

Transportation Research Funding in Three Acts

Cast of Characters

Act I – Leni Oman, Washington State DOT

Act II – Amy Schutzbach, Illinois DOT and Skip
Paul, Louisiana DOT and Development

Act III – Sue Sillick, Montana DOT

Venue:

July 2013 TRB State Representatives Meeting
Baton Rouge, Louisiana



Act One

RESEARCH FUNDING
The Long, Broad View

Why Provide this Information?



- We are key stewards of transportation research activities
- As funding is constrained, need to discuss potential impacts to transportation research
- Increase awareness and use of the many resources available
- Assess current funding and opportunities for improvement



In the Beginning

Transportation research by public agencies began with the creation of the federal Office of Road Inquiry in 1893



State Route 20, Washington, in in the late 1800's.

1920 National Advisory Board on Highway Research Formed – precursor of TRB

1921 Federal Highway Act of 1921 authorizes research funding for states

1934 Hayden Cartwright Act authorizes 1.5% of federal highway funds *could* be used for planning and research – precursor to SP&R

1951 FHWA mandates all states conduct research to promote state of the art methods and products

1962 Federal Aid Act restricts the use of planning and research funding to those purposes and increases it to 2%. NCHRP program established.

1991 ISTEA establishes the minimum 25% SPR funding for research.

2012 MAP-21 funds implementation of SHRP2 from SPR.

Other Key Program Actions

1930 Highway Research Information Service was formed.

1945 Highway Research Board (HRB) institutes the Highway Research Correlation Service. State highway departments agree to fund the sharing of research information.

1948 AASHO and the HRB develop a formal procedure for coordinating research efforts between two or more states with common concerns.

1955 \$27 M cooperative research Road Test initiated by AASHO, National Research Council, and Bureau of Public Roads

1970 Volpe Center formed to provide analytical, scientific, and engineering support to the newly formed USDOT.

1974 HRB becomes TRB

1980s TRB begins performing transportation policy studies.

1987 First SHRP program established. Ten University Transportation Centers authorized.

1987 University Transportation Center program established

1998 Aviation Safety Research Act mandates greater emphasis on long-range research planning and other studies

1992 TCRP formed.

1998 TEA-21 calls for Future Strategic Highway Research Program.

1995 FAA Centers of Excellence Established

2003 Aviation Act establishes ACRP

2005 SAFETEA-LU establishes several new research programs: STEP, EAR, SHRP2, NCFRP, HMCRP, more UTCs

2008 Rail Safety Act establishes NCRRP

2012 MAP-21 cuts NCFRP, HMCRP, restructures FHWA research programs.

National Research Programs

AASHTO Research Programs

AASHTO's Quick Response Research Projects

- CEO, **SCOE**, **SCOP**, SCOPT, **SCOH**, SCOTS, SCOHTS
- Funded by NCHRP (State DOTs)

Transportation Pooled Fund Program*

- Project leadership
- Project participation

International Scan Program*

- Topic submittal
- Participation in Scan Team

Domestic Scan Program

- Topic submittal
- Participation in Scan Team

Technology Implementation Group

- Technology submittal

Technical Services Programs

- **ETAP**, **NTPEP**, **APEL**, **AMRL**, DAMS, TRAC, SICOP, AETO, SAFETY, **Climate Change**, **MTAP**, NPHQ, LRFD, TSP², TC3

SHRP2 Implementation*

Transportation Research Board Programs

National Cooperative Highway Research Program

- Funded by State DOTs
- Problem Statements
- Synthesis Topics
- Panel Nominations

Airport Cooperative Research Program

- Problem Statements
- Synthesis Topics
- Panel Nominations

Transit Cooperative Research Program

- Problem Statements
- Synthesis Topics
- Panel Nominations

National Cooperative Rail Research Program

- Problem statements
- Panel Nominations

Marine Board

- Topic submittal

Strategic Highway Research Program (SHRP2)

- Expert Task Group appointments
- Pilot Tests
- Demonstration Projects

Innovations Deserving Exploratory Analysis

- Suggest promising but unproven innovations for Transit, Highways, Safety

Commercial Truck and Bus Safety Synthesis Program (CTBSSP)

- Topic submittal

Policy Studies

- Fund a topic
- Committee nominations

Legal Research

- Topic submittal for Highways, Transit, and Airports

* FHWA shares cost

Follow the Money



Sources of Transportation Research Funding

- Surface Transportation Act
- Aviation Act
- Rail Safety Act

Other Sources and Match Resources

- State DOTs
- Universities
- Municipal Planning Organizations & local governments
- Other

Sources of Research Funding Today



Sources of Transportation Research Funding

Surface Transportation Act

FHWA – TFHRC, HEP, State DOTs,

RITA – UTCs, Small Businesses

FTA – TCRP

NHTSA

Aviation Act

FAA – ACRP

Rail Act

FRA – NRCRP

MARAD

Annual Appropriations





FHWA Research Programs

- [Exploratory Advanced Research](#)
- [Surface Transportation Environment and Planning Cooperative Research Program](#)
- [Exploratory Advanced Research](#)
- Highways for Life Program Innovative
- Bridge Research and Deployment Program
- [International Visitor Program](#)
- [Coordination of U.S. International Road Activities](#)
- [International Highway Technology Scanning Program](#)
- [Global Technology Exchange Program](#)
- [Emerging Markets/Opportunities](#)

RESOURCES

FHWA Research Topics

- [Corporate Master Plan \(CMP\) for Research and Deployment of Technology & Innovation](#)
- [R&D Topics](#)
 - [Infrastructure](#)
 - [Operations](#)
 - [Safety](#)
- [Innovation Life Cycle Introduction](#)
- [Roadmaps](#)
- [Research Deployment](#)

FHWA Priority Technologies

- [Every Day Counts Initiative](#)
- [Highways for LIFE program](#)
- [24 Priority, Market Ready Technologies and Innovations Briefs](#)



FTA Research Programs

- [National Research and Technology Program](#)
- [Intelligent Transportation Systems for Transit](#)
- [National Fuel Cell Bus Program](#)
- [International Public Transportation Program](#)
- [Transit Cooperative Research Program](#)
- [Bus Testing Program](#)
- [Transit Investments for Greenhouse Gas and Energy Reduction \(TIGGER\)](#)

RESOURCES

FTA Research Funding

- [Applying for FTA Research Funding](#)

FTA Research Projects

- [Research Reports](#)

Public Transportation Research Digest

- [FTA Public Transportation Research Digest](#)

Priority Areas supported by Research

- [Environmental Sustainability](#)
- [Livable and Sustainable Communities](#)
- [Safety](#)
- [State of Good Repair](#)
- [Bus Rapid Transit](#)

Related Programs

- [Training and Workforce Development](#)



More USDOT Research Programs

MARAD

Research and Development

- [Ballast Water and Aquatic Invasive Species](#)
- [National Shipbuilding Research Program \(NSRP\)](#)
- [Marine Board](#)
- [Transportation Research Board \(TRB\)](#)
- [National Maritime Enhancement Institutes \(NMEIs\)](#)

Research Opportunities

- [National Maritime Enhancement Institutes \(NMEIs\)](#)



[FAA](#)

- Advanced Pavement Design
- Airport Design Technology
- Aircraft Rescue & Firefighting Technology
- Airport Wildlife Hazard Abatement
- National Airport Pavement Test Facility
- Nondestructive Pavement Testing
- Pavement Materials
- Operation of New Large Aircraft
- Visual Guidance & Runway Incursion Reduction
- Runway Surface Technology
- Field Instrumentation and Testing



More USDOT Research Programs

RITA

- [RITA Intelligent Transportation Systems Joint Program Office](#)
- [University Transportation Centers](#)
 - Five national
 - Ten regional
 - “up to” 20 Tier I
- [Small Business Innovative Research](#)

FRA

- [Federal Railroad Administration \(FRA\) Research and Development](#)

PHMSA

- [PHMSA Research & Development](#)

NHTSA

- [Biomechanics & Trauma](#)
- [Behavioral Research](#)
- [Crash Avoidance](#)
- [Crash Injury Research \(CIREN\)](#)
- [Crashworthiness](#)
- [Databases and Software](#)
- [Driver Simulation \(NADS\)](#)
- [Enhanced Safety Vehicles \(ESV\)](#)
- [Event Data Recorder \(EDR\)](#)
- [Human Factors](#)
- [Child Seat Research](#)
- [Public Meetings](#)
- [Vehicle Research & Testing \(VRTC\)](#)



No Flash in the Pan
Transportation Research
has a long history



and has evolved to help shape the changing
needs of the transportation practice

*What does the next generation of
funding look like?*





Act Two

MANAGING
RESEARCH FUNDING

State Planning and Research (SPR) Funding



- Rules and regs covered in 23 CFR 420
- = 2% set aside
- Often referred to as Part 1 (Planning) & Part 2 (Research)
- States must spend a *minimum* of 25% of SPR funds on research, development, and technology transfer (RD&T) activities
- UNLESS....



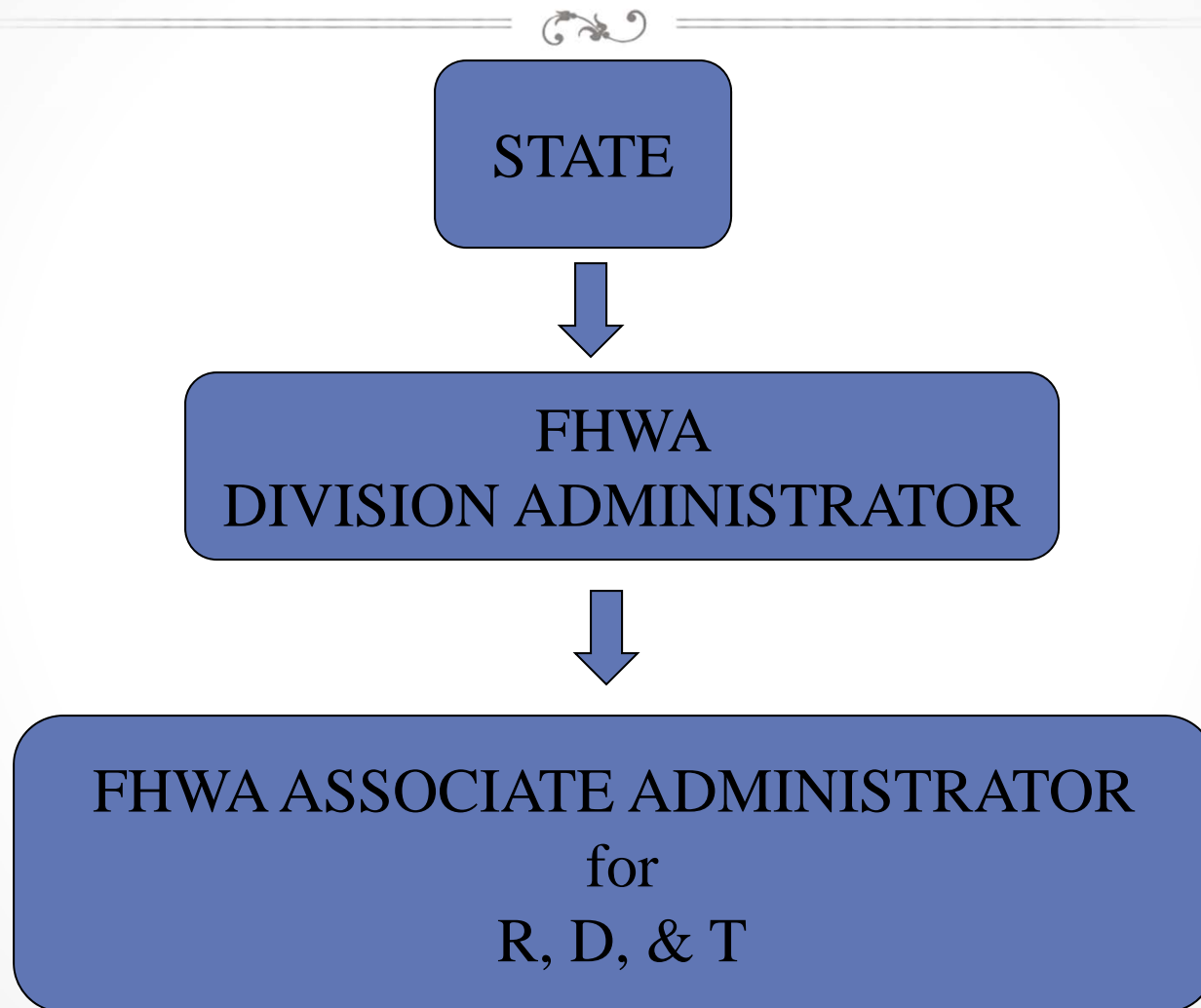
**CODE OF FEDERAL
REGULATIONS**

Annual Exemption Allowed if a State Can Show



- Additional planning activities (23 U.S.C. 134 and 135) are essential, and no other funding is available for planning
- Planning activities have a higher priority than RD&T activities
- State's total RD&T level is adequate
- FHWA Considers
 1. Has a process for identifying needs/ implementing a viable RD&T program.
 2. Is contributing to cooperative RD&T programs or activities, such as NCHRP, TRB, TPF
 3. Is using SPR funds for tech transfer and for transit or intermodal R&D to meet the 25%.
 4. Demonstrates it will meet or exceed 25% RD&T expenditures over a multi-year period,
 5. Federal funds needed for planning exceed the 75% limit for the fiscal year
 6. Whether there are unused planning funds are available from previous fiscal years

How is Approval Granted?



State must have annual work program



- RD&T activities, with description of work and costs
- Description of cooperative activities with cost
- Financial summaries showing funding levels and share (federal, state, other)
- States encouraged to include work funded 100% with other funds
- Approved by Division Administrator



State must have a management process



- Interactive process for identifying and prioritizing RD&T
- Uses all RD&T SPR funds to maximum extent
- Procedure to track program activities, schedules, accomplishments, and fiscal commitments
- Documented in Research Manual



Approval Contingent On ...



- Use TRID database
- Participation in peer exchanges
- Procedures to:
 - Determine effectiveness of implementation
 - Utilization of RD&T outputs
 - Facilitate peer exchanges
 - Document RD&T activities through final reports
 - Implement appropriate findings
 - Document benefits
- State must certify they are in full compliance



And Don't Forget... Reports



- Submit performance/expenditure reports
 - Compare performance with goals
 - Show progress in meeting schedules
 - Compare approved budgets and actual expenses
 - Cost overruns vs. under-runs
 - Show approved work program revisions
 - Detail events with significant impact on work ASAP – problems, delays – and how to resolve them



And Don't Forget... The Details



- Reports are due **90** days after end of annual period;
30 days after quarter
- FHWA must review final project reports prior to publication
- Reports must include credit references and disclaimer statements





One more thing....

- States can't spend \$ until FHWA approves work program
- Funds are provided at 80% federal/20% state
- Third party, in-kind contributions can be used for match
- State must have available \$ to pay the full federal share – pay up front, then get reimbursed

Allowable Uses of SPR Funding



State Research Programs

- Targeted to address specific needs of state

Strategic Highway Research Program 2 (SHRP2)



- MAP-21 allows SPR funding to be used to fund SHRP2 implementation

Allowable Uses - Travel

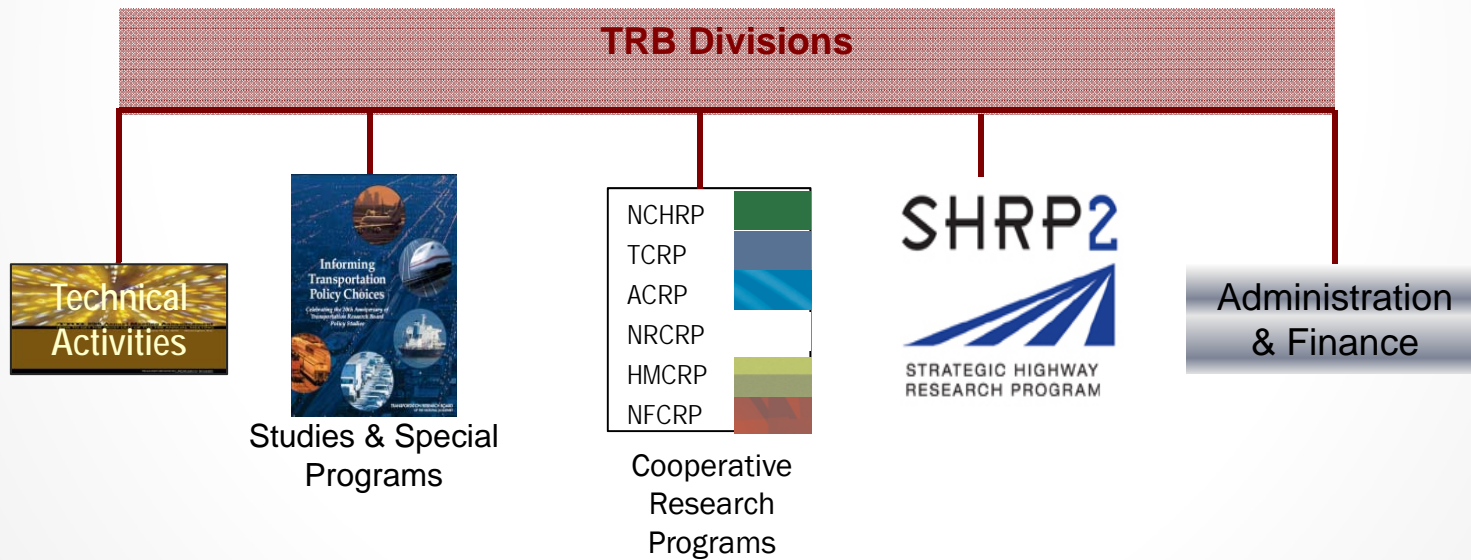
Travel

- FHWA Guidelines exist ~
<http://www.fhwa.dot.gov/hep/guidance/sprt.cfm>
- Travel/training for an employee may be billed to SPR funds IF
- It is necessary
- Cost is reasonable



Allowable Uses – TRB

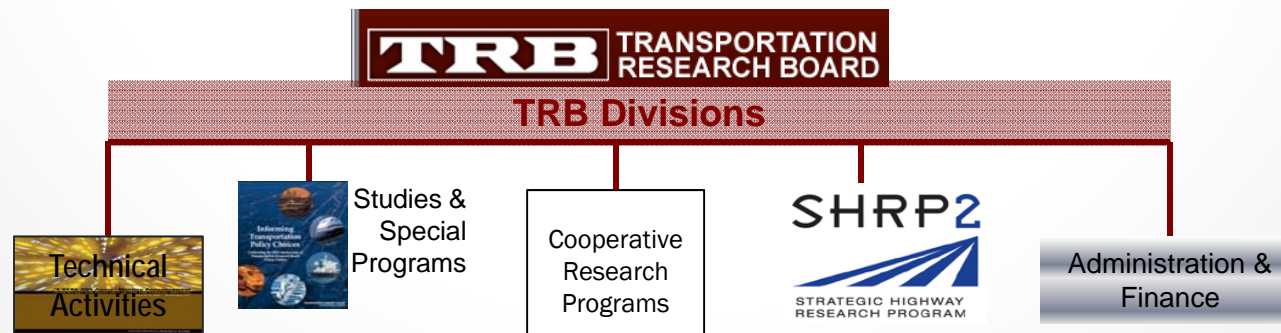
Transportation Research Board (TRB)



Allowable Uses – TRB Core Services

TRB Core Services

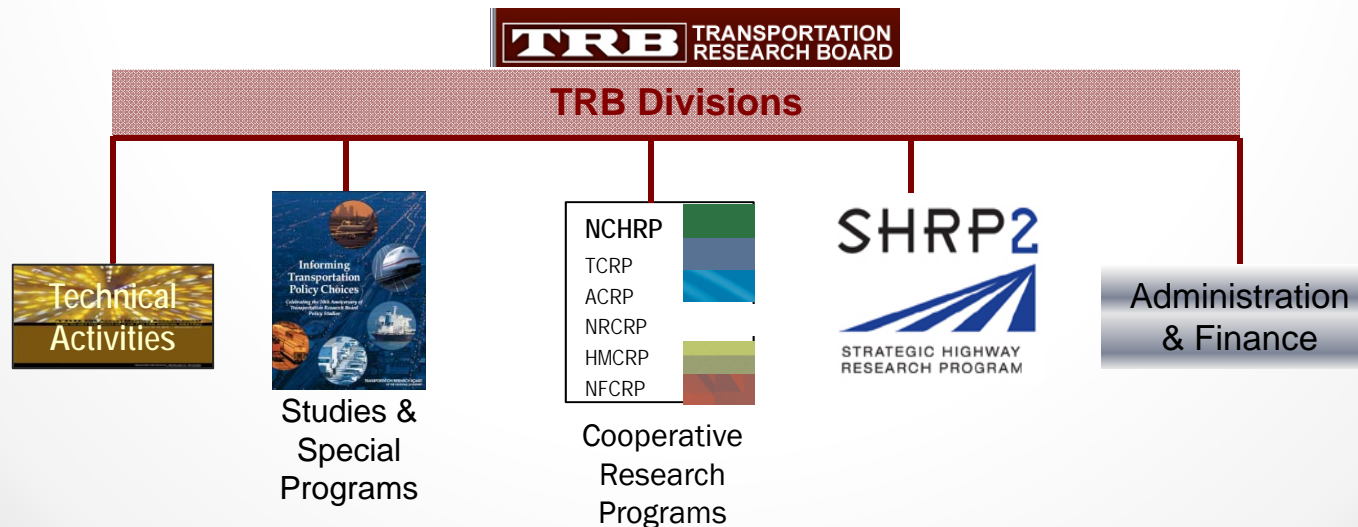
- Facilitates collaboration
- Promotes development and implementation of innovations
- Both tangible & intangible benefits
- Budget prorated to states based on federal SPR share




Allowable Uses - NCHRP

National Cooperative Highway Research Program

- 5.5% of total federal portion of SPR funding
- National research in problem areas that affect state DOTs
- States are able to leverage their funding



Allowable Uses – Peer Exchanges



Peer Exchanges

- Tool to foster excellence in program management
- Allows for BMP and management innovations to be shared
- Eligible for 100% SPR funding

Allowable Uses – Transportation Pooled Funds



Transportation Pooled Funds

- An AASHTO program administered by FHWA
- Allows interested agencies to partner on studies of mutual interest
- May be eligible for up to 100% SPR funding

Allowable Uses – Technical Services Programs



AASHTO Engineering Technical Services Programs (TSP) Eligible for SPR

- [Technology Implementation Group \(TIG\)](#)
- [Snow and Ice Cooperative Program \(SICOP\)](#)
- [Equipment Management Technical Services Program \(EMTSP\)](#) (Formerly Advance Equipment Technology Operations, AETO)
- [National Transportation Product Evaluation Program \(NTPEP\)](#)
- [AASHTO Product Evaluation Listing \(APEL\)](#)
- Highway Safety Policy and Management (formerly Safe, Reliable, and Secure Transportation Operations)
- Technical Service Program to Develop AASHTO Materials Standards (DAMS)
- [Load and Resistance Factor Design \(LRFD\) Bridges and Structures Specification Maintenance \(LRFDSM\)](#)
- [Transportation Curriculum Coordination Council \(TC3\) - anticipated](#)
- [Transportation System Preservation \(TSP²\)](#)



More AASHTO Technical Service Programs



Additional AASHTO Technical Services Programs (TSP) Eligible for SPR

- AASHTO Materials Reference Laboratory (AMRL)
- Environmental Technical Assistance Program (ETAP)
- Sustainable Transportation: Energy, Infrastructure, and Climate Solutions (STEICS) (formerly Climate Change Technical Assistance Program (CCTAP))
- AASHTO Ware development activities. Current efforts include:
 - AASHTO Ware Bridge Management (formerly Pontis) 5.2
 - AASHTO Ware Project Estimation (formerly Transport Estimator)
 - AASHTO Ware Project Construction–Materials (replacing Transport SiteManager)



More AASHTO Technical Service Programs



AASHTO TSPs **NOT** eligible for SPR

- Licensing of AASHTO Ware products (note that SPR is eligible for development activities within this program)

AASHTO TSPs - SPR Eligibility Not Yet Determined

- Multi-State Technical Assistance Program (MTAP)
- AASHTO Rail Resource Center
- Transportation and Civil Engineering (TRAC) and RIDES

Allowable Uses – UTC Match



University Transportation Center Match

- UTC Program created in 1987
- Managed by US DOT's Research and Innovative Technology Administration (RITA)
- UTC must obtain match
 - SPR & LTAP funding are eligible sources

Be Creative... Be Bold



Other Sources to support your program

- NCHRP - \$757,833 (3)
- IBRD - \$1,225,630 (3)
- UTC - \$2,400,000 (14) for \$560,406
- Other Federal Agencies - \$20,000 (1)
- Other LADOTD Sections



Act Three

FINDING RESEARCH
FUNDING
Competitive Programs

Research Funding: Competitive Programs



What is it?

- ❖ Describes funding programs that
 - Accept research problem statements and/or
 - Accept research proposals

Where is it?

- ❖ <http://www.trb.org/ResearchFunding/ResearchFunding.aspx>
- OR
- ❖ tinyurl.com/transportationresearchfunding



Funding Sources for Transportation Research: Competitive Programs

www.TRB.org/ResearchFunding



*Do you have a research topic in
search of funding?*

*There's a new tool to help you find
a program to fund that research!*

TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

Where is it?



The screenshot shows the TRB.org website interface. At the top, there is a navigation bar with the TRB logo and the text "TRANSPORTATION RESEARCH BOARD OF THE NATIONAL ACADEMIES". To the right of the logo are links for "Home", "Contact Us", "Directory", "E-Newsletter", "Follow Us", and "RSS". A search box is also present. Below the navigation bar is a horizontal menu with categories: "About TRB", "Annual Meeting", "Calendar", "Committees & Panels", "Programs", "Projects", "Publications", and "Resources & Databases". The "Resources & Databases" menu is expanded, showing a list of items: "Webinars & Conference Recordings", "Research In Progress (RIP)", "Research Needs Statements (RNS)", "TRID (A Transportation Research Database)", "Practice-Ready Papers (PRP)", "Transportation Research Thesaurus (TRT)", "Online Directory", "Library", and "Research Funding". The "Research Funding" item is highlighted in yellow. A yellow arrow points from the "Resources & Databases" menu to a dark red box containing the text "TRB.org Resources & Databases". Below this box is another list of the same items, with "Research Funding" also highlighted. The main content area on the left shows the "Funding Sources for Transportation Research: Competitive Programs" page, with a sidebar containing a table of contents for chapters 1 through 6 and appendices A through C. The page content includes a paragraph about the difficulty of navigating through these programs and a list of bullet points providing additional information. The footer of the page contains the address "Transportation Research Board, 500 Fifth St. NW, Washington, D.C. 20001" and the copyright notice "Copyright © 2013. National Academy of Sciences. All Rights Reserved." The logo for "THE NATIONAL ACADEMIES" is also present in the footer.

Why Use It?

Because, in order to secure funding, you need to know:

- ❖ Who can submit research needs
- ❖ If there are focus areas and, if so, what
- ❖ If champions/sponsors are required and, if so, who
- ❖ Who prioritizes the research needs (generally)
- ❖ Who makes the funding decisions (generally)
- ❖ The process

What's in it?



**TRANSPORTATION
RESEARCH BOARD**

OF THE NATIONAL ACADEMIES

[About TRB](#)

[Annual Meeting](#)

[Calendar](#)

[Committees & Panels](#)

[Programs](#)

[Projects](#)

[Publications](#)

[Resources & Databases](#)

Research Programs

- Transportation Research Board
- Federal Research Programs
- State Department of Transportation
- University Transportation Centers
- International Research Programs

[Chapter 1: Introduction](#)

[Chapter 2: Research Characteristics](#)

[Chapter 3: Which Program Fits?](#)

[Chapter 4: Proposed, Ongoing, Completed Research](#)

[Chapter 5: General Advice and Summary](#)

[Appendix A: Writing a Research Statement](#)

[Appendix B: Research Programs Summary](#)

[Appendix C: Updates & Submittal Form](#)

[Contributors](#)

[Contact Us](#)

[View or Print Entire Document](#)

[Funding Sources for Transportation Research: Competitive Programs](#) > Research Programs

Research Programs

For information on the programs below please click on the headers (i.e. Transportation Research Board)

Transportation Research Board

- National Cooperative Highway Research Program
- Airport Cooperative Research Program
- Transit Cooperative Research Program
- National Freight Cooperative Research Program
- Hazardous Material Cooperative Research Program
- IDEA

State

- State Planning and Research (SP&R) Funding
- Transportation Pooled Fund Program

University Transportation Centers

Federal

- Federal Highway Administration
- Research and Innovation Technology Administration
- Federal Transit Administration
- Federal Aviation Administration (Pending)
- National Science Foundation (Pending)
- National Institute of Health (Pending)
- Department of Energy (Pending)
- Department of Homeland Security (Pending)
- Department of Education (Pending)
- Environmental Protection Agency (Pending)
- Department of Agriculture (Pending)

International Research Programs

- European Union (FP7)
- European Union (FP7)

Private Corporations or Foundations

Pending

What else is in it?



Research Programs

- Transportation Research Board
- Federal Research Programs
- State Department of Transportation
- University Transportation Centers
- International Research Programs

Chapter 1: Introduction

Chapter 2: Research Characteristics

Chapter 3: Which Program Fits?

Chapter 4: Proposed, Ongoing, Completed Research

Chapter 5: General Advice and Summary

Appendix A: Writing a Research Statement

Appendix B: Research Programs Summary




Appendix C: Updates & Submittal Form

Contributors

Contact Us

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Funding Sources for Transportation Research: Competitive Programs > Research Programs > Transportation Research Board

Text Size: A A | Share:      

Transportation Research Board

- [National Cooperative Highway Research Program](#)
- [Innovations Deserving Exploratory Analysis](#)
- [Airport Cooperative Research Program](#)
- [Transit Cooperative Research Program](#)
- [National Cooperative Freight Research Program](#)
- [Hazardous Materials Cooperative Research Program](#)
- [TRB Legal Resources Program](#)

What is the Transportation Research Board?

The Transportation Research Board (TRB) is a division of the National Academies, a private, nonprofit institution that includes the National Academy of Sciences, National Academy of Engineering, Institute of Medicine, and National Research Council. Created as the Highway Research Board in 1920, TRB promotes innovation and progress in transportation through research. Much more information about [TRB](#).

TRB Research Overview

TRB administers a number of major research programs sponsored by other organizations. The oldest and largest of these programs, the National Cooperative Highway Research Program (NCHRP), is sponsored by the state transportation departments in cooperation with the Federal Highway Administration (FHWA). The Transit Cooperative Research Program (TCRP), initiated in 1992, is sponsored by the Federal Transit Administration (FTA). Both are applied research programs in which the potential users of research results have a direct role in project selection. In 2002, TRB began administering the Commercial Truck and Bus Safety Synthesis Program (CTBSSP), which is sponsored by the Federal Motor Carrier Safety Administration. The congressionally requested Airport Cooperative Research Program (ACRP), which began work in 2006, is sponsored by the Federal Aviation Administration (FAA). Two other new programs were initiated in 2006—the Hazardous Materials Cooperative Research Program (HMCRP) and the National Cooperative Freight Research Program (NCFRP), both of which were authorized in the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU).

For all of these programs, TRB organizes panels of experts to provide guidance on technical aspects of the research and to translate the problems into project statements with well-defined objectives. Research proposals are then solicited from private and public research organizations with capability and experience in the problem areas to be studied. The technical panels review the proposals, recommend contract awards, monitor research in progress, provide technical guidance, and determine the acceptability of the final reports. More than 3,000 experienced practitioners and research specialists currently serve on Cooperative Research Program panels. TRB also manages programs of smaller studies focused on synthesizing current practices and analyzing legal issues in the NCHRP, ACRP, and the TCRP programs.

National Cooperative Highway Research Program (NCHRP)

NCHRP Regular Projects

Total Annual Funding – \$36.5 million (total annual program funds)
Range of Project Costs – \$200,000–600,000: Statements Due – mid-September

General Description

Administered by the Transportation Research Board (TRB), the National Cooperative Highway Research Program (NCHRP) was created in 1962 as a means to conduct research in acute problem areas that affect highway planning, design, construction, operation, and maintenance nationwide. NCHRP is sponsored by the state departments of transportation in cooperation with FHWA. Support is voluntary and funds are provided from the states' Federal-Aid Highway apportionment of State Planning and Research (SP&R) funds (information on the SP&R funds may be found in the state DOT section of this report.) Each state's voluntary contribution amounts to 5.5 percent of its SP&R apportionment, resulting in an annual cooperative pool of \$36.5 million to fund the program's activities (based on 2008 funding levels).

AASHTO committees, state DOTs, and FHWA propose research topics each year, and the AASHTO Standing Committee on Research (SCOR) recommends both the projects to be funded and the levels of funding for those projects.

What information does it provide?



- ❖ Summary
- ❖ General description
- ❖ Type of research funded
- ❖ Funding range
- ❖ Timeframe
- ❖ Project solicitation and submission
- ❖ Selection process
- ❖ Contact information

Program by Research Need Characteristics

❖ Chapter 1 – Introduction

❖ Chapter 2

- Geographic relevance
- Mode/Topic
- Funding level
- Partnering/cost-sharing requirements

❖ Chapter 3

- Mode/Topic
- Funding Range
- Type of projects

Research needs

How to find research needs and projects



❖ Chapter 4

- Research needs
- Ongoing research
- Completed research

Why is it important to know about research needs?

- ❖ Improve coordination and collaboration
- ❖ Reduce duplication of efforts
- ❖ Increase funding chances
 - Wider applicability
 - Helps researchers to identify projects

How can you identify research needs?



- ❖ Transportation Research Needs Meta Search Tool
 - tinyurl.com/transportationresearchneeds
 - TRB Research Needs Statements (RNS) Database (rns.trb.org)
 - AASHTO Transportation & Environment Research Ideas (TERI) Database
(http://environment.transportation.org/teri_database/)
 - Unfunded pooled-fund projects
(<http://www.pooledfund.org/>)
 - NCHRP unfunded problem statements (2010-2013)
 - MnDOT unfunded research needs

Why is it important to know about ongoing and completed research?

- ❖ Monitor research in progress
- ❖ Review/synthesize/implement/share research results
- ❖ facilitate coordination and collaboration
- ❖ Identify potential partners
- ❖ Reduce duplication of efforts
- ❖ Identify related work upon which to build
- ❖ Identify experts and peer reviewers
- ❖ Improve funding opportunities

How can you learn about ongoing and completed research?

- ❖ TRB Research in Progress (RiP) Database (rip.trb.org)
- ❖ TRB Transportation Research International Documentation (TRID) Database (trid.trb.org)
- ❖ USDOT Research Hub
(<http://ntlsearch.bts.gov/researchhub/index.do>)
- ❖ National Transportation Library (NTL) Integrated Search (<http://ntl.bts.gov>)

How can you learn about ongoing and completed research?

- ❖ **Transport Research & Innovation (TRIP) Portal**
(<http://www.transport-research.info/>)
- ❖ **HERMES** (<http://www.hermes-project.net/>)
- ❖ **Transportation Libraries and Information Centers**
(<https://www.transportationresearch.gov/ntl/ntkn/librarydirectory2/forms/default.aspx>)
- ❖ **National Technical Information Service (NTIS)**
(<http://www.ntis.gov>)
- ❖ **WorldCat** (<http://www.worldcat.org/>)

How to write an effective research statement



Appendix A: How to Write an Effective Research Statement

[Webinar:](#)

["Presentation"](#) and ["Presentation Talking Points"](#)

Writing an effective research statement is not a simple matter, even to transportation practitioners who face serious problems and challenges on a daily basis. The research needed might be obvious to them but difficult to describe non-specialists. They may not have thought about how to quantify it or how to justify the needed research with respect to other agency or national priorities. A serious problem to them might not even be on a decision maker's radar screen.

This document was written to provide some guidance on developing research statements for funding consideration. The categories below are based on those of the National Cooperative Highway Research Program, but they should be adaptable to any research funding program.

TITLE

The research statement title should briefly and immediately convey to the reader what the proposed study is about. It does not have to capture every element, nuance, and expected task of the research problem. It is like the title of a book—it should attract your attention, quickly convey the subject, draw you in, and make you want to read what's inside.

Here's a general rule: the more deeply you are involved in a particular subject, the harder it is for you to step back and see the big picture. You may be tempted to title your research statement something like this . . .

Collection, analysis, and compilation of current best practices for the design of roundabouts for U.S. roadways and how those design elements will impact safety, capacity, and contribute to effective traffic management objectives . . .

rather than this . . .

Design guide for roundabouts.

The first alternative might be a good title for a PhD thesis; the second title is a far better choice for a research statement.

Maintaining this resource



Appendix C: Transportation Research Program Additions and Changes and Link to New Program Submittal Form

[Submittal Form](#) for changes, corrections, updates, or additional information on programs already included on the web page.

To suggest a new program we will need the following information:

1. Program Title and Agency
2. General Description
3. Type of Research Funded
4. Funding Levels and Project Time Frame
5. Schedule
6. Project Solicitation and Submission
7. Selection Process
8. Project Selection Criteria and Tips for Writing Winning Research Statements
9. Further Information (Web address and contact information)

Contacts

- ❖ Kim Fisher, TRB: kfisher@nas.edu
- ❖ Sue Sillick, MDOT: ssillick@mt.gov

To Contact the Orators

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Act II

Amy Schutzbach, Illinois DOT

Skip Paul, Louisiana DOT and Development

Act III

Sue Sillick, Montana DOT

Credits

America's Highways 1776/1976: A History of the Federal-Aid Program. 1976. U.S. Department of Transportation Federal Highway Administration.

A Chronicle of Research and TRB Turns 50 - Highlighting the Fifth Decade of TR News
<http://onlinepubs.trb.org/onlinepubs/trnews/trnews285TRNews50.pdf>

Research Funding Guide <http://www.trb.org/ResearchFunding/ResearchFunding.aspx>
State Planning & Research <http://www.fhwa.dot.gov/research/partnership/spr/>

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