Welcome

to the Virtual Conference on Research Needs in Transportation Planning

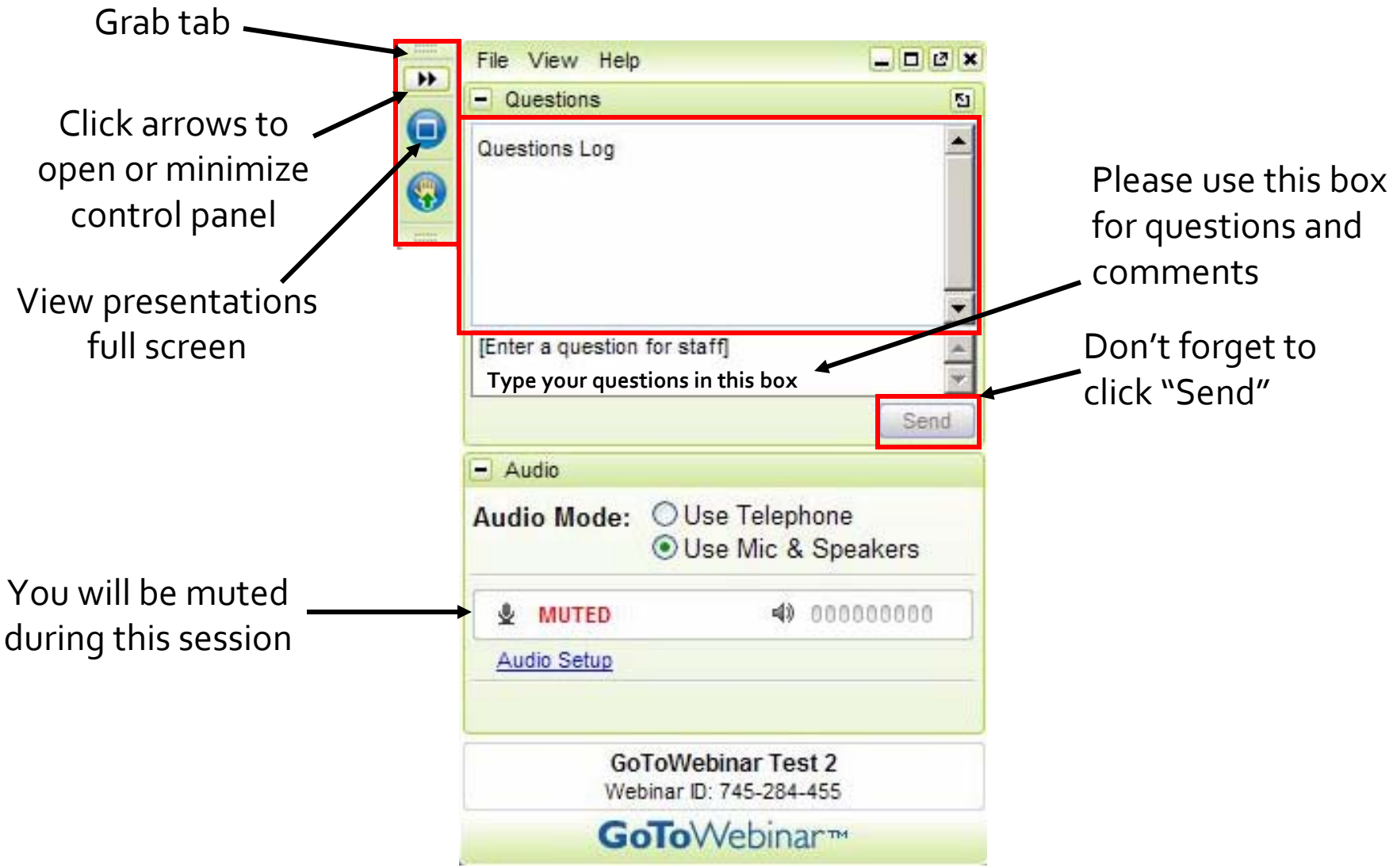
AASHTO
THE VOICE OF TRANSPORTATION

Standing Committee on Planning
Subcommittee on Research

Plenary Session
Monday, March 8, 2010

Funding Provided by the National Cooperative Highway Research Program

Webinar Control Panel



After today's Webinar, links to a recording of today's discussion and the slide presentation will be posted at:

StatewidePlanning.org

and

TransportationPlanningNeeds.com

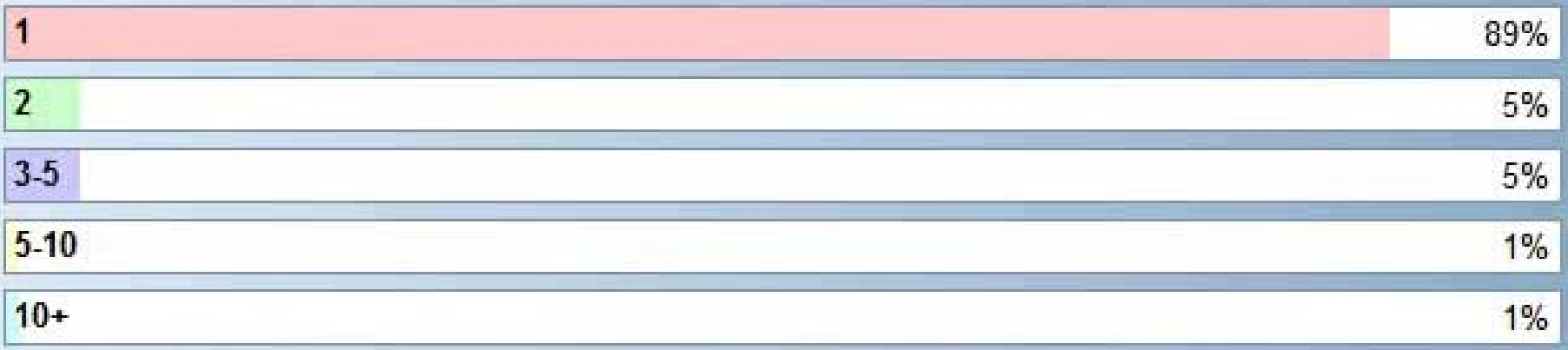
Audience Polls

Now for our
polling questions…

QUICKPOLL

How many people are attending this Webinar from your connection?

Poll Results (single answer required):



What type organization do you represent?

Poll Results (single answer required):

Session Speakers

Session Moderator
Michael Grant
ICF International

Jim Cheatham
FHWA Office of Planning

Lori Sundstrom
Transportation Research Board

Keynote Speaker
Deb Miller
Kansas DOT

Michelle Maggiore
AASHTO

Rich Denbow
AMPO

KANSAS
DEPARTMENT OF TRANSPORTATION

Secretary Deb Miller

AASHTO
THE VOICE OF TRANSPORTATION

Standing Committee on Planning
Subcommittee on Research

Deb Miller

Kansas Secretary of Transportation

Appointed in 2003

20+ years working in transportation & with political leaders

Deb Miller

Developed 2 largest KS public works programs

KDOT Planning Director 1986 - 1997

Strategic Planning & Communications for HNTB 1999-2003

Deb Miller

Chair of AASHTO's Planning Committee

AASHTO's Climate Change Program Committee Member

Former Chair of TRB's Executive Committee

Kansas is home to…

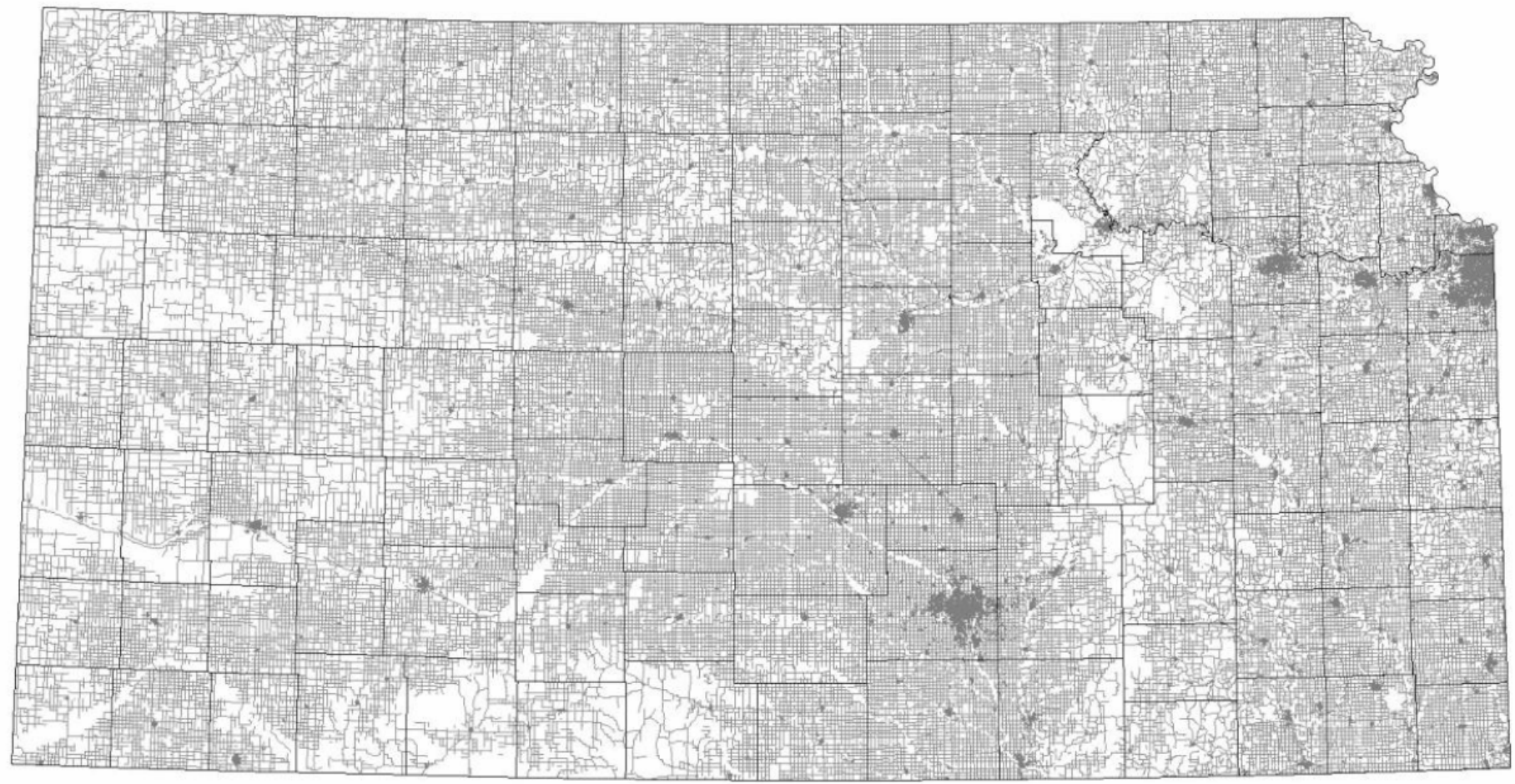
…a lot of crop circles…

…the last tall grass prairie…

…some cities too! …

…two of the nation's best basketball teams…

…the 4th most public road miles….



…and great transportation infrastructure!

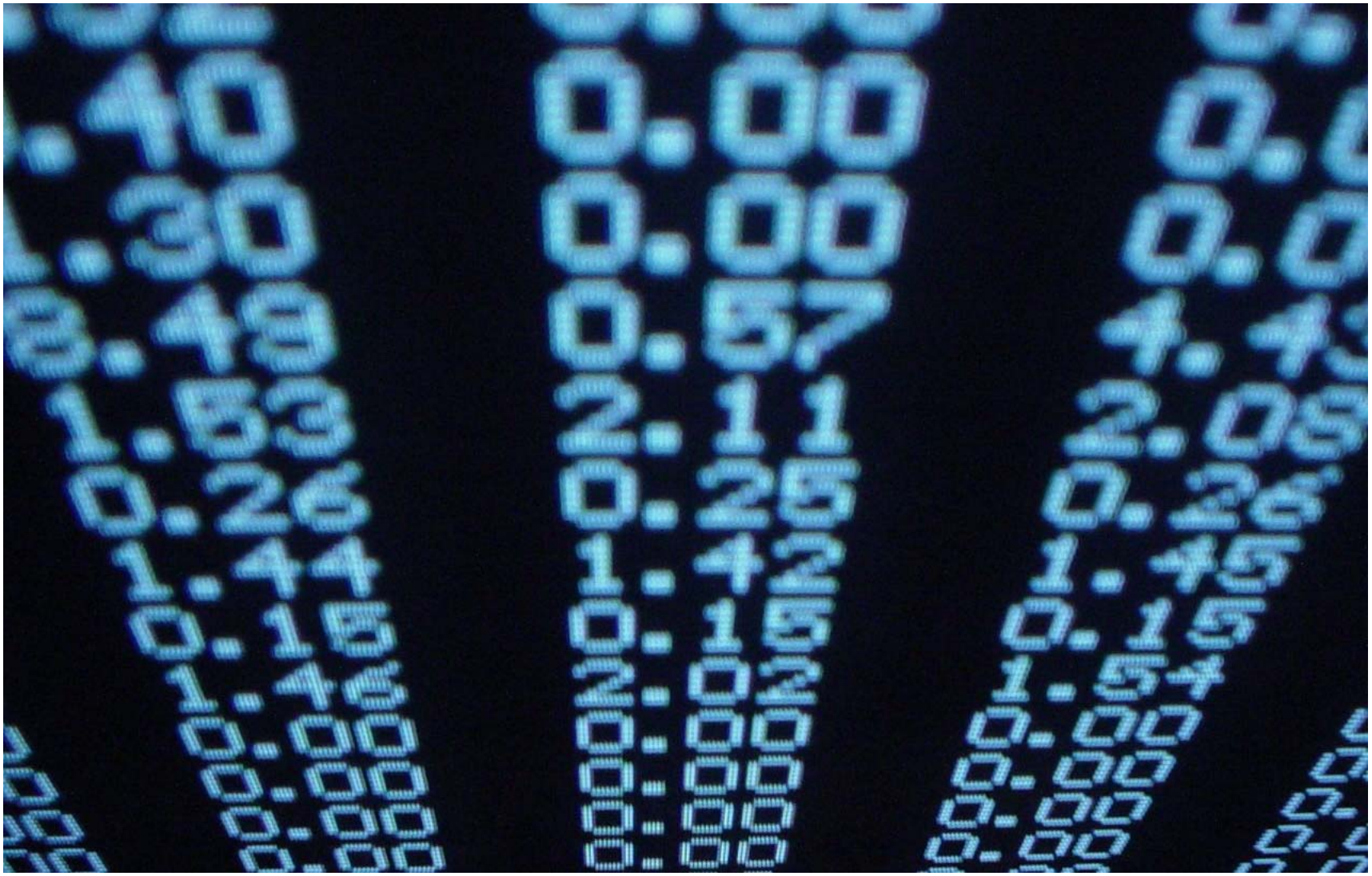
Fundamental changes are coming

Meeting national goals through performance management

Government must be accountable

Show me the money

Data is a key to success



In many ways, even sports statistics are farther along

Transportation organizations are coming together

All levels need to partner

Challenges: Reauthorization

SAFE, ACCOUNTABLE, FLEXIBLE, EFFICIENT TRANSPORTATION EQUITY ACT: A LEGACY FOR USERS

CONFERENCE REPORT

OF THE

COMMITTEE OF CONFERENCE

ON

H.R. 3

Challenges: Funding

“Federal Gas Tax Hike Gains Support in Talks”

-Headline in Chicago Sun-Times
Summer 1993

Challenges: More multi-modal

Challenges: Climate Change

Challenges: Partnering with the private sector

Challenges: Use the data

Questions

- What research is needed?
- How do we best leverage our resources?
- What is our research agenda for transportation planning?

Background and Purpose

- Develop a coordinated multi-year research agenda for the transportation planning community
- Bring together transportation planning practitioners from around the country to shape the agenda
- Conduct it entirely online in a “virtual” conference format

Virtual Conference Components

National Web-based Survey	Nov-Dec 2009
Research Scan	Fall-Winter 2009/2010
Plenary Session	Today
Breakout Sessions	March - May 2010
Online Discussion Forum	Through May 2010

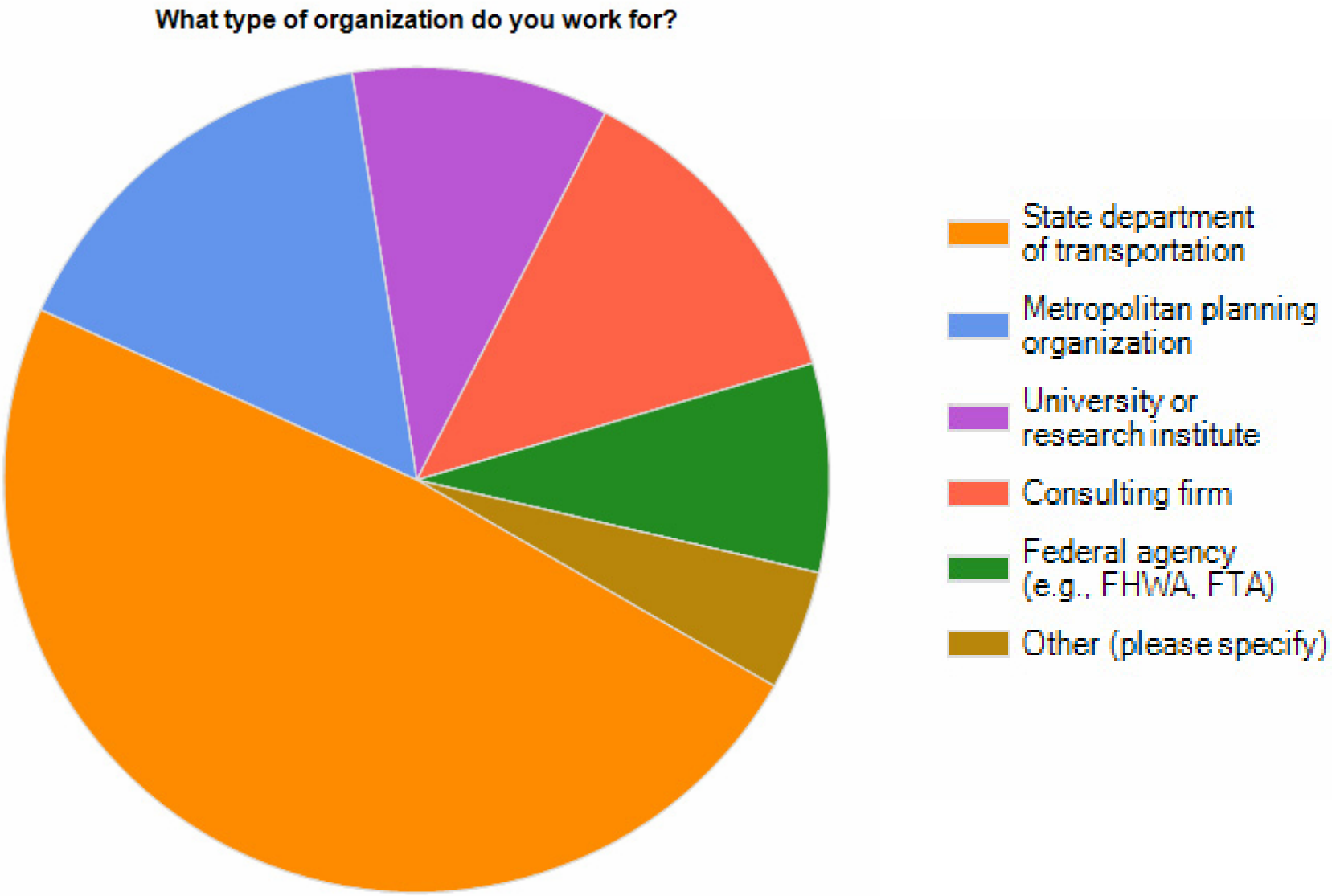
Agenda for Today

- Survey Results
- Virtual Roundtable
- Highlights of Current Research Programs
- Audience Input

Survey Results

- Survey Purpose:
  - To identify key challenges and needs within the planning community that may benefit from research
  - To understand experience with current process for submitting research statements
- Distributed through AASHTO, AMPO, and TRB
- In total, 318 respondents from a wide cross-section of organizations

Survey Results



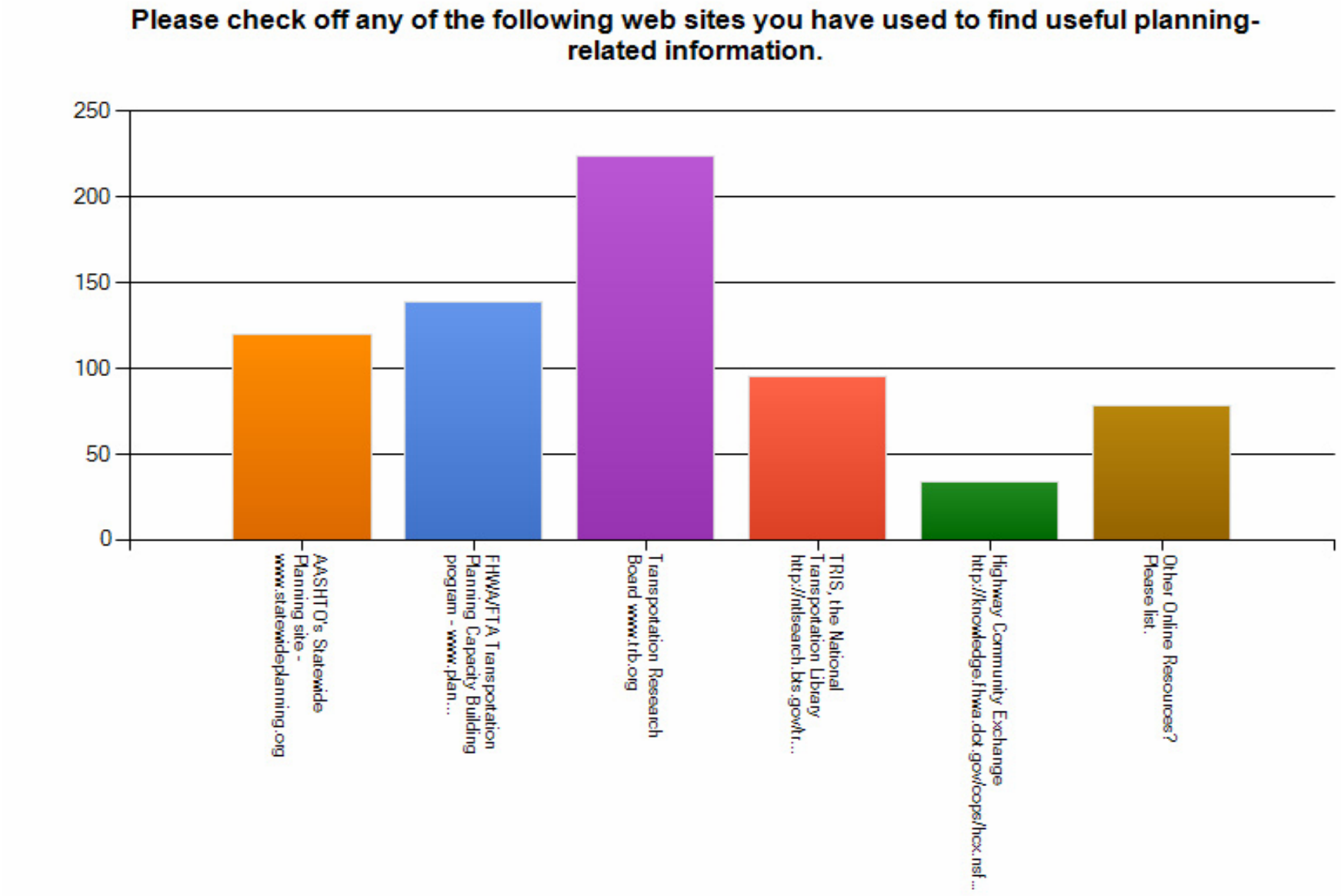
Most Challenging Issues

- Participants found issue “very challenging”:
  - Funding (55%);
  - Integrated transportation/land use/environmental planning (51%);
  - Climate Change (47%);
  - Sustainability (44%)
  - Data (40%)
  - Economic impacts (40%)
  - Performance-Based planning (37%);

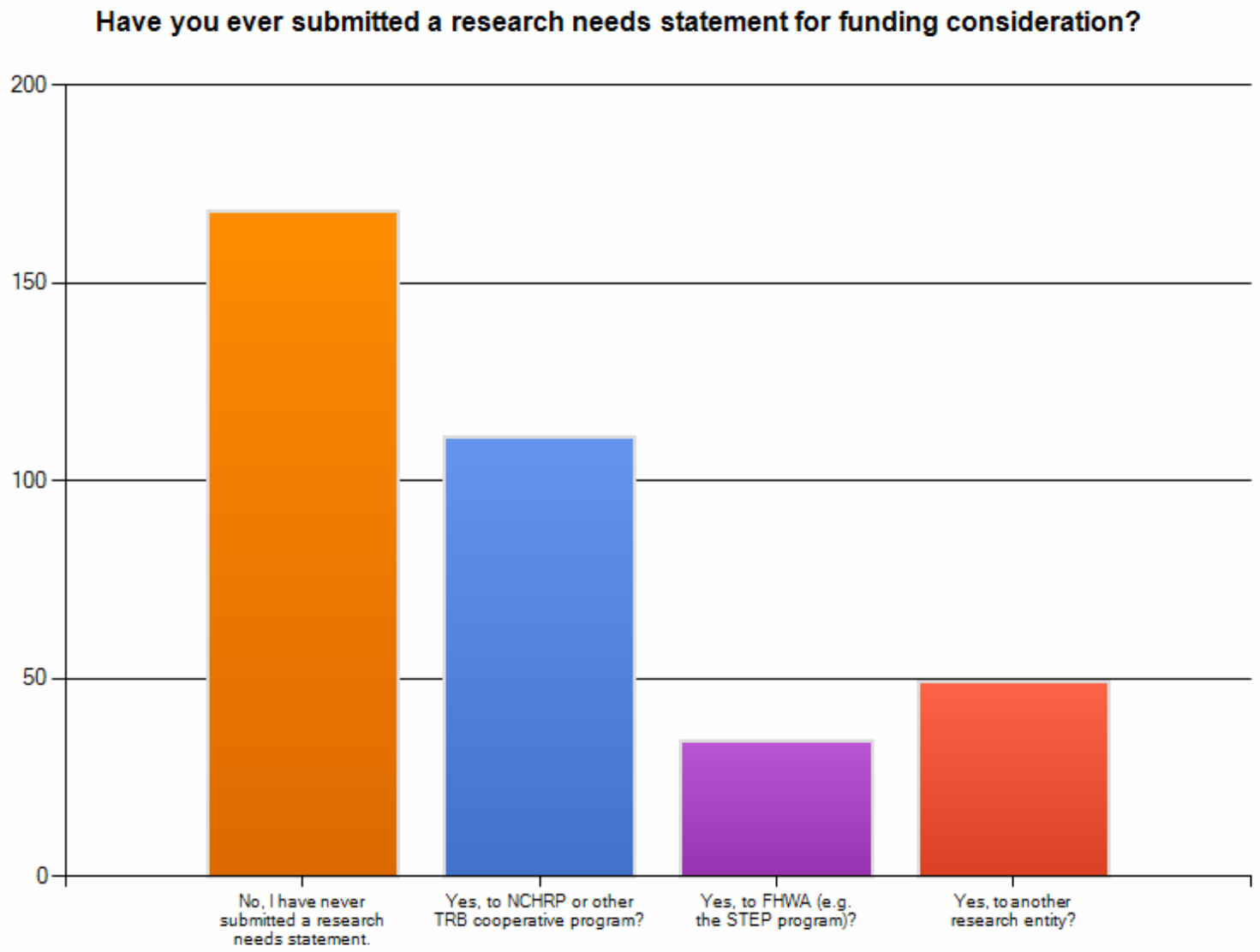
Emerging Issues

- Climate Change
  - GHG analysis
  - Disconnect between climate policies, MPO authority, and project development/ NEPA processes
  - Impacts of climate change on state transportation programs
- Data Collection
  - Need consistent and reliable datasets
- Funding Issues
  - Effective transportation planning under lowered budgets
  - Building a vision to attain more funding
- Others
  - Congestion management strategies
  - Impacts of performance-based planning on agency efficiency and effectiveness
  - Integrated planning / joint vision of transportation and land use
  - How to integrate economic development impacts and strategies within transportation investment decisions
  - Relationship between air quality and energy/ GHG analyses

Survey Results



Survey Results



Experience Submitting Research Needs

	Poor	Neutral	Good	Rating Average	Response Count
Ease of Submission	6.1% (9)	40.1% (59)	**53.7% (79)**	2.48	147
Clarity of Process	19.7% (29)	**46.9% (69)**	33.3% (49)	2.14	147
Time Required	16.3% (24)	**56.5% (83)**	27.2% (40)	2.11	147
Overall	7.2% (10)	**58.3% (81)**	34.5% (48)	2.27	139

Virtual Roundtable: Panel Discussion

Jim Cheatham
FHWA Office of Planning

Michelle Maggiore
AASHTO

Rich Denbow
AMPO

Current Research Program Efforts

- What research and technical assistance activities are your organizations undertaking?
- What are some examples of products coming out of these efforts?

Federal Highway Administration

Surface Transportation Environment and Planning Cooperative Research (STEP) and Capacity Building Efforts

- SAFETEA-LU established STEP to improve understanding of the complex relationship between surface transportation, planning, and the environment.
- SAFETEA-LU provided $16.875M per year for FY 2006-09 to implement the cooperative research program.

FHWA Current Planning Research

Congestion

- Benchmarking Planning for Operations
- Early Consideration of Revenue Options in Project Development
- Management, Operations, and Congestion Support for Livability and Climate Change
- Reference Guide on the Congestion Management Process

Livability

- Guides on Funding for Livable Communities and How FHWA Can Support Livable Communities
- FHWA Strategic Initiative for Livability

Planning and Environmental Linkages

- Planning documentation for use in NEPA analysis

FHWA Current Planning Research

Performance-Based Approach

- Performance-based Planning and Programming/ Planning for Data Needs in Capacity Building Peer Exchange
- Fourth Annual Conference on Performance Measurement
- National Conference on Performance-based Planning and Programming

Planning Process Management/ Fiscal Constraint

- Asset Management and Planning Peer Exchange – Infrastructure Preservation: Managing Highway Assets

Public Involvement/ Title VI

- Public Involvement Best Practices and Implementation Strategies
- Benefits of the CIA Process and Best Practices

FHWA Current Planning Research

Travel Models

- Various outreach and capacity building efforts through the Travel Model Improvement Program
- CTPP products and support
- Research and deployment of demand and network simulation methods
  - Model integration research (land-use, demand, network)
  - Building practical expertise at planning agencies, consultants, and universities in the use of dynamic demand and network models
- TRB Special Committee on Travel Forecasting Resources

Tribal Planning

- Series of tribal planning modules, publications, and training and outreach

AASHTO Standing Committee on Planning

- Standing Committee on Planning (SCOP)
  - "…AASHTO's recognized planning resource for shaping the future of transportation."
  - Serves as a, "Catalyst for innovation and a source of technical excellence."
  - Provides cross-agency support for multimodal transportation planning and analysis
- Activities
  - Research: NCHRP 08-36
  - Capacity Building: peer exchanges and technical support from the FHWA
  - Outreach: StatewidePlanning.org, Webinars, and meetings

NCHRP Research & Technical Activities

- NCHRP 08-36
  - Provides $600,000 for “quick turnaround” research projects
  - Projects submitted through SCOP and vetted by SCOP Research Subcommittee
- FY 2010
  - Towards Quantitative Safety Planning: Implementation of PLANSAFE
  - Can LEHD Provide Usable Home-to-Work Data for Transportation Planning
  - Strategies for Improved Passenger and Freight Passenger Data (TRB Policy Study; partial funding)
  - Transportation Data Program Self-Assessment Guide
  - Assessing Alternative Methods for Measuring Regional Mobility in Metropolitan Regions
  - Understanding the Connection Between Transportation and the Economy
  - Mining Recovery Act Jobs Data to Improve Economic Analysis

Capacity Building

- FHWA's Capacity Building Program
  - Partnership for peer exchanges and technical guidance
  - Projects submitted through SCOP and vetted by SCOP Capacity Building Subcommittee
- FY 2010
  - Peer Exchange: Information and Data to support Performance-based Planning and Programming (June 2010)
  - Peer Exchange: Cost Estimation and Cost Management for Highway Projects During Planning, Programming and Preconstruction (TBD)
  - Travel support for Peer Exchange: Roll-out of NCHRP Transportation Asset Management Guide Volume 2 (May 19 at AASHTO Spring Meeting)
  - Travel Support for National Climate Change Symposium
  - Webinar to detail Planning for Statewide Passenger Rail
  - Peer Exchange: Fiscal Constraint

AASHTO Outreach

- Webinars
  - “A Washington Briefing” (June 2009)
  - “Data for Performance-based Planning” (Sep 2009)
  - “Fiscal Constraint” (Feb 2010)
- Meetings
  - Executive Roundtable on Performance-based Planning and Programming (AASHTO annual Meeting, October 2009)
  - SCOP Summer Meetings (June 2010, proposed)

AMPO Research & Technical Activities

- AMPO Technical Committee
  - Established by AMPO by-laws
  - Informs Policy Committee and Board on technical matters, including research needs
  - Oversees development of AMPO annual conference content
- AMPO Work Groups
  - Air Quality
  - Travel Modeling
  - Management & Operations

AMPO Research & Technical Activities

Research and Ongoing Projects

- AMPO Pooled Funding Initiative for Advanced Travel Modeling Research
  - Initiated in 2009
  - 11 MPOs contributed funds to a pooled project
  - Managed by AMPO, directed by steering committee
  - Hired contractor, research is underway
  - Will shed light on the costs and benefits of moving to advanced travel models
  - Follows up on recommendations in TRB SR 288
  - Good model for additional research areas

AMPO Research & Technical Activities

Research and Ongoing Projects

- AMPO-APTA-FTA Livability and Sustainable Communities Project
- Noteworthy practices in land use, financing, long-range planning, public involvement, ITS, and M&O
- Numerous MPO Surveys
- Travel Modeling Knowledge Base
- Case Studies for formation of new MPOs

Research Resources

- Where can we find these research products?

Research Resources

- Transportation Planning Capacity Building Program: www.planning.dot.gov

- FHWA Office of Planning web site: www.fhwa.dot.gov/planning/index.htm

Research Resources

- StatewidePlanning.org

Research Resources

AMPO Web site – Repository

- www.ampo.org
- Technical Resources
- Also contains presentations and papers from past annual conferences and past work group meetings
- We are happy to post new research here as well

Challenges

- What are the current and emerging challenges you see facing the transportation planning community?

Challenges: FHWA Perspective

- Transitioning to a performance-based approach
- Innovative ways to advance projects and prioritization of projects
- Livable and sustainable communities

Knowledge Gaps: FHWA Perspective

- Predicting vehicle choice and use
- Traveler response to changes in travel time reliability
- Long-term interactions between land development and transportation

Challenges: AASHTO Perspective

- Advancing mode-neutral and performance-based transportation planning
- Incorporating sustainability and livability considerations into the planning process
- Understanding economic benefits of transportation investment in relationship to long-range planning
- Incorporating planning concepts in emerging areas, including intercity passenger rail and national and regional freight planning
- Applying fiscal constraint in an age of uncertain resources

Knowledge Gaps: AASHTO Perspective

- Planning process advances to address the challenges
- Methods and models for evaluating (and re-evaluating state transportation programs and related performance outcomes
- Data and information to evaluate benefits of transportation plans and programs, including sustainability, livability, and economic benefits activities

Challenges: AMPO Perspective

- "Hot Topics"
  - Climate Change
  - Livability and Sustainability
  - Performance-Based Planning
- Established Topics
  - Travel Modeling
  - Funding
  - Land Use
  - Institutional Issues

Knowledge Gaps: AMPO Perspective

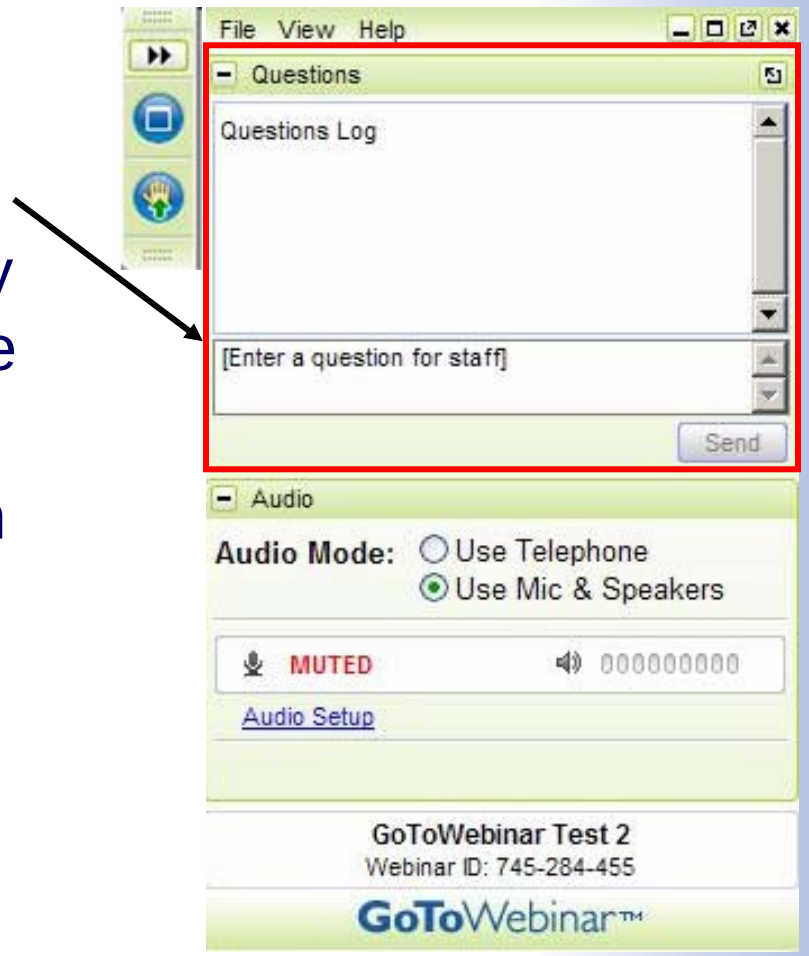
- Land Use
  - Collecting data and using appropriate planning tools, common standards, and practices for land use data collection and inventories
  - How to address significant needs for scenario planning
- Data
  - How to address the proprietary nature of data
  - Promote and encourage the establishment of data and consistency within a region
  - Incentives or requirements to share data

Knowledge Gaps: AMPO Perspective

- Climate Change
  - What does it take to model GHG emissions (tools, partnerships, public, and stakeholder education)?
  - What data hurdles exist to measure and track?
  - What staffing? Expertise?
  - Training? Funding?
- Bicycle and Pedestrian Planning
- Planning and NEPA Integration

Audience Questions and Input

- Please use this box to type in your questions
- We will address as many of your questions as time allows
- Lengthier comments can be sent to us via the Web site or email



www.TransportationPlanningNeeds.com

TransportationPlanningNeeds@icfi.com

Participant Input

- Building on today's discussion, what do you see as the most important transportation planning research needs?

- Are there some topics that are important to you that were not mentioned today?

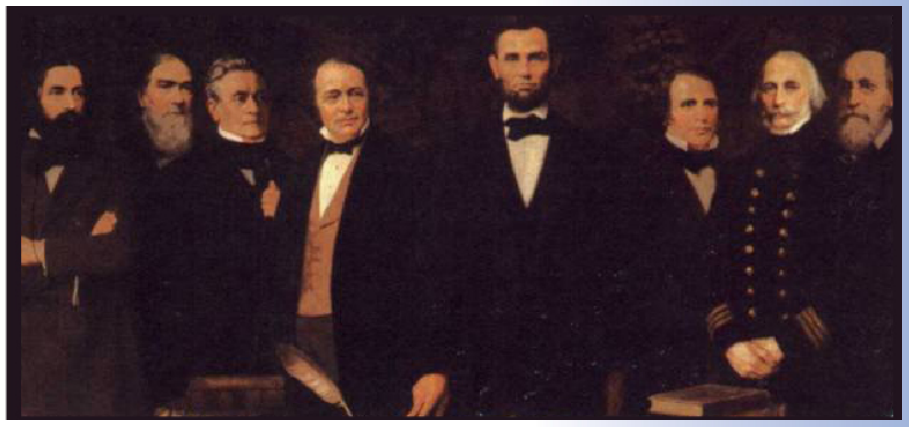
Research Resources

Lori Sundstrom

- Senior Program Officer
  National Cooperative Highway Research Program,
  Transportation Research Board

Transportation Research Board of The National Academies

- A division of the National Academies, a private, non-profit institution
  - National Academy of Sciences
  - National Academy of Engineering
  - Institute of Medicine
  - National Research Council

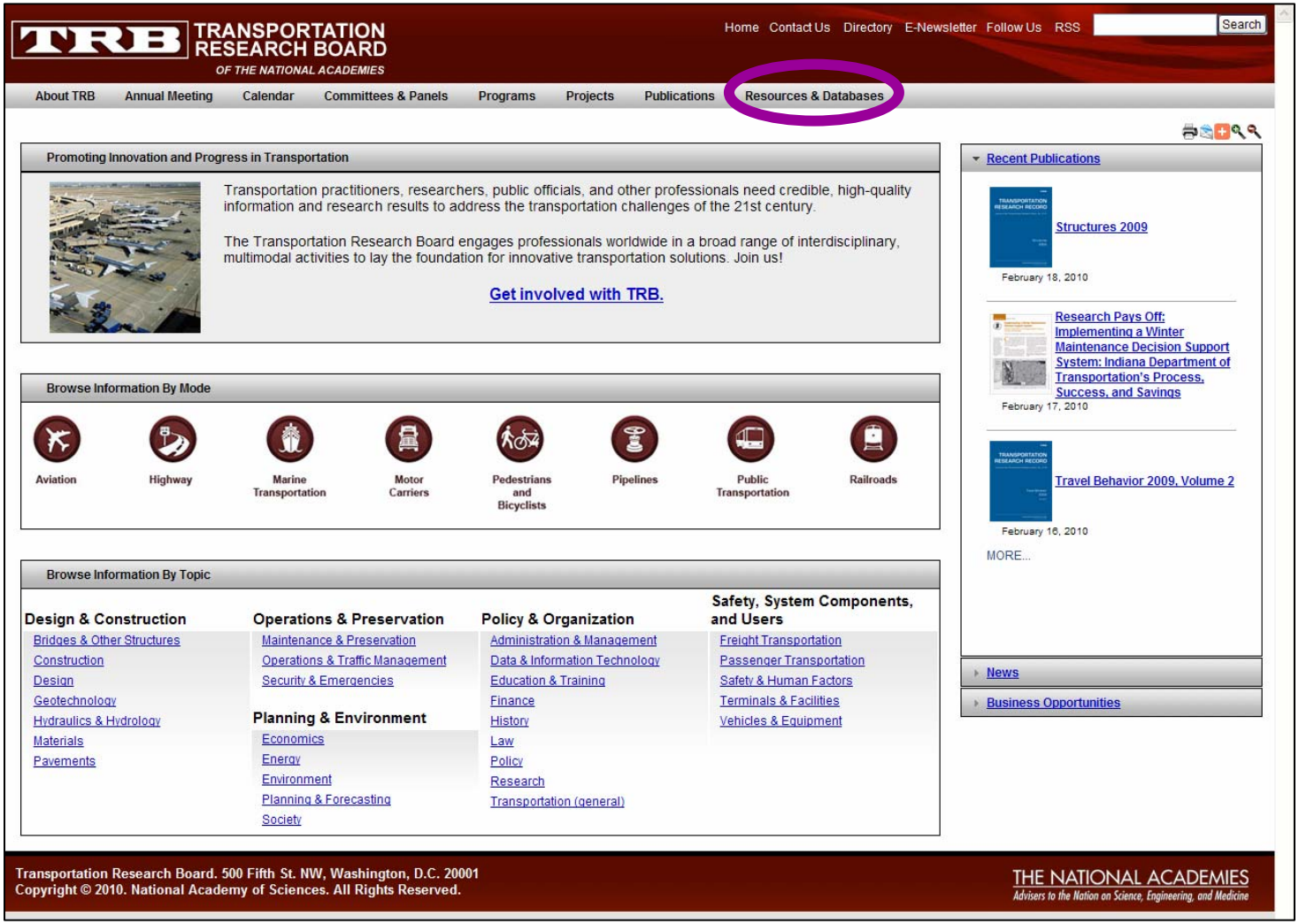


- Incorporated by President Lincoln in 1863 to “investigate, examine, experiment, and report upon any subject of science or art” whenever called upon to do so by any department of the government.

Transportation Research Board

- Provides opportunities for information exchange on current transportation research and practice,
- Management of cooperative research and other research programs,
- Analyses of national transportation policy issues and guidance on federal and other research programs, and
- Publications and access to research information from around the world.

Transportation Research Board

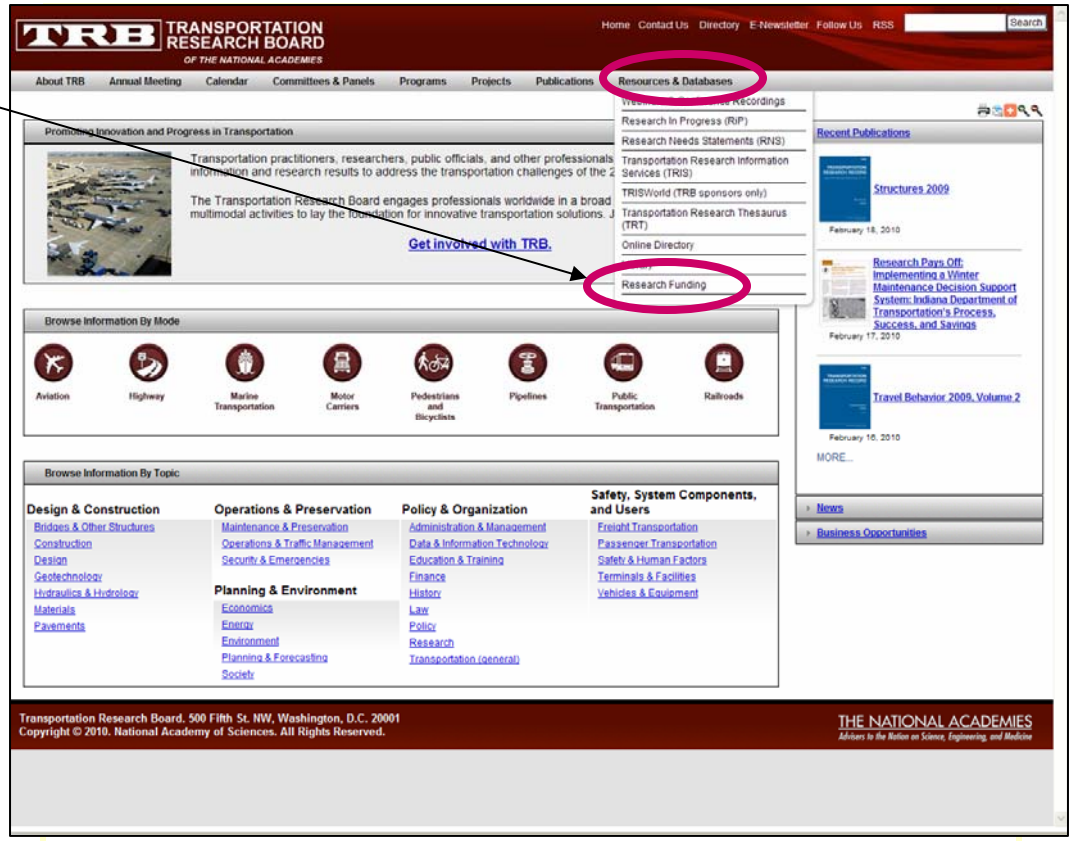


Transportation Research Board

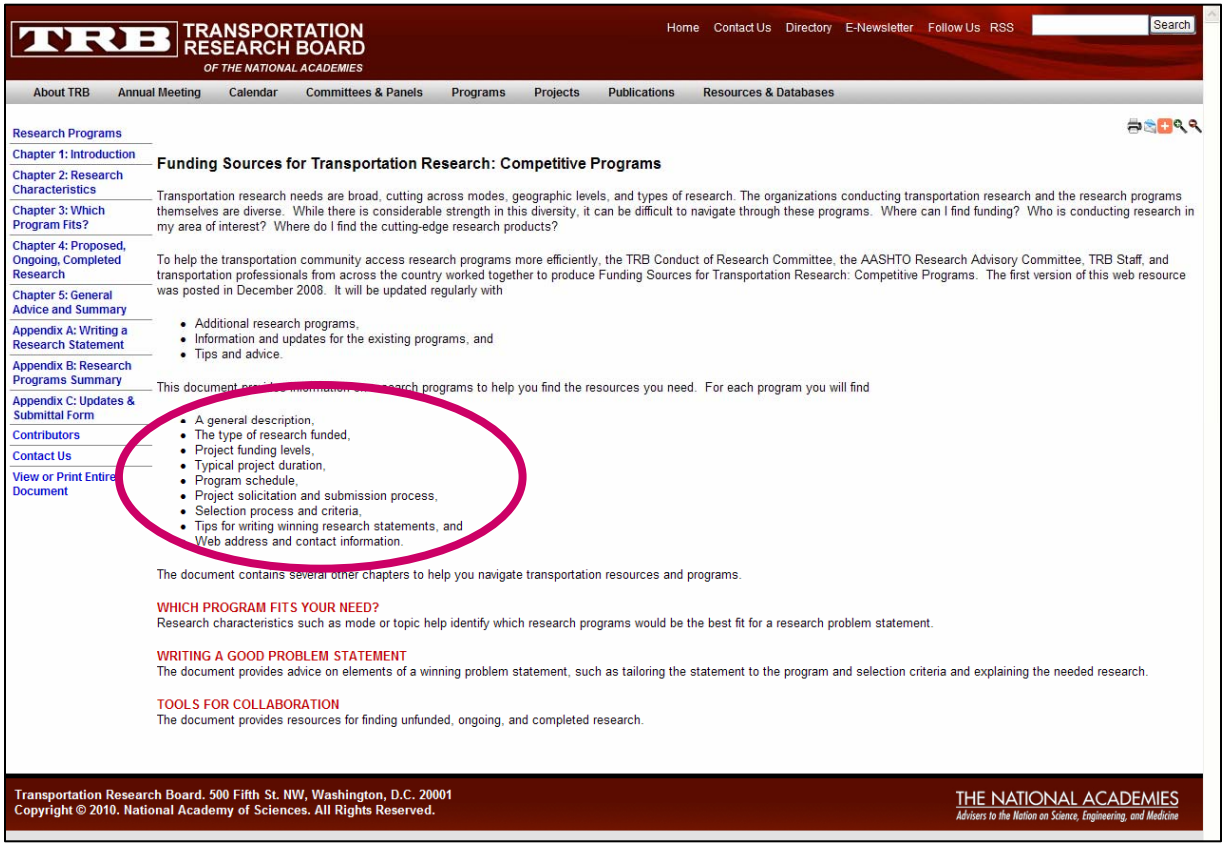
Research Funding

- Funding Sources for Transportation Research
- Sources for Proposed, Ongoing, and Completed Research
- How to Write a Research Statement
- General Advice

www.trb.org/ResearchFunding



Resources for Transportation Research



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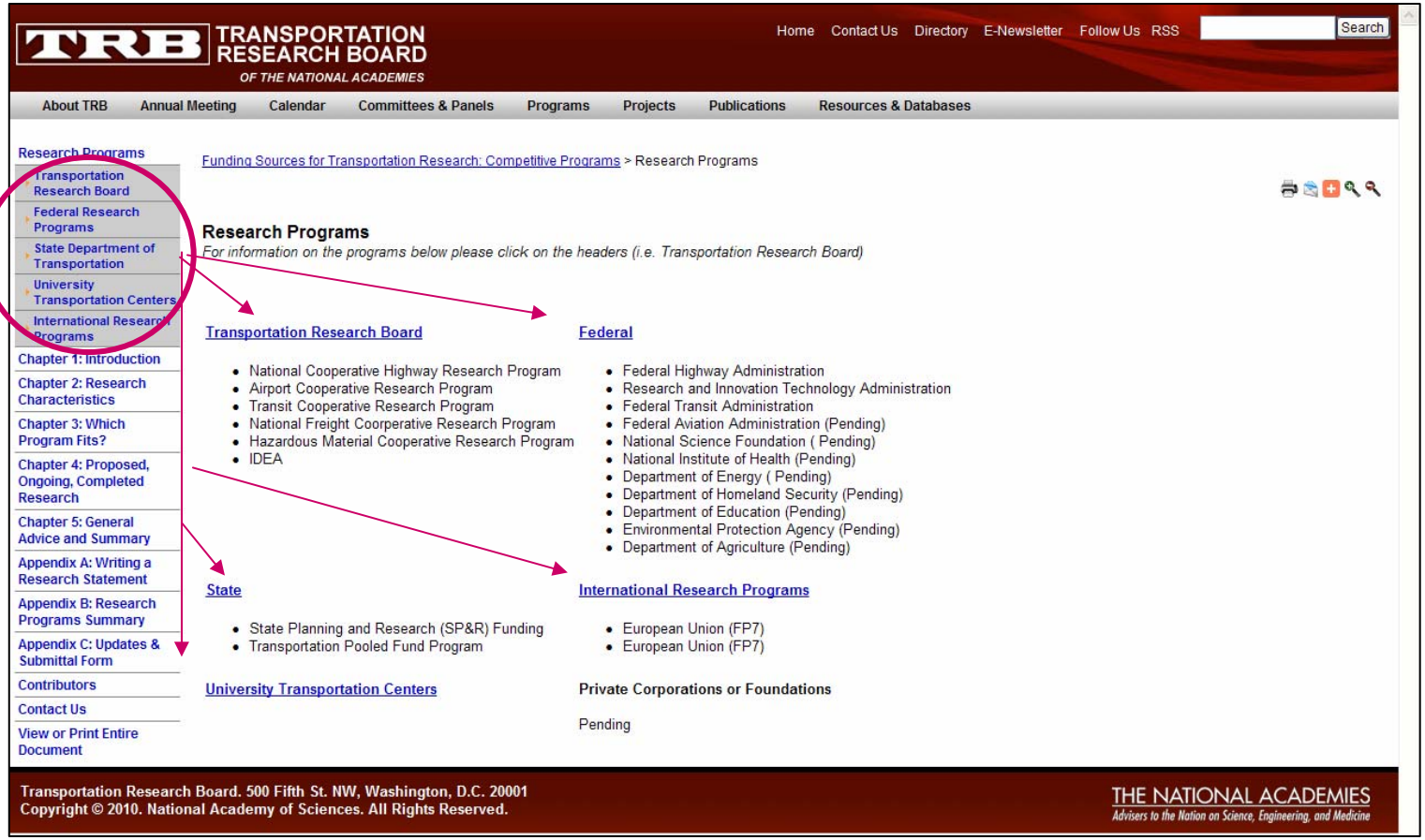

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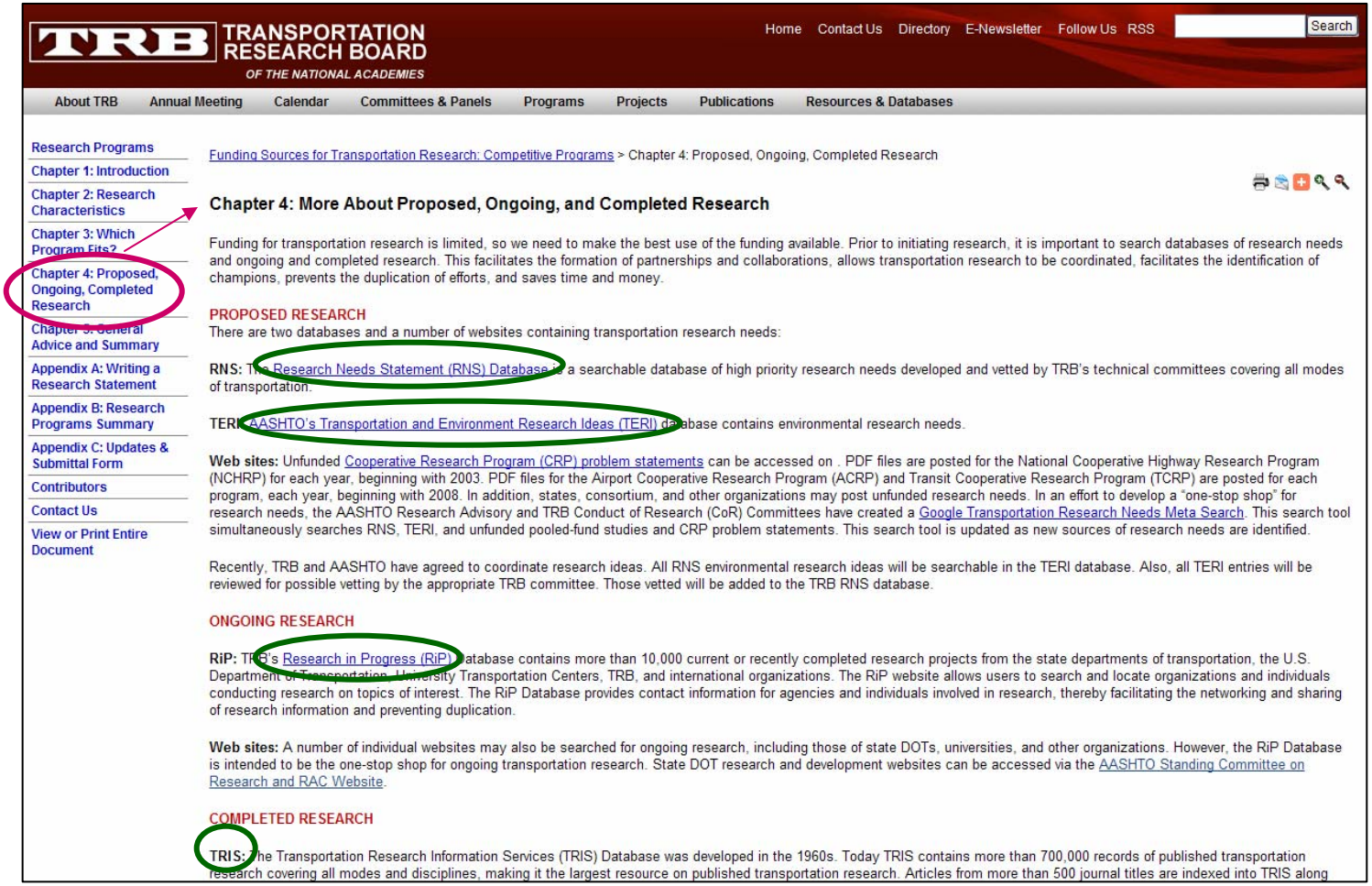

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Funding Sources for Transportation Research: Competitive Programs > Chapter 4: Proposed, Ongoing, Completed Research

Chapter 4: More About Proposed, Ongoing, and Completed Research

Funding for transportation research is limited, so we need to make the best use of the funding available. Prior to initiating research, it is important to search databases of research needs and ongoing and completed research. This facilitates the formation of partnerships and collaborations, allows transportation research to be coordinated, facilitates the identification of champions, prevents the duplication of efforts, and saves time and money.

PROPOSED RESEARCH

There are two databases and a number of websites containing transportation research needs:

RNS: The Research Needs Statement (RNS) Database is a searchable database of high priority research needs developed and vetted by TRB's technical committees covering all modes of transportation.

TERI: AASHTO's Transportation and Environment Research Ideas (TERI) database contains environmental research needs.

Web sites: Unfunded Cooperative Research Program (CRP) problem statements can be accessed on . PDF files are posted for the National Cooperative Highway Research Program (NCHRP) for each year, beginning with 2003. PDF files for the Airport Cooperative Research Program (ACRP) and Transit Cooperative Research Program (TCRP) are posted for each program, each year, beginning with 2008. In addition, states, consortium, and other organizations may post unfunded research needs. In an effort to develop a "one-stop shop" for research needs, the AASHTO Research Advisory and TRB Conduct of Research (CoR) Committees have created a Google Transportation Research Needs Meta Search. This search tool simultaneously searches RNS, TERI, and unfunded pooled-fund studies and CRP problem statements. This search tool is updated as new sources of research needs are identified.

Recently, TRB and AASHTO have agreed to coordinate research ideas. All RNS environmental research ideas will be searchable in the TERI database. Also, all TERI entries will be reviewed for possible vetting by the appropriate TRB committee. Those vetted will be added to the TRB RNS database.

ONGOING RESEARCH

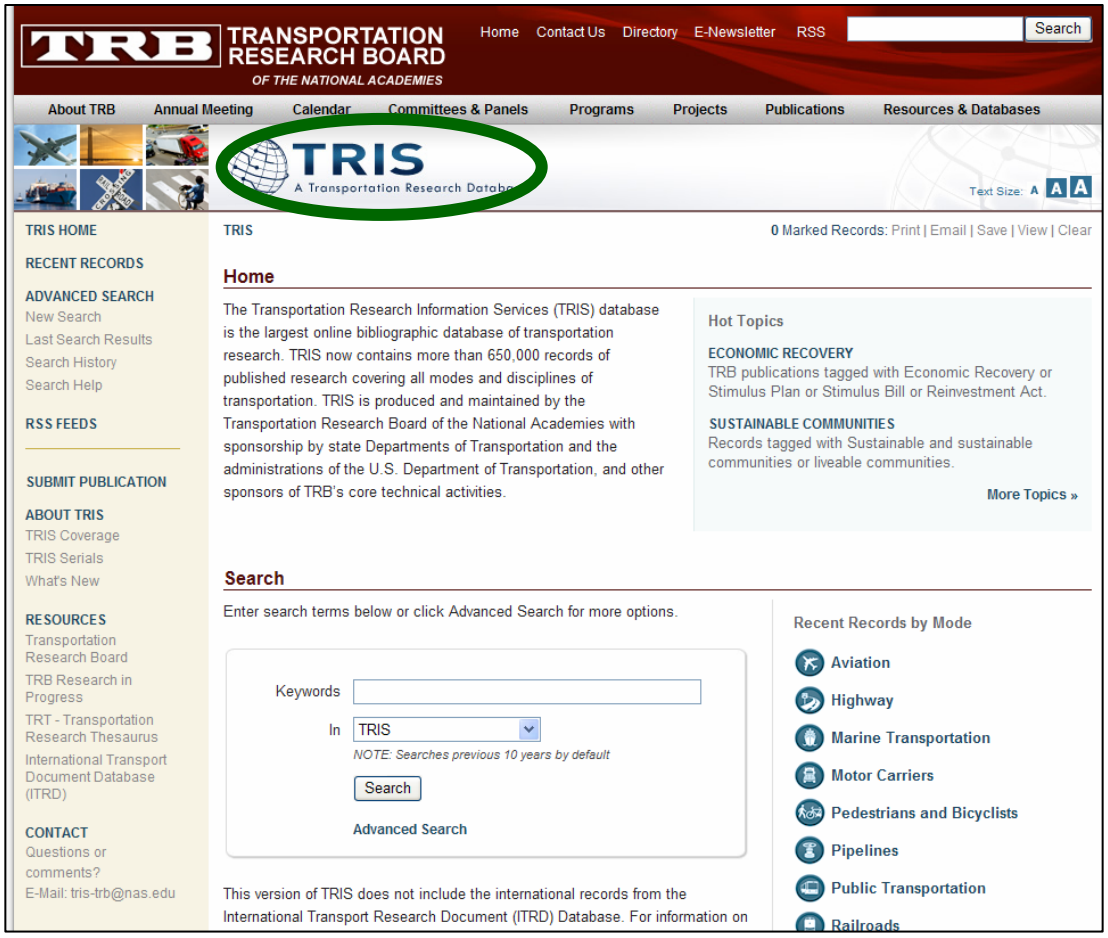
RiP: TRB's Research in Progress (RiP) database contains more than 10,000 current or recently completed research projects from the state departments of transportation, the U.S. Department of Transportation, University Transportation Centers, TRB, and international organizations. The RiP website allows users to search and locate organizations and individuals conducting research on topics of interest. The RiP Database provides contact information for agencies and individuals involved in research, thereby facilitating the networking and sharing of research information and preventing duplication.

Web sites: A number of individual websites may also be searched for ongoing research, including those of state DOTs, universities, and other organizations. However, the RiP Database is intended to be the one-stop shop for ongoing transportation research. State DOT research and development websites can be accessed via the AASHTO Standing Committee on Research and RAC Website.

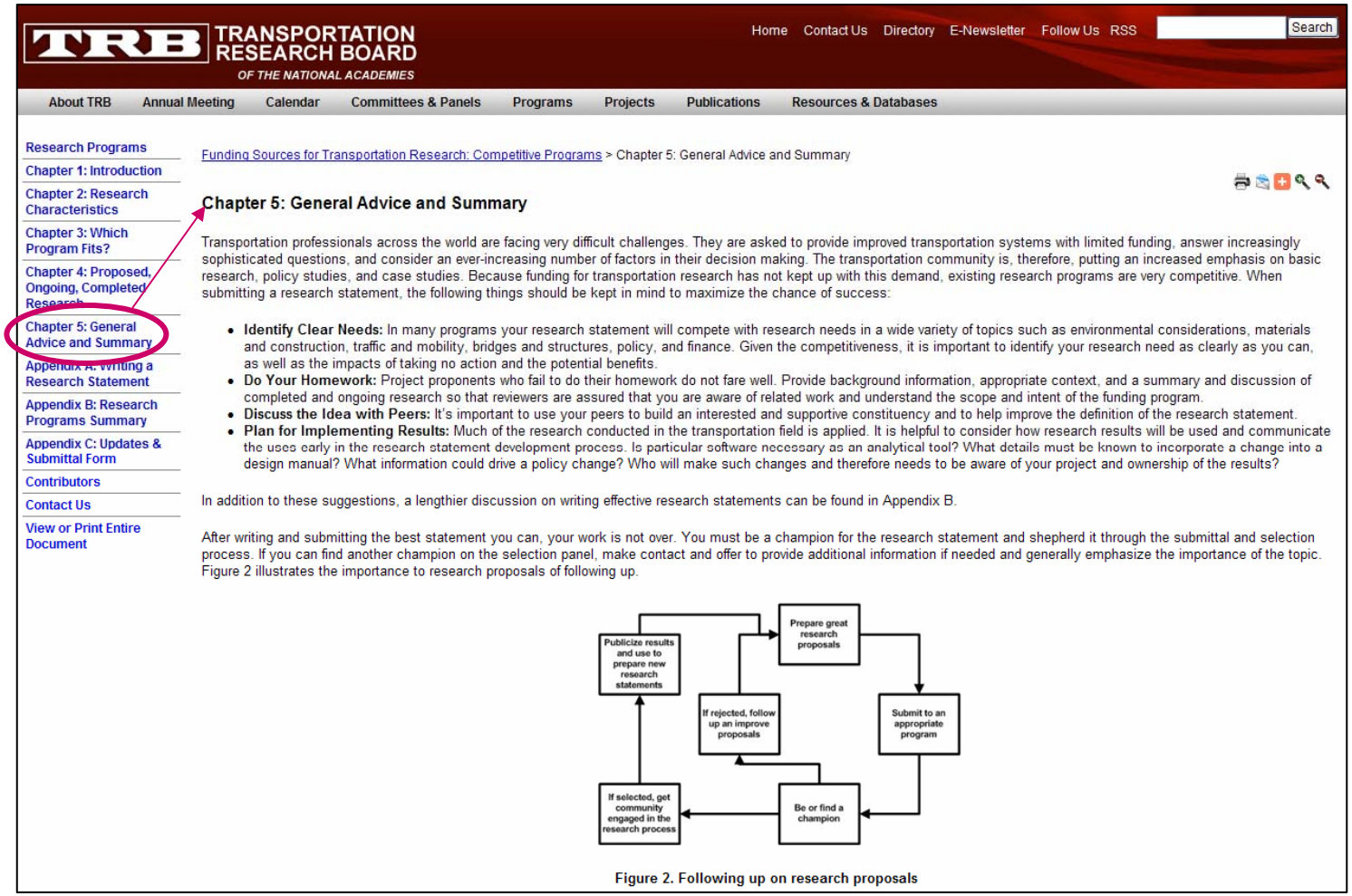
COMPLETED RESEARCH

TRIS: The Transportation Research Information Services (TRIS) Database was developed in the 1960s. Today TRIS contains more than 700,000 records of published transportation research covering all modes and disciplines, making it the largest resource on published transportation research. Articles from more than 500 journal titles are indexed into TRIS along

Resources for Transportation Research



Resources for Transportation Research



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Funding Sources for Transportation Research: Competitive Programs > Chapter 5: General Advice and Summary

Chapter 5: General Advice and Summary

Transportation professionals across the world are facing very difficult challenges. They are asked to provide improved transportation systems with limited funding, answer increasingly sophisticated questions, and consider an ever-increasing number of factors in their decision making. The transportation community is, therefore, putting an increased emphasis on basic research, policy studies, and case studies. Because funding for transportation research has not kept up with this demand, existing research programs are very competitive. When submitting a research statement, the following things should be kept in mind to maximize the chance of success:

- **Identify Clear Needs:** In many programs your research statement will compete with research needs in a wide variety of topics such as environmental considerations, materials and construction, traffic and mobility, bridges and structures, policy, and finance. Given the competitiveness, it is important to identify your research need as clearly as you can, as well as the impacts of taking no action and the potential benefits.
- **Do Your Homework:** Project proponents who fail to do their homework do not fare well. Provide background information, appropriate context, and a summary and discussion of completed and ongoing research so that reviewers are assured that you are aware of related work and understand the scope and intent of the funding program.
- **Discuss the Idea with Peers:** It's important to use your peers to build an interested and supportive constituency and to help improve the definition of the research statement.
- **Plan for Implementing Results:** Much of the research conducted in the transportation field is applied. It is helpful to consider how research results will be used and communicate the uses early in the research statement development process. Is particular software necessary as an analytical tool? What details must be known to incorporate a change into a design manual? What information could drive a policy change? Who will make such changes and therefore needs to be aware of your project and ownership of the results?

In addition to these suggestions, a lengthier discussion on writing effective research statements can be found in Appendix B.

After writing and submitting the best statement you can, your work is not over. You must be a champion for the research statement and shepherd it through the submittal and selection process. If you can find another champion on the selection panel, make contact and offer to provide additional information if needed and generally emphasize the importance of the topic. Figure 2 illustrates the importance to research proposals of following up.

Figure 2. Following up on research proposals

Keys to Getting Research Done!

- Identify Clear Needs
  - be crisp
- Do Your Homework
  - demonstrate need / don’t duplicate
- Discuss the Idea with Peers
  - calibrate your idea / generate support
- Plan for Implementing Results
  - a report by itself solves nothing
- Be a Champion
  - persistence pays off

Next Steps

- “Breakout Sessions”
- Web-based discussion forum at www.TransportationPlanningNeeds.com

Transportation Planning Research Needs

Plenary Session - March 8, 2010 from 1-3 pm Eastern
Register at: https://www1.gotomeeting.com/register/759284193

Email transportationplanningneeds@icfi.com to stay informed about this effort and to receive email updates.

THURSDAY, MARCH 4, 2010

Register for the Breakout Sessions

Registration is now open for each of the 6 Breakout Sessions that will follow Monday's Plenary Session.
Below are the links to register for each section and the date of each session.

Community, Environmental Justice, and Social Impacts
March 23, 2010

Integrated Land Use/Transportation/Environmental Planning
April 8, 2010

Congestion/Operations, Safety & Security Planning
April 14, 2010

Data Needs, Modeling, and Planning Tools
April 20, 2010

Economic Impacts & Freight Planning
April 28, 2010

Performance-Based Planning, Funding, and Other Emerging Issues
May 6, 2010

Posted by krooney at 7:08 PM 0 comments

MONDAY, FEBRUARY 22, 2010

Purpose of NCHRP 8-36-95

The NCHRP 8-36 (95) Virtual Conference on Transportation Planning Research Needs is designed to identify a multi-year prioritization of transportation planning research needs. Unlike previous research planning conferences, this effort will occur entirely online in the "virtual" world through surveys, webinars, and this forum - meaning this is an amazing opportunity for a large number of participants, including those who do not commonly participate in national conferences. Research priorities identified through this effort may be used to help select projects for future funding by the National Cooperative Highway Research Program, Federal Highway Administration, or other research programs. Help us make this the most representative process and research plan to date!

Transportation Planning Research Needs Forum Links

TPRN - Community, EJ, and Social Impacts

Breakout Sessions

• Community, Environmental Justice, and Social Impacts	**March 23**
• Integrated Land Use/ Transportation/ Env'l Planning	**April 8**
• Congestion/ Operations, Safety & Security Planning	**April 14**
• Data Needs, Modeling, and Planning Tools	**April 20**
• Economic Impacts & Freight Planning	**April 28**
• Performance-Based Planning, Funding, and Other Emerging Issues	**May 6**

All Breakout Sessions begin at **2:00 p.m. ET**

Conference Planning Committee

NCHRP 08-36 (95) Panel:

Thera Black, TRPC
David Lee, FL DOT, Chair
Trish Hendren, WMATA
Tim Henkel, MN DOT
Charles Howard, PSRC
Michelle Maggiore, AASHTO
Ron McCready
Lori Sundstrom, TRB
Katherine Turnbull, TTI

ICF Team:

Michael Grant
Kathleen Rooney

Please complete a brief survey at the end of today's session.
Go to www.StatewidePlanning.org or
www.TransportationPlanningNeeds.com for recordings.

Thank You for Attending

- Register for the breakout sessions at:
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- Email comments to:
  TransportationPlanningNeeds@icfi.com

- Post comments on the discussion forum