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Data Requirements in
Transportation Reauthorization
Legislation

*What Is Included and Impacts on the
Data Community*

November 19, 2003
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TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

Data Requirements in Transportation Reauthorization Legislation

What Is Included and Impacts on the Data Community

November 19, 2003
The National Academies, Keck Center
Washington, D.C.

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Introduction

This meeting served as an initial investigation to identify and refine the data issues associated with the programmatic proposals of surface transportation reauthorization legislation. Federal, state, and local officials and practitioners focused on new and expanded requirements in order to inform the state and metropolitan planning organization data communities about new responsibilities they are likely to face when new legislation is enacted. The meeting was also an opportunity to look at requirements across programs and to suggest efficient data strategies for transportation organizations.

The 1-day meeting essentially consisted of three panels. A congressional staff panel presented the perspectives from recently introduced committee bills on the need for better data collection, distribution, and analysis to support both new and current congressional priorities. The second panel was anchored in the administration proposal, highlighting provisions in SAFETEA and other legislative proposals that are likely to affect the state, local government, and transit communities. In the last panel, four professionals—from a state department of transportation, metropolitan planning organization, transit authority, and safety association—reflected on likely impacts on specific data communities, anticipating both the challenges of the proposals discussed in the first two panels and what is missing from the legislative proposals at this time.

The day was characterized by extensive dialogue with the audience. Finally three knowledgeable practitioners presented their views of the key points from the day. The closing comprised a discussion of issues and approaches for a post-authorization conference to develop strategies for the state, local, and transit data communities to efficiently implement data programs to carry out data provisions in the final reauthorization legislation.

This meeting explored approaches to a national conference to be held shortly after the legislation is passed. That post-authorization conference will seek to delineate the efforts needed to meet the data requirements resulting from reauthorization legislation.

MEETING SUMMARY

Data-Related Provisions in Transportation Reauthorization *An Overview*

ALAN E. PISARSKI
Consultant

If we look back over the last dozen years or so, we will immediately recognize that the federal legislation that often sustains us and governs our professional actions has laid down some very onerous requirements for analyses, reporting, investment justification, and many kinds of plans that all carried with them immense data demands. We in the data community were forced to react to these mandates and the regulations that federal agencies produced in response to the legislation after the fact. We had little or no input into the mandates or the attendant data requirements. Many agencies—states and metropolitan planning organizations (MPOs), transit agencies, and other transportation organizations—are still trying to respond to the mandates from ISTEA and TEA-21 and now recognize that another set of possible mandates are in the offing.

The present data gaps are glaring; the data tools and budgets we have with which to respond are weak. Recent fiscal pressures are putting increased pressure on our ability to respond to current needs. It is in that light that we must inspect and investigate carefully what data development requirements may accompany new legislative enactments.

At a minimum we will need more discussion and coordination than in the past to develop our plans to respond. The TRB committees can be an important resource in identifying important information deficiencies and the character of the programs required to make our agencies responsive to the new (and old) mandates. We may need to forge plans for collaboration between levels of governments and agencies to try to use our limited resources most effectively.

Several committees are beginning to plan for a major national conference that can bring together all the key actors from all levels to assess the new needs and demands and form plans to respond. Such a conference would help to inform regulators of the data deficiencies we face in addressing new programs, regulations or “guidelines” and help to identify time frames and resource needs for responding to the new mandates.

Today we need to address ourselves to the following tasks:

- Identify topics and assess needs;
- Put down markers for issues to be addressed in the future;
- Assess what some of the action priorities might be;
- Address content, institutions, methods, and resource questions; and
- Discuss how institutions might need to evolve to design, build, and operate the new data systems.

We cannot disregard data needs as we have too often done in the past. We will need to assess the impacts of the reauthorization mandates contained in the legislation facing us and the regulations framed to enact it. We will need to discuss priorities and resources. It may require a

collaborative coalition approach among the many players to address data needs, data provision, quality, and use.

The attached matrix can perhaps help organize our thinking and guide us to the levels of coverage we need to address. Our timing is very good for consideration of these issues. We are ahead of past cycles. We have very excellent people here to guide us so that the lead we have developed will prove valuable to all of us.

AREAS	GOAL OF DATA	DATA MODIFCATIONS NEEDED	DATA ADDITIONS NEEDED	ALL NEW DATA AREAS
PLANNING/POLICY				
• <i>Geographic Subsets</i>				
FINACE/REVENUE				
SAFETY & OPERATIONS				
SECURITY				
RESEARCH, STUDIES				
OTHER				

A. E. Pisarski

EXHIBIT 1 Proposed matrix for organizing conference agenda.

Congressional Staff Views on Enhanced Data Programs

Session Summary

NANCY ROSS

New York State Department of Transportation

Presentation by

JONATHAN UPCHURCH

*Professional Staff Member, House Committee on Transportation and Infrastructure,
Subcommittee on Highways, Transit, and Pipelines*

The House Transportation and Infrastructure Committee unveiled the House Surface Transportation bill the morning of the meeting. Here is an analysis of the new data requirements in the bill.

Section 1201 - Congestion Relief

This new program requires that states set aside a portion of their core program (interstate maintenance (IM), National Highway System (NHS), surface transportation system (STP), and congestion mitigation and air quality (CMAQ)) funds for congestion. The takedown is calculated based on the proportion of the state population residing in transportation management areas (TMAs—areas of more than 200,000 population). Congestion relief projects funded under the program must be linked to congestion problems that are identified through congestion management systems.

It is required that part of the funding must be spent on projects that can be completed in 1 year and cost less than \$1 million—low-cost, high-payoff projects such as traffic operations improvements at intersections, turn lanes, and signal improvements. Another portion of the funding is for projects that can be completed in 3 years. A final portion of the funding may be used for certain transit capital costs, such as demand management, ridesharing, and value pricing.

Section 1202 - Transportation Management and Operations

The provision encourages states to establish a basic, real-time monitoring capability for the surface transportation system, including the ability to share data across modal and jurisdictional lines.

Section 1401 - Highway Safety Improvement Program

The House bill reaffirms the current safety reporting requirements.

Section 1403 - High Risk Rural Safety Improvement Program

This provision creates a new program for high-risk rural roads [defined as a rural major or minor collector or rural local roads where the accident rate (fatalities and incapacitating injuries) is higher than average or where the road is likely to have increases in traffic volume that are likely to create higher than average accident rates.]

Data availability to support this program is problematic. The Transportation and Infrastructure Committee asked FHWA for a summary of public road lane mileage for rural minor collectors. Two rural states reported that they had no miles of this functional class of roadway. The apportionment formula for this program also includes rural population and vehicle miles traveled data that are readily available. Having good data on rural roads will be important to manage this program.

Section 2004 - State Traffic Safety Information System Improvement

Under this provision, the Secretary is authorized to make grants to states to adopt and implement effective programs to improve the timeliness, accuracy, completeness, uniformity, integration, and accessibility of safety data that are needed to identify priorities for state, national, and local highway and traffic safety programs. These grants can also be used to link the states' data systems together, including traffic records systems, medical records systems, roadway data, and economic data to identify accident trends and identify appropriate countermeasures.

Section 3017 - Job Access Reverse Commute

The House bill would create an apportionment formula for this existing transit program based on the number of people on welfare and the number of people in low-income groups. FTA will have to utilize data sources from other agencies to determine the number of welfare recipients and the number of low-income people.

Section 3018 - New Freedom Program

This section provides grants for new public transportation services to assist individuals with disabilities. The apportionment formula for this new program relies on the number of individuals with disabilities. Dr. Upchurch admits that he does not know what public agencies might track this data or where it would be available.

Section 3041 – High-Intensity Small Urbanized Area Formula Grant Program

This new program would assist small urban areas that have very high transit ridership, such as remote college towns, with additional transit funding. This program is for communities under 200,000 in population that have at least one transit system performance characteristic that exceeds the average performance characteristics of communities between 200,000 and 999,999. Those performance characteristics include passenger miles per vehicle revenue mile, passenger miles per revenue vehicle hour, vehicle revenue miles per capita, vehicle revenue hours per capita, passenger miles traveled per capita, and passengers per capita. Dr. Upchurch believes that these data are readily available.

Section 4025 - Motor Carrier Safety Data Improvement Program

This program authorizes the Secretary to make grants to improve the accuracy, timeliness, and completeness of the SafeStat motor carrier safety data.

Other Provisions of Interest

The introduced House bill does not include planning provisions at this time; these provisions will be added to the bill at a later date. Dr. Upchurch notes that the Senate Environment and Public Works Committee proposals on wildlife preservation and habitat preservation, if adopted by Congress, would result in new data collection requirements. Dr. Upchurch also notes that the Environment and Public Works bill increased the takedown for metropolitan planning from 1% to 1.5%. Finally, he notes that there are continuing concerns regarding the transparency of program implementation and that some folks are asking for additional publication of data on where and how funds are being spent.

Presentation by

MARTY SPITZER

*Professional Staff Member, House Committee on Science,
Subcommittee on Environment, Technology, and Standards*

Mr. Spitzer focused his remarks on the Bureau of Transportation Statistics (BTS). He indicated that some have felt that BTS is not living up to the expectations of the needs of the transportation community as a whole. He notes that the administration conducted a review of BTS, and, although the results were never released, the administration proposal largely scaled back the functions served by BTS. The Science Committee bill presents a window of opportunity to begin to address the perceived shortcomings.

Mr. Spitzer indicated that the committee seeks to increase the responsiveness of BTS to the needs of the transportation community at large, rather than just serve the Secretary, as is the case under current law. It would expand the Advisory Committee on Transportation Statistics to include representatives of the transportation community at large. It also proposes a two-part process of open assessment leading to the creation of a data strategic plan over the course of 2 to 3 years. Once the needs assessment and the strategic plan are complete, BTS would be required to submit an annual status report on implementation. The Science Committee proposal also calls on the director to implement a \$5 million per year (above the flat rate budget) data modernization effort and encourage harmonization of data collection and management through a demonstration grant program to states and local governments. The bill also reauthorizes the National Transportation Library. In terms of funding, there has not been support for additional funds. The first 3 years of the bill would be flat, with increases beginning in 2007, after the strategic plan is well under way.

The Science Committee bill includes the administration proposal to raise the takedown for state planning and research (SPR) from 2% to 2.5% and maintain the 25% set-aside for research. Mr. Spitzer also indicates that they support the administration's idea to require that a portion of SPR be devoted to data, but their bill reduced the 20% level proposed by the administration to 10%.

Presentation by

DEBBIE HERSMAN

*Senior Professional Staff Member, Senate Committee on Commerce, Science, and Technology,
Subcommittee on Surface Transportation and Merchant Marine Committee*

Ms. Hersman noted that Senate Commerce was the only committee to pass its bill prior to the expiration of TEA-21. The bill includes a highway safety title, a motor carrier safety title, household goods movement reform, hazmat transportation reauthorization, boating safety, and rail reauthorization titles. She noted that the process to provide input to the bill is still open.

She recommended that the research community engage committee staff on research and data issues. She noted that as a result of discussions at the TRB annual meeting, the rail reauthorization bill introduced last year (S. 104) included a proposal to establish a rail cooperative research program. She expects that the proposal will be offered as an amendment to the surface transportation bill.

Ms. Hersman noted that there are several concerns with motor carrier safety data. The legislation creating the Federal Motor Carrier Safety Administration (FMCSA) directed the agency to do a crash causation study that would be input for reauthorization, but that study is not complete. She asked the audience to help the committee set realistic deadlines for such efforts.

She echoed Dr. Jonathan Upchurch's comments on the SafeStat program. Regarding other safety data, she noted there are issues with the commercial driver's license program in terms of harmonization of data. She sees a need for a national assessment to address this issue.

Ms. Hersman said that, in the future, the committee would like to explore the idea of unifying all the safety databases into a single system to reduce the cost of data collection by reducing duplicative efforts and to improve the ability to share data.

She noted that data can be used to support conflicting points of view.

She said that the hazmat analysis that the committee has been using is seriously outdated (pre-1994) and needs updating.

The lack of data on cargo is becoming more problematic. Only 1% to 2% of containerized cargo entering the United States is screened. While Customs has information on the cargo, it has not been willing to share that data with the transportation community. This has been most critical in regard to nuclear waste transportation, but increasingly, the movements of all hazmats are an issue.

Household goods movement is another issue. The program has been moved from agency to agency in recent years. Contracting out the federal customer complaint line has aggravated the situation. It is difficult to write legislation to address the issue without good data. One stopgap measure has been to allow state officials to enforce the federal laws.

Ms. Hersman indicated that ARRIVE-21 will, for the first time, integrate rail passenger and freight into a single bill. The bill will establish a rail infrastructure financing corporation so that states can apply for financing, since using the highway trust fund for rail is not a viable alternative. The bill requires states to have a state rail plan as a condition for receiving federal funds. The bill tries to address modal stovepiping and directs the U.S. Department of Transportation (USDOT) to prepare a 50-year intermodal blueprint that, in Ms. Hersman's words, provides "more action and less lip service to...one DOT." She indicated that there is a need for comparative multimodal data, such as a GAO study the committee requested comparing the cost/benefit of rail and highway investment. Lack of data on environmental benefits and congestion benefits impedes the legislative process.

Data-Related Provisions in Transportation Legislative Proposals

Session Summary

ANITA VANDERVALK
Cambridge Systematics, Inc.

Presentation by

GEORGE SCHOENER

Deputy Assistant Secretary for Transportation Policy, Office of the Secretary of Transportation

Mr. Schoener began by describing the Safe, Accountable, Flexible, and Efficient Transportation Equity Act of 2003 (SAFETEA) as safer, simpler (expands state and local discretion and improves project delivery), and smarter (results oriented). He summarized the administration's proposal by identifying 10 provisions that have data implications.

Highway Safety Improvement Program

Mr. Schoener indicated that safety was the top priority for the Secretary and administration. They essentially created a new core program, the Highway Safety Infrastructure Improvement Program. This has significant data implications because the whole philosophy for establishing this program was to build around a data-driven, statewide safety plan. A key component of that program is to have states look at infrastructure safety needs and behavioral safety needs, then use real data to prioritize projects. The idea is to use traditional federal aid dollars for some of the improvements. If the plan identifies priorities on the behavioral side, a state could transfer some of that highway money into the NHTSA programs to implement seatbelt and alcohol programs.

He indicated that the Senate bill picked up on many of the program elements almost in their entirety, with a few minor changes. The House has done something different, but the Senate recognizes the importance of having a plan that is data driven.

The other key component of this plan is that it requires states to improve records for traffic data collection, analysis, and integration with other sources of safety data. The Michigan Department of Transportation (DOT) has been identified as one of the best-practice states in this area. Michigan has been doing a great job of sharing information and integrating its safety data across both the traditional infrastructure and behavioral areas.

Data are also needed to identify roadside obstacles, rail-highway crossings and bicycle and pedestrian problems. The Senate made a slight modification to this section and decided to eliminate set-asides in this program. The order and type of projects doesn't matter as long as they are based on good, solid information. The Senate put in some set-asides for the rail-highway grade crossing program and a safe route to schools program.

Freight Transportation

Mr. Schoener indicated that the nation is facing serious freight problems today that are only going to get worse in the future, thus making freight a priority area. Solid freight information and statistics will be necessary to identify areas of critical need.

A set-aside in this program focuses on the NHS intermodal connectors. States will need to look at intermodal connectors and make sure they are in satisfactory condition, which requires information and reliable data. If they can demonstrate that the connectors are in good condition, then they don't have to use the 2% set-aside for those connectors. If they are not in adequate condition (i.e., condition of the roadway, curvature problems, geometric problems, level of service), they would use the 2% money to address those problems. The Senate and the House agreed this was an important area.

Stewardship and Oversight

Another key area for the administration and the Inspector General's Office is providing better information on major projects. Project management plans must be developed for all projects of more than \$1 billion. Financial plans are to be developed for all projects receiving more than \$100 million in federal financial assistance and are to be made available for the Secretary's review if requested. Secretarial review and approval is not necessary but can be requested. There will be a significant focus on state financial management systems; the Secretary and the Federal Highway Administration will be looking at state financial management systems to make sure they are in proper shape.

Highway Use Tax Evasion

States will need data on state examinations, criminal investigations, and audits on highway use tax evasion. An annual report to the Secretary will be required. This is an opportunity to identify where taxes are not being reported properly.

State and Metropolitan Planning

The emphasis on multimodal planning and data requirements, as they existed under TEA-21, remain in the new bill. Although not required, states and MPOs are encouraged to obtain additional data to support performance-based planning (i.e., developing performance measures to support the transportation plan).

Safety, freight, operations, and environmental analysis and coordination during planning are also emphasized in this section.

Some additional funding to support state and metropolitan planning is included as follows:

- **Planning Capacity Building Initiative.** \$25 million per year in federal grants was proposed to provide support, technical assistance to states and MPOs, and to carry out freight and safety planning. The Senate reduced the \$25 million to \$4 million.
- **Metropolitan planning.** The amount of funding for metropolitan planning was set aside at 1% but increased by nearly 50% due to the set-aside being drawn from additional programs. The Senate increased the takedown from 1% to 1.5%.

- State planning. The proposed takedown was increased from 2% to 2.5% with language requiring that not less than 20% had to be directed at improving data collection and analysis of strategic transportation data related to the nation's highways for passenger and freight movement.
- Cooperative Environment and Planning Research Program. This provides additional dollars to support research in many areas, including performance measures.

Variable Toll Pricing Program

There was a variable toll pricing pilot program in TEA-21. It was decided to mainstream that activity for variable pricing programs and include permissive language allowing states to toll all facilities as long as the tolling is related to congestion management, congestion mitigation, or air quality improvements. If this were to become an official program, states and MPOs would have to document the success of the program in terms of performance measures.

Management and Operations

Mr. Schoener emphasized the importance of real-time system management improvement programs. These programs require states to establish standard data exchange formats and to set up statewide incident-reporting systems. Data to demonstrate performance of intelligent transportation systems (ITS) in reducing congestion, improving reliability, and improving safety and security will be encouraged.

Transit Performance Incentive Grants

There was a big push on the part of the administration to build in performance measures, particularly looking at ridership-based performance incentive programs. Language in the bill provides incentives based on ridership using 10% of FTA's Urbanized Area and Rural Program Funds. Recognizing that it would take some time for transit operators and states to get up to speed, some funding was provided over a 3-year period, to allow for establishing these performance measures and to obtain better data on transit performance. This funding is proposed to be allocated as follows:

- FY 2004 – \$25 million (urban) plus \$2.5 million (other than urban)
- FY 2005 – \$15 million (urban) plus \$1.5 million (other than urban)
- FY 2006 – \$5 million (urban) plus \$0.5 million (other than urban)

Bureau of Transportation Statistics (BTS)

Five core data programs of emphasis were identified: freight movement, personal travel behavior, transportation economics, airline data, and geographic information systems.

Two cross-cutting programs were also emphasized: key indicators of national transportation system performance and improvement of statistical methods to address transportation-specific problems. Mr. Schoener expressed support of the BTS provision.

Presentation by

ANTHONY R. KANE

Director, Engineering & Technical Services

American Association of State Highway and Transportation Officials (AASHTO)

Mr. Kane highlighted current reauthorization issues with respect to data, some concerns and challenges that states might have, and thoughts for the future. He also emphasized some sections in the Senate Environment and Public Works bill.

Senate Environment and Public Works Bill

Section 1201 - Infrastructure Performance and Maintenance Program

This is a new program and it may be a place keeper for special projects.

Section 1202 - Future of Surface Transportation System

This section has gotten broader and more inclusive of all modes.

Section 1203 - Freight Gateways, Freight Intermodal Connectors

A state freight coordinator is required. Mr. Kane said that with all these new requirements there should be an umbrella to pull them all together.

Section 1401 - Highway Safety Improvement Program

This affects a number of programs or projects, comprehensive safety plans, evaluation requirements, and requirements for the Secretary to review progress in achieving this comprehensive plan. The original version called for a comprehensive safety plan 1 year after enactment. A markup extended it to October 1 of the second fiscal year after enactment, which could be October 1, 2005. This infers that there are not only demands on states but also on all levels of government, horizontally and vertically. With some state safety representatives, Motor Vehicle Administrations, state patrol functions, and motor carrier safety functions being located in state DOTs, and others in other jurisdictions, coordination of the safety programs will be challenging. In addition, coordination must cut across all 39,000 owners of highways in this country (counties, states, towns, townships, cities, municipalities, etc.)

Section 1501, 1503 - Integration of Natural Resource Concerns into Planning and Projects

This is a new requirement and involves addressing natural resource concerns (habitat, water quality, agriculture, forestlands, invasive species, etc.) in planning and project development. This results in more institutional players, technical issues, and data requirements built into the planning process.

*Section 1513 - Surface Transportation Project Delivery Pilot Program**Section 1702 – Real-Time Incident Management Program*

Mr. Kane agreed that incident management is important since nonrecurring congestion accounts for half the problem; however, he expressed concern that this may be an unfunded mandate.

Section 1802 - Project Management Plans, Finance Plans

Mr. Kane indicated that the following questions will need to be answered by states: What is your organizational structure? How are you going to run it? What are your timelines? How are you going to manage that project through its life, from start to finish? He pointed out that the approval process might be problematic.

Mr. Kane also briefly mentioned the following new sections: Section 1810, Multistate Corridor Program; Section 1305, Future Revenue Sources Commission; Section 1306, Highway Use Tax Evasion; and Section 2102, Study of Data and Statistical Analysis Techniques.

Resources

Concerning what resources are available, Mr. Kane noted the planning capacity building reduction from \$20 million to \$5 million. Regarding safety data, there is a very large program (\$1.2 billion to \$1.3 billion) of which eligibility for data systems are included. He emphasized the need for data and coordination.

Mr. Kane stated that:

- Safety, freight, environment, congestion/incidents/operations, finance program and projects, and security need more resources.
- There will be increased demands for data in the gateways/border and corridor; intermodal connections; and for state freight coordinators.
- There will be an increase in necessary data to support habitat considerations.
- Strong new data requirements will be needed in the new congestion program, especially the incident management reporting process requirement.
- Long-range studies, such as the future of the trust fund and strengthening financial plans, will be significant.

He suggested that he was emphasizing these five areas because they appear in the House, the Senate, or the administration's bills.

Data Concerns

Mr. Kane briefly reviewed the following partial list of state DOT concerns: unfunded mandates; timelines; coordination with multiple levels of government and agencies; data collection, storage, and analysis methods; competition with state priorities, e.g., performance measures and asset management; and the need to tie to existing statewide planning processes. In general, he said that all of these requirements should be considered related to coordination and the need for resources.

The following were specified as state challenges in dealing with the new requirements:

- Downsizing and talent loss in state DOTs;
- Explaining benefits/value to local governments/MPOs;
- Utility of the Fiscal Management Information System for project/program analysis;
- Quality of fuel data/estimates by state;
- Quality control; coordination across states; and
- Tie-in with statutory requirements or lack thereof.

Mr. Kane listed the following challenges for future plans:

- Strategic plan for data—after reauthorization;
- Business case analysis for data requirements;
- New ways of doing business—e.g., the Highway Performance Monitoring System vs. network-based analysis and tie-in with state asset management/congestion management systems; ITS-based data; and
- Data partnerships.

Presentation by

ROBERT G. STANLEY

Cambridge Systematics, Inc.

Mr. Stanley stated that (1) less is known about the transit title since a Senate bill has not yet been drafted and (2) transit agencies already assemble and report an extraordinary amount of data.

He offered the following examples of the levels of transit data already being reported:

1. There are system-level operations and financial reporting systems that feed the National Transit Database (NTD). The same kind of information is reported to most states at some level of detail.
2. Project-level data and information for major transit capital investments are assembled and reported through the alternatives analysis or management information system process.
3. Documentation in the planning certification process addresses Title VI and equity concerns.
4. Project maintenance oversight has been carried out formally on major capital projects for some time.
5. Emerging security planning requirements and assessments of threats and vulnerability in the transit industry are beginning to extend throughout the industry.

Mr. Stanley posed the question, “What else might be required of the transit industry that comes out of the legislation and how onerous might those requirements be?” His short answer is that there is not much in the bills currently available that is surprising and cannot be provided in some way, potentially by the kinds of data collection and management activities already taking place in the industry.

The industry might also be enthusiastic about using the kinds of information that others are going to collect, to support the requirements that are being discussed. There are also hints that some degree of streamlining may actually reduce reporting requirements for transit.

In the new programs and initiatives being proposed, the data requirements for public transit agencies will likely focus on data and information necessary to demonstrate that agencies are eligible users of new program funds. In these instances, the data requirements remain somewhat unclear.

Looking at the new twists on old programs, there are some features that require attention by the transit industry. For instance, “incentive tiers,” proposed both in the urban and rural formula programs by the administration, will create a challenge by causing a shift of funds among recipients as a result of rewarding performance measured by ridership and efficiency, Mr. Stanley said. Since the necessary data are already available, however, the issue will be how to apply the data and manage what could be disruptive changes in the flow of funds among recipients. He questioned whether the potential gains or losses of funds from an incentive tier will be significant to provide meaningful incentives for performance improvement.

The administration’s proposal for the Urbanized Area Formula Grants program (Section 5307) also broadens eligibility in some interesting ways since it creates a “mobility management program.” If this survives the merger of all the bills, it will require some coordination and definition of performance in a customer-oriented way that is not reflected in the NTD right now. Mr. Stanley indicated that some combination of interests will need to determine what “mobility management” is, whose responsibility it will be, what investment requirements can be funded, and what monitoring and reporting requirements will be needed.

In the major Capital Investment Grants program (Section 5309) that funds New Starts, transit-supportive land use is added as a criterion in evaluating the effectiveness and the advisability of investing in transit New Starts. This is not a new issue, since New Starts applicants have had their proposals evaluated with respect to their local land use planning activities over the last several years. Although it is not new, codifying land use as a criterion in this new evaluation process may strain intergovernmental relationships and call for different kinds of information to be added to the process.

The definition of “capital” is also proposed to be expanded or changed somewhat in recognition of heightened security and safety concerns around the country. The new definition of capital includes capital security items and training and drilling for cataclysmic events and emergency circumstances. In the future, there may be a new set of requirements and a new set of data required to demonstrate eligibility and effective performance in these areas.

Proposals for the Job Access and Reverse Commute Formula Grants program include funding allocated by formula, which may also result in a new set of data requirements with the possible effect of moving money around in different ways. Increased reliance on human service agencies for data, which may result in proprietary and data integration issues, will be a challenge.

He suggested that of all the new programs, the New Freedom Program may have the largest data-related implications for public transportation agencies. The increased involvement of human service providers implies substantially increased interagency coordination and new raw-data requirements and data sharing.

Mr. Stanley also mentioned several issues important to transit from the highway provisions of current proposals:

1. He suggested that greater levels of collaboration and dialogue will be needed in the use of some of the funding resources in Title I, potentially bringing the highway community and others to the table in a different way. For example, the administration's proposal expands eligibility for the Congestion Management and Air Quality Improvement (CMAQ) program to "system management and operations expenditures." The underlying issue is whether or not a fair amount of money will be preserved in the CMAQ program for transit investments as has occurred in the past, or whether operations and management investments on the highway system will absorb substantially all of what has been an important source of funds for transit.

2. Regarding the Infrastructure Performance and Maintenance program proposed by the administration, it may be logical to think about ready-to-go transit projects in the same sort of way as highway projects because of their potential to enhance performance of an overall multimodal network.

3. Regarding the Transportation Systems Management and Operations program, the transit role, access to funding, and related data requirements have yet to be defined.

In summary, Mr. Stanley stated that the largest challenges to the transit industry revolve, not around new data requirements per se, but around issues related to data sharing and integration processes among agencies and levels of government, combined with the potential for shifts in the flow of transit-eligible funds among FTA recipients. Some technical database integration questions invariably will have to be solved as well. As these questions arise, a new generation of research needs may emerge, possibly leading to further programmatic change over time. To prepare for this eventuality, he further suggested that research should focus on thorough identification of transit resource needs associated with programmatic change before coming to the table again for the next round of reauthorization.

Presentation by

ED MILTON

Team Leader, Traffic Records,

National Center for Statistics and Analysis, National Highway Traffic Safety Administration (NHTSA)

Mr. Milton stated that NHTSA tried to craft its part of the bill in a way that would truly address the problems that exist with safety data. He defined safety data as crash citation and adjudication, drivers' licensing, vehicle registration, injury control, and roadway.

He summarized the following six problems with existing safety data:

1. **Timeliness.** Some states are more than 3 years behind in collecting crash data.
2. **Accuracy.** The data collectors do not address this issue.
3. **Completeness.** Sometimes NHTSA gets complete information; many times it does not.
4. **Uniformity.** Sometimes one area of the state collects information one way, and another area of the state collects it another way.
5. **Integrated.** There are stovepipes of these components, and there is the mentality of "what is mine is mine, what is yours is negotiable, and maybe I'll let you get to it."
6. **Accessible.** In many cases, the accessibility of data is such that only a computer programmer can access the data.

Mr. Milton cited the following reasons for these problems:

1. Lack of commitment.
2. Lack of resources. In times of major financial problems, safety data programs are one of the first things to be eliminated. For example, in Oregon, 85% of the crash data are reported by the people involved in the crash.
3. State safety data systems do not function as a system. As a result, institutional barriers occur. There are no consistent managers of safety data systems. Systemwide problems are poorly understood. Finally, no multiyear, systemwide, multimodal plan addresses the problems in the system itself.

Mr. Milton posed the question, “How does SAFETEA address these problems?”

1. Commitment. Dr. Jeff Runge, NHTSA Administrator, has made improvement of state safety system data one of NHTSA’s top five priorities.
2. Resources. Dr. Runge has recommended that funding of \$50 million per year over 6 years be allocated to states to address and remedy safety system data problems. One of the proposed bills cuts this back to \$225 million.
3. Systems improvement. In order to address the system problems related to accessibility and integration, NHTSA, FMCSA, FHWA, and BTS crafted a program with qualification requirements.

System Problems – First-Year Requirements

One of the first-year qualification requirements is a state traffic records coordinating committee (TRCC) composed of data collectors, data managers, and data users from each of the following six components: roadway, Emergency Medical Services (EMS), crash, driver licensing, vehicle registration, and citation components. Once this is in place, a state should get a better feel for systemwide problem identification.

The state then needs to set a multiyear, safety data system approved by the TRCC to

1. Prioritize system deficiencies and proposed remedies.
2. Establish improvement goals; identify performance measures, and how they will measure progress in meeting these goals and objectives.
3. Specify how all will be used. There are many opportunities here for other organizations, such as the Department of Justice and Homeland Security, to get involved.
4. Finally, provide NHTSA with a current report on where the state is with its multiyear plan.

System Problems – Succeeding-Year Requirements

Succeeding-year funding can be secured by certifying that the TRCC is still operational. The state must also demonstrate how it is spending funding, such as describing how funds are used in addressing system deficiencies. It must also show some progress toward meeting identified goals and objectives. Finally, for the state to qualify for new funding, NHTSA requires an updated report.

Summary

Mr. Milton summarized by indicating that there are commitments in funding and information technologies that will facilitate and expedite the solution of safety system data problems.

He also described the integrated project (IP) team that assists states with determining how the safety program will work and how it can be put in place. He stated that NHTSA hopes to have this IP project completed in January to coincide with the enactment of SAFETEA.

Impacts on the State and Local Government Data Communities

Session Summary

JONETTE KREIDeweIS

Minnesota Department of Transportation

Presentation by

NANCY ROSS

Director of Federal Affairs, New York State Department of Transportation

“I got them local accident reporting, real-time incident, wildlife habitat linkage, induced growth data needs blues!”

Ms. Ross has been involved in a number of studies on the future of the nation’s highway system. She has discovered that quality data are not always available to support many current and proposed requirements. Success has been made in moving beyond modal stovepipes and progress is being made to improve condition and performance data. However, data on financing mechanisms are only okay and further work remains, particularly in respect to fuel tax data. According to Ms. Ross, other areas where data gaps exist include:

- Safety planning. States do not manage these data programs alone. In Oregon, 85% of vehicle accidents are self-reported. Data and planning efforts need to recognize the important contributions of regional and local governments and look for continuing ways to improve accuracy, timeliness, and reliability.
- Safe routes to schools. Many states do not have data to meet requirements for identifying and coordinating safety on all routes within 2 mi of schools.
- Stormwater mitigation and other environmental restoration provisions. Many states do not have accounting systems in place to separate and track takedowns and spending for specific environmental activities during project development.
- New environmental analyses requirements. Proposals that tie wildlife habitat, invasive species, land use, and environmental and hydrological studies to the use of Surface Transportation Program (STP) and National Highway System (NHS) funds will require states to obtain data from other federal and state agencies. These agencies may not have data in the same formats and may not share transportation agency priorities.
- High-occupancy vehicle and high-occupancy toll lanes. Variable-pricing provisions will require states to establish measures and collect new data to track when service has become “seriously degraded.”
- Real-time management information systems. Provisions to establish comprehensive real-time management information systems may not be realistic. Archiving, web, and data security issues still need to be addressed in many areas.
- New data requirements. Induced demand and other provisions add new data requirements, definitional issues, and challenges for transportation agencies.

According to Ms. Ross, there is some good news. Reauthorization proposals include provisions for improving transportation planning capacity and for encouraging performance-based planning. Metropolitan planning organization (MPO) funds have been increased, and many AASHTO comments and recommendations are being considered.

Ms. Ross' concluding remarks focused on "unrequited desires" to

1. Improve our understanding of operations through network analyses—with more reliance on the modeling, measuring, and mining of existing data and less reliance on new info-system data requirements.
2. Work to develop widely accepted measures for tracking congestion similar to pavement and bridge condition indices.
3. Strengthen relationships with local safety and state environmental data partners.

Lastly, Ms. Ross encouraged data practitioners and decision makers to not let the absence of data stifle brainstorming and creative solutions.

Presentation by

STEVEN GAYLE

Executive Director, Binghamton Metropolitan Transportation Study

Mr. Gayle stated that MPOs often operate with fewer resources and have less capacity than state agencies to absorb changes in legislative mandates. As a result, new data requirements from transportation reauthorization can be expected to affect MPOs.

Mr. Gayle suggested that many MPOs around the country are still grappling with the data requirements of ISTEA and TEA-21. In many cases, transportation authorities are finding that they have too much data, too little information, too many formats, too many owners, and too little accessibility.

A common theme emphasizes the need for system performance data. This is a relatively new perspective for transportation planners. It requires them to think in new ways about what is going on in today's world and what factors need to be measured to best understand performance.

Mr. Gayle said that new data initiatives for homeland security planning, performance-based planning, safety-conscious planning, and operations planning need to be considered in the context of

- What information do we really need? What do we need to understand?
- How will the data affect investment decisions?
- What will we measure? How will we collect the data?
- How will the data help us do a better job of forecasting for tomorrow and operating better today?

In closing, Mr. Gayle encouraged transportation policy and decision makers to step back and consider the useful linkages between existing requirements and the opportunities available for leveraging already available data and information. In doing this, we may find ways to enable desired new initiatives and prevent additional administrative data requirements.

Presentation by

MICHAEL J. SHIFFER

Vice President – Planning/Development, Chicago Transit Authority

Transit providers have a strong history of collecting and reporting performance data. Transit providers are also users of data and information. Some data are available; others are not. According to Mr. Shiffer, data that can provide additional value to transit decision-making include

- Data that demonstrate the value of transit at all levels of geography (state, regional, and local). For example, ridership data at the “micro” neighborhood level can help transit planners compare routes and determine how many passengers ride between specified origin and destination points.
- Data that help transit agencies be more flexible and effective in managing limited resources.
- Better operations data to compare service options and understand competitiveness.
- Enhanced data on the value of transit, including the value of transit relative to other alternatives.
- Data on land use changes and new housing and business starts.
- Data on highway levels of service, including real time traffic monitoring information.
- Finer levels of data to facilitate transit use for people with disabilities.

Also important are representative aides and visual tools for effectively sharing data and information on transit. For example, using a visual image that transposes a train on a parking garage proved to be effective in helping policy makers and commuters think about transportation and land use choices.

New tools and technologies are coming on line to improve transit operations and data collection activities. For example, GIS is enhancing capabilities to visually map and link traffic generators. “Smart card” technologies can extend signal times, and new automatic passenger counting equipment can assist transit agencies in improving operations and more effectively managing resources.

Presentation by

BARBARA L. HARSHA

Executive Director, Governors Highway Safety Association

Ms. Harsha focused her remarks on what safety data are really needed and how the safety community is affected in the reauthorization proposals.

Safety data represent multiple sets of data. There are crash, injury, and fatality data. There are also driver’s license, citation, and arrest data and EMS morbidity and mortality data. Many existing databases need to be electronically linked so that you can follow events through the system, identify repeat offenders, track arrests, and determine if follow-up actions have taken place. Right now there are no state systems that can do all of these things. But, advances are occurring, and many states are automating their data. For example, 23 states are now participating in the Iowa National Model Project.

According to Ms. Harsha, the reauthorization legislation affects safety and the need for safety data in three key areas, including

1. Behavioral safety grant program. This program requires data on priority safety problems, performance goals, and countermeasures.
2. Safety-conscious planning. Provisions require safety to be considered in MPO planning processes.
3. Comprehensive safety planning. This will require states to come up with a plan, consult with other agencies, and develop safety goals, programs, and projects.

To assist states in managing these provisions, the administration's bill and the Senate Commerce Committee bill include a \$50 million data incentive improvement program (\$300 million over 6 years). To receive funds, states will need to reassess their data programs and come up with a strategic plan for improvements. In addition, they will need to have a "traffic records coordinating committee," enabling agencies to come together to make joint decisions about data improvements. The House authorizes the same data improvement grant program as the SAFETEA and Senate Commerce committee bills but funded it at \$225 million.

The \$50 million is a terrific first step, Ms. Harsha said. However, she also noted that right now it doesn't sound like enough. There will be tremendous competition for these funds. For example, some estimates suggest that only 10% of law enforcement officials have laptops in their vehicles for entering data. In addition, there are continuing needs for driving-under-the-influence and impaired-driver information systems. Also, some states have good safety data for roads on state systems and little or no data aggregated for local roads. Locating and mapping data are other issues that will need to be addressed, according to Ms. Harsha.

Ms. Harsha concluded that Congress's acknowledgment of the importance of data is truly a step in the right direction. There will be challenges in using the available resources that will require all of the stakeholders to work together with patience to develop new systems, approaches, and partnerships.

Key Points

Three Perspectives

Presentation by

KENNETH J. LEONARD

Deputy Administrator, Wisconsin Department of Transportation

I'm going to summarize what I heard as the key planning points, and then I will give a perspective from a state DOT and I think from an MPO perspective too.

First of all, we heard about a lot of additional planning requirements in addition to keeping the current requirements for statewide plans and MPO plans. The SAFETEA proposal and the Environment and Public Works proposal establish a timeline on the updates to the statewide plans. One of the bills is 4 years, and the other is 5 years. This is a new requirement to which we will have to give additional consideration. But then, we also heard about a safety comprehensive plan, and another version was the strategic safety plan. Ms. Barb Harsha mentioned safety-conscious planning and that nobody knows the difference or how these concepts fit together. That is probably true. However, I am confident this can be figured out at some point.

We heard about the need for an operations plan, a freight plan, and a freight coordinator. We also heard about an incident management plan, moving environmental analysis up into the planning process—that is something we do now in Wisconsin. We do a system-level environmental evaluation. However, we don't know what the details of these new planning requirements will be.

We heard about the need for a rail plan from Ms. Debbie Hersman this morning. Also, a local transit human resources plan is something new. And then Mr. George Schoener talked about a project management plan and a project financial plan. So, there are a lot of additional planning requirements. But, guess what? States don't have a lot of money, and I don't think the MPOs do either. At least in Wisconsin right now, we are downsizing our staff department-wide, including the planning staff. I know provisions exist in the various bills to provide additional planning funds and to provide some help in terms of capacity planning. So, we hope that if these additional planning requirements are passed, there will also be additional money. The worst fear, of course, is that those planning requirements will pass, but the additional money will not pass. If that happens, we will be in a lot of trouble because these various requirements take a lot of work.

I asked the question this morning about the proposed rail-planning requirement and if it would be integrated into the other planning requirements, particularly the statewide multimodal plan regulations. I guess the answer I heard was yes. Something will be worked out so that the new requirements will be coordinated with the existing ones. I hope that is the case because otherwise we are going to be spending a lot of additional time on a lot of individual plans that somewhat, but do not completely, relate. I think that is one of the reasons that ISTEA required a statewide multimodal plan. It was meant to be comprehensive and to consolidate all the individual areas. Now, I see these areas being developed separately again with additional requirements being added separate to the statewide plan and metropolitan plan requirements. Ideally, all the individual plan requirements can be integrated under multimodal planning.

There was some discussion about coordination with the additional requirements. Mr. Tony Kane mentioned that there would need to be a lot of coordination, horizontally and vertically. Obviously that is true. An example might be in the safety planning area with a lot of different safety planning requirements being proposed. In Wisconsin, we have all the actors under one roof in the department—state patrol, the governor’s representative for highway safety, Division of Motor Vehicles, the Bureau of Planning people, and so forth. But still, it is difficult to sometimes get coordination between the various groups.

In the area of crash data, the state patrol fills out the crash report. The Division of Motor Vehicles then tabulates that information, but they don’t use it. Then it is provided to the people that do use it—the planners, safety analysts, highway designers, and so on. But, you’ve got all those different actors, and they all have different interests. The state trooper doesn’t necessarily care about the planner and how that person is going to use the data. The trooper doesn’t want to capture a lot of additional data that is going to take a lot of extra time. So, there needs to be a lot of coordination even if all the safety entities are under one roof. It is one thing to say we need a strategic highway safety plan. It is another to actually develop it.

I want to clarify something mentioned earlier. Wisconsin locates their crashes on the state highway network. It is not just reported by county. In fact, we have a fairly sophisticated information system and an asset management system. On the state highway system, we have, by two-tenths of a mile, crash data, crash rate, traffic volumes, level of service, condition of the pavement, and all the typical kinds of data you need to do programming and asset management. We are also, and I think maybe one of the first states, collecting that kind of information now on the local system. We are developing the same kind of record. It is not as far along, but it is the same thing. We are working with the local governments and measuring the condition of the pavement. An NCHRP 8-36 study about rural planning tools is under way and should be completed by about January. It will include a description of that local road monitoring.

There was a discussion of statewide real-time information systems. Nancy said this requirement was a little bit of overkill. I think she is probably right. I’m sure that once the program gets more defined, there will be some limitations. Obviously though, in certain rural areas, there is no need to have that kind of coverage.

Just in dealing with an incident management system, that coordination is pretty difficult. In the Milwaukee area, we’ve got a fairly good ITS system. We collect a lot of information from our freeway cameras. We try to share that data with the local police, the local fire, the local hospitals, and the local EMS, but all that takes an awful lot of money. Many times, when money is short, you find one group wondering if they want to spend an extra million dollars to give these data to the EMS people so they can see it in their vehicle. It would be nice to have, but again it is very expensive.

Regarding the environmental requirement, Wisconsin already analyzes system-level environmental impacts at the planning level, but that is challenging. Even getting environmental information from our Department of Natural Resources is a challenge. It doesn’t like to share its environmental information, but yet we fund 11 of their positions.

Ms. Debbie Hersman mentioned rail planning this morning. Getting good freight rail data is time-consuming and expensive. Right now, if you want more commodity information than just the waybill sample to look at all commodities, you essentially have to buy it. NCHRP 8-43 is comparing best practices in freight forecasting. There are a lot of ways to conduct freight forecasting, but none of them are perfect. Freight planning will be a challenge and require additional capacity building.

Dr. Jon Upchurch talked this morning about the transportation and infrastructure version of SAFETEA. He talked about a New Freedom Program, which would provide access to people with disabilities. In response to a question, he said he assumed that some agency collected information on disabled people. But, it is not quite that easy. It is unwise to assume data availability and add legislative requirements based on assumptions. In Wisconsin, our Department of Health and Family Services has information on disabled people receiving assistance, but that is probably just the tip of the iceberg. There are other disabled people out there, and we don't have information on them. So, we have to be careful what we require.

I asked Mr. George Schoener a question about the financial planning requirement for projects over \$100 million and if the requirements would be the same as for megaprojects, which are fairly intensive. I'm in charge of an implementation plan for reconstructing our freeway system of 270 mi in the southeast part of the state. It is all about 50 years old. We are looking at putting together a plan on how to reconstruct it and, believe me, none of the segments will be over a billion dollars, but they are surely going to be over a million dollars. So, I am quite interested in what the requirements might be for those financial plans when the project is \$1 million dollars or more. The total cost of this reconstruction project is estimated at \$6.0 billion, so financial plan requirements are a major concern. Preparing financial plans and monitoring all the financial activities during the construction of the project, making sure you don't go over budget, takes a lot of time and staff.

In the administration's version of SAFETEA, there is a requirement that 20% of a state's SPR money be used for data collection. But, it says that you can get a waiver if you meet certain guidelines. However, we don't know what those guidelines are. The concern that I have is that our state legislature does not authorize our use of all the SPR money we receive. It cut back a number of programs including Congestion Mitigation and Air Quality (CMAQ) and Enhancements. So, I don't know exactly how that would work. How can we use 20% of our federal SPR funding on data collection when we don't get all the money? Also, we sometimes use construction money to replace SPR funds, so how will that work. I hope that this complication can be addressed in some way. Those are the kinds of situations we need to think about.

There was some discussion earlier about standards versus guidelines when we talked about traffic crashes. Obviously, with these new planning requirements, we are concerned about guidelines versus rules. I think Mr. George Schoener was pretty careful in not saying "requirements" too many times but instead talked about guidelines. We are concerned about all these new requirements in the legislation and not knowing exactly how they will be implemented. If rules were promulgated to implement these new requirements, a 1-day conference would not be enough. We would probably need to have a weeklong conference to discuss them. If you remember TEA-21, the planning regulations never got passed because there was so much controversy. This is a concern that needs to be addressed. As I mentioned earlier, let's hope we won't get the requirements without additional funding.

In summary, I would say that as a planner I certainly support the need for accurate, reliable, and timely data. But, I think we all have to realize that data are very costly and very time-consuming. Somehow we have to balance these things. Ideally, we would like to have all these data and we would like to have all the tools to be able to use them. Unfortunately, we don't have either. We have a lot to work to do to meet our data and tool needs.

Presentation by
LANCE NEUMANN
President, Cambridge Systematics, Inc.

Mr. Neumann made the following points.

General Observations

In general, there appears to be some new requirements that will need to be met with new data collection efforts, and there are other requirements for which we will be able to apply existing data in perhaps unconventional ways. The data community needs to step back and think about the overall management of its data (new, existing, archived, and real time) as a strategic resource. While we are evaluating the need for new data and how to use existing data sources, we need to consider if we have the framework and management structure to organize and leverage these resources in the most efficient manner.

Mr. Neumann also indicated that there appear to be several competing priorities in the bill. Some programs such as safe routes to schools or the freedom program, while worthy and meritorious, may be data intensive and not as critical as system management operation, safety, security, and freight.

Good and Bad News

There appears to be good and bad news regarding the day's discussion.

The good news is that there are potentially more dollars available for research, planning, and data collection contained in the various versions of the bill. There are a number of key policy areas where the lack of data or access to data seems to be recognized as an impediment to good policy making and good transportation delivery. There may be an important opportunity to strengthen the role and value of the Bureau of Transportation Statistics as a key resource. With respect to the transit industry, there do not appear to be any new data requirements.

The bad news is that there is a need for more, better, and different data than there will be resources provided to collect and manage it. So the states will likely be faced with the task of prioritizing data collection to meet the legislative requirements.

MPO Perspective

The presentation by Steve Gayle regarding the MPO perspective was interesting in the sense that the MPOs are still catching up and dealing with the old requirements. This puts them in a triage mode, and the need to prioritize is clear. If states perceive that any of these requirements will challenge their resources regarding the availability of data, then MPOs, rural areas, and local governments will be challenged tenfold.

There are three main areas of implications as follows:

1. Operations and systems performance. Systems performance measurement is also a significant implication at the MPO and local level. Mr. Neumann cited examples of real-time monitoring, congestion relief, and value pricing and the fact that these programs will need to cut

across jurisdictions and functions. Issues such as formats and accessibility become challenging in accomplishing this data integration.

2. Safety. Safety will be critical to passengers as well as freight. The assessment of the current accuracy, availability, and accessibility of data to support safety programs suggests that significant issues must be addressed. Safety is clearly a very important program area. From a data point of view, it appears that today we are not institutionally ready to meet that challenge. To meet that challenge, there are significant resource implications. Accountability of the use of safety data is also critical. For example, if significant resources are spent on improving safety data, it is critical that we demonstrate a dramatic improvement in the quality of our safety data and our ability to use it.

3. Project eligibility. There are implications for project eligibility and evaluation at the state level. So, given the State Transportation Improvement Program and transportation improvement plan process and the need for collaborative planning, there may potentially be an implication for the MPO and local levels, since they are partners in that same process.

Summary

1. The resources available for data, even with the significant potential increases in those resources, will not be sufficient to meet all of the challenges of the issues that were addressed today.

2. We will have to spend some time thinking about priorities. This includes consideration of how to leverage more effectively any data resources we have.

3. The data community should stay close to its customers and continue to do a better job communicating needs to policy makers.

4. Regarding new technology, we need to think carefully about the potential for new technology with respect to data collection, data management, and data access.

5. The real challenge at the end of the day is to move toward more strategic and integrated management of data across agencies, functions, and all policy areas.

Presentation by

PAUL H. BINGHAM

Principal, Global Insight, Inc.

Freight transportation may be last on the agenda but is not last in priority, according to many speakers today, including fellow panelists at this session. I preface my remarks by noting Mr. Steve Gayle's quoting Mr. Nate Erlbaum that data is not information. Information is what is needed by decision makers, not just data, so in the remarks to follow, when I refer to data, keep this in mind.

Today we heard about five major areas in which freight was identified as important in three of the administration's SAFETEA proposal categories: safety (and security), highway programs, and planning and research.

These are

1. Freight transportation gateways. There is a strong assumption made here that analysis will have the necessary freight data, without addressing the sufficiency of the existing data.
2. Intermodal connectors. The unstated challenge here is for modal silo data to describe multimodal commodity flows. The need for identifying public benefits of private freight facility investments was raised without assurances that the data from which to estimate these benefits will be adequate.
3. Border operations, planning and technology program. Decision makers will require better border-crossing data as well as better coordination between states, USDOT, Census, and Department of Homeland Security for access to needed information from the new International Trade Data System. Multimodal corridor planning will also require better data that covers international freight movements.
4. State freight coordinator. This individual could assist with statewide multimodal and railroad planning. The state coordinators, however, may quickly be back in Washington, D.C., asking for help with data with which to do their jobs.
5. Statistical agencies, particularly BTS, FHWA, FMCSA, and NHTSA, will continue to have freight data program responsibilities from reauthorization. There was no mention of TRB's *Special Report 276: A Concept for a National Freight Data Program* (2003), which included recommendation for an expert advisory panel for freight data for BTS. However the proposed legislation, or at least the House Science Committee version, includes a multiyear needs assessment and strategic plan development for BTS that includes a big picture version of this expert advisory committee concept. The House bill also clarifies that the customers BTS is directed to serve are the entire transportation community, not just the Secretary. This includes private-sector freight transportation organizations as well as government agencies at all levels.

A few other areas in which freight-related issues were identified (or in some cases not identified) today follow.

Safety received substantial attention in the presentations today, but not much discussion of security, which I will group with safety as there are potential overlaps, at least for freight transportation. In this category were identified the following freight-related statistics requirements: hazmat, motor carrier safety ratings data, commercial driver's licenses, motor carrier crash statistics, and railroad-truck grade crossing data. It is not clear if there are overlaps with newly developing Department of Homeland Security data requirements. Nor was there any mention of data to capture the impacts of changes in truck driver hours of service regulations that may have significant effects on the industry starting January 1, 2004.

The geographic scope of freight data requirements received some attention today, including mandates to states and MPOs to perform analysis at the state or metro area level without the assurances that the needed freight data will be available at that level of geographic detail. At the same time, multistate and regional freight data needed for corridor studies and other analysis to be performed by the states are potentially a problem, given the jurisdictional differences in data collection practices and standards acknowledged today.

Other areas discussed today without an explicit freight perspective included congestion relief, environmental impacts, and legal barriers to information interchange. Each of these has a freight transportation dimension and freight transportation data needs, even if not identified. On the last of these, barriers to information interchange, the legal barriers are not just between public agencies at different levels or jurisdiction but also between the public and private sector. Given

the significance of the private sector to freight transportation, this is a potentially significant problem, especially given new security-related demands being placed on the freight transportation companies.

Finally is the research area, where freight transportation data were mentioned today several times. The establishment of the railroad cooperative research program should lead to better rail and intermodal freight research, including improvements to data use and understanding. The development of tools and methods to leverage existing data programs is a significant part of needed freight research and can serve to fill the gaps in the data programs. As identified by the TRB committee as a framework for freight transportation development, data synthesis and modeling tools will provide significant benefits to coping with limited data collection budgets going forward. By use of these tools and methods, useful freight transportation information can still be provided to decision makers.

Facilitating Collaborative Coalitions to Improve Data Quality, Sharing, and Use

Developing an Agenda for a Post-Authorization Conference

MICHAEL S. BRONZINI
George Mason University

The audience discussed how the transportation data and information technology community could best design a meeting to deal collectively with data initiatives associated with the final reauthorization legislation. The conference could serve as an information sharing venue for the data community and its customers. An additional function could be to make recommendations of approaches to improve community data capabilities. Under the TRB auspices, the latter would take longer and require more resources to organize.

The following were among the ideas put forward for consideration to build the approach of this 1-day meeting.

Audience

Several participants advocated a broad approach encompassing all the data issues affecting the state and local data communities and involving all parties. Among the parties to be included were the following:

- Private sector consultants and those involved with producing tools that will be necessary to use the data,
- Customers of the data communities,
- “Owners” of the data sourced,
- Regulation writers, and
- Congressional staff to further describe their interests.

Organizing Principle

The conference could be built around the matrix presented in Exhibit 1 below, proposed by Mr. Alan Pisarski at the beginning of this workshop. The rows of the matrix represent topical areas about which data are and will be required. The columns identify various aspects of present and potential future data collection programs, beginning with the goals of collecting data on this topic, and proceeding through the data that will be available from existing and future data collection programs. The conference would be organized around filling in the substance of the cells of the matrix, then looking for cross-collaboration possibilities to foster efficiency and transparency of the data collection efforts.

Participants discussed how this format could be modified to better cover the broad range of topics and issues that are likely to be of interest and importance. Suggestions for additional rows included Environment, Freight, and Data Integration (although it was noted

AREAS	GOAL OF DATA	DATA MODIFICATIONS NEEDED	DATA ADDITIONS NEEDED	ALL NEW DATA AREAS
PLANNING/POLICY				
• <i>Geographic Subsets</i>				
FINANCE/REVENUE				
SAFETY & OPERATIONS				
SECURITY				
RESEARCH, STUDIES				
OTHER				

A. E. Pisarski

EXHIBIT 1 Proposed matrix for organizing conference agenda.

that integration might more appropriately be a new column). New columns suggested were Base Data and Its Quality, and one dealing with the topic of where and how data needs are addressed. While the value of this approach was recognized, it was observed that this approach could continue the current silo approach to data programs, rather than fostering a vigorous effort to develop integrated multipurpose data programs. The conference format should be modified to pay greater attention to this and other overarching concerns.

Topics

All the direct data requirements and those provisions that are likely to result in new data approaches were mentioned. Specific suggestions presented included the following issues:

- Approaches for the data communities to cooperatively develop interoperable data systems and tools necessary to produce, edit, analyze, and display information;
- Activities prior to and during the conference to identify data that would meet legislative provisions; and
- Methods and techniques to visualize data and communicate information to diverse audiences.

Timing of Conference

The current uncertainty concerning the date of passage for the reauthorization legislation makes setting a time for the conference difficult. A number of participants pointed out that to be relevant to those responding to legislative requirements, the conference would need to take place relatively soon after reauthorization. A significant number of administrative rule implementations are likely after passage. Several participants noted the current requirements for a comprehensive statewide safety plan bodes significant changes in the way states manage their hard and soft safety planning. So, early understanding of new

requirements is critical, or the pressure to get specific programs moving would force implementation of individual fragmented programs to meet the needs of those programs and customers. Counterbalancing the benefits of rapid response is the necessity of understanding requirements including in the law. Several participants mentioned 3 months after passage as an adequate compromise.

APPENDIX

Data Requirements in Transportation Reauthorization Legislation
What Is Included and Impacts on the Data Community

November 19, 2003, 8:30 a.m.–5:15 p.m.
The National Academies, Keck Center
Washington, D.C.

Agenda

- 8:30 a.m.–9:00 a.m. **Introduction, Overview, and Conference Objectives**
Chair, Meeting Organizing Team
Michael S. Bronzini
Dewberry Chair Professor
George Mason University
- Alan E. Pisarski, *Consultant*
- 9:00 a.m.–10:30 a.m. **Congressional Staff Views on Enhanced Data Programs**
Jonathan Upchurch
Professional Staff Member
House Committee on Transportation and Infrastructure
Subcommittee on Highways, Transit, and Pipelines
- Marty Spitzer
Professional Staff Member
House Committee on Science,
Subcommittee on Environment, Technology, and Standards
- Debbie Hersman
Senior Professional Staff Member
Senate Committee on Commerce, Science, and Technology
Subcommittee on Surface Transportation and Merchant Marine
Committee
- 11:00 a.m.–12:30 p.m. **Data-Related Provisions in the Transportation Legislative Proposals**
George Schoener
Deputy Assistant Secretary for Transportation Policy
Office of the Secretary of Transportation

Anthony R. Kane
Director - Engineering & Technical Services
AASHTO

Robert G. Stanley
Cambridge Systematics, Inc.

Ed Milton, *Team Leader*
Traffic Records
National Center for Statistics and Analysis, NHTSA

1:30 p.m.–3:00 p.m.

Impacts on the State and Local Government Data Communities

Nancy Ross
Director, Federal Affairs
New York State Department of Transportation

Steven Gayle
Executive Director
Binghamton Metropolitan Transportation Study

Michael J. Shiffer
Vice President - Planning/Development
Chicago Transit Authority

Barbara L. Harsha
Executive Director
Governors Highway Safety Association (GHSA)

3:30 p.m.–4:30 p.m.

Summary of Key Points

Alan E. Pisarski, *Moderator*

Kenneth J. Leonard
Deputy Administrator
Wisconsin Department of Transportation

Lance Neumann
President
Cambridge Systematics, Inc.

Paul H. Bingham
Principal
Global Insight, Inc.

4:30 p.m.–5:15 p.m.

Facilitating Collaborative Coalitions to Improve Data Quality, Sharing, and Use: Developing an Agenda for a Post-Authorization Conference

Michael S. Bronzini, *Moderator*

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Advisers to the Nation on Science, Engineering, and Medicine

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