

University Transportation Center Match, Partnership and Leverage Opportunities with State DOTs and the Federal Highway Administration

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) continues, and expands the University Transportation Centers (UTC) program provided for in the Transportation Equity Act for the 21st Century (TEA-21) from 33 universities and \$32.5 million to 60 universities and \$76.7 million in SAFETEA-LU. Fifty-two of the 60 SAFETEA-LU UTCs are required to provide a 100% match for the federal funding received. Universities are encouraged to find local sources of match from state, local government, Tribal, or private sector partners (such as industry or non-profit organizations). However, SAFETEA-LU also identifies three federal programs that may be used to as a match for this program Sec. 5401(j). They are:

- Title 23 Sec. 503 – Technology Deployment
- Title 23 Sec. 504(b) – Local Technical Assistance Program
- Title 23 Sec. 505 – State Planning and Research

This document provides information on these UTC match sources as well as opportunities to leverage organizational and financial resources for the greater benefit of transportation research, education, and technology transfer. Toward that end, information is also provided on other state DOT and Federal Highway Administration (FHWA) programs that may be used for direct or soft match.

This document is not intended to provide a comprehensive list of match or partnership opportunities. Rather it lists programs specifically referenced in the SAFETEA-LU legislation and other match and partnership opportunities that are already well established in the transportation community or have specific links to academic programs.

Technology Deployment

The Technology Deployment Program funds specific program activities identified in SAFETEA-LU (Sec. 5203). These programs do not offer grant funds, but they may provide opportunities to collaborate on specific, agency directed activities. For additional information on agency activities and collaboration opportunities, contact the individuals identified for each program.

The Technology Deployment Program includes:

- 1) Innovative Bridge Research and Deployment Program (IBRD)– This program replaces the Innovative Bridge Research and Construction Program and is intended to promote, demonstrate, evaluate and document the application of innovative designs, materials, and construction methods in the construction, repair and rehabilitation of bridges and other highway structures.

The IBRD is managed by the Federal Highway Administration. Research activities under the program are conducted by the Bridge and Structures Research and Development Program at Turner-Fairbank Highway Research Center. Deployment activities are coordinated by the Office of Bridge Technology.

For information on research activities, contact Ian Friedland, Technical Director, Bridge & Structures Research and Development, at 202-493-3023 or IFriedland@fhwa.dot.gov.

For information on deployment activities contact Myint Lwin, Director, Office of Bridge Technology at 202-366-4590 or MLwin@fhwa.dot.gov.

- 2) Innovative Pavement Research and Deployment Program (IPRD) – This new program was established under SAFETEA-LU. The program is intended to promote, demonstrate, support and document the application of innovative pavement technologies, practices, performance and benefits. The IPRD is managed by the Federal Highway Administration. Research activities under the program will be conducted by the Pavement Research and Development Program at Turner-Fairbank Highway Research Center. Deployment activities are coordinated by the Office of Pavement Technology.

For information on research activities, contact Cheryl Richter, Technical Director for Pavements at 202-493-3070 or CRichter@fhwa.dot.gov.

For information on deployment activities contact Tommy Beatty, Director, Office of Pavement Technology at 202-366-1324 or TBeatty@fhwa.dot.gov.

- 3) Safety Innovation Deployment Program - This new program was established under SAFETEA-LU and is intended to conduct research and development, as well as for technology transfer of innovative technologies in highway safety. Since this program provides the only funding available for safety research and development within FHWA, especially for conduct of the ongoing safety research program, it will be used first to support the FHWA Safety Research & Technology Roadmaps. Project proposals, and match opportunities in support of the Roadmaps might include providing facilities for fellowship students or collaborating on analysis of data.

For information on research activities, contact Susanna Hughes-Reck, Technology Facilitator, Office of Safety Research and Development, 202-493-3313 or Susanna.HughesReck@dot.gov.

For information on deployment activities contact Chris Lawson, Transportation Specialist, Safety Office at 202-366-6181 or CLawson@fhwa.dot.gov.

- 4) Demonstration Projects and Studies – Three Demonstration Projects were established under SAFETEA-LU:
 - a. Wood Composite Materials Demonstration Project. University of Maine. Funded for 2006 and 2007.
 - b. Asphalt Reclamation Study. South Dakota School of Mines. Funded for 2006.
 - c. Alkali Silica Reactivity Development and Deployment Program. Funded for 2006 through 2009. For information on deployment activities contact Tommy Beatty, Director, Office of Pavement Technology at 202-366-1324 or TBeatty@fhwa.dot.gov.

As these “demonstration projects and studies”, funds are directed to be used for specific programs, use of the funds as a UTC match opportunity are limited.

Local Technical Assistance Program (LTAP)

SAFETEA-LU identifies the Local Technical Assistance Program as an allowable match for UTCs. LTAP's mission is to help primarily local agencies apply new technologies, processes and procedures through training and professional development programs to enhance agency efficiency and effectiveness. Across the country, 38,000 local agencies—small and large cities, rural and urban counties, and tribal governments— maintain nearly three million miles of roads and some 29,000 bridges. Although primarily directed to local agencies, some LTAP programs also support state and private sector training and professional development interests. For FY2006, the Local Technical Assistance Program Centers and Tribal Technical Assistance Program (TTAP) Centers received \$170,000. There is a 100% match requirement for the LTAP Centers. The TTAP programs are not required to match federal funds.

There is an LTAP Center in each state and Puerto Rico, plus seven Tribal Technical Assistance Program Centers. A number of the LTAP centers are located at universities with UTCs and provide a clear opportunity for match. Contact information can be found at: <http://www.ltapt2.org/centers/list.htm>.

For additional information, visit the National LTAP Association website at: <http://www.ltapi.org/index.html>, or contact Clark Martin, FHWA Affiliate Programs Team Leader at 703-235-0547 or at clark.martin@fhwa.dot.gov.

Matching Opportunities

The relatively small amount of funding available in the LTAP/TTAP program significantly limits the ability to use these funds as a source of match. However, some UTCs have been able to partner with their state DOT to manage the LTAP program and/or to leverage the training funds in the program as a source of match.

State Planning and Research Program

SAFETEA-LU identifies the State Planning and Research Program (SPR) as an allowable match for UTCs. The SPR is authorized by Title 23, USC, and is regulated under [23 CFR Part 420](#).

States set aside 2 percent of the apportionments they receive from the Interstate Maintenance, National Highway System (NHS), Surface Transportation Program (STP), Congestion Mitigation and Air Quality Improvement (CMAQ), and Bridge programs, and the new Highway Safety Improvement Program (HSIP), and the Base Minimum Guarantee to fund the State Planning and Research Program. Of this amount, States must allocate at least 25 percent (or its equivalent from other authorized sources) for research, development, and technology. These activities involve research on new areas of knowledge; adapting findings to practical applications by developing new technologies; and the transfer of these technologies, including the process of dissemination, demonstration, training, and adoption of innovations by users. The remaining SPR funding is used to address transportation planning issues. A 20% state match is required for all SPR funds.

Matching Opportunities

The amount received by each state varies. A table of the 2003 apportionment for each state gives the relative amounts of funding appropriated for research <http://www.fhwa.dot.gov/legregs/directives/notices/n4510506T6.htm>. The SPR funding generally serves as the foundation for funding state DOT research activities of high priority to

the agency. The state programs are managed in a variety of ways. For example, some states make project decisions on an annual basis while others make biennial or quarterly decisions. Some states do in-house research, others don't. Some states are required to apply their funding in-state, others are not. It is best to contact the state DOT Research Director to find out more about their program processes if you are interested in partnering with them. Links to state DOT Research Offices can be found at: <http://cms.transportation.org/?siteid=55&pageid=873>.

Ideas for Research

Each state submits a SPR Work Program to FHWA outlining their research activities for the coming year or biennium. These plans are updated at least annually. This document provides information on a state DOT's research interests and summarizes projects that have received funding. A UTC proposal could build on a state-funded project as a means to provide match for the UTC and augment the research proposal for the state DOT. It is best to contact the state Research Director before initiating a proposal in order to determine if a researcher has already been identified and whether there are program or contract limitations that may affect the ability to leverage these funds.

Transportation Pooled Fund Program

The Transportation Pooled Fund (TPF) Program allows federal, state, and local agencies and other organizations to combine resources to support transportation research studies. Federal and state transportation agencies may initiate pooled fund studies. Local and regional transportation agencies, private industry, foundations, and colleges/universities may partner with any or all of the sponsoring agencies to conduct pooled fund projects.

<http://www.tfsrc.gov/site/active.htm>

Activities may include research, planning, or technology transfer activities and may be jointly funded by several federal, state, regional, and local transportation agencies, academic institutions, foundations, or private firms as a pooled fund study.

Matching Opportunities

A significant amount, but not all, of the project funding for Transportation Pooled Fund projects is from State Planning and Research funds. Others include other non-federal sources of funds.

A UTC could work with FHWA or a state DOT to initiate a Transportation Pooled Fund project for which they will be the primary researcher. The project would be posted on the Transportation Pooled Fund project website (<http://www.pooledfund.org/>) to solicit for interested partners. Eligible funds could be used as match. Some projects conduct a request for proposal. A UTC could compete for these projects as well.

Ideas for Research

The Transportation Pooled Fund program is also a source of information about activities of interest to state DOTs and federal transportation agencies. Browsing the list of projects may be a way to identify themes, project ideas, and potential partners.

National Cooperative Highway Research Program (NCHRP)

NCHRP was created in 1962 as a means to conduct research in acute problem areas that affect highway planning, design, construction, operation, and maintenance across the country. NCHRP is managed by the Transportation Research Board (TRB).

More information on NCHRP and the other Cooperative Research Programs is available at <http://www4.trb.org/trb/crp.nsf>. You can sign up at this site to receive information about Requests for Proposals.

Matching Opportunities

NCHRP is funded by voluntary contributions from state Departments of Transportation. The contribution is recommended at 5.5% of the state apportionment of the SPR funding received. States typically pay this contribution from SPR funding. Therefore, if a UTC is successful at winning an award of a NCHRP project, this funding will typically be eligible as match.

Another option is to review the list of problems considered for but not funded by the NCHRP. A number of these projects rate highly across the nation. A UTC could contact the state that submitted the project and investigate whether a project could be jointly funded, either with one state or several through the Transportation Pooled Fund project.

The Summary of Balloting (listing funded and unfunded projects) is posted on AASHTO's Standing Committee on Research/Research Advisory Committee website each year. <http://research.transportation.org/?siteid=55>

Other Cooperative Research Programs

TRB also manages other Cooperative Research Programs. Funding sources for these programs vary but are typically comprised of federal funding sources outside of the three eligible federal programs allowed for UTC match.

Ideas for Research

NCHRP, and the other Cooperative Research Programs, are also a source of information about activities of interest to state DOTs and federal transportation agencies. Browsing the list of projects may be a way to identify themes, project ideas, and potential partners.

International Technology Scanning Program

The International Technology Scanning Program accesses and evaluates innovative foreign technologies and practices that could significantly benefit U.S. highway transportation systems. This approach allows for advanced technology to be adapted and put into practice much more efficiently without spending scarce research funds to recreate advances already developed by other countries. The funding for the International Technology Scanning Program is shared between state contributions from the SPR program (through an NCHRP project) and non-eligible sources from FHWA. Therefore, Scanning projects can be partially used as match for a UTC project.

FHWA and AASHTO, jointly determine priority topics for teams of U.S. experts to study. Teams in the specific areas being investigated are formed and sent to countries where significant advances and innovations have been made in technology, management practices, organizational structure, program delivery, and financing. Scan teams usually include

representatives from FHWA, State Departments of Transportation, local governments, transportation trade and research groups, academia and the private sector.

More information about the international scanning program can be found at <http://international.fhwa.dot.gov/> or by calling Hana Maier at 202-366-6003 or HMaier@fhwa.dot.gov.

State Funding

State-only funding may be available from your state DOT. It is recommended that contact state DOT Research Directors to find out what opportunities may exist and how to pursue them. (<http://cms.transportation.org/?siteid=55&pageid=873>)

In-Kind Match

State DOTs may also be a source of in-kind match on specific projects or at the program level. Potential match includes staff time, use of equipment, data, or facilities. UTC guidance for in-kind cost sharing for state and local governments is described in the “*General Provisions for Grants for UTCs*” provided by the Research and Innovative Technology Administration at: <http://utc.dot.gov/GENPROVS.doc> and in Federal grant regulations contained in Office of Management and Budget Circular A-110 available at http://www.whitehouse.gov/omb/grants/grants_circulars.html.

For opportunities to document soft match opportunities, contact the state Research Director for help in making the connections and documenting the match. <http://cms.transportation.org/?siteid=55&pageid=871>

Global Technology Exchange Program (GTEP)

The focus of GTEP is technology exchange and information sharing with countries around the world, through technology exchange centers. To date, over 70 technology exchange centers in Africa, Asia, Europe and Latin America.

A key element of our Global Technology Exchange Program is the Border Technology Exchange Program (BTEP). Funding for BTEP is not eligible as a direct match. However, it is possible that program activities could be used as soft match or could lead to funding contributions by other organizations.

There are six BTEP centers in the Mexican border states of Baja California, Chihuahua, Coahuila, Nuevo Leon, Sonora and Tamaulipas. The BTEP centers are located in the state universities in these states. The centers are in various stages of development and have undertaken numerous activities of transportation training, research, technology transfer and information exchange. Currently these centers partner with local, state and federal transportation entities in Mexico as well as the state DOTs and universities in the United States.

Some areas of interest of these Centers are: training and technology exchange activities; design and implementation of border modeling/ traffic modeling software such as SIMFRONTERAS® and Border Wizard®; applied engineering (e.g. construction techniques, asset management, pavements, GIS and ITS); public transport programs; safety programs.

For more information about BTEP please contact Michael Avery at 202-366-0259 or MAvery@dot.gov.

For additional information on potential match opportunities with the FHWA contact:

Clark Martin, Affiliates Team Leader, Office of Professional and Corporate Development, 703-235-0547, clark.martin@fhwa.dot.gov.

Joe Conway, Transportation Specialist, Office of Corporation Research and Technology, 202-493-3186, JConway@fhwa.dot.gov.

For information on research activities and interests at FHWA visit the Corporate Research and Technology website: <http://www.fhwa.dot.gov/crt/>.