Housing/Redevelopment

Director

City of Menlo Park

Dr. Yasser Dessouky

Industrial & Systems Engr.

San José State University

Dr. Subhankar Dhar

Mgmt. Information Systems

San José State University

Dr. Jennifer Dill

Urban Studies & Planning

Portland State University

Rod Diridon, Sr.

Executive Director

Mineta Transportation Institute

Dr. Miriam Donoho

Marketing & Decision Sciences

San José State University

Dr. Marilyn Easter

Marketing & Decision Sciences

San José State University

George Edgerton

Consultant

Redding, CA

Dr. Frances Edwards Consultant Mineta Transportation

Institute

Daniel Evans, J.D.
Marketing & Decision
Sciences
San José State University

Dr. Thomas FerraraCivil Engineering
CSU, Chico

Christopher Ferrell Associate Planner Dowling Associates

Dr. Lawrence FrankCollege of Architecture
Georgia Institute of Tech.

Dr. Fernando GapasinLabor & Industrial Relations
UCLA

Dr. Kenneth Gehrt Marketing & Decision Sciences San José State University

Dr. Larry GerstonPolitical Science
San José State University

Dr. Reed Gibby Civil Engineering CSU, Chico

Dr. Joseph Giglierano Marketing & Decision Sciences San José State University

Dr. Genevieve Giuliano
Policy, Planning,
Development
University of Southern CA

Dr. Todd Goldman Senior Research Fellow Univ. Transp. Research Ctr.

Dr. Peter Gordon
Policy, Planning, &
Development
University of Southern CA

Dr. Geoffrey GoslingConsultant
Berkeley, CA

James Graebner President Lomarado Group

Dr. Stephen Graham School of Architecture Newcastle University

George Gray Consultant San Diego, CA

Dr. Peter HaasEducation Director
Mineta Transportation
Institute

Dr. Lee Han
Civil Engineering
Univ. of Tennessee, Knoxville

Dr. Cobie Kwasi HarrisPolitical Science
San José State University

Stuart Harvey Chief (ret.), Traffic Operations Division, Caltrans

Dr. James Hayton Mgmt. & Human Resources Utah State University

Dr. Daniel Hess Urban & Regional Planning University of Buffalo Dr. Aharon Hibshoosh Marketing & Decision Sciences San José State University

Judy Hilliard
Writing Coordinator
San José State University

Wolfgang Homburger Research Engr., Emeritus ITS, UC Berkeley

Julie Hoover Senior Vice President Parsons Brinckerhoff

Dr. Thomas HoranExecutive Director
Claremont Graduate University

Dr. Megumi HosodaPsychology
San José State University

Dr. Aseem InamArchitecture & Urban Planning
University of Michigan

Eric Ingbar
Director
Gnomon, Inc.

Dr. Raja Iyer VP & Chief Technology Officer Acropolis Systems, Inc.

Brian Jenkins Consultant Pacific Palisades, CA

Dr. William JiangOrganization & Management
San José State University

Lorne Johnson Economist Caxton Associates Trixie Johnson

Research Director Mineta Transportation

Institute

Robert Johnston

Env. Science & Policy UC Davis

Eugen Jud

Principal Jud Consultants

John Kevin Keck

Assoc. Transportation Planner Dowling Associates

Norman Kelley

Principal

Development Mgmt. Assoc.

Dr. R. Benjamin Knapp

Electrical Engineering San José State University

Norio Komoda

Industrial & Operations Engr. University of Michigan

Dr. Dongsung Kong

Political Science San José State University

Dr. Stephen Kwan

Mgmt. Information Systems San José State University

Dr. Anne Lawrence

Organization & Management San José State University

Dr. Richard Lee, AICP

City & Regional Planning Cal Poly, San Luis Obispo

Dr. Scott Lefaver

Organization & Management San José State University

Dr. Jonathan Levine

Urban & Regional Planning University of Michigan

Dr. Sherman Lewis

Political Science CSU, Hayward

Dr. Robin Liggett

Urban Planning UCLA

Lyn Long

Institute of Transp. Studies UC Irvine

Dr. Arvinder Loomba

Organization & Management San José State University

Dr. Anastasia Loukaitou-

Sideris

Urban Planning UCLA

Dr. Hollie Lund

Urban & Regional Planning Cal Poly, Pomona

Dr. Stanley Malos

Organization & Management San José State University

R. Stephen Mattoon

President

Madison Chrisjon Mattoon, Inc.

Dr. Patrick McGovern, J.D.

Planning Consultant McGovern Urban Associates

Dr. James Elliott Moore, II

Civil Engineering University of Southern CA

William Morrison

Organization & Management San José State University

Gail Murray

Principal

Gail Murray Associates

Andrew Nash

Consultant

Zurich, Switzerland

Dr. Edward Nelson

Sociology

CSU, Fresno

Barbara Neustadter

Principal

Neustadter Associates

John Niles

President

Global Telematics

Dr. Mathew O'Brien

Retailing & Consumer Sciences

University of Arizona

Dr. Herbert Oestreich

Organization & Mgmt. (ret.) San José State University

Dr. Naoto Onzo

School of Commerce

Waseda University

Dr. Robert Paaswell

Director

University Transportation

Research Center, CCNY

Larry Patterson

Principal

OpTrans, Inc.

Dr. Michael Peck

College of Social Work

San José State University

Howard Permut

VP, Planning & Development

Metro-North Railroad

Andru Peters

Organization & Management San José State University

Dr. J. Michael Pogodzinski

Economics San José State University

Patti Post

Principal
Patti Post & Associates

Dr. John Pucher

Urban Planning Rutgers University

Dr. Mahesh Rajan

Marketing & Decision Sciences San José State University

Dr. Sujata Ramnarayan

Marketing & Decision Sciences San José State University

Stanley Randolph

Owner SCR Transp. Planning Consulting

Dr. Donald Reed

Geology San José State University

Dr. Steven Reiner

Planning Consultant MIG, Inc.

Dr. Caroline Rodier

Env. Science & Policy UC Davis

Dr. Daniel Rodriguez

City & Regional Planning Univ. of NC, Chapel Hill

Dr. Maria (Malu) Roldan

Mgmt. Information Systems San José State University

Norman Root

Registered Engineer (ret.)

Dr. Donald Rothblatt

Urban & Regional Planning (ret.) San José State University

Dr. Inger Sagatun-Edwards

Administration of Justice San José State University

Dr. Tomoaki Sakano

Graduate School of Commerce Waseda University

Dayana Salazar

Urban & Regional Planning San José State University

Dr. Roger Salstrom

Organization & Management San José State University

Dr. Gail Sansbury

Consultant San Francisco, CA

Thomas Savage

Chief Operating Officer Metropolitan Transp. Authority

Dr. Brian Scales

Consultant Cannonsburg, PA

Dr. Marc Schlossberg

Planning, Public Policy, & Management
University of Oregon

James Schmidt

Consultant San Rafael, CA

Kenneth Schreiber, AICP

Consultant Palo Alto, CA

Dr. Saloua Sehili

Economist World Bank

Dr. Susan Shaheen

Research Manager California PATH/ITS-UCB

Dr. Glenn Shephard

Mgmt. Information Systems (ret.)
San José State University

Dr. Ashraf Shirani

Mgmt. Information Systems San José State University

Walter Siembab

President

The Siembab Corporation

Sarah Siwek

President Sarah J. Siwek & Associates

Robert Stanley

Principal
Cambridge Systematics, Inc.

Dr. Ruth Steiner

Urban & Regional Planning University of Florida

Robert Sturdivant

Santa Clara County Planning Department (ret.) Dr. Edward Sullivan Civil & Environmental Engineering Cal Poly, San Luis Obispo

Dr. Ronald SylviaPolitical Science
San José State University

Dr. Richard TaketaEnvironmental Studies
San José State University

Dr. Brian Taylor Urban Planning UCLA

Terry Trumbull, J.D. Environmental Studies San José State University

Dr. Jacob TsaoIndustrial & Systems Engr.
San José State University

Dr. Gwen Urey Urban & Regional Planning Cal Poly, Pomona Dr. Linda Valenty
Political Science
Cal Poly, San Luis Obispo

John Vargo Consultant Cadiz, Spain

Robert Vitale Marketing & Decision Sciences San José State University

Dr. Martin WachsInstitute of Transp. Studies
UC Berkeley

Paul Wack City & Regional Planning Cal Poly, San Luis Obispo

Dr. Dirk Wassenaar Marketing & Decision Sciences San José State University

Dr. Asha WeinsteinUrban & Regional Planning
San José State University

Dr. Stuart Wells
Organization & Management
San José State University

Dr. Miles Welter Consultant San José, CA

Dr. Richard WerbelMarketing & Decision Sciences
San José State University

Dr. George WhaleyOrganization & Management
San José State University

Dr. Richard WillsonUrban & Regional Planning
Cal Poly, Pomona

Diana Wu Reference Librarian Martin Luther King, Jr. Library

Beth Wyman Urban & Regional Planning (ret.) San José State University

Project Team Members

Seventy-eight Research Associates have been active on Research and Information Transfer projects since the inception of the TEA-21 grant, several on more than one project. Those who served as principal investigator are listed in bold type.

Gary Binger

Evelyn Blumenberg, Ph.D.

Earl G. Bossard, Ph.D.

Jan Botha, Ph.D.

Dennis Church

Steven Colman

Nancy Da Silva, Ph.D.

Allison de Cerreño, Ph.D.

Donald de la Peña

Marilyn Easter, Ph.D.

Frances Edwards, Ph.D.

Daniel N. Evans, J.D.

Thomas Ferrara, Ph.D.

Kenneth C. Gehrt, Ph.D.

Larry Gerston, Ph.D.

Reed Gibby, Ph.D.

Joseph Giglierano, Ph.D.

Geoffrey Gosling, Ph.D.

Stephen Graham, Ph.D.

George Gray

Peter Haas, Ph.D.

Cobie Harris, Ph.D.

Stuart Harvey

James Hayton, Ph.D.

Aharon Hibshoosh, Ph.D.

Judy Hilliard

Tom Horan, Ph.D.

Megumi Hosoda, Ph.D.

Aseem Inam, Ph.D.

Brian Jenkins

Robert A. Johnston

Eugen Jud

Kevin Keck

Norman Kelley

David Koffman

Dongsung Kong, Ph.D.

Richard Lee, Ph.D., AICP

Scott Lefaver, DPA

Jonathan Levine, Ph.D.

Robin Liggett, Ph.D.

Anastasia Loukaitou-Sideris, Ph.D.

Hollie Lund, Ph.D.

Stan Malos, Ph.D.

R. Stephen Mattoon

Patrick McGovern, Ph.D., J.D.

Andrew Nash

John S. Niles

Dick Nelson, D.S.

Edward Nelson, Ph.D.

Dr. Matthew O'Brien, Ph.D.

Herb Oestreich, Ph.D.

Larry Patterson

Howard Permut

J. Michael Pogodzinski, Ph.D.

Dr. Mahesh Rajan, Ph.D.

Donald Reed, Ph.D.

Steve Reiner, Ph.D.

Caroline Rodier, Ph.D.

Daniel Rodriquez, Ph.D

Malu Roldan, Ph.D.

Donald N. Rothblatt, Ph.D.

Dayana Salazar

Roger Salstrom, Ph.D.

Marc Schlossberg, Ph.D.

Kenneth R. Schreiber, AICP

Saloua Sehili, Ph.D.

Walter Siembab

Edward C. Sullivan, Ph.D.

Ron Sylvia, Ph.D.

Richard Taketa, Ph.D.

Brian D. Taylor, Ph.D.

Linda Valenty, Ph.D.

John Vargo

Paul Wack

Asha Weinstein, Ph.D.

Richard Werbel, Ph.D.

George Whaley, Ph.D.

Richard Willson, Ph.D.

Eighty-six 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), California Polytechnic State University (CalPoly) at San Luis Obispo, and CalPoly, Pomona.

Theresa Applegate Miriam Ayllon Monica Baptista Jonathan Baumgardner

Julie Blue

Olga Bokhonouskaya

Paul Boone
Brent Boyd
Britta Buys
Hazel Cadelina
Diana Castillo
Ellen Cavanagh
Christopher Cherry
Dan Cicuth
Michael Clay
Sara Liz Cloutman

Scott Duiven, MCRP Rachel Factor Chris Ferrell Camille Fink Kacie Freibel Larry Gamino Shengyi Gao Judy Glickman Dan Goodrich Michael Harold

Babak Hedjazi

Angela Crumley

Judy Deertrack, J.D.

Michael Heggli Daniel Hess Jerusha Hew Len Jeff Hobbs Henry Hwang Katja Irvin Hiroyuki Iseki Sangeetha Kaushik

Tara Kelly Daniel Kim

Sheung-Kuen Kwan
Hwa Saup Lee
Robin Lee
David Levitan
Hao Luu
Eugene Maeda
Sanhita Mallick
Kristen S. Massey
Erin Mayer
Grant McMurran
Jeremy Miller
Richard Murphy
Hazma Narzullayevich

Tanvi Parikh Yesenia Piña Scott Plambaeck Caroline Rodier David Roemer

Patrick Naughten

Chisagarn Rojanasoonthon Rhys Rowland Mellownie Salvador Randolph Schmidt Kara Serrano Kimiko Shiki

Heather Simonovich

Jesse Solorio
Denise Staudt
Andrea Subotic
Miho Tomura
Griffith Tonkin
Gwo-Wei Torng
Ehvan Tran
Tran Tung
Hamza Tursunov
Kelly Vasquez

Cecile Vo
Carla Waehneldt
Pin-Yuan Wang
Peter Weshler
Mike Winton
Lisa Wise, ACRP
Norman Wong
Ed Yarbrough
Tin Yeung

Allison Yoh Dali Zheng

Editorial Associates and Transcribers

Catherine Frazier Karl Sonkin

San José, California Palo Alto, California

Kim Rose James Swofford San José, California San Diego, California

Irene Struthers Rush Los Osos, California

Student Editorial Assistants: Proofreaders and Copyeditors

Sheila Collins Kemberly Gong Graduate Undergraduate

Jennifer Dunlap Kaylee Wambaugh

Graduate Undergraduate

Mineta Transportation Institute Student Assistants



Emily Kruger, Tim Kelm, Shun Nelson, Tseggai Debretsion, Yesenia Piña, and Tin Yeung

Graduate Transportation Management Faculty

Dr. Nick Compin

Lecturer

Associate Transportation Planner at Caltrans

MTM 251 Transportation Systems Planning and Development

Hon. Rod Diridon, Sr.

Lecturer

Executive Director, Mineta Transportation Institute

MTM 290 Strategic Transportation Management "Capstone"

Dr. Frances Edwards

Lecturer

Director of Emergency Preparedness, City of San José

MTM 296C Emergency Transportation Issues

Dr. Peter Haas

Professor

Political Science

MTM 201 Fundamentals of Transportation Management

Donna Kelsay

Lecturer

Director/CEO, San Joaquin Regional Transit Authority

MTM 296D Public Transportation in California

Therese McMillan

Lecturer

Deputy Director, Metropolitan Transportation Commission

MTM 202 Introduction to Funding and Finance

Gary Richards

Lecturer

San José Mercury News

MTM 297 Current Topics in Transportation

Dr. Ron Sylvia

Professor

Political Science

MTM 296 Labor Relations in Public Sector Transportation

William Taylor, J.D.

Adjunct Lecturer

Partner - Hanson, Bridgett, Marcus, Vlahos, Rudy LLP

MTM 214 Transportation Policy & Regulation

Robert Vitale

Lecturer

Marketing

MTM 203 Transportation Markets & Businesses Development

Acknowledgements

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 Special Projects Administration (RSPA) 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, Ellen G. Engleman, Robin Kline, and Amy Stearns, and Caltrans staff Randell Iwasaki, Wesley Lum, Larry Orcutt, Sallybeth Scott, and George Smith, and all those who work with them, many thanks.

For their continued efforts on behalf of our videoconference classroom, MTI thanks the following Caltrans Telecommunications Information Technology staff: Ismael Briseno, Telecommunications Engineer; Gregg Duke, Assistant Information Systems Analyst; Cherice Luckey, Assistant Information Systems Analyst; Steve Styduhar, Telecommunications Engineer; and their manager Michael Donelson.

San José State University and San José State University Foundation

The Mineta Transportation Institute is located at San José State University (SJSU). Within SJSU, the College of Business, King Library, and the SJSU Foundation provide invaluable support to MTI. On behalf of the University, the College of Business Dean oversees MTI, particularly the education program. Thank you to SJSU Interim President Dr. Joseph Crowley, Dean of the College of Business Dr. David W. Conrath, and their staffs for supporting the efforts of MTI.

The SJSU Foundation manages MTI's funds and oversees administrative areas such as human resources. Thank you to COO Mary Sidney, Sponsored Programs Director Jerri Carmo, HR Director Brenda Rogers, Sara Aujla, Steve Constantine, Lan Duong, Hope Lee, Ha Ngo, Son Nguyen, Mona Salas, Demetrios Skapina, and Rick Yoneda.

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

Thank you to the Santa Clara Valley Transportation Authority Creative Services Department, MTI principal investigators, Web Administrator Barney Murray, and Graphic Designers Emily Kruger and Shun Nelson for providing photographs for this report.

Aside from the printing, MTI staff members produced this report in-house. The layout was designed by student Graphic Designers Emily Kruger and Shun Nelson. MTI Student Assistant Yesenia Piña assisted in gathering information. Office Manager Amy Yan and MTI Student Assistant Tin Yeung coordinated final changes. MTI is grateful to have such a talented and dedicated student staff. Special thanks to summer intern Sheila Collins for coordinating the production of this report.



Mineta Transportation Institute College of Business San José State University San Jose, CA 95192-0219 Tel (408) 924-7560 Fax (408) 924-7565 e-mail: mti@mti.sjsu.edu http://transweb.sjsu.edu