Index to Charts: Guidance to US Department of Transportation (DOT)

Chart #s	<u>Topic</u>
3	List of Research Programs in DOT
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USC MAPS

http://web-app.usc.edu/web/ra_maps

The DC Office of Research Advancement has created the Federal Mission Agency Program Summaries (MAPS) website to:

- 1. Connect PIs with appropriate funding agency programs/program officers
- 2. Assist in development of white papers/charts/elevator pitches

The website can be accessed using one's USC NetID and Password.

It has the following resources:

- Search Tab for a searchable database of programs/program officers
 At that website one can do keyword searches to locate the associated mission agency (DHS, DOD, DOE, DOT, ED, EPA, INTEL, NASA, NIST, NOAA and USDA) programs and program officers.
- 2. Mission Agency Tab (DHS, DHHS, DOD, DOJ, DOE, DOT, ED, EPA, INTEL, NASA, NIST, NOAA, USDA)

Guide to Agency Funding for FYXX

Agency Research Program Charts

Agency Planning Documents

Chart numbers in the text above reference the Agency Research Program Chart files.

- 3. Presentation Tab for charts from recent USC Center of Excellence in Research workshops
- 4. Proposal Tab for report / guides on writing proposals
- 5. Email Alerts Tab for URLs at which one can arrange for automatic solicitation updates
- 6. Grantee Tab for URLs at which one can find previous agency awardees
- 7. Visiting DC Tab for information about DC Office services

DOT Research Programs

http://www.rita.dot.gov/rdt/dot_research_programs.html

Aviation Federal Aviation Administration (FAA) Data and Research

Highway Federal Highway Administration (FHWA) Research

Turner-Fairbank Highway Research Center

Maritime Maritime Administration (MARAD) Research and Development Activities

Motor Carrier Federal Motor Carrier Safety Administration (FMCSA) Analysis, Research and Technology

Hazardous Mat'ls Pipeline and Hazardous Materials Safety Administration (PHMSA) Research & Development

Highway Traffic Safety National Highway Traffic Safety Administration (NHTSA) Highway Safety Research and

Evaluation Program

NHTSA Vehicle Safety Research

Pipeline PHMSA Research & Development

Railroad Federal Railroad Administration (FRA) Research and Development

Transit Federal Transit Administration (FTA) Research, Technical Assistance & Training

Intermodal Research OST-R Intelligent Transportation systems Joint Program Office

OST-R Current Research Publications
OST-R Maps of Current Research
DOT Climate Change Conter

DOT Climate Change Center

Cooperative Research Programs

Airport Cooperative Research Program (ACRP)

Hazardous Materials Cooperative Research Program (HMCRP)

National Cooperative Freight Research Program (NCFRP) National Cooperative Highway Research Program (NCHRP)

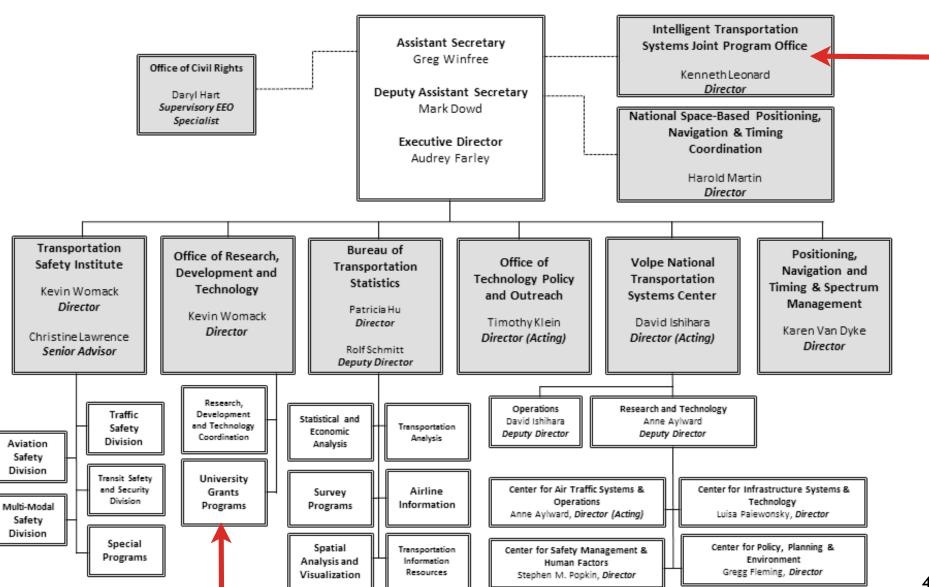
Transit Cooperative Research Program (TCRP)

DOT

Office of the Assistant Secretary for Research and Technology

http://www.rita.dot.gov/rdt/

Office of the Assistant Secretary for Research and Technology (R)



DOT OST-R

Intelligent Transportation Systems (ITS) Joint Program Office

http://www.its.dot.gov/index.htm

What: The ITS program focuses on intelligent vehicles, intelligent infrastructure and the creation of an intelligent transportation system through integration with and between these two components. Vehicle-to-vehicle and vehicle-to-infrastructure communications safety applications are designed to increase situational awareness and reduce or eliminate crashes through data transmissions that support driver advisories, driver warnings, and vehicle and/or infrastructure controls. ITS Strategic Research Plan 2015-2019 http://www.its.dot.gov/landing/strategicplan2015.htm

The Federal ITS program invests in major research initiatives, exploratory studies and a deployment support program including technology transfer and training.

See more at: http://www.its.dot.gov/its_jpo.htm#sthash.ZdMXrfay.dpuf

Areas of Research:

- Connected Vehicle Research
 - Connected vehicle research aims to enable safe, interoperable net-worked wireless communications among vehicles, the infrastructure, and passengers' personal communications devices.
- Intermodal Research
 - Research in a set of Short Term Intermodal research programs is expected to further the Department's goal of leveraging technology to maximize safety, mobility, and environmental performance.
- Cross-Cutting Research
 - The ITS Program's Cross-Cutting Support are functions that ensure the effective and successful implementation and use of ITS.
- Exploratory Research
 - The ITS Exploratory Research Program solicits creative ideas for new technology options that address connectivity, safety, mobility, and environmental mitigation.

How Much: The FY 2017 budget request for the Intelligent Transportation Systems (ITS) program is \$100M (in the FHWA budget line).

Where: http://www.its.dot.gov/procurement.htm

DOT

Intelligent Transportation Systems (ITS)

2015 - 2019 ITS Strategic Plan Discussion Document

http://www.its.dot.gov/strategicplan/index.htm

Near-Term Research Themes (2015 – 2016)

Maturing Connected Vehicle Systems

- Vehicle-Focus Standards Craft the set of standards that support vehicle communications for all vehicle and other device (pedestrian/bicycle) types after production begins and that support a low-vehicle penetration environment.
- On-board Driver Enhancements Establish solutions that support the intermediate stage between connected vehicles and automated vehicles.
- Secured Vehicles Ensure implementation of a secure connected vehicle environment with the capability to perform system-wide upgrades to counter evolving threats.

Piloting and Deployment Readiness

- Business Model Development Establish the value proposition and seek mechanisms for public-private coordinated investment in connected vehicles, including resource sharing.
- Data Exchange Facilitation Coordinate, internationally and domestically, information-sharing specifications, architecture, and standards necessary for enhanced data sharing across the public and private sectors.
- Multimodal Operations Establish new levels of coordinated operations that extend beyond the achievements of Integrated Corridor Management, including urban and rural environments.
- Truck Route Optimization Examine optimized truck route optimization for cross-urban and inter-urban freight movements. Address the geometric challenges trucks face on many non-limited-access routes that could function as alternate routes and identify railroad crossings that pose safety hazards.
- Expanded Regional Pilots Demonstrate data management capabilities to support multimodal operations and data fusion, including crowd-sourced information.

Integrating with the Broader Environment

- Decision Support Systems Develop the intelligent logic needed at transportation management centers to produce greater value in the connected vehicle environment.
- Data Fusion/Modeling/Standards Extend the value of legacy ITS tools to continue providing support during the connected vehicle transitional stage.
- EV Fleets Support the deployed EV fleets by leveraging increased information needs via longer connect times (i.e., recharging provides longer connectivity to high-speed/high-volume data communications).

Long-Term Research Themes (2017 – 2019)

Maturing Connected Vehicle Systems

- Automated Vehicle Define how an automated vehicle fleet can be introduced with limited or no impact to current infrastructure and other legacy transportation assets.
- Vehicle Automation Enablers Define enabling technologies and redundancies required to progress toward control intervention and vehicle automation in a connected vehicle environment.
- Automation Risk Factors Research risk profile changes with increased vehicle automation in traffic and liability implications for stakeholders. Integrating With the Broader Environment
 - Digital Society Advance coordination of public infrastructure assets with transportation assets to enable operation of alternatively powered vehicles through data integration with the private sector, other state department of transportation agencies, and other public agencies.
 - Always Connected Users Accommodate the transportation information needs of always-connected users and augmented-reality applications.
- Redefining Roadway Planning, Geometry, Modeling, and Operations Assess the opportunity to redefine current transportation infrastructure assets due to changed requirements from the presence of automated vehicles.

Office of Research, Development and Technology (RDT-30)

University Transportation Centers

http://utc.dot.gov

What: Advance U.S. technology and expertise in the many modes and disciplines comprising transportation through the mechanisms of research, education, and technology transfer; to provide a critical transportation knowledge base outside the US DOT; and to address vital workforce needs for the next generation of transportation leaders.

Specific objectives of the UTC Program and of each individual Center are:

- Research: To conduct basic and applied research, the products of which are judged by peers or other experts in the field of transportation to advance the body of knowledge in transportation.
- Education and Workforce Development: To provide an education program relating to transportation that includes multidisciplinary course work, participation in research, and workforce development activities and programs to expand the workforce of transportation professionals.
- Technology Transfer: To deliver an ongoing program of technology transfer that makes transportation research results available to potential users in a form that can be implemented, utilized, or otherwise applied.

It may be a single university or a consortium of two or more universities. Each Center is required to obtain matching funds from non-federal sources. National and Regional UTCs must obtain matching funds in an amount at least equal to the US DOT grant amount.

How Much: over 4 year period (total FY2017 budget estimated at \$75M in the FHWA budget line)

- Five National UTCs, \$2 to 4M per Center per fiscal year
- Ten Regional UTCs, \$1.5 to 3M per Center per fiscal year
- Twenty Tier 1 UTCs, \$1 to 2M per Center per fiscal year

When: Solicitations at roughly four year intervals, most recent in FY2016 with 1 Apr 2016 Lol due date and 13 May 2016 proposal due date

Where: Federal Register Vol. 81 No. 21 Tuesday, Feb 2 2016 page 5517

USC has a Tier I UTC on Metropolitan Transportation in the FY14-18 time frame (as well as from FY05-09); it also contributes to the National Center for Sustainable Transportation UTC led by UC Davis.

DOT - UTC 2013 Awardees

National UTCs

Economic Competitiveness Univ of MD, National Center for Strategic Transportation Policies, Investments, and Decisions

Environmental Sustainability University of California, Davis, National Center for Sustainable Transportation Portland State University, National Institute for Transportation and Communities **Livable Communities** Safety Carnegie Mellon University, Technologies for Safe and Efficient Transportation Center

State of Good Repair Rutgers, Center for Advanced Infrastructure and Transportation

Regional UTCs

Region 1 Massachusetts Institute of Technology, Safety New England University Transportation Center

Region 2 City University of New York, Economic Competitiveness University Transportation Research Center

Region 3 to be competed in Fall 2013

Region 4 University of Tennessee, Safety Southeastern Transportation Center Region 5 University of Minnesota, Safety Center for Roadway Safety Solutions

Region 6 University of Oklahoma, State of Good Repair Southern Plains Regional Transportation Center

Region 7 Iowa State University, State of Good Repair Midwest Transportation Center

Region 8 North Dakota State University, State of Good Repair Mountain-Plains Consortium

Region 9 University of California, Berkeley, Economic Competitiveness UC Center on Economic Competitiveness in Transportation

Region 10 to be competed in Fall 2013

Tier 1 UTCs

Economic Competitiveness

University at Buffalo, State University of NY Transportation Informatics University Transportation Center Maritime Transportation Research and Education Center

University of Arkansas

University of Illinois, Urbana-Champaign National University Rail Center

University of Southern California

Metropolitan Transportation University Transportation Center University of Texas, Austin Data-Supported Transportation Operations and Planning Center

Environmental Sustainability

Maine Maritime Academy Marine Engine Testing and Emissions Laboratory

Center for Environmentally Sustainable Transportation in Cold Climates University of Alaska, Fairbanks

University of Central Florida Electric Vehicle Transportation Center

Livable Communities

Montana State University Small Urban and Rural Livability Center University of South Florida National Center for Transit Research

Western Michigan University Transportation Research Center for Livable Communities

Safety

Florida State University Center for Safe and Accessible Transportation for an Aging Population

Ohio State University Crash-Imminent Safety University Transportation Center

Safety Research Using Simulation Center University of Iowa

Center for Advancing Transportation Leadership and Safety University of Michigan

University of Nevada, Reno Institute for Safety and Operations of Large-Area Rural-Urban Intermodal Systems

University of Texas, Pan American University Transportation Center for Railway Safety

State of Good Repair

Florida International University Accelerated Bridge Construction University Transportation Center Michigan State University University Transportation Center for Highway Pavement Preservation

University Transportation Center for Research on Concrete Applications for Sustainable Transportation Missouri Univ of Science and Technology

Office of Research, Development and Technology

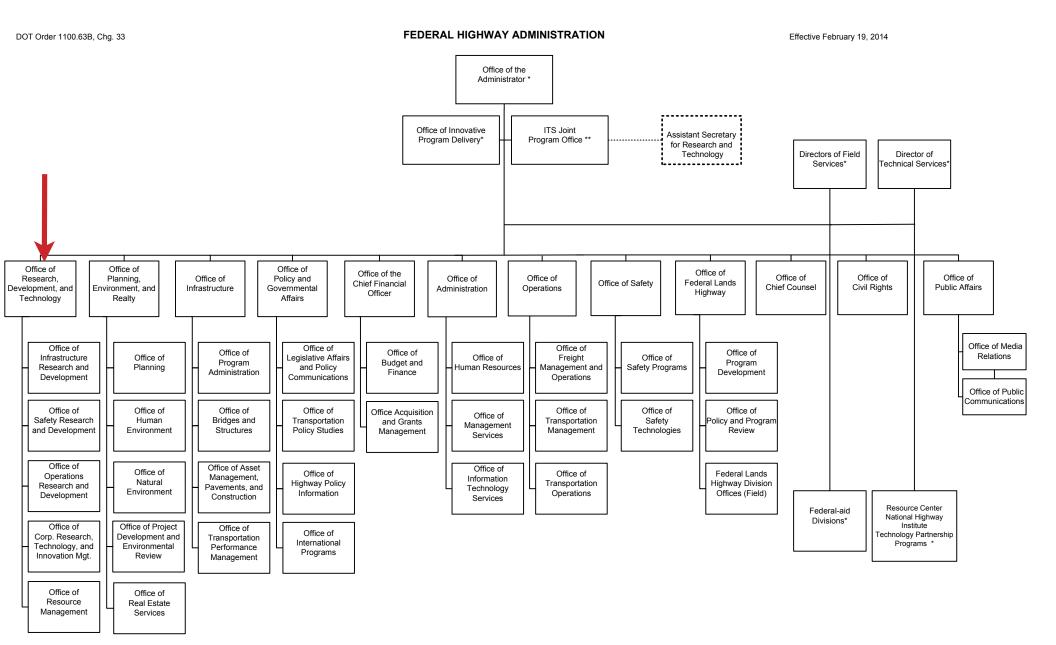
Sun Grant Initiative

http://www.sungrant.org/

The Sun Grant Initiative is charged with conducting a competitive research program for land-grant universities and their partners. Working with the Sun Grant Initiative, the Department of Transportation Research and Innovative Technology Administration (RITA) convened a team of federal agency specialists to identify the nation's leading research priorities to be addressed in order to develop renewable bio-based transportation fuels. DOT took a comprehensive "systems" approach, looking at the total bioenergy production process from feedstock development and logistics through conversion processes. DOT also looked at crosscutting issues, such as examining ways to produce and process bio-based transportation fuels to minimize the impacts of the transportation sector on the environment. To address these national research priorities in their regional and local contexts, with support from DOT, the Sun Grant Initiative has developed and implemented a national program of peer-reviewed regional competitive grants to conduct research on the development of bio-based transportation fuels.

Each of the five SGI Centers managed its own regional competitive grants program, to best meet the challenges of bioenergy and biomass research and education needs within their respective regions. Each Center utilizes approximately 75% of their total funding for these grant programs. As part of the development of the Regional Competitive Grants Program, each of the SGI Centers developed a solicitation for their region, consistent with national priorities identified by an ad hoc federal agency panel led by DOT/RITA with representatives from DOE, USDA, EPA and DOD. These national priorities for renewable transportation fuel development included: biofuel feedstock development; biofuels conversion processes; biofuel system analysis; economics, marketing and policy; and, environmental impacts. These national priorities were considered in the context of the unique biomass and biomass resources and challenges within each of the regions.

Some regions are holding new proposal calls annually while others will hold theirs biennially.



^{*} The Office of the Administrator includes the Administrator, Deputy Administrator, and the Executive Director. The Office of Innovative Program Delivery, Directors of Field Services (DFS), Office of Technical Services (OTS), Program Manager for Transportation Security, and the Executive Secretariat are extensions of the Executive Director's office. The DFSs provide administrative supervision and leadership on strategic initiatives to their constituent Federal-aid division offices. The Director of Technical Services is responsible for the Resource Center, the National Highway Institute, and Technology Partnership Programs.

^{**} The Intelligent Transportation Systems/Joint Program Office (ITS/JPO), which has a departmentwide role and authority for coordinating ITS program activities and initiatives, is organizationally located within FHWA. The Assistant Secretary for Research and Technology has primary responsibility for the strategic oversight and direction of the ITS/JPO, including but not limited to, providing policy guidance for ITS programs and activities and coordinating ITS research within the Department. The FHWA Administrator is responsible for ensuring the continuing availability of professional, technical, and administrative services to support the ITS/JPO.

DOT FHWA

Office of Research, Development and Technology

Office of Research, Development, and Technology Organizational Chart Office of Office of Safety Office of Office of Office of **Operations** Corporate Research and Resource Infrastructure Research and **Development** Research and Research. Management Development **Development** Technology, • Program • Program and Innovation Management Management Program Program Human Factors **Management** Management Management Team Bridge and Transportation Program Roadway Team Foundation Enabling Management Safety Engineering **Technologies** Exploratory Management Team Team Advanced Team Hazard Transportation Research Team Mitigation Team Operations Innovation Infrastructure **Applications** Management Management Team and Team Transportation Communications Long-Term Operations Team Pavement Concepts and Research and Performance **Analysis Team Technology** Team Program Pavement Development Design and and Partnership Construction Team Team Pavement

Turner-Fairbank Highway Research Center 6300 Georgetown Pike McLean, VA 22101

Materials Team

Organization Chart with Names and Codes available at: http://www.fhwa.dot.gov/research/tfhrc/expertise/makepdf.cfm

Department of Transportation Federal Highway Administration

Research and Development Opportunities

http://www.fhwa.dot.gov/research/researchopportunity/

Advanced Research Partnerships and Broad Agency Announcements and Other Contract Opportunities As part of the Exploratory Advanced Research program, the Federal Highway Administration issues Broad Agency Announcements soliciting proposals for high–risk, high–payoff research and innovations to help solve critical highway challenges.

Communities of Practice

One way is through the Federal Highway Administration's (FHWA) Highway Community Exchange "Community of Practice" (CoP). This CoP is dedicated to the open exchange of information and knowledge about issues that are important to the transportation community, including highway research and technology deployment.

International Activities

Through its Office of International Programs (OIP), FHWA works to improve the technological and institutional base of highway transportation system performance and program delivery in the United States and abroad. OIP's programs and activities include:

- International Visitor Program
- Coordination of U.S. International Road Activities
- International Highway Technology Scanning Program
- Global Technology Exchange Program
- Emerging Markets/Opportunities

Research, Technology, and Education Partnerships

The highway community has numerous opportunities for formal and informal partnerships. For those seeking to become directly involved in highway research and technology deployment, please review the diverse opportunities identified in the partnerships at the Web site.

Scientific Peer Review

Get involved through participation in the U.S. Department of Transportation's (USDOT) scientific peer review process.

DOT FHWA

Exploratory Advanced Research Program

http://www.fhwa.dot.gov/advancedresearch/about.cfm#gen

Focus Areas

Connected Highway and Vehicle System Concepts - Emphasizes the longer-term needs to reach critical FHWA safety and mobility goals by developing the theory and assessing feasibility for systems that leapfrog current technological approaches for linking infrastructure with future vehicle and personal mobility technology.

Breakthrough Concepts in Material Science - This focus area leverages new approaches in materials science to produce innovative new highway materials with characteristics that enable enhanced functionality (including multi-functionality), constructability, sustainability, cost effectiveness or operating characteristics of highway infrastructure and system monitoring sensors to enhance highway safety, reliability, and resilience.

Human Behavior and Travel Choices - This focus area leverages research concepts from the social sciences including psychology and economics along with more traditional research for improving safety, reducing congestion, and improving the livability of the nation's communities

Technology for Assessing Performance - This focus area seeks novel approaches and breakthrough technology that will revolutionize the use of performance management in the highway sector

New Technology and Advanced Policies for Energy and Resource Conservation - This focus area cuts across infrastructure, operations and societal and complex natural systems to support innovative methods for reducing highway industry costs and move towards sustainability

DOT FHWA

EXPLORATORY ADVANCED RESEARCH PROGRAM

https://www.fhwa.dot.gov/advancedresearch/

What:

This program is intended to spur innovation and focus on high risk and high pay-off research. Exploratory Advanced Research bridges basic and applied research. In contrast to applied research, a specific application or product is not the goal of the work. Incremental advances and demonstrations or evaluations of existing technologies are not within the scope of this program.

The announcement includes the following topics:

Topic 1: Virtual Nondestructive Evaluation (NDE) Laboratory for Highway Structures

Topic 2: Applications of Massive Data and Data Mining Techniques Relevant to Safety Data

Topic 3A: Behavioral based (or agent based) National Freight Demand Modeling

Topic 3B: Freight Data Development and Enhancement to Support National Freight Transportation Analysis, Modeling and Forecasting Practices

The FHWA may award either contracts or cooperative agreements as a result of the BAA

Offerors should prepare proposals with a baseline period of performance up to 12 months, and if needed, with one or more options, each with a 12-month period of performance.

For the EAR program flyer, see Publication Number: FHWA-HRT-13-071

How Much: Depends on topic, but typically a topic has ~\$1-2M available

When:

For FY14 Released Mar 4, 2014

Proposals Due 4:00 pm EST Apr 23, 2014

Where: BAA DTFH61-14-R-00017

NSF / FHWA Joint Program

Cyber Physical Systems (CPS)

http://www.fhwa.dot.gov/advancedresearch/

What: The goal of the NSF CPS Program (http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503286) is to develop the core system science needed to engineer complex cyber-physical systems upon which people can depend with high confidence. The FHWA Exploratory Advanced Research (EAR) Program provides the opportunity to translate advances in basic science in order to solve mission critical issues for highway transportation through partnerships with and beyond traditional highway research stakeholders. Successful advances in cyber-physical systems are critical for the FHWA and the entire U.S. highway transportation industry to meet increasingly complex and difficult goals from increasing safety, to reduce energy dependence, to support sustainable economic growth and increased quality of life.

FHWA has identified specific technology-based requirements to support ongoing and anticipated research road maps including for multi-modal integrated corridor management, arterial traffic management, traffic signal management and control, traffic incident and event management, and passenger and freight data management. These requirements will advance system capabilities in positioning, timing, and navigation, onboard and infrastructure-based sensors and actuators, with the aim of improving environmental awareness and responding to changing conditions, vehicle-infrastructure communications, shared human-machine control systems, data management and system performance assessment, and energy efficiency. Consideration of integration with legacy systems and equipment will be a critical component.

Based on recent research results, anticipated results from continued research investments, and ongoing scanning of scientific and engineering advances, the FHWA EAR program has identified an area where a coordinating investment with NSF would best advance both the fundamental science of CPS and speed the application of scientific advances into the highway industry: enabling technology and scaling cyber-physical highway systems. FHWA particularly has interest in foundational technologies that can accelerate innovation, reduce cost, and lower risk of technology adoption.

How Much: Approximately 10 Breakthrough projects, 20 Synergy projects, and 2 Frontier projects are anticipated. Anticipated Funding Amount: \$34M

When: proposals due 24 May - 7 Jun 2016 for most recent solicitation

Where: The program is solicited under NSF 16-549

DOT FHWA Center for Environmental Excellence (CEE)

What: The purpose of the Center for Environmental Excellence (CEE) will be to provide a wide range of products and services to assist agencies in achieving environmental excellence in delivering their transportation programs and projects. Through its information-sharing, technical assistance, partnership-building and training resources, the purpose of the CEE is to directly engage Federal Highway Administration stakeholders such as State Department of Transportations (State DOTs), Metropolitan Planning Organizations (MPOs), local planning organizations, other Federal and state surface transportation agencies to incorporate environmental compliance, and stewardship into transportation planning, project development, construction, maintenance, and operations.

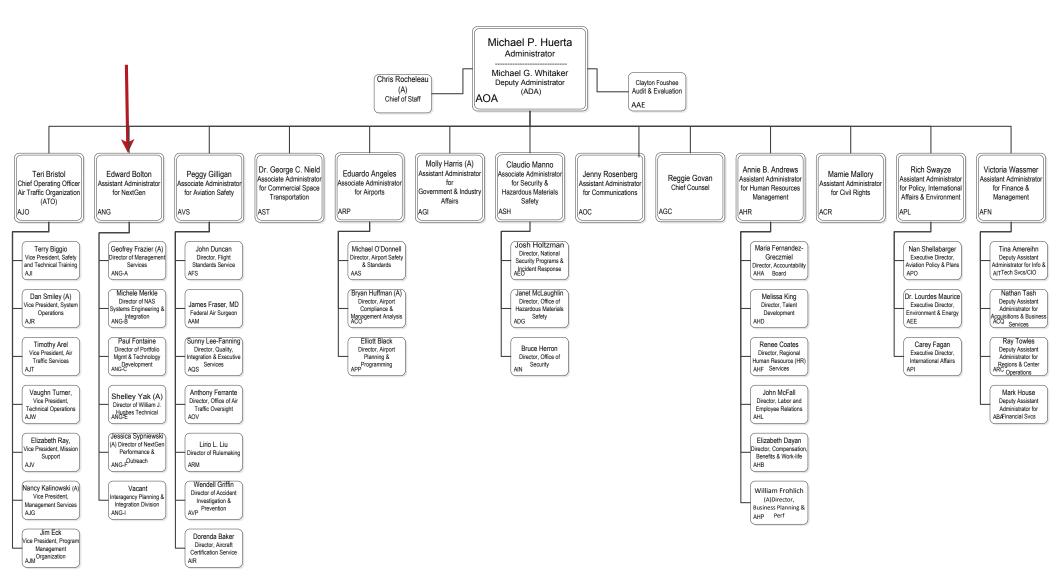
AASHTO has managed the previous center (environment.transportation.org/)

How Much: \$4M

When: Application due date 15 Oct 2015

Where: FHWA DTFH611RA000005

Federal Aviation Administration (FAA)



As of: 01/06/16

DOT FAA

Research

http://www.faa.gov/data_research/research/

Aerospace Medical and Human Factors Research

- Aerospace Human Factors Research
- Aerospace Medical Research

Aviation Research Grants

- Human Factors and Aviation Medicine
- Environment and Energy
- Aircraft Safety Technology
- Airports
- Communications, Navigation and Surveillance
- Aviation Weather
- Capacity and Air Traffic Control Technology
- Systems Science/Operations Research
- Commercial Space Transportation

Environment and Energy R&D

- Science and Integrated Modeling
- Aircraft Technologies
- Sustainable Alternative Jet Fuels
- Operations
- Environmental Standards, Market Based Measures and Policy Options

Modernization Highlights

- Cost Sharing Partnership Opportunities
- Air Transportation Oversight System (ATOS)
- GPS Implementation in Aviation
- Operational Evolution Partnership (OEP)

DOT FAA

/Centers of Excellence

http://www.faa.gov/about/office_org/headquarters_offices/ang/offices/management/coe/facts

What: The FAA's COE program is a cost-sharing research partnership between academia, industry and the federal government; there are presently 8 COE. A Center develops and implements transportation programs within a FAA specified 'theme' best suited for the Center to make the most significant contribution to the transportation community.

<u>The purposes of the education element of the program are to:</u> build upon the strengths of existing programs at the Centers, create new innovative programs, expand graduate level transportation education in the United States, and increase the opportunities for new entrants into the field of transportation.

The purpose of the research element is to: identify and conduct high quality research that will foster significant advances in transportation science and technology and generate basic, fundamental and applied knowledge in the appropriate disciplines.

<u>The purpose of the technology transfer element is to:</u> ensure that the results of the research program are widely disseminated, applied, implemented and utilized. This effort requires close interaction between the universities and the entire transportation community.

<u>A fundamental goal of the program is to:</u> establish close linkages between education and research activities. These linkages occur through carefully designed programs that provide continuing opportunities for faculty and students to interact in the classroom and on research projects.

How Much: In past competitions FAA has provided \$0.5 - 4 million a year for up to 10 years. Requires 100% matching from non-Federal sources.

When: Periodic Competitions, the last several awards have been:

Technical Training and Human Performance (applic due by 20 Apr 2016)	
Unmanned Aircraft Systems (Mississippi State, announced 8 May 2015)	2015
Alternative Jet Fuels and the Environment	
General Aviation	2012
Partnership to Enhance General Aviation Safety, Accessibility and Sustainability	2012

Where: https://www.cfda.gov/?s=program&mode=form&tab=step1&2d=71b65bce2f0cfbdabb599573bc5a2a45

DOT FAA

Grants for Aviation Research

http://www.faa.gov/about/office_org/headquarters_offices/ato/service_units/acquisition/grants/

What: The FAA Research Grants Program encourages and supports innovative, advanced research of potential benefit to the long-term growth of civil aviation and Commercial Space Transportation. The intent is to encourage applied research and development to enhance technology assimilation, transfer, and development in the FAA. The agency encourages the submission of proposals that embrace the entire spectrum of physical, chemical, biological, medical, psychological, mathematical, and engineering sciences.

The areas which contribute to the FAA mission of improving aviation safety, capacity, efficiency, and security, are:

- 1. Capacity and Air Traffic Control Technology
- 2. Communications, Navigation, and Surveillance
- 3. Aviation Weather
- 4. Airports
- 5. Aircraft Safety Technology
- 6. Human Factors and Aviation Medicine
- 7. Environment and Energy
- 8. Systems Science/Operations Research
- 9. Commercial Space Transportation

The FAA expects that grantees will share in the costs at a level that reflects their interest in the research, the potential benefits they may derive, and their ability to share in the cost of the project. The potential grantee may contact the appropriate FAA organization in determining levels of cost sharing prior to submitting a proposal.

When: This solicitation will remain open until December 31, 2019

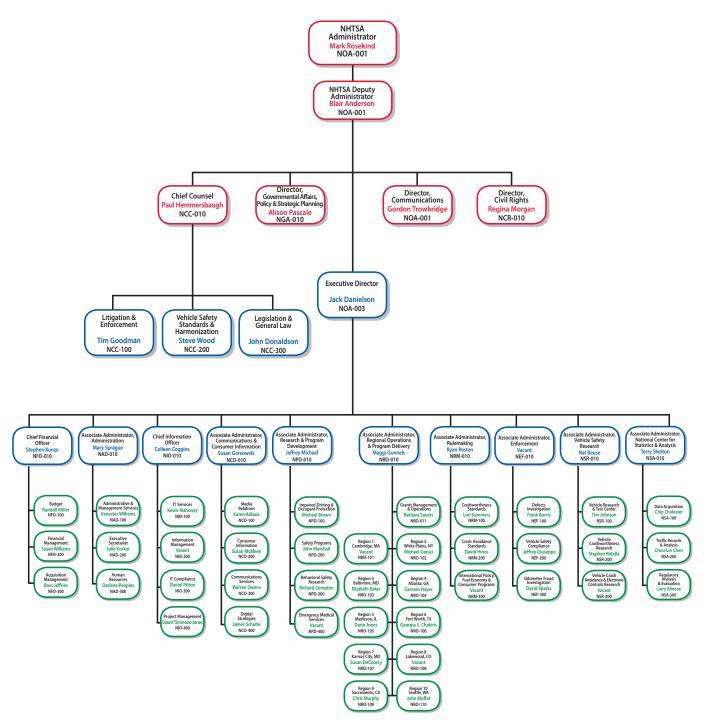
Where: FAA-12-01

Further information at 609-485-4781 or email to nicole.saiauskie@faa.gov

http://www.tc.faa.gov/logistics/grants

http://www.grants.gov

National HighwayTraffic Safety Administration (NHTSA)



DOT NHTSA

Research

http://www.nhtsa.gov/Research

What:

NHTSA is responsible for reducing deaths, injuries and economic losses resulting from motor vehicle crashes. This is accomplished by setting and enforcing safety performance standards for motor vehicles and motor vehicle equipment, and through grants to state and local governments to enable them to conduct effective local highway safety programs. NHTSA conducts research on driver behavior and traffic safety, to develop the most efficient and effective means of bringing about safety improvements.

Research Topics of Interest:

Biomechanics and Trauma

Behavioral Research

Crash Avoidance

http://www.nhtsa.gov/Research/Biomechanics+&+Trauma

http://www.nhtsa.gov/Research/Behavioral+Research

http://www.nhtsa.gov/Research/Crash+Avoidance

Crash Injury Research http://www.nhtsa.gov/CIREN

Crashworthiness http://www.nhtsa.gov/Research/Crashworthiness

Databases and Software http://www.nhtsa.gov/Research/Databases+and+Software

Driver Simulation http://www.nhtsa.gov/Driver-Simulation

Enhanced Safety of Vehicles http://www.nhtsa.gov/ESV
Event Data Recorder http://www.nhtsa.gov/EDR

Human Factors http://www.nhtsa.gov/Research/Human+Factors

Child Seat Research http://www.nhtsa.gov/Research/Child+Seat+Research

Vehicle Research and Testing http://www.nhtsa.gov/VRTC

Who: the solicitations appear focused on companies rather than University.

Organization Chart

Federal Transit Administration Administrator Deputy Administrator **Executive Director** Associate Associate Administrator Associate Associate Associate Associate Director of Associate Administrator for Regional Administrator for Administrator for Administrator **Chief Counsel** Administrator for Administrator for Civil Research, Administrators Communications Planning & Program Rights **Budget & Policy** Administration for Transit Safety Demonstration & & Congressional Environment Management & Oversight Innovation Affairs Office of Policy Office of Office of Office of Office of Office of Office of Review & Systems Transit Mobility Management System Safety Planning & Development Planning Innovation Planning Program Dev. Programs Office of Office of Office of Office of Capital Office of Office of Office of **Budget** Project Project Technology Information Safety Review Operations & Planning Technology Program Mgmt. Management Office of Office of Office of Office of Office of Human Office of Grants Strategic Research Human Program & Natural Management Planning Management Resources Oversight and Guidance Environment & Analysis Region 1 - Cambridge, MA Region 2 - New York, NY* Office of Office of Office of Region 3 - Philadelphia, PA Financial Planning Procurement Region 4 - Atlanta, GA Systems Methods Region 5 - Chicago, IL Region 6 - Fort Worth, Tx Region 7 - Kansas City, MO Region 8 - LakeWood, CO Region 9 - San Francisco, CA Office of Region 10 - Seattle, WA Financial *Region 2 includes two additional Management offices: Megaprojects Oversight and Lower Manhattan Recovery Office

- Hurricane Sandy Recovery Office

DOT FTA

Research

http://www.fta.dot.gov/grants/13094.html

The FTA has periodic, if infrequent, competitions open to proposals from private University. Three examples are:

Innovative Public Transportation Workforce Development Program FTA-2015-001-TRI FTA plans to fund nationally or regionally significant public transportation workforce projects that will assist in building ladders of opportunity for American workers to move into the middle class, as well as build the critical skillset needed in the public transportation industry.FTA has budgeted approximately \$9M for the program. FTA will award grants of a minimum of \$200K and a maximum of \$1M.

Pedestrian Collision Warning Demonstration Project

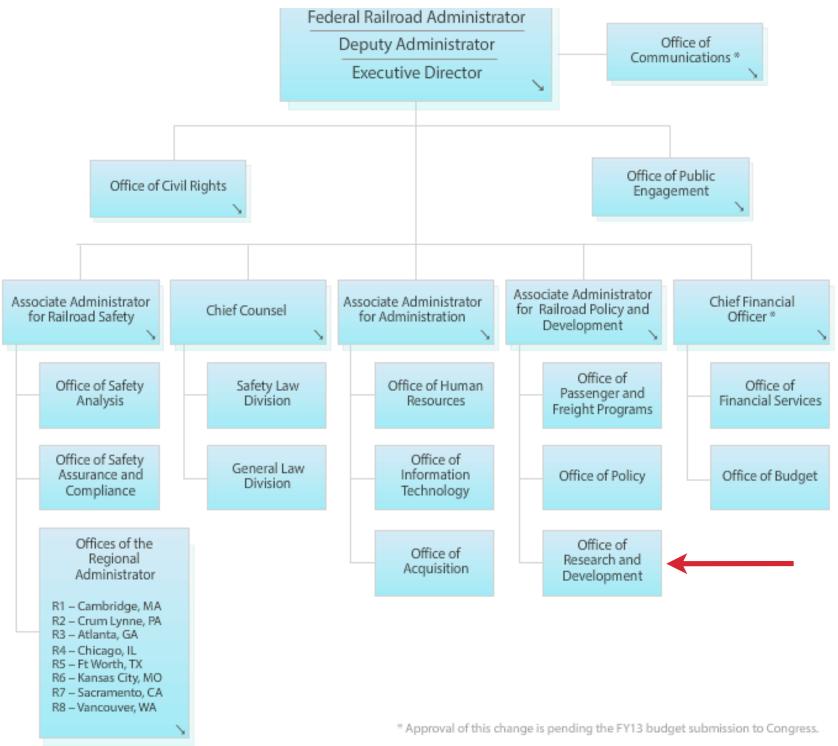
FTA-2012-010-TRI

The main objective of this pilot is to increase pedestrian/cyclist safety through demonstration of advanced pedestrian warning system on transit buses. FTA seeks applications to demonstrate innovative technologies that support the achievement of this objective. The applicant must be a transit agency or partner with a U.S. transit agency and obtain its commitment to participate in the project. The total available funding is \$400,000.

<u>Transit Livability Performance Measures</u>

<u>FTA-2011-001-LMP-TBP</u>

The Federal Transit Administration (FTA) plans to develop measures of how well transit systems meet the needs of people in the communities they serve. Such metrics are required for evaluating the success of livability enhancement programs, and for identifying where these programs are needed. The objective of this project is to define national livability performance measures and to develop the data resources to be able to calculate these measures on an annual basis so as to track trends and progress. The scope of this effort includes both urban and rural areas with specific direction towards measures that will allow FTA to gauge the effectiveness of Federal transit livability efforts. FTA will fund three projects under this program, one in each of the three specified subject areas. Funding for each cooperative agreement under this program will range from \$50,000 to \$125,000. The total available funding is \$300,000.



DOT FRA

Research and Development

http://www.fra.dot.gov/Page/P0019

What: The purpose of this Broad Agency Announcement (BAA) is to solicit a variety of basic and applied technology research projects that will support the strategic objectives of Office of Research and Development and the research needs of the four FRA research divisions:

- Track
- Rolling Stock and Equipment
- Train Control and Communications
- Human Factors

Projects shall develop technologies that have a direct impact on the safety and efficiency of freight and passenger rail operations in the US. Such technologies will:

- Reduce the operational and program deployment risks associated with mixed use rail lines;
- Improve safety by reducing human and technology failures;
- Bring about capital cost reductions and economy in producing equipment and facilities;
- Reduce operating costs of rail service by providing more efficient operations;
- Improve the reliability of equipment and infrastructure components by reducing failures and/or reducing false failure detections;
- Enhance the social benefits and/or environmental aspects of rail transportation; and
- Facilitate the development of domestic manufacture of rail equipment and infrastructure components.

How Much: About \$2M during FY2016

When: Open for two years

Where: BAA-2015 Research Initiatives in Support of Rail Safety (released March 2015)