



TO: Chancellors, Deans, and Directors

FROM: Philip Furmanski

SUBJECT: TCC/FTA Research Program and Application Instructions – Second Round

Attached please find the Transportation Coordinating Council/Federal Transit Administration (TCC/FTA) research program announcement and application instructions. This is one of two new Rutgers programs developed in response to federal funding provided to encourage university study and research related to transportation. Details concerning eligibility and the application process are included in the application documents. Please distribute this program announcement broadly to relevant departments and faculty members.

For more information on the TCC visit:
<http://www.tcc.rutgers.edu/>

Please keep in mind the following in relation to the research application:

- **Deadline for the submission of applications is May 28, 2009**
- Notification of award is anticipated by July 31, 2009
- Period of award is September 1, 2009 through September 30, 2010
- Award limit is \$100,000 per proposal over two years
- One award this round per faculty or staff member
- No cost sharing requirements

Transportation Coordinating Council / Federal Transit
Administration (TCC/FTA) Research Program

<http://www.tcc.rutgers.edu/>

Research Program
in
Transportation
(Round Three)

Information and Application Instructions

**TRANSPORTATION COORDINATING COUNCIL/FEDERAL TRANSIT ADMINISTRATION
(TCC/FTA)**

RESEARCH PROGRAM IN TRANSPORTATION

BACKGROUND

The 2005 federal surface transportation act, SAFETEA-LU, funding has been allocated, under FTA's National Research and Technology Programs (NRTP), to Rutgers University under the title of "advanced transportation initiatives."

The University's objectives for the funding are to:

1. Further expand and enhance Rutgers' transportation-related research and educational portfolio, under the guidance of the Transportation Coordinating Council (TCC), the umbrella group formed to coordinate these activities at Rutgers;
2. Advance regional awareness of transportation issues and opportunities by fostering closer ties between academic researchers and public stakeholders;
3. Address local and regional transportation challenges that are in line with the federal government's priorities, such as those outlined in FTA's *Strategic Research Plan* (Figure 1);
4. Address some of the high risk/high reward type projects of interest to FTA, as outlined in its *Strategic Research Plan and recent informal guidance*.

Transportation research and education is one of Rutgers University's strategic programs. In fact, a goal of Rutgers president, Richard L. McCormick, is to transform Rutgers into the "*Transportation University*" of the Northeast. The University has invested heavily in its transportation-related programs, both in human resources and physical infrastructure, and views its role in NRTP as another opportunity to advance this goal.

Rutgers is the home of two major transportation research, education, and workforce training programs: the Center for Advanced Infrastructure and Transportation, a UTC Tier I program, and the National Transit Institute under the Alan M. Voorhees Transportation Center (VTC). In addition, VTC has established a strong reputation for research in transportation policy and planning. Representatives from these programs, along with a large number of researchers and professionals from a wide spectrum of scientific, technical, social sciences, humanities and business backgrounds, form the membership of TCC. Under the umbrella of TCC, Rutgers researchers—in collaboration with colleagues from local and regional institutions, agencies, and the private sector—have formed a platform to leverage their capabilities to advance USDOT/FTA funding objectives.

Strategic Research Plan for the Federal Transit Administration

A significant part of the research at USDOT is conducted by operating administrations such as FTA, where the specific goals and objectives of research relate to agency missions, interactions with stakeholders, and knowledge of transportation technologies and challenges. The general theme of the FTA research program for FY 2006-FY2010 is "Delivering Solutions that Improve Public Transportation." This plan contains the strategic framework for FTA's research priorities and will be the

agency’s guideline for investing scarce public funds in relevant and useful research projects that will improve the nation’s public transportation systems.

According to the Plan, the primary objectives of FTA research are to: 1) provide industry and policymakers with the information and skills to make good business decisions with regard to transit technology, operations analysis, and capital investments; 2) use research results to identify best practices and share this information with others who can benefit from it; and 3) show a range of outcomes that helps direct where future investments should be made. An executive summary of FTA’s vision, strategic research mission and goals, and objectives by goal, from FTA’s *Strategic Research Plan*, is presented below in Figure 1.

FTA’s Research Programs for 2006-2010

FEDERAL TRANSIT ADMINISTRATION’S VISION				
<i>“Public transportation is the mode of choice in America”</i>				
FTA STRATEGIC RESEARCH MISSION				
<i>“Deliver Solutions that Improve Public Transportation”</i>				
FTA STRATEGIC RESEARCH GOALS				
1. Provide Transit Research Leadership	2. Increase Transit Ridership	3. Improve Capital & Operating Efficiencies	4. Improve Safety & Emergency Preparedness	5. Protect the Environment & Promote Energy Independence
OBJECTIVES BY GOAL				
1.1 Ensure transit research supports national goals 1.2 Continue to improve research management 1.3 Facilitate implementation of research results by the transit industry	2.1 Identify best practices and technologies to increase transit ridership 2.2 Identify and overcome barriers to the adoption of ridership enhancement techniques 2.3 Identify solutions to provide public transportation for targeted populations 2.4 Identify cost-effective solutions to provide rural public transportation services	3.1 Identify practices and technologies to control capital costs 3.2 Identify solutions to control operating costs 3.3 Identify methods and technologies to improve transit operational efficiency 3.4 Identify solutions to improve transit infrastructure maintenance 3.5 Improve the capacity of the transit industry and workforce	4.1 Identify solutions to improve transit safety 4.2 Identify solutions to reduce criminal activity 4.3 Identify solutions to improve transit emergency preparedness	5.1 Facilitate development of technologies to improve energy efficiency and reduce transit vehicle emissions 5.2 Identify and overcome barriers to adoption of clean technologies

Figure 1: Executive Summary of FTA’s Research Plan

Rutgers staff has been advised that the recent change in federal administrations has led to the highlighting of new areas of research emphasis:

- livable communities
- “green transportation” (fuel efficiency)
- “state of good repair” for existing infrastructure (including asset management)
- rail transit evaluation (including streetcars)
- transit innovation in Intelligent Transportation Systems
- design for universal access, and
- impact of the American Recovery and Reinvestment Act on jobs and the transportation system.

FTA’s research programs include the NRTP, the National Fuel Cell Bus Technology Development Program, the Transit Cooperative Research Program, and the University Transportation Centers (UTC) Program. FTA also receives considerable funding from the DOT Intelligent Transportation Systems Program.

A major objective for FTA is to ensure that its research programs are appropriately balanced. Most research carried out through the TCRP and UTC programs is responsive in nature to immediate industry needs, is shorter term, and typically lower-risk. To create a balanced program, FTA intends to direct NRTP research to those goal areas that are not otherwise adequately funded. In addition, the characteristics of that research will be directed towards higher risk and higher reward projects to ensure an overall balanced portfolio. Research projects within the Rutgers NTRP allocation are encouraged to be designed to seed future research projects.

Furthermore, Congress has earmarked portions of NRTP, the only FTA discretionary research program, for specific use by specific organizations. Therefore, FTA considers it important to direct as much of the work funded by these earmarked allocations as possible toward its strategic research goals, while allowing these programs to fulfill their specific missions and obligations. The wide range of research topics provides ample opportunity for Rutgers researchers from various backgrounds to collaborate in the development of meaningful solutions to FTA’s needs. In addition, procedures in the second round of the Rutgers NRTP research program are being modified to encourage greater involvement of FTA and regional transit agencies. Early in the round, these agencies will be asked to select research topics relevant to their needs.

PROGRAM GOAL

The mission of the TCC/FTA Research Program is to fund research that addresses the critical transportation issues outlined above. The TCC/FTA Research Program is a platform for collaboration among multiple academic areas at the university, working together to address regional and national transportation problems. Areas of special concentration include infrastructure engineering and asset management, planning and policy, infrastructure security and risk management, intelligent transportation systems, transportation economics, and advanced information technology.

In this third round, the objectives dealing with the size of individual research budgets and the number of grants to be issued remain the same as the second round. The program will provide awards for between three and four projects. The maximum that may be requested for any one proposal is \$100,000 over two years, but budgets in the range of \$30,000 per year are encouraged. Budgets will be scrutinized carefully, so that resources can be kept available for more grants.

WHO SHOULD APPLY

Transportation research requires a diverse range of skills, backgrounds, experiences, and outlooks ranging from engineering and science to social science expertise. All full-time tenured and tenure-track Rutgers faculty members and other full-time Rutgers employees eligible to hold grants are eligible to apply for transportation research grants under this program. Thus, all faculty and staff members interested in transportation research should consider applying. Research grants in this round will be limited to one per faculty or staff member. Applicants are strongly recommended to review the *Synthesis of Information Related to Transit Problems* (Transportation Research Board, December 2006) available for download at http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rrd_80.pdf when preparing their research statements.

PROJECT SELECTION AND PROGRAM ADMINISTRATION

The selection process for research projects has been modified to rely on an external advisory board composed of academic researchers from other universities and representatives with research experience from FTA, regional transit agencies, and the transit industry. The final decisions shall remain in the TCC Executive Committee.

REPORTS

Final reports will be required for all funded projects. Six copies of the report, prepared in accordance with TCC specifications, must be submitted to the TCC/FTA Research Program offices by the contract expiration date. Final acceptance of reports is based on the following criteria:

1. Fulfillment of objectives as set forth in the contract.
2. Adequacy of documentation.
3. Clarity of presentation.

GENERAL REQUIREMENTS AND RESTRICTIONS

The Grantee shall comply with the government-wide principles contained in OMB Circular A-21, "Cost Principles for Educational Institutions," for determining costs applicable to research and development and to training and other educational services performed by colleges and universities under Federal government grants. All Rutgers University Policies and Procedures are applicable; all Division of Grant and Contract Accounting (DGCA) rules and regulations are applicable; all awards will be made in accordance with the FTA prime award.

Funded projects are expected to be carried out in the period between **September 1, 2008 and September 30, 2009**. One-time, no cost extensions will be considered only under special circumstances. Award funds should be requested to support one-time costs only. Recurring costs, such as for telephone, rent or lease, will not be considered. **Grant funds may not be used to support faculty salaries or other permanent personnel costs of Type 1 employees on state lines; Type 1 employees not on state lines, hourly staff and student wages of labor and student aid may receive grant funds.** No foreign travel or equipment purchases are allowable under this award. Funds may be used to support domestic travel associated with the research objectives, supplies, costs associated with conferences, business meetings or mailings, consulting and professional services, and minor facilities alterations and renovations.

APPLICATION PROCEDURE

Proposals should contain the following information presented in the order shown below:

1. Proposal cover page, which should include:
 - a. Proposal title
 - b. Principal Investigator name, institutional address, telephone and FAX numbers, email address
 - c. Dollar amount requested
 - d. Signature of appropriate chair and dean or director, indicating unit endorsement of the proposal
2. Abstract – 250 words maximum
3. Introduction (background and objectives)
4. Research plan (10 page limit)
5. Two-page curriculum vitae for each participating investigator (not included in the overall page limit).
 - a. Qualifications of the research team
 - b. Accomplishments of the research team
 - c. Other commitments of the research team
6. Equipment and facilities that support the project
7. Project timelines
8. Itemized budget (use Rutgers Standard non-cost sharing budget template from ORSP website) and a brief budget justification.

Check your proposal for completeness and accuracy. The Transportation Coordinating Council / Federal Transit Administration (TCC/FTA) Research Program requires five (5) copies of proposals/budgets and an electronic copy on compact disc (preferably in a single PDF file). Submit the application to the Transportation Coordinating Council/Federal Transit Administration (TCC/FTA) Research Program **by 5:00 p.m. on May 28, 2009** at the following address:

TCC/FTA Research Program
c/o Patrick Szary, The Center for Advanced Infrastructure and Transportation
100 Brett Road
Piscataway, NJ 08854

Electronic submissions will not be accepted.

Questions about the program may be directed to Patrick Szary (szary@rci.rutgers.edu or 732-445-0579 ext.106).

EVALUATION CRITERIA FOR THE RESEARCH PROGRAM

The following criteria will be used to evaluate the Research Program applications.

Ranking Criteria for Applications
A. Overall eligibility
B. Key personnel
C. Past performance and resources to perform project tasks
D. Dissemination of results or potential for implementation
E. Funding level requested (less than in importance to the technical evaluation factors as a whole)
<i>Technical Criteria</i>
F. Ability and technical expertise, ability to meet project schedule and perform project tasks
G. Conformance with the SAFETEA-LU goals and merit (or benefit to society or profession) of proposed research
H. Relationship of topic to Federal Transit Administration (FTA) goals (see http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rrd_80.pdf as a reference for information related to transit problems)