TO: Chancellors, Deans, and Directors
FROM: Philip Furmanski
       Executive Vice President for Academic Affairs
SUBJECT: TCC/FTA Research Program and Application Instructions – Fourth Round

Attached please find the Transportation Coordinating Council / Federal Transit Administration (TCC/FTA) research program announcement and the application instructions. This is a Rutgers program 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, centers and faculty members.

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

Please keep in mind the following dates and regulations in relationship to the research application:
- Deadline for the submission of applications is Friday, June 4, 2010
- Notification of award anticipated by August 15, 2010
- Period of award should be limited to one year
- Budgets per proposal should be in the range of $30,000 to $50,000
- 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

Fourth Round

Information and Application Instructions
BACKGROUND

Funding from the 2005 federal surface transportation act, SAFETEA-LU, 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, with specific attention to those outlined under FTA’s Strategic Research Plan. (Fig. 1);

4. Address some of the high risk/high reward type projects of interest to FTA, as outlined in the current statement of FTA/USDOT Goals and Objectives, listed below.

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 (CAIT), a UTC Tier I program, and the National Transit Institute (NTI) 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 impressive capabilities to advance USDOT/FTA funding objectives.
Strategic Research Plan for Federal Transit Administration

A significant part of 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. Set forth below is the current statement of FTA/USDOT Goals and Objectives.

<table>
<thead>
<tr>
<th>FTA/DOT GOALS</th>
<th>Objectives</th>
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<tbody>
<tr>
<td>Organizational Excellence 1.1</td>
<td>Provide vision and prepare the nation for transit advancements</td>
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<tr>
<td>Organizational Excellence 1.2</td>
<td>Explore strategic partnerships to achieve transit research goals</td>
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<tr>
<td>Organizational Excellence 1.3</td>
<td>Synthesize research results to provide useful bodies of knowledge for transit industry decision makers and to shape the national transit research agenda</td>
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<tr>
<td>State of Good Repair 2.1</td>
<td>Identify methods to increase transit system capacity (e.g. operations planning, technology, infrastructure, vehicles, workforce, financing)</td>
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<tr>
<td>Livability 2.2</td>
<td>Perform research to improve the rider experience (e.g., travel time; service reliability, frequency, and quality; customer information)</td>
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<tr>
<td>State of Good Repair 3.1</td>
<td>Perform research to improve capital and operating efficiencies (capital, operating, and maintenance costs)</td>
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<tr>
<td>Livability 3.2</td>
<td>Perform research to improve transit planning and forecasting (e.g., operations, linking transportation systems, transit-oriented development and land use, solving the last mile)</td>
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<td>Livability 3.3</td>
<td>Perform research to improve mobility, rural services, and services for targeted populations</td>
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<tr>
<td>Environmental Sustainability 3.4</td>
<td>Perform research to reduce energy consumption (in vehicles and facilities) and transit environmental impacts (e.g., alternative fuels and emissions, waste streams, recycling)</td>
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<tr>
<td>Safety 3.5</td>
<td>Perform research to improve safety, security, and emergency preparedness</td>
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FTA’s research programs include the NRTP, the National Fuel Cell Bus Technology Development Program, the Transit Cooperative Research Program (TCRP), and the University Transportation Centers Program (UTC). FTA also receives considerable funding from the DOT Intelligent Transportation Systems Program.

A major objective for FTA is to ensure 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 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 research goals and objectives, while allowing these programs to fulfill their specific missions and obligations. The wide range of research topics provide ample opportunity for Rutgers researchers.
from various backgrounds to collaborate in the development of meaningful solutions to FTA’s needs. In addition, procedures for the Rutgers NRTP research program have been 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, infrastructure security and risk management, intelligent transportation systems, transportation economics, and advanced information technology.

In this fourth round, the allocation of research awards and budgets is complicated by two factors:
- a number of partially funded grants from the third round, totaling $122,142, are expected to compete strongly for the initial funding available;
- The Federal FY 2010 funding (estimated at $600,000) for this NRTP program has not been released and is subject to procedures that FTA must follow prior to the funds being available to Rutgers; therefore, research awards may be made in stages as additional as federal funding becomes available.
- There is no certainty that the Rutgers NRTP earmark will continue into Federal FY 2011.

Projects should be of one year in duration and budgets in the range $30,000 to $50,000 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 faculty interested in transportation research should consider applying. This includes all full-time tenured and tenure-track Rutgers faculty members and other full-time Rutgers employees eligible to hold grants. 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/terp/terp_rrd_80pdf when preparing their research statements.

PROJECT SELECTION AND PROGRAM ADMINISTRATION

The selection process for research projects will involve an external advisory committee composed of academic researchers from other universities and representatives with research
experience from FTA, regional transit agencies, and the transit industry. The final decisions
remain in the TCC Executive Committee.

REPORTS

Final reports are required for all projects. Six copies of the report, prepared in accordance
with TCC specifications, must then 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, 2010 and
September 30, 2011, but, depending on funding availability different study timeframes
may be prescribed. One-time, no cost extensions will be considered. 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 and conferences and associated costs directly related to research
objectives, supplies, costs associated with business meetings or mailings, consulting and
professional services, and minor facilities alterations and renovations.
APPLICATION PROCEDURE

The 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, dean or director, indicating unit endorsement of 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.

Proposals that do not comply with the instructions in this brochure will not be accepted.
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). Submissions solely by electronic means will not be accepted. Submit the application to the Transportation Coordinating Council/Federal Transit Administration (TCC/FTA) Research Program by 5 p.m. on June 4, 2010 and delivered to:

   Martin E. Robins
   TCC/FTA Project Manager
   c/o Patrick Szary, The Center for Advanced Infrastructure and Transportation
   100 Brett Road
   Piscataway, NJ 08854

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.

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<tr>
<th>Ranking Criteria for Applications</th>
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<tr>
<td>A. Overall eligibility</td>
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<td>B. Key personnel</td>
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<td>C. Past performance and resources to perform project tasks</td>
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<td>D. Dissemination of results or potential for implementation</td>
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<td>E. Funding level requested (less than in importance to the technical</td>
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<td>evaluation factors as a whole)</td>
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<tr>
<th>Technical Criteria</th>
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<tr>
<td>F. Ability and technical expertise, ability to meet project schedule</td>
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<td>and perform project tasks</td>
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<td>G. Conformance with the SAFETEA-LU goals and merit (or benefit to</td>
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<td>society or profession) of proposed research</td>
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<td>H. Relationship of topic to Federal Transit Administration/ USDOT</td>
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<td>Goals and Objectives</td>
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