



TO: Chancellors, Deans, and Directors

FROM: Philip Furmanski
Executive Vice President for Academic Affairs

SUBJECT: TCC/FTA Research Program and Application Instructions
Fifth Round – Quick Response

Attached please find the Transportation Coordinating Council / Federal Transit Administration (TCC/FTA) research program announcement requesting “Quick Response” Problem Statements with an accompanying list of anticipated work tasks and other application instructions. Details concerning eligibility and the simplified application process for this round’s Quick Response studies are included in the application documents. Sample problem statements furnished by the Federal Transit Administration and regional transit agencies can serve as the basis of a competitive application.

This is the latest step in a Rutgers program developed in response to federal funding provided to encourage university study and research related to transportation. This round’s research competition is limited by both available budget and a grant expiration date of **December 31, 2011**. The number of awards may be limited (two are anticipated), the size of the awards will not exceed **\$20,000** and the duration of the research project will be considerably shorter (six months plus). 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, May 6, 2011**
- Notification of award anticipated by June 3, 2011
- Period of award should be limited to end of the calendar year, **December 31, 2011**
- Budgets per proposal should be no higher than **\$20,000**
- 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**

Fifth Round

Information and Application Instructions

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

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."

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.

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/USDOT Goals and Objectives, (Fig. 1) and those specified below

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.

Figure 1

FTA/DOT GOALS	Objectives
Organizational Excellence	1.1 Provide vision and prepare the nation for transit advancements
Organizational Excellence	1.2 Explore strategic partnerships to achieve transit research goals
Organizational Excellence	1.3 Synthesize research results to provide useful bodies of knowledge for transit industry decision makers and to shape the national transit research agenda
State of Good Repair	2.1 Identify methods to increase transit system capacity (e.g. operations planning, technology, infrastructure, vehicles, workforce, financing)
Livability	2.2 Perform research to improve the rider experience (e.g., travel time; service reliability, frequency, and quality; customer information)
State of Good Repair	3.1 Perform research to improve capital and operating efficiencies (capital, operating, and maintenance costs)
Livability	3.2 Perform research to improve transit planning and forecasting (e.g., operations, linking transportation systems, transit-oriented development and land use, solving the last mile)
Livability	3.3 Perform research to improve mobility, rural services, and services for targeted populations
Environmental Sustainability	3.4 Perform research to reduce energy consumption (in vehicles and facilities) and transit environmental impacts (e.g., alternative fuels and emissions, waste streams, recycling)
Safety	3.5 Perform research to improve safety, security, and emergency preparedness

FTA believes that 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 and those of regional transit agencies. Areas of special concentration include infrastructure engineering and asset management, infrastructure security and risk management, intelligent transportation systems, transportation economics, and advanced information technology. A list of subjects for “quick response” research offered by FTA and regional transit agencies can be found at Attachment A. These are suggested topics, but applicants are not limited to these as the subject of their proposed “quick response” research.

FIFTH ROUND PROGRAM PARAMETERS

In this fifth round, the allocation of research awards and budgets is affected by a number of factors that shape the content and procedures governing this call for research award applications:

- The arrival of the Federal FY 2010 funding for this NRTP program did not reach the University's accounts until February 2011;
- The NRTP grant expires on December 31, 2011, leaving six months plus (after an application and selection process) to conduct research;
- After other awards and set asides made by FTA and this program's Executive Committee, only a limited amount of funds are available for even a "quick response" research competition, leaving funding for an anticipated two research grants of this kind;
- Because of the compressed schedule, time is not available to convene an External Advisory Committee to review and evaluate the "quick response" research proposals
- There is no absolutely certainty that the Rutgers NRTP earmark will continue into Federal FY 2012.

Thus, the parameters for the fifth round research award competition are as follows:

- The program's Executive Committee will recommend the awardees;
- Projects must be designed to be finished in six months plus but no later than December 31, 2011.
- Budgets shall be capped at \$20,000.

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/tcrp/tcrp_rrd_80pdf when preparing their research statements.

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 application;
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 By December 31, 2011. **Unless FTA extends the grant expiration date, “no cost” extensions will NOT 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

To conform to the parameters of this 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. Project objectives (one paragraph)
3. Explanation of need and urgency (one page maximum)
4. Relationship to existing body of knowledge (two paragraphs maximum) – explain how this project is related to but is different from other research and whether it will supplement, update, or replace existing knowledge or will yield new benefits
5. Research plan (2 page limit) - list the major activities that will be required and how the applicant will carry them out
6. One-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
7. Equipment and facilities that support the project
8. Acknowledgment of project timeline
9. 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 Announcement 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 3, 2011** 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.

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 (if less than \$20,000)
<i>Technical Criteria</i>
F. Ability and technical expertise, ability to meet project schedule and perform project tasks
G. Relationship to existing body of knowledge
H. Relationship of topic to Federal Transit Administration Goals and Objectives and interests of regional transit agencies

ATTACHMENT A

FTA suggestion for a “Quick Response” research topic

Identify and describe the relationship between Bikesharing and Public Transportation

In recent years there has been a significant growth in the number of bikesharing systems in the United States. These systems are generally located in dense urban areas, and are often located directly at (or in close proximity to) transit stations or stops.

While providing additional mobility (especially outside of periods of peak transit service such as late nights and weekends), many bikesharing systems work to complement or replace regular transit trips. However, no formal syntheses is available that studies the various ways in which new bikesharing systems (or expansion of existing systems) relate to, or have been designed with intention of integrating public transportation, or whether formal or informal planning efforts have occurred with transit agency planners.

This research should study existing bikesharing systems in the US (Denver, Washington, DC, and Minneapolis, etc) as well as surveying more mature bikesharing systems such as Bixi in Montreal, Canada, and Velib in Paris, France. The synthesis would focus on the relationship between public transportation agencies, the systems which they manage, and bikesharing; paying close attention to transit ridership, planning, and the demographics of system users. (This synthesis is separate from TCRP Synthesis 62 - Bicycles and Transit, which focuses on the simple integration of riders' bicycles and transit vehicles)

Applicants: Contact Martin Robins (merobins@rci.rutgers.edu) if you are interested in contacting the source of this suggested topic.

Delaware Valley Regional Planning Commission (DVRPC) suggestions for a “Quick Response” research topics

1. Review and analysis of NJTransit bus survey data. DVRPC conducted NJT bus passenger surveys in each of the last three years. NJT may also have data from the previous surveys from ~10 years ago which may also be used coupled with earlier demographic data for comparative purposes. An analysis of this data in the context of specific research questions or other demographic/economic trends could be productive - we'd suggest working with NJT for their thoughts on developing useful questions.

2. Review and assessment of rail right of ways (ROW), active and inactive. In preparation for DVRPC's FY2012 study of rail ROWs for NJT, this project would verify previously inventoried ROWs (completed 15-20 years ago) for accuracy and provide GIS layers with attribute tables as a prelude to DVRPC's work. An analysis of this dataset would require NJT's concurrence.

3. Operations and effectiveness assessment of NJTransit's GoBus projects in the City of Newark. This project would explore the GoBus BRT-lite investments to date in the context of various measures of effectiveness (ridership, travel times, on-time performance, customer satisfaction, ability to capture choice riders, etc), with the aim of identifying the most effective components of the GoBus strategy for possible application in other parts of New Jersey (including the DVRPC region). With the ability to finance major capital projects significantly constrained, strategies like

GoBus offer an opportunity to deliver emerging "best practices" in transit operations to New Jersey residents at comparatively little cost.

Applicants: Contact Joseph Hacker of DVRPC (jhacker@dvrpc.org) if you are interested in contacting the source of this suggested topic.

Port Authority of NY & NJ suggestion for a Quick Response” project

Research on Factors Affecting Escalator Safety in Busy Transit Terminals

Operators of transit terminals facilities are always seeking opportunities to further passenger improve safety. The issue of pedestrian accidents on escalators in busy transit terminals is an area where additional research may contribute to tangible benefits. The Port Authority of New York and New Jersey can provide access to information on escalator accidents at the Port Authority Bus Terminal, and similar information may also be available from other terminal operators in the region. Site visits and discussions with Port Authority operations, maintenance, and planning staff can also be arranged to further inform the study. The study objectives should focus on improvements in building awareness and appropriate caution by transit customers using escalators that may reduce accident rates and be applicable for many transit terminal operators.

Applicants: Contact Mark Muriello (mmuriello@panynj.gov) if you are interested in contacting the source of this suggested topic.