

Overview of NCHRP Annual Projects

Synthesis of Information Related to Highway Problems [20-5]

Purpose:	To provide summaries of the state of highway practice and knowledge.
Started:	Project 20-5 began in 1968.
Funding:	Allocated for FY2008: \$1,200,000 (all funds committed to support the FY2006 synthesis program) Requested for FY2009: \$1,200,000
Problem Solicitation:	Once each year, NCHRP specifically solicits topics from state DOTs, AASHTO and TRB committees, and FHWA. TRB staff also encourages submittals by TRB committees during the TRB annual meeting. Topics are usually due by January 31 each year. Topics are due by February 8, 2008 this year.
Process for Selecting Studies:	Requests are considered at an annual meeting of the 20-5 panel, and a list of 12 topics and 3 alternates are selected.
Consultant Selection:	The synthesis program is managed by staff in TRB's Division B. Each year's new studies are announced publicly (NCHRP email list and the TRB E-Newsletter) to solicit interest in being a topic panel member or an author. Staff then forms a topic panel for each selected synthesis. The topic panel reviews expressions of interest and selects authors.

Legal Problems Arising out of Highway Programs [20-6]

Purpose:	To evaluate legal issues relevant to transportation programs.
Started:	Project 20-6 began in 1969.
Funding:	Allocated in 2008: \$100,000 Requested in 2008: \$200,000
Problem Solicitation:	The Committee members and TRB's Counsel for Legal Research maintain contact with the TRB legal committees and the annual TRB Laws Conference for needed studies. Prior to the biannual meeting, members are asked to submit topics of interest to them or as gathered from the various TRB legal committees (AASHTO's

Administrative Subcommittee on Legal Affairs does not routinely meet and defers activity to the TRB committees).

Process for Selecting Studies:

Requests are processed by mail vote or during the biannual meeting.

Consultant Selection:

TRB's Counsel for Legal Research is the principal investigator (PI). The NCHRP Project Committee provides oversight, selects topics, reviews reports, and approves consultants and their proposals. Depending on the size and topic area, the PI recommends the type of procurement, i.e. sole-source or competitive proposals from a short list of known experts or from a general solicitation.

Innovations Deserving Exploratory Analysis (IDEA) [20-30]

Purpose:

To support deserving proposals from entrepreneurs, inventors, forward thinkers, and problem solvers—anybody who has a possible solution to a vexing transportation problem. The IDEA program includes projects that address technical feasibility or prototyping.

Started:

Project 20-30 began in 1992. It was co-funded by FHWA through FY 1999. NCHRP is now the sole sponsor of the NCHRP-IDEA project.

Funding:

Allocated in 2008: \$1,025,000 (all funds are committed)
Requested in 2008: \$1,250,000

Problem Solicitation:

An announcement is distributed to solicit submittals throughout the year. Proposals are collected twice each year (as of March 1 and September 1) and reviewed. The announcement is posted on the TRB website and highlighted in the TRB E-Newsletter.

Process for Selecting Studies:

NCHRP Project Panel SP20-30 meets semiannually to select proposals. Proposals are evaluated based on the "Quality of the Innovation (0-3pts.)," the "Research Approach (0-3pts.)," the "Potential Payoff (0-3pts.," and the "Implementation/Commercialization Plan (0-1pt.)" -- all within the limits of available funding. Cost sharing is also encouraged. The Panel is willing to assume a high degree of risk if the potential IDEA solution is well founded scientifically and has high value to transportation practice.

Consultant Selection:

The IDEA project is managed by staff in TRB's Division E, under

the oversight of the 20-30 NCHRP panel. No one contract may exceed \$150,000 and many are much less.

Quick Response Research for AASHTO Committees

Planning [8-36]

- Purpose:** The AASHTO Standing Committee on Planning (SCOP) has a continuing need for an immediately available research mechanism to develop planning methods, tools, procedures, and techniques to support statewide and metropolitan transportation planning, programming, and development. NCHRP 8-36 is an important element in the strategic plan of the SCOP.
- Started:** Project 8-36 began in 1999
- Funding:** Allocated in 2008: \$600,000
Requested in 2009: \$600,000
- Problem Solicitation:** Once each year, AASHTO staff solicits requests from SCOP, other AASHTO Committees, and AMPO.
- Process for Selecting Studies:** Requests are considered and tasks programmed at an annual meeting of the panel and then approved by SCOP during the AASHTO Annual Meeting.
- Consultant Selection:** The panel has selected three task order contractors who are assigned tasks on a competitive basis. In rare occasions and when necessary, sole source awards may also be made.
- Selection Criteria:**
1. Expected to directly support AASHTO Committee (such as reauthorization, regulatory review, other AASHTO priorities).
 2. Expected to benefit the planning community.
 3. Small or moderate scale (not appropriate as full NCHRP projects, usually < \$100,000).
 4. Short duration (usually < 12 months).
 5. Urgent, ready to begin immediately.
 6. Approved by NCHRP 8-36 Project Panel.

Highways [20-7] [AASHTO description of 20-7]

- Purpose:** To support the short-term, rapid-response research needs of the

Standing Committee on Highways in developing guides, standards, policies, and other AASHTO activities.

- Started:** Project 20-7 began in 1969.
- Funding:** Allocated in 2008: \$1,000,000 (all funds are committed)
Requested in 2009: \$1,000,000
- Problem Solicitation:** Twice each year, AASHTO staff solicit requests from SCOH subcommittees and technical committees.
- Process for Selecting Studies:** Requests are considered at semiannual meetings of the 20-7 panel. The panel includes 11 SCOH members and recommends 20-7 studies for approval by SCOH. After new studies are selected, SCOR and RAC are notified, titles are posted on the NCHRP website, and the studies are entered into TRIS.
- Consultant Selection:** Each topic panel is responsible for selecting its contractor. Usually this is a sole-source award, but competitive proposals may also be used.
- Selection Criteria:**
1. Requested by an AASHTO committee or task force;
 2. Directed at a research need
 - usually involving technical issues
 - not purely editorial
 - usually developing a new product or substantially upgrading an existing item;
 - not to support travel to attend conferences
 - to develop technical or other intellectual content – not to support publication, production, or distribution
 3. Expected to produce results for use directly by an AASHTO committee or task force with widespread benefit throughout the highway community;
 4. Able to be supported using available Project 20-7 funds;
 5. Beyond the capabilities or resources of the AASHTO committee or task force;
 6. Small or moderate in scale
 - less than \$100,000
 - usually \$25,000 to \$50,000;
 7. Short in duration
 - usually able to be completed in less than 12 months
 - not a continuing operational activity
 8. Urgent
 - ready to begin now
 - not able to wait for regular NCHRP research
 9. Not inappropriate for NCHRP (administered by the National

- Research Council's Transportation Research Board);
10. Approved by NCHRP Project Panel SP20-7; and
11. Approved by the AASHTO Standing Committee on Highways.

Public Transportation [20-65]

- Purpose:** To support the short-term, rapid-response research needs of the Standing Committee on Public Transportation (SCOPT) on subjects of importance to the SCOPT and transit sections of state DOTs.
- Started:** Project 20-65 started in 2003 (FY 2004)
- Funding:** Allocated in FY 2004: \$300,000 (all funds are committed)
Allocated in FY 2005: \$300,000 (all funds are committed)
Allocated in FY 2006: \$300,000 (all funds are committed)
Allocated in FY 2007: \$250,000 (all funds are committed)
Allocated in FY 2008: \$250,000 (all funds are committed)
Requested in FY 2009: \$350,000
- Problem Solicitation:** Annually, research topics are solicited from SCOPT; NCHRP Project Panel 20-65; MTAP; APTA State Affairs Committee; and the staffs of AASHTO, APTA, and CTAA.
- Process for Selecting Studies:** Requests are considered at an annual meeting of the 20-65 panel. The panel includes 9 SCOPT members and recommends 20-65 studies for approval by SCOPT. After new studies are selected, SCOR and RAC are notified, titles are posted on the NCHRP website, and the studies are entered into TRIS.
- Consultant Selection:** Currently, a solicitation is prepared for each topic and sent to the task-order contractors previously selected competitively for NCHRP Projects 8-36 and 25-25. These task order contractors submit proposals, as interested. The 20-65 panel reviews the proposals and selects the contractor for each topic. In the future, a solicitation to select several task order contractors specific to 20-65 may be issued.
- Selection Criteria:**
1. Approved by the Project 20-65 panel;
 2. Directed at a research need
 - usually involving policy-related and technical issues
 - not purely editorial
 - usually developing a new product or substantially upgrading an existing item;

3. Expected to produce results predominantly for use by SCOPT, AASHTO, and/or state DOTs (Research topics oriented more towards transit operators should be directed to the TCRP rather than to NCHRP Project 20-65);
4. Able to be supported within available Project 20-65 funds;
5. Beyond the capabilities or resources of the requesting committee;
6. Small or moderate in scale
 - less than \$100,000
 - usually \$10,000 to \$50,000;
7. Short in duration
 - usually able to be completed in less than 12 months
 - not a continuing operational activity;
8. Urgent
 - ready to begin now
 - not able to wait for regular NCHRP or TCRP research; and
9. Not inappropriate for the NCHRP (administered by the National Research Council's Transportation Research Board).

Environment [25-25]

Purpose: NCHRP 25-25 provides SCOE with a flexible, ongoing resource to develop improvements to the analytical methods, decision-support tools, procedures, and techniques employed by practitioners in environmental streamlining, environmental stewardship, statewide and metropolitan environmental transportation planning, program delivery, and project development.

Started: Project 25-25 began in 2003

Funding: Allocated in 2007: \$600,000
Requested in 2008: \$600,000

Problem Solicitation: Twice each year, AASHTO staff solicit requests from SCOE and its subcommittees. This year, the subcommittees went through an extension exercise to identify and prioritize research needs.

Process for Selecting Studies: Requests are considered at meetings of the 25-25 panel twice each year. The panel includes five SCOE members as well as representatives from the 08-36 and 20-7 panels, local government, academia, EPA, FHWA, and TRB. After new studies are selected, SCOR and RAC are notified, titles are posted on the NCHRP

website, and the studies are entered into TRIS.

Consultant Selection: Each topic panel is responsible for selecting its contractor. This may be a sole source contract, but generally proposals are solicited from three pre-qualified task order contractors: Cambridge Systematics, ICF Consulting, and Parsons Brinckerhoff.

Selection Criteria: Tasks conducted under NCHRP Project 20-25 must:

1. Address an important environmental research need faced by DOTs,
2. Be limited in scale (typically \$50,000 - \$100,000)
3. Address a time-sensitive need (usually 4-12 months to complete).
4. Be beyond the resources or capabilities of SCOE to address without assistance.
5. Produce results for use directly by SCOE members
6. Have widespread benefit throughout the environmental community.

Others

International Information Sharing [20-36]

The NCHRP 20-36 Project provides a coordinated approach to international information sharing and technology exchange. The project activities have a much broader scope than the typical NCHRP project in encompassing exchanges on all facets of highway technology, policy and management with our international partners. The project's overall objective is to improve highway safety, development, maintenance and operations through dissemination of innovative technology and successful practices from around the globe.

This objective is achieved through AASHTO delegates' participation on international technology scans which bring back innovations that can serve U.S. transportation needs. The project also supports state participation on technical committees of the World Road Association (PIARC), and on committees of the Joint OECD/ECMT Transportation Research Program, and enables state DOT officials to be represented at major international conferences such as the ITS World Road Congress. The project also sponsors visits of foreign transportation experts and professionals to learn about practices and technologies of potential benefit to state highway agencies. The benefits derived from these efforts result in cost-savings, improved safety and facilitation of transportation development and operations in the United States.

Surface Transportation Security Research [20-59]

AASHTO has established a special committee to help the state DOTs as they prepare risk management plans for assets under their control or influence, deterrence/surveillance/protection plans, emergency response plans, and capabilities for handling traffic for major incidents on and off the transportation system. In order to aid the state DOTs, a series of products are required, including a) guidebooks for risk management, emergency transportation operations planning, and emergency response planning; b) a website for sharing information, studies, contact points, etc.; c) training courses in vulnerability assessment and emergency response planning; and d) forums for sharing ideas and practices.

Among the priority actions identified so far by the Task Force/Special Committee are: 1) Identification of critical highway security, emergency response, and defense mobilization needs; 2) Assistance for state DOTs in assessing vulnerability; 3) September 11 case studies of how DOTs responded; 4) Transportation security surveys of state DOTs; 5) Clearinghouse to share information; 6) Transportation security forums and training; 7) Security & emergency response planning handbooks; 8) Coordination with federal and local governments and industry; Identification of research needs; and 9) Improving compacts for sharing assistance across state lines.