

MINETA TRANSPORTATION INSTITUTE

COLLEGE OF BUSINESS
SAN JOSÉ STATE UNIVERSITY
SAN JOSE, CALIFORNIA

REQUEST FOR FINANCE RESEARCH PROPOSALS

Submittal Deadline: May 25, 2009



Prior to May 1, contact: Trixie Johnson, Research Director
Email: johnson@mti.sjsu.edu

After that date, contact: Dr. Karen Philbrick, Research Director
Email: philbrick@mti.sjsu.edu

For topic questions contact: Dr. Asha Weinstein Agrawal (NTFC Director)
Email: Asha.Weinstein.Agrawal@sjsu.edu

Phone: (408) 924-7560
FAX: (408) 924-7565

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See Also –

Proposal Submittal Form and Project Budget spreadsheet at

<http://www.transweb.sjsu.edu/MTIportal/research/RFPForms.html>

Special Notice

- a. The team should be certain the project can be completed within the submitted timeframe. For this round, MTI prefers proposals that submit a first draft by March 1, 2010.
 - b. Note the Institutional Review Board requirements. (See Section 2.4 on page 3 of this RFP).
 - c. Proposals that include proposed surveys should address the items discussed in Section 2.5 on page 3 of this RFP.
 - d. Detailed instructions for writing a proposal and budget are provided in the respective submittal forms. Please read section instructions carefully and include all the requested information and discussion.
 - e. Research Director Trixie Johnson is retiring, effective April 30, 2009. Following that date, please contact Director Dr. Karen Philbrick for process questions or Dr. Asha Weinstein Agrawal for topic questions. Contact information is on the title page.
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1. Background

Congress established the Mineta Transportation Institute as The Norman Y. Mineta International Institute for Surface Transportation Policy Studies in 1991 with the passage of the Intermodal Surface Transportation Efficiency Act (ISTEA) and reauthorized the institute in the Transportation Equity Act for the 21st Century (TEA-21). Success in two competitions for designation as a University Transportation Center in the U.S. Department of Transportation (US DOT) program has provided continued funding. The institute undertakes research, education, and information transfer activities relative to the adopted theme: **Transportation Systems Policy and Management**. MTI receives its primary grant funding from the US DOT Research and Innovative Technology Administration (RITA), and matching funds from the California Department of Transportation (Caltrans).

MTI conducts an open, broad-based, and formal process for soliciting and selecting candidate research projects. The goal is to maximize the number of potential projects for consideration, then select from a full range of high-quality proposals those that best match the results of the needs assessments process and the objectives and research emphasis areas of the institute.

Only Mineta Transportation Institute Research Associates (RAs), who are certified as having the academic and research credentials to undertake such activities, are eligible to serve as Principal Investigators and team members on MTI research projects. While the core group of Research Associates is professors at San José State University, the institute has certified RAs from many other universities as well as consultants, public officials, and transportation industry professionals. Certification can be concurrent with a project proposal. **Research Associates work as individuals under a personal service agreement directly with the San José State University Foundation on behalf of the institute, rather than as an employee of a third party university, company, or organization.** Under special circumstances, research subcontracts have been issued to other universities. **Any team anticipating such a subcontract should first contact MTI Research Director Trixie Johnson (or Dr. Karen Philbrick after April 30, 2009).**

2. General Proposal Information and Requirements

2.1 Project Funding

The projects may be 100% funded by MTI, or institute funds may be combined with funds from other sources. Other sources must be identified in the proposal. The institute prefers proposals with budgets \$50,000 or less. MTI will augment that budget with \$6,450 to pay for publication, distribution, and marketing costs, plus \$3,000 to cover approved conference presentation expenses and an award for publishing an article in a peer-reviewed journal, for a preferred project total of \$59,450 or less.

2.2 Multi-phase projects

Proposals may address a phase of a multi-phase project, though acceptance of one phase is not a commitment to subsequent funding. Phased projects must include a substantive deliverable for each phase.

2.3 Project Team Composition

Research projects may be carried out by individual Research Associates or by teams. **Each project team must include at least one San José State University (SJSU) faculty member and one SJSU student. The budget should provide for substantial and important work by the SJSU members of the team, not just consulting time.**

Only certified MTI Research Associates may serve as Principal Investigators or team members on institute-sponsored research projects. Individuals who are not currently certified as Research Associates may apply for that status concurrently with submitting a research proposal. Application materials can be obtained from the institute's Research Director or online at http://www.transweb.sjsu.edu/MTIportal/research/ra_forms.html.

Student Research Assistants do not require certification. Graduate students are preferred, though qualified senior level undergraduates may be selected. Where possible, the names and the departmental affiliations of all students should be

included in the proposal, following the names of the Research Associates proposed for the team.

2.4 Institutional Review Board (IRB)

At least one member of the team should be qualified to submit the project to the SJSU Institutional Review Board (IRB), if subject elements are part of the proposal.

Most proposals will include tasks requiring interaction with human subjects or utilize data that was derived from such interaction. This would include surveys, focus groups, interviews, structured observations, videotaping, and recording. Projects with the potential for such interaction must be submitted to the SJSU IRB. The submission can only be made by a faculty member who has received a certificate after completing the required training. The IRB website at <http://www2.sjsu.edu/gradstudies/Research/irb.html> provides information on certification, and IRB staff can be contacted at (408) 924-2479 for additional information. The same site provides directions and forms for submittals.

The SJSU policy is more stringent than federal policy on human subjects research. The key policy adopted by the Faculty Senate is S08-7 – Policy for Protection of Human Research Subjects; Ethics, Institutional Review Board (IRB) to be found at <http://www.sjsu.edu/senate/S08-7.htm>. The policy has been amended by F08-1 which eliminated all references to past and rescinded policies for the IRB. The website for the federal policy is found at <http://www.hhs.gov/ohrp/humansubjects/guidance/45cfr46.htm>.

Project timelines should provide for IRB clearance. An exempt project will require up to a month. Those that require full committee review should allow more time.

2.5 Surveys

Proposals including surveys should identify the projected response rate and outline the steps that will be taken to assure that the level of response is achieved. The proposal should discuss why the resulting data will be sufficient in amount and quality for the level of analysis needed to accomplish the goals of the project.

The proposal should include enough information about the survey to allow the selection committee to assess its potential quality. Additionally, the project timeline should allow for MTI review of the draft survey instrument prior to submission to the IRB. This review is sometimes a condition of selection.

If subcontracting for a professional survey firm is anticipated, the team should consider using the Survey and Policy Research Institute (SPRI) at SJSU. (<http://www.sjsu.edu/spri/Staff.htm>)

3. Transportation Finance Emphasis

MTI is issuing a separate RFP for Transportation Finance Proposals to focus attention on this research emphasis area. The MTI National Transportation Finance Center, under the directorship of Dr. Asha Weinstein Agrawal, has been created by the institute to serve as the home for research, information, and other activities on this critical issue.

In particular, we seek research in cutting-edge practices in surface transportation. We are particularly interested in revenue and finance tools that not only raise needed transportation revenues but also promote social goals such as environmentally sustainable transportation systems, congestion management, and social equity.

As with all institute research, the institute stresses *policy* research, as opposed to *technical* research. MTI is committed to ensuring that its research products are of immediately practical value to transportation officials and practitioners.

4. Suggested Topics

Topics are selected through MTI's comprehensive needs assessment process. The following list of specific topics reflects the results of that process. Additional new topics may be posted on the website at <http://transweb.sjsu.edu/rfp.htm>, which should be checked periodically for updates. **Though proposals on any finance topic will be considered, proposals addressing the topics listed in this section receive priority for funding over those not listed.** If you have a specific question about whether your project proposal would fit with MTI's priority topics, you may contact Dr. Agrawal at Asha.Weinstein.Agrawal@sjsu.edu.

MTI and Caltrans topics:

- a. The gas tax is not keeping pace with funding needs for transportation systems – infrastructure, operations, etc. Shifting to a new transportation revenue paradigm: Should the states and/or the federal government transition from reliance on the gas tax to other means of funding transportation programs? If so, how can this process occur smoothly and effectively? What are the potential obstacles and how can they be overcome? What are the mechanisms? The necessary infrastructure? For example, how would a shift to a VMT-based tax be accomplished? Oregon has done a pilot study of the method, but much more information is needed.
- b. Transportation finance implications of climate change policies: If the states or federal government create a program for pricing carbon emissions (cap and trade or carbon tax), substantial impacts will fall on the transportation system. Define and measure the impacts of such pricing programs. Too much of the carbon pricing focus has been on the energy production industry and on energy-using industries. Not enough focus has been directed to the transportation sector, even though it is an area with 30% of all energy used, and almost all energy consumed comes from petroleum products.
- c. How will high energy costs and continuing high inflation in transportation construction costs impact future project planning and delivery?

- d. Identify best practices and/or create methods for incorporating the lifecycle costs of transportation projects into the project decision-making process (initial selection, design, construction, maintenance, operation, rebuilding). How can lifecycle budgeting be used to measure the impact of decisions on annual and long-term finances?
- e. Update MTI studies on local transportation tax campaigns – are the factors behind success or failure changing? What new information should proponents or opponents consider? What is the effect of the “new” economy on elections? (Refer to MTI Reports 00-1 and 01-17; contact Director Johnson/Philbrick for special instructions.)
- f. How can PPP projects be designed to protect public goals while still attracting private interest?
- g. Assess the impact of high energy costs on transportation and transportation funding resources, the broader impact on the economy, the impact on families and businesses, the impact on demand (by mode), and the impact on U.S. security.
- h. Contractor bonding requirements: Assess the impact of these requirements on the competitive environment for bidding on large or mega projects against the advantages to a state or other public agency of a “guaranteed” project. Who are the winners and losers in the private sector, and is there a quantifiable economic or business climate impact? Are there recommendations to deal with identified negative impacts?
- i. Identify best practices in services, financing, and partnerships for fixed route and non-fixed route shuttle and jitney services that coordinate with fixed-route transit systems. Include public/private arrangements.
- j. Explore the potential for financing transportation improvements or capital investment through joint development. Identify best practices in using transportation improvements or capital investment to support economic development, particularly development that benefits underserved or minority populations. Assess the potential for public/private and other innovative means of financing transportation facilities to promote economic development. Include an assessment of the potential for return on investment from the private development portion of a project.
- k. Explore the potential for more flexibility in use of California state transportation funding so that it can be coordinated with performance-based needs. Are there best practices from other states or large MPOs?
- l. Should transportation funds be raised primarily from system users? If so, what are the best taxes and fees to use? What are their strengths and weaknesses? How can they be structured to achieve key public policy objectives? (Examples of user fees are congestion-based tolls or parking pricing, mileage fees, or energy taxes.).

- m. Explore the potential of freight as a revenue source for passenger rail systems such as BART, high speed rail, and intercity rail. Determine if express freight forwarders (i.e. Fed Ex, UPS) would pay enough for use of the capacity of the systems to generate revenues in excess of costs. Explore the savings in fuel, greenhouse gases, and other benefits of the shift from truck or air shipment to passenger rail.

Federal Research Priorities:

- n. Congestion pricing: Explore the variations of congestion pricing used in congestion management strategies to assess how they actually impact congestion levels, as well as their impact on various types of transportation systems users. Are there best practices emerging?
- o. The final report of the National Surface Transportation Policy and Revenue Study Commission, *Transportation for Tomorrow*, discusses a variety of finance issues, many of which are open for further research. The report is available at:
http://transportationfortomorrow.org/final_report/

1. Proposal Submittal Requirements

In order to be considered, research proposals must be submitted in electronic form, using the official Proposal Submittal Form (Word) and the Proposal Budget Form (Excel). All forms are available at
<http://www.transweb.sjsu.edu/MTIportal/research/RFPForms.html>.

Proposals should not exceed eight pages, plus required attachments. **Each proposal, including the completed proposal form, attachments, and required budget spreadsheet, must be submitted in electronic form through e-mail. All proposals must be received in the MTI office by 5:00 p.m. (PDT) on Monday, May 25, 2009.**

All proposal and RA certification material should be sent to: philbrick@mti.sjsu.edu.

Hard copies of the proposal signature page (if electronic signature is not possible) should be sent to:

Mineta Transportation Institute/SJSU Research Center
Attn: Dr. Karen Philbrick, Research Director
210 N. 4th Street, 4th Floor
San Jose, CA 95112

Submittal Checklist for Electronic Submission:

- Proposal submittal form, with signature of submitter (Signature sheet must be mailed if electronic signature is not available.)
- Methodology documentation, if applicable
- Completed budget form
- One-page résumés for all identified team members

All potential team members (except students) who are not currently certified as MTI Research Associates must apply for certification as an MTI Research Associate. Certification requires acceptance of the bylaw provisions. Both the application form and the RA bylaws are available at http://transweb.sjsu.edu/mtiportal/research/ra_forms.html.

The Research Associate materials should be sent electronically to philbrick@mti.sjsu.edu and should also arrive by May 25, 2009.

Submittal Checklist for RA application, if required:

- Completed MTI RA application form. Please follow the checklist on the last page of the form. (Signature sheet must be mailed if electronic signature is not available.)
- Curriculum Vitae or résumé
- A sample of published research

2. Evaluation Criteria

The criteria for evaluating proposals will be as follows:

1. Is the project of practical and timely value to transportation decision-makers and professionals?
2. Does the project represent original research and clearly identify how it expands upon previous research on the subject?
3. Does the proposed research team possess the expertise to conduct the research effectively?
4. Does the proposed approach to the project demonstrate sound methodology?
5. Can the project be accomplished within the proposed budget and timeline?
6. Is the Principal Investigator a San José State University faculty member? (Such projects receive a weighted advantage and are considered before those submitted by other Principal Investigators.)
7. Does the project address a specific RFP topic (pages4-6)? Such topics receive priority for funding among qualified projects.

8. Project Selection/Initiation

The process leading to final approval of a project includes four steps:

1. The Research Associates Policy Oversight Committee (RAPOC), with the advice of Caltrans and representatives of US DOT, makes the initial selection among submitted proposals. This decision is made following the criteria from section 6. In some cases RAPOC will accept a proposal conditionally, subject to the author(s) satisfactorily updating the proposal in response to changes requested by RAPOC.
2. The MTI Research Director and the Principal Investigator reach agreement on all issues related to the project prospectus, including scope, methodologies, timeline, and budget. Any changes to the proposal that have been required by RAPOC are made.
3. The Chief of the Caltrans Office of Policy and Transportation Innovation and the Director of Sponsored Programs for the San José State University Foundation approve the project prospectus and budget. Their formal approval is required before contracts or appointments can be issued.
4. Following approval, the Principal Investigator and team members will receive appointment forms (CSU employees) or independent contractor agreements. The project may proceed once the appointments or contracts are received by MTI.

9. Miscellaneous Requirements and Information

All original documents, surveys, interview results, charts, graphs, maps, drawings and designs, calculations, promotional material, working papers and reports generated, methodological explanations and other records, notes and work products for policy research projects conducted under MTI auspices shall be the joint property of MTI and the Principal Investigator, to be retained by the Principal Investigator and made available upon request by MTI or the Federal Government for a period of three years following publication of the final report. Research Associates may retain copies of such work products for their own use. Any work performed under MTI auspices may be submitted for publication or presentation, or be otherwise disseminated prior to MTI publication of the final report, only with the explicit approval of the Executive Director.

Project teams will comply with all policies of San José State University with respect to ownership of literary and scientific property, including copyrights and patents. A Research Associate and MTI may, by written agreement, designate the ownership of such literary and scientific rights, and of the documents, records, and other materials that result from a study sponsored by MTI.

Wide dissemination of knowledge is a goal that MTI and San José State University share. Accordingly, MTI normally publishes the results from any sponsored study once successful peer review and editing have occurred. After MTI publishes the results of the study, the project team is encouraged to publish the material elsewhere, as long as MTI is credited as the sponsoring entity. MTI expects that all projects will result in at least one publication in a peer-reviewed journal, and a journal publication award of \$1,500 is available for the first such publication resulting from MTI research.

In the event that MTI should anticipate or desire any restrictions on a Research Associate's ability to publish such results, MTI shall use its best efforts to identify such restrictions before commencing the study. MTI shall inform the Principal Investigator of any such restrictions that may come to its attention from funding sources or other parties.

Research teams are also encouraged to present the results of MTI-sponsored research projects at meetings of professional, academic and trade associations or other end users. Limited financial assistance is available to support these information transfer activities.

10. Distribution of Funds

MTI is a research institute, not a grant distribution organization. The SJSU Foundation oversees funds for approved projects. Research Associates submit invoices and/or timesheets (CSU employees) to MTI for research expenses. The paperwork is reviewed and forwarded to the SJSU Foundation for processing. The Principal Investigator also submits monthly progress reports to MTI as a condition of payment. Fifteen percent of the Research Associates' fees will be held pending acceptance of the final edited report, unless otherwise instructed by the SJSU Foundation.

11. Tentative Schedule

March 30, 2009	MTI issues Request for Proposals
May 25, 2009	Request for Proposals due by 5:00 p.m. (PDT)
Week of June 8, 2009	RAPOC and representatives from Caltrans and U.S. DOT attend project selection meeting.
Week of June 8, 2009	MTI notifies proposal authors of selection results; begins negotiation of any changes required for approval.
June/July 2009	Obtain Caltrans and SJSU Foundation approval of prospectuses and budgets.
June/July 2009	Earliest start date for projects (all changes made; funding confirmed)