

Research Opportunities

Funding PCC Research

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Outline

- FHWA Research
- SPR funding
 - Transportation Pooled Funds (TPF)
- NCHRP
 - TRB committee roles
 - Subcommittee on Research (SCOR)
 - Research Advisory Committee (RAC)

FHWA Research

- **FHWA is in a unique leadership position** to identify and address issues of national significance that require **high-risk, long-term, distinctive areas of research**. In this role, FHWA plans to shape and execute a national research and innovation technology development, deployment, and training program that produces and delivers the solutions needed to meet current challenges, assesses future needs, and responds to those needs proactively and effectively.

FHWA Research

- Objective: 1: Improve the security of highway infrastructure and reduce the number of fatalities attributable to infrastructure design characteristics and work zones.
- Objective: 2: Improve the management of infrastructure assets and advance the implementation of a performance-based program for the National Highway System.
- Objective: 3: Improve the ability of transportation agencies to deliver projects that meet expectations for timeliness, quality, and cost.

FHWA Research

- Objective: 4: Reduce user delay attributable to infrastructure system performance, maintenance, rehabilitation, and construction.
- Objective: 5: Improve highway condition and performance through increased use of design, materials, construction, and maintenance innovations.
- Objective: 6: Reduce the life-cycle environmental impacts of highway infrastructure (design, construction, operation, and maintenance).

FHWA Research

- **Input**
 - **ETG/TWG**
 - **TRB Committees**
 - **Roadmaps**
 - **Personal contacts**

SPR Funding

- The State Planning and Research Program funds States' statewide planning and research activities. The funds are used to establish a cooperative, continuous, and comprehensive framework for making transportation investment decisions and to carryout transportation research activities throughout the State.

SPR Funding

- Funding is provided for SP&R by a 2% set-aside from each State's apportionments of four programs: the National Highway Performance Program (NHPP); the Surface Transportation Program (STP); the Highway Safety Improvement Program (HSIP); and the Congestion Mitigation Air Quality Improvement Program (CMAQ) Program.
- Of the funds that are set aside, a minimum of 25% must be used for research purposes, unless the State certifies that more than 75% of the funds are needed for statewide and metropolitan planning and the Secretary accepts such certification.

Transportation Pooled Fund

- When significant or widespread interest is shown in solving transportation-related problems, research, planning, and technology transfer activities may be jointly funded by several federal, state, regional, and local transportation agencies, academic institutions, foundations, or private firms as a pooled fund study.

Transportation Pooled Fund

- The Transportation Pooled Fund (TPF) Program has existed for more than 20 years. It is a popular means for State Department of Transportation (DOT), commercial entities, and Federal Highway Administration (FHWA) program offices to combine resources and achieve common research goals. Pooling resources reduces marginal costs, and provides efficient use of taxpayer dollars. It also provides greater benefits to participating interests as compared to individual entities conducting or contracting for research on their own.

Transportation Pooled Fund

- A federal, state, regional, or local transportation agency may initiate pooled fund studies. Private companies, foundations, and colleges/universities may partner with any or all of the sponsoring agencies to conduct pooled fund projects. TPF studies must be sponsored by either a State DOT or the FHWA. Within each State DOT and the FHWA, specified individuals are authorized to post a project solicitation on the TPF website. Typically, the authorized user is the AASHTO Research Advisory Committee member in the State DOT.

TPF Steps

- Lead State
- Problem Statement/Proposal
 - The identification of the lead agency for the proposed project.
 - Your planned process
 - The estimated cost of the project
 - The estimated duration of the project
 - The requested funding contribution from each potential partner
- Post solicitation
- Match Waiver
- Meet contribution goal

TPF Steps

- Meet contribution goal
- Select method of research
- Transfer money from member states to lead state
- Obligate federal funds
- Technical Advisory Committee
- Begin work
- Quarterly reports
- Final report

NCHRP

- The state departments of transportation are the sole sponsors of the NCHRP. Support is voluntary and funds are drawn from the states' Federal-Aid Highway apportionment of State Planning and Research (SPR) funds. Furthermore, the funds can be spent only for the administration of problems approved by at least two-thirds of the states. **Each state's allocation amounts to 5 and 1/2 percent of its SPR apportionment.**

NCHRP

- Each year in early July, the AASHTO Standing Committee on Research (SCOR) solicits problems from three authorized sources:
 - (1) AASHTO member transportation departments,
 - (2) the chairs of AASHTO's committees and subcommittees, and
 - (3) the Federal Highway Administrator.
- Problem statements are due by September 15 of the same year; on receipt, FHWA and NCHRP evaluations are performed.

NCHRP

- At the same time that new problem candidates are submitted, NCHRP panels and staff are also working on recommendations for continuations of projects begun in earlier years. Late each December, a report on the continuation projects and new problem candidates goes to the SCOR and the AASHTO Research Advisory Committee (RAC) with a ballot for rating the candidates according to priority.

Example

Iowa

- NHPP - \$287,931,279
- STP - \$132,439,348
- Safety - \$26,427,220
- CMAQ - \$11,061,206
- SPR - \$9,139,198.00
- Research - \$2,284,799.50
- NCHRP - \$482,549.65

Nation

- NHPP - \$22,203,518,597
- STP - \$10,212,921,425
- Safety - \$2,219,947,097
- CMAQ - \$2,302,131,638
- SPR - \$737,318,394
- Research - \$184,329,598
- NCHRP - \$38,930,411.20

TRB Committee

- *Identify research needs;*
- *Provide information to the transportation community on research priorities and procedures;*
- *Review papers for presentation at the TRB Annual Meeting and for publication;*
- *Encourage the incorporation of appropriate research findings into practice; and*
- *Develop special programs, conferences, and workshops*

SCOR

- The Standing Committee on Research (SCOR) acts as AASHTO's driving force for high-quality transportation research and innovation to improve the nation's mobility of people and goods. Its mission is to support AASHTO and the transportation community by delivering strategic, high-quality research results while addressing development, technology transfer, and implementation.

Research Advisory Committee

- The Research Advisory Committee (RAC) to the AASHTO Standing Committee on Research (SCOR) supports the activities of SCOR and is committed to being a proactive committee promoting quality and excellence in research and in the application of research findings to improve state transportation systems. Each AASHTO Member Department is represented on RAC.

Questions

- Is more research needed?
 - Always