

# **STRUCTURALLY DEFICIENT BRIDGES IN THE UNITED STATES**

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**(110-67)**

**HEARING**  
BEFORE THE  
COMMITTEE ON  
TRANSPORTATION AND  
INFRASTRUCTURE  
HOUSE OF REPRESENTATIVES  
ONE HUNDRED TENTH CONGRESS  
FIRST SESSION

SEPTEMBER 5, 2007

Printed for the use of the  
Committee on Transportation and Infrastructure



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**Committee on Transportation and Infrastructure**  
Washington, DC 20515

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September 4, 2007

James W. Cook II, Republican Chief of Staff

SUMMARY OF SUBJECT MATTER

**TO:** Members of the Committee on Transportation and Infrastructure  
**FROM:** Subcommittee on Highways and Transit Staff  
**SUBJECT:** Hearing on "Structurally Deficient Bridges in the United States"

PURPOSE OF HEARING

The Committee on Transportation and Infrastructure is scheduled to meet on Wednesday, September 5, 2007, at 10:00 a.m., to receive testimony regarding structurally deficient bridges on the National Highway System. Witnesses scheduled to testify include the U.S. Secretary of Transportation, Mayor Rybak of Minneapolis, Minnesota, state departments of transportation, county engineers, and stakeholder groups.

BACKGROUND

I-35W MISSISSIPPI RIVER BRIDGE

At 6:05 p.m. on August 1, 2007, the I-35W Bridge in Minneapolis, Minnesota, collapsed into the Mississippi River, killing 13 people. The eight-lane, steel truss bridge span, which was constructed in 1967, carried approximately 140,000 vehicles daily. The National Transportation Safety Board is conducting an investigation into the cause of the collapse. The investigation may take up to 18 months to complete.

In response to concerns over the design of the bridge, U.S. Secretary of Transportation Mary Peters requested that States inspect 756 bridges with a similar steel arch truss design.

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It has been widely reported that inspections of the I-35W Bridge raised significant structural concerns with the facility. The bridge had been rated as structurally deficient since 1990, and had undergone annual inspections by the Minnesota Department of Transportation ("MnDOT") since 1993.

The most recent inspection completed in June 2006 found cracking and fatigue problems, and gave the bridge a sufficiency rating of 50 percent on a scale of 0 to 100 percent. A rating of 50 percent or lower means the bridge should be considered for replacement.

In December 2006, the bridge was to have undergone a \$1.5 million steel reinforcement project to strengthen the bridge. However, MnDOT cancelled the project because of concerns that drilling for the retrofit could weaken the bridge. Alternatively, MnDOT implemented a program of periodic inspections to monitor the bridge.

### HIGHWAY BRIDGE CONDITIONS IN THE UNITED STATES

According to the U.S. Department of Transportation ("DOT"), one of every eight bridges in the nation is structurally deficient. Of the 597,340 bridges in the United States, 154,101 bridges are deficient, including 73,784 structurally deficient bridges and 80,317 functionally obsolete bridges.

According to DOT, more than \$65 billion could be invested immediately in a cost-beneficial way, by all levels of government, to replace or otherwise address existing bridge deficiencies.<sup>1</sup>

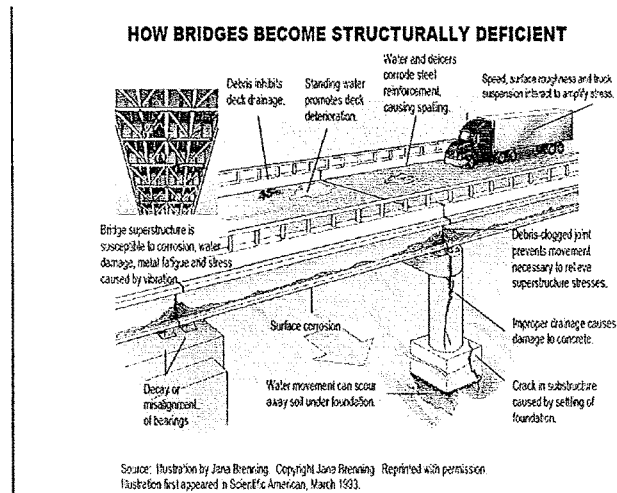
The high percentage of deficient bridges and the large existing backlog are, in part, due to the age of the network. One-half of all bridges in the United States were built before 1964. Interstate System bridges, which were primarily constructed in the 1960s, pose a special challenge because a large percentage of these bridges are in the same period of their service lives (e.g., 44 percent of these bridges were constructed in the 1960s). Concrete and steel superstructures on the Interstate Highway System are, on average, 35 to 40 years old.

Bridges are considered structurally deficient if significant load-carrying elements are found to be in poor or worse condition due to deterioration and/or damage. The fact that a bridge is "deficient" does not immediately imply that it is likely to collapse or that it is unsafe. With hands-on inspection, unsafe conditions may be identified and, if the bridge is determined to be unsafe, the structure must be closed. A "deficient" bridge, when left open to traffic, typically requires significant maintenance and repair to remain in service and eventual rehabilitation or replacement to address deficiencies.

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<sup>1</sup> U.S. Department of Transportation, *2006 Status of the Nation's Highways, Bridges, and Transit: Conditions & Performance*, January 22, 2007, p. 7-17. The economic backlog of bridge deficiencies consists of all improvements to bridge elements that would be justified on both engineering and economic grounds. It includes improvements on bridges that warrant repair but whose overall condition is not sufficiently deteriorated for the bridges to be classified as structurally deficient. *Id.*, p. 7-16.

In a 2006 audit of structurally deficient bridges on the National Highway System, the DOT Inspector General ("IG") illustrated common causes of structural deficiency.<sup>2</sup>



The primary considerations in classifying structural deficiencies are the bridge component conditional ratings. The National Bridge Inventory contains ratings on the three primary components of a bridge: the deck, superstructure, and substructure. Bridge inspectors assign condition ratings by evaluating the severity of the deterioration or disrepair and the extent that it has spread through the component being rated.<sup>3</sup> Condition ratings of 4 and below indicate poor or worse conditions and result in structural deficiencies.

<sup>2</sup> U.S. Department of Transportation Inspector General, *Audit of Oversight of Load Ratings and Postings on Structurally Deficient Bridges on the National Highway System*, MH-2006-043, March 21, 2006, p. 2.

<sup>3</sup> The condition ratings provide an overall characterization of the general condition of the entire component being rated and an indication of localized conditions.

Bridge Condition Rating Categories<sup>4</sup>

Rating	Condition Category	Description
9	Excellent	
8	Very Good	
7	Good	No problems noted.
6	Satisfactory	Some minor problems.
5	Fair	All primary structural elements are sound but may have minor section loss, cracking, spalling, or scour.
4	Poor	Advanced section loss, deterioration, spalling, or scour.
3	Serious	Loss of section, deterioration, spalling, or scour have seriously affected the primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.
2	Critical	Advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may be removed substructure support. Unless closely monitored, it may be necessary to close the bridge until corrective action is taken.
1	Imminent Failure	Major deterioration or section loss present in critical structural components, or obvious loss present in critical structural components, or obvious vertical or horizontal movement affecting structural stability. Bridge is closed to traffic, but corrective action may put back in light service.
0	Failed	Out of service; beyond corrective action.

NATIONAL HIGHWAY SYSTEM BRIDGES

The National Highway System (“NHS”) is a 162,000-mile highway network that consists of the 46,747-mile Interstate System, the Strategic Highway Network for military mobilizations, and other major highways. While the NHS makes up only 4.1 percent of total U.S. mileage, it carries 45 percent of vehicle miles traveled, including 75 percent of heavy truck traffic and 90 percent of tourist traffic.

<sup>4</sup> U.S. Department of Transportation, 2006 *Status of the Nation's Highways, Bridges, and Transit: Conditions & Performance*, January 22, 2007, Exhibit 3-9.

NHS bridges carry an even greater percentage of total travel. NHS bridges carry more than 70 percent of all traffic on bridges. Of the 116,172 bridges on the NHS (including more than 55,000 Interstate System bridges), 6,175 NHS bridges are structurally deficient. Almost one-half of these structurally deficient NHS bridges are bridges on the Interstate Highway System (2,830 structurally deficient Interstate System bridges).

According to DOT, more than \$32.1 billion of investment would be required, by all levels of government, to eliminate the NHS bridge investment backlog. This figure includes \$19.1 billion for the Interstate Highway System bridges.<sup>5</sup>

#### BRIDGE INSPECTION STANDARDS

In December 1967, the Silver Bridge, which ran between Point Pleasant, West Virginia and Gallipolis, Ohio, collapsed, killing 46 people. The following year, Congress passed the Federal-Aid Highway Act of 1968, which established the National Bridge Inspection Program (NBIP), and directed DOT to work with the States to establish national bridge inspection standards designed to locate and evaluate existing bridge deficiencies to ensure the safety of highway bridges. The Act required DOT to establish inspection criteria and procedures, and inspector training and qualification requirements. The Act also required States to prepare and maintain an inventory of Federal-Aid Highway system bridges.

In 1971, DOT published the National Bridge Inspection Standards ("NBIS") in the Federal Register. Under the NBIS, States are required to conduct routine inspections on each bridge at least once every 24 months. Information is collected documenting the conditions and composition of the structures. The periodic inspections determine the adequacy of the structure to service the current demands for structural and functional purposes. Each State's Department of Transportation performs bridge inspections. This information is maintained in the National Bridge Inventory maintained by the Federal Highway Administration ("FHWA").

The Surface Transportation Assistance Act of 1978 expanded the NBIS to include bridges on all public roads, including bridges not on the Federal-Aid Highway system. With an expanded inventory of bridges to be inspected, FHWA decided to lengthen the time between inspections. In 1988, the FHWA issued regulations extending inspection intervals for certain bridges based on findings and analysis from previous inspections. The inspection interval for these bridges may not exceed once every 48 months. However, States are still required to conduct routine inspections on each bridge once every 24 months unless the state receives approval from FHWA to expand the inspection interval.

The Surface Transportation and Uniform Relocation Assistance Act of 1987 required additional inspection requirements for components that are critical to the safety of the structure.

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<sup>5</sup> U.S. Department of Transportation, *2006 Status of the Nation's Highways, Bridges, and Transit: Conditions & Performance*, January 22, 2007, p. 12-12, 11-17.

This included fracture critical members and underwater structures.<sup>6</sup> Inspections for underwater structures must occur once every 60 months. Under the 1988 rulemaking, the FHWA may extend the inspection interval for certain underwater structures based on findings and analysis from previous inspections. The inspection interval for underwater structures may not exceed once every 72 months.

The Secretary uses funds made available for the U.S. DOT's administrative expenses and the Surface Transportation Research Program to implement the NBIS highway bridge inspection program. Bridge inspection activities are also eligible under the Highway Bridge Program.

HIGHWAY BRIDGE PROGRAM

The Highway Bridge Program provides funding to enable States to improve the condition of their highway bridges through replacement, rehabilitation, and systematic preventive maintenance. The program is funded by contract authority, and subject to an overall Federal-aid obligation limitation. The apportioned funds are distributed according to a formula based on each State's relative share of the total cost to repair or replace deficient highway bridges.

Federal assistance for the replacement of bridges was originally included in the Federal-Aid Highway Act of 1970, which contained the Special Bridge Replacement Program ("SBRP"). The SBRP required DOT to inventory all bridges located on the Federal-aid system over waterways and other topographical barriers, classify these bridges, and prioritize the bridges by need of replacement. DOT would approve state applications for bridge replacement funds based on this inventory and classification. Subsequent Federal-Aid Highway Acts extended the SBRP.

The Surface Transportation Assistance Act of 1978 renamed the program the Highway Bridge Replacement and Rehabilitation Program. This legislation also made bridge repair and rehabilitation eligible to receive Federal funding.

The current surface transportation authorization, the Safe, Accountable, Flexible, Efficiency Act: A Legacy for Users ("SAFETEA-LU") changed the name to the Highway Bridge Program, and authorized the following amounts to be apportioned to the States.

Year	2005	2006	2007	2008	2009
Authorization*	\$4,188 M	\$4,254 M	\$4,320 M	\$4,388 M	\$4,457 M

Authorizations shown here will be augmented by a portion of the Equity Bonus Program funds.

<sup>6</sup> Fracture critical members are bridge components "whose failure will probably cause a portion of or the entire bridge to collapse." U.S. Department of Transportation, Federal Highway Administration, "National Bridge Inspection Standards," 53 Federal Register, August 26, 1988, p. 32616.

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Current eligible uses of Highway Bridge Program funds are:

- Replacement of a structurally deficient or functionally obsolete highway bridge on any public road with a new facility constructed in the same general traffic corridor.
- Rehabilitation to restore the structural integrity of a bridge on any public road, as well as the rehabilitation work necessary to correct major safety (functional) defects.
- Replacement of ferryboat operations in existence on January 1, 1984, the replacement of bridges destroyed before 1965, low-water crossings, and bridges made obsolete by U.S. Army Corps of Engineers flood control or channelization projects and not rebuilt with Corps funds.
- Bridge painting, seismic retrofitting, systematic preventive maintenance, calcium magnesium acetate applications, sodium acetate/formate, or other environmentally acceptable, minimally corrosive anti-icing and de-icing compositions or installing scour countermeasures.
- Deficient highway bridges eligible for replacement or rehabilitation must be over waterways, other topographical barriers, other highways, or railroads. The condition of bridges may also be improved through systematic preventative maintenance.

#### STATE TRANSFERS AND RESCISSIONS OF HIGHWAY BRIDGE PROGRAM FUNDS

The Federal-Aid Highway program provides States with some degree of funding flexibility among most apportioned programs. Beginning with the passage of the Intermodal Surface Transportation Efficiency Act ("ISTEA") in 1991, States were allowed to transfer up to 40 percent of Bridge funds to National Highway System ("NHS") or Surface Transportation Program ("STP") apportionments. The Transportation Equity Act for the 21<sup>st</sup> Century ("TEA 21") increased the percentage of Bridge funds that may be transferred to NHS or STP apportionments to 50 percent. Between 1992 and 2006, States have transferred a total of \$4.73 billion in Highway Bridge Program funds to NHS and STP programs.

Similarly, in implementing congressionally mandated rescissions of unobligated contract authority balances in highway program funds, States have chosen to disproportionately rescind contract authority from a few programs, including the Highway Bridge Program. Although the Highway Bridge Program represents approximately 11 percent of the overall program funding level in SAFETEA-LU, rescissions of contract authority available for this program have totaled approximately one-third of total rescissions.

**Bridge Program Rescissions**

Fiscal Year	Total Fiscal Year Rescission	Bridge Program Rescissions	Percentage of Total
FY 2007	\$3.47 billion	\$1.04 billion	29.83%
FY 2006	\$3.85 billion	\$1.18 billion	30.72%
FY 2005	\$1.26 billion	\$425.1 million	33.72%
FY 2004	\$207.0 million	\$68.5 million	33.07%
FY 2003	\$250.0 million	\$89.0 million	35.61%

LOAD RATINGS AND POSTINGS ON STRUCTURALLY DEFICIENT BRIDGES

Deteriorating conditions on deficient bridges results in facilities being “load rated”. The load rating is an estimate of the weight-carrying capacity of a bridge and is performed separately from the bridge inspection.<sup>7</sup> Properly calculating the load rating of structurally deficient bridges, and, if necessary, posting signs to keep heavier vehicles from crossing them, serves to protect structurally deficient bridges from powerful stresses caused by loads that exceed a bridge’s capacity.

In the 2006 audit, the DOT Inspector General (“DOT IG”) found that States erred in calculating the load rating for structurally deficient bridges on the NHS. According to the DOT IG, inaccurate or outdated maximum weight limit calculations and posting entries were recorded in bridge databases of the state departments of transportation and the National Bridge Inventory. The DOT IG projects that among structurally deficient bridges on the NHS:

- one of 10 structurally deficient NHS bridges had load rating calculations that did not accurately reflect the condition of the structure;
- signs were not posted on 7.8 percent of bridges that were required to have maximum safe weight signs posted; and
- procedures were not properly followed in the calculation of load ratings for 10 percent of the bridges.<sup>8</sup>

The DOT IG also found that FHWA Division Offices did not ensure that States’ bridge load ratings were properly calculated and corresponding postings were performed. In addition, FHWA does not require its Division Offices to analyze bridge inspection data to better identify and target specific structurally deficient bridges most in need of load limit recalculation and posting.<sup>9</sup>

<sup>7</sup> U.S. Department of Transportation Inspector General, *Audit of Oversight of Load Ratings and Postings on Structurally Deficient Bridges on the National Highway System*, MH-2006-043, March 21, 2006, p. 3.

<sup>8</sup> *Id.*, p. 6.

<sup>9</sup> *Id.*, p. 13.



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The Committee on Transportation and Infrastructure website has U.S. Department of Transportation maps of the structurally deficient bridges on the National Highway System in each State and Congressional District. See <http://transportation.house.gov/>.



## **STRUCTURALLY DEFICIENT BRIDGES IN THE UNITED STATES**

**Wednesday, September 5, 2007**

HOUSE OF REPRESENTATIVES,  
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE,  
*Washington, DC.*

The Committee met, pursuant to call, at 10:05 a.m., in Room 2167, Rayburn House Office Building, Hon. James Oberstar [Chairman of the Committee] presiding.

Mr. OBERSTAR. Good morning. The Committee on Transportation and Infrastructure will come to order.

I want to thank all of our witnesses for making time to be with us today. In the interest of expediting the proceedings, we will limit opening statements to four—myself, Mr. Mica, Chairman DeFazio, and Ranking Member Duncan—in order to accommodate the Secretary's schedule.

Madam Secretary, we greatly appreciate your adjusting your schedule to be here today. We know you have to be out of town, I think it is—or you have at least another commitment that requires you to leave here at around noon, and we want to accommodate that to the greatest extent possible.

The collapse of the I-35W bridge in Minneapolis demonstrated powerfully once again the need to make a commitment to invest in maintenance and in major reconstruction in our Nation's infrastructure, not just bridges but highways, waterways, airways, railways. This Committee has been at work doing that since the beginning of this session. We have moved \$104 billion in investment in the Nation's infrastructure that is under the jurisdiction of this Committee in separate items, separate bills that have moved through the House—one at least through conference and another through Committee—and we will bring that major aviation bill to the House floor the week of September 17.

Many of our facilities are stretched to the limit of their design life and even beyond. This is not the first inquiry into this subject matter. Twenty years ago, on December 1st and 2nd, 1987, I held hearings on bridge safety—not this entire volume but the last third of it—on the issue of bridge safety 20 years after the collapse of the Silver Bridge between Ohio and West Virginia—46 lives lost—to assess the state of bridge safety in this country and what was being done at the Federal and State levels.

A remarkable observation by one of the witnesses was of a structural engineer testifying for the Center for Auto Safety, who said in 1987, bridge maintenance and inspection is in the Stone Age. There are 594,101 bridges in the national bridge inventory. That

is a very large number. It is 200,000 more than in 1987 when I conducted those hearings; 26 percent of those bridges—one in four—is structurally deficient or functionally obsolete. The U.S. DOT has reported that more than \$65 billion could be invested immediately, cost beneficial, to replace or otherwise address bridge deficiencies.

An area where we need strong Federal leadership is for those bridges on the National Highway System. That is a 162,000-mile network. It includes the interstate highway system of 46,700-plus miles. It is our strategic highway network for military mobilization. It is 1 percent of the Nation's mileage, but it carries 26 percent of the traffic. The NHS is 4 percent of the Nation's mileage, but it carries 45 percent of vehicle miles traveled and 75 percent of heavy truck traffic, 90 percent of tourist traffic on our National Highway System. There are 116,172 bridges on the National Highway System; 55,000 of those are on the interstate; 6,175 of those bridges have been rated structurally deficient; and half of those are bridges on the interstate, over 2,800. The DOT reports that the current National Highway System backlog of investment in bridge structures is \$32 billion, and that includes \$19 billion for the interstate system alone.

Addressing the needs of bridges is critical to public safety, to regional mobility, to national mobility, to economic competitiveness. It demands a national response. For over 20 years I have paid attention to bridge issues, attempted to move here, to move there, to increase our funding in bridge structures, to provide increased capacity in investment through our highway trust fund, but we obviously have not done enough.

In the wake of this tragedy, I said not again, not another set of hearings, not another long inquiry, not a commission to study, obfuscate and delay, but an action program. I proposed the National Highway System Bridge Reconstruction Initiative as soon as we completed action on this Committee, and I thank Mr. Mica for his participation in moving that emergency response bill through Committee. Mr. Duncan, Mr. DeFazio, and all of the Committee responded as one to move that legislation. That was an emergency response. We need a targeted, high-priority action on the bridge issue as a whole. Of course, the NTSB—and we will hear from them later—will in due course provide us an analysis of what happened in their usual thorough, meticulous way. We do not have to wait for that to take on a challenge that is crying for a response.

The proposal I have set forth will provide dedicated funding to States to repair, to rehabilitate, to replace structurally deficient—just structurally deficient—bridges on the National Highway System. We will inject accountability into bridge inspection, repair, replacement. We will have a data-driven, performance-based approach to systematically address structurally deficient bridges on the core National Highway System. This proposal is not business as usual. As I said a moment ago, that would be to establish a commission, to have a plan, to muddle through, to dangle our feet over the edge, and to find ways not to act. We do not need a plan. We do not need a commission. We know what the problem is. It has been there, and it is hanging over our heads, and we need an ac-

tion program to deal with this issue of structurally deficient bridges.

I have received letters of support for this proposal from a broad range of governmental and business industry, highway user organizations, including the U.S. Chamber of Commerce; the Transportation Construction Coalition; the Associated General Contractors; the Road and Transportation Builders Association; the National Construction Alliance. That is the laborers', the operating engineers' and the carpenters' unions; the American Association of State Highway and Transportation Officials, AASHTO; the American Highway Users Alliance; the Bus Association; the Association of Equipment Manufacturers; the Associated Equipment Dealers; the National Asphalt Pavement Association; the National Ready Mix Concrete Association.

Madam Secretary, in your statement, you say, "The I-35 bridge collapse was a tragedy and a wake-up call." It is not a wake-up. It is a reawakening. You said, "There is no transportation infrastructure safety crisis." You also say, "It is inaccurate to conclude the Nation's transportation infrastructure is subject to catastrophic failure." It was a catastrophic failure for Minneapolis. There are 740 other bridges like this that were built at the same time throughout the country.

In this hearing of 20 years ago, I said the purpose of our inquiry is to find those bridges and to attack problem bridges that do not have redundancy, where there has not been sufficient inspection to find structural deficiencies. It has not been done sufficiently. We do know there are 73,000 bridges that are structurally deficient. We do know there are 6,175 bridges on the National Highway System that are structurally deficient. We have produced maps that have been prepared by the Bureau of Transportation Statistics at DOT and have distributed those maps to all of the Members of the House.

The DOT, your Department, Madam Secretary, has identified a backlog of \$32 billion of bridge investments, cost beneficial, that would make improvements in the Nation's bridge inventory and that could be done promptly. The question is how to pay for it. I do not think that America wants the Congress to say, well, we will have a bake sale for bridges. They want us to take action to fund that bridge backlog of strategically deficient bridges.

Now, I was disappointed in the Secretary's testimony as I read it meticulously last night and again this morning. It never once addresses my proposal. It, rather, goes on in the administration's repeated song of tolling, congestion pricing and—I read into it—public-private partnerships; never explaining how tolling is going to be administered, how it is going to ensure that the worst safety problems are addressed first, how tolling is going to address the needs of bridges. The Secretary does call for the data-driven, performance-based approach. Now, if you will take a look carefully at my proposal, you will find it does that.

One, the initiative will significantly improve bridge inspection requirements. That is what we needed 20 years ago, and we need it again today. I would be morally deficient if I did not take this opportunity to move ahead and propose something concrete and specific in legislative language, and we do that. We require the Fed-

eral Highway Administration and the States to significantly improve and to develop consistent, uniform processes and standards for the inspection of structurally deficient bridges, and inspector training. We cited that as a need 20 years ago.

Second, the initiative establishes a National Highway System bridge reconstruction trust fund for dedicated funding, separate from the highway trust fund, to finance the repair, the rehabilitation and the replacement of structurally deficient bridges on the National Highway System. The initiative distributes the funds based on public safety and need by requiring the Department of Transportation to develop an administrative formula for distributing all funds, for prioritizing bridges by State in order of need of replacement, reconstruction and rehabilitation, and it will subject that to review by the National Council of Engineering and the National Academy of Sciences. So there is an independent review, and there is total transparency.

I want to know: Do you oppose efforts to have a dedicated funding stream? Do you oppose efforts to distribute funds based on public safety and need? We provide accountability in this measure by prohibiting deviation from that list through earmarks by the executive branch or by the legislative branch, by the U.S. Congress, by the U.S. Department of Transportation, by State Departments of Transportation. I do not think you want to oppose an initiative of that kind.

While the terrible events of August 1 have sounded an alarm note around the country, many have questioned the way we operate the system, the way it is financed. But we have to make a decision. We have to decide we are going to attack this problem, and it would be irresponsible to say we are going to do it without a means of funding it. So I have set forth a proposal in which we can fund this separate bridge trust fund in the way we have done our Federal aid highway systems since the days of Dwight Eisenhower. If it was good enough for Dwight Eisenhower, it ought to be good enough for this administration and for this Congress as well.

I have asked Subcommittee Chairman DeFazio to have a second hearing specifically on bridge inspection and technology issues within the next 2 weeks. I hope that, following that hearing—I expect that after that we will have what I hope at least will be a bipartisan bill to address the National Highway Bridge Reconstruction Initiative, and we will consider that legislation in markup in Committee in October.

Many years ago, I cited this work of Thornton Wilder, *The Bridge of San Luis Rey*. I cited it in a hearing 20 some years ago: "on Friday, noon, July 20, 1714, the finest bridge in all Peru broke. It precipitated five travelers into the gulf below. The bridge was on a high road between Lima, Cuzco, and hundreds of people passed over it every day. It had been woven by the Incas a century before. Visitors to the city were always led out to see it. The bridge seemed to be among the things that last forever. It was unthinkable that it should break. The moment a Peruvian heard of the incident, he sighed to himself and made a mental calculation as how recently he had crossed it and how soon he had intended crossing it again. People wandered about in a trancelike state, muttering. They had the hallucination of seeing themselves falling into the gulf. Every-

one was deeply impressed, but only one person did anything about it, and that was Brother Juniper. By a series of coincidences so extraordinary, one almost suspects the presence of some intention. This little, red-haired Franciscan from Northern Italy happened to be in Peru, converting the Indians, and happened to witness the accident, and in that instant, Brother Juniper made the resolve to inquire into the lives of those five persons at that moment, falling through the air and to surmise the reason of their taking off."

His was a teleological inquiry about the last things. Ours is a pragmatic inquiry about the present things and about what we can do about it. And we have an opportunity to do something, and I am not going to let this opportunity pass. There was a commentary in the International Falls Daily Journal—if our person can call that up on the screen—shortly after the collapse of the bridge. Maybe not. He cannot find that.

We will conclude there, and I yield the floor to Mr. Mica.

Mr. MICA. Thank you.

First of all, I appreciate, Mr. Oberstar, that you have called this hearing, because today is important. We are addressing a very important responsibility as part of our Nation's infrastructure; one particular area, bridges. I was pleased to work with you, Mr. Oberstar, and with others on your side of the aisle when we did, unfortunately, experience the national tragedy in your home State and locale with the collapse of the St. Paul-Minneapolis bridge, and Congress did come together in a bipartisan fashion to address the replacement of that bridge; and I said I wish every infrastructure project we did in this country could be replaced in the time frame that we will be replacing that bridge. That would solve probably half of our problems. I understand that bridge will probably be up sometime and operating at the end of its replacement, operating at the end of next year. If we could do that with all of the projects, we would probably have a lot less of a need across the country because we would be replacing those bridges in record time and putting that infrastructure in place in record time.

Since taking over as the Ranking Member and having—I see a large group of suspects in the audience. Most of them have been in your office and in my office, Mr. Chairman, talking to us about some of their needs; but they represent not just bridges but highways, rail, airport, transit infrastructure. Many of the folks have come to the hearing today, and they all have the same thing that they tell us, that our infrastructure is aged. Some of it is obsolete, and it needs repair. And it is not just bridges.

That is what led me to the conclusion some months ago to begin a national campaign to try to see if we could develop a national strategic transportation and infrastructure plan that would address the needs of every mode of transportation and incorporate the expertise and the resources of both the private and public sectors in that effort. Here, focusing or setting up one more fund to address one problem that unfortunately has come to our attention in this tragic manner is not the way to go. I will not turn this into a knee-jerk reaction. I think it is a responsible action that we will take in again addressing the infrastructure needs of our country, but I would like to do it on an even broader basis. Picking out just bridges is not the way to go.

The other thing that we need to do is to look, as the Chairman has indicated, not only at a plan but at a way to finance that plan. I would say that, if we would just take bridges and we would set up a separate fund and a mechanism of funding it, it would kind of like be taking a 60- or 70-year-old house with a crumbling foundation, a collapsing roof and obsolete plumbing, and repairing just the driveway. It would not make much sense. We have got a much bigger problem at hand that we need to address.

So I think we need to reevaluate how we also fund these programs, because not only is the infrastructure broken, but the mechanism for funding these programs is also broken with each passing day: the concept of basing a majority of our revenues for financing these infrastructure improvements or replacements.

The revenue stream for highways and transit programs on gas tax is becoming more obsolete. Every passing day, it becomes outdated. That is basically for two reasons: because, vehicles, we are requiring them to be more efficient with their fuel and we are also requiring that they use alternative fuels; and we are also having more and more vehicles with alternative fuels on the road. I understand we have about 8 million of those vehicles. Just today, I saw one this morning as I was crossing the street—"hybrid" was marked on the back of the vehicle—in my own neighborhood.

A debate on our Nation's future transportation plan should also include a debate on what our Federal role should be in financing, building and maintaining our transportation system. We need to leverage the private sector expertise/resources both to maintain, expand and finance our transportation system. While government funding will always play a major role in infrastructure financing, we need to draw from the experience and also from the efficiencies of the private sector. Many people think the Federal highway program has grown too big and too broad.

The Florida DOT and our Secretary could not make it. She asked, Mr. Chairman, if I would submit her testimony—Stephanie C. Kopelousos, Secretary of Transportation. I would ask unanimous consent—

Mr. OBERSTAR. Without objection, it will be included in the record.

Mr. MICA. She told me that Florida's DOT has over now 700 funding program codes to accurately track Federal highway funding in Florida. We have now grown to over 100 Federal programs from an original four, and I think you will hear the Secretary also say—if she does not say it today, I have heard her say it—about how much money of that is diverted. It is a staggering amount of Federal funds that does not actually go into bridges and highways and infrastructure.

We also need to narrow the scope of the Federal program to better focus our Federal resources so that our critical transportation needs are met first, and we also need to think about a maintenance of effort to make certain that if we increase Federal spending that States and localities do not decrease their transportation spending. Also, as to raising up revenues, why should some Federal taxpayers reward lax taxpayers, so to speak? We have to have a system that is fair to everybody.



It is important also to mention that there is an existing highway bridge program—it is funded at approximately \$4.3 billion this year—and before we go out and create another new program funded by a gas tax increase, I think we should look pretty carefully at what we are doing with the existing program that has failed us and try first to correct that.

So I have some concerns about Mr. Oberstar's proposed approach to our Nation's bridge problem and, again, just creating another fund or source of raising revenues for that single effort. I am committed, however, to looking at repairing and replacing not only our bridges but also the system that finances it. My home State of Florida has an exceptional bridge program, and it has only 306 structurally deficient bridges out of approximately 12,000. Under the Chairman's proposal to raise the gas tax 5 cents to create a new bridge program, Florida would contribute more than \$490 million—a half billion dollars a year to this—and receive back \$27 million. It does not sound fair to me to penalize a State like Florida or other States' Members who are represented here to fund those who have not done their due diligence or have stepped up to the plate. In fact, some States with the highest number of deficit bridges in the country, such as Pennsylvania, have decided not to use all of the funding allocated to it under the Federal bridge program. Instead, it transferred bridge funding to other highway programs.

We had a debate in this Committee about rescissions, and we failed to give, in a vote in the House, the States the ability to decide where Federal funds were to go in that rescission, and I know in the past that has been granted.

We have also sent very conflicting signals, even from this Committee, to States seeking public-private solutions. For example, Governor Mitch Daniels, who sold some of the State's infrastructure, used that money. I know, because I went and looked at some of the bridge replacements that were being considered with funds from his public-private partnership. Instead, the message from this Committee was do not do anything, and especially not in public-private partnerships, until we say a blessing on it.

Finally, when you do not act or when we do not set the policy, somebody else sets the policy for us as we found out this last August when Congress did not act. Of the 435 Members and 100 Senators, many of them had earmarked projects that were their priorities. Some did not choose bridges as priorities; some chose other infrastructure, but they chose as the elected Federal Representatives. When we passed the continuing resolution, as you may recall, all of those earmarks were eliminated, and some of you Members may want to listen to this, particularly those who were here last year and who participated in this.

As a result, \$835 million was distributed by the administration. That was almost all of the discretionary money, all of that earmarked money, to hundreds of projects designated by Members. Instead of distributing it to hundreds of Members, it went to five jurisdictions, basically, and this is the earmarking by bureaucratic fiat, but they set the policy because Congress did not set the policy. So, while you were on vacation, the administration took that \$835 million. It was fairly evenly divided. About half went to Republicans. New York City got the biggest chunk—about \$350 million—

for Mr. Bloomberg and his proposal, basically to put in tolling. That was a congestion mitigation solution that they came up with. So that is where your money will go. The priority is set by the administration.

The second biggest amount—well, it is sort of a tie. Ms. Pelosi got some for San Francisco. The Chairman got a nice chunk for Minnesota, and Ms. Murray got some for Washington, about \$130 million to \$150 million, and the Ranking Member even got some \$62 million. It is not my district, but it is for the State of Florida.

Now, that is the way your money was spent. I do not know if you know that, but I am pleased to convey that when we do not set the policy, somebody else sets it for us, and that is based on the preference of the administration, which is congestion mitigation and congestion pricing as their priorities.

So that is my little part of the information I am providing today, and I look forward to hearing from the Secretary. I want to also hear more from the NTSB on the cause of the bridge collapse, if they know that, and I look forward to the hearing.

I thank you for calling it, Mr. Chairman.

Mr. OBERSTAR. I thank the gentleman for his remarks. We can have a very lively debate on each of those issues, and we will in due course.

The provision in my bill, though, requires the maintenance of effort by States to match available Federal funding in the bridge program. Secondly, it prohibits earmarking by the executive branch as well as by the legislative branch at the Federal or State level.

Mr. DeFazio.

Mr. DEFAZIO. Thank you, Mr. Chairman. Thank you for calling this hearing today.

Just in response to the Ranking Member, we do have and we will hear in December from the National Surface Transportation Policy and Revenue Study Commission, which was charged with developing a national strategy that both goes to needs, investment and means. So, hopefully, we will receive something that can be a starting point as we move toward the 2009 reauthorization that will look across transportation more meaningfully and will provide more strategic investment.

Secondly, I actually share the Ranking Member's concerns about the one note we are hearing out of the administration, which is congestion pricing will solve everything. We are not investing enough. The roads are becoming more congested. Well, let us price people off of them. That is their sole solution, and they have taken \$800 million that could have been spent on bridges or any other critical infrastructure to push this ideological agenda written by the Heritage admin—no. Well, they are not the administration but are the Heritage Foundation, but they act like they are the administration, and they seem to have gotten a playbook from them. That is not going to solve America's problems.

We have not, you know, increased the amount of Federal investment in 15 years. Yet the price of construction has gone up more than 100 percent during that time. So the Federal effort today is less than half of what it was 15 years ago in terms of meeting the needs of our country. We have extraordinary documentation right here that I am certain the Secretary is familiar with and has read

every word of, the Conditions and Performance Report from the Department of Transportation, issued in 2006, dated 2004, essentially in terms of data. The conclusions are extraordinary.

Just to maintain the cosmetic nature of the system, it is \$78.8 billion a year. We are investing \$70.3 billion. All right. If we wanted to maintain the current level of congestion, we would have to invest \$89.7 billion a year. We are investing \$70.3 billion. If we actually wanted to enhance and to improve the system, making it safer and less obsolete, it would be \$131.7 billion a year. We are spending less than 2 percent of our GDP on our surface transportation infrastructure. China is spending 9; India is spending 5, and the answer is congestion pricing.

The answer is not congestion pricing. We are not going to price Americans off the road. Workers do not determine when they go to work. You say, oh, \$22. You can be in that underutilized lane there that is taking up a precious right-of-way with the other limousines to drive in to D.C. during rush hour. And for workers who have to get here or who are, you know, at a little lower level, well, gee, I do not know. Sorry. Too bad. Maybe you had better move. Oh, no. They cannot afford to live in D.C.—it is too expensive—and that is going to be repeated around and around and around the country.

Congestion pricing is not the answer. Let us get off this one note, and let us talk about a solution. God forbid we should talk about the need for investment, because—guess what? That is the “T” word. We might have to tax somebody. We might have to have a user fee. Well, when bridges fall down and people die in the United States of America—the greatest Nation on earth—when the cost of congestion is \$100 billion a year, when 120 people die a day and probably a third of those die because of obsolete or undermaintained infrastructure, according to good statistics. We are not doing our job, and the country has to lead at the national level. Then, yes, the States need to perform, too.

Again, back to the Ranking Member, he has fought our proposal to make States take the recision proportionately from all accounts, and he has fought for State flexibility. Well, that is what Pennsylvania used, State flexibility. Divert the money from bridges, and a bunch of other States have done that, too. Not my State. We went out and issued \$1.3 billion in bonds, and we are not a very rich State to deal with our bridge problems. My earmarks are disproportionately bridges. I knew the problem was there. The Chairman knew the problem was there. The Secretary of Transportation certainly knew the problem was there. It was an accident waiting to happen. And to say there is no critical problem is not right, and to say we are going to solve it with congestion pricing is not right.

Let us come together, as we did way back in the 1950s with the great vision of Dwight David Eisenhower, and talk about what is the next century going to look like in America for surface transportation. Let us stop quibbling around the edges while people are dying.

Thank you, Mr. Chairman.

Mr. OBERSTAR. I thank the gentleman for his statement.

Mr. Duncan.

Mr. DUNCAN. Thank you, Mr. Chairman. I will be brief because I know you want to get on to the Secretary and to other witnesses.

I do want to thank you for calling this hearing, and I commend you for your leadership on this.

In fact, this is my 19th year in the Congress, and very seldom have I seen such unity between business, labor, technical experts, and Members all saying that a substantial amount of work needs to be done. And the I-35W bridge collapse last month in your home State of Minnesota made the term "structurally deficient bridge" almost a household phrase. And I think you were right in pointing out that this Committee can be justifiably proud in the quick action that was taken in regard to the tragedy in Minnesota and the legislation that we passed so quickly.

I also want to commend Ranking Member Mica, and I agree with him in that the problems we face are much bigger than bridges, and I agree with his call for a national strategic transportation plan.

I am pleased that my home State of Tennessee has just slightly over half of the national average in structurally deficient bridges. We have 6.6 percent, with the national average being over 12 percent; but, unfortunately, we had to learn from past problems, because in 1989 we had a bridge collapse in Tennessee that killed eight people. The NTSB determined that a shift in river channel resulted in the deterioration of the timber piles that were originally buried and not really designed to be in water in the first place. The NTSB sided with the State of Tennessee in 1979, and a lot of work was done, unfortunately because of that tragedy that occurred in my State in 1989.

You know, there has been some talk already here this morning about increasing the Federal gas tax. It may be that at some point we will be forced to do that. I understand, though, and I have read that we are spending \$12 billion a month now in Iraq, and over the last 10 years or so, we have spent mega-billions doing military construction projects all over the world for a military that is only about half the size that it was a few years ago. And my preference would be that we take some of the hundreds of billions that we are spending in other countries around the world through all of our departments and agencies—and primarily through the Department of Defense, but all of the other departments and agencies as well—and take a small portion of that money and spend it on our infrastructure in this country.

It has been pointed out that we are devoting just a little over \$4 billion to our bridge program in this country at this point, and I do not think it would be asking too much if we diverted a very small percentage of the hundreds of billions that we are spending in other countries to take care of our own people here. Our first obligation should be to the American people, and this is a very important way in which we need to do what is right for our own people.

I thank you, and I yield back the balance of my time.

Mr. OBERSTAR. I thank the gentleman for a very succinct but very hard-hitting statement. I totally agree with the \$44.5 billion we have committed to infrastructure in Iraq that is blown up or otherwise immobilized almost as soon as it is built. If we had that money at home, we would not be talking about a gas tax increase. We would have that money to invest right here with American labor and American jobs.

While I agree with Mr. Mica on the need for a comprehensive plan, in that same set of hearings, our former colleague, Mr. Clinger of Pennsylvania, and I developed a capital budgeting approach. We had several days of hearings on capital budgeting. We moved legislation through the House. We established a capital budget for the Congress to assess the needs of all of the infrastructure investments that we have to make. By the time it got through the Senate and the Reagan administration, it was whittled down to an annex in the Federal budget. And this is it, number 6, Federal investments at the end of the budget.

Now, if the gentleman would join with me and elevate this to the——

Mr. MICA. Ready to go.

Mr. OBERSTAR. —status that it needs, then that is where we will start.

Mr. MICA. Let's go.

Mr. OBERSTAR. We will do that. All right.

Madam Secretary, you have been very patient, and we welcome your testimony.

**TESTIMONY OF HON. MARY E. PETERS, SECRETARY, U.S. DEPARTMENT OF TRANSPORTATION, ACCOMPANIED BY: HON. J. RICHARD CAPKA, ADMINISTRATOR, FEDERAL HIGHWAY ADMINISTRATION**

Secretary PETERS. Mr. Chairman, thank you so much.

Chairman Oberstar, Ranking Member Mica and Members of the Committee, I am honored to be here with you today. Accompanying me is Rick Capka, our Federal Highway Administrator, who has spent a good amount of time on the ground in Minnesota following the tragic bridge collapse.

America, all of us, were stunned on the evening of August 1, 2007 when the I-35W bridge over the Mississippi River in Minneapolis collapsed. Numerous vehicles were on the bridge at the time, and at the end of the day, there were 13 fatalities and 123 persons injured.

On behalf of the President, I would like to personally extend our deepest sympathy to the loved ones of those who died or who were injured in this tragedy.

I also want to note, in the four visits that I have had the opportunity to make to Minneapolis since the collapse, I have been impressed and inspired by the response of the many dedicated public servants from all levels of government to this terrible tragedy. We do not yet know why the I-35W bridge failed, and our Department is working with the National Transportation Safety Board, who you will hear from a little later in this hearing, as they continue their investigation to determine the cause or causes.

In the interim, we are taking steps to ensure that America's infrastructure is safe. I have issued two advisories to States in response to what we have learned so far, asking that States reinspect their steel deck truss bridges, and that they be mindful of the added weight construction projects may bring to bear on bridges.

I have also asked the Department's Inspector General, who you will also hear from later in this hearing, to conduct a very rigorous

assessment of the Federal Aid Bridge Program and the National Bridge Inspection Standards.

In the aftermath of this tragedy, many are calling for a renewed focus on our Nation's highway infrastructure, and I certainly agree with the calls that have been made and applaud people, including the Chairman and the Ranking Member and others in this Committee, who are truly thinking about the long-term viability of the Nation's transportation system. It is imperative, however, that when determining what our future transportation system should look like, we actually focus on the right problem.

Since 1994, a percentage of the Nation's bridges have been classified as "structurally deficient," a phrase that I would agree is not correct and does cause people to be more concerned than they should be about these bridges; but that percent has improved from almost 19 percent to 13 percent, and our latest data indicates that that is now 12 percent.

While we can and should and will do more to improve the quality of our infrastructure, it would be irresponsible and inaccurate to say that the Nation's transportation infrastructure is anything but safe. More accurately, what we have is a flawed investment model, a model that is not allocating resources efficiently, and what we have is a system performance crisis.

Increasing Federal taxes and spending would do little, if anything, to address either the quality or the performance of our roads. Instead, we need a more basic change in how we analyze competing spending options and manage existing resources more efficiently. Because tax revenues are deposited into a centralized Federal trust fund and are reallocated on the basis of political compromise, major spending decisions increasingly have little to do with underlying economic or safety merits.

For example, the number of designated projects has grown from a handful in the mid-1980s to over 6,000 in 2005, valued at a staggering \$24 billion, or nearly 9 percent of the total program. The true cost to States, however, is much higher given that, on average, earmarks only cover approximately 10 percent of the total cost of a project.

As a former State DOT Director—and you will hear from other directors later in this hearing—I have had firsthand experience with the difficulties created when Washington mandates override States' priorities. While it is certainly true that not every one of these investments could be called "wasteful," virtually no comparative economic analysis is conducted to support these spending decisions. In other words, scarce dollars are spent on earmarks, and special interest programs are not available to States for important expenditures like bridge repair and maintenance.

It makes no sense, in my mind, to raise the gas tax at a time, as the Ranking Member pointed out, when we are rightfully exploring every conceivable mechanism to increase energy independence, to clean our air, to promote fuel economy in automobiles, and to stimulate the development of alternative fuels and renewable fuels as well as reducing emissions. We should be encouraging States to explore alternatives to petroleum-based taxes, not expanding a company's reliance on them by increasing the gas tax.

The I-35W bridge collapse was both a tragedy and, I said, a wake-up call, Mr. Chairman—you say a reawakening—to our country. On that fact, we absolutely agree. Our Nation's economic future is tied in large part to the safety and to the reliability of our transportation infrastructure. However, before we reach the conclusion that additional Federal spending and Federal taxes are the right path, we should critically examine how we are spending money today. What are we doing with the money that is already sent to Washington?

According to the Conditions and Performance Report that was cited by the Subcommittee Chairman, FHWA has estimated that it would cost \$40 billion a year to maintain current conditions across all of our transportation system or surface system, and it would take \$60 billion a year to substantially improve that system. The 2004 total U.S. capital investment for highways and bridges was \$70 billion.

Ladies and gentlemen, Members of this Committee, it is not that we do not have the money. It is where we are spending the money that is important that we examine in the aftermath of this crisis, but I recognize that we may have different opinions. I very much look forward to engaging in that discussion with you and throughout the administration but, most importantly, with the American people that we all serve.

I will be pleased to answer any questions that you may have.

Thank you, Mr. Chairman.

Mr. OBERSTAR. Thank you, Madam Secretary.

At the outset, I want to express once again, as I have done publicly and personally, my appreciation and that of the people of Minneapolis and the Mayor of Minneapolis for your prompt response. You were on the phone, readily available—and Administrator Capka as well—and we had a very constructive discussion that led to the quick passage of the emergency response legislation. And for that, I am very appreciative. You and the President made a visit to—you actually made two. The second one was mainly for a fundraiser for a Senator, but he did come twice to the State in the aftermath.

You said that you raised questions about where we spend that money. On page 4 of your testimony, you say failure to prioritize spending in the disturbing evolution of the Federal highway program—this program has seen politically designated projects grow from a handful to more than 6,000 in SAFETEA-LU.

But in signing that legislation—and I was there on August 10, 2005 on the property of the Caterpillar earth moving equipment company in Illinois—the President said, "This transportation act will finance needed road improvements and will ease congestion in communities all across the Nation. Here in Illinois, as the Speaker mentioned, one of the key projects that he has been talking to me about for quite a while is what they call the "Prairie Parkway." I thought that might be in Texas, but no, it is right here in Illinois." People applauded and laughed.

"Good folks understand what it means to the quality of life around here when you have a highway that will connect Interstate 80 and Interstate 88. The Prairie Parkway is crucial for economic progress in Kane and Kendall Counties that happen to be two of

the fastest growing counties in the United States." That is about the speed at which he said it, too.

"but the United States Congress can be proud of what it has achieved in the Transportation Equity Act, and I am proud to be right here in Denny Hastert's district to sign it."

What has changed since then?

Secretary PETERS. Mr. Chairman, I was there as well, and I think what has changed since then is, while we have seen marginal improvements in the condition of our Nation's transportation infrastructure and marginal improvements in the safety of that infrastructure—and those two are very closely related—what we have seen is a significant decline in performance and a misallocation of resources not being spent where they could and should be.

Mr. OBERSTAR. It was all in the bill, Madam Secretary. It was all right there. If the President did not like it, he could have vetoed it. He thought it was a great idea then. It is a great idea now. This administration started out with a \$247 billion package, and your own Department recommended, as directed in TEA-21 to report to Congress on the performance—that is, payment conditions, congestion, safety—and recommend a new level of investment, and you recommended \$375 billion. Mr. Young and I introduced that bill. It would have had \$5 billion a year for bridge construction, reconstruction, rehabilitation, replacement.

The administration's package, ultimately, would have been \$3 billion less overall. Now, we negotiated upward from the administration's \$247 billion to \$286.3 billion. That gave us, roughly, \$4 billion a year in the bridge program. It should have been \$5 billion.

So, over the past couple of weeks—I am just looking at remarks you have made about my proposal and the bridge situation—you said only 60 percent of trust fund revenues are used for road and bridge purposes. I see no credible data. We have searched high and low for a backup for that figure. There is no credible data to back it up. Roughly 20 percent—18.5 percent to be precise—goes into transit of the total trust fund authorizations. That is as close as you can come to something to back that up. I do not know where you get that information, but I want you to respond specifically to the provisions of my bill. I want you to respond specifically to raising the standards for the determination of what is a structurally deficient bridge.

What is wrong with that?

Secretary PETERS. Mr. Chairman, I do not disagree with that, and in fact, I have asked the Inspector General to do a very rigorous review not only of the bridge program funding, but of the bridge inspection program itself. I have asked him to not only examine whether or not that program is sufficient and rigorous enough, but how decisions are made as a result of bridge inspections and ratings and whether or not that information is, indeed, used to prioritize the expenditure of funding.

Mr. OBERSTAR. Okay. That is 25 percent.

We establish a bridge reconstruction trust fund dedicated to funding just those structurally deficient bridges and a 3-year sunset.

Secretary PETERS. Mr. Chairman, where we disagree there, sir, is along the lines of what the Ranking Member said as well and



the figures that I gave you a few moments ago. We do not disagree that we need to ensure that we are prioritizing bridges that need to be repaired or replaced. Where we do not agree is that we need to raise the gas tax to do so.

Mr. OBERSTAR. A separate trust fund to do it, do you disagree with having that?

Secretary PETERS. Sir, we have dedicated funding for bridges today.

Mr. OBERSTAR. But it is not enough.

Secretary PETERS. Well, it is also not being used in all cases for those—

Mr. OBERSTAR. Well, we gave the States the authority to flex 50 percent of that bridge fund, and they have done that. In my home State of Minnesota, they have taken 42 percent of their rescission out of the bridge fund.

Secretary PETERS. Mr. Chairman, our data indicates—and I can ask Administrator Capka to expand on this if you would like—that approximately \$600 million from other funds, primarily STP funds, are flexed in to the repair and to the replacement of bridges. And I am a big fan of the flexibility that States are allowed in order to meet their divergent needs by having the flexibility to flex those funds as long as we maintain standards to which the bridges and the highways need to be kept.

Mr. OBERSTAR. All right. The standard issued is that the initiative would distribute funds based on public safety, need, requiring Department of Transportation to develop an administrative formula for the distribution of those funds—

Secretary PETERS. Mr. Chairman, I think—

Mr. OBERSTAR. One that will be independently reviewed and have all of these structurally deficient bridges evaluated by a new standard, a new higher standard, and then rated by States for distribution.

Secretary PETERS. Mr. Chairman, I think that those, again, are viable terms and certainly could be used within the existing programs or to modify the existing program.

For example, right now there is a perverse incentive to not keep your bridges in good condition because you get more money based on the percent of your bridges that are not sufficiently rated today. And so I think that there are certainly improvements that we can make, and I, certainly, anxiously await the results of the Inspector General's investigation into that program.

Mr. OBERSTAR. Would you agree with the idea of prioritizing—

Secretary PETERS. Oh, absolutely; data-driven, performance-based.

Mr. OBERSTAR. —of setting higher standards where we are at 50 percent?

Accountability, prohibiting earmarks by Congress, the administration or the States and requiring the National Academy of Sciences independently to review that prioritization, do you think that is a good idea?

Secretary PETERS. Mr. Chairman, I think those are very good ideas, and again, they could be used to improve existing programs and the existing funding.

Mr. OBERSTAR. We are not far apart. That is 75 percent. You disagree on a mechanism for funding it.

Secretary PETERS. That is correct.

Mr. OBERSTAR. Well, you cannot have a bake sale to fix bridges. If we take our troops out of Iraq, maybe we have got \$50-some billion we can deal with at home, as Mr. Duncan suggested; but, absent that, which is not going to happen in the foreseeable future, President Eisenhower saw the need to have a dedicated revenue stream, creating the highway trust fund.

In that first year in 1956, Congress passed legislation to establish a 3-cent user fee—a gas tax. It passed overwhelmingly. A year later, after the States had been underway and the Bureau of Public Roads—as it was called then—evaluated it, it said we need more money. Another cent increase in the user fee was recommended. Do you know it passed the House on a voice vote?

I do not think we can pass a prayer anymore on a voice vote in this Congress. But it passed then because people had vision, they had determination. They had a sense of destiny, of what was needed in this country; and that if we did not invest in this interstate highway program, we would be killing 100,000 people on the Nation's highways. We had to do this. Congress understood it.

Well, there is the same urgent need today to target the bridges, to do this in a 3-year period, to sunset it in 3 years, to establish a prioritization system that will be independently evaluated, and to make it earmark-proof. Public trust and accountability.

Secretary PETERS. I like the earmark, sir.

Mr. OBERSTAR. All right.

Secretary PETERS. Mr. Chairman, let me, if I may, respond very briefly.

Mr. OBERSTAR. Yes.

Secretary PETERS. When President Eisenhower and the Clay Commission recommended the program that they did to build the Nation's interstate highway system, it certainly was visionary and certainly was important and certainly did lead to the establishment of the premier transportation system in the world. But I think, as was said earlier, we need to examine the Federal role today and determine what the Federal role should be. And as the Subcommittee Chairman indicated, there is a commission working on that that will report to Congress by the end of this year.

But again, to continue our dependence on a gas tax when we have said we want more fuel-efficient vehicles, when we have said we want cleaner burning fuels and when we have said that we want to lessen our dependence on foreign oil, and when the technology is there today to do those things, I think it is contrary to those very important public policy decisions that many in Congress and in the administration agree with to continue dependence and to therefore increase the use of fuel taxes when we have other alternatives to bring funding to the table.

Many think that I say that simply public-private partnerships or private investment is everything we need. I have never said that. I have always said that there will be portions of our road system that have to be funded by public-sector revenues, but I do believe that we should take every opportunity to bring other available revenues to the table, such as Florida has done, such as California has

done, such as Indiana and Chicago have done, to help supplement public-sector revenues.

Mr. OBERSTAR. Thank you, Madam Secretary. We will continue that dialogue—

Secretary PETERS. Indeed.

Mr. OBERSTAR. —as we go through this year into next year in preparation for reauthorization.

Mr. Mica.

Mr. MICA. Thank you, Madam Secretary.

We have a current Federal bridge program, and I just want to spend a minute and take that apart and see if it is something we can fix. It is based on, as I said and you have said, a flawed system or a system with every passing day that becomes more obsolete in raising the revenues that we need. So we have got to fix the way we fund all of our infrastructure, highways and bridges. We agree on that.

Let us look at the fund that we have now. \$4.3 billion, is that enough or not? It appears we have made some progress in bringing down the number of bridges that are structurally deficient. Is the overall number enough or does that need to be increased?

Secretary PETERS. Mr. Ranking Member, I do believe that we probably have to look at what the criterion are that we are using to allocate that money today.

For example, since 1970, Congress has provided \$77 billion to help reconstruct or rehabilitate over 85,000 deficient bridges. And of course these bridges, particularly in States that have older portions of the system, continue to age or continue to wear during that period of time.

I think what we need to do is very carefully examine the criterion that we are using to determine which bridges need to be repaired or replaced and then determine whether or not we have sufficient funding but to do that very rigorous analysis.

Mr. MICA. So funding—is the dollars available is the first question.

Now I heard Mr. Oberstar and Mr. DeFazio talk about diversion of funds. Usually when I find the problem, the problem is us. Either we haven't funded it—for example, I love to get the list of request of earmarks, of how many were for deficient bridges. You have to have money or we request that money as representatives. But both Mr. DeFazio and Mr. Oberstar have talked about diversion of the money, and one of the examples used is Pennsylvania, 50 percent. We said that, by our policy, that that amount can be diverted. What would be the appropriate amount?

Now, you spoke also to having standards that had to be met for that diversion, so how would you either reconstruct or better construct that policy so that the money goes where it is supposed to?

Secretary PETERS. Mr. Mica, what I would do is establish standards to which the bridges had to be maintained. If a State did not demonstrate they were meeting those standards, they could not divert money out of that dedicated program. That is what I would establish.

The situation in Pennsylvania is more complex, and at your pleasure I could ask the Federal Highway Administrator to talk more about what has happened in Pennsylvania per se.

Mr. MICA. We have not gotten into other ways of financing, for example, public-private partnerships, which I have advocated and I think the administration has and others have advocated as a possible solution. We have not really defined that policy.

For example, I use Mitch Daniels in Indiana where he sold some of the infrastructure; and specifically it was for bridge either construction or replacement, the bulk of that money. Do you think we need a definition of that policy? What is your opinion? How should we define that? What do you recommend?

Secretary PETERS. What I would recommend is having standards to which the National Highway System, interstate highway system, those things that are truly in the Federal interest need to be maintained. And if a State such as Indiana or cities such as Chicago chooses to accept private sector investment that they would have to insure that they are maintaining that infrastructure to those standards so that there could not be any demission of the standards as they were operating through a public-private partnership or some concession wherein a public asset would be leased out. I believe that we need to have a rather light touch in terms of the Federal Government so we can allow this money to be made available in a broad manner.

As you mentioned, Governor Daniels in Indiana had fully funded a 10-year transportation program as a result of a long-term lease of the Indiana toll road. So one could argue that the citizens of Indiana are appreciably better off today than many other States that do not have that funding.

Mr. MICA. Finally, the question is States' contribution, State or locality. For example, in Minnesota, I believe the Governor had vetoed a couple of measures for increasing revenues. I was surprised.

I visited Texas to find out that Texas has a \$0.20 gas tax. That is, \$0.05 goes for education and \$0.03 goes towards law enforcement. Now law enforcement I could see as part of the highway. But, again, people can say they have a gas tax, but it does not fund infrastructure, it funds other things. And the Chairman has said his proposal tried to take into consideration some of that.

Isn't that important that we see what an actual contribution is from the State or the locality in this process? Otherwise, like I said, you have taxpayers paying for lax payers or those who are not willing to pay their share.

Secretary PETERS. Yes, sir. Both you and the Chairman have indicated that this maintenance of effort on the State level I think is very important as we go forward in determining the Federal role and what the contribution should be. GAO has completed a report that did indicate there was a substitution effect. When Federal revenues increased in a period of time, State revenues went down during that same period of time.

Mr. MICA. Thank you.

Mr. OBERSTAR. Thank the gentleman.

Before you break your arm patting yourself on the back for Governor Daniels, he has a 75-year lease and 10-year program for highway investment.

Mr. RAHALL.

Mr. RAHALL. Thank you, Mr. Chairman.

Madam Secretary, I appreciate very much your time being with us today and want to commend you as well, especially our Chairman of our Full Committee, Mr. Oberstar, for the manner in which he responded to the tragedy in Minnesota, the depth and breadth of your knowledge and the manner in which you tackled the tragedy. If we learn nothing from the events of the Minnesota tragedy, that, too, would be a tragedy in itself.

While I commend you for your depth and breadth of your knowledge—certainly we would agree on the problems that exist and the statistics are all there—we may not agree on the manner in which we address it. My biggest frustration is to hear this administration and previous administrations—and it is not something with which I disagree—but to hear them say all options are on the table when it comes to rebuilding and defending allies abroad and/or companies that produce so much oil vital for our interest and yet not making the same statement, especially this administration, when it comes to addressing the same problems that exist domestically here in this country. I would like this administration to say all options are on the table for defending us internally and rebuilding America as well, but I have not heard this administration say that, and that is perhaps my biggest frustration.

Secretary PETERS. Well, you certainly make valid points. The incident that occurred in West Virginia in 1967 in which numerous people lost their lives was the tragedy that gave birth to the bridge inspection program, so I think certainly you speak from an experience base in West Virginia about how important it is to maintain our bridges.

Mr. RAHALL. Well, I appreciate you bringing up that tragedy. I was going to bring it up as well.

Let me turn to a question specifically in regard to your testimony. You state that there are 40 special interest programs that had been created to provide funding for projects that may or may not be a State or local priority, end quote. What are these 40 special interest programs?

For example, is the Appalachian Development Highway a special interest program because it primarily serves Appalachia? Is the New Freedom Transit Program a special interest because it serves the disabled and elderly—as recommended by the administration and the Chairman informs me? Is a Safe Routes to School Program a special interest program because it promotes a healthier lifestyle for school children? What are these 40 special interest programs?

Secretary PETERS. Let me give you an example of one of those programs, the Historic Covered Bridge Program. Historic covered bridges are important, but when compared with improving infrastructure and what Americans believe they are paying for when they pay those fuel taxes, I believe that is an example of a diversion of funding programs—

Mr. RAHALL. Do you know what percent that is?

Secretary PETERS. I do not right offhand.

Mr. RAHALL. Okay. Again, I say I think from the way I interpret the 40 special interest programs—obviously, you can tell from the thrust of my question it is not something I consider special interest when it comes to spending monies on behalf of these particular programs that help particular segments of our population. I do not

think the groups that are served by these programs would call them special interest provisions that need to be cut or diverted as well.

Secretary PETERS. Congressman, I think what is important and what I have said in my testimony and repeatedly is we need to use economics and safety in determining where and how we spend money first and make sure that we are doing everything we can based on economic analysis, data-driven asset management approaches to take care of our infrastructure.

Certainly there are many, many worthy purposes included in those 40 additional programs, but the question that I would ask and that I think we owe the American people to ask is, are we spending money first on the highest priorities? And only after we have satisfied those priorities are we taking care of other—how laudable those purposes may be, first is to take care of our Nation's infrastructure.

Mr. RAHALL. Well, I would not agree with that last statement, that the first priority is to take care of our Nation's infrastructure. Where I would disagree is in looking at taking care of our Nation's infrastructure there are areas in which perhaps Members of Congress, both bodies, have a more acute knowledge and are able to discern where meeting those needs can be accounted on a local basis and addressed on a local basis; and it is a very small percentage of the overall picture, I might add. I would say we need to look at both priorities—all priorities, I should add.

Secretary PETERS. Understood.

Mr. RAHALL. Thank you, Mr. Chairman. My time is up.

Mr. OBERSTAR. I thank the gentleman.

The matter of historic covered bridges is one of the long history of transportation in New England and was an issue championed by Senator Jeffords in ISTEA.

Mr. Duncan.

Mr. DUNCAN. Well, thank you, Mr. Chairman.

This past May I was asked to chair a conference on growth because we are almost being overwhelmed with our growth in east Tennessee, and Secretary Peters was kind enough to come and headline that because transportation is such an important part of that. And then we toured and she visited with State highway officials concerning the most expensive highway project in the history of our State that we are doing in Knoxville at this time. And Secretary Peters just wowed and impressed everybody and that conference of 750 people there and all the highway officials; and, Madam Secretary, I want to say again how much I appreciate your coming.

In your testimony today you say the percentage of the Nation's bridges that are classified as structurally deficient has gone from 19 percent in the mid '90s to 12 percent now. What do you think has been the main thrust or has done the most to lead to that improvement and can we keep on decreasing of these numbers of these bridges with some of the lessons we have learned since that time?

Secretary PETERS. Congressman, thank you first for your comments.

I do believe we can. What we need to have is a continued emphasis on how the bridge inspection program and the bridge funding, dedicated funding made available, are connected and used properly. That is precisely why I have asked our Inspector General to look at how we might make improvements both in the inspection standards but also in how the inspection data is used to prioritize the repair or replacement of bridges.

Certainly the highest classification of bridges, those that carry the most traffic such as the I-35W bridge in Minneapolis, should come to the top of the list. We do not know yet what caused that bridge to collapse. I think it would be presumptive to say it was a lack of ongoing maintenance, because that does not appear to be the case at all.

Mr. DUNCAN. Well, you have very accurately pointed out that the term "structurally deficient" is not synonymous with unsafe; and I am a little curious as to why are there categories such as satisfactory, good, even very good and excellent ratings included in structurally deficient bridges? Why would we say that a bridge is excellent and yet still call it structurally deficient?

Secretary PETERS. We generally should not and would not make that comparison. I would ask the Administrator to address that more fairly.

I think you make a very important point. When we say to the American people a bridge is structurally deficient or functionally obsolete, it causes concern. I think the use of those statements and perhaps the connotation of those statements inaccurately has caused concern certainly in this case. That is something I am asking the Inspector General to give me benefit of his knowledge in that.

Generally speaking, a bridge that is rated excellent should not be considered structurally deficient. What structurally deficient means in a more of a working definition is it showing signs of wear, that the bridge needs to be inspected or repaired more frequently, watched more closely. But not in any way does this connotation mean that bridge is unsafe.

Rick does a good example of using a pair of shoes that I will ask him to explain in a moment, but functionally obsolete means basically that it no longer meets today's minimum design standards. It met design standards when it was built but may or may not today. The congressman from Arizona may remember the Gila River bridge in Arizona on I-10 that is functionally obsolete but still indeed functions and carries hundreds of thousands of vehicles every day.

If I may ask the Administrator—

Mr. DUNCAN. Before you go to the Administrator and before my time runs out, I just ask the Administrator not only to respond as you have requested, but I do have one question I wanted to ask the Administrator.

The Federal Highway Administration estimates it will cost approximately \$40 billion a year to maintain the highways, maintain our Nation's bridges and approximately \$60 billion a year to improve those bridges, but the March—the 2006 DOT conditions and performance report cited costs of really about twice that high.

Would you explain what the discrepancies are there? Because you are talking about a mega-billion-dollar difference there.

Mr. CAPKA. Thank you, Mr. Duncan, for the question.

There is some pretty good information that C&P report focused on the cost to maintain and also the maximum economic investment.

With respect for bridges, the latest C&P report identified \$8.75 billion a year as the cost to maintain. That would be invested over a 20-year period. The total amount that would need to be invested right now in 2004 dollars—the backlog, if you will—is about 65—a little over \$65 billion. We are investing today—I mentioned that \$8.7 billion annual investment over 20 years. We are investing today about \$10.5 billion. That might go a little bit to explaining why the improvements that we have been seeing in the condition of the bridges has been moving in a positive direction.

I would also point out that the maximum economic investment that the C&P report turns out is about \$12.4 billion. So that 10 and a half is nestled in between and I think goes a long way to analyzing why we have been seeing improvements.

Mr. DUNCAN. Thank you, Mr. Chairman.

Mr. OBERSTAR. Thank the gentleman for his comments and his questions.

Mr. DeFazio.

Mr. DEFAZIO. I point out to Mr. Capka—and I may not want to say this—the administration did not support those higher levels of spending, objected to them, would have cut the program.

Madam Secretary, I hope we can find something to agree on here. We are reexamining the Federal role. We have what we call the National Highway System. It is 162,000 miles. 46,000 interstate, strategic highway network, military mobilization and other major highways. That is only 4.1 percent of the mileage in the country, but it is 45 percent of the vehicle miles, 75 percent of the truck traffic, 90 percent of the tourist traffic. I mean, is this what we are talking about? We are talking Federal interest. Do you believe we should maintain or enhance the 162,000 mile National Highway System, including the bridges? Simple answer, yes or no?

Secretary PETERS. Yes.

Mr. DEFAZIO. So, now, look at the map up there. See all the little dots? I know it's a little hard to see. These are the 6,175 National Highway System bridges that are structurally deficient. About half of them are on the interstate and the rest are on the rest of the system.

So you say there is something we can do other than gas tax or Federal funding to take care of this pretty widely disbursed, very major problem. What is that alternative? Are you going to put tolls on all those 6,172 Federal bridges? Is that the idea? Or we can ask the private sector to rebuild them and let them toll them and lease them? I mean, what is your solution here?

You are saying, can't have any more Federal investment. We are not going to have more Federal investment. You have drawn the line. You are not going to raise user fees. So what is it?

Secretary PETERS. Mr. DeFazio, I believe the solution is examining where we are spending money today, using economic anal-



ysis; and the numbers that I indicated earlier are that there is enough money today if—

Mr. DEFAZIO. Let me ask you another question. As far as we can tell the source for the 40 percent number, there is nothing credible out there except someone named—and he is not credible—Ronald Utt at Heritage. He came up with the 40 percent, Mr. Utt, which I think is 1/1000 of 1 percent. You are talking about concerns about congestion and concerns about the system and these are diversions. Twenty percent, half of his number, is transit. So should we do away with transit? Would that not make congestion worse? Do we believe by putting people in transit we are avoiding congestion?

Secretary PETERS. Mr. DeFazio, I do not think we should do away with transit.

Mr. DEFAZIO. Well, then you should not talk about this 40 percent diversion like there is money out there to be grabbed back. Because half of it, according to this expert, Mr. Utt, is transit. And you can go down through other programs—

Secretary PETERS. Mr. DeFazio, one of the things I have said about that 40 percent is that I think Americans who pay fuel taxes when they pump fuel into their vehicles, most of them are not aware that only 60 percent of the taxes that they pay go directly—and I emphasize directly—to highways and bridges.

Mr. DEFAZIO. I think, Madam Secretary, what many Americans are concerned about is safety. They do not want to die on a bridge collapse on the way home from work.

The daily beef is congestion. Let's get down to congestion and the levels of investment we are talking about here.

Now I am very puzzled, and perhaps Mr. Capka can help us out here. You talk about this 40 billion, 60 billion, but when I read the conditions and performance report they have three levels. One is the current level that we are putting in, which is \$70.3 billion total investment, which means we are not even keeping up with the physical condition and we are not dealing with congestion. If we go to—according to your own conditions and performance report, if we go to \$78.8 billion, we will keep up with the current levels of congestion and good conditions. If we want to begin to deal with congestion, you have to move the number up to at least \$89.7 billion in the future to improve congestion; and you could, according to the cost benefit analysis, invest up to \$131 billion. There you have the cost benefit analysis.

I do not know what the 40 to 60 is, but by all accounts we are not even keeping up with the current congestion levels in the system and we are not keeping up with the physical maintenance. But you are very sanguine about it and say private sector will take care of it, and then we will have congestion pricing.

Is the idea of congestion pricing somehow congestion goes away? Where do those people go when we squeeze them out of the system? Do you do think these are all people just out there driving around for fun? They are not on their way to work and they can just stay home and the roads would not be congested? How does congestion management solve this problem if the Federal government does not invest in the States or the localities don't invest? Mr. Capka?

Secretary PETERS. You probably should talk about all the conditions and performance and all the rest of the issues.

Mr. CAPKA. All right.

As far as the C&P report is concerned, you are correct. The cost to maintain is \$78.8 billion. The investment is \$70.3, with the maximum—

Mr. DEFAZIO. And it's good to explain that to the humans out there. That means—cost to maintain would mean today's levels of congestion on good road surfaces and safe bridges.

Mr. CAPKA. That is correct, Mr. DeFazio.

The other thing the C&P report pointed out this year is that there are other investment mechanisms that are available that should be considered, mechanisms that will help better operate the system that we have, more efficiently operate the system that we do have and perhaps take the peaks off the demand times during the course of the day, which would then lessen the demand for the new investment that would be made. So there are some other things pointed out.

Mr. DEFAZIO. But if you take a peak off, it is either discretionary travel or you have to provide an alternative, is that correct?

Mr. CAPKA. And I think the data shows there is a considerable amount of discretionary travel made during those peak times. So I think there is room to improve the operations of the system which would have an overall beneficial impact on the resource demands on the system.

Mr. DEFAZIO. You are saying we have to squeeze it. We do not need to invest in more capacity. We have to get people off the road. We have to tell them get off the road. Just let a Lexus go by paying a buck a mile.

Secretary PETERS. If I may, in terms of a very recently completed household travel survey, it does indicate that more than half—in many instances, more than half of the people who are on a road during commute times, during peak periods of time, are not commuting. They are doing other things. My sister is picking up her dry cleaning.

Mr. DEFAZIO. Taking their kids to school?

Secretary PETERS. It could be.

Mr. DEFAZIO. Well, that is not discretionary for most people who work for a living.

Secretary PETERS. Since 1991, transportation spending has more than doubled.

Mr. DEFAZIO. In real dollars?

Secretary PETERS. In real dollars. If I am mistaken, I will come back and correct that.

But during that same period of time congestion has gotten substantially worse. Condition of roadways has marginally improved as has safety marginally improved. Where we are seeing a big degradation in the system is in performance.

Mr. DEFAZIO. The bottom line is you think we do not need more Federal investment. We need congestion pricing, force people off the road, and we need more private-public partnerships. That is your alternate financing that you are talking about?

Secretary PETERS. I wouldn't say it exactly like you did. What I would say is we need to make a better, more efficient use of the—

Mr. DEFAZIO. Would you agree that there is any need for more Federal investment, just a smidgen?

Secretary PETERS. Sir, there may well be. Our first obligation to the taxpayer is to spend the dollars we have at the highest priority level.

Mr. OBERSTAR. My proposal will do that. We have agreed on 75 percent.

Mr. LaTourette.

Mr. LATOURETTE. Thank you, Mr. Chairman; and, Madam Secretary, thank you for being here and thank you for the administration's response to what happened in Minnesota and thank you for your service.

I also want to thank the Chairman of the Full Committee. After the events that occurred in Minnesota on August 2nd, the Chairman was kind enough to send around a list, map of the bridges in our districts that were labeled as structurally deficient.

And it gets me into the point that Mr. Rahall made. I had two in my district, and I am happy to report that one has been repaired pursuant to an earmark in TEA-21. When I was home, I drove under the second one that is being repaired thanks to an earmark in SAFETEA-LU. So I do subscribe to the theory that there are good diversions and bad diversions. It really depends on whose ox is being gored when you determine what an appropriate diversion is.

And then the covered bridge issue. Ashtabula County in the northeastern corner of Ohio is the home of probably more covered bridges than anywhere outside of New England.

I always viewed the highway bill and the highway program as something that not only takes care of our infrastructure, roads and bridges but also enhances the quality of life in areas that we live.

I know that some people chafe about the fact that there are diversions for scenic highways and covered bridges and diversions for the transit program, but I would suggest that what we have is a 1956 model wherein we funded our Nation's infrastructure, at least at the Federal level, through the Federal excise tax on gasoline when most people probably had one car, most people did not have cars that were getting 30 miles per gallon, and now on the drawing board we have cars getting 60 miles per gallon. If we bring turbo diesel into this country, we are going to have 85 miles to the gallon.

So the model, that we're going to say that that 18.4 cents is sufficient and that is going to be the Federal investment—quite frankly, as a long-time Member of the Committee who has a great deal of respect for you and the administration, my greatest disappointment in the 13 years I have been on this Committee was the fight we had with the administration over the highway bill.

When the Department of Transportation said that the cost should be \$375 billion over the 6-year period of the bill and we had to fight for 2 years, the bill was delayed for 2 years, getting between 256—can it be 289? Can it be 301? And all the while our infrastructure was lacking.

I would just hope—and I know you do not get to make all of the calls. There is a reason the administration's approval rating is down in the polls. There is a reason that the U.S. Congress' approval rating is down in the polls. One of my favorite lines in this Congress was Senator Trent Lott said this Congress cannot pass gas. And the reason for that is people expect us to do better.

I think Mr. Rahall's point is right on the money. To say that all things are not on the table, whether it is increased gasoline taxes, users' fees, public-private partnership, whether it is a re-examination of our bridge program and privatization, I think cheats the American motoring public; and I would hope that the administration would rethink its position and work in a way to finally get a bipartisan success.

Mr. Oberstar could write a bill that would never get the administration's support, wouldn't get a lot of Republican support. The administration could do vice-versa. But that is not why we are here. I think we are here—my constituents when I am home saying mixed views on what is going on in Iraq, but they do say, how come their roads are in better shape than our roads? I think that is not an appropriate place for us to be in in this country.

I am happy to say I think you are doing a good job, but I would hope at least part of the administration's message on this bridge crisis that we have in this country would be that we will consider all options. You do not have to promise to accept any option but that you would consider all options as we move forward.

Because, quite frankly, I saw when Tom Petri was the Chairman of the Highway Subcommittee as the SAFETEA-LU bill was being drafted, I saw the projections of what \$0.05 a gallon would get. It really doesn't fix the problem. So you cannot get there from here just by looking at the gasoline tax. It will take a blend of things. And I hope that the administration will work with the Chairman and those on our side of the aisle and come up with something that fixes the problem, rather than figuring out we cannot fix the problem.

Thank you very much.

Mr. OBERSTAR. I thank the gentleman for enunciating the formula by which we will proceed in the future. Thank you.

Mr. Capuano.

Mr. CAPUANO. Thank you, Mr. Chairman.

Madam Secretary, you said you think you have enough money to fix all these 6,000 structurally deficient bridges.

Secretary PETERS. Sir, what I said is if we were spending money appropriately there is enough money in the total amount that we are collecting today, yes.

Mr. CAPUANO. And do you have enough money to fix the other 66,000 structurally deficient bridges that are not part of the National Highway System?

Secretary PETERS. Sir, I do not know that. That is something I would have to analyze.

Mr. CAPUANO. If you fixed all the structurally deficient bridges, would you have enough money after that to then deal with the structurally deficient bridges that deal with mass transit or rail?

Secretary PETERS. That, sir, is covered, I believe, in the conditions and performance report for transit that I do not have with me.

Mr. CAPUANO. If we just do structurally deficient bridges, is there enough money left over to deal with anything else? I am trying to prioritize in my own mind structurally deficient bridges for mass transit, structurally deficient bridges for rail.

Secretary PETERS. For rail and for mass transit, I will differentiate the numbers that I will give you, but the numbers that we have used is, according to FHWA estimates, it would cost \$40 billion a year.

Mr. CAPUANO. I know the numbers.

Secretary PETERS. This is all infrastructure. This is all highway and bridge infrastructure.

Mr. CAPUANO. Well, I am trying to prioritize. There are highway bridges, there are mass transit bridges, rail bridges. We have not talked about tunnels. Do we have any money to even inspect tunnels? Since we do not inspect any tunnels in America right now that we are required—do we have money to do that?

Secretary PETERS. We need to look at what was left of the money. You are correct. The Federal government does not inspect tunnels. The State governments do.

Mr. CAPUANO. If we inspect those tunnels, would we have any money left to fix anything we found that was wrong in any of the tunnels across America?

Secretary PETERS. I would prefer not to speculate.

Mr. CAPUANO. If we did all the bridges and all the tunnels, would we then have any money left to deal with the dangerous intersections? According to the NTSB, it has 19,000 accidents per day, killing 43,000 people per year. Do we have enough to deal with those intersections.

Secretary PETERS. Sir, the data I have in front of me today is for highways and bridges; and we could maintain it to current conditions for \$40 billion, improve it for \$60 billion. There is a total—

Mr. CAPUANO. And we have enough money to do that.

Once we are finished with the bridges, the tunnels—just the structurally deficient ones, we are not talking about the 80,000 obsolete ones. We are just talking about the structurally deficient ones. Do we have enough money to deal with the typical highway maintenance problems that we have across this country?

Secretary PETERS. Yes, sir, I believe we would.

Mr. CAPUANO. We would have money to then deal with the mass transit and rail maintenance issues?

Secretary PETERS. Those are separate funds. I will give you those.

Mr. CAPUANO. Do we have any money left to do any of the expansion that some of us want to do with mass transit or rail anyplace in this country?

Secretary PETERS. Sir, the figures that I have for highway indicate that we could substantially improve for \$60 billion. We are collecting greater than 70 today.

Mr. CAPUANO. I look forward to getting the numbers, because I am not sure—I look forward to getting them, but it strikes me as

almost unbelievable that you think we can deal with all these issues with the current funds that we have.

I understand fully well that you may not want to add additional funds. I respect that. That is a fair philosophical commentary. But I think it is also fair to tell the American public the truth. I am not suggesting that you are fudging at the moment. We will wait to see the numbers. But it will be amazing to me if we can deal with those priorities. We're not even talking about the obsolete bridges, and we can even leave out any expansions of mass transit or any of the other things we want to do. Just the 72,000 structurally deficient bridges across this country. If we can get enough money to do that, I would love to see it; and then I would like to see what we have left over.

Because I have a particular interest in tunnels, as Mr. Capka knows. That has been completely overlooked by this country, and it is a disaster waiting to happen somewhere in this country. When it does, you will be back; and we will talk about it all over again.

That does not talk about all the other things we need to do. That is why I believe we need to add more money to this system. I do not believe you can make these numbers work. I hope you can. I hope it is not done with any interesting accounting. Money is not that fungible. States, cities and towns do not have the money.

I have 21 structurally deficient bridges in my district, just national highways. I will tell you I have asked for earmarks for several of them, and it kind of bothers me that we do not have a prioritization on those things.

I totally agree, we should prioritize. We shouldn't be spending Federal taxpayer money without setting those priorities, and I look forward to doing it, but I also believe it is not the only thing we should be doing.

I honestly believe when everything is said and done, that is all the money you will have, you will not be able to fix 72,000 bridges when the DOT IG said it will be \$65 billion just to fix the 6,000 NHS bridges. We will see, and I look forward to those numbers.

Mr. DEFAZIO. Will the gentleman yield?

We really need a point of clarification here. You keep throwing out 40 and 60. When I was questioning, Mr. Capka agreed that just to keep the current levels of congestion on well-maintained roads would be \$78.8 billion a year. What is the 40 and 60 and how does that relate? You are saying for 60 we can improve everything. He is saying 78.8 just to maintain the current levels of congestion. How do those numbers—

Secretary PETERS. Mr. DeFazio, the 40 and 60 refer to the condition. They do not refer to the performance. We have in the most current version of the C&P report begun to address performance. But what we are talking about of the numbers that I am citing—

Mr. DEFAZIO. What is 78.8? I thought that was current performance, i.e., congestion and meeting the maintenance needs; and she is saying there is something else. She is saying, for 60 we can fix everything. You say, for 78.8, we can just keep up with what we have got.

Mr. CAPKA. Mr. DeFazio, the C&P report conditions and performance includes investment in both, and what the Secretary is referring to is the investment in the conditions.

Secretary PETERS. Conditions only.

Mr. DEFazio. It is a little narrow, so we are not dealing with performance.

Secretary PETERS. Mr. DeFazio, this is precisely why we choose to use the discretionary money that was made available to us this year to address congestion, because we do see we need to improve performance.

Mr. OBERSTAR. The gentleman's time has expired.

Mr. LoBiondo.

Mr. LOBIONDO. No.

Mr. OBERSTAR. Not right now.

Mr. Moran.

Mr. MORAN. No.

Mr. OBERSTAR. Mr. Brown?

Mr. BROWN OF SOUTH CAROLINA. Thank you, Mr. Chairman; and thank you for holding this hearing today.

Thank you, Madam Secretary, for coming to be a part of this discussion.

I applaud the Chairman for bringing this meeting, because of the tragedy we had in Minnesota. But, Madam Secretary, you know that as we look at the overall performance of our highways we are losing some 40,000 of our citizens every year to tragedy on the highway. I would hope that we would not look at this in the narrow view, but the broad view to come up with some kind of overall policy that will address the total safety of our highways. I know we have got a lot of congestion, and that we are losing a lot of dollars on the road, but public safety is certainly a major concern of mine.

I was just wondering how we are proceeding with the SAFETEA-LU commission. How is that coming along and when do we see that we might get some response from that? Not only a response over the overall view of the highway system but maybe some alternative funding.

We might want to look at a different way of funding our bridges and our highways other than a gas tax. Maybe there should be some other designated funding sources that we could use that would be more consistent with the continuing needs in the transportation system.

Secretary PETERS. Congressman Brown, thank you for the comment.

The 1901 commission which was created by SAFETEA-LU has been actively working for a little over a year right now. Secretary Mineta was the original chair of that commission. I now chair that commission, and we do intend to have to Congress reports by the end of this year.

Safety is one of our primary concerns. It is a critically important issue, and we need to address and certainly are addressing that, as well as condition, as well as performance and as well as looking at what the Federal role should be and the Federal contribution should be.

We are looking at a number of alternative revenue sources, including gas taxes how to meet those needs. It would be premature for me to give you any idea of where we are going to come down on that, since there are 12 independent commissioners, all of whom are contributing significantly to that report.

The second commission, the commission that we call the 11142 commission, I met with the chairman, Mr. Rob Atkinson, yesterday. They also are progressing on a more narrowly tailored focus, that of financing mechanisms; and they also are making good progress. I hope to have a report out in early '08. Thank you, sir.

Mr. BROWN OF SOUTH CAROLINA. Thank you very much. Thank you, Mr. Chairman.

Mr. OBERSTAR. Thank the gentleman.

Ms. Brown.

Ms. BROWN OF FLORIDA. Thank you, Mr. Chairman, and thank you for hosting this meeting; and welcome, Madam Secretary.

I just returned from a trip, from Spain, London and Paris; and I was asking them how do they majorly fund their transportation needs. And they told me it was not through gas tax but through toll roads. This is how they fund their major transportation system. How would some similar system work here in the U.S.?

Secretary PETERS. Congresswoman Brown, thank you, by the way, for your Chairmanship on the Rail Subcommittee and for the work you have done on rail safety.

You are correct. In Europe and many other parts of world they have used a much greater dependence on tolls than we have in America. Generally, the application here in America I believe would to be attract private-sector investment and recoup that investment through tolls or congestion pricing in our most congested areas.

As I said before you had the opportunity to join the Committee meeting, there are roads that simply will not meet that test. We will not be able to use towing or congestion pricing, and they will require other public investment in those roads.

Eventually, we may go to a mileage-based system of pricing where when we use the road, time of day, how congested it is, how many occupants in our vehicle, all is concerned in determining the cost in a utility model which has merit and has been tested in Portland, Oregon, I believe.

You learned a lot on your trip, I hope, and would love to talk with you more about that.

Ms. BROWN OF FLORIDA. Absolutely. One of the things in downtown London, for example, they charge \$10 a day per car for—excuse me, sir, I cannot see the Secretary. Mr. Chairman? Excuse me—Mr. Kagen, I am sorry.

They charged \$10 a day per car to drive in the city. So it is actually a physical charge on a car to come to like downtown D.C. Per day.

Secretary PETERS. That is accurate. That is not only being in done in London but also in Stockholm and in Singapore. In Stockholm, it was done on a trial basis, and the citizens were asked if they wanted to continue it, and they did.

Here in the United States one of the urban partnership agreements that we awarded in August, as was referred to earlier, Mayor Bloomberg in New York has also proposed such a congestion pricing matter in New York City. It remains to be seen whether or not a commission that was established by State legislature will vote to move that forward. But it is something that we think does have tremendous promise in given areas, as long as it is looked at



very comprehensively; and we are very anxious to see what the Mayor and citizens of New York want to do in terms of going forward.

The money that we allocated to them is contingent on their ability to move forward. If they are not ultimately able to get the authority to move forward, that money will come back and be reallocated to other congested areas.

Ms. BROWN OF FLORIDA. The spin-off is that it just drove up the ridership on the mass—train, and that is the key. It helped congestion, pollution. It was just a win-win for everyone.

One other question, have you received any feedback yet on the inspection of the 750 steel arch bridges and the conditions?

Secretary PETERS. We have, and I will ask the Administrator to give you that information.

Mr. CAPKA. Yes, ma'am, we have. We hope to have all the information in by the end of November, but now we have better than 50 percent of reports in from the States, and the reports are coming in with bridges in very good shape. We have not uncovered a systemic problem at all with the reports coming in thus far.

Ms. BROWN OF FLORIDA. Can we get a tentative update of where we are?

Mr. CAPKA. Yes, ma'am. We will provide that to you.

Ms. BROWN OF FLORIDA. Thank you, Mr. Chairman. I will yield back my time.

Mr. OBERSTAR. The Chair recognizes the gentleman from North Carolina, Mr. Coble.

Mr. COBLE. Thank you, Mr. Chairman. I have been tied up with a Judiciary hearing. I apologize for my belated arrival. It is good to have you all with us.

For the past 5 or 6 years, Mr. Chairman, each time I speak to a civic club back home or a public group, I always have directed attention to our aging national infrastructure, including bridges. Unfortunately, my words were prophetic; and I am sure others have uttered the same thing here.

Secretary, let me ask you a question. If that was asked prior to my arrival, I apologize. Some of the structurally deficient bridges in my area and I'm sure in the areas of my colleagues are very costly as far as repairing them and working them up to snuff. Previously, we granted States the ability to transfer dollars dedicated for bridge funding to a National Highway System or surface transportation program. I am applying hindsight now, Secretary. That is always 20/20, as you know. Should we continue to grant this authority, place a greater emphasis on using dedicated highway bridge funding for its intended purpose or permit States to transfer funding into a highway bridge program to address the deficiencies?

Secretary PETERS. Congressman, what I believe we should do is be sure we are establishing the proper standard for which bridges should be maintained and only allow a transfer of money out of those dedicated accounts if the State can demonstrate that their bridges are meeting those criterion. This is part of what we will be looking at in the review of the bridge inspection program that the Inspector General, who you'll be hearing from a little later, is looking at.

I believe it is based on standards. You are meeting the standards and have the ability to transfer the money to other purposes. If you are not, you may not. You must meet those standards.

Mr. COBLE. I thank you. I yield back.

Mr. OBERSTAR. Mr. Braley.

Mr. BRALEY. Thank you, Mr. Chairman.

Madam Secretary, I was very pleased to learn that in your opening remarks you identified your firsthand experience as a former State DOT director, and I appreciate that very much. Have you ever had an opportunity to work on a bridge crew?

Secretary PETERS. Sir, I have not. I have done flagging, I have done a variety of things but not on a bridge crew per se, I have observed it being done.

Mr. BRALEY. I had the good fortune to work on a bridge crew for 4 years, and one of the things that we often don't focus on in these discussions is that thousands of men and women put their lives on the line every day to build and repair our aging infrastructure all over this country.

One of the things you learn very quickly when you are working on those jobs is that there is a lot more to putting together our aging infrastructure than just dollars and cents. One of the things we know is when we commit to reinvesting to an infrastructure there are ripple affects far beyond safety, far beyond transportation and goods and services and into the economy and all over the country.

One of the other things you quickly learn when working for a county road department is there are ripple effects with highway projects that are being done at a Federal level and then Federal right of way gets abandoned to States on existing Federal highways that are no longer subject to the same type of road use and then those States end up abandoning to county government, and all this gets passed on and on and on.

The cost of maintaining many of these structurally deficient and obsolete bridges is borne by lower level government agencies who many times do not have the resources that we do here in Congress. So as someone who represents a State that ranks number four in terms of overall structurally deficient bridges as a percentage of its population, this is a very acute concern to the Highway Department of Transportation and to many county supervisors all across our State in 99 separate jurisdictions.

So what I would like you to do is talk about your perspective as a former State DOT director and how our Federal system of highway repairs and funding is impacted by all of these decisions we are making that are important not just from a safety standpoint but from the other areas.

Secretary PETERS. Different States do things differently. For example, in Virginia, they are responsible for the entire system on primary and secondary roads. In other States and my home State of Arizona, that responsibility goes to county governments and ultimately to city governments as well.

The national bridge inventory and national bridge inspection standards apply to all of those bridges. This was something after the tragedy in West Virginia that was pointed out how important it is to apply those standards to all bridges.

The funding in the Federal aid highway program is intended primarily for those who are federally aid eligible. States also have funding sources and can make those discretionary funding sources available to county and city governments. In Arizona, we allocated approximately half of the State discretionary revenues to local governments to use on their system.

If there was a case where the Federal government was taking a bridge or road off that system and it was no longer part of the Federal aid system and National Highway System, perhaps then it had to be in good operating condition before it could be then allocated to a county government or to a city government. So before any transfer was made, it was insured that that infrastructure, whether it be a roadway or a bridge, was in good operating condition.

Mr. BRALEY. But I want to clarify that. Because we have already talked in this hearing about the fact that many of these bridges that are classified as structurally deficient does not necessarily mean that those bridges are unsafe. So when you are talking about the classification of being in good operating condition, does that mean that they cannot appear on a structurally deficient listing or functionally obsolete listing?

Secretary PETERS. In my experience, sir, that was the case. I do not know if that is the case in every State. I know you will be hearing from county officials a little later who may give more clarity to that. But I did always feel as the person responsible that we should not put problems on county or city governments who had even fewer resources to deal with than we in the State level had.

Mr. BRALEY. One of the other questions I had relates to the rescissions we have been talking about. One of the things I have not heard you or the Administrator discuss is whether or not you think the policy that is currently in place with the 50 percent allocation is working, and I would like to hear from both of you on whether you think it needs to be adjusted.

Secretary PETERS. I will give you my thoughts and then certainly ask the Administrator to give his.

I believe what we should do in the aftermath of this tragedy and looking over the bridge program is to establish standards, ensure those standards are accurate to which the bridges need to be maintained and not allow transfer of money out of those accounts unless the State can demonstrate they are maintaining their bridges to that level or to that standard.

Rick, please, you work more closely with this.

Mr. CAPKA. Yes, sir. In the transfer in the rescissions that States have been dealing with, many of the States—in fact, if you take all 50 and the District and Puerto Rico in aggregate, there are more funds transferred in from some of the other programs into the bridge investment than there are rescissions and transfers going out. I believe—and you will have an opportunity to check with some of the State officials later on—that the transfers and rescissions are made to create a more flexible ability to use those funds. In the aggregate, they get rolled back up into the bridge investment.

I do think there can be some improvements made. Right now, the allocation of the bridging dollars, the apportionment that is done is based upon the condition of the bridge, as opposed to other char-

acteristics which are just as important, the ADT, the average daily traffic demands on the bridge, the maintenance requirements and the maintenance investments, these preventive maintenance investments being made on bridges, the asset management programs that are in place are all very important to ensure investments are made wisely and effectively. I think we can expand the criteria against which these apportionments are made for bridge funding.

Mr. BRALEY. Thank you.

Mr. OBERSTAR. Gentleman's time has expired.

Mr. LoBiondo?

Mr. Boozman.

Mr. BOOZMAN. I really do not have any questions.

The only thing I would say as we go about this, we are talking specifically about bridges, but I think more than ever that we really have to—the rail, the highway, the waterways, it is an entity now, and as we do not repair it or locks and dams and things like that—we can have a whole separate hearing and hopefully we would not have a tragedy that brings that about, although we have our normal hearings—but as those go into disrepair and not being used, and that forces that traffic onto the highways.

Also, our rivers and things could stand a lot more traffic.

So, again, as we think about these things besides—and I think I would echo what was said earlier, I think everything is on the table. We really do have to look at all these things.

But, also, I would just encourage you to think in those terms of it being a total system. Some of our interstates—we could have north, south corridors that are not finished. We need to look at that.

The other thing is, besides potential tax increases or things like that, I think we really need to look at incentives. How do you incentivize people not to do it in a positive way rather than—and, again, I think everything is on the table.

But the other thing we have got going on in this country is a tremendous amount of obesity. We are in poor health as a country, and a lot of that is due to the fact that everybody in the family has a car now. I mean everybody from the teenage kids—when I go to church, many times we will have four cars there. Because I will be there, my wife sings in two services, my two daughters will meet me from someplace else. A few years ago that did not happen.

So, again, that's just kind of for what it is worth. Thank you.

Mr. OBERSTAR. I think the gentleman.

I just want to pick up on Mr. Capka's response to Mr. Braley. You suggested broadening the criteria. That is a very valuable contribution. It is what I do in this bridge proposal. To include vehicle miles traveled on bridges, mobility, regional and national mobility, that is what we will do in this new iteration.

Mrs. Napolitano.

Mrs. NAPOLITANO. Thank you very much. I, too, was unfortunately delayed. Pleasure seeing you, Madam Secretary.

I certainly agree with my colleagues in some of the questions about the bridges. There are 15 in my area alone, it has been covered.

My concern at this point is into railroad bridges. I have not heard anybody mention those. You have no jurisdiction over them.

There is no accountability for maintenance and their upkeep. I know we have not heard of any catastrophes, but most of them were built in the '30s.

Mrs. NAPOLITANO. And with the increase in traffic and the increase in the weight that they are bearing, how are we going to be able to say to the general public, "You will be safe, even with the rail bridges in your backyard, from a catastrophic release of chemicals," if you will.

What are you doing? What is being planned? Are you going to have something that is going to address getting the railroads to comply with an upgrading and the standards of the new technology?

Secretary PETERS. Congresswoman Napolitano, you raise a very important question, and others have asked about this. But to be more specific about what is happening, as you mentioned, FRA does not have regulatory authority over the railroad bridges. We do, however, have the ability to establish safety policies for bridges and are moving forward to doing so.

A recent GAO report cited the fact that we needed to do more in working with the railroads to improve rail bridges, and therefore, FRA is already working to develop appropriate criteria to better ensure that potential bridge safety risks on railroads are properly identified, evaluated and dealt with.

The FRA has also—I am sorry—soon will be issuing a formal safety advisory on bridge safety issues, as well; and the administrator, Administrator Boardman, in June of 2007 initiated a railroad bridge safety roundtable to begin discussions with the railroad industry to ensure that we are having proper follow-up—proper evaluation and proper follow-up—to ensure bridge safety on the rail lines, as well.

Mrs. NAPOLITANO. Are you setting aside program money to be able to do the reports of the requests for the intensive, in-depth analysis, if you will?

Secretary PETERS. Congresswoman, I do not have that data with me. I would be happy to look that up and get that back to you. I am thinking they are, since we are moving forward with this, but I would rather be accurate on the record.

Mr. OBERSTAR. If the gentlewoman would yield—

Mrs. NAPOLITANO. I will do so.

Mr. OBERSTAR. —Mr. Cummings and I and Mr. Mica in the last Congress asked the GAO for a report, an in-depth analysis and a report, on rail bridge safety. That report was delivered just last week, and we have not been able yet to get enough copies to distribute it to all Members on the Committee. But it is available online, and the Committee will provide the gentlewoman with a copy of it.

Mrs. NAPOLITANO. Thank you, sir.

What really is also, I would say—important to all of us, I would believe—is that we have a plan that is going to help us address some of the issues and ensure that those bridges are structurally safe, given their age and especially in an area like mine—

Secretary PETERS. Yes.

Mrs. NAPOLITANO. —where we have increased traffic and expect more—tenfold, I understand—that they are going to be sufficiently

well-structured to withstand that additional load and the increase in traffic; and those are some of the things that I had in mind.

Are you going to create any regulations? Do you believe that it is a necessity to be able to do that?

Secretary PETERS. Ma'am, on the rail bridges, we will be looking at that. We have not yet arrived at that decision and want to work first with the rail industry to determine what we can voluntarily do together, and I think that it is our first course of action, but we have not conclusively reached a decision yet.

Mrs. NAPOLITANO. Do you have any reports of any accidents or any damages from any failure of rail bridges?

Secretary PETERS. Ma'am, I do not have that data with me. To my knowledge and in recent history, I do not; but I do not want to say that without getting the data, and we will do that and get back to you.

Mrs. NAPOLITANO. I would really appreciate it.

Then there was a question that one of my colleagues left with me. We are having the hearing because of the bridge safety issues, and the question he left was, what responsibility are you and the administration willing to accept for the condition of our bridges on the National Highway System?

Secretary PETERS. Ma'am, I do think there is, indeed, a Federal responsibility—or a Federal interest, more accurately—in ensuring that the National Highway System, which includes the interstate highway system, does have adequately maintained bridges, and I think as we move forward both in the Committee deliberations—or in commission deliberations, rather—that I am having now with one of the commissions established in SAFETEA-LU, it is important to work with you during the next authorization period so that we do address those issues.

Whether or not all of the funding has to come from the Federal Government, I think remains to be seen, but certainly, it is in the national interest to make sure those bridges are maintained appropriately.

Mrs. NAPOLITANO. Thank you very much.

I yield back.

Secretary PETERS. Thank you.

Mr. OBERSTAR. Mr. Diaz-Balart.

Mr. DIAZ-BALART. Thank you, Mr. Chairman.

I, first, want to thank the Secretary for her service. Also, as a Representative of south Florida where we are benefiting from the urban partnership, I want to thank you for that. It is great to see, Madam Secretary, that you are clearly thinking outside the box, and south Florida is one of those areas that I think will benefit dramatically from this innovation.

And I think everybody agrees that Florida DOT is innovative and that it is doing a great job. When you look at, for example, bridge safety, there again, while some States have gotten some of that money and have spent it elsewhere, Florida has done, I think, a very good job. And the numbers speak for themselves in that they do emphasize bridge safety. It should come as no surprise when you look at the fact that in Florida the bridges are not only transportation, but they are also evacuation routes for hurricanes.

My concern, Mr. Chairman—and again, I state this up front—it is unfair because I have not had the chance to look at the Chairman's bill in depth, but I would be very concerned at anything that would penalize States like Florida, because they have done a good job, if all of a sudden the funding is going to go to those where the bridges have not been taken care of.

You are clearly disincentivizing and hurting those who have done a good job, whom we should be incentivizing and not disincentivizing, number one.

Number two, I agree with what Mr. Mica said, which is, I think we have to look at the overall plan. We cannot just focus on the very important tragedy du jour or problem du jour, which we are going to have continuously. And we also need to focus on that—and this Congress did; with you, Madam Secretary, and your leadership and the Chairman, in particular with, for example, the bridge collapse. But, again, we need to make sure that we do not lose sight of the entire issue, number two.

Number three, I, for one—I do not know about you all, but people in Florida are hurting with \$3 a gallon. And at this moment, to be looking at increasing gas taxes—when I talk about looking at the overall picture, we also have to remember the user and the payer, which is, frankly, what it is all about; and I think increasing gas taxes now, frankly, would be a huge problem.

And particularly—and again, as I said, this is an unfair criticism because I have not had a chance to look at the bill in depth, but in a cursory review, it looks like, for example, Florida would be paying in a lot more than it would be getting out because it has been doing a good job.

I am concerned about what the rate of return would be. I am also concerned about creating a new program as opposed to fixing a program that already exists.

Lastly, are we making sure that the States are using their funds correctly? Florida seems to be doing that, obviously, at least better than most States. Are other States not doing that? If not, what can we do to fix that?

Madam Secretary, I think you have mentioned that time and time again. I appreciate that. I just want to make sure that we do not take any steps that, frankly, disincentivize the ones who are doing a good job, and incentivize or continue to incentivize those who are not doing a good job.

I support State flexibility, but I need to make sure that that flexibility is accompanied by some common sense, and that if States are supposed to be using those funds for bridges and they are not, that they are not then compensated or given incentives to doing that in the future. And that is my concern with what seems to be in this bill.

I agree with the Chairman that about 75 percent of the bill sounds really good. As to the other 25 percent, in a cursory review—and again, I state that, Mr. Chairman, overall, without having the opportunity to obviously spend too much time on it—I am concerned with some of the issues that I just brought up.

Thank you, Mr. Chairman.

Mr. OBERSTAR. All right. I thank the gentleman for his observation, and I respect his concern.

And out of concern for that very issue raised, we have a provision requiring the maintenance of effort by States, that is, taking into consideration the degree to which a State is willing to match the Federal funds, the degree to which States have participated in the bridge program in the past, to which they have transferred funds out of the bridge program; and those will be factors that we consider in the prioritization and in the allocation of funds.

The matter of return on equity was something that we have debated diligently since ISTEA in 1991, TEA-21 in 1998 and with SAFETEA. We have gotten much closer to a fair return on equity in the SAFETEA legislation. This is a 3-year sunsetted proposal, however, targeted specifically to structurally deficient bridges, and it is limited to that purpose alone. So it is a different category than the overall surface transportation program which we will address again in 2009, and I expect the gentleman to be a part of that discussion.

Mr. DIAZ-BALART. And I look forward to working with the honorable Chairman on all of these issues. These are important issues.

I want to thank him for bringing up the debate. It is important. I have some concerns, but that is what the process is all about.

Mr. OBERSTAR. Great. Then I invite the gentleman to give further consideration as he has had an opportunity to evaluate the bill.

Mr. DIAZ-BALART. Thank you, Mr. Chairman.

Mr. OBERSTAR. Mr. Cummings.

Mr. CUMMINGS. Thank you, Mr. Chairman.

First of all, as I have listened to my friends from this side of the aisle and as I have heard it in listening to some of the debate in my office, there seems to be a discussion, Mr. Chairman, with regard to dealing with transportation issues in general. And I think we all know, in being a part of this Committee, that we have a lot of issues with regard to transportation.

Well, one of the things that concerns me so often is that when things like what happened in Minnesota happen—Mr. Chairman, you have been quoted as saying that this is a very critical moment, and it highlights that we need to be addressing a problem. What I fear is that without the efforts of the Chairman and the kinds of things you are doing, we will debate the debate and do nothing, and then another catastrophe will happen in 3 or 4 years, and then we will go through the same cycle again.

One of the things that concerns me, Madam Secretary, is the whole idea of inspections and whether we have enough inspectors. The Chairman spoke just a moment ago in reference to a matter that was raised by Mrs. Napolitano, that we had requested this rail study of tunnels and bridges. One of the things that it said in that study was that there were only five FRA inspectors for bridges. This is with regard to rail. And in a few moments, we are going to have folks from DOT, their IG, and the NTSB talk about inspectors for our highways, and I am just wondering, what is our situation with regard to inspectors? Because certainly, if we do not have the man- and the womanpower to inspect those bridges—you know, we can do a whole lot of things. We can talk from now until forever, but if they are not being inspected, and we do not have the



personnel, I am just wondering, you know, whether that is something that you are concerned about.

Secretary PETERS. Congressman Cummings, I am concerned.

First of all, let me acknowledge your leadership on this issue, particularly on tunnels and particularly after the very tragic incident in the Baltimore area where there was a fire for a long period of time.

Mr. CUMMINGS. Thank you.

Secretary PETERS. I do think we need to do a better job, and we need to look at our standards. And we are in the process of establishing standards for tunnels, largely as a result of your initiative, which I compliment you for, and I also compliment you, by the way, for the "man- or womanpower" in terms of inspecting those bridges or those tunnels.

In terms of FRA, I do not have that information right with me, sir, but I would agree with you that we can have the best standards in the world, but if we do not have an adequate number of inspectors out there, they are not going to do us any good.

And those are some of precisely the issues as it relates to this tragedy in Minnesota, that I would like the inspector general to look at. How are we inspecting today? Are we inspecting in the right way? Are we using the data that we get as a result of those inspections in the right way? Are we doing an adequate job?

I look forward to reporting back to you when that report is complete.

Mr. CUMMINGS. I look forward to your response then.

Let me just ask you this, Madam Secretary, if in the meantime—and you know, things around here happen slowly. In the meantime, if you were to find that we have insufficient inspectors, are you prepared to act or to—do you follow what I am saying? I do not want something to happen in the interim between your getting your information and then possibly coming up with the personnel—I mean, then something happens, and then we have got a problem.

Secretary PETERS. No. You make a very good point, sir, and I absolutely am prepared if, in the short-term, we learn that we are not doing an adequate job of having the right number of personnel out there to act. In fact, in our budget submittal with the FRA, in particular, we ensure that we are not reducing the numbers of inspectors, but more to looking at making sure that we had everyone we needed out there.

But let me go back and look at the data. I will get you numbers. But absolutely, yes, if we do not have the right number of people doing the job, then we must deal with that.

Mr. CUMMINGS. Just very briefly, the inspector general of the USDOT has written in his testimony that the Federal Highway Administration cannot really provide data on how much Federal funding is actually spent on structurally deficient bridges.

Do you intend to implement a system that will allow such expenditures to be tracked?

Secretary PETERS. Sir, if I could have the administrator answer that question.

Mr. CAPKA. Yes, Congressman Cummings. I was aware of the inspector general's observation there, and it is a matter of taking the data that we do have within our national bridge inventory and, in

a way, manually right now cross-checking it with bridge codes that we do have.

So it can be done, but it is a very laborious task of making that match. I think the requirement is for us to adjust the database that we do have to make that kind of analysis very easy to do.

Mr. CUMMINGS. Thank you very much, Mr. Chairman.

Mr. OBERSTAR. I thank the gentleman.

Mrs. Miller.

Mrs. MILLER. Thank you very much, Mr. Chairman.

I certainly want to commend you for holding this hearing. It is of a critical nature, certainly, and it is very appropriate that we dissect all of these issues today.

You know, I guess the reality is—the brutal reality is, our Nation just has not invested enough in our Nation's infrastructure over the years; and it is not only a question of safety, but I think it is a question economically as well. You can always think about how economics has followed the transportation grid throughout our history, whether they followed the wagon trains out West or the railroads or the interstates, now the aviation links, et cetera.

Oftentimes, as well, to be very brutally frank, we have wasted incredible amounts of money on projects that maybe were not so necessary. You know, I do not know about the Big Dig, and I will not go through all of these things, but there are a lot of areas where we could have spent money more appropriately.

I have not had a chance, Mr. Chairman, to look at your recommendation, your proposal. I certainly want to do so. I will say, coming from the State of Michigan that is a donor State—it has always been a donor State—we are always very hesitant about any idea raising the Federal taxes, the transportation taxes, because we do not get our fair share as it is. And so we do have that hesitancy, and we think about whether or not it would be better for us to raise our own money internally, and at least we can spend it where we think we need to have it spent.

I will just make a couple of observations and then ask a question as well. I just want to mention—and I am sure every Member of Congress has one. I have my report here from my Michigan Department of Transportation. I am looking at all of these little green dots all over the State of Michigan of structurally deficient bridges that have been identified by MIDOT, and I have my own PowerPoint here in my own congressional district.

Actually, I-94 and I-69 both have their genesis in my congressional district. At the beginning of both of those interstates is something called the Blue Water Bridge, which is actually the second busiest commercial artery on the northern tier of our Nation. I cross over it often. They have a bridge authority, and so they are inspected annually, and apparently, they meet—I should not say they meet—they exceed all of the Federal requirements. However, they do have a dedicated revenue stream.

Three days ago, I transited the Mackinac Bridge, which goes between the two peninsulas here, which is about 5-miles long. I think it is the longest suspension bridge in the free world, and it is also run by an authority, inspected annually, and it exceeds all Federal requirements.

So we were talking about toll roads, and I will just point that out as some fantastic examples of bridges that do not have problems.

I have a little bridge literally by my home, and we live on a river. Our local road commission is closing this bridge. It is the only way to transit in a huge area, and we are all, you know, obviously very exercised about that, but the local road commission—I do not think MIDOT has even worked with them on this, but they have put a weight restriction on the road, and now they only have a single lane that can transit, et cetera.

And I guess I am pointing out some of these examples because there is a question that has already been asked, but I think it is so important that I am going to ask it again because, Madam Secretary, you just outlined, I believe, an idea essentially saying that there should be some mandating from the Federal level—I do not want to mischaracterize you, so I am going to ask you this question—that the States would utilize the bridge funding and could only move the dollars if they could demonstrate some overriding need. And I guess my question would be, again, how the Federal highway has actually encouraged the States to make sure that they are expending the funds for bridge work appropriately.

Also, has the administration actually made a formal proposal, since the tragedy in Minneapolis, about this? If not, can we have some expectation of looking at a formal proposal, whether that is requiring legislation or promulgating rules or in the statute, what form might that take?

Secretary PETERS. Congresswoman Miller, we have done several things since the tragedy in Minneapolis.

First, we issued two advisories to the State. The first of those was to inspect all similar bridges, bridges which have fractured critical Members, which the engineer at the table here with me will explain in more detail if necessary. The second advisory was to be mindful of how they were loading construction materials and equipment in the event that they were doing construction on bridges.

These were issued with an abundance of caution based on discussions that we have had to date about the particular bridge that collapsed, but I want to reiterate we do not know yet why it collapsed, and we do not want to jump to any conclusions.

The Chairman of the NTSB certainly can talk more about that than I could, but what we are doing is asking each of our division administrators—the Federal Highway has a division administrator in every State—asking them to take these inventories such as you have, go to their States, talk with them about what they are doing. If they are flexing money, why is it a higher use?

Those are things that are going on right now; and several of the State DOT Directors, I believe, are here and might talk a little bit more about that on a subsequent panel, and Rick can as well. But in the long-term, ma'am, we do want to look at the bridge inspection program. We want to look at what did happen in Minneapolis on the I-35W, and we likely will make recommendations, but—I would rather have that data in hand, but in the short-term, if we have any concern that a bridge is not safe, it would either be load-controlled, meaning it could only carry lighter loads, or it would be closed. And that is standard practice. No State DOT secretary, no county engineer or city engineer and certainly not the adminis-

trator, nor would I ever allow what we deemed to be an unsafe bridge to stay in operation without some modifications.

Rick, is there anything you would add?

Mr. CAPKA. Madam Secretary, that is a great summary. And, ma'am, I also wanted to emphasize that we do have structurally deficient bridges that we are looking at, but it does not, as we have said before, equate to unsafe. And there are certain things that attract a State Department of Transportation's attention immediately when they are doing an inspection and a critical finding, and it does not have to wait for an appropriation to provide resources to fix that immediate problem.

Those critical findings really jump to the top of the priority list in any event, and they are handled very expeditiously. Sometimes it is a posting of the bridge. Sometimes it may be a closing of the bridge until the correct remedial action can be taken, but that is the process that we have in place to ensure that the public is not put at risk when they use our infrastructure.

Mr. OBERSTAR. The gentlewoman's time has expired.

Mrs. MILLER. Thank you.

Mr. OBERSTAR. Madam Secretary, I know we had a time limit. We have only two Members remaining—Mr. Hall and Ms. Fallin—if you can spare a little more time for them.

Mr. Hall.

Mr. HALL. Thank you, Mr. Chairman.

Madam Secretary and Administrator Capka, thank you for your testimony. I am looking forward to the results of the report when it comes out. Just quickly, I want to ask a couple of questions.

Are the current intervals between inspections too long to prevent failure? Does finding a deficiency trigger a more frequent inspection to monitor any possible deterioration?

Secretary PETERS. Sir, in terms of the duration between the inspections right now, we do not have any evidence to date to indicate that that is not sufficient. However, again, I have asked the inspector general to look at that as part of his analysis, and if there are any issues that cause concern, even outside of the normal inspection interval, State or Federal highway personnel in the State can ask for an inspection out of cycle, a more current inspection to happen; and that would be very important, I think, in terms of making sure that we are doing what we need to do.

We certainly will, as a result of this in-depth look, look at the inspection program, come back and make further recommendations, but there is no indication to this at this point in time that the regular cycle, with ad hoc inspections as warranted, should happen.

Mr. HALL. Thank you.

As the Congresswoman from Michigan, I am sure, knows, bridges and other infrastructure in my district face a challenge from a diversity of weather that States such as Florida may not face, so we see 100-degree temperatures, and we see zero-degree or lower temperatures. We see deicing and then sand and salt and all on the heaviest traffic bridges on the interstate system and other Federal highways.

Should the inspection regime be modified or has it been modified to require more frequent inspections in such areas of extreme weather?

Secretary PETERS. That has been a factor in determining the frequency of inspections, Congressman—again, Rick, if you have anything more detailed on that—but it is something again we are looking at, at the robustness of the bridge inspection program as part of this analysis, and certainly would make recommendations.

Another factor that you have in your district, as well as Congresswoman Miller, is that your infrastructure, on average, is older than that in the Sunbelt States as well. Not only does it have the weather extremes, but generally it is older infrastructure. That factor is absolutely taken into account in terms of determining the frequency.

Mr. HALL. Thank you.

The only other question I had is whether the Department is considering or any of the technical people on your staff are considering, with bridges that have deficiencies, limiting in high-traffic volume times access to the bridge so as to avoid a full load of vehicles standing on the bridge or moving at very low speeds, bumper to bumper, on the bridge—you know, providing a load that may be in excess of the actual bearing capacity of the bridge. You see this with some highways where there will be a gated red-green light on it, an on-ramp to prevent the density from rising above a certain amount. I do not know if there is a way to do that on a bridge, but it is an idea.

Secretary PETERS. The process you are referring to is ramp metering. It is often used on freeways to meter the number of vehicles that go on so that traffic can be kept moving or free-flowing. To my knowledge, I do not know that it has been used on a bridge. Bridge calculations, in terms of the weight that a bridge must be able to support, assume that it is fully loaded with vehicles, and given whatever type of bridge it is, that mix could be both passenger vehicles and heavier commercial vehicles. That weight would be static, and bridge loadings determined with those things in mind.

I am going to let my engineer talk to you because he is smarter than I am on those issues.

Mr. CAPKA. Yes, sir. That is a very good question.

One way of controlling that kind of, I would say, posting load on the bridge, where you want to limit the bridge, is to close lanes; and the State DOTs and local engineers do that if the bridge requires a posting. The inspection cycle for bridges is 2 years, and many bridges are inspected on an annual basis and more frequently, depending on the specifics of the bridge. That is probably a more frequent cycle than you will see in many of the nations overseas.

So we are looking at that very carefully, and as the Secretary said, the inspector general has that on his list of things to observe and will provide us some recommendations.

Mr. HALL. Thank you, sir.

Thank you, Mr. Chairman, for your leadership and for holding this hearing. I have a statement I will submit for the record. I yield back.

Mr. OBERSTAR. Without objection, the statement will be included in the record.

Ms. Fallin.

Ms. FALLIN. Thank you, Mr. Chairman. I appreciate, too, your holding this hearing for us.

Thank you so much for joining us today, both of you, and for giving us good information. I, too, am very concerned about our bridges in our Nation. Of course, in Oklahoma, you might remember back in the mid-2000s we had a bridge collapse. Of course, it was through an accident with a boat hitting one of the pillars of our bridge at River Falls, and I was actually the lieutenant governor of the State at that time, and was involved in the reconstruction of that bridge as the Chairman is going through right now in his State. So it hits close to my heart when we experience bridge deficiencies in our Nation.

I was looking at our chart for structurally deficient bridges in the United States, and I see that Oklahoma appears to be ranked the highest, which does not please me, but I had the opportunity to meet with our Department of Transportation a couple of weeks ago and survey some of our bridges in our State. I am happy to say, Mr. Chairman, that our Oklahoma legislature has put forth some money, has seen the wisdom of allocating money in our State funds to match some of our Federal funds so that we can start rehabbing our bridges in our State and making that a priority. And I appreciate the Chairman's comments, and I am looking forward to studying your proposal on how we can address the needs of our bridges in our Nation and looking at the States' investing in equity and matching the Federal share and looking at some innovative ways that we can encourage our States to participate more, because I have seen my State do that.

I will just say that I am concerned about how we fund that. I know that, Ms. Secretary, you tried to address some of the funding issues here in this meeting, and I hope in a minute you will continue to discuss how we can use the money that we have right now with our taxes to meet some of the rehab needs. I will just say, in my State, we had an initiative several years ago to raise the gasoline tax, and if I remember right, it fell by 78 percent, and with the cost of gasoline being as high as it is right now to our citizens and to our businesses, I know that that is a big concern. So I hope to work with the Chairman in looking at what are the alternatives and what are the innovative ways that we can look at meeting the needs of our Nation.

I was especially pleased, Mr. Chairman, to hear you discussing setting priorities in donor States. Oklahoma, of course, is a big donor State to our transportation fund, and I know that Secretary Peters has visited with me about how we can look at some innovative ways for States to get some of that money back to prioritize their own needs, but my question is:

You had stressed about our need to analyze the competing forces for Federal transportation spending and how to manage our existing transportation systems and programs more efficiently.

Would you agree, in light of the discussion we have had today on rails, on tunnels, on congestion, that we need an overall transportation plan for the Nation, not just for the bridges, but to look

at the big picture of how our money is allocated and what we can do innovatively in our States and, of course, in working with the Chairman on these ideas.

Secretary PETERS. Congresswoman Fallin, that is exactly what I have been saying this morning.

As important as this issue is—and there are ways in the short term that we can reprioritize and make sure that we are making our infrastructure safe and ensuring our infrastructure is safe, in looking at the condition of that infrastructure. But I do think we have to look holistically at how our program is structured today, where and how we are spending money today and ensuring that we are using data, performance objectives, benefit/cost analysis, things like that, for determining how and when we spend our money before we ask Americans to take more of their hard-earned dollars and pay more gas tax. I think we owe it to them.

Much like each of our families would do, if we had an unexpected emergency, we would not immediately go to our bosses and ask for a salary increase. We would probably say, "How can we ensure that we are using all of our money in the best way possible before we go to outside sources?"

That is something where I absolutely applaud the Chairman's initiative in putting this important issue in front of us. As he has said, we agree on many things, but I do think we owe it to the American public to first determine if we are spending their money wisely and well before we ask them for more money.

Ms. FALLIN. Mr. Chairman, I probably should disclose that I may have a vested interest in the cost of gasoline. I have two teenagers who are driving, so it is really hitting me hard.

Secretary PETERS. Ma'am, I do remember. I was at River Falls, Oklahoma, the day after the bridge collapsed there due to a barge hitting the bridge pier. Six people lost their lives—it was very tragic—and your leadership at the time in helping reestablish that important infrastructure was integral to making it happen.

Ms. FALLIN. Thank you.

Secretary PETERS. Thank you.

Ms. FALLIN. Thank you so much, Mr. Chairman.

Mr. OBERSTAR. I thank the gentlewoman for her observations.

Mrs. Capito.

Mrs. CAPITO. Thank you, Mr. Chairman. I think I will defer questions to the next panel since I just arrived.

Thank you.

Mr. OBERSTAR. Thank you.

Secretary PETERS. I would be happy to answer questions on the record, ma'am.

Mr. OBERSTAR. Any questions that Members have can be submitted, and they will be sent to the Secretary for inclusion in the Committee record.

I just have to observe that, amid all the hand-wringing about the high price of gasoline and adding 5 cents for the user fee, I did not see the President jaw-boning OPEC to bring their price of oil down. There is a lot of jaw-boning about 5 cents that will stay in America for American jobs—American steel, American cement, American asphalt. For the good jobs, send the kids to school and pay the mortgages and buy the snowmobiles and the ATVs.

I do not understand that dichotomy of thinking, but here is how it looks from the heartland of America. This is from the International Falls Daily Journal, their editorial a couple of days after the bridge collapsed and our governor, who twice vetoed an increase in the user fee passed by the State legislature, Your Tax Cuts At Work, a tragic commentary on the state of policy toward investment in infrastructure.

Madam Secretary, you have been most generous with your time. You have been a very patient and enduring witness. I thank you for your endurance at the witness table.

Secretary PETERS. Thank you, sir.

Mr. OBERSTAR. Mr. Capka, thank you very much for being with us.

Now I will proceed to our second panel. The inspector general of the Department of Transportation, the Honorable Calvin Scovel; and the Chair of the National Transportation Safety Board, the Honorable Mark Rosenker.

Welcome, gentlemen.

**TESTIMONY OF THE HONORABLE CALVIN L. SCOVEL, III, INSPECTOR GENERAL, U.S. DEPARTMENT OF TRANSPORTATION; AND THE HONORABLE MARK V. ROSENKER, CHAIRMAN, NATIONAL TRANSPORTATION SAFETY BOARD**

Mr. OBERSTAR. Mr. Scovel, we will start with you.

Mr. SCOVEL. Chairman Oberstar, Ranking Member Mica and Members of the Committee, thank you for the opportunity to testify today on FHWA's National Bridge Inspection Program.

The collapse of the Interstate 35W bridge in Minneapolis has heightened concern about the safety of our bridges nationwide. Along with the President and the Secretary of Transportation, I saw the wreckage firsthand; and I join with you and the Nation in mourning the lives that were lost.

While it is the responsibility of the National Transportation Safety Board to determine the probable cause of the Minneapolis collapse, my testimony today will focus on overall bridge safety inspection and is based on work done by our audit and engineering staffs over the past 3 years, including a detailed report issued last year. Our work in this area is continuing. I would like to briefly highlight three major issues.

First, Federal oversight of bridge inspections and funding for bridge rehabilitation and replacement are and will remain significant issues for DOT. Second, FHWA must continue its efforts to develop an approach to bridge oversight that is driven by data and based on risk assessment. This should allow better identification and targeting of those bridges most in need of attention. Finally, FHWA can take action now, today, that will strengthen the National Bridge Inspection Program.

First, oversight and funding. The safety of our Nation's bridges, which has been a high-priority issue for 40 years, depends on a complex web of local, State and Federal activities. States are ultimately responsible for the safety of their bridges, while FHWA oversees the States and provides expertise and guidance relating to inspection, repair and maintenance. Bridges that are part of the National Highway System—and there are about 116,000—carry



over 70 percent of all bridge traffic nationwide. About 5 percent of these, or 6,100, are currently categorized as "structurally deficient."

The term "structurally deficient" does not necessarily mean dangerous. However, many in this category can continue to operate safely if they are properly inspected and their maximum load limits are correctly calculated and posted. Our written statement includes a breakdown by State of the number of structurally deficient bridges in the National Highway System.

Congress has long provided States with funding to correct structural deficiencies. In 2005, \$21.6 billion was authorized through 2009. However, the need for funding is great, and the FHWA report issued in January of this year estimated that about \$65 billion could be invested immediately to address current bridge deficiencies. We will be evaluating funding issues as part of our ongoing, comprehensive review of the agency's oversight of the bridge program.

Second, the importance of a data-driven, risk-based approach: As we reported last year, based on a statistical projection, more than 10 percent of the highway system's structurally deficient bridges may have had inaccurate load ratings. To combat such issues, we recommended that FHWA develop a data-driven, risk-based approach to address bridge problems most in need of attention.

FHWA has initiated specific action to improve oversight of structurally deficient bridges, which we commend. These include updating guidance to its engineers and to its bridge program manual, implementing new inventory reports intended to identify problem areas and load-rating data, and promoting greater use of computerized bridge inspection management systems. Yet, more is needed.

As these initiatives advance, it is essential that FHWA, as part of its overall risk management process, ensure that its State division offices are conducting rigorous and thorough assessments of potential risks related to load-rating and posting practices. As high-risk areas are identified, the agency must quickly follow up and ensure that actions to mitigate these risks are taken without delay.

In addition, FHWA needs to reexamine the responsibilities and time constraints of its division office bridge engineers. In many cases, we found that the time that these engineers devote to bridge oversight is limited. For example, an engineer in one large State said that he spends only about 15 percent of his time on bridge inspections. The rest goes to other duties.

Third, FHWA can immediately take action to strengthen the bridge inspection program. The agency needs to be more aggressive as it moves forward. The success of its initiatives rests with its 52 division offices, and FHWA will have to monitor their progress closely. Actions that FHWA can begin to take now include, first, finalize and distribute the revised bridge program manual to division offices as soon as possible, and ensure that bridge engineers make better use of existing Federal and State data during compliance reviews.

Second, identify and target those structurally deficient bridges most in need of recalculation of load ratings and postings using a data-driven, risk-based approach.

Third, ensure that division offices conduct complete, rigorous, thorough assessments of potential risks associated with structurally deficient bridges, and define how they will respond to identify high-priority risks.

Finally, our audit work on these issues will continue in a comprehensive way, focusing first on assessing the corrective actions that FHWA has taken in response to our March 2006 report; second, studying several aspects of Federal funding for bridge repair, including how effectively these funds are being used and what the funds are being used for; and finally, reviewing FHWA's oversight activities for ensuring the safety of National Highway System bridges.

Mr. Chairman, this concludes my statement. I would be happy to respond to your questions.

Mr. OBERSTAR. Thank you very much for your comments, and your complete statement will be included in the record.

Chairman Rosenker.

Mr. ROSENKER. Good afternoon, Chairman Oberstar, Ranking Member Mica and distinguished Members of the Committee. Thank you for allowing me the opportunity to present testimony on behalf of the National Transportation Safety Board.

When transportation tragedies occur, the Safety Board helps restore the public's confidence in our transportation systems by conducting thorough, objective investigations and making safety recommendations so similar tragedies will not happen again.

You will recall a little over a year ago when Congress turned to the Safety Board to investigate the collapse of ceiling panels in the Big Dig tunnel in Boston because of our reputation for thorough, independent accident investigations. What resulted from that investigation radically changed the thinking in the highway construction industry about the long-term structural properties of epoxy in overhead applications. We intend to do that same thing with our investigation of the bridge collapse in Minneapolis; that is, find the cause, propose solutions and help restore public confidence.

Forty years ago, a bridge collapsed in Point Pleasant, West Virginia, killing 46 people. As a direct result of the Board's recommendations, the Federal Highway Administration, along with congressional leadership, established national bridge inspection standards for locating, inspecting, evaluating, and correcting bridge deficiencies.

Since then, the Board has investigated every major bridge collapse in this Nation. In each case, as a result of our recommendations, improvements have been made.

For example, after the 1983 I-95 bridge collapse into the Mianus River in Greenwich, Connecticut, the Federal Highway Administration established a fracture-critical inspection program. After the 1985 Chickasaw Bogue Highway 43 bridge collapse in Mobile, Alabama, the Federal Highway Administration established an underwater bridge inspection program. After the 1987 New York Freeway bridge collapse into the Schoharie River in Amsterdam, New York, the Highway Administration established a scour inspection program.

Now let me turn to the issue at hand, the August 1st collapse of the I-35W bridge in Minneapolis. As you know, the Safety Board

seldom rules out any potential causes of an accident during its initial phases of an investigation until we have had the opportunity to thoroughly investigate all potential causes. Much of the bridge superstructure is still under water, so there is still considerable work remaining for us to determine why it collapsed. That said, let me tell you what we do know and, perhaps more importantly, what we do not know as of today.

First, we know that the bridge was 40 years old and that it was considered structurally deficient because of a relatively low rating of its superstructure. We do not know yet whether the age or the condition of the bridge caused it to collapse.

We know that the deck truss bridge design is now considered obsolete, and newer bridges no longer use this design because of the inherent lack of redundancy in the structure. We do not know yet whether the design of the bridge was a factor in its collapse.

We know that the bridge is composed of steel beams, held together by flat gusset plates and that a failure in one of these plates could have catastrophic consequences. We have not yet recovered all of the gusset plates, but we have observed damage in some of the gusset plate locations that warrants further investigation. We do not know whether these locations represent primary or secondary failure points.

We know that deck bridge resurfacing work was taking place at the time of the accident and that 287 tons of construction materials and equipment were on the span. We are interested in this additional loading, and we are conducting a very detailed, finite element analysis of the structure so as to understand the effect of loading on each component. In addition, we must complete a sequencing study to determine the earliest identifiable fracture area or areas.

Finally, we know that 190 people and 110 vehicles were involved in the collapse; 13 people were killed and 144 persons were injured. More than 50 agencies initially responded to the accident, and the Safety Board would like to express our gratitude to all of the organizations that continue to assist the Board in this investigation, especially the Federal Highway Administration, the Minnesota Department of Transportation, the Minnesota State Patrol, the Minneapolis Police Department, the Hennepin County Sheriff's Department, and also the folks, the good folks, of the United States Navy, whose divers were able to recover the victims that happened as a result of this accident.

Also, if I can leave my script for a moment, I want to thank and congratulate and applaud all of the first responders and civilians who came to help those people. Without their help, more people would have died. More people would have been seriously hurt. So I want to thank them, Mr. Chairman, the good people from Minneapolis and Minnesota who came to help.

Mr. OBERSTAR. If the Chairman would yield, in fact, the House is doing that this afternoon in a resolution sponsored by the gentleman from Minnesota, Mr. Ellison, in whose district the accident occurred. We have a resolution echoing the Chairman's comments.

Mr. ROSENKER. Thank you very much. It is well deserved, Mr. Chairman.

Mr. OBERSTAR. Thank you.

Mr. ROSENKER. The Board is still in the initial phases of its investigation, and as you can see, there is still much work to be done. As new and significant developments occur, we will be sure to keep the Committee and the public informed.

NTSB investigators are still on scene today in Minneapolis, and they are likely to be there until November or however long it takes for the critical bridge components to be recovered.

Thank you for the opportunity to testify today, and I would be delighted to respond to any questions.

Mr. OBERSTAR. Thank you very much for your testimony, Chairman Rosenker, and for the splendid work on site of your investigative team. I had a very informative and in-depth review on my tour of the bridge site as soon as Congress recessed, exactly a week after the bridge collapsed. As always, I am greatly impressed with the quality of NTSB personnel.

Mr. ROSENKER. Thank you, Mr. Chairman.

Mr. OBERSTAR. Mr. Scovel, in your testimony, you say that, while the Federal Highway Administration tracks bridge funding, the agency is unable to track how much money is spent on structurally deficient bridges.

Can they do that? Is it beyond their capacity to do that? Are there problems?

This is money that is going out of the Federal Highway Trust Fund. The FHWA ought to be able to track that money.

Mr. SCOVEL. Mr. Chairman, there are problems with that, as you heard Mr. Capka testify on the previous panel. He mentioned that while the overall Federal funding for structurally deficient bridges is tracked, it cannot be tagged bridge by bridge. That requires a laborious, essentially manual process to match codes against funding streams; and that is very manpower- and time-intensive.

Our staff has run into the same problem in connection with our March 2006 report, and it is one of the areas that we will be exploring going forward in the second phase of our overall audit project that we have promised for the Secretary and for the Congress.

Mr. OBERSTAR. Well, how then do they assign—"they," the States—assign bridges to the national bridge inventory system as structurally deficient or functionally deficient? If they cannot track where the money is going, how can they track which bridge is structurally or functionally deficient?

Mr. SCOVEL. Well, Mr. Chairman, those bridges are identified in the national bridge inventory, but it is FHWA's financial management system that is deficient in its ability readily to identify what funds are going to what bridges. So it is not really the bridge inventory that is posing the problem. It is really FHWA's financial management system.

Mr. OBERSTAR. Twenty years ago in these hearings, we identified that same problem, not I, but my investigative staff did. Witnesses did. Mr. Molinari, who was a Member of the Investigation and Oversight Subcommittee, raised very serious concerns about it at the time. Mr. Clinger did, the ranking Republican on the Subcommittee. We raised those very same issues. Do you mean there has not been any progress since then?

Mr. SCOVEL. It does appear to be a problem, sir, and as I mentioned, we are running into it even as we speak.

The first phase of our audit project will evaluate FHWA's response to our March 2006 report. Phase two, as we promised the Secretary, will explore in detail Federal funding to correct structurally deficient bridges.

Mr. OBERSTAR. Well, in the proposal I have set forth, a key element is to evaluate all of the structurally deficient bridges and to prioritize their condition State by State.

What would you recommend as methodology for the States to achieve that objective? If they cannot track where they are sending the money now, how are we going to be able to do that in the future?

Mr. SCOVEL. Well, as you know, I am not an engineer, and I would have to rely on engineering expertise in order to make some of those decisions that you ask for.

Our findings illustrate the value of a risk-based and data-driven approach, as we customarily find in many areas that we audit throughout the Department of Transportation where oversight is the key. How is progress to be monitored? How is effectiveness to be evaluated? How can lessons learned be shared, in this case, between the States? What works and what does not?

That needs a risk-based and data-driven approach. We would rely on our engineers, I would suspect, to evaluate those and to identify for us those conditions on those bridges that are deemed to be most dangerous. That priority list can then be organized in that fashion.

Mr. OBERSTAR. That is fair, but I would welcome your recommendations after you have had an opportunity to fully evaluate the proposal that I have set forth on how we achieve that vital objective. One of the issues 20 years ago and 20 years before that was the effectiveness of bridge inspections.

Mr. Rosenker, the NTSB has been at the leading edge of this issue. A witness at our hearings in 1987 said, "Eyes are the best inspection tool." Hmm. But we have Eddy-Current technology which is used in aviation inspections, in the inspection of hulls of aircraft, to detect cracks and the propagation of cracks of 25,000ths of an inch to see what is happening with them each time the aircraft comes in for inspection.

The same technology is available for bridge inspection and was referenced 20 years ago. Ultrasound, Eddy-Current, mag particle, and dipenetrant technologies that were available then are still available now. Over-bridge snoopers that look at the underside of something, we simulated way back then. Yet, we find State DOTs with a device dragging a chain over the bridge and listening to it and hearing how that chain sounds on the bridge. Now, engineers assure me that that really works. It sounds a little like snake oil, but you had an opportunity, both of you, to evaluate bridge inspection technologies.

What is missing? What are States doing/not doing? Why does a gusset plate fail? Why is it so hard to do an inspection on steel when the manual on the steel making of the United States Steel Corporation—the making, shaping and treating of steel—cites all of these technologies?

This was 35 years ago. They said, "Here is how you inspect the steel that we produce," and it appears to me that States are not using the available technologies to determine the structural integrity of steel members on a bridge.

Mr. ROSENKER. Sir, you are right. All of what you said is there.

Now, as it relates to the specific investigation of the bridge in Minneapolis, we are going to be looking at all of the procedures. We are going to be looking at the technologies that were used, the processes that, in fact, were used to inspect that bridge. We have already gotten all of the reports that have been made through 2007. We have asked now for the preceding 10 years of reports so that we can understand the kinds of things that were done in the actual inspection process and then, of course, what happened afterwards. What was done to follow up from the deficiencies that had been seen in the years prior?

But all of that is under part of our investigation process right now, Mr. Chairman.

Mr. OBERSTAR. The first element of my bridge proposal is to raise the standards by which we determine the structural integrity or the deficiency of bridges and establish a national uniform standard that all States can use.

Do you think that is a useful advance on bridge safety, Mr. Scovel and Chairman Rosenker?

Mr. SCOVEL. Yes, sir, I would. I would think that would be most useful.

If I can refer back to our March 2006 report—

Mr. OBERSTAR. Yes.

Mr. SCOVEL. —and I do not mean to say that we examined this question in depth, but—we were primarily focused on FHWA's oversight, but in reaching that step, we did examine States' inspections of bridges, and we found at that time, and we concluded, that they were generally accurate, complete and adequate.

That is not to say that there cannot be technological improvements; and I anticipate that when we get to that phase of our audit for the Secretary, it will comprise a comprehensive overview of the entire National Bridge Inspection Program, and we will be examining those points that the Chairman mentioned.

Mr. OBERSTAR. Chairman Rosenker.

Mr. ROSENKER. We, as part of our investigation, will be taking a look at the standards that have been created under the national bridge inspection program. While the Inspector General does his independent investigation, we, too, will be doing a thorough, independent investigation and an assessment of those standards. If we believe that some of those standards are not robust enough, we will be making recommendations.

Mr. OBERSTAR. Thank you very much. I welcome that.

These are non-cost. This is separate from any issue of trust fund or increase in user fee. These are things that we need to do in the short term and for the long term.

Mr. BOOZMAN.

Mr. BOOZMAN. Thank you, Mr. Chairman.

With your permission, I would like to defer my time and go ahead and move down to Mr. Baker.

Mr. OBERSTAR. Mr. Baker.

Mr. BAKER. I thank the gentleman and thank the Chairman for recognition. I really have more of a comment than a question of the current panel unless, of course, they wish to respond in some way.

Mr. Chairman, I certainly understand the timeliness and importance of this hearing and of the extreme nature of the problem in your State that warrants this detailed level of analysis, and I hope we can come to an appropriate resolution. However, with regard to the underlying proposal that I have reviewed and that you have laid out before the Committee, I wish to suggest a modest expansion of the scope of that proposal.

Without regard to the revenue increases that may ultimately be considered, I think it highly appropriate we assess that need, but in my own State's case, we have two unfortunate engineers who, every year, ride every mile of the State highway and conduct a subjective and objective rating system that results in a point-driven rating criteria for all construction projects contemplated that is subsequently reviewed at highway district level public hearings, which means they go around the State, which then leads to the construction of a program to which the legislature may not add projects that have not been subjected to the review process. They may delete a project if for some unknown reason they find it to be unwarranted.

I would suggest that your type of prioritization that you have in mind for bridges be made applicable in a broader capacity to infrastructure generally, but that a significant component of that evaluation be the public safety. If we were to analyze bridges only, you would to a great extent obviate the ability to repair elevated roadways, which in my State are a significant number of miles which would, in essence, have the same structural deficiencies that a bridge would have. I do not know under the Federal definition as to whether an "overpass" and a "bridge" are viewed as strategically the same where you cross a rail with an elevated roadway, but those are concerns.

Beyond that, in Louisiana, as the Chairman well knows, we have a number of roadways subject to significant inundation or tidal surge. We lost the twin spans across Lake Pontchartrain as a result of that very fact. Those factors need to be considered in determining what best serves the public interest, and I would hope, in going forward with the Chairman's insightful proposal, that we may perhaps construct this around best serving the public safety of the motoring public on existing roadways, not just necessarily to go after increased capacity, or to do commercial development type things, but really focus on the significantly underfunded public safety issues that are across the entire transportation network.

Lastly, we have two very high-utilization interstate corridors that intersect, and because of Katrina, we believe there has been an extraordinary influx of high-loaded 18-wheelers which have caused repetitive accidents and loss of life in an unparalleled frequency. Those kinds of safety issues should also be, I think, considered.

And there are remedies. We would simply take those trucks off of that roadway and provide an alternate path if the road were sufficient to withstand the load.

Mr. BAKER. So I am very supportive of the Chairman's direction and want to be helpful and supportive in any way that I can. I come to this with the view that the underlying elements of requiring the States to prioritize is absolutely essential. The disclosure of where those resources are spent certainly need to be made public at the Federal level, for the State to defend or brag as appropriate about the utilization of those resources. I certainly see no objective reason why someone would find that not to be an appropriate step, particularly where we may ask the motoring public to pay more for the service they should be able to clearly see and evaluate as the rate payer as to where their resources are going. So I would hope, Mr. Chairman, as we continue to investigate this matter, that perhaps a slightly broader view of the problem may be incorporated, and we can enthusiastically join together in moving something forward that would have a distinct and measurable impact on public safety generally. I thank the Chairman and yield back my time.

Mr. OBERSTAR. This is why we have hearings, for issues of this kind to surface.

The gentleman referring to the causeway, for example, in the vicinity of HOUMA——

Mr. BAKER. Yes.

Mr. OBERSTAR. —the elevated roadway.

To be more specific, where we have roadways which they cannot be built below sea level and we know that in a landfall of a major storm those roadways are going to be inundated, it may not be financially viable to elevate, but there may be alternative routes provided to get people out. Because what we saw in the contra flow between New Orleans and Baton Rouge, where thousands of people sitting in vehicles running out of gas with nowhere to go and no alternative to get off the interstate, they were literally locked where they were, those are the public safety issues which should be folded into our evaluation. If there is a way to do it, great; if not, we explored it, and we tried, and there is no alternative.

Mr. OBERSTAR. I think there is a compelling case to be made, as the gentleman has outlined. Having driven over those causeways, those elevated structures, I certainly concur. What we learned in the hearings of 20 years ago was that scouring of bridge piers is the single most important threat to bridge integrity; and you have that in spades when you have storm surge, which often is more powerful and more damaging than wind damage of hurricanes.

Mr. BAKER. Thank you, Mr. Chairman.

Mr. OBERSTAR. I certainly concur in that.

Mr. DeFazio.

Mr. DEFAZIO. Just following up on that line of thought, first, Mr. Rosenker, on the daily fatalities which you mentioned in page 1 of your testimony, basically we are looking at 120 people a day dying on our highways. Now in the testimony from the U.S. Chamber of Commerce they would attribute a third of those deaths to poorly maintained roads. I assume—I have to ask them whether they mean functional obsolescence, dangerous or poorly maintained. Do you have any data of that aspect?

Mr. ROSENKER. No, other than a third of them are alcohol related.



Mr. DEFAZIO. Right. You can certainly have a—in this case, we have something unexpected and so dramatic in terms of the bridge and the immediate loss of 13 lives is an extraordinary event that causes us to rethink a lot of what we are doing. But you also look at 120 people a day. For those individuals and their families it is an unexpected event. It does not get the media attention because they were not all in one place at one time and it was not as spectacular.

I guess what I am getting at here is the broader focus that the gentleman at the other end of the aisle raised, Mr. Baker raised, other things that really go to critical safety issues.

It seems to me in the case of bridges functional obsolescence may be leading to loss of life. You do not have merge lanes and things like that on an incremental basis that we have come to accept which we do not need to accept. I'm trying to get at all the under-investment and all the needs, but you do not have any fix on that right now so—

Mr. ROSENKER. Mr. DeFazio there are 7 million accidents that occur a year, 3 million injuries and the 43,000 or so that die every year. We have begun to look at things at the NTSB as preventive measures. Mitigation has been done fairly well; and I must applaud the work of the Congress, NHTSA and the Department of Transportation in mitigating by making better, stronger automobiles, the safety belt use laws that are in our State, both primary and secondary, the air bags in our automobiles and now NHTSA's most recent regulation dealing with rollover electronic stability control and rollover mitigation being a requirement by 2012.

Mr. DEFAZIO. We have been doing substantial progress in the capsules with which we travel, but the lack of investment and what may be causing those accidents to happen where you might be in a safer car today but still there are fatalities, so anything you could provide that would address the idea of how much functional obsolescence contributes to the problem also would be of interest to me as we address—

Mr. ROSENKER. I do not think we have done that type of work. It normally comes from the direct result of an accident.

Mr. DEFAZIO. Maybe it is something we could get from the very State.

Again, in relation to the gentleman from Louisiana, we do not have the hurricane problem, but we have the earthquake problem, which could also, obviously, where a bridge is not earthquake proof can cause—we had the California instance and luckily it was at a time of day when—I mean, a number of people died, but it could have been a lot worse in terms of the collapse of the overpasses.

Again, if we are looking at preventative things, I think that is something else that we need to look at in the bridge program. How many of—in earthquake-prone States, how many of these bridges have been upgraded for that?

Mr. Scovel, the Secretary made a point of talking about how people should not be alarmed at all if bridges are rated as deficient; and I guess I find the gross scale rating not to be tremendously helpful. I understand there is a more detailed way of rating. But when you look at saying, okay, you are going to four and below on a scale of 10 is structurally deficient if it applies to one or more

of three components of the bridge—you've got superstructure, surface, substructure.

Now I can understand why you would be concerned about surface in terms of puddles, travel and accidents and/or long-term problems with the bridge because of infiltration if the deck is bad. But it seems to me in the short term the most critical factor is for structural deficiency. Either go to supporting superstructure or substructure of the bridge, do they not?

Mr. SCOVEL. Again, I am not an engineer. My staff has not had an opportunity to examine that in detail. A layman's opinion would be to agree.

Mr. DEFAZIO. Right. In looking at it I don't quite agree with the Secretary that people should not be concerned to hear that this has been a—because when I read 4, which is the highest of—the best of the structurally deficient, it says advanced section loss, deterioration, spalling or scour. That does not sound good to me. Then we get down to 3, loss of section, deterioration, spalling or scouring, serious effect of the primary structural components. Local failures are possible, fatigue cracking and steel or sheer cracks in concrete may be present.

Again, I think the traveling public should have some concerns, so I hope in reviewing the criteria you dig into, so to speak, these—what things we are rating and which present, like decking, long-term problems that you want to deal with, it is serious, but which present immediate problems of potential failure and have it look toward a different rating scale in the future.

Mr. SCOVEL. We will, sir. That is one of the areas the Secretary has asked us to look into.

Another slant on your question perhaps might be whether the American traveling public has the information it needs to make decisions regarding their travel, particularly over structurally deficient bridges. The term "structurally deficient" raises a red flag in the minds of many laymen. Hearings like this, reports like those prepared by my staff last year, and our upcoming reports, certainly the NTSB's report and investigation into—specifically into the 35W collapse, all of those are important in getting information to the American public. But I would suggest that a key element ought to be greater visibility, transparency, accessibility through FHWA data to the American public.

Mr. DEFAZIO. I think that is an excellent suggestion. In fact, we might post every bridge. The bridge ahead is rated 4 on a scale of 1 to 10, it is structurally deficient, and this is your last opportunity to exit before you reach that bridge. I mean, it is a little bit humorous, but it isn't, really. People do not know. People are driving over a bridge—I mean, on their way home, on their way to a ball game—

Mr. SCOVEL. You are right. What they encounter—if I may—oftentimes they will encounter a load posting, 10 tons, 15 tons; and that does not really register with, I think, the American public that what they are encountering is a structurally deficient bridge that has safety problems.

Mr. DEFAZIO. They think it was built that way, not built actually for 40 tons and we have downgraded it to 10 because it has some real problems.

Mr. SCOVEL. Right.

Mr. DEFAZIO. I think education would both help us as policy-makers in terms of generating public support for the investment we need, but I think it is something consumers deserve. We have—on the Oregon coast now, we have posted all these signs that you are now driving through Tsunami area and expect people to become familiar with what they might do if there was a Tsunami and every motel room has little directions of where to go and how to go and all those things. I am not saying we have to go that far with bridges, but I think we need certainly need a higher level of understanding on the part of the American people, and I applaud you—

Mr. SCOVEL. Agreed.

Mr. DEFAZIO. —for whatever you might be able to do.

One last question if I could, Mr. Chairman. The staff prepared a question where they say there was a study from FHWA in 2001 talking about the visual inspection, and they found in this study only 4 percent of the inspectors could correctly identify fatigue cracks, and many identified non-existent problems. Are you familiar with that study?

Mr. SCOVEL. I am not.

Mr. DEFAZIO. I would urge your folks to be in touch with ours and see if you can find that. Because that goes to the issue raised by the Chairman about these kind of primitive methods that are being used.

Again, in Oregon we do not know until one very alert bridge inspector found a number of stress cracks in our cast-in-place concrete bridges on Interstate 5 that we were experiencing virtual simultaneous failure of a large percentage of the bridges on our system because we used a pre-1960 form of construction. And no one knew that it would lead to these sorts of failures in a relatively short period of time almost simultaneously, but one very alert inspector found that. We want to give people the tools so this does not take one really good inspector to discover it. Obviously, it had been going on elsewhere and on some of these other bridges, but this one guy found it.

Mr. SCOVEL. Right. Our comprehensive review of the bridge inspection program will tackle just that.

Mr. DEFAZIO. Thank you.

Thank you, Mr. Chairman.

Mr. OBERSTAR. As always, the Chairman is on the right track.

Before I recognize Mr. Shuster I just want to make two heart-breaking observations. One, our colleague, Paul Gillmor, was found dead in his apartment this morning. It touches me very much because Paul and I left the Rayburn building at the same time last night. He drove one car length ahead of me.

And Jennifer Dunn, a former Member of this Committee who served on the Ways and Means Committee and retired from Congress, collapsed yesterday.

Mr. Boozman just passed that information to me. We keep them, their families and loved ones in our prayers.

Mr. Shuster.

Mr. SHUSTER. Thank you, Mr. Chairman.

I first want to associate myself with the remarks of Mr. DeFazio on the ratings that we use, especially for the general public. You know, when you say structurally deficient or functionally obsolete, it sounds terrible. And in some cases it is terrible and in some cases it is not quite as bad. So I would encourage us as we move forward to try to figure out a way to give it a pinpoint to be better to rate these bridges so, as Mr. DeFazio said, the traveling public, the public at large knows what the bridge is like and so the political will back in our States is raised to say we need the funding, we need to divert the funding or fix this bridge or replace this bridge. Because, as I said, to me it is confusing and, in some cases, alarming.

The question—and we talked a lot about the bridge inspections, the safety, the Federal, State and local working together. Where is that coordinated and who is charged with the responsibility of coordinating all of that so that we don't miss things, we don't have lapses?

Mr. SCOVEL. That is a Federal Highways Administration responsibility, sir. There are 52 offices, one in each State, the District of Columbia and Puerto Rico. Each of those division offices has an individual designated the bridge engineer. That is his or her title. In larger States, he or she is supported by staff as well.

Our finding—and it is outlined in our statement for the Committee today—however, is that those bridge engineers, to include their staff, are stretched very thin. We were told by one bridge engineer in a large State with a very large number of bridges that he was able to spend only 15 percent of his time on bridge oversight and inspection duties. Given the magnitude of the problem, a reprioritization by FHWA would seem to be in order.

Mr. SHUSTER. Is that something that we can rate States on their safety, that there are enough people in place to spend enough time? Is that something we rate?

Mr. SCOVEL. FHWA does do that as well. My recollection is that generally across the board nationwide FHWA is pleased with the State inspection efforts. In fact, my own engineers when we conducted our March, 2006, study found the same thing. At the State level, inspections were done properly and accurately.

Where we took issue was with FHWA's oversight, what it did with the data that was turned over to it by the States. And we made a number of recommendations to FHWA, and that led to really our overall conclusion that a risk-based, data-driven approach to measure the process would be most beneficial.

Mr. SHUSTER. You feel comfortable and confident with the inspections and the repairs that you've seen going on across the board?

Mr. SCOVEL. At this point. But that will be another item for comprehensive review that we owe the Secretary. We will be completing that sometime next year.

Mr. SHUSTER. What tools or abilities does the FHWA have to encourage States to tackle these deficient bridges?

Mr. SCOVEL. Very few in terms of a carrot or a stick, I guess. There is goodwill, there is jaw boning, there are the personal relationships established State by State through the division bridge engineers and their State counterparts.

FHWA has little control, if any, over where States currently spend their money. As you know, State can flex funds out of bridges and into other programs, sometimes from other programs back into bridges. We would encourage FHWA, if it has serious misgivings about a State approach, to raise it at the Federal level, certainly with you and Congress and the Secretary of Transportation, in order to bring visibility to what may be a serious problem.

Mr. SHUSTER. I see my time is running short.

I have a question for Mr. Rosenker. While you are doing an investigation in Minnesota, what is the typical time frame? I know it depends on the size. When do you expect to have a finding on the Minnesota bridge collapse?

Mr. ROSENKER. That is a question that I get on every single one of my accidents. This is not unique. I wish I could give you a finite time, how long it will take for us to understand what happened, do the full analysis to guarantee that our findings are correct and write that report. I am hoping that we can do this within 12 to 14 months.

Mr. SHUSTER. Thank you very much.

Thank you, Mr. Chairman.

Mr. ROSENKER. With that said, if we find any glaring safety issues, we will make urgent recommendations to the appropriate authorities, whether it be at the Federal or State or local level.

Mr. SHUSTER. If you know there is something that fails and there are a thousand other bridges you will make that recommendation.

Mr. ROSENKER. Immediately, sir.

Mr. SHUSTER. Thank you.

Mr. OBERSTAR. The question and response is appropriate.

The NTSB in its classic performance reveals information as the investigation proceeds and shares that information. But, in this case, there are 740 some bridges built at the same time, under the same structural conditions as the I-35W bridge. Any significant finding is of great national importance because it will apply to the other structurally deficient bridges.

Mr. SHUSTER. A question. Did not the Secretary of Transportation order those 700 so bridges to be immediately inspected?

Mr. OBERSTAR. The Federal Highway Administration was directed to step up its oversight of State review of those bridges.

Mr. SHUSTER. Thank you.

Mr. OBERSTAR. Mr. Altmire.

Mr. ALTMIRE. I thank the Chairman.

We all have stories to tell on these issues with our districts and with our State. We heard from Mr. Baker about Louisiana and certainly the troubles that they have had. The Chairman certainly knows in his own State recently what can happen.

Mr. Shuster and I both know in Pennsylvania we have the highest number of structurally deficient bridges in the entire country. Our own State Department of Transportation classifies 6,000 of our more than 25,000 bridges to be structurally deficient, including 800 that are in need of outright replacement. The average age of these bridges is 50 years old, and in the six counties that I represent in South Western Pennsylvania many are over 100 years old. It is not uncommon.

The number of structurally deficient bridges in the six counties in my district which has over a thousand bridges in the district, we have 29 with sufficiency ratings on a zero to 100 scale that are 10 or below. We have 566 just in my district that are rated at 50 or below.

Insufficiency ratings, as you know, of 50 or below qualify a bridge for Federal funding and require the regular inspections that we are talking about today.

Two of the bridges in my district, the Koppel Bridge and the Rochester Beaver Bridge, are steel truss bridges of similar design to the I-35W span. And in particular the Koppel Bridge, which carries Route 151 over the Beaver River in north Sewickley and Beaver County, was constructed in 1915 and has a current sufficiency rating of 8 out of 100.

So as the State with the most structurally deficient bridges there is no shortage of examples in Pennsylvania or even in my district of bridges that are in dire need of rehabilitation, repair or even replacement. In total, the State estimates it will take \$11 billion required to update the 6,000 plus structurally deficient bridges.

So I just want to say, to start, that certainly Mr. Shuster and I are more than passive observers coming from the State which has the biggest problem of any State in the country.

I would look forward to working with the panel and the Secretary in moving forward and want to be active in resolving these issues, and we do need to find a revenue stream do that. The Chairman has been a leader in that, and I want to offer my assistance in moving forward in that way.

The question that I have on that zero to 100 scale, we talked about bridges in my district that are in the single digits. I know you touched on this briefly earlier. It would seem to me if you are in the single digits on a zero to 100 scale, that is by definition pretty low. So at what point, as Mr. DeFazio talked about, does the driver need to give a second thought when they are crossing these bridges? When you hear that low of a rating, what does that mean when you are at 8 on a scale of 100?

Mr. SCOVEL. If I knew about it and were a driver in your congressional district, I would be very concerned driving over bridges of that low a sufficiency rating.

That said, assuming your State inspection program is adequate and working properly and those bridges have been inspected on the required schedule and load ratings have been properly calculated as required, the decision as to posting has been addressed, if it is not posted, then a driver should be able to assume that the State's load for that highway can be supported through and over that bridge.

Those are a series of assumptions, but based strictly on the fact that there is a low sufficiency rating to begin with, I would be concerned. If I were a taxpayer, I would like to see it addressed.

Mr. ALTMIRE. How confident are you at the U.S. Department of Transportation that the States in general are doing their job on that issue?

Mr. SCOVEL. Based on our review that led to our 2006 report, we are confident. Pennsylvania was not one of the States we examined in detail. Those were Massachusetts, New York and Texas. How-

ever, based on the data that we turned up in those three States—and, again, we were focused primarily on FHWA oversight—it gave us concern, however. So we expanded our survey nationwide, and through statistical sampling we did reach bridges in Pennsylvania as well as every other State and the District of Columbia and Puerto Rico as well. Again, we found throughout that State inspections generally were adequate and accurate.

Mr. ALTMIRE. I thank the panel, and I thank the Chairman. I want to be actively involved in this moving forward, and I look forward to working with you.

Mr. OBERSTAR. Thank the gentleman, and we certainly will engage and enlist his support.

Mrs. CAPITO.

Mrs. CAPITO. Thank you, Mr. Chairman. I want to thank the panel.

I would like to say my colleague from Pennsylvania referenced that everyone has a personal story. Well, that bridge that fell in 1967 was in West Virginia, the Silver Bridge in my district. I was not representing the district then, but I am sure the Chairman was around at that time.

Mr. OBERSTAR. I was on the staff at the time, yes.

Mrs. CAPITO. I thought that was a safe bet.

When the tragedy occurred in August, those folks in West Virginia had a great deal of sympathy and empathy. It is a pain that never really goes away from a small community particularly, as in the case of Point Pleasant.

I am pleased to know that was the precipitating event to then go forward with more detail and more precise ways of inspection and safety.

Quick question to make sure I understand this. When you talk about structurally deficient bridges, does the State set the priority for where those dollars goes or is that done in conjunction with the Federal Highway Administration?

Mr. SCOVEL. Currently, the State accepts those priorities.

Mrs. CAPITO. Let me ask you this. This is kind of—I do not know if this is a “gotcha” question for somebody. When the Federal highway dollars come down through the State and the State is setting the priorities for bridge reconstruction or bridge inspection, is there a competition for dollars in terms of new construction, maintenance dollars and then the bridge dollars?

Mr. SCOVEL. My office has not examined that in detail. It certainly assumed, I think, that new construction is often more attractive for a number of reasons, as opposed to rehabilitation or extensive repair work on existing bridges.

Mrs. CAPITO. You stated earlier you really cannot say with much detail how much of the Federal dollars are being spent on what particular structure for reconstruction or repair.

Mr. SCOVEL. That is true. For structurally deficient bridges in the Federal system, we have not been able readily—as Administrator Capka and I spoke to earlier, we can’t readily track the dollars that may or may not be reaching those bridges without a very laborious process.

Mrs. CAPITO. So I would be safe to assume that the pile of Federal dollars that the State is using for Federal either construction,

rehabilitation or working on bridges is a little fuzzy math sometimes that we are relying on.

Mr. SCOVEL. It can be, yes.

Mrs. CAPITO. Is that part of your report?

Mr. SCOVEL. We will be looking at the Federal funding of bridges, both, as I mentioned, how we are able to track that, if we can, and what recommendations we can make for improvement there. But also the uses to which States put those Federal dollars, how effectively and how efficiently those are made.

Mrs. CAPITO. Two other kind of quick questions.

We have heard a lot about—I think Congressman Baker mentioned that there are two bridge inspectors that go all through Louisiana. Would you think this is something we should look at in terms of legislation, would be providing funding for more inspectors? And I worry, too, also about the level of engineering expertise that bridge inspectors are—I am sure they have continuous study and updating, but is this part of what your study would include?

Mr. SCOVEL. We will. But I'd like to say again that inspections are a State responsibility. Our focus has been on FHWA. Primarily, our concern has been on the bridge engineers for each individual office and the amount of oversight they have been able to bring to the bridge inspection oversight program.

Mrs. CAPITO. My final question. Certainly going forward you mentioned, Mr. Rosenker, that the construction of the Minnesota bridge was of a particular type that might have ongoing questions of 300 some other bridges built of the same construction. In your history of investigating accidents of this kind, what kind of impact has it had on further construction and going forward trying to avoid these circumstances?

Mr. ROSENKER. When we talk about construction issues, a la the Big Dig, we change the thought process as it is related to the epoxy process and utilizing it in overhead panels. Each time we do one of these significant accidents, whether it be at a construction type of a scenario or whether it is a major aircraft disaster or a railroad disaster, what we come up with—because these are unique accidents for the most part, are very unique. But we see some, in many cases, some general information that has not been understood before. And when we learn that, through our investigations, we either put it out in an urgent recommendation or at the end put it out as a full recommendation for regulatory change and operating change and manufacturing change.

In the previous four accidents that I discovered, each one of those represented an improvement to the way that we look at inspections and design, and most of that goes to the Federal Highway Administration. The first one as a result of that catastrophic accident in '67 resulted with the good work of the Congress in creating the National Bridge Inspection Program. I believe the Chairman may have been on staff to help create that good work.

Mrs. CAPITO. I thank you both.

Mr. OBERSTAR. Thank the gentlewoman for her observations.

The hearing I cited was on the 20th anniversary of the Silver Bridge collapse. The hearing held December 1st and 2nd of 1967—1987, it was on the 20th anniversary of '67 of that bridge collapse, and we are reliving some of the issues raised in that hearing that



were not sufficiently addressed. So what we are also reliving is the continuing saga of transfers out of the bridge fund by States to their National Highway System and Surface Transportation Programs.

The States asked for flexibility. We provided flexibility for the States to shift dollars around on those various categories of funding. It is not 60 categories as the Secretary said, which I contested earlier today. It is more like 36 categories of funding. It used to be 60. We whittled those down in ISTEA and TEA-21 to 36 categories of funding and gave States flexibility.

Look what has happened in the last 10 years: \$4,700,000,000 has been shifted by States out of the bridge fund to their NHS and Surface Transportation Programs. In the case of West Virginia, it adds up to \$39 million. In the case of Pennsylvania, the largest amount was \$1,950,000,000 they transferred over that decade, plus 10, 15 years of their bridge money to other needs.

Well, we gave States that flexibility. But then you have a bridge collapse, and it focuses all that attention again. And the issue is not Member High Priority Projects, it is what the States are doing with their money allocated to them under the Highway Trust Fund.

A uniform, consistent approach to inspections, frequency of inspections, shifting from 2 years to 1 year would be of benefit, which I know both of you have cited, which is in my bill. Uniform standards to show the data submitted and included in the national bridge inventory is consistent among States will lead to a data-driven, performance-based program.

Those are the key elements of Title I of the proposition I have set forth.

Thank you very much for your testimony.

Mr. BOOZMAN. Can I just say, first of all, I very much support Mr. Oberstar's effort to provide leadership in this so important area and is doing a tremendous job in that way.

I guess my fear as I was listening to the discussion, many of the Members voiced support for prioritization program, which makes sense. We have a limited amount of resources, and I guess my concern is if we had a prioritization plan in effect I do not know where this bridge would fall. I suspect it would be fairly low or in the middle in the priorities.

The gentleman from Pennsylvania talked about the very low ratings on many bridges, so what I would like to know is, what are you all saying? In a sense, the process has broken down as far as the inspection. In this, we are not talking about a lot of money. It might be the methodology or whatever that we are doing in the sense this bridge, because it failed, should have been at 100 percent but was much lower on the scale.

So you mention putting all the materials on the bridge. I had a friend who reroofed his house, and they stacked all the shingles on one corner of his house, and it caved in that area. Because of that, is that knowledge going out through the system right now that we are not doing that? Do we have that in place? Those are the kinds of things I would like for to you comment on.

Again, the preliminary things that we are saying, I hope that somehow there is—I know that your investigation will go forward,

but I would hope we have some way as these things start to come up that we do not have a bunch of material stacked on a bridge similar to this one.

Mr. ROSENKER. Thank you. As a result of what we learned and what we saw on that bridge, the Secretary of Transportation put out an advisory to be sensitive to the maintenance workers, State inspectors, the State Departments of Transportation. When you are bringing materials on to a bridge, be careful how you distribute the loads.

We do not know yet for a fact that this was the cause, but it is clearly an area that we have a good deal of interest in, along with the design of the bridge. Forty years ago, that bridge was designed. What we're looking at, did the construction adhere to the design? Were the materials specified to the right design capability?

We are looking at calculations that were made when they designed that bridge. We have the original plans. We are checking those calculations to be sure they were done properly to hold loads.

Then, of course, we are looking at the materials themselves. When I say "the material"—the construction material, the actual gusset plates, the actual bars, the actual girders, much of which is still under water and we are trying to recover.

So when we are able to pull all of those materials up and we can do a visual and ultimately a very granular type of examination, we will learn a great deal if it was an issue of aging infrastructure or if it was an issue of something other than aging infrastructure—poor design, load concentration or a combination of factors.

But that is the problem we get when we begin—we try to be as open as we possibly can when we talk about what we have learned, but sometimes it takes us down areas that never pan out and sometimes it does. But what we do not want is to jump to conclusions. The answer that we ultimately will give you will be the right answer. It will be one that has been tested and we can guarantee with a great deal of confidence that is what caused the bridge to fail. Other things then faused the failure as secondary issues, but what was the real cause? We will learn that as we go through this investigation.

Mr. BOOZMAN. Thank you, Mr. Chairman.

Again, what caused it to be number 50 rather than 99 or 100, that is kind of an underlying thing.

Thank you very much for your testimony.

Thank you, Mr. Chairman.

Mr. OBERSTAR. The gentleman's point is well taken. That is why we have crafted this legislation, to raise the standards by which bridges are evaluated on deficiency, structural, functional, and in the case of this legislation structurally deficiency. So there is a national uniform standard State by State. The standards vary, as we said today.

Secondly, to have a priority rating system that will be established to those new, higher standards and have that priority rating system evaluated by the National Academy of Sciences so that we know it is a valid rating system. That is what we will attempt to accomplish.

I thank the panel for their contributions, very grateful for your time before us today. Thank you.

We will proceed to Panel III: the Honorable R.T. Rybak, the Mayor of the City of Minneapolis, and Kathleen Novak, Mayor of the City of Northglenn, Colorado.

I would observe that our Committee colleague, Mr. Walz, is now on the floor managing the bill reported from Committee to honor the first responders; and our entire Minnesota delegation, minus this Member, are on the floor paying their tributes to those who responded with such alacrity and skill.

I might observe the Mayor of Minneapolis, our witness today, had the foresight to engage the city and the Metropolitan Council in a dry run in emergency response to just such a tragedy; and that was the principal reason those first responders were able to do what they did so effectively and so efficiently.

I thank both of you for being here today.

**TESTIMONY OF THE HONORABLE R.T. RYBAK, CITY OF MINNEAPOLIS, MAYOR, MINNEAPOLIS, MINNESOTA; AND THE HONORABLE KATHLEEN NOVAK, CITY OF NORTHGLENN, MAYOR, NORTHGLENN, COLORADO**

Mr. OBERSTAR. Mayor Rybak.

Mr. RYBEK. Thank you very much, Mr. Chair. It is an honor to be here to speak on this topic, and it is an honor in general to be before your Committee. You have done remarkable work.

We especially want to thank the Committee and all the Congress for the swift response we had in addressing the emergency funding that was required in this situation and will obviously need to continue to work with you on that.

I wanted to share with you a few thoughts I had about the situation in Minneapolis and the implications of what this Committee now faces as you move forward. As you do that, I want us to step back from this a moment and stop and think that every day in Minneapolis and certainly in the United States of America there are millions of us who cross paths without really seeing who the other person really is. We may cross on a sidewalk or in a shopping mall and not stop and look someone in the eye. We may be on a busy freeway and not see who is behind the wheel of that other car speeding by. We live in the same places, but rarely do we really stop and think who the other person really is.

And then something happens. There is that moment, that realization when something occurs that you look up from your daily life and recognize we are all really in one place. That, of course, happened tragically in the City of Minneapolis on August 1st at 6:05. At that moment, there were many people moving in different directions.

There was an amateur baseball player, who was heading home to his wife and two young kids.

There was an insurance marketing director, whose husband and two daughters had dinner on the table.

There was an immigrant from Cambodia, a nursing student who was pregnant at the time.

There was another immigrant who was there with her son with Down's Syndrome. They were inseparable, in fact, even in their death.

There was a vegetable salesman from Mexico, whose family is now spread across two different continents.

There was a missionary who worked in the computer field. There was a construction worker who loved ice fishing and peach pie. All of them and six others are gone.

There were many others who injured, some of them very, very seriously.

Thankfully, there were some on that bridge who survived, including a school bus filled with children. All these separate lives lived very separately are now forever tragically woven together.

It is at moments like that that we recognize we really are not all that separate after all, because all of us inhabit common ground. I say that because the notion of common ground should have certain resonance for those of us who are in public service, because we are the providers of that common ground. Roads and bridges are common ground and so are all the other things that we provide service for, here in the Congress and here in the city hall of Minneapolis, roads and bridges, garbage collection, public water, the common ground for the common good. That is what we do for a living.

There are rules as stewards of the common ground. I believe there is a certain message that comes out of the tragedy in Minneapolis, and it is a message that I hope you take closely to you as you go forward in this work. The message is this. When we invest in quality government, we get quality results. When we do not invest, there are consequences.

In Minneapolis, we have invested in public safety and emergency response. Over the past 5 years, we have invested in a strong partnership with the Federal government, more that \$50 million in emergency preparedness. We did, as you referenced earlier, do a mock drill, a 3-day training for disaster in the City of Minneapolis. We trained for that 4 years ago. We learned from that. We purchased equipment on that, we trained for that, and because of that training and because of that investment we provided a quality response. This was a horrendous tragedy, but because we invested wisely we prevented it from being far worse.

When you invest in quality government, you get quality results. When you do not invest, there are consequences.

It is clear in my City of Minneapolis and my State of Minnesota and in the United States of America, we have dramatically underinvested in transportation. We do not fully know why this bridge collapsed, but we do know several things.

We know that the most recent inspection of that bridge in June of 2006 showed some cracking and fatigue problems. The bridge had a sufficiency rating of 50 percent, which was referenced this morning, which is certainly a percentage that should merit great alarm. In December of 2006, the bridge was supposed to have undergone a \$1.5 million steel reinforcement project that was delayed by the Department of Transportation, and they chose instead to move to inspections. Decisions like that are being made in Minnesota and all across this country as Departments of Transportation wrestle with underinvestment in transportation.

When you do not invest in public infrastructure, there are consequences. I say this as a Mayor of a city that is reacting to a dis-

aster that was not an act of God. It was failure of man. For some time, we have known that our rates of investment are falling far, far behind.

I say that also as a representative of the U.S. Conference of Mayors. Because mayors around the country understand this. Mayors from my conference have been before this group during the debate on SAFETEA-LU. At that time, we supported the congressional efforts to increase the Federal gas tax to extend the Federal commitments and to put more money into infrastructure. We mayors were also here last month when this Congress looked at the transportation-related initiative included in the energy legislation, and again we supported the idea of increased investment in the infrastructure.

Now as we start the debate today I would like to draw your attention to some of the local priorities. Mayors across this country know that States, including my own, are underinvesting in transportation with new revenue. I think, as we were just hearing referenced, there has been also great concern that funds for issues like bridges have been diverted to other situations.

When people are struggling for money, they will do desperate things. When you see that happen, mayors around the country recognize that there are investments being postponed. We understand there is no free lunch. Every day we face those challenges in our cities. Look at what happened in Minnesota.

We really need to be honest about what happens when you underinvest in transportation. In Minnesota, people are driving more; and that is putting more pressure on our roads. Today, in Minnesota, we are spending 31 percent less per vehicle on transportation than we did in 1975. As a result, our roads are dramatically more congested than 5 years ago. The average driver in the Minneapolis-St. Paul region spends a full workweek stuck in traffic every single year.

It is not like we do not know how to get out of this. We have a good plan. But the problem is that it has been dramatically underfunded, and we need both capital for that program and also money for maintenance. To give you an idea of the gap, the cost of catching up right now is estimated to be \$19 billion for Minnesota over the next 20 years.

We need to make a dramatic new investment in transportation, and clearly we need to make a dramatic new investment in maintaining our existing infrastructure. We simply cannot choose between the two. This is why I am strongly in support of Congressman Oberstar's proposal to have a Federal gas tax to temporarily address these issues around the country. I am also in support of a gas tax in the State of Minnesota and have looked at the idea of regional sales taxes for pay for transit in the metropolitan area of Minneapolis-St. Paul.

No one wants to sit before Congress or anywhere and advocate more taxes in the State or in my city. Yet it strikes me we pay now or pay later. We can invest now in the transit solutions that we know are going to lessen our dependence on foreign oil or we can watch as gas prices continue to skyrocket further and further ahead as we become more dependent on foreign oil. Pay now or pay

later. We can invest now in maintaining the transportation infrastructure we have or we can pay much more later as the issues grow further and further and become more and more dangerous. As we understand in Minneapolis, paying on the issue of transportation infrastructure can mean much more than dollars alone.

When you invest in quality transportation, you get quality results. Let me give you two quick examples as I come to conclusion here.

In 2004, the Hiawatha Light Rail Line was built in the City of Minneapolis connecting the downtown area with the airport and the Mall of America. Today, over 19,000 people ride that line. We have reduced congestion, we have built 5,400 housing units along that line, and we have seen \$1.5 billion of investment along that line. The only problem is the State's dramatic underfunding of transportation means we will probably only build a line about every 20 years. We are falling dramatically behind.

In contrast, look at Denver. In November, 2006, Denver opened its newest light rail line in the southwest corridor; and their total investment now is \$879 million. That is resulting in a 19-mile line that has generated \$4.25 billion, which is really not a bad rate of return. They are able to do that because Denver, unlike my State, passed a regional sales tax that is putting \$4.7 billion into that program. If you invest in quality transportation, you will get quality results.

I want to finish by telling you a story about my experience yesterday as I went to meet the students of Oxford College as they opened their year. I welcomed them to the campus, and a girl walked up to me afterwards. She introduced me. I met her earlier at the funeral of her mother. Her mother was one of the people who died on that bridge that day. I told her where I was coming today, and I said I will try to do everything I can to convince them that this should never happen again.

But I want us to think about that girl as she starts college. I want you to think about her sister, who knew that before the tragedy her mother was taking down all sorts of information about how to plan the wedding. That girl will graduate from college. That girl will go to the wedding. Their mother will not be there.

It was not an act of God, it was a failure of man, and it was a failure of our ability to invest in basic core infrastructure. I hope we can think about that; and I hope we can think, as members of the generation that we are, the generation that was given an Interstate Highway System, and look at ourselves now as a generation that has left billions of dollars more to be invested and wonder if we can look that girl in the eye and answer the question, whether we can say we have done all that we can.

I say, as a person who represents a city who was gone through a tremendous tragedy where lives have been broken, that we need to step up and take that action. I call on Congress to follow your lead, Congressman Oberstar, to make sure that that girl gets the justice that is deserved to her.

Thank you very much.

Mr. OBERSTAR. Thank you very, very much, Mayor, for that powerful testimony, that compelling image of that young woman who will have to face the future without her mother.

I lost my wife to breast cancer. Our three daughters have had to face that situation. I know how heavy that is, how heavy a burden it is. But when it occurs, a force that could have been controlled, it is all that more painful.

Mr. OBERSTAR. We have 5 minutes remaining on this. Mayor Novak, I will let you begin, but I think we may have to recess before you complete.

Ms. NOVAK. Thank you. I understand.

Good afternoon, Mr. Chairman and Members of the Committee. I am Kathy Novak, Mayor of Northglenn, Colorado; and I am here on behalf of the National League of Cities, the oldest and largest organization representing local elected officials in America's cities and towns.

I appreciate the opportunity to present the views of local elected officials on the state of our Nation's bridges and our transportation infrastructure in general. We appreciate the leadership of this Committee in protecting our Nation's infrastructure, from water resources to bridge, highways and our transit and aviation system. This Committee has demonstrated your commitment to our Nation's economy, environment and quality of life.

As our transportation infrastructure shows its age, local elected officials want to work with you on a new commitment to rebuilding a robust and safe infrastructure that both serves our communities and keeps our economies moving. Under President Eisenhower's leadership, this country created a national transportation system that has become the backbone of our Nation's development from coast to coast and spurred unparalleled economic growth in our cities and towns, where today seven out of every ten residents live in cities in America.

The tragedy in Minneapolis reminds us that investment in our transportation system cannot be assigned for the future. Maintenance and continuous improvements requires a renewed financial commitment at all levels of government and a long-term, comprehensive national plan for the future.

Our transportation system, built to maintain through an innovative Federal, State and local government partnership and the private sector, continues to be and may now more than ever be the key to our Nation's economic growth, business competitiveness, quality of life and national security.

Federal support through the Highway Trust Fund has sustained the governmental partnership, and current levels of Federal spending fall far short of the actual cost of maintaining and improving our Nation's infrastructure. The shortfall is too large for local governments to make up on our own.

Estimates of the cost of maintaining the National Highway System. There is general agreement that the system is deteriorating and needs a significant upgrade that can only be achieved through a new national commitment to maintaining this infrastructure.

The American Society of Civil Engineers gave our Nation's infrastructure an overall grade of a D. Well, as the mother of five children and an instructor at the university, I would not be satisfied with that outcome, nor should we as a Nation be willing to allow the first-class transportation infrastructure we developed to disintegrate and risk harm to all of our citizens.

ASCE's most recent estimates of the total cost needed by all levels of government to update our infrastructure, airports, bridges, roads and transit, brownfields, dams and levees, drinking and wastewater and inland waterways is \$1.6 trillion. In the words of the House Appropriations Committee, it is well documented that our Nation's transportation infrastructure is aging and the investment needs of our Nation's highway and transit systems is significant. Without additional revenues for transportation investment, the Nation will be unable to reduce congestion, maintain aging bridges and highways or expand capacity.

For my own State in Colorado, we confirm what ASCE and the House Appropriations Committee are telling us. Colorado has nearly 17,000 bridges, over 8,000 of which are part of the interstate system. Of those, 580, or 7 percent, are structurally deficient, two of them in my own city which bridge I-25 and really keep us together as a community. If anything happened to those bridges, there would be serious implications for my city.

Ten percent of our bridges are functionally obsolete. As I am sure many of you did when the Minneapolis bridge collapsed, I thought about what the impact would be on my city and my State. Of the nearly 7 percent of the interstate system bridges that are structurally positioned, one is traveled by more than 139,000 motorists each day.

Allowing our bridges to deteriorate further is a national calamity waiting to happen. 3,757 of Colorado's bridges are owned by the State, and more than 4,700 bridges are owned by cities and counties. Of those State-owned spans, 110 are considered in need of replacement and another 375 are in need of rehabilitation.

Ms. NOVAK. We spend in Colorado about \$30 million a year on bridge repair and replacement out of an annual transportation budget of \$1 billion. Locally, Colorado cities and counties commit billions of dollars to roads, bridges and streets. In 2005, local governments—cities and counties alone—spent \$1,281,463,000 on these systems. The Colorado Municipal League and Colorado Counties, Inc. have estimated a total of \$31 billion for improvements, maintenance and preservation needs through the year 2030. With an estimated \$18 billion available, this leaves us a shortfall of only \$12 billion. We estimate \$1.6 billion for bridges alone over this time period. We continue to raise local taxes, find ways to fund transportation, but we cannot do it alone at the local level.

One of the challenges is, as we are updating our local plan and transportation plan priorities from a 2030 plan to a 2035 plan, we need to cut \$800 million out of that worth of projects just due to increased costs.

Mr. OBERSTAR. Madam Mayor, I regret that I have to suspend there. We are down to zero time remaining on the vote on the House floor. We have a series of votes. We will recess for approximately an hour, unfortunately.

[recess.]

Mr. OBERSTAR. The Committee on Transportation and Infrastructure will come to order and resume its sitting.

My apologies to the witnesses and to panel 3 and to subsequent panels. Unfortunately, the votes and the procedure on the floor took longer than anticipated with commemoration of the loss of the



two colleagues that I mentioned in the Committee—Mr. Gillmor, a current Member, and Ms. Dunn, a former Member. Then Mr. DeFazio and I were committed to meeting with the news media, and we did that on our way back, and he is off to another hearing in another Committee, and he will rejoin us later, but I am here, and I thank all of you for being here, and this is a familiar situation over the 33 years I have served in the Congress that, come late afternoon, the place just sort of settles down, and there are only those with endurance who remain.

So, Mayor Novak, that is a very familiar name in my part of the country, Northern Minnesota. Novaks are Slovenes and Croatian. They are also Polish. In fact, the current mayor of Ely in my district is "Novak."

Ms. NOVAK. Well, I married well into the "Novak" name, but I come from a long line of good, old Irish folks, so it does not really fit the name.

Mr. OBERSTAR. Thank you. Under any flag, you are welcome, and I had to suspend while you were mid sentence, so you may continue.

Ms. NOVAK. Well, you have my statement in front of you, so I will just conclude by just reinforcing that, at the local level and representing the National League of Cities, we believe that your proposal to fund a separate bridge program is a step in the right direction toward meeting our infrastructure investment needs and national goals. A more comprehensive approach to infrastructure and bridge repair is critical for the long-term. We look forward to working with you and the Committee to reauthorize Federal surface transportation programs and to reenergize our national vision for a national infrastructure program that keeps our citizens safe, helps move goods quickly and focuses on safety, congestion relief, protecting our air quality, and increasing energy efficiency and conservation and accountability for the billions of dollars spent on transportation programs and improvements throughout our country.

As national and as governmental partners, we need to make the preservation, maintenance and modernization of our transportation system a national priority and a commitment, and I thank you for the opportunity to speak on behalf of America's cities and towns.

Mr. OBERSTAR. Well, thank you very much for a well thought-out statement. It was well presented, earnestly, and was sincerely delivered.

You heard testimony from previous panels—from the Secretary and then from the Inspector General and from the chairman of the NTSB. There was a great deal of discussion about how funds are distributed and how they are allocated.

From the vantage point of a mayor, when you see dollars distributed for transportation—for bridges, for highway projects and for transit—do you feel that your city has a voice, has a say, in the prioritization and in the distribution of those dollars?

Ms. NOVAK. I have to say, from my perspective in the Denver Metro area—and I am a board member for the Denver Regional Council of Governments, which is our MPO—we spend a tremendous amount of time prioritizing every single transportation project in the Denver Metro area.

I think the funds that we get are used well. The difficulty is that there just are not enough of them. For example, I-25 runs through my city. It is the major north-south interstate, and it runs from Canada down to Mexico. It is projected that, due to the growth and to the increase in usage, the capacity needs to be expanded by 200 percent.

Right now, there are no funds available for at least 25 years. An extra 83,000 homes will already be built, will already be impacted on a system that just cannot handle that capacity. The difficulty—you know, I heard some previous testimony in that there are bridge funds and that there are congestion mitigation funds and that there are highway funds, and that there are all of these different funding pots, but when I have a bridge that connects this side of my city with this side of my city over a major interstate, what is the best way to do that?

Well, in order to meet the demands—current demands let alone future demands—that bridge really ought to be expanded. So where does the money come from? Does it come from the bridge fund because it is structurally deficient? Does it come from congestion mitigation? Does it come from capacity? Does it make sense to just build that bridge with bridge funds and ignore the roads on either side which happen to be State highways? Whatever we get, it is never enough.

So, I think, in my experience in the Denver region, we are very good at prioritizing those funds, and we are very good at using the funds. The problem is the funds only get to the first 5 out of a list of 50.

Mr. OBERSTAR. So you have a council of governments that works together, that is involved in the transportation investment plan—

Ms. NOVAK. Yes.

Mr. OBERSTAR. —for the region.

Is that plan then folded by the State into the STIP, the State Transportation Investment Plan?

Ms. NOVAK. Yes, it is.

Mr. OBERSTAR. Who then makes the final decision on priorities? You have done your priorities within the TIP, within the COG, and then that plan is submitted to the State, and the State evaluates all of its needs. Who makes that final decision?

Ms. NOVAK. We worked out a memorandum of understanding with the State. As you have heard, there are donee States and donor recipient States. The Denver Metro area is a donee. We donate funds to the rest of the State, and we have an agreement that a certain amount of those funds will be spent in the Denver Metro area and that we work in connection with our Department of Transportation, who has an advisory seat on our board, to develop that plan. When we get the funds, the funds are spent according to the priorities that we have developed together.

Mr. OBERSTAR. Are you aware that Colorado had the highest percentage increase of funds in SAFETEA-LU of any State in the Nation?

Ms. NOVAK. Yes.

Mr. OBERSTAR. 46.1 percent.

Ms. NOVAK. And we greatly appreciate it. Thank you. We also are—

Mr. OBERSTAR. That's a very nice response. I like that.

Ms. NOVAK. Our local region also, as was mentioned by the previous witness, chose to tax ourselves to the tune of \$4.6 billion to build out a transit system. So we are working—you know, the transit system will be great, but if our roads are falling apart around it, that is not good. We need a comprehensive approach that takes all of these pieces and puts them together and funds them in a way that really makes sense.

Mr. OBERSTAR. The T-Rex project that I have visited on several occasions at one point involved, over one weekend, raising an entire bridge and shoring it up and, in effect, rebuilding it from the base on up and putting it back in place. That was an extraordinary engineering achievement.

Ms. NOVAK. And T-Rex has been a great success in Colorado. As you know, under Tabor, we have some difficulties in bonding, in long-term debt, in raising any kind of taxes without a vote of the people, which is not a bad thing, but as many people say, as wonderful as T-Rex is, it addressed a part of the problem, and there are many that say that we borrowed money from tomorrow to build a transportation system today that was needed 20 years ago. We are that far behind, and even then, with that kind of investment, the need is still tremendous.

Mr. OBERSTAR. You mentioned the bridge in your town—in your city, I should say—of Northglenn.

Ms. NOVAK. Northglenn. Uh-huh.

Mr. OBERSTAR. Where is Northglenn?

Ms. NOVAK. We are a Denver suburb about 10 miles of downtown Denver.

Mr. OBERSTAR. Is it north?

Ms. NOVAK. North, uh-huh, and we straddle I-25.

Mr. OBERSTAR. My youngest daughter moved back to Colorado and her husband and daughter. They are in Fort Collins, but she was a speech pathologist in the Cherry Creek Elementary School system.

Ms. NOVAK. No doubt she went through my city.

Mr. OBERSTAR. Oh, yes. I have been out there many times to visit.

In your setting, what are the stresses on the bridge structure—vehicle miles traveled, weight limits or weight pressures on the bridge? Is it functional concerns?

Ms. NOVAK. Yes.

Mr. OBERSTAR. Is it the freeze-thaw cycle? Is it salting or de-icing?

Ms. NOVAK. Uh-huh.

Mr. OBERSTAR. All of the above?

Ms. NOVAK. All of the above. In addition, we have the occasional semi which rams into the bottom of it, which is not helpful either.

Mr. OBERSTAR. Ah.

Ms. NOVAK. That happened at another bridge where it actually hit the bridge, and that bridge went from like number 300 on the priority list to number 1 and was able to get funded and repaired, but yes, all of those things and capacity. That is, you know, a big

thing as well. You get more people driving. The Denver area is just booming, and we are not keeping up. A pay-as-you-go transportation system, which is what we have traditionally done in Colorado, is not keeping up with the needs and with the investments required.

Mr. OBERSTAR. What is the basis of the funding of Colorado's share of bridge and highway and transit investments?

Ms. NOVAK. I do not know. I do not have that.

Mr. OBERSTAR. Is it from the State general fund?

Ms. NOVAK. Oh, yes, it is.

Mr. OBERSTAR. So you do not have the State equivalent of the Federal Highway Trust Fund?

Ms. NOVAK. I do not believe we do, and out of that general fund, of course, only about 25 percent is really available for annual appropriations outside of the things that the State is committed to, and so those, you know, transportation dollars are competing with health care and higher ed and K through 12 and open space, which is huge in Colorado as well, and it is not glamorous. You know, it is hard to make the case for roads and bridges when it is easier to sell education and wildlife and open space.

Mr. OBERSTAR. Well, that is where the Federal Highway Trust Fund has been so effective and successful. People pay the tax at the pump or the user fee at the pump, and they know it goes into the fund that is reserved only for transportation purposes. Even though, over time, funds have been withheld to build up surpluses in the Highway Trust Fund, they cannot physically be used for anything else. They can just be borrowed against but not physically transferred; whereas, your general revenue dollars are fungible. They can be moved around to other programs.

Now, within the context of the Federal Surface Transportation Program, we give States great flexibility to move dollars around. They can flex up to 50 percent of their bridge allocation to the National Highway System or to the Surface Transportation Program, and they can flex money out of those into bridges, but States have chosen to shift \$4,700,000,000 over the last decade out of the bridge program into other needs, and then we have the Secretary coming to us and saying, well, Congress has not prioritized funds and has not done a good enough job. Well, wait a minute. We gave the States, at their request, authority to shift dollars among categories, and then they wind up with a deficit in their bridge program. It is not our problem. It is theirs.

In the future, maybe we need to be more restrictive about certain programs and how much money can be shifted about.

Ms. NOVAK. You know, I think it is difficult. The flexibility is much appreciated, you know, as I gave the example earlier. If a project is going to cost \$60 million and you do not have enough in this fund, this fund, this fund or this fund or you partition it out, you cannot get the whole project done, so it never gets started. If you do not have full funding, it does not make sense to build the project. I have an example in my city. We have got a road, and we have deferred maintenance because we had other needs. We made other choices. We had other priorities. Now the road is to the point where the only way to fix it is to reconstruct the entire thing. The cost to reconstruct that road is \$10 million. My general fund's an-

nual budget is \$20 million. I have no—there is nowhere to get the money. We cannot raise it. We cannot raise taxes. We cannot borrow. We cannot bond it without going to a vote, and then how do you sell that against, you know, a recreation center or a library? So we can partition it. We will do the design this year. In 5 years, we will do phase 1, and in 10 years, we will do phase 2. Then by the time we get to phase 3, phase 1 needs to be rebuilt again. It is a huge dilemma.

Mr. OBERSTAR. And the cost of the construction dollar continues to erode?

Ms. NOVAK. Correct.

Mr. OBERSTAR. It has eroded 47 percent in the last 15 years, but we cannot build \$1 highways for 43 cents.

Ms. NOVAK. Right.

Mr. OBERSTAR. It just does not make sense.

Ms. NOVAK. As we are updating our transportation plan in the Denver Metro area from the 2030 plan to the 2035 plan, we have to cut out \$800 million in projects just because of the increased cost projections, so those bottom ones—we just keep lopping off the ones at the bottom in order to fund the priorities that are identified at the top.

Mr. OBERSTAR. When a bridge is not available, as you described a moment ago, there are economic consequences, are there not?

Ms. NOVAK. Not only economic, but public safety. I only have two bridges that cross my city. What happens when my police officers are on one side and a citizen needs help on the other? They would have to drive 10 miles out of their way to go up to the next bridge to cross the highway to respond. So it is a public safety matter.

Mr. OBERSTAR. And that is what is happening in Minneapolis where Mayor Rybak—I know he had to catch a flight back to Minneapolis, and the schedules have become more restrictive, unfortunately. I had the same experience in flying back and forth.

But the bridge collapsed, on the one side, on a lock operated by the Corps of Engineers. On the other side is a railroad. The lock moves 2 barges a day of aggregate, sand, gravel and other materials, principally for construction. That means 275 additional trucks on the highway daily because that bridge shut down. On the other side, shutting off the rail, that means another 40 or 50 trucks on the roadway to haul the goods, and the trucking sector is strapped. They do not have enough trucks to haul all of the goods. They do not have enough drivers to move. The railroads do not have enough capacity, and so you shut down the barge line and the rail line at the same time because of a bridge collapse. That does not make economic sense whatsoever.

Mayor, thank you very, very much for your patience and for being with us today and for your contribution to our hearing. We are very grateful to you.

Ms. NOVAK. Well, thank you for the time and for the opportunity.

Mr. OBERSTAR. Thank you.

Now, I am happy to welcome to the Committee my colleague, a new Member of Congress from the State of Minnesota, Mr. Keith Ellison, representing the city of Minneapolis, in whose district this bridge collapsed and who responded instantly that day. I remember when that story came out, and the gentleman met me on the House

floor and said, "I am heading back tonight." He had his bag packed, and he was on his way.

So thank you for being here for the resolution that was offered on the House floor today and that Mr. Walz managed on behalf of the Committee, and thank you for your splendid response to all of the needs of the citizens. I have heard many comments about your care, of your concern, of your personal intervention.

**STATEMENT OF THE HON. KEITH ELLISON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MINNESOTA**

Mr. ELLISON. Thank you very much, Mr. Chair. It is, indeed, an honor to be before the Transportation and Infrastructure Committee.

I would like to start by thanking you, Mr. Chair, for holding this Committee hearing, and also Ranking Member Mica, and this is a very important and timely hearing on structurally deficient bridges. I would like to recognize Mayor R.T. Rybak for his tremendous leadership during the bridge collapse crisis. Mayor Rybak and his fellow elected county and State officials made Minnesota and our Nation proud with their strong and steady leadership during this calamity. I also want to thank Governor Pawlenty, Transportation Secretary Peters, and the NTSB for all of their work.

Lastly, let me also thank the heroic efforts by first responders—firefighters, police officers, emergency medical personnel—whose heroism in the first minutes and hours after the bridge collapsed saved many lives, many lives, and saved many other people from more severe injuries that they would have suffered.

Mr. Chair, I did take a moment to visit several hospitals in the Twin Cities area and the people who were in the bridge collapse, and many people had serious back injuries and others, and I am glad that that quick action by our first responders was able to minimize their injuries in many cases.

As you may know, the tragic collapse of interstate 35W occurred within the 5th Congressional District, which is my district. It has been widely reported that the interstate 35 bridge was "structurally deficient." In fact, according to the U.S. Department of Transportation, one out of every eight bridges across the Nation is in that same category of "structurally deficient." In my home State of Minnesota, about 10 percent of the 13,000 bridges in the State were recently rated as "deficient." So the problem of structurally deficient bridges is not a theoretical one for any of us in America. It is a very real issue that demands our attention today so that other communities across the Nation can be spared the grief that my district and State had to bear on August 1st when the Interstate 35 bridge collapsed.

I also want to thank again, Mr. Chair, you and all the Members of Congress who responded in a unanimous way to authorize the money for the reconstruction of the bridge. Of course, we have a little more work to do with the actual appropriation, but I am confident we will take care of that.

As you know, Mr. Chair, we lost 13 Minnesotans. These were good people, one and all. The individuals were mothers, fathers, children, workers, good people, one child yet unborn, still growing in its mother's womb.

Let me conclude, Mr. Chair, by respectfully asking this Congress to regard this tragedy as a national call to action to refocus on our domestic infrastructure. I want to join you in your call for that same thing, Mr. Chair, and I want to congratulate you on your bold efforts recently, but also on your prophetic efforts over the last number of years, I believe, even decades, when you, in a very prescient way, knew that we were heading down the wrong path with respect to investment in our basic infrastructure.

Quite frankly, Mr. Chair, I would have far preferred that your good advice would have been fully embraced so that we would not be in this situation, but your words were prophetic when they were made many years ago, and I want to join with you in your call to action for our Nation.

On August 1st, we, as a Nation, were united in grief, Mr. Chair, for the victims, and later, were united in the recovery and healing efforts. I, myself, went to several funerals. Now let us be united in rebuilding our Nation's ailing public infrastructure. For, if the Nation is a body, our infrastructure is the skeleton that holds it up.

I will look forward to working with this Committee and with other Members of Congress in making a new national commitment to public infrastructure in America.

Thank you, Mr. Chair.

Mr. OBERSTAR. Thank you very much for your kind words but, more importantly, for your public service and for how you conducted yourself in those tragic days after the collapse of the bridge. You showed yourself to be a person of not only compassion, but of action.

Mr. ELLISON. Thank you, sir.

Mr. OBERSTAR. I said in the aftermath of the bridge, after we had passed the emergency relief bill and began drafting the proposal, that we have to act so that those who died will not have lost their lives in vain, that Minnesota and the Nation will have learned the lesson and will have acted on that lesson.

In light of what I initiated 20 years ago on hearings of bridge safety out of which we simply got a national bridge status inventory, that is all it is, it would be immoral if I did not act further. I was Chairman of the Subcommittee then, of the investigative Subcommittee. We did not have legislative authority, but we signaled the problem. We made recommendations. We urged the Congress and the then Reagan administration to take action 20 years after the Silver Bridge collapsed, and we heard Ms. Capito talk about the effect in her district. Well, now we have had another one, and by damn it, it is not going to happen again if I have anything to say about it, and I thank the gentleman for his contribution.

Mr. ELLISON. Thank you, sir.

Mr. OBERSTAR. When we draft the bill, I will invite the gentleman to be an initial cosponsor.

Mr. ELLISON. Let me embrace that on the record.

Mr. OBERSTAR. Thank you.

Our next panel includes Mr. Bob McFarlin of the Minnesota Department of Transportation. He is the Assistant to the Commissioner for Policy and Public Affairs; Dan Dorgan, who is the Director of the Office of Bridges for the Minnesota Department of Transportation; Kirk Steudle of the Michigan Department of Transpor-

tation. He is the Director of the Michigan DOT; the Chief Engineer for Virginia's Department of Transportation, Malcolm Kerley; the County Engineer of Palm Beach County, Florida, George Webb; and Susan Miller, the County Engineer for Freeborn County, Minnesota.

**TESTIMONIES OF BOB MCFARLIN, ASSISTANT TO THE COMMISSIONER FOR POLICY AND PUBLIC AFFAIRS, MINNESOTA DEPARTMENT OF TRANSPORTATION, ACCOMPANIED BY DAN DORGAN, BRIDGE OFFICE DIRECTOR, MINNESOTA DEPARTMENT OF TRANSPORTATION; KIRK STEUDLE DIRECTOR, MICHIGAN DEPARTMENT OF TRANSPORTATION; MALCOLM KERLEY, CHIEF ENGINEER, VIRGINIA DEPARTMENT OF TRANSPORTATION; GEORGE WEBB, COUNTY ENGINEER, PALM BEACH COUNTY, FLORIDA; AND SUSAN MILLER, COUNTY ENGINEER, FREEBORN COUNTY, MINNESOTA**

Mr. OBERSTAR. We are very grateful to have you participating with us today. Thank you for being with us, for your patience, and we will just start from left to right.

Mr. McFarlin, I regret that the Governor was not able to participate or the Lieutenant Governor, but we have two people of signal competence who represent the State of Minnesota.

Mr. MCFARLIN. Thank you, Mr. Chairman.

Chairman Oberstar and Members of the Committee, thank you for this opportunity.

August 1st was a tragic day for Minnesota and for the Nation. Thirteen people died in the collapse of the I-35W bridge, and many more were injured. We continue to mourn those who died; we comfort their families, and we are tending to the injured. We will not forget them nor this tragedy.

Our thanks go to you, Mr. Chairman, and to Members of the Minnesota Congressional Delegation and to the entire Congress for quickly authorizing \$250 million in emergency relief funds. The Congress' overwhelming bipartisan support has been gratifying to Minnesotans. We also thank the Bush administration and the Federal agencies for the outstanding cooperation in helping Minnesota deal with this tragedy. Our appreciation also goes to the National Transportation Safety Board for its thorough approach in investigating the cause of the collapse.

Today, there is one thing we know for certain. We do not know what caused the bridge to collapse. Minnesota is confident that the NTSB has the expertise to identify the cause, and we have pledged our cooperation in every way possible.

Immediately following the collapse, Governor Pawlenty ordered MNDOT to begin an accelerated program to inspect all 3,800 bridges on the State highway system by the end of the year. 1,650 have been inspected as of August 31st, and the rest will be completed by December 1st. The inspection program is prioritizing bridges classified as "structurally deficient." Current data shows 127 structurally deficient bridges on Minnesota's State highway system. To date, 102 have been inspected. Minnesota also has 230 fracture critical bridges on State and local systems. MNDOT will inspect all fracture critical bridges, and to date, 81 inspections have been completed.



When the final victim was recovered on August 19th, MNDOT began the debris removal process in earnest. Bridge debris is being removed methodically under the direction of the NTSB. MNDOT anticipates completing debris removal and site cleanup in mid-October. Minnesota has also begun the process of rebuilding this important regional connection. The I-35W bridge carried 141,000 vehicles per day, including 5,700 commercial vehicles. The loss of this vital link is costing road users and the regional economy in excess of \$500,000 per day.

It is in the public interest to reconstruct this interstate without delay. The new bridge, which will be built as a design-build project, has a target completion date of late 2008. Safety will not be sacrificed for schedule, and quality will not be compromised in either design or construction. MNDOT's preliminary design calls for ten lanes of traffic, two lanes wider than the former bridge. This additional capacity will be dedicated to future transit service, including managed lanes and bus rapid transit. The bridge will also be built structurally capable of carrying light rail transit in the future. Principal funding for the rebuilding project will come from the U.S. DOT's Emergency Relief Program. The current cost estimate for the new bridge is \$200 million to \$250 million. The project's RFP has been advertised, and MNDOT expects to award the contract by the end of September with construction beginning as soon as mid-October.

Mr. Chairman, this tragedy was especially shocking because Minnesota has one of the strongest bridge programs in the Nation. Minnesota currently ranks the sixth best in the Nation in terms of the fewest number of deficient bridges. In recent years, Minnesota's spending on bridges has consistently exceeded targeted Federal bridge funding. Minnesota's total Federal apportionments under the Federal-Aid Bridge Program under the last 5 years have been \$185 million for State, county and local bridges. Our obligation limit under SAFETEA-LU has been 85 to 90 percent, effectively reducing the spending authority for this program to, roughly, \$160 million.

Since 2003, MNDOT has invested \$390 million in the replacement or repair of State bridges alone, more than twice the amount available from Federal bridge funds for all jurisdictions. Minnesota routinely uses flexible funds from other Federal funding categories—the NHS, Interstate Maintenance and the Surface Transportation Program to pay for bridge repair and replacement projects.

The NTSB investigation into the cause of the collapse may take up to 14 months, as Chairman Rosenker mentioned. Until the cause is determined, it is difficult to make specific recommendations on changes to bridge design, construction, inspection, and maintenance practices. Such changes, when they occur, should reflect NTSB findings and also be based on recommendations from organizations such as the Federal Highway Administration and the American Association of State Highway and Transportation Officials.

Again, Mr. Chairman, I want to thank you and this Committee, the Minnesota Congressional Delegation and the entire Congress for so quickly coming to Minnesota's aid in this tragedy. We are

also grateful for the response and continuing support of the administration and Federal agencies. It is imperative that we continue to work together to maintain the public's faith in the Nation's highways and bridges.

Thank you, Mr. Chairman.

Mr. OBERSTAR. Thank you for your testimony.

I was on the House floor, managing the conference report on the Water Resources Development Act, which was the culmination of 7 years of work. It had not moved through three previous Congresses. We moved it through this Committee in 6 weeks. We moved it to the House floor in the 7th week, and then it took all the rest of the time to get it through conference with the Senate. Just as we were concluding action around just a little after 7:00 o'clock here, I got notice on my BlackBerry that the bridge had collapsed in Minnesota. I could not believe it. In a third world country but not in Minnesota.

So I sat that evening with Committee staff and drafted the necessary language to remove the cap of the \$100 million annual limitation on emergency relief, a \$100 million cap per State, plus other provisions and the funding for alternative transportation under the transit program of \$5 million. We introduced the bill that night. We had a markup scheduled in this Committee the next meeting, the regularly scheduled markup. So I am the Chairman. I can call it up. We moved it through Committee, and then we had to get a special rule to bring the bill to the House floor, and in 48 hours, we had that passed. I have not seen anything pass that fast in this Congress or in any Congress in a long time.

Mr. Steudle.

Mr. Dorgan, do you have separate testimony?

Mr. DORGAN. No. Mr. Chairman, no. I am just here to help Mr. McFarlin answer questions.

Mr. OBERSTAR. I greatly appreciate the opportunity to visit with you and with other members of the engineering staff of the MNDOT.

Please proceed.

Mr. STEUDLE. Mr. Chairman, representatives, thank you for allowing me the opportunity to testify today regarding the state of our bridges and Chairman Oberstar's National Highway System Bridge Reconstruction Initiative.

My name is Kirk Steudle. I am the Director and the Chief Executive Officer of the Michigan Department of Transportation.

First of all, I would like to express my sympathy to the families who have suffered because of this tragic collapse of the I-35W bridge in Minneapolis. When a tragedy like this occurs, it ripples across the transportation industry. It might be a big country, but we are also a small community of transportation professionals. Believe it when I say that we transportation professionals take that very much to heart.

Now, more funding for bridges is clearly needed, and I strongly urge you not to stop there. Additional funding should be combined with sound, long-term, data-driven, asset management practices. I emphasize that because Federal road and bridge funding programs have not kept pace with the state of the practice of asset management, and the rules that govern the use of those funds are not al-

ways compatible with good asset management practices and principles.

For example, in the past 2 years, MNDOT has spent less than 90 percent of our Federal bridge funds, not because we were not investing in bridges, but because the rules for those funds were too restrictive, and they were not compatible with MNDOT's asset management approach.

As part of that approach, we inspect bridges more thoroughly and more often than required by Federal law. We set strategic goals for road and bridge preservation. We manage our network of bridges, slowing the deterioration with capital preventative maintenance. In order to achieve our bridge goals, we had to look outside the Federal Highway Bridge Program. We made a choice to dedicate an additional \$75 million annually in State funds just for bridge preservation. Now, to put that in context, our entire bridge program for the next 5 years averages \$190 million. \$100 million of that is Federal funds. \$90 million of that is State funds, State funds that are generated by gas tax revenues at the State level and registration fees.

An asset management approach keeps bridges from deteriorating and systematically upgrades those in poor condition. In 1998, Michigan improved just over 100 structurally deficient bridges each year and added about 162 other bridges a year to that list. Fixing the worst first was a losing proposition because, as we focused all of our attention on the worst bridges, other bridges were still deteriorating. We were in a hole that we could not easily get out of, but today, as a result of our data-driven asset management choices, we are making progress. We have completely reversed those numbers, improving about 145 bridges a year off of the structurally deficient list while only adding 86 onto the list.

If you put them in percentages, in 1998, we had 21 percent poor bridges. Today, that number is down to 14 percent, all in a time frame of when we had a significant amount of interstate bridges that were built in the 1950s and 1960s that were coming into that population and needing significant work. With MNDOT's experience in mind, I would like to recommend that you revise the Federal Highway Bridge Program to allow the full expenditure of bridge funds under an asset management approach. To do this will require some very specific changes.

First, eliminate the 10-year rule that prevents DOTs from using Federal bridge funds on a bridge more than once in 10 years so that you can pursue less expansive and less expensive preventative maintenance and bridge repairs so that you can preserve the bridge before it deteriorates.

Second, eliminate the 100-point sufficiency rating system and the arbitrary cutoff points for bridge funding eligibility. If the State has an asset management program in place, it should be able to use the Federal funds for the slate of bridge projects to manage the whole bridge network, all of them together, effectively preserving the bridge network. If you do need to keep the sufficiency rating, at least give us more flexibility.

For example, today, States are not allowed to use Federal bridge funds to improve a structurally deficient bridge deck if other ele-

ments, such as the superstructure or the substructure, are still in good condition.

Let me give you a specific example. In Michigan, we have 608 structurally deficient bridges. 223 of those bridges are because the bridge decks are poor. The superstructure and substructure are rated in fair or good condition. Those 223 bridges are not eligible for the Highway Bridge Program funding right now. 43 of those are serious. They are rated at a 3 going back to that rating scale. So we are using the State funds to replace those bridge decks. From an asset management standpoint, this simply does not make sense because the structurally deficient bridge deck actually accelerates the deterioration of other bridge elements. It is like saying you will not replace the shingles on your leaky roof until the moisture has destroyed the drywall or cracked the foundation.

In conclusion, let me say that a short-term bridge program is a good start, but I strongly encourage you to remember that the same challenge exists for the entire transportation system. They just have not been visibly and tragically demonstrated as they were recently with bridges. Bridges are tied to the roads that they connect. Many of Michigan's structurally deficient bridges are on major freeways that are also in need of repair. In many cases, we just cannot fix the bridges without doing all of the major roadwork at the same time.

As you heard from the Mayor from Colorado, many of those are massive, very expensive projects that, even at a State level, we would have trouble pulling those amount of resources together to pay for them.

So thank you, Chairman Oberstar, for bringing this important and necessary debate on bridge funding and the programmatic reforms to the forefront.

Mr. OBERSTAR. Thank you very much for that very enlightening testimony, which I will return as we get into the questions.

Mr. Kerley.

Mr. KERLEY. Good afternoon.

Mr. Chairman, my name is Malcolm Kerley. I am the Chief Engineer for the Virginia Department of Transportation. I chair the Highway Subcommittee on Bridges and Structures of the American Association of State Highway and Transportation Officials, AASHTO.

On behalf of AASHTO, I want to thank you for holding this hearing and want to express our support for your proposed National Highway System Bridge Reconstruction Initiative. I am here to provide you and the public with the answers to some critical questions that have arisen since the tragic collapse of the interstate 35 West bridge.

What have the States done since the accident to make doubly sure that the Nation's bridges are safe? How are States investing their money? Are the current funding levels adequate for the job at hand?

The State Departments of Transportation consider bridge safety and preservation to be one of our highest priorities and a responsibility we take very seriously. Every State conducts a thorough and continuing bridge inspection and rehabilitation program. America's bridges are inspected at least every 2 years by trained and certified

bridge inspectors. Conditions are carefully monitored, and where deterioration is observed, corrective actions are planned and taken. While we know all States comply with the Federal bridge inspection standards, each State has a responsibility to ensure that it develops a more detailed program appropriate to its unique circumstances. Since August 1, in compliance with the Federal request, every State has reviewed, inspected or is in the process of inspecting its steel deck truss bridges.

Based on reports from this review, it appears that all of these bridges are safe. Nonetheless, of the almost 600,000 bridges across the country, roughly 74,000, or 12.4 percent, are classified as "structurally deficient." This means that one or more structural condition requires attention. This may include anything from the simple deck repairs to the reinforcement of support structures. Classifying a bridge as "structurally deficient" does not mean that it is unsafe, but it does mean that work needs to be done.

How are States spending their bridge funding? As age and traffic take a toll on bridge conditions, States wage a daily campaign to preserve them in good condition. The good news is that, since 1990, States have reduced, by almost half, the number of structurally deficient bridges on our Nation's highways. Reports alleging a diversion of Federal bridge funds are misleading because they focus only on the Federal bridge program data and fail to look at the total picture of all resources States commit to bridge improvements. The fact is that States are spending dramatically more money on bridges than is provided under the Highway Bridge Program.

In 2004, the Federal Highway Bridge Program provided \$5.1 billion to the States. States actually spent \$6.6 billion in Federal aid for bridge rehabilitation. State and local funding added another \$3.5 billion for bridge repairs. As the FHWA reports, in 2004, a total of \$10.5 billion was invested in rehabilitation by all levels of government. Transfers from Federal programs are simply a project management tool used by States and do not reflect actual levels of State bridge spending. Once again, in 2004, \$10.5 billion was invested by all levels of government, and \$5.1 billion was given to the States through the Federal Highway Bridge Program.

Are the current levels adequate for the job at hand? Clearly, the answer is no. A huge backlog of bridge needs still remains. According to the U.S. DOT 2006 Conditions and Performance Report, needed repairs on the National Highway System bridges alone totaled over \$32 billion, which includes over \$19 billion needed on the interstate highway system. SAFETEA-LU increased guaranteed spending levels for highway and transit by 38 percent over the previous bill, but for the bridge program, SAFETEA-LU increased annual funding levels by only 6 percent. That funding has been eroded by dramatic increases in material costs—steel, concrete, fuel, asphalt—which have increased an average of 46 percent from 2003 to 2006. Thus, we are left with a program that does not have enough funding to overcome the system backlog.

AASHTO commends you, Mr. Chairman, and your efforts to improve the national transportation infrastructure. This bridge rehabilitation proposal is a good first step. We also recommend streamlining processes that delay needed repairs on our Nation's highway

system and allowing the use of proprietary, engineering-related projects that could spur innovation and long-term solutions.

The tragic Minneapolis bridge collapse has rightly focused us to examine our bridge programs nationally. AASHTO and the State DOTs stand ready to act upon any recommendation of the National Transportation Safety Board and to work with the Congress to address the Nation's transportation investment needs.

I appreciate the opportunity to be here, sir.

Mr. OBERSTAR. Thank you very much, Mr. Kerley. Please give my greetings to your commissioner—

Mr. KERLEY. Yes, sir.

Mr. OBERSTAR. —Mr. Ekern, who served in Minnesota and in my district, with great distinction.

Mr. KERLEY. Yes, sir. I sure will.

Mr. OBERSTAR. Thank you.

Mr. Webb.

Mr. WEBB. Good afternoon, Mr. Chairman and Members of the Committee. My name is George Webb, and I am the County Engineer in Palm Beach County, Florida.

Today, I am representing the National Association of Counties and the National Association of County Engineers where, this year, I serve as its President. County engineers and elected county officials consider bridge safety to be one of our top priorities and take this responsibility very seriously.

First, I want to thank the Chairman and the Committee for the opportunity to present a local government perspective on the status and condition of bridges. In my county, an urban county with a population of over 1 million, my highway and bridge budget is about \$140 million annually. We have 230 county bridges identified in the National Bridge Inventory System, and we are very fortunate that only one is considered structurally deficient, but we have 49 that are functionally obsolete. This is due to the fact that, because of our financial emphasis on system preservation and growth-related investments, the majority of the bridges in my county were built or rebuilt in the last 30 years. Statewide in Florida, there are 260 structurally deficient bridges with 204 owned by local governments and 56 by the State.

However, over the next decade or so, Palm Beach County's bridges will be wearing out, in part because of the high traffic volumes. Some of our bridges carry over 50,000 vehicles per day, which is more traffic than many rural interstates. Palm Beach County already knows that we face having to replace three drawbridges in the next 10 to 15 at a cost of \$50 million each.

We simply do not have the funds for this. In contrast, the State of Florida also needs to replace another three to five drawbridges on the State system in my county, and they have access to both State gas tax revenue and the Federal bridge program to pay for these projects.

As regards to bridge inspection, I have three staff that are certified to inspect bridges. More of my staff need to be trained, but we find that the National Highway Institute training programs, at least in Florida, have very limited slots for local governments. Let me add that, nationally, the bridge situation is more critical for local governments. Of the almost 600,000 bridges in the United

States, about 50 percent are owned by local governments. Of the 73,784 bridges rated structurally deficient, about 70 percent, or 52,000, are owned and maintained by local governments, mainly counties. 6,175 bridges on the National Highway System are almost all State-owned. However, in 38 of the 50 States, a higher percentage of local government bridges are deficient than State bridges, and in 31 States, the total number of local deficient bridges is higher than all State-owned bridges.

The National Highway System Bridge Reconstruction Initiative proposes a trust fund approach modeled after the Highway Trust Fund and financed through a dedicated source of revenue. We generally support this concept for funding the new bridge program. That being said, we do feel the reach of the proposed legislation is somewhat limited and should be more inclusive and expanded to include all structurally deficient bridges, not just those on the National Highway System.

Non National Highway System bridges that are structurally deficient do pose a threat to public safety and are often very important to a regional economy. In addition, we would recommend no requirement for a State or local match, which will get the new funds out to projects much more quickly and will not compete with other infrastructure needs by taking away State and local matching funds that have already been committed to other needed projects.

Finally, we are concerned as to what would happen with the existing Federal Highway Bridge Replacement and Rehabilitation Program in the next highway reauthorization if this new bridge program becomes law. We wonder if this could lead to local bridges' no longer being eligible for Federal bridge funds. Finally, all levels of government need to continue to strive to accomplish system preservation on our deficient bridges. System preservation is not the replacement project of the major rehabilitation, which seems to grab the headlines, but instead, it is a containment program of inspection, maintenance and minor repairs needed to both maintain and to extend the life of the structure. We in local government have emphasized and have remained committed to system preservation, but we need your help in getting to a point where system preservation could more effectively be accomplished. Therefore, we strongly urge Congress to proceed on this new and, hopefully, expanded initiative to restore our bridge infrastructure nationwide.

This completes my testimony, and I will be happy to respond to any questions.

Mr. OBERSTAR. Thank you very much for your comments. Again, they were very thoughtfully delivered and carefully prepared.

Ms. Miller, welcome from Southern Minnesota.

Ms. MILLER. Good afternoon, Chairman Oberstar and Members of the Committee. It is an honor for me to be here today.

My name is Susan Miller. I am the Freeborn County engineer in Southern Minnesota. Today, I am here representing the National Association of Counties and the National Association of County Engineers where, this year, I serve as its president-elect.

Freeborn County is a small, rural county in the south central portion of Minnesota, bordering Iowa, with a population of about 32,000 people. We have 176 bridges, identified in the National Bridge Inventory System, of which only 13 are considered

"structurally deficient," and we have none that are classified as "functionally obsolete." We have submitted that it will take about \$3.5 million for us to replace those 13 structures. By comparison, my neighbor in the county of Fillmore, with a population of about 22,000, has 165 structurally deficient bridges out of their total of 465 structures. Their county engineer estimates that that is nearly \$50 million of transportation investment needed to replace those structures.

Freeborn County does not receive Federal bridge funds but applies for bridge money from the State of Minnesota's local bridge fund. Not all States provide an opportunity for funding local bridges that way. NACO and NACE would like to determine how much of the Federal bridge program funds get spent on bridges that are owned by local governments. There has been a lot of discussion here today about what money is being spent where and on what systems, and NACE and NACO would like to encourage the Committee to pursue that initiative with the Federal Highway Administration tied on it by how much money is being spent on which bridges, whether they are locally owned, NHS bridges in a structurally deficient system.

Let me indicate how important Federal bridge funds are to many local governments, though. Unlike Federal and State governments that rely on user fees for highway funding, local governments rely primarily on our own source revenue, or local property taxes. Raising property taxes is often unpopular politically, as you all know, and from the perspective of many local citizens, the disconnect is there between raising property taxes and improving bridges. They do not see a direct connection. It is not a user fee-based system. While we understand the National Highway System is the backbone of our transportation network, I ask your consideration to not leave rural local government out of increased Federal funding for bridges. We just will not be able to raise property taxes enough to meet all of the needs of our users.

I want to stress that, every day, even in our Nation's rural areas, we face situations which could result in catastrophic collapses of one of our bridges. Perhaps the most amazing image captured after the I-35 tragedy was that of the dangling school bus where, thankfully, all were safe. As a mother of four wonderful kids, no picture haunted me more than that image of that school bus on that bridge, especially with yesterday being the first day of school and putting my kids on a bus and knowing that that bus goes across bridges that I am responsible for.

I also think about the economic importance of bridges in rural areas. In my county, for example, renewable fuel production has emphasized how vital our transportation system is. We support one of the country's leading bio diesel producers with an annual output 30 million gallons per year and, additionally, two ethanol plants with an output of nearly 105 million gallons per year. A collapsed, closed or weight-posted bridge can have a tremendous negative economic impact to agriculture, mining or logging industries in our rural communities.

We also have some observations on the bridge inspection program and the adequacy of training for local bridge inspectors. The current regulations note that State DOTs are the responsible party



for inspections of all non-Federal bridges regardless of ownership. However, it should be noted that some States delegate this authority to counties. The opportunity, availability and affordability of training are concerns to local agencies throughout the country. In some States, no Federal funds are made available to local governments for these inspections. The qualifications for personnel implementing the inspection program require that the State or a delegated agency must be accomplished by a licensed Professional Engineer and have completed the Federal Highway Comprehensive Bridge Inspection training programs. Many counties in some States do not even have licensed county engineers or licensed professional engineers and have very limited staff. I believe the education and training package may be appropriate, but it is very costly to local government agencies, especially small ones.

The consideration of a tiered approach should be explored based on the types of bridge structures inspected. Many local agencies own bridges that are relatively simple structures. We do not have a lot of lift- or suspension-type bridges or other complex structures. Additionally, as noted by the previous witness, the National Highway Institute training is offered primarily to State agencies, and it is very difficult for local agencies to be able to get one of those slots and attend that training.

We continue to encourage the repackaging of the National Highway Institute training and use the Local Technical Assistance Program as an avenue to reach out to locals and to get that training down to our systems in the most effective manner.

This completes my testimony. I would be happy to answer any questions.

Mr. OBERSTAR. Again, thank you very much for the view from local government where the rubber really does meet the road in a very direct and powerful way.

I want to welcome Ms. Drake, the gentlewoman from Virginia, as acting Ranking Member. Thank you very much for being with us.

Mr. Westmoreland, thank you very much for being with us today, too. I am sorry. I did not notice you there.

Mr. WESTMORELAND. That is okay.

Mr. OBERSTAR. Okay. Now, what are the techniques that you use to conduct bridge inspections? What I am looking for are commonalities among the States and the counties in conducting bridge inspections.

The reason I ask—it is quite transparent—is that, 20 years ago, we found that there were not common standards used among the States for bridge inspections. One witness, the Ph.D. engineer for the Center For Auto Safety, said bridge maintenance and inspection is in the Stone Age. This was 20 years ago. We highlighted a number of the issues, the needs to be addressed, and States have responded, but still, it is quite apparent that each State has different practices. You heard me describe earlier the statement of 20 years ago. Eyes are the best inspection tool. Many people still believe that is the standard, the use of a device to drag chains across a bridge and then listen to the sound and see whether it sounds right or it sounds odd. Many engineers have told me, "Oh, you know, that is really a very reliable way of testing a bridge," and they are on the front lines. They are doing it, but you have to won-

der about that. So I want to get your—I will start with Ms. Miller and work our way to the right.

Ms. MILLER. Well, Mr. Chair, when I became a county engineer, that was one of my first issues or questions was how effective is our bridge inspection program, especially in the local system, and I will say that the Minnesota Department of Transportation in Southeast Minnesota has been extremely helpful and effective to the local engineers, and we did shadow inspections to make sure that our folks were trained to inspect bridges on the local system, are following the same procedures through the National Highway Institute courses and doing things the right way—following the old standards and the old techniques that are there. So we still use and employ many of those tools, and I do agree that your eyes are probably your best set of inspection tools.

One thing I will add is there is a lot of technology that is out there. There are many new strategies out there that we can use for bridge inspection, but sometimes these can become very cost-prohibitive to the number of bridges that are owned and operated on the local system, and while we do not discourage the use of these higher technology tools, we would encourage that there be programs set up for sharing these on a district-by-district basis throughout a State or a centrally located set of tools that could be outsourced to local governments. That would be a concern for local governments that we have become so high-tech so fast that local government cannot react sufficiently to that.

Thank you.

Mr. OBERSTAR. Thank you.

As we go along, I do have a question that I am not asking you to respond to now, but I want you to think about it, and that is whether there is a better body of knowledge today on which bridges are in actual risk of failure.

Do we have a better body of knowledge today than we did 10 years ago or 20 years ago?

Mr. WEBB. I would like to second what Ms. Miller just said; we have 230 bridges on the bridge inventory system that are inspected by the Department of Transportation typically by using consultants. So they hire consultants and do the inspections in our county. We have another 60 that are smaller than the 20 feet that are staff and specs. We have sent those to the National Highway Institute Training. I agreed that eyes are what we use, particularly on those structures which I am comfortable with as far as the type and structures that we have in our county and the newness of those structures. We have not, as you have talked about today, touched on any of the newer technologies. I think we are looking to see what is out there; in fact, letting the State sort of guide us in that fashion.

Mr. OBERSTAR. Thank you. Mr. Kerley.

Mr. KERLEY. The State of Virginia pretty much controls all the bridges in the Commonwealth, VDOT does. We have about 100 inspectors about 43 inspection teams throughout the State. We do probably around 10,500 bridge safety inspections a year. There are consistencies, I think, between all the States from the viewpoint of utilizing the NBIS standards, the same training courses everyone is going to.

We are fortunate our location, where Virginia is located close to Washington D.C., Turner Fairbanks, which is the FHWA Research Center in McLean. We have a research center on the campus of the University of Virginia. So we have utilized some of the techniques you talked about earlier, Mr. Chairman, mag particles, non-destructing testing on those.

But I think I agree with the previous speakers that the hands-on is the first initial to identify then what you might come to do with a more expensive-type technique. We have also used an infrared instead of dragging the chains on the decks. I have some good people who will tell you that chain-dragging works pretty well too. We try to utilize what we have in the program that all the States are using and supplement that with what technology can bring to us.

Mr. OBERSTAR. I cannot pass the opportunity to observe that when Senator Warner—very, very dear friend of mine with whom I have worked on a number of initiatives over the years—was asked at his news conference what was he most proud of, what accomplishment was he most proud of in his 30 years at the Senate, he said the Wilson bridge. It was an earmark, by the way.

Mr. KERLEY. Yes, sir. It was a Federal bridge, too, until we took ownership when the new one was built.

Mr. OBERSTAR. That bridge carries 1 percent of the gross domestic product of the entire United States. That is how important that bridge was, which is why I was happy to partner with him to make that earmark happen.

Mr. Steudle.

Mr. STUEDLE. Mr. Chairman, I will echo Mr. Kerley's comments. We use the National Bridge Inspection program, the NBI, that is to my knowledge used in almost every State. So we use that same system. All of our inspectors are trained and retrained and certified under that system. We have 21 bridge inspectors who work in teams of two, and some other team managers we have spread across the 83 counties in Michigan. There are about 4,400 bridges that are under the direct jurisdiction of the Department of Transportation in Michigan.

We really do agree with the last three speakers. The first thing is you have to have eyes on the bridge. The first thing we did on August 2nd was to send those bridge inspectors back to four bridges in Michigan that have the same similar design as the Minnesota bridge does and had them, first of all, get different eyes on that bridge to make sure that what we saw 4 months earlier was exactly true. And we did confirm by late Friday afternoon on the 3rd that what we had seen was in fact what was happening on those bridges and there were not any problems. There was one of those four bridges that was structurally deficient because it has a bad bridge deck, but the structure, the superstructure and substructure, were fine. If there are things that those inspectors see, then we clearly bring in more nondestructive testing, the magnet particle testing and ultrasound and infrared-type technology. It is not practical to use that on every bridge; there are just too many and it would be too cost-prohibitive.

The single most cost-effective method would be to put eyes on bridges on all the structural components. Guys down there with a

hammer; it is not real glamorous, but you can bang on the concrete, there is a different sound. I have one of those engineers who grew up in the Department and actually dragged one of those chains across the bridge deck as well. It is not glamorous, but there is a different sound there. It does not need to be the end-all, but it certainly can be the canary that says you need to look at this a little closer.

We think that is really one of the most important pieces. You physically have to have someone there, looking at them, to make that first assessment.

Mr. OBERSTAR. You are right. It does say seasoning and experience, to have the ear to hear and the eyes to see. And I do not denigrate those technologies at all. They have been used successfully for years. But we need to back them up.

Mr. McFarlin, Mr. Dorgan

Mr. MCFARLIN. I will cover what we do in Minnesota, just to give you an overview of that. Within the DOT itself, the State DOT, we have 75 team leaders. They would all meet the requirements of the National Bridge Inspection program. They had a 10-day course on inspection. Occasionally they have refresher courses within our State. That is mandatory every 4 years to go to a refresher course. In addition, those inspectors would have 2 to 5 years' experience, 2 years for an engineer, 5 for a non-engineer. That is on the State side.

Among the counties there would be one team leader in every county, so an additional 87 team leaders within our county system. And beyond that we have others that we call level 1 inspectors that are working towards the team leader. There are 154 of those.

So we have quite a large workforce that spends part of the year doing bridge inspections both on the State and county side and, again, refresher training became a requirement 2 years ago for our inspectors.

A lot of comments have been covered by the others, but I know you asked specifically about the technology. Earlier you cited ultrasonic and some other means that were used. As others have said, the first thing one of the inspectors uses is their eyes to see what they can find visually. For steel bridges, it goes well beyond that and very much so in the case of a fracture critical bridge. Ultrasonic testing is regularly used, mag particle and dye penetrants also. But ultrasonic is actually what they are gravitating towards as the preferred technology for really critical structures.

On our underwater inspections in addition to having divers, every 5 years we do underwater inspections, but we regularly do inspections with sonar, looking for scour holes looking for scour within our rivers. So there is quite a bit of technology used, and our equipment, we have four under-bridge snooper trucks at the moment, and one on order. They are manufactured in Duluth by Aspen Aerials; that is the vendor in our area. So we have a large investment there in equipment, too.

And for our fracture-critical bridges, as County Engineer Miller mentioned, counties do their own inspection with the exception of fracture-critical, because our teams have the ultrasonic equipment and some of the other things needed for fracture-critical inspection. Those are all performed by the State for the counties.

Mr. OBERSTAR. Thank you very much. The snooper cranes were stimulated by the hearings that we held 20 years ago and highlighted a need for a more efficient way to get under the bridge, and this technology was just coming under practice.

Mrs. DRAKE. Thank you, Mr. Chairman. And, Mr. Kerley, it is good to see you. Thank you for the work you do in Virginia for us.

In regards to this legislative proposal that we are discussing, extra funding, new funding for bridges, you used the term "good first step" and then you also said innovation and long-term solutions. Are there recommendations that you could lay out for the Committee as we continue this discussion in regards to how to deal with this particular issue?

Mr. KERLEY. Well, reference to good first step is that additional funding is needed in this particular area. I have gone through and looked at some of the proposals in there. The proposal of enhancing the inspection program, I think the AASHTO States would be supportive of that. Every tragedy we have had in the past has led to improvements in the inspection program. So moving toward improvements in the inspection program is something that all States would support. The concern would be is the funding with the amount of inspections that we are doing now and the time associated with that and those type of things would have to be considered.

We would look to work with Congress and find out first what happened in Minnesota, what happened that caused that, and then try to improve the system so that does not happen again. And then it gives us an opportunity to look at the whole program once again.

Recently there have been changes in the inspection program, increased requirements for inspectors, increased fracture-critical inspection cycles, those things. We have to see if they are working and what we can do to improve the program. So AASHTO would be happy to work with the FHWA and Congress to improve the program as much as possible.

Mrs. DRAKE. Can you also walk us through how Federal funding for bridges is used in Virginia? How do we spend that money, or what decisions—is there a way to try to maximize it?

Mr. KERLEY. In Virginia we utilize all the Federal funds that come in to the State. We have probably about \$909 million that we receive in Federal funds, about 94 million of that is Federal bridge money. We utilize some of that in our maintenance program now, but Virginia will probably spend, if we receive \$94 million in Federal bridge funds, we will probably spend an additional \$150 million in State funds to supplement that. We have nine construction districts in the State of Virginia and each one of those has a bridge section who conducts the bridge safety inspections and is responsible for the bridges in their particular construction area. We oversee that from the central office. We utilize the reports to establish priorities; and our State bridge engineer, working with our Commonwealth Transportation Board, sets those authorities. In 2004 the General Assembly put in budget language that requires all the Federal bridge money to be used on bridges utilizing the sufficiency ratings in determining where the priority would be.

Mrs. DRAKE. Mr. Chairman, I would just like to ask Mr. Steudle one question.

You mentioned part of the problem is the roads that the bridges connect to, and you made an interesting comment about this is bigger than just bridges. I do not know if you heard the opening statements, but Mr. Mica was talking at length about having a strategy and a strategic plan for transportation. I wondered if you wanted to expand on that, if there are others of you on the panel who agree with that.

I am wondering if it isn't a bigger issue, although bridges we are all so concerned about because we know what could happen, but if we should not take this opportunity to just do a bigger strategy for transportation.

Mr. STEUDLE. You hit on that. Really, the key point is we are focused on bridges because of the tragedy and because of the fatalities that happened. It is hard to pinpoint how many people died because of a pothole, but it happens. It happens when someone loses control of their car. And it is because there is one here and one there and maybe three over here that it does not raise to the same level.

My point was while we are focused on bridges—which we need to and I applaud you for going at that and I do not want to take any steam away from that—I really want you to look at the whole transportation system in and of itself. In some of the questions this morning to Secretary Peters, the Members were clearly thinking of how does this fit with the railroad structures and how does it fit with other pieces.

That really is what my comment was driving at. We need to look at the entire system—how we fund transportation across all of the States in all the different modes. And then specifically within highways, how do we do it; is there enough for the road systems as well?

Now, the example I gave, we have got a big mega-project that is a billion dollars for 6 miles of Interstate 94 through the city of Detroit that has about 38 bridges on it that are all listed as structurally deficient, and they have been on there for 10 years. We have been trying to get it through the environmental process, but even at the end, we end up with a financial constraint issue that says we do not have enough money to build this.

How are we going to repair these bridges that desperately need to be fixed? We have been spending State money holding them together while this other project is moving through the system that would eventually widen it and put service drives and modernize that interstate that, frankly, was one of the first ones that was built. So it is a very, very old section of Interstate 94. We have not figured out how we will be able to fund that piece.

So when we look at just the bridge piece, that is only a part, because we could throw a bunch of money at bridges, but then the roads connecting them would still have a bunch of deficiencies as well.

Mrs. DRAKE. Thank you, Mr. Steudle. Thank you, Mr. Kerley.

Mr. OBERSTAR. We have begun the process with this Committee at the beginning of the year with hearings on the operation effectiveness of the safety legislation in August of 05 and laying the groundwork for the broader infrastructure initiative and reauthorization in 09. This is a step-by-step process, evaluating all the

pieces. We will do a top-to-bottom review as was done at the end of the interstate era with ISTEA. This will be a major restructuring of our Federal aid highway and bridge and safety and transit programs. Meanwhile, we have a high-profile issue that we have to address and we need to—is that the Grasho Road project you are talking about in Detroit? That major mega-project?

Mr. STEUDLE. Grosse Ile?

Mr. OBERSTAR. Yes.

Mr. STEUDLE. No. It is about 4 or 5 miles apart.

Mr. OBERSTAR. It seems that has been under construction and reconstruction forever, given the times I have driven over it.

Do you have something else you wanted to add?

Mr. STEUDLE. I want to emphasize the work that you are starting for the reauthorization and understand that the bridge piece is something that there is an opportunity to deal with right now and I think we need to do it now. My comments really are let's make that as the first step into the reauthorization process that you are kicking off and starting as well. Let's not give people the false impression that we have taken care of the transportation problem because we have addressed some bridges. Once it gets outside of the transportation industry, people think you just worked on that, so it must be good for 20 years, when in fact what we did was preventive maintenance and we kept it in good condition. A lot of that comes with funding as well. They say, you just took care of that; you have enough.

Mr. OBERSTAR. Goodness, no. This is a dress rehearsal, if you will.

Mr. DUNCAN. Thank you, Mr. Chairman, I will not have any questions, I wasn't able to come for the testimony because Mr. Mica asked me to meet with some Texas transportation officials. But I would like to say this: I read Chairman Oberstar's proposal and I like about everything in there.

One thing I did point out in my opening statement this morning was that Tennessee over the last several years has done quite a bit of work on our bridges and we have about half of the structurally deficient bridges as is the national average. I hope when we come up with whatever we come up with in the end, we do not short-change States that have done a little bit more in regard to the bridges. And I hope we do not punish the States that have done the most work in that regard, because I do not think that would be fair, because we still do have bridges that need—we have a lot of bridges in our State, with all of our lakes and hills and rivers and so forth.

I just hope we keep that in mind, Mr. Chairman. Thank you very much.

Mr. OBERSTAR. Yes, indeed. As I pointed out through the course of the hearing, I have set forth a proposal, not an introduced bill, this is a work in progress. The idea of hearings is to shape a bill. This is rather unusual that we follow this procedure, but I felt this was a fair and right way to do this, and to gather ideas. As Mr. Baker pointed out, there are unique circumstances in Louisiana, unique structures that need to be addressed in a different way, and we will fold that into this proposal.

Mr. Westmoreland.

Mr. WESTMORELAND. Thank you, Mr. Chairman. I want to thank you for putting that proposal out and giving us an opportunity to have the input from these experts and also our input.

Mr. Dorgan, I was reading some information about the I-35 bridge. If I understand it correctly, it was due to undergo some renovation I think in December of '06, and because of maybe some structural concerns or whatever underneath, it was an option not to do that; is that pretty much correct?

Mr. DORGAN. Mr. Sherman and Congressman Westmoreland, the years are slightly off there. We have considered different options on the structure. One was reinforcing—this was based on a study that the Department had done—to add reinforcing plates to the bridge; another was a thorough inspection of the fracture-critical areas that were of concern in the main truss; and a third was a combination of the two. Originally we had scheduled a contract to add the reinforcement. That would have gone to contract this fall, in October '07. Last winter we made the decision, based on some new information from the consultant that was doing the study, we made the decision to pursue the inspections last spring and we did those in May. We got approximately half the bridge inspected. This is the main truss spans now, and no evidence of any fatigue cracking was found. Given all the previous studies on that structure, the expert opinions were that if none had been experienced to date, we would not have fatigue problems with that. And to this day, well, I think the NTSB has to conclude their study as to the actual causes of this. But up to this time, fatigue has not been identified as an issue. There were certainly other things Chairman Rosenker referred to in his testimony. That was not one of them.

Mr. WESTMORELAND. Chairman Oberstar brought up the point that 20 years ago this one piece of equipment was brought up at a hearing and has been put in place, so I think we are right at a point where there is some cutting-edge technology out there that is a little bit more than a guy with a flashlight and a hammer to go out.

I know it is expensive technology, but there is one in Georgia, LifeSpan, that does this type of technology on a bridge, and I know it is more expensive. If I understand it correctly and since the tragedy on I-35, knowing that we would probably have these hearings, I started looking into some of this information. And I think that with some of this more sophisticated technology you may take a bridge that is a category 4, where if you use the sophisticated technology you may find out it that was a 6 or a 2 rather than a 4. So on some of these especially, Mr. Dorgan, did you ever, or did anybody at the DOT, ever think about going to a little more of the sophisticated monitoring system rather than just continuing to do the visual inspections, but go that extra step further to do any of this high-tech stuff? Would that have been a last resort?

Mr. DORGAN. Congressman Westmoreland, actually regarding high-tech, it was done on this bridge. We used ultrasonic testing throughout those inspections that have been done over the years for fracture-critical; and particularly for the inspections done in May, it was both visual and ultrasonic testing that was done, and our inspection staff is very well trained in that. They are all cer-



tified, American Welding Society certifications and ANSI certifications. No cracks, again, were found. So ultrasonic was used.

Regarding I think the other technology you may have been referring to, monitoring systems, that were available from a different company. That was considered earlier in some of the previous study work. The monitoring systems, however, that we looked at were specifically for monitoring fatigue cracks when you had active fatigue cracks in a structure. This structure in the main trusses which was our area of concern had no fatigue cracks. So we had no cracks to apply monitors to monitor.

In addition to that, of the weld details that were of interest, there were probably over a thousand locations in that main truss. It was made up of— each truss has at least 64 members of it. So the monitoring systems we have seen that are practical work maybe well on girder bridges where it is one continuous piece of steel. This was a considerably different type of structure. So rather than relying on a monitoring system that we thought probably was not well-suited for the structure, instead we were doing very frequent inspections.

Mr. WESTMORELAND. Let me say this in closing. I know all of you have a very difficult job with the money that is available and as many bridges you have to look after. I hope that with this proposal that Chairman Oberstar has put forward that we will start looking at some of the different technologies that we can use in some of this new stuff to determine the structural strength of these bridges and maybe get a more accurate reading.

One of the other interesting things, I cannot remember who brought it up, about the divers going down and looking at the bridges. I know the I-35 collapse came on the news—whether this is true or not, I learned not to believe everything you hear on the news—the divers could not get close enough to read the tags on the car. So that would put a diver in a tough situation trying to examine the structure, the underpinning of a bridge under water if he is in water where he is having that kind of visibility. So maybe there is some kind of high-tech. That is all the questions I have, Mr. Chairman, and I appreciate you giving me the opportunity to ask them.

Mr. OBERSTAR. Thank the gentleman for his observations, very thoughtful contribution.

Early in the testimony among this panel I heard concern about restrictive Federal rules, limitations on use of funds for bridge decking and a number of other concerns about the limitations under which you must operate in the use of your Federal funds. I want to point out those are regulations issued by the Federal Highway Administration. They are not founded in law.

I am glad you raised this for—the purpose of having this hearing is to hear from the practitioners the concerns they have in operating the Federal program. We can clear the deck, if you will. We can clean out those Federal regulations in the upcoming legislation, and along the way as we move ahead with this bridge initiative. If the Federal Highway Administration is putting you in a strait-jacket on your operation of the program, that certainly is not intended by law.

Preventive maintenance, for example, is specifically allowed by law. It has been since 1987, and then in 91 in ISTEA and then TEA-21 and in the current SAFETEA-LU. So we have worked to give States broad flexibility.

The concern expressed by Ms. Miller and Mr. Web about training of inspectors and supervisors. In the proposal I have set forth, we have a provision to require training to higher standards and more skills for inspectors and supervisors. We will provide funding for that in this bridge initiative; inspectors generally, without restrictions. We will do our best to give the broadest flexibility that you need. Any other such limitations that you think are obstacles, send them to us. We would very much welcome your input and we will take whatever steps are necessary to make things better.

In Minnesota we have had a goal in previous years of ensuring that 65 percent of bridges are in good condition. Michigan raised its standard. Minnesota, according to reports that I have heard, lowered the goal to 55 percent. Tell us what Michigan did.

Mr. STEUDLE. First of all, it is 85 percent, good and fair. So I cannot comment on what the Minnesota numbers are because I do not know their system. But I do know that Michigan's goal is 95 percent of the freeway bridges in good or fair condition and 85 percent of the non-freeway bridges in good or fair condition.

We had a goal. We started this in 1998 and our goal was to get there by 2008. It is important to note that in 1998 we were at about 79 percent and we have increased that number up to about 86, a significant boost at a time when we had a lot of aging bridges coming at us. But frankly, a lot of that was an influx of State dollars that, as I said before, is about 50 percent State dollars, 50 percent Federal dollars and an emphasis on the bridge program and looking at the entire bridge network as a complete network, and understanding that you have to manage them in different stages of life. Not every bridge needs to be reconstructed. You need to be fix what needs to be fixed on those structures. We have had a concerted effort for the last 10 years, and that is why I brought the example of the bridge decks; 223 bridge decks out of 608 are structurally deficient because—our bridges are structurally deficient because the bridge decks themselves are poor. The rest of it is fine. Those are in our program, mostly being paid for—completely being paid for with State funds. So those bridges will come off of the structurally deficient list. So we manage them as an entire network of bridges and not just as multiple phases of their life. Not just one particular structure and one fix fits all.

Mr. OBERSTAR. Thank you.

Mr. McFarlin.

Mr. MCFARLIN. Mr. Chairman, as Mr. Dorgan is crunching some numbers to help answer the question, I just want to mention the goals that you mentioned are part of a much larger performance measure package that Minnesota DOT uses to guide its investments not only in bridges, but in safety in the roadways and other aspects of what we invest our funds into. We also review those performance measures regularly to see not only—they are measures we have set. We are measuring against ourselves, and we review them to see if they are realistic, if they might be too low or too high. It is a constantly evolving process to peg our performance

measures to where we think we ought to be. We are very proud of that effort to guide our investments based on actual measurements and performance of our system.

I think Mr. Dorgan, off the top of his head, has some numbers on bridge performance goals.

Mr. OBERSTAR. But that was announced that Minnesota had set the goal of 55 percent. Why was that reduced from 65 percent?

Mr. DORGAN. Congressman Oberstar, the goal of—back in 1997 when we established performance measures, there was a goal of maintaining at least 65 percent of our bridges in good condition—that would be by the NBIS classifications—and that was also State-owned bridges, regardless whether they were interstate or not. As the years unfolded, we realized that that level at 65 percent was probably unrealistic to maintain. At the time we set that goal, we were at about 62 percent.

Mr. OBERSTAR. Unrealistic from what standpoint; cost?

Mr. DORGAN. Unrealistic when you consider the life span of a bridge. When you consider how when we want 75 to 100 years of life to maintain it with that much inventory at 65 percent in good condition, in order to achieve that we would have had to have been replacing bridges prematurely to get that number of bridges up to 65 percent.

So our current goal, once we took a more realistic look at that—this is all State-owned bridges—we set that level at no less than 55 percent in good condition; our fairs plus poors are no more than 16 percent; and our poors no more than 2 percent.

Now, when I just checked with Mr. Steudle to check how Michigan figures their numbers, if we compare to Michigan's goal, the goods through fair condition, Minnesota right now would be at 96 percent of our bridges in either good through fair condition. What that leaves is bridges in poor condition at under 4 percent, so it would be a little bit better than 96 percent against that standard. I think each State is setting their own performance goal so it is somewhat tough to compare to each other until you can figure out what each other is actually measuring.

Mr. OBERSTAR. That is why we need a national standard. That is why we need to have one set of rules by which everybody plays, everybody understands, and measurements can be equitably and accurately made. And that goes to the data-driven aspect of a national bridge program.

Mr. DORGAN. I would agree, Congressman. A lot of States are in to performance measures now. And since we are all setting our own performance measures—but a national set of performance measures would give us a basis of comparison.

Mr. OBERSTAR. That would be the first title of this proposal.

I was very encouraged, Mr. McFarlin, to hear you say that safety will not be sacrificed for schedule in the reconstruction of this bridge. I probably need not, but I will anyway, recall the 1962 and the rush to finish a portion of I-35 that resulted in a great brouhaha in Minnesota. We do not want another one of those.

Mr. DORGAN. I can assure you that this bridge will not cause a brouhaha. We are very confident in our design-build method and our approach. We've had great success and the design-build area and Minnesota has built many large projects in the State that have

gone forward very successfully, come in on time, very close to budget, very small overruns, good cooperation with not only the contractors but with local units of government and with citizens. We are very confident and I can assure you that this is going to go forward very well.

Mr. OBERSTAR. I want to thank you very much. You have all made a valuable contribution. I urge you again to think through all those restrictive rules that you have been saddled with through the Federal Highway Administration. Make a compilation for us, and especially county engineers with your national network, and send that in to us as soon as you can. That is a matter we can fix.

Good. Thank you very, very much.

Panel V.

We have Mr. Andy Herrmann, Managing Partner, Hardesty & Hanover, New York; Mr. William Cox, Corman Construction, Inc., here on behalf of ARTBA; Mr. Tim Lynch, American Trucking Association, Senior Vice President; Ms. Janet Kavinoky—I was wondering where to put the accent on that. I love that, a name that has real weight. And then Don Kaniewski. Now, there is a real—that's an odd name that everybody—the Federated People's Republic of the Soviet—the core of my district—can understand and pronounce. And let me take this opportunity, Mr. Kaniewski, to congratulate you on 30 years of service with the laborers.

I will give you a big applause. I have been around long enough to remember your predecessor, Jack Kerr.

Congratulations. We will start with Mr. Herrmann.

**TESTIMONY OF ANDY HERRMANN, P.E, HARDESTY & HANOVER, MANAGING PARTNER; WILLIAM G. COX, PRESIDENT, CORMAN CONSTRUCTION, INC.; DONALD KANIEWSKI, LEGISLATIVE AND POLITICAL AFFAIRS DIRECTOR, NATIONAL CONSTRUCTION ALLIANCE; JANET KAVINOKY, EXECUTIVE DIRECTOR, U.S. CHAMBER OF COMMERCE, AMERICANS FOR TRANSPORTATION MOBILITY; AND TIM LYNCH, SENIOR VICE PRESIDENT, AMERICAN TRUCKING ASSOCIATION, WASHINGTON, D.C.**

Mr. HERRMANN. Thank you, Chairman Oberstar, and Members of the Committee. Good morning. My name is Andrew Hermann. I serve on the board of directors of the American Society of Civil Engineers. I am the managing partner of Hardesty & Hanover, a transportation consulting engineering firm headquartered in New York City. During my 34-year career I have been responsible for many of the firm's major bridge projects. I want to thank you for holding this hearing. I can say there are a few infrastructure issues of greater importance to Americans than bridge safety.

ASCE is the country's oldest national civil engineering organization, representing more than 140,000 civil engineers. ASCE strongly supports the National Highway System Bridge Reconstruction Initiative introduced by Chairman Oberstar. We look forward to working with you to enact this important legislation.

More than 4 billion vehicles cross bridges in the United States every day and, like all man-made structures, bridges deteriorate. Deferred maintenance accelerates deterioration and bridges become more susceptible to failure. In 2005 ASCE issued its latest report

card for America's infrastructure, which stated that in 2003, 27.1 percent of the Nation's bridges were structurally deficient or functionally obsolete, which was an improvement from the 28-1/2 percent in the year 2000. In fact, over the past 12 years the number of deficient bridges has steadily declined from 34.6 percent in 1992 to 25.8 percent in 2006. However, this improvement is contrasted with the fact that 1 in 3 urban bridges were classified as structurally deficient or functionally obsolete, much higher than the national average. The 10-year improvement rate from 1994 to 2004 was a decrease of 5.8 in deficient bridges.

Projecting forward from 2004 yields an estimate of 46 years to remove all deficient bridges. But, unfortunately the rate of deficient bridge reduction from 1998 to 2006 is decreasing, with the current projection from 2006 estimated at 57 years for the elimination of all deficient bridges. While progress has been made in the past in removing deficient bridges, our progress is now slipping or leveling off. There is a demonstrated need to invest additional resources in our Nation's bridges.

The National Bridge Inspection Standards in place since the early seventies require biannual safety inspections for bridges to be performed by qualified inspectors. Approximately 83 percent of our bridges are inspected once every 2 years. Standard condition evaluations are documented for individual bridge components as well as ratings for the functional aspects of the bridge. These ratings are weighted and combined into an overall sufficiency rating for a bridge on the zero to 100 scale.

A bridge's sufficiency rating can define it as structurally deficient or functionally obsolete. Both trigger a need for remedial action. A structurally deficient bridge may be restricted to light vehicles and reduced speeds because of its deteriorated structural components. While not necessarily unsafe, such bridges are at the point where replacement and rehabilitation will be necessary.

A bridge classified as functionally obsolete is safe to carry traffic, but has less than the desirable geometric conditions required by current standards, and may not safely accommodate current traffic volumes, vehicle sizes and vehicle weights. These restrictions not only contribute to traffic congestion but also pose such major inconveniences as lengthy detours for school buses or emergency vehicles.

Bridges and their components are structurally load-rated at inventory and operating levels of capacity in their present inspected physical condition. The inventory rating is the design level for a bridge for normal traffic. The operating rating level with a reduced factor of safety is intended to define infrequent overload vehicle permits, and generally describes the maximum permissible live load to which the bridge may be subjected. Allowing unlimited numbers of vehicles to use a bridge at the operating level may shorten the life of the bridge.

Bridge inspection services should not be considered a commodity. Currently NBIS regulations do not require bridge inspectors to be professional engineers, but do require individuals responsible for the load rating of the bridges to be professional engineers.

ASCE believes that non-licensed bridge inspectors and technicians may be used for routine inspection procedures and records,

the pre-inspection evaluation. The actual ratings and condition evaluations should be performed by licensed professional engineers, experienced in bridge design and certified as bridge inspectors.

ASCE strongly supports the establishment of a dedicated funding source to repair, rehabilitate, and replace structurally deficient bridges on the National Highway System as a complement to the current FHWA bridge program. This initiative would be a first step in addressing the long-term needs of the Nation. However, this effort should not detract from the investment needs debate during the reauthorization of SAFETEA-LU in 2009.

The requirement to distribute funds based on a formula which takes into account public safety and needs is an excellent step in creating a program that addresses public safety first. Successfully and efficiently addressing the Nation's transportation issues would require a long-term, comprehensive, nationwide strategy, including identifying potential financing methods and investment requirements for the safety and security of our families. We as a Nation can no longer afford to ignore this growing problem. Aging infrastructure represents a growing threat to public health, safety and welfare, as well as the economic well-being of our Nation.

Thank you, Mr. Chairman. This concludes my statement. I would be pleased to answer any questions you may have.

Mr. OBERSTAR. We very much appreciate the presence of the ASCE, you are a watch dog on the Nation's infrastructure, and a very credible one—one frequently cited in the lay press, if you will.

Mr. HERRMANN. Thank you.

Mr. OBERSTAR. Mr. Cox.

Mr. COX. Chairman Oberstar, Representative Duncan, my name is Bill Cox. I am president of Cormac Construction in Annapolis Junction, Maryland. I am here today in my capacity as Vice Chairman of the American Road and Transportation Builders Association.

While ARTBA welcomes today's discussion on how to best meet the enormous bridge needs, we deeply regret the circumstances that led to this hearing. Bridges can be rebuilt and roadways repaired, but lives touched by tragedy can never be made whole. Our membership offers its condolences to those families who lost loved ones or had been injured in the I-35 bridge collapse.

Mr. Chairman, I would like to applaud your leadership in proposing a bold and targeted Bridge Safety Initiative. I also want to commend Representative Mica for his call for the development of a comprehensive national transportation strategy. These objectives are not mutually exclusive and can be pursued concurrently. The Minneapolis bridge tragedy demonstrates the significant public safety threat that exists from delaying repairs to aging bridges.

ARTBA believes immediate action on Chairman Oberstar's proposal to rehabilitate National Highway System bridges is a logical first step towards restructuring Federal surface transportation policy to ensure unmet needs are addressed.

Mr. Chairman, in my remaining time I would like to provide a broader perspective on the debate that has unfolded since last month's disaster in Minnesota. Not surprisingly, since the accident, certain groups have put forth the same stale arguments as to why Federal leadership to help rehabilitate the Nation's bridges is not

warranted. In doing so, we believe they really missed the point. The U.S. is suffering from not just a bridge crisis but a systemic transportation crisis. We need to dramatically upgrade the Nation's bridges, roadways, public transportation facilities, rail lines and airport infrastructure.

An example of this rhetoric is the suggestion that if it were not for congressional earmarks, sufficient resources would be available for transportation needs. The fundamental assumption behind this claim is that earmarked funds are not used for needed highway and bridge improvements. We need to remind ourselves, about projects like the new Woodrow Wilson Bridge project, the largest single earmark in the 1998 surface transportation bill. There are countless other examples of high-priority road and bridge projects that have been earmarked and, many, a part of State transportation plans.

I am proud that my company has been involved in the Woodrow Wilson project and will have played a role in addressing one of the Nation's worst bottlenecks and a major impediment to the safe movement of freight and people along the east coast. It is not only an example of a critical project that came to be through the earmark process, but also a mega-project that will be delivered on time and on budget.

Mr. Chairman, as we work to overcome the pervasive transportation challenges, we need to utilize all financing solutions, not take some off the table. Public-private partnerships, innovative financing, tolling and new user fees are all part of the solution.

In the days after the bridge collapse, however, there seems to be more interest by some in trying to utilize the Federal motor fuels tax as a political wedge issue instead of rolling up our sleeves and finding a comprehensive solution to bridge deficiencies and other transportation challenges. We need to recognize the foundation of any successful transportation financing structure must continue to be the Federal motor fuels tax. It has been demonstrated to be the most effective and fiscally responsible method to finance transportation improvements, and will be for years to come.

While the increasing fuel efficiency and alternative motor fuels may ultimately have a dilutive effect on gasoline tax revenues, that point is decades away. The only thing antiquated by the gas tax is its current rate. To suggest that drivers can receive comparable results from contributing the same level of financial support to maintain and improve the Nation's transportation network as they did 15 years ago lacks all credibility. Since that time, the population has grown, the economy has grown, the number of vehicles have grown, demands on the system have grown, and the cost of road and bridge improvements have skyrocketed.

In closing, ARTBA believes the targeted proposal to rehabilitate the Nation's national highway bridges is necessary to address the immediate public safety threat neglected bridges represent. This measure would provide the quantifiable results and accountability that Americans demand and our Nation's citizens deserve. We urge all Members of Congress to support Chairman Oberstar's NHS Bridge Reconstruction Initiative as a critical first step towards achieving the goal of a comprehensive national surface transportation plan. Thank you for the opportunity to speak.

Mr. OBERSTAR. Thank you for your contribution, I am very much encouraged and inspired by that. Thank you.

Mr. Kaniewski.

Mr. KANIEWSKI. Thank you, Mr. Chairman. Congressman Duncan, thank you for your kind words.

My name is Donald Kaniewski. I am the Political and Legislative Director of Laborers' International Union of North America. I testify not only as a representative of the Laborers' today, but also on behalf of the unions that are members of the National Construction Alliance. That includes the United Brotherhood of Carpenters and the International Union of Operating Engineers. Together we represent well over 1 million highly skilled construction workers who build America's infrastructure day in and day out. Our members are the ones that take congressional authorizing legislation and convert it into real-world concrete and steel transportation projects that move this country.

I want to take a moment to say that on August 1st, we had many members on the bridge, and we believe that they were doing the wrong job; they were conducting resurfacing when perhaps they should have been engaged in replacement. In an inherently dangerous industry, we want to see our members take those risks, be doing the right job for the country in building and repairing the infrastructure in the needed way, and not be subject to such tragedy in an unsafe world. We did lose one member of the Operating Engineers, but all others were safe after the fall of the bridge.

It is no longer a secret that America has serious infrastructure problems and needs a comprehensive infrastructure policy for the 21st century. The tragedy in Minnesota, the explosion of the underground steam pipes in New York, the failure of the levees in the gulf coast all underscore the necessity of a national commitment to repairing and modernizing infrastructure.

The NCA has been a longstanding advocate for robust Federal investment in our Nation's infrastructure system. It is our belief that a solid infrastructure system across a range of modalities from highways, airports, harbors, freight and passenger rail, forms the physical backbone that is critical to maintaining and enhancing economic growth, competitiveness, productivity and quality of life in this country.

Mr. Chairman, your proposal is a significant part of a solution that moves our Nation closer to closing the gap between available revenues and documented need. That is why the three unions of the NCA strongly support your bridge improvement proposal. Your plan is a critical step in the right direction for the following reasons: It provides immediate dedicated funding for bridge inspection, repair, rehabilitation and reconstruction; creates a dedicated trust fund to ensure new revenues to utilize for their intended purposes; it implements a needs-based funding proposal with strict prohibition on earmarks. It considers all options to generate the necessary revenues for the program, including an increase in user fees.

This specific approach is exactly what is needed to solidify public support and reinvigorate political will behind infrastructure investment. America's support of increased investment in infrastructure has to be based on trust, and your plan strikes the balance by first



assessing need before stipulating funding. Now that we have the focus of the Nation on the chronic underinvesting and the aging and ailing infrastructure, we must not lose it. We must take on those whose rigid ideology and rhetoric automatically straitjacket by refusing to put all the revenue options on the table to address the problem in a forthright manner.

Once the need is clearly established, then the issue is one of establishing an efficient revenue source to realistically address or investment needs.

The NCA strongly believes that building and maintaining a world-class 21st century infrastructure system, one that makes the Nation competitive in a global economy, is inherently a Federal responsibility. Furthermore, we believe that in order to improve investment in a Nation's infrastructure, we must maximize all existing revenue sources. As we all know, the Federal gas tax is the sole source of revenue for investments in highway and transit. Until another equally efficient method of funding is identified, we believe that the most straightforward approach to increasing revenue lies in increasing the user fee.

Let me be specific. A gas tax increase is the most direct way to address the short-term revenue needs to fund this particular bridge proposal. Such a direct correlation between revenues and spending is fiscally responsible, especially in a pay-go budgetary environment.

With regard to more comprehensive reauthorization of the highway transit program, we would support various fee modifications and other additions that are tied to a trust fund that is dedicated to the purpose of funding and improving the Nation's infrastructure system. A gas tax increase or transformed into a sales tax or fee based on vehicle miles traveled, or a combination thereof, all acceptable to us, and, we believe to the public, if they have the confidence that they will get what they pay for and the funds will not be diverted.

We are not averse to innovative financing, particularly for large projects of national significance. Bonding and financial leverage and other tools should be part of mix. Although we are not experts on all methods of innovative financing, we believe everything that enhances investment must be considered.

In conclusion, while we recognize the need for a comprehensive systemic approach to America's overall infrastructure needs and how best and most effectively to finance those needs across a range of modalities, we strongly encourage a singular focus on the present bridge deficiency issue before us as the most politically doable piece of the broader infrastructure problem facing the country. A 5-cent gas tax increase to raise the necessary \$25 billion for bridge inspection and repair and replacement is a finite, achievable objective in the remaining months of the 110th Congress. We respectfully urge recognition of this reality and encourage the Committee and both bodies of Congress to act quickly to pass desperately needed legislation to ensure the infrastructure system that America relies on is safe.

Thank you for the opportunity to be here today.

Mr. OBERSTAR. Thank you very much for a resounding statement.

Obviously saved the best for last. Ms. Kavinoky.

Ms. KAVINOKY. Thank you, Mr. Chairman, and distinguished Members of the Committee. Thank you for calling this important hearing on the state of America's bridges.

Today, your Committee meets at a time when the Nation's attention is focused squarely on infrastructure, but under the worst possible circumstances. Now is the time to move on a robust, thoughtful, and comprehensive plan to build, maintain, and fund a world-class 21st century transportation system.

We cannot afford to delay. If we fail to address our challenges we will lose jobs and industries to other nations. If we fail to act, we will pollute our air and destroy the free, mobile way of life that we cherish. And ultimately if we fail to increase investment, we will see more senseless deaths on our bridges and roads, not to mention on our rails and waterways. It is likely to get much worse if we do not act.

We have a system that is overworked, underfunded, increasingly unsafe and without a strategic vision. Bridges are the critical links in the multimodal system that moves goods and people.

And, Mr. Chairman, the Chamber applauds you for your leadership in proposing a strong plan to address the Nation's deficient bridges.

Ms. KAVINOKY. After the tragic collapse in Minneapolis, we all became acutely aware of the magnitude of the problem. Today, one quarter of our Nation's bridges are structurally deficient or functionally obsolete, and that figure does not include 16 percent of elevated transit structures that are in substandard condition or worse.

In addition to the painfully obvious safety concerns, there is an economic impact. Take bridges in Oregon, for example. The Oregon DOT says that the potential economic impact of structurally deficient bridges in that State alone could be \$123 billion over the next 25 years.

Mr. Chairman, we support your proposal to identify needs first and then to tackle the backlog of bridge maintenance through a formula funding approach without earmarks and with improved oversight. This is the right way to do the job.

The Chamber also encourages the Committee to address the shortcomings in current law. We strongly support holding States accountable for the expenditure of the resources provided in SAFETEA-LU. Without addressing the current diversion of bridge dollars to other Federal funding categories, new programs may essentially create a substitution effect, rather than increasing the funding dedicated to bridge needs.

While the events of August have shone a spotlight on the state of our Nation's bridges, it is important to recognize that the collapse of the I-35 West bridge is symptomatic of a much larger infrastructure problem, and it is time to create a new era in transportation. This country's current approach to delivering transportation infrastructure is not set up for today's robust economy or for the economy of the future. We do need a national plan; and, as Ranking Member Mica aptly articulated earlier this year, the Federal government must take the leading role in developing the national strategic transportation plan. We thank him for his continued vision and leadership on this issue. Every level of government

must step up to the plate, and the Federal government must bear a significant part of the responsibility and will perform a critical role.

For our part, what is the Chamber going to do? We are launching a major, multi-million dollar initiative called Let's Rebuild America, with four key goals to support your work and this industry's work.

First, we will document the program with research. Second, we will educate the public, the business community and policymakers. Third, we will spur private investment in critical infrastructure of all kinds. Finally, and perhaps most importantly, we will foster an honest dialogue on how to find the public money to meet critical infrastructure needs. There is no single answer to that question, which means all the options must be on the table, including increasing user fees.

Mr. Chairman and Members of the Committee, the question facing America is this: Are we a nation of builders? Are we still a "can do" society? Are we still the kind of people who can rally to a great cause with a shared sense of mission and a national purpose? Surely, we ought to be able to create the vision, forge the consensus, secure the resources, and find the political courage to make this happen. I believe that we can and I believe that we will and business will lead the way. It should not take a disaster like the bridge collapse to focus the Nation's attention on our vast infrastructure challenges, but now that we have that focus we must not lose it.

Thank you very much for the opportunity to be here today, and I look forward to answering your questions.

Mr. OBERSTAR. Thank you very much, Ms. Kavinoky.

You are right. It should not take a bridge tragedy to focus attention, but, regrettably, that is what happens in this country, and now and again there is a tragedy.

A few years ago—in fact, it was in 1990—18 feet ripped off a Boeing 737 of Aloha Airlines. It was not supposed to fail. That was not supposed to happen. They were built so that if there were a structural failure it would rip to a stress point and stop, but it ripped off and all of aviation sat down.

Then I crafted the aging aircraft legislation, something I had been talking about for years and was not able to advance. But a tragedy happened, and now all aircraft at 15 years of age was sat down, torn down to bare metal and inspected from stem to stern, and parts were replaced. Well, it has taken another tragedy to get us to think about the Nation's infrastructure. Thank you.

Mr. OBERSTAR. Mr. Lynch.

Mr. LYNCH. Thank you very much, Chairman Oberstar, Chairman DeFazio, Ranking Member Duncan. We appreciate the invitation for the American Trucking Associations to testify on the condition of the Nation's infrastructure and bridges.

Members of this Committee well understand the importance of the Nation's infrastructure. It is unfortunate that it took the tragic collapse of the Interstate 35W bridge to focus the public and, perhaps more importantly, the media's attention on the vulnerabilities of the highway system. We must not lose this opportunity to educate the American people about the very real safety and economic consequences of failing to adequately maintain and improve the

system. We thank you for providing a forum that will help to inform the debate and that will hopefully move us toward an agreement on solutions to the challenges we face.

The trucking industry and the highway system that supports it are the lynch pins of the Nation's freight transportation system. The industry hauls 69 percent of the freight by volume and 84 percent by revenue. In addition, the trucking industry plays an important role in the movement of intermodal rail, air, and water freight. Truck tonnage is projected to increase, reaching toward the 14-billion-ton mark by the year 2017. This growth, of course, means that a lot more trucks will be on the road. We estimate another 2.7 million trucks will be needed to serve the Nation's economy, or a 40 percent increase.

A reliable network of highways is crucial to our industry's ability to deliver goods safely, efficiently and on schedule. Since deregulation and the completion of the interstate highway system over the previous quarter century, the trucking industry has made continuous improvements that have allowed its customers to significantly reduce inventories and to create manufacturing and supply chain efficiencies that have saved the U.S. economy billions of dollars, increased salaries, slowed consumer price increases, and created innumerable jobs. Any disruption to the movement of freight on our Nation's highway system can well jeopardize those gains.

Mr. Chairman, our highway and infrastructure is a network of roads, bridges and tunnels that link our Nation together. That network includes superstructures like the Chesapeake Bay Bridge and the previously mentioned today Woodrow Wilson Bridge that are vital links in moving people and goods. However, that system also includes bridges over creeks and streams that may only carry a few cars and trucks on any given day. Both are important and both need to be maintained. But tragedies like the I-35 bridge collapse highlight how vulnerable our system is when a structure on a major highway is damaged, closed or load-posted. The resulting traffic disruptions distress local and regional economies due to higher freight rates and lost business opportunities. Significant costs are also incurred due to lost time, wasted fuel by sitting in congestion and by having to divert to alternate routes.

Mr. Chairman, earlier this afternoon, you mentioned the amount of rail and barge traffic due to the collapse that now will have to move on the highway system. While I am certain that there is a trucker out there who will benefit from that, as a Nation that traffic probably should remain on the barges and on the rails, but that is just another cost that goes into the equation.

Mr. Chairman, much of this Nation's traffic moves on the National Highway System. This 162,000-mile network comprises just 4.1 percent of total highway miles, yet it carries nearly 45 percent of total vehicle miles. When this network experiences inefficiencies, whether due to posted bridges or daily congestion, the economic impacts ripple throughout the supply chain and can greatly impact the health of regional and national economies.

Despite its obvious importance to the Nation, significant portions of the NHS are in poor condition, are routinely congested and have been starved by insufficient investment. Of the more than 116,000 NHS bridges, over 6,000 are structurally deficient and more than

17,000 are functionally obsolete. Furthermore, and perhaps more importantly for my industry, 760 NHS bridges are currently load-posted. The posting of bridges forces trucks to use alternative routes, increasing freight transportation costs and requiring greater fuel use, which produces more emissions. While this hearing and the public's attention are understandably focused on bridges, we must not forget that bridges are individual components of the overall highway network.

Mr. Chairman, we applaud your initiative on the National Highway System Bridge Reconstruction Initiative. We believe it is an excellent model for future highway investment decisions. The emphasis on prioritizing investment based on greatest need are principles that can and should be applied to the entire Federal program.

I earlier made note of Congressman Baker's comments about what they have done in Louisiana with respect to the prioritization of the bridge program in that State; and, frankly, we want to find out quite a bit more about that.

Over the past 20 years, the Highway Bridge Program and its predecessor, the Highway Bridge Replacement and Rehabilitation Program, have been funded at a level equivalent to roughly 11 to 14 percent of total annual transportation program apportionments. Under SAFETEA-LU, the program provides an average of \$4.1 billion annually for the bridge program. However, beginning with ISTEA and including now the SAFETEA-LU, up to 50 percent of State apportionments can be "flexed" to non-bridge-related projects.

Mr. Chairman, I will tell you that one of the things I have always loved about being at these hearings, even sitting on the peanut gallery side, is that you learn some things. We were not able to determine how much of that has actually been flexed out. If I understood your comments earlier, some \$4 billion has been flexed out over the last decade, and we would certainly encourage that as the Committee considers both this proposal as well as reauthorization that that be something that you take a very long and careful look at.

Mr. Chairman, even the most well-designed and best-maintained bridge will deteriorate over time for a variety of reasons. All vehicles, including trucks, play a role in this process. It is important to understand, however, that bridge collapses are generally the result of singular events and not usually caused by the slow progression of deterioration.

If a bridge does collapse due to fatigue or due to other structural issues, it is likely that this may have been prevented by better inspection, maintenance or management practices. Therefore, Mr. Chairman, we very much support your efforts to enhance inspection procedures, techniques and to improve bridge management.

The ATA looks forward to working with the Committee to address the Nation's bridge and other highway infrastructure needs. Most importantly, Mr. Chairman, we recognize our responsibility to help finance these needs. However, Mr. Chairman, we believe and we believe the public at large shares this view that highway user charges have to be viewed as an investment in both mobility and safety. We look to Congress, the administration and the States to

allocate that investment in a rational manner, in short, to ensure a good return on their investment.

Thank you very much for giving me this opportunity to testify.

Mr. OBERSTAR. Thank you, Mr. Lynch, for a very thorough, far-reaching, comprehensive presentation.

Most striking was your projection of 2.7 million more trucks to be needed over what period of time?

Mr. LYNCH. That would be over a 10-year period.

Mr. OBERSTAR. Over a 10-year future period?

Mr. LYNCH. Correct.

Mr. OBERSTAR. A 40 percent increase. That is a result of just-in-time inventory, isn't it? The just-in-time delivery of goods making our trucking system rolling warehouses. This is economy driven. This is not the trucking companies. It is your customers. It is what the producers and consumers want. They want this just-in-time delivery, and so your members have become inventory purveyors, if you will.

Mr. LYNCH. That is correct, Mr. Chairman. Notwithstanding occasional glitches on the highway, we are not out there for sport or to aggravate the public. We are out there to deliver the freight.

Mr. OBERSTAR. You are out there because the economy demands it, and if we do not maintain this portfolio of highways and bridges in top condition then your members cannot do their job. The public sector has to do its job so the private sector can do what it does best, provide jobs, services and deliver goods.

Mr. LYNCH. Absolutely.

Mr. OBERSTAR. All of the witnesses have provided, I think, just remarkable testimony and presentations that will benefit our ultimate product.

I thank Mr. Kaniewski for saying, "Everything that enhances investment should be considered as a way of revenue stream." We will do that.

You know, when I proposed this initiative, we were discussing it, and there were thoughts. Well, don't talk about how you are going to finance it, because that is what will catch the headlines. Well, it is irresponsible not to set forth an objective, to set forth the goals of "this is what we need to do," and it is what we need to do. The cornerstone of any investment in surface transportation has to be the user fee. Call it the "gas tax" or whatever you want to do. Then there are other means of financing.

Mr. DeFazio has held extensive hearings, in-depth hearings—and he will continue to do that—on the investment needs of our Surface Transportation Program and the merits of various proposals, but if I did not set forth how I proposed to achieve this objective that would be the next question. All right. You have got this great idea. How are you going to do it? Well, I have set forth. So now let them all come and make their criticisms.

Ms. Kavinsky, I love the Chamber's theme, Let's Rebuild America. Terrific. You, too, said all options must be on the table, including the user fee, and we accept that, and we will work with the Chamber to do that.

Mr. Donahue came from the trucking sector. He has had a long commitment to and a familiarity with surface transportation.

Four years ago, it was the Chamber's objective to fully fund the Aviation Trust Fund. We did not quite get there, but, without the Chamber, it would not have had the nearly 100 percent funding that we had, that we did achieve for the Aviation Trust Fund at a time when the now Governor of Indiana was the Director of the Office of Management and Budget, Mr. Daniels, and who did not want to make that full—he wanted to hold back \$600 million of the Aviation Trust Fund that was needed for investment in taxiways and runways. That was in early 2001. The Chamber was out there ahead and provided the energy we needed.

Mr. Herrmann, our earlier witness, Ms. Miller, for the county engineers, said, "Most counties do not have a licensed public engineer." That really was shocking to me. I thought they were up to date, but they are not, and you observed that licensed public engineers are necessary for the proper development of surface transportation and bridge programs.

Mr. HERRMANN. Yes, Mr. Chairman.

Basically, a bridge inspector, once you get to a reasonably sized bridge, should be able to have the expertise to know the load paths, the critical numbers, the fatigue-prone details, and to test potential areas of distress in the particular type of structure being inspected. They have to evaluate not only the condition of the individual bridge components but how the components fit into and affect the load paths of the entire structure. The bridge engineer may have to make immediate decisions to close a lane, to close an entire bridge or to take trucks off a bridge in an effort to protect the public's safety.

You need someone—I mean, right now, the requirements, I do not even believe, need an engineering degree. There are various categories of bridge inspectors, and one of them is without a degree, and I think an engineering degree is needed and also the professional credentials and past work in bridge design and inspection to inspect a bridge properly.

Mr. OBERSTAR. I totally concur. We have had experience in my district with at least one county that did not have an engineer. In fact, it did not have one because the engineer they did have asked for an increase in pay, and the county board said no, so he left for a job elsewhere. Then when it came time to plan the future investments for that county, they were out in the cold. They did not have anyone to speak up for the surface transportation needs of that county. They have learned their lesson. They have one now.

Mr. HERRMANN. Mr. Chairman, we have found in some instances where the cost of bridge inspection does control. We have had experienced engineers, licensed engineers with 20, 25-plus years' experience who we could not use on a bridge inspection because they cost too much. And it is not that they did not want to use them. It is just that they did not fit into the budgetary program.

Mr. OBERSTAR. Well, one of the previous witnesses also said that there are too many bridges and it is too costly to use the more advanced technologies that I cited earlier. Well, that is why we need this investment.

Mr. DeFazio, let me compliment the Chairman of the Subcommittee on the intense work that he has done since the begin-

ning of this session on the overview of the existing Surface Transportation Program.

Mr. DEFAZIO. Thank you, Mr. Chairman. As always, thank you for your leadership in proposing an initiative to move forward.

As I made the point earlier when the Chairman was being beleaguered by the press about all of the specifics of his proposal, I said, "You do not understand that this is a different Congress, and it is not like the Congress of the last 12 years. This is a real legislative process. We are here today to listen to people and to get ideas and to figure out how to improve our product, but we are committed to addressing this problem and to not putting our heads in the sand like the administration."

So I appreciate the Chairman's leadership, and we are truly here to listen, and I appreciate a lot of the testimony we have gotten today. We need allies, obviously, in this fight. You were all, most of you, here earlier.

I guess I would first go to Ms. Kavinoky from the Chamber. You know, I was just walking out as you mentioned the word "Oregon," and I was walking back in as you mentioned the words "user fees." You know, I would just like to understand how the Chamber got there, having heard the Secretary's testimony earlier. I mean, you had some statistics that I quoted earlier about the deaths that relate to poorly maintained roads.

Do you know, does that include a design flaw like the kind of thing we were talking about where we have structurally and functionally obsolete bridges? Is it that or do you just mean bad maintenance generally in terms of that attribution of one-third of the deaths?

Ms. KAVINOKY. Mr. Chairman, that statistic comes from TRIP, the road information program. Actually, I heard you ask that question and called over to TRIP to double-check their background. That includes maintenance issues, but it does also include design deficiencies, structural design flaws.

Mr. DEFAZIO. Right. Because that was the point I was attempting to make earlier, which is that this is a horrible tragedy and so unexpected—the collapse and 13 people in the blink of an eye—but, on a daily basis, if we attribute a third of the deaths every day to something that has to do with maintenance and then just take a portion of that and say, well, it has to do with functionally obsolete bridges and other infrastructure which creates dangerous conditions, then on a daily basis we can make the point that our obsolete and insufficient infrastructure is killing more people.

Ms. KAVINOKY. Sir, that is exactly the Chamber's point, yes.

Mr. DEFAZIO. All right. Then your second point, which, I think, goes sort of again to—well, you make a couple of others, but you talked about the \$67 billion in extra vehicle repairs. Is that also from that same group?

Ms. KAVINOKY. It is from TRIP, yes.

Mr. DEFAZIO. Yes. Okay. Again, that would be where the Chamber would, perhaps, come down where they do not normally always come down on the idea of increasing some user fees, which is, hey, with the economic competitive issues which you raised with the GDP investments of our competitor nations, with the problems with a lot of your members in just-in-time delivery and with the



increased costs they actually incur just because, you know, that is a lot of money on extra vehicle costs. I mean, if we could fix half of the problems and get that number down by half on an annual basis we would come out ahead in the end. I assume that you have come to somewhat of a similar conclusion with the Chamber.

Ms. KAVINOKY. Sir, we have a formal policy process as, of course, do most associations; and I cannot tell you that from a very formal policy declaration perspective that we are coming right out and saying, "It is time. Let us do it." But what the Chamber is saying is there is ample evidence. There is ample evidence from a safety perspective, from lives lost, from an economic perspective and not just with regard to bridges, which are critical links in the overall infrastructure, but with infrastructure across the board that this Committee has actually addressed, including waterways.

And we certainly commend you for moving WRDA this year with regard to the Federal Aviation Administration. We think it is absolutely critical that we modernize the air traffic control system, but we recognize that there is a fundamental cost to providing the economic underpinnings of the economy, and I believe that if we can link the benefits of the transportation system and the investment—just as Mr. Lynch said—with what is being paid, we have got a very credible case to sell to the business community and to the American people that they are going to get what they pay for.

Mr. DEFAZIO. Exactly, and I believe there does need—you know, if you are talking to someone who is sitting in congestion, they want to hear that you are somehow going to address that problem. Or if you want to talk to someone who has lost a loved one or whatever in a tragedy, they want to hear that you are addressing that. So I fully support that.

Mr. Cox, if I could, as to your testimony on page 4, you talk about ARTBA as advocating the inclusion of a new Federal program, the Critical Commerce Corridors, as part of the SAFETEA-LU reauthorization effort that is funded outside the Highway Trust Fund and that is dedicated to building the transportation system capacity. Can you expand on that a little?

Mr. COX. Well, our vision there is that, yes, there are problems with congestion. Yes, there are problems with maintaining the existing system, which is growing older by the decade, as we know. But the one thing that we really need to face up to, just as was brought up by Mr. Lynch, is that the trucking part of our economy is really a driver of the economy for the big stores, the small stores. As he talked about, it is 69 percent by volume and 80 something by revenue.

What we see is, in time, a critical problem of getting from ports to highways around the big cities if there is not some thought given to providing maybe not special roadways but roadways that are designed to move freight from the container ships to the trucks to the highways to the interstates so that the American economy, which is really the leader in the world in that aspect, will continue to be so.

Mr. DEFAZIO. And you would feel that that would be significantly a Federal responsibility?

Mr. COX. I would think yes. If you are talking countrywide, you would have to start off with the Federal government. Certainly,

there would be State participation, but we would have to see that there has to be a leader to get the thing started. So, yes.

Mr. DEFAZIO. Great. I hope you will convey those thoughts down to DOT. They seem to be a little reluctant to go there on some of these issues.

On page 5, I thought this was—again, this is just for the record, because earlier we had some very confusing testimony from the Department of Transportation about whether or not there is a need and whether or not we are spending \$40 million a year on conditions and, therefore, you know, we are doing just fine, et cetera, which seemed to contradict their own conditions and operations report.

You talk here, according to the U.S. DOT C&P Report, Federal highway and bridge investments are \$20 billion below the amount necessary to simply maintain current roadway and bridge physical conditions and congestion levels each year. Is that accurate?

Mr. COX. I only can go with the information that was given to me by the people at ARTBA who prepared it. I presume that it is. I presume it is as accurate as any of those kinds of estimates are, but I do not think it takes, really, what you read in books. I think anybody who drives around our urban areas notes the fact that we have not been keeping up with the growth not only in businesses but in homes and with all of the other needs that transportation, both public transportation and vehicular transportation, provides.

Mr. DEFAZIO. Okay. Then if I could, Mr. Chairman—I know I am a bit over my time here, but if I could direct a question to Mr. Lynch.

Again, sir, referencing back—I mean, you did a very good job of quantifying, you know, the obligations we are putting on the National Highway System and the amount that is actually already load-posted and those functions. I mean, you really did a good job of reiterating those things.

Then you get down into meeting the needs. You said there, today's \$70 billion investment in highways and bridges would nearly have to double to \$132 billion to significantly improve highway conditions and to reduce congestion. The Federal investment in highways must rise 50 percent above forecasted levels by 2015 just to maintain current levels of highway condition and performance. Do you stand behind that?

Mr. LYNCH. Absolutely.

Mr. DEFAZIO. Okay. Again, you need to be shipping some of this work down to DOT and see if we can get some attention down there. Because, you know, I would agree with those numbers, but I do not feel that we quite have them on board yet with that magnitude.

Mr. LYNCH. We have had ongoing dialogue there. As the Chairman knows, we have a few issues about financing that we do not quite see eye to eye on with the Department, and we have made it very clear to them that our preferred financing mechanism needs to continue to be the fuel tax, recognizing that over some period of time we probably are going to be transitioning perhaps to a system like you have and with which you are experimenting in Oregon with a mileage-based tax. But we have certainly made our thoughts

known about some other financing mechanisms, particularly in New York City and in a few other places.

Mr. DEFAZIO. All right. One last point. When you talk about the capability of flexing money out of high-priority bridge projects into other non-bridge related, what would you suggest? What should we do? I mean, should we just close down that flexibility until a State has addressed all of its structurally and/or functionally obsolete bridges? Or how do you think we ought to deal with that?

Mr. LYNCH. I think that is, perhaps, one of the tougher issues that you are going to have to deal with.

On the one hand, you have States essentially saying we need more money. Give us the money, but do not tie a lot of strings to how we use that money.

As one of the users and as one of the payers into the system, while we are comfortable in having a certain degree of flexibility there, we will never be able to sell a fuel tax increase. Now, whether it is imposed on us, that is a whole other issue, but we will not be able to sell that to our own membership if they believe that the money is not going to the things that they believe it was intended to go to and the fact that—I was, frankly, surprised to find out that 50 percent of the funds could be flexed out of the bridge program. That is arguably very, very critical, and that is certainly a focal point of not only this hearing but, I think, now of a lot of the public concern about the infrastructure.

So we would certainly recommend that the Committee and Congress take a very careful look at, if you allow that degree of flexibility out of the program, what happens to the condition of the bridges in this country.

Mr. DEFAZIO. Okay. Thank you.

Mr. OBERSTAR. Would the gentleman yield on this particular point? It is a very significant one.

Mr. DEFAZIO. Absolutely.

Mr. OBERSTAR. We invited the National Governors Association to testify. They declined. Specifically, the Governor of my State declined. He has aspirations for a place on the national stage. This was an opportunity as he is the incoming Chair of the National Governors Association.

But this particular issue of flexibility was one that the National Governors Association insisted on in ISTEPA, in TEA-21 and again in SAFETEA-LU to "give us the authority. We are the managers. Give us the flexibility to move these." Then what did they do? They moved \$4,700,000,000 over the last decade out of the bridge program and then complained they do not have enough money for bridges. We gave them the flexibility, and they misused it. That is outrageous, but they did not come here to defend their flexibility. When we move into the reauthorization process, that is something that is going to be very high on the list; and I will tell you that there will be no flexibility in moving funds out of this bridge trust fund that I have proposed.

I thank the gentleman.

Mr. DEFAZIO. Further, Mr. Chairman, I might suggest—not to sort of try and write the legislation here, but I would suggest that, you know, when we are looking at criteria for the new program, however, that might be funded that one measure be whether a

State is fully utilizing its apportionment under TEA-LU to address the bridge problem; and if they are not, then I guess I would really question why it would be in the queue for the special fund to deal with this issue.

Mr. OBERSTAR. In fact, that is a condition of this proposed legislation.

Mr. DEFAZIO. Ah, the Chairman is always ahead of me here. I missed that detail in the outline. They did not give me enough of a detailed outline. That was probably in your head and not in print.

Mr. OBERSTAR. It is in print. It is there, yes.

Mr. DEFAZIO. All right. I read it quickly.

Thank you, Mr. Chairman. I have no more questions.

Mr. OBERSTAR. I thank the gentleman very much.

Again, I just am in admiration of his diligent work on the review of the Surface Transportation Program.

In the course of this day—let me sum up. Item one of the initiative is to establish uniform processes and standards for inspection of structurally deficient bridges and for inspector training. The Secretary agreed to that. Mr. Capka agreed to that. The county engineers agreed to that. Every panel has agreed to that. That is 25 percent.

The distribution of funds based on public safety and need, requiring the Department of Transportation to develop an administrative formula for the distribution of funds. The Secretary did not disagree with that. She embraced it. Mr. Capka embraced it. Our previous panels embraced it. All of you have addressed it in one way or another. That is 50 percent.

The accountability by prohibiting earmarks by the administration, by the States in the prioritization of structurally deficient bridges under this new standard to be done by the Federal Highway Administration in cooperation with the States and then reviewed by the National Academy of Sciences. The Secretary agreed with that. Other panelists agreed with that. That is 75 percent.

Then the Bridge Reconstruction Trust Fund with dedicated funding. Well, we had a little disagreement on that matter, but I think everybody understands, at the end of the day, we are not going to have a bake sale to fund the construction of bridges. Mr. Duncan observed, very thoughtfully, that if we were not spending all of this money in Iraq—\$45 billion on their infrastructure that is being blown up as fast as it is being built—we would have money here at home. Right. Meanwhile, we have a means, we have a way, we have options. I have laid the options on the table, and we will address that matter. So I think we are about 95 percent of the way home on this.

I just have to observe, in closing, Mr. Mica, earlier in the day in his opening remarks, compared this proposal to ignoring the crumbling foundation, leaking roof and obsolete plumbing of a 50-year-old house; it is just paving the driveway.

Well, the house I grew up in—that is still my home—in Chisolm is about 70 years old. It was built by my father, uncles and grandfather, who was a carpenter. Grandpa Grillo came from Naples, Italy. There is a picture of me pounding a nail in that old house. I put a new roof on it. The foundation was leaking. We fixed that.

Just 2 weeks ago, the faucets were leaking, and the kitchen drain was—and I fixed the faucets, and then I had to run off to a 4th of July parade, and I will admit that I put the faucet washers in backwards so they were not working right. But I got a plumber in, and he fixed that, and he fixed the kitchen drain and the basement drain, and he left a note on my table saying “aging residential infrastructure in need of repair.” We fixed it, and we are going to fix this as well.

Mr. Mica also, in a news release that he issued, called it a “duplicative bridge program and a gas tax increase without examination of existing highway bridges.” What does he think we are doing here? What have we been doing all day? Examining the Highway Bridge Program.

Twenty years ago, I examined bridge safety in those hearings. This is no novice coming to this subject matter, and we intend to do something about it. It would be immoral to have this bridge collapse and do nothing about it in a very targeted, focused, deliberative, sunsetted, 3-year initiative to attack this problem with a credible, effective and workable initiative.

I thank you for your support of it.

Mr. KANIEWSKI. Thank you, Mr. Chairman.

Mr. OBERSTAR. The Committee is adjourned.

[Whereupon, at 6:00 p.m., the Committee was adjourned.]

**Committee on Transportation and Infrastructure**



**Hearing on "Structurally Deficient Bridges in the United States"  
Wednesday, September 5, 2007**

**Statement – Congressman Jason Altmire (PA-04)**

Thank you, Chairman Oberstar, for calling this important hearing today to examine the nation's structurally deficient bridges. On August 1, my thoughts and prayers, as well as those of my constituents, were with you and all Minnesotans affected by the tragic collapse of the Interstate 35W bridge. For many, this tragic accident was an eye-opening event about the state of our nation's bridges. For others, it unfortunately highlighted a point that has been made many times before.

The condition of bridges throughout the country is a national crisis. In Pennsylvania, we have the highest number of structurally deficient bridges in the country. PennDOT classifies 6,000 of the more than 25,000 bridges in the commonwealth as structurally deficient, including approximately 800 in need of outright replacement. The average age of

these bridges is 50 years and, in the six counties in western Pennsylvania that I represent, many are over 100 years old.

The number of structurally deficient bridges in the six counties in my district is alarming, totaling over 1,000 bridges. Of these bridges, 29 have sufficiency ratings of 10 or below, and 566 are rated at 50 or below. <sup>on a 0-100 scale</sup> These ratings are on a scale of 0 to 100 and are comprised of assessments of the bridge's structural condition, its ability to meet current traffic conditions, and how essential the bridge is for public use. Sufficiency ratings of 50 or below qualify a bridge for federal funding, and require regular inspections from state Departments of Transportation.

Two bridges in my district – the Koppel Bridge and the Rochester-Beaver Bridge – are steel truss bridges of a similar design to the I-35W span. The Koppel Bridge, which carries Route 151 over the Beaver River in North Sewickley, Beaver County, was constructed in 1915 and has a sufficiency rating of 8. ~~The Rochester-Beaver Bridge, which is part~~

of Route 51 and also runs over the Beaver River, was built in 1963 and has a sufficiency rating of 62. PennDOT has inspected both since the I-35W tragedy. Both remain open and are deemed safe for travel.

As the state with the <sup>most</sup> ~~largest percentage~~ of structurally deficient bridges, there is no shortage of examples in Pennsylvania of bridges that are in dire need of rehabilitation, repair or replacement. In total, the state estimates \$11 billion is required to update the 6,000 structurally deficient bridges.

It is imperative for us to work in a bipartisan manner to develop a solution that will generate the massive level of funding required to repair and rebuild our nation's bridges. I look forward to today's testimony from Secretary Peters, representatives from state Departments of Transportation from across the country, and several transportation experts. It is my hope that this hearing will be the first step in developing a solution to the nation's bridge crisis.

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**U.S. Representative Michael A. Arcuri (NY-24)**  
**Committee on Transportation and Infrastructure Hearing: Structurally Deficient Bridges**  
**Opening Statement**

**September 4, 2007**

Thank you, Mr. Chairman.

First and foremost, I would like to extend my heartfelt sentiments to those families who lost loved ones during the bridge collapse along Interstate 35W in Minneapolis, Minnesota earlier this summer. This truly horrific and sobering event has brought much-needed attention to the state of our nation's crumbling infrastructure, and has served as a clarion call to all stakeholders to work together to ensure that our roadways and bridges are safe for all travelers.

I would like to thank Chairman Oberstar for holding this critical hearing today and also our distinguished panel of witnesses for coming before this committee to explain what significant steps and challenges we need to undertake to begin assessing and fixing structurally deficient bridges all over the country.

Across the U.S., there are over 590,000 bridges, and roughly 74,000 of those are rated "structurally deficient," according to the U.S. Department of Transportation. The State of New York is home to more than 17,000 bridges and is in a similar position with 37.5 percent or 6,510 of its bridges rated structurally deficient or functionally obsolete. In my Upstate district alone, there are over 260 bridges that have been identified by the state transportation department as structurally deficient and 9 of those are in my hometown of Utica. While this reality is troubling, the Congress now has an opportunity to act to remedy previous oversights and to work to eliminate the possibility of future tragedies.

Our communities need the resources to ensure that our families and friends do not have to worry about their safety during their morning commute to work, quick trip to the grocery store, or the drive to drop their children off at school. We owe it to the American public to regain their trust in the safety of our bridges and highways. I intend to work with my colleagues on this Committee to make sure that we put forth policies that do just that.

The infrastructure needs in this country are overwhelming and the additional traffic and growing demand for the rapid movement of goods and services will place an unprecedented strain on the aging system. I hope to hear suggestions today on how we can help provide the additional resources states will need to ensure their hands are not tied when trying to repair their aging bridges and highways. I am also looking forward to hearing from the two Mayors on our panel about how their state and local transportation departments cooperate to identify, rehabilitate, and replace deficient bridges and lessons learned in light of the recent events.

Thank you. I yield back the balance of my time.

###

**Congressman Keith Ellison**  
**Statement before the House Transportation and Infrastructure**  
**Committee**  
**Hearing on Structurally Deficient Bridges**  
**September 5, 2007**

Let me start by thanking Chairman Oberstar and Ranking Member Mica for holding this important and timely hearing on structurally deficient bridges.

I want to recognize Mayor R.T. Rybak for his tremendous leadership during this bridge collapse crisis. Mayor Rybak and his fellow elected county and state officials made Minnesota and our nation proud with their strong and steady leadership during this calamity. I also want to thank Governor Pawlenty, Transportation Secretary Peters and the NTSB for all their work

Lastly, let me also publicly thank the heroic efforts of the first responders – firefighters, police officers and emergency medical personnel - whose heroism in the first minutes and hours after the bridge collapse saved countless lives.

As you all may know, the tragic collapse of the Interstate 35W Bridge occurred in the Fifth Congressional District of Minnesota, my district. It has been widely reported that Interstate 35W Bridge was “structurally deficient.” And in fact, according to the U.S. Department of Transportation, one of every eight bridges across the nation is “structurally deficient.” In my home state of Minnesota, about ten percent of the 13,000 bridges in the state were recently rated as “deficient.”

So the problem of structurally deficient bridges is not a theoretical issue for us or anyone in America. It is a very real issue that demands our attention today so that other communities across the nation can be spared the grief that my district and my state had to

bear on August 1, 2007 when the Interstate 35W Bridge collapsed. We lost 13 Minnesotans. These individuals were mothers, fathers, children, workers, good people, each and all.

Let me conclude by respectfully asking this Congress to regard this tragedy as a national call to action to focus on our domestic infrastructure.

On August 1<sup>st</sup>, we as a nation were united in the grief for the victims and later were united in the recovery and healing efforts. Now, let us be united in rebuilding our nation's ailing public infrastructure. For if the nation is a body, our infrastructure is the skeleton holds it up.

I look forward to working with this committee and other Members of Congress to making a new national commitment to the public infrastructure of this country.

**ELIOT L. ENGEL**  
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TESTIMONY

BY

CONGRESSMAN ELIOT ENGEL, OF NEW YORK

To the Committee on Transportation and Infrastructure, on  
 Structurally Deficient Bridges in the National Highway System

September 5, 2007

Chairman Oberstar, Ranking Member Mica -

Before I begin my testimony, I would first like to thank you for holding this important hearing today. And I appreciate the opportunity to present my views on this issue.

Today, I wish to express my deep concern about the state of our bridges in the National Highway System. After watching the tragedy unfold in Minneapolis, the entire country now knows just how deficient we are in our bridge maintenance. Through this

terrible tragedy, I am hopeful we can prevent future tragedies by addressing our maintenance backlog.

I am privileged to represent the Bronx, Rockland County and Westchester County. In my district alone, we have 11 structurally deficient bridges, 4 of which consist of a highway that carries over 150,000 vehicles each day. A bridge collapse along this critical artery would cause a significant loss of life, devastate the region's economy, and cause a transportation nightmare by having a major commuter route disrupted.

While I applaud the Federal Highway Administration for inspecting bridges at least once every two years, more needs to be done. We must begin immediately the process of repairing and renovating the 74,000 structurally deficient bridges, including the 11 in my Congressional District—especially the Tappan Zee Bridge. Our constituents deserve safe bridges, and expect no less.

Mr. Chairman, I applaud your commitment to improving our nation's infrastructure. I know you join with me in acting swiftly to reassure our constituents that needed bridge repairs will be made.

Mr. Chairman, Ranking Member Mica, I appreciate once again the opportunity to present testimony on this important issue. I pledge my continuing commitment to work with you to ensure the tragedies of Minneapolis are not repeated.


**Statement of Congressman John Hall**  
**United States House of Representatives Committee on Transportation and Infrastructure**  
**Hearing on Structurally Deficient Bridges in the United States**  
**September 5, 2007**

The August 1<sup>st</sup> collapse of the I-35W Bridge in Minneapolis was a terrible tragedy, and I again express my sympathies to the people of Minnesota for the loss of life that day. We need to get to the bottom of what happened that day and make sure that sufficient financial and technical aid is available to remedy the situation.

The I-35W collapse should also be a national wake up call that we need to recommit to making sure our bridges and highways present no danger to the millions of citizens who use them each day all over the country.

In the Northeast and Northern U.S., our bridges are placed under a great degree of stress by the variability of the weather. We have summers with days that crest 100 degrees, winters that drop below 0 degrees, and everything in between.

As a result our bridges are faced with significant changes in water level and temperature, corrosion from salting in the winter, and various seasonal stressors that are compounded by constant heavy use. In my district alone, we have 13 bridges that have been classified as structurally deficient. I am hopeful that we can use this moment as a call to action in order to prevent any future failures.



**OPENING STATEMENT OF  
CONGRESSMAN DAN LIPINSKI**

**HOUSE COMMITTEE ON TRANSPORTATION &  
INFRASTRUCTURE**

*Hearing on Structurally Deficient Bridges in the United States*

**September 5, 2007**

Chairman Oberstar and Ranking Member Mica, thank you for your continued leadership and for holding today's hearing. This in-depth and comprehensive hearing is a key step in learning more about the issue of structurally deficient bridges in our country.

With the tragic bridge collapse in Minnesota, it is now more important than ever to critically examine this problem. This horrible tragedy has served as a reminder of why we must continue to fight for robust investments in our transportation infrastructure.

But this hearing is not to just examine this issue. It's so we learn what we can, and so we can do something about it. We must act and do what we can to help prevent future tragedies from occurring. And I believe under this Committee's leadership, we will do just that.

As we all now know, according to U.S. DOT data, there are about 73,000 bridges across the country classified as structurally deficient. There are nearly 2,500 structurally deficient bridges in Illinois alone. Engineers stress that this does not mean those bridges are necessarily in danger of collapse or are unsafe. However, it does mean that some sort of significant maintenance attention, rehabilitation or replacement is required. State and local governments are doing what they can to maintain and repair bridges, but with limited financial resources, the federal

government needs to step up to the plate and do more. There is no doubt in my mind that this ought to be one of the top priorities of the federal government.

At the same time, we ought not lose sight of the broader issue of funding needs in this country. I'm certain that many – if not all – of my colleagues on this Committee would agree. We have significant infrastructure needs with other transportation modes, such as transit and railroads. And while we must find a way to address the significant bridge funding needs in the short-term, with SAFETEA-LU reauthorization only a couple of years away, we need to find new and innovative ways to increase funding levels to the Highway Trust Fund.

In addition to the need for investment, I hope this hearing and the witnesses will help provide some insight on existing bridge inspection standards, so we can determine whether any improvements need to be made. It would be helpful to hear more specifics on items such as how often bridges are inspected and what specific components of the bridge are inspected with the goal of determining whether improvements can be made to current standards. Accurate and up-to-date inspections help spot issues, so they can be fixed before they become problems.

I look forward to listening to the testimony of our distinguished witnesses here today, and I look forward to working together in a bipartisan fashion, so we can quickly craft and act on legislation to address our nation's aging bridge infrastructure.



A handwritten signature in black ink that reads "Harry E. Mitchell". The signature is written in a cursive style with a long horizontal flourish at the end.

Statement of Rep. Harry Mitchell  
House Transportation and Infrastructure Committee  
Full Committee Hearing  
9/5/07

**--Thank you Mr. Chairman.**

**-- I want to once again extend sympathies, on behalf of my district, the good people of your home state who are still coping with last month's tragedy. We were all horrified by the images we saw on television, and we stand with you as you mourn those you have lost.**

**--I also want to thank you for your leadership on this issue.**

**--When it comes to structurally deficient bridges, Arizona is a relatively lucky state. In fact, the American Society of Civil Engineers has given Arizona an A-minus for highway bridge safety.**

**--We are a growing state, and a good deal of our infrastructure is new. We are also an arid state, and as a result, our bridges are subject to less decay-causing moisture.**

**--Still, we need to ensure that what we build is well maintained.**

**--According to the Bureau of Transportation Statistics, out of Arizona's 7248 bridges, 161 are considered structurally deficient.**

**--Fortunately none of these 161 bridges are in my district. However, drivers in my district want to know that when they drive across a bridge elsewhere in the Valley, or elsewhere in Arizona, that it is safe.**

**--Over the August recess, I had the opportunity to meet with the Arizona Department of Transportation. They took me out to the Loop 202 bridge over 56th street and walked me through their inspection process.**

**--Mr. Chairman, I know it will come as no surprise when I report to you that the inspection process is both time consuming and expensive. But it is a process that needs to be done.**

**--I want to extend a special welcome to Secretary Mary Peters. As the former head of the Arizona Department of Transportation, I know she understands these issues well.**

**--Madam Secretary, thank you for joining us today.**

**--I look forward to hearing from you, as well as the rest of our witnesses today.**

**--I yield back.**



***NEWS from the T&I Committee***  
***Committee on Transportation and***  
***Infrastructure***  
***U.S. House of Representatives, 2165 Rayburn HOB,***  
***Washington, DC 20515***  
***[www.house.gov/transportation](http://www.house.gov/transportation)***  
***Hon. James L. Oberstar (Minn.), Chairman***

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***For Immediate Release, Wednesday, September 5, 2007***  
***Contact: Jim Berard, (202)225-6260***

**Statement Of**  
**The Honorable James L. Oberstar**  
**Subcommittee on Highways and Transit**  
**Hearing On**  
**“Structurally Deficient Bridges in the United States”**  
**September 5, 2007**

The tragic collapse of the I-35W bridge in Minneapolis demonstrates the need to make a commitment to invest in the maintenance and major reconstruction our nation's infrastructure. Many facilities are being stretched to the limit of their design life and beyond.

Of the 594,101 bridges in the National Bridge Inventory, 26.2 percent of America's bridges—more than one in four—are structurally deficient or functionally obsolete.

According to the Department of Transportation (DOT), more than \$65 billion could be invested immediately in a cost-beneficial way to replace or otherwise address existing bridge deficiencies.

One area where strong federal leadership is required is the reconstruction of bridges on the National Highway System (NHS).

The NHS is a 162,000-mile highway network that consists of the 46,747-mile Interstate System, the Strategic Highway Network for military mobilizations, and other major highways. While the NHS makes up only 4.1 percent of total U.S. mileage, it carries 45 percent of vehicle miles traveled, including 75 percent of heavy truck traffic and 90 percent of tourist traffic.

Of the 116,172 bridges on the NHS (including more than 55,000 Interstate System bridges), 6,175 NHS bridges are structurally deficient. Almost one-half of these structurally deficient NHS bridges are bridges on the Interstate Highway System (2,830 structurally deficient Interstate System bridges).

According to DOT, the current NHS bridge investment backlog is estimated at \$32.1 billion. This includes \$19.1 billion for the Interstate Highway System bridge backlog.

Addressing the needs of bridges on the NHS is critical to public safety, regional and national mobility and economic competitiveness. It demands a national response.

Many of us have recognized the importance of making these critical infrastructure investments, however, far too many of the nation's leaders have taken the path of least resistance and have ignored this looming crisis.

To begin to address our nation's infrastructure crisis, I have proposed the National Highway System Bridge Reconstruction Initiative. This proposal provides dedicated funding to States to repair, rehabilitate, and replace structurally deficient bridges on the National Highway System.

In short, my proposal injects accountability into our bridge inspection, repair and replacement by providing a data-driven, performance-based approach to systematically addressing structurally deficient bridges on our nation's core highway network.

This proposal is not "business as usual". Business as usual would be to commission a study, develop a strategic plan, and find a reason not to address the problem. It does not take a plan to address this urgent need, it takes leadership and action. That is what my proposal does.

To date, I have received letters of support for my proposal from a broad range of governmental, business, industry, and highway user organizations, including:

- U.S. Chamber of Commerce
- The Transportation Construction Coalition
- Associated General Contractors
- American Road and Transportation Builders Association
- National Construction Alliance (Laborers, Operating Engineers and Carpenters.)
- American Association of State Highway and Transportation Officials
- American Highway Users Alliance
- American Bus Association
- Association of Equipment Manufactures
- Associated Equipment Distributors
- National Asphalt Pavement Association
- National Ready Mixed Concrete Association

Although Secretary Peters, in her written testimony, states that "the I-35W bridge collapse was both a tragedy and a wake-up call to the country", she states that there is no "transportation infrastructure 'safety' crisis" and "it is inaccurate to conclude that the Nation's transportation infrastructure is subject to catastrophic failure."

Madam Secretary, the I-35W bridge collapse was a catastrophic failure. Although we do not know the cause of the collapse, we do know that more than 73,000 bridges are structurally deficient, including 6,175 bridges on the National Highway System. We have maps (produced by your Department) that show where every one of those bridges is located. Your Department has identified a backlog of more than \$32 billion of NHS bridge investments that are cost-beneficial that could be made today. Are we to have a "bake sale for bridges" to fund this bridge investment backlog?

I have proposed a Bridge Initiative to specifically address these structurally deficient NHS bridges. Regrettably, the Secretary never addresses (nor even mentions) my proposal. She suggests more of the same one-note surface transportation policy of this administration: tolling (or congestion pricing) is the solution. Let us toll these bridges (preferably with private partners) and all of our infrastructure problems will be solved. She never explains how tolling will be administered to ensure that the worst bridge safety problems are addressed first, or how we will ensure that tolling proceeds will be used for needed bridge reconstruction.

The Secretary does call for a data-driven, performance-based approach to highway infrastructure investment. I believe my proposal does just that. I ask the Secretary, in her oral statement, to specifically address the four elements of my proposal:

>

**1. The Initiative will significantly improve Bridge Inspection Requirements.**

The Initiative requires the Federal Highway Administration and the States to significantly improve and develop consistent, uniform processes and standards for the inspection of structurally deficient bridges and inspector training.

Do you oppose efforts to significantly improve bridge inspection requirements?

**2. The Initiative establishes an NHS Bridge Reconstruction Trust Fund and provides dedicated funding to finance the repair, rehabilitation, and replacement of structurally deficient NHS bridges.**

Do you oppose efforts to provide a dedicated funding stream and Trust Fund to reconstruct these 6,175 bridges?

**3. The Initiative distributes funds based on public safety and need by requiring the U.S. Department of Transportation to develop an administrative formula for distributing all funds.**

Do you oppose efforts to distribute these funds based on public safety and need?

**4. The Initiative provides accountability by prohibiting any earmarks by Congress, the administration, or the States and requires the National Academy of Sciences to independently review the State and FHWA prioritization of structurally deficient bridges for reconstruction.**

Do you oppose efforts to prohibit all earmarks (Congressional, Administration, or State) and require an independent review of the prioritization of projects?

While the terrible events of August 1, 2007 have served as a wake-up call for many policymakers and leaders around the country, others have failed to understand the lessons to be learned from this tragedy. Sometimes, political leaders have to make hard choices, and some of those choices involve funding priorities. We have an opportunity to lead, and to make a commitment to upgrading our infrastructure so that events like this will not occur again.

I have asked Subcommittee Chairman DeFazio to hold a second hearing on these issues (specifically bridge inspection and technology issues) within the next two weeks. I hope to introduce a bipartisan bill to authorize the NHS Bridge Reconstruction Initiative subsequent to the second hearing and expect that the Committee will consider this legislation in the first week of October.

Madam Secretary, I ask you to address each of the four elements of my proposal – which elements does the administration support? Which does it oppose? I think it is only fair to the Members of this Committee, the public, and particularly, the citizens of Minnesota, that we know where you stand on each of these issues.

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OPENING REMARKS

September 5, 2007

To: Congressman Walz  
From: T&I Full Committee Hearing on "Structurally Deficient Bridges in the United States"

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Mr. Chairman, Ranking Member Mica, I want to thank you for holding this hearing today on such an important topic.

As the re-building of the I-35W bridge begins, and the investigation into the cause of this collapse continues, I want to again express my condolences to those who lost loved ones and my gratitude to those Minnesotans who selflessly came forward to help others.

It will take years and hundreds of millions of dollars to repair this bridge, which was the most heavily-traveled bridge in Minnesota, located right in the heart of our biggest metropolitan area. I have traveled over that bridge many times, as I know our Chairman has, as well. The collapse of the I-35 bridge was a tragedy that affected everyone in Minnesota. And it was a sober reminder of the importance of maintaining the safety and reliability of our transportation infrastructure.

As a result of this tragedy, we have all been scrutinizing the infrastructure in our respective districts, and many of us have found that there is a tremendous need for investment. We need to ensure that disasters like this one don't happen again.



Over half of the bridges in this country were built before 1964 and one out of every eight bridges in the United States is rated deficient by the Department of Transportation. Over 80,000 of those bridges are considered “functionally obsolete.” The DOT has estimated that it would take more than \$65 billion to address these bridge deficiencies. It is clear that we need to do something to address this problem, and we need to act immediately.

We are holding this hearing today in order to answer some questions. How are we going to fund this investment in our infrastructure? Are we currently spending our money where it should most properly be spent? Is the money we spend today on our transportation infrastructure being spent first on those projects that have been identified as the highest priorities? Are we ensuring that states have the flexibility to prioritize projects and funding? Do we have the manpower and technology to adequately inspect and maintain our infrastructure? Only when we’ve answered these questions can we assess how we are going to fund future needs.

Mr. Chairman, thank you again for holding this hearing and I look forward to the testimony from the panel members.



**William G. Cox  
Vice Chairman At-Large  
American Road & Transportation  
Builders Association**

**Testimony before  
House Transportation and Infrastructure  
Committee**

**“Addressing the Nation’s Critical  
Bridge Needs”**

**September 5, 2007**

**William G. Cox**  
**Vice Chairman At-Large, American Road & Transportation**  
**Builders Association**  
**Testimony before**  
**House Transportation and Infrastructure Committee**  
**“Addressing the Nation’s Critical Bridge Needs”**  
**September 5, 2007**

Chairman Oberstar, Representative Mica, and other members of the Committee, thank you for inviting the American Road & Transportation Builders Association (ARTBA) to take part in your discussion of the status of the nation’s bridges. I am William Cox, president of Corman Construction, Inc., a multi-disciplinary contracting company based in Annapolis Junction, Maryland. I also serve as vice chairman at-large of the American Road & Transportation Builders Association.

Throughout my professional career, I have been intricately involved in bridge construction. Among the projects my company has worked on are: the Historic Market Street Bridge in Wilmington, Delaware; the Harpers Ferry Bridge in West Virginia; the new Woodrow Wilson Bridge between Virginia and Maryland; and we are currently working on the Frederick Douglass Bridge in Washington, D.C.

ARTBA, established in 1902, has over 5,000 member firms and member public agencies from across the nation. They belong to ARTBA because they support strong federal investment in transportation improvement programs to meet the needs and demands of the American public and business community. The industry we represent generates more than \$200 billion annually in U.S. economic activity and sustains 2.5 million American jobs.

ARTBA has long been a proponent of a robust federal bridge program because of the unique and essential role bridges play in helping facilitate the efficient movement of people and goods throughout the nation. I would like to share with members of the Committee a brief excerpt from ARTBA’s long-standing bridge policy, which is relevant to today’s discussion:

“ARTBA encourages Congress to significantly increase federal funding for bridge repair and replacement and continue discretionary funding for high-cost bridge projects. Proper investment should be made on individual projects to ensure that the highest quality materials and state-of-the-art technologies are used on federal-aid bridges. ARTBA believes the federal government should establish uniform bridge inspection standards so that bridge funding priorities can be established. The choice between whether to rehabilitate or replace a structurally deficient bridge should be based on careful inspections and detailed cost comparisons that consider safety, future maintenance, environmental and social impact, and operational costs. Such studies, design services and bridge inspections should utilize professionally qualified engineers.

“We also encourage the federal government to take the lead in developing and coordinating a national information system that would catalogue and share technical experiences and expertise in the areas of bridge repair and rehabilitation.”

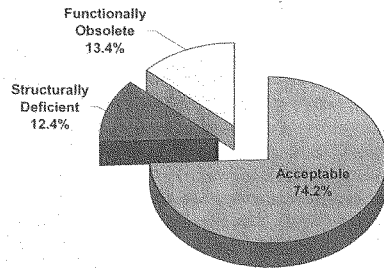
While ARTBA welcomes today's discussion of the nation's enormous bridge needs and how best to address them, we deeply regret the circumstances that led to this hearing. Bridges can be rebuilt and roadways repaired, but lives touched by tragedy can never be wholly repaired. The entire ARTBA membership offers its condolences and prayers to families, including those in the road and bridge builder community, who lost loved ones or were injured by the I-35 W bridge collapse.

Last month's tragic event serves as a stark reminder that our transportation systems are an integral part of the American way of life and are all too often taken for granted. The fact that all levels of government are not investing enough to maintain existing transportation facilities, let alone meet growing demands, should come as no surprise. The U.S. Department of Transportation continues to report vast gaps between the amount of investment needed to maintain surface transportation system conditions and performance and the level of funding currently provided. In addition, reports from the Texas Transportation Institute and other institutions repeatedly quantify growing traffic congestion. These empirical statements underscore what anyone who travels on the nation's roadways, bridges, airways, and rails already knows—the U.S. transportation system is not keeping pace with the demands being placed on it and the situation is getting worse.

**Bridge Conditions**

In recent years, state and local transportation departments have been making a concerted effort to improve bridge conditions in the U.S. In 1997, 20 percent of the value of construction work on highways involved bridge repairs or replacements. Today, this share had risen to 30 percent. As a result, the backlog of deficient bridges has been reduced significantly. In 1996, there were 101,518 structurally deficient bridges and 81,208 functionally obsolete bridges on U.S. highways, for a total 182,726 deficient bridges. This represented 31.4 percent of all bridges in the U.S. In 2006, there were 73,764 structurally deficient bridges and 80,226 functionally obsolete bridges for a total of 153,990. This represented 25.8 percent of bridges.

**One Quarter of U.S. Highway Bridges Need Repair or Replacement**



Source: Federal Highway Administration, National Bridge Inventory, 2006

But much more investment is needed to bring the nation's bridges into good repair. 153,990 bridges still need repairs or replacement to be rated acceptable. While deficient bridges are generally considered safe to use, the possibility of failure always exists—as the fatal collapse of the I-35 bridge in Minneapolis amply illustrates. According to the U.S. DOT 2006 Conditions & Performance (C&P) report, “\$65.2 billion could be invested immediately in a cost-beneficial fashion to replace or otherwise address currently existing bridge deficiencies.”<sup>1</sup> This is essentially the cost to do all of the bridge work in the United States where the benefit of the project outweighs the cost.

It is important to note the investment requirements detailed in the C&P report are in constant 2004 dollars. As such, any future investment decisions must factor into consideration the dramatic growth in construction material prices that has occurred in the last three years. Failing to recognize the increased cost of materials like steel, aggregate and cement will ensure the purchasing power of any investments directed at bridge deficiencies is diluted and does not produce the desired results. Since 2003, highway, street and bridge material prices have increased 42 percent. During the same time period inflation, as measured by the Consumer Price Index, increased about 10 percent. As such, the inflation-adjusted investment requirements in the C&P report should take into consideration increased material costs, at least in the short-term, which typically account for 45 percent of a project's overall cost.

Mr. Chairman, the nation has vast unmet bridge needs that are well documented and irrefutable. The U.S., however, is not just suffering from a bridge crisis; it is suffering from a surface transportation crisis. We need to dramatically upgrade the nation's bridges and its roadways and public transportation facilities. The U.S. transportation network is a holistic system and we must begin the process of addressing all of these needs in a meaningful way as soon as possible.

#### **Immediate Federal Leadership Needed**

The collapse of the I-35 W bridge demonstrates the tragic consequences that can occur from failing to correct critical infrastructure needs. This, however, is not just an isolated, one-time event. Earlier this summer, a steam pipe exploded underneath a busy street in Manhattan. Following this nearly tragic event, New York City Deputy Mayor Dan Doctoroff appropriately characterized the nation's overall infrastructure crisis by saying, “These long-term investments are not politically popular. Somebody's got to pay for them. But what's clear, and we experienced this dramatically yesterday, is unless you make those investments now, you pay so much more in the future in terms of money, in terms of inconvenience, and tragically sometimes in terms of loss of life.”

Deteriorating bridges represent an urgent public safety threat that requires immediate action. We commend Chairman Oberstar for detailing a bold strategy to upgrade bridges on the National Highway System (NHS). As the NHS carries the vast majority of the nation's interstate commerce and NHS bridges bear 70 percent of all U.S. bridge traffic, an aggressive federal response is not only appropriate, but also is the best chance to ensure this national priority is addressed. It is clear Americans want more accountability from the federal government and the

<sup>1</sup> U.S. DOT. *2006 Conditions and Performance Report*. p. 7-17.

approach outlined in Chairman Oberstar's "NHS Bridge Reconstruction Initiative" is not business as usual. The concept is a targeted approach that will provide quantifiable results in a short period of time.

As I mentioned earlier, the U.S. surface transportation infrastructure network must be revamped to catch up with the increasing demands being placed upon it and to help the nation strategically prepare for the future. I commend both Chairman Oberstar and Representative Mica for their clear statements of support and advocacy for developing a long-range national strategic transportation plan. ARTBA members view a targeted federal bridge rehabilitation initiative as a logical first step toward restructuring the core federal highway and public transportation programs to address unmet needs in the 2009 reauthorization of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). In fact, ARTBA is advocating the inclusion of a new federal program, the Critical Commerce Corridors, as part of the SAFETEA-LU reauthorization effort that is funded outside the Highway Trust Fund and dedicated to building the transportation system capacity necessary to ensure the secure and efficient movement of freight.

#### **National Challenges Require National Solutions**

A consistent theme, if not goal, in the last three federal surface transportation program reauthorization bills has been to provide increased flexibility to states in use of their federal highway funding. The argument that state and local authorities—or even elected federal representatives—know best the unique transportation challenges and needs of their area and constituents and should thus have control in directing federal highway funds can be powerful.

Sometimes, however, meeting national needs means allowing a federal role that uses funds collected from the citizenry as necessary to meet national objectives. Such as would be the case under Chairman Oberstar's bridge rehabilitation initiative. While much of the current federal highway and public transportation programs are, and should remain, regionally focused and controlled, federal surface transportation program funds must not be considered entitlements. History has demonstrated it is entirely appropriate for the federal government to direct resources toward growing needs that are clearly in the national interest.

The Interstate Highway System would never have been built if each state alone had to pay for the segments running through it. The massive reconstruction and rehabilitation of the Interstate currently necessary—and the construction and maintenance of the "Next Generation" expansion of the U.S. surface transportation system that is necessary to keep America competitive during this century—will never be done if most federal highway funding remains "flexible" or earmarked. As such, we urge all members of the Committee to support Chairman Oberstar's proposal which would address an immediate public safety threat and provide a critical foundation for a comprehensive SAFETEA-LU reauthorization in 2009 that truly addresses national transportation priorities.

### No Easy Solutions

Disasters, like the Minnesota bridge collapse, can be catalysts for change and improvement. They can also resurrect age-old debates and ideological differences that perpetuate the status quo. Political will and leadership are the key to determining the ultimate outcome.

Mr. Chairman, other member of the Committee, it is easy to be against a specific action or policy initiative and/or argue for the status quo. In this particular case, however, the facts clearly demonstrate the nation is facing major transportation challenges in the short- and long-term. Existing surface transportation financing mechanisms are failing to keep pace with growing demands—not because they represent an outdated or ineffective model, but because of purely political reasons. Simply put, any meaningful effort to maintain and improve the nation's surface transportation network will require additional investment and new revenues. The fact remains, good roads and bridges cost money, but bad roads and bridges cost even more.

Following last month's tragedy in Minnesota, certain groups have put forth the same stale arguments as to why federal leadership to help rehabilitate the nation's bridges is not warranted.

They suggest that if it were not for congressionally designated spending, or earmarks, ample resources would be available to address the nation's transportation needs. While this rhetoric makes for a good media sound bite, it is not accurate. The fundamental assumption behind this assessment is that earmarked funds are not being used for highway and bridge improvements. Mr. Chairman, over 80 percent of SAFETEA-LU's high priority projects were for road and bridge improvements and many of these projects were on state transportation plans.

It has also been stated earmarks are for wasteful projects. Again, this is a stretch of the truth. My company, Corman Construction, Inc., is involved in the Woodrow Wilson Bridge Project—the largest single earmark in the 1998 surface transportation program reauthorization law. The Woodrow Wilson Bridge was one of the nation's worst bottlenecks and was a major impediment to the movement of freight and people all along the East Coast. As it nears completion, it will be one of the most successful and beneficial transportation projects in the history of the U.S. It will also be delivered on time and on budget. Two of the roadways included in the Forbes magazine 2007 list of deadliest American roads (U.S. 95 in Idaho and U.S. 93 in Arizona) received SAFETEA-LU earmarks. The bill also provides funds for the Chicago Region Environmental And Transportation Efficiency (CREATE) project that will help improve cargo movement across the nation and improve U.S. competitiveness in the global marketplace.

Furthermore, according to the U.S. DOT C&P Report, federal highway and bridge investment is \$20 billion below the amount necessary to simply maintain current roadway and bridge physical conditions and congestion levels each year. At the same time, SAFETEA-LU's high priority project program is authorized at slightly less than \$3 billion per year. As such, eliminating the vast majority of SAFETEA-LU's earmarks and allocating these funds directly to state departments of transportation would still leave federal highway and bridge investment \$17 billion short each year of the amount the U.S. DOT says is necessary to preserve the status quo.

Mr. Chairman, a second consistent, but not surprising, argument raised against upgrading the nation's NHS bridges has been criticism of proposals to generate the necessary revenues to accomplish this goal. Even though the federal motor fuels tax has been demonstrated to be the most effective and reliable method to finance transportation improvements, it continues to be used as a political wedge issue. Opponents either claim the tax is a political death sentence or that it is an antiquated model. Numerous states have increased their gas tax in recent years with little to no electoral penalties for state lawmakers. The state of Washington increased its gasoline tax by 9.5 cents per gallon in 2005 and a ballot initiative to repeal the increase was rejected later that year on a 55 to 45 vote. While any tax increase typically receives immediate opposition, the American electorate has consistently demonstrated they are willing to pay more for transportation services if they are shown how resulting revenues will be utilized and they see value in those projects.

While it is true that increasing fuel efficiency standards and alternative motor fuel will ultimately have a dilutive effect on the gasoline tax, that point is not expected to be reached for at least another decade. The House Highways and Transit Subcommittee had a hearing on this topic earlier this year and all those testifying agreed the gas tax remains the most viable and robust source of funding for transportation improvements in the short term. The only thing that is antiquated about the gasoline tax is its rate. To suggest that drivers should be contributing the same level of financial support to maintain and improve the nation's transportation network as they did 14 years ago lacks all credibility. Since that time, the population has grown, the economy has grown, the number of vehicles has grown, demands on the system have grown, and the cost of road and bridge improvements has skyrocketed. It is not the gas tax that has not kept pace, it is the contribution motorists make for the benefits they receive from the nation's surface transportation network that has fallen behind.

Mr. Chairman, as we work to address the nation's comprehensive highway, bridge and public transportation challenges, we will need to consider all viable alternatives to raise the necessary revenues. There is no silver bullet or single solution to this problem. Public-private partnerships, innovative financing, tolling, and new user fees are all part of the solution. The foundation of this financing structure, however, at least for the next decade, should continue to be the federal motor fuels tax.

#### **Improving NHS Bridges Is A Critical First Step**

Mr. Chairman, the nation's transportation challenges are not insurmountable. Ingenuity and a can do attitude—hallmarks of American society—are the keys to successfully meeting these challenges. We must utilize all available options to meet these needs and we must do so in a holistic manner that recognizes our surface transportation infrastructure network is a true system of interrelated pieces.

ARTBA believes a targeted proposal to rehabilitate the nation's National Highway System bridges is a critical first step toward achieving the necessary goal of a comprehensive national surface transportation strategy and program. The federal government has a unique leadership role to play in upgrading these structures because of their role in the nation's transportation



network and the demonstrated public safety threat that can exist. We urge all members of Congress to support Chairman Oberstar's NHS Bridge Reconstruction Initiative.

Mr. Chairman, thank you again for the opportunity to be with you today. I would be pleased to answer any questions from you or other members of the Committee.

**TESTIMONY SUBMITTED BY:**

**DONALD J. KANIEWSKI  
LEGISLATIVE AND POLITICAL DIRECTOR  
LABORERS' INTERNATIONAL UNION OF NORTH  
AMERICA**

**ON BEHALF OF THE**

**NATIONAL CONSTRUCTION ALLIANCE  
905 16<sup>TH</sup> STREET, NW  
WASHINGTON, DC 20006  
(202)347-1660**

**before the**

**HOUSE COMMITTEE ON TRANSPORTATION AND  
INFRASTRUCTURE**

**SEPTEMBER 5, 2007**

**TESTIMONY SUBMITTED BY:**

**DONALD J. KANIEWSKI  
LEGISLATIVE AND POLITICAL DIRECTOR  
LABORERS' INTERNATIONAL UNION OF NORTH AMERICA**

**ON BEHALF OF THE NATIONAL CONSTRUCTION ALLIANCE**

**BEFORE THE HOUSE COMMITTEE ON TRANSPORTATION AND  
INFRASTRUCTURE**

**SEPTEMBER 5, 2007**

Chairman Oberstar, Ranking Member Mica and other distinguished Members of the Committee. I want to thank you for the opportunity to appear before you today. My name is Donald Kaniewski, and I am the Political and Legislative Director of the Laborers' International Union of North America. I testify not only as a representative of the Laborers', but also on behalf of the unions that are members of the National Construction Alliance (NCA): the United Brotherhood of Carpenters and the International Union of Operating Engineers. Together we represent well over one million highly skilled construction workers who build America's infrastructure day in and day out. Our members are the ones that take congressional authorizing legislation and convert it into real world concrete and steel transportation projects that move this country.

It is no longer a secret that America has serious infrastructure problems and needs a comprehensive infrastructure policy for the 21<sup>st</sup> Century. Recent events such as the tragic Minnesota bridge collapse, the explosion of an underground steam pipe in New York City and the devastating hurricanes that struck the Gulf Coast region underscore the necessity of a renewed national commitment to repairing and modernizing our infrastructure.

The National Construction Alliance has been a long standing advocate for robust federal investment in our nation's infrastructure system. It is our belief that a solid infrastructure system, across the entire range of modalities from highways, airports, harbors, freight and passenger rail, etc., forms the physical backbone that is critical to maintaining and enhancing economic growth, competitiveness, productivity and quality of life in this country. Therefore, we deem it unacceptable that:

- 97 percent of roads, bridges and tunnels, and 88 percent of transit / rail systems will require “much” or “moderate” improvement in coming years;<sup>1</sup> and
- There is a \$1.6 trillion deficit in needed infrastructure spending through 2010 just for repairs and maintenance.<sup>2</sup>

In addition to the public safety concerns associated with neglecting our fundamental infrastructure needs, America’s global competitiveness is severely undermined. When it comes to infrastructure investment, America is no longer a world leader, it is a follower. On average since 1980, the United States has spent less than 2% of its Gross Domestic Product (GDP) on infrastructure. This is a stark contrast to our global competitors, China and India, which are building at a staggering pace. According to recent statistics, China spends 9% of its GDP on infrastructure and India spends 5% of its GDP on infrastructure.<sup>3</sup> The governing leadership of these countries clearly understands the critical importance of robust infrastructure investment for future economic competitiveness in a global economy.

Clearly, no one can dispute that America needs a master plan that closes the gap between available revenues and documented need. We need a strategic approach as we address our immediate needs and as we begin to lay the groundwork for a comprehensive 2009 surface transportation program reauthorization.

Mr. Chairman, your proposal is a significant part of the solution that moves our nation closer to achieving these goals. That is why the three unions of the NCA strongly support your Bridge Improvement proposal. Your plan is a critical step in the right direction for the following reasons:

- It provides immediate, dedicated funding for bridge inspection, repair, rehabilitation and reconstruction;
- It creates a dedicated trust fund to ensure new revenues are utilized for their intended purposes;

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<sup>1</sup> Urban Land Institute, “Survey of Directors of Planning for State Departments of Transportation”, February – March 2007

<sup>2</sup> American Society of Civil Engineers, “America’s Infrastructure Report Card – 2005”

<sup>3</sup> Urban Land Institute / Ernst & Young Report, “Infrastructure 2007: A Global Perspective”

- It implements a needs based funding proposal, with a strict prohibition on earmarks; and
- It considers all options to generate the necessary revenues for the program, including an increase in user fees – a matter I will discuss in detail later.

This specific approach is exactly what is needed to solidify public support and reinvigorate the political will behind infrastructure investment. America's support of increased investment in infrastructure has to be based on trust and your plan strikes a balance by first assessing need before stipulating funding.

Now that we have the focus of the nation on the chronic underinvestment in its aging and ailing infrastructure, we must not lose it. We must take on those whose rigid ideology and rhetoric would automatically straight-jacket the debate by refusing to put all of the revenue options on the table to address the problem in a forthright manner. Once the need is clearly established, then the issue is one of establishing a sufficient revenue source to realistically address our investment needs.

There has been a noticeable increase in rhetoric on the House floor in recent months concerning levels of spending by the federal government for various programs in FY2008. More specifically, there have been efforts to reduce the level of investment in federal infrastructure programs. One effort to cut the U.S. Army Corps of Engineers construction account by \$481 million was defeated on a strong bi-partisan vote of 351 – 76 despite pleas by the proponent to reduce wasteful federal spending.<sup>4</sup> In another instance, the House voted overwhelmingly to pass the FY2008 Transportation Appropriations Bill despite the Administration's strong veto threat against "increasing funds for the Federal Aid Highway program..."<sup>5</sup>

My point in citing these examples is a simple one; now is not the time to engage in cheap sloganeering about "tax and spend" approaches to federal government spending when it comes to federal investment in critical infrastructure needs. It should not be a partisan position to recognize that robust federal infrastructure investment is necessary to create the economic platform which allows the private sector to effectively compete in a global economy.

Today, other panelists will present irrefutable evidence that we are facing an infrastructure investment crisis in America. Rather than add-on to their thorough testimonies, I would like to focus on how to generate the revenue stream to build, maintain and fund a world class 21<sup>st</sup> Century infrastructure.

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<sup>4</sup> House Roll Call Vote 503: "FY 2008 Energy – Water Appropriations", June 19, 2007

<sup>5</sup> Statement of Administration Policy: July 23, 2007

**NCA Policy Recommendations**

We strongly believe that building and maintaining a world class 21<sup>st</sup> Century infrastructure system, one that makes the nation competitive in a global economy, is inherently a federal responsibility.

Furthermore, we believe that in order to improve investment in the nation's infrastructure, we must maximize all existing revenue sources. As we all know, the federal gas tax is the sole source of revenue for investments in highways and transit. Until another equally efficient method of funding is identified, we believe that the most straightforward approach to increasing revenue lies in increasing the user fee. Let me be specific: a gas tax increase is the most direct way to address the short-term revenue needs to fund this particular bridge proposal. Such a direct correlation between revenues and spending is fiscally responsible, especially in a "pay-go" budgetary environment.

With respect to a more comprehensive reauthorization of the Highway Transit program, we would support various fee modifications and or additions that are tied to a trust fund that is dedicated to the purposes of funding and improving the nation's infrastructure system. A gas tax increased or transformed into a sales tax or a fee based on vehicle miles traveled (VMT), or combination thereof, are all acceptable to us and we believe to the public if they have confidence that they will get what they pay for and the funds will not be diverted. We are not averse to innovative financing, particularly for large projects of national significance. Bonding and other tools of financial leverage should be part of the mix. Although we are not experts on all methods of innovative financing, we believe everything that enhances investment must be considered.

In conclusion, while we recognize the need for a comprehensive, systemic approach to America's overall infrastructure needs and how best and most effectively to finance those needs across a range of modalities, we strongly encourage a singular focus on the present bridge deficiency issue before us as the most politically doable piece of the broader infrastructure problem facing this country. A five cent gas tax increase to raise the necessary \$25 billion dollars for bridge inspection and repair is a finite, achievable objective in the remaining months of the 110<sup>th</sup> Congress. We respectfully urge recognition of this reality and encourage the Committee and both bodies of Congress to act quickly and pass desperately needed legislation to ensure that the infrastructure system America relies on is safe.

Thank you again for the opportunity to provide testimony today.



# Statement of the U.S. Chamber of Commerce

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**ON:** THE IMPORTANCE OF TRANSPORTATION  
INFRASTRUCTURE TO THE AMERICAN BUSINESS  
COMMUNITY

**TO:** THE U.S. HOUSE OF REPRESENTATIVES COMMITTEE ON  
TRANSPORTATION AND INFRASTRUCTURE

**BY:** JANET F. KAVINOKY  
U.S. CHAMBER OF COMMERCE

**DATE:** SEPTEMBER 5, 2007

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The Chamber's mission is to advance human progress through an economic, political and social system based on individual freedom, incentive, initiative, opportunity and responsibility.

The U.S. Chamber of Commerce is the world's largest business federation, representing more than three million businesses and organizations of every size, sector, and region.

More than 96 percent of the Chamber's members are small businesses with 100 or fewer employees; 70 percent have 10 or fewer employees. Yet, virtually all of the nation's largest companies are also active members. We are particularly cognizant of the problems of smaller businesses, as well as issues facing the business community at large.

Besides representing a cross-section of the American business community in terms of number of employees, the Chamber represents a wide management spectrum by type of business and location. Each major classification of American business— manufacturing, retailing, services, construction, wholesaling, and finance—is represented. Also, the Chamber has substantial membership in all 50 states.

The Chamber's international reach is substantial as well. The Chamber believes that global interdependence provides an opportunity, not a threat. In addition to the U.S. Chamber of Commerce's 96 American Chambers of Commerce abroad, an increasing number of members are engaged in the export and import of both goods and services and have ongoing investment activities. The Chamber favors strengthened international competitiveness and opposes artificial U.S. and foreign barriers to international business.

Positions on national issues are developed by a cross-section of Chamber members serving on committees, subcommittees, and task forces. More than 1,000 business people participate in this process.



**Testimony of Janet F. Kavinoky**

**Executive Director, Americans for Transportation Mobility Coalition and  
Director of Transportation Infrastructure, U.S. Chamber of Commerce**

**U.S. Chamber of Commerce**

**September 5, 2007**

**Before the U.S. House of Representatives Committee on Transportation and Infrastructure**

**Introduction**

Mr. Chairman, Mr. Ranking Member and distinguished members of the House Committee on Transportation and Infrastructure, thank you very much for the opportunity to testify on the importance of transportation infrastructure, and specifically bridges, to the American business community.

My name is Janet Kavinoky, and I am the Executive Director of the Americans for Transportation Mobility Coalition and the Director of Transportation Infrastructure at the U.S. Chamber of Commerce. The U.S. Chamber is the world's largest business federation representing over three million businesses and organizations of every size, sector and region.

Today, your committee meets at a time when—at long last—the nation's attention is focused squarely on infrastructure, but under the worst possible circumstances. The tragic deaths of those swept away in the Minneapolis bridge collapse are a potent reminder of something we know all too well: America's infrastructure is showing its age.

Our hearts go out to those who lost loved ones. Hopefully, something positive can emerge from this tragedy—a new national resolve with committed citizens and accountable leaders working together to ensure a disaster like this is never repeated.

Now is the time to move on a robust, thoughtful, and comprehensive plan to build, maintain, and fund a world-class 21<sup>st</sup> century infrastructure. There can be no more delay.

We cannot treat infrastructure like other problems or programs where you can wait until the very last minute and then write a big check. Infrastructure projects require foresight and years of careful planning.

Today we have been asked to provide the “user’s perspective” and will emphasize just how critical America’s transportation infrastructure, including bridges, is to the businesses that rely on fast, cost effective and reliable transportation of goods and people.

This testimony covers three topics:

1. The role of transportation in our economy.
2. What is at stake from the business community’s perspective.
3. What can be done in the short term and our recommendations for addressing long term issues.

## **The Role of Transportation in our Economy**

### **Freight and Goods Movement**

Manufactured goods and cargo move through the United States on a system primarily consisting of ports, roads, rail and inland waterways. Bridges serve as critical links in the system. The supply chain is viewed from initial point of origin to the final destination, with frequent junctures in between. To keep competitive domestically and internationally, many U.S. businesses have developed complex logistics systems to minimize inventory and ensure maximum efficiency of their supply chains. However, as congestion increases throughout the transportation system, these supply chains and cargo shipments are frequently disrupted and the cost of doing business increases.

The growth in international trade is overwhelming U.S. intermodal freight capacity. In the next 30 years, domestic freight volume is forecast to double and international freight volume entering U.S. ports may quadruple, according to the American Association of State Highway and Transportation Officials (AASHTO).

According to the Federal Highway Administration’s (FHWA) recent report, “An Initial Assessment of Freight Bottlenecks on Highways,” “If the U. S. economy grows at a conservative annual rate of 2.5 to 3 percent over the next 20 years, domestic freight tonnage will almost double and the volume of freight moving through the largest international gateways may triple or quadruple.... Without new strategies to increase capacity, congestion... may impose an unacceptably high cost on the nation’s economy and productivity.”

Labor shortages and increased security requirements born from 9/11 are compounding these capacity constraints and increasing congestion at key entry, exit and throughput points throughout the country.

In Memphis, TN, at a hearing of the National Surface Transportation Policy and Revenue Study Commission, on November 15, 2006, Doug Duncan, CEO of FedEx Freight and a Chamber member, summed up the freight community’s acute interest in infrastructure. “I’m afraid if things don’t turn around soon, we’ll begin turning the clock back on many of the improvements that these supply chains have made and begin to restrain commerce instead of support commerce.”

### **Passenger Transportation and Personal Mobility**

Employers rely on transportation systems to connect them to their workforce, and to connect that workforce with suppliers and customers around the country and the world. Unfortunately, increasing congestion is disrupting these important connections and imposing additional costs on the workforce and employers alike.

Public transportation such as buses, rapid transit and commuter rail systems are important solutions to the growing congestion crisis in the United States, but chronic underinvestment is leaving these systems strained under increasing use. Americans took 10.1 billion trips on local public transportation in 2006. From 1995 through 2006, public transportation ridership increased by 30 percent, a growth rate higher than the 12 percent increase in US population and higher than the 24 percent growth in use of the nation's highways over the same period. The Federal Transit Administration (FTA) estimates \$14.8 billion is needed annually to maintain current conditions, while \$20.6 billion is needed to improve to "good" conditions.

### **What is at Stake**

What's at stake is simple and stark:

As President of Caterpillar USA, and former Chamber Chairman, Gerry Shaheen, stated at the New York field hearing of the National Surface Transportation Policy and Revenue Study Commission on November 15, 2006: "transportation in this country is breaking down."

If we fail to address our transportation infrastructure challenges, we will lose jobs and industries to other nations. Our global competitors are building and rebuilding while America is standing still. China, India, and the developing world are building at a staggering pace. China spends 9% of its GDP on infrastructure; India, 5% and rising. While they started well behind us, they are catching up fast. The United States has spent less than 2% on average as a percentage of GDP since 1980. We cannot expect to remain competitive with that level of investment.

If we fail to act, we will pollute our air and destroy the free, mobile way of life we cherish. Thirty-six percent of America's major urban highways are congested. Congestion costs drivers \$63 billion a year in wasted time and fuel costs. Americans spend 3.7 billion hours a year stuck in traffic. And while their car engines are idling, they are pumping thousands of tons of pollution into the air every day.

If we fail to increase investment, we will see more senseless deaths on our bridges and roads, not to mention on our rails and waterways. Americans need to know that 33% of our major roads are in poor or mediocre condition. Shoddy road conditions result in \$67 billion in extra vehicle repairs and operating costs per year. More important, poorly maintained roads contribute to a third of all highway fatalities. That's more than 14,000 deaths every year—a national scandal of shocking proportions.

It is all likely to get much worse. We have a system that is overworked, under-funded, increasingly unsafe, and without a strategic vision.

According to the study “Future Financing Options to Meet Highway and Transit Needs,” there is an average annual gap of over \$50 billion in capital, operations and maintenance funding to maintain the nation’s highway and transit systems from 2007 to 2017, and an average annual gap of over \$100 billion to “improve” these systems.

The cost of materials used to fix pavements has increased 33% in the past three years. Steel, oil, and concrete are all more expensive.

Yet despite these growing needs and costs, the Highway Trust Fund will be \$4 billion in the hole in just two years, and the user fees on fuels that are the primary source of resources at the Federal level have not been increased since 1993.

These figures do not even address other critical elements of our transportation infrastructure: freight and passenger rail, inland waterways, ports and other maritime needs, and, of course, aviation. The American Society of Civil Engineers says that our civil infrastructure needs add up to some \$1.6 trillion over the next five years including transportation systems, clean water and wastewater facilities, schools and recreational facilities.

How did we arrive at the situation we face today?

Decades ago we built the best infrastructure system the world has ever known and then proceeded to take it for granted. As a nation, we’ve allowed governments at all levels to pile on complex and overlapping regulations. It takes years, even decades, to bring projects on line. Red tape and lawsuits can bring the most commonsense improvements to a grinding halt.

Decision-makers have refused to make tough choices or set common sense priorities. We have failed to plan, failed to innovate, and failed to invest. We’ve allowed money to be wasted and have permitted federal and state lawmakers to divert infrastructure dollars to other purposes. We’ve seen construction and land costs go up while letting revenue sources stagnate and decline.

## **Where We Go From Here**

It is time to address these issues and create a new era in transportation.

### **The Next Era in Transportation**

This country’s current approach to delivering transportation infrastructure is not set up for today’s robust economy or the economy of the future.

In spite of the multi-modal and intermodal needs of transportation system users, the planning, construction, and financing of infrastructure has been separated by public and private entities and has focused on individual locations and modal stovepipes.

The Chamber believes that this next era in surface transportation requires a multi-modal and intermodal vision that supports competition in the global economy and emphasizes the important role of the federal government.

We need a national plan. As Ranking Republican Member John Mica aptly articulated in an Op-Ed in The Hill earlier this year, "[T]he federal government must take a lead role in developing a national strategic transportation plan for the next 50 years that makes the most efficient use of every transportation mode and incorporates the expertise and resources of both private and public sectors." We thank the Ranking Member for his continued vision and leadership on this issue.

Every level of government must step up to the plate and make commitments to expand capacity either through better utilization of existing infrastructure or creation of additional infrastructure. The federal government, however, bears a significant part of the responsibility when ensuring that:

- National needs are met;
- Legacy assets, including the Interstate Highway System, are maintained and improved to guarantee continued nationwide connectivity;
- Utilization of existing networks is maximized; and,
- Infrastructure investment is aligned with the needs that arise from the global economy, trade policies, and the flow of interstate commerce. There is a federal role in prioritizing investment in new capacity and operational improvements in global gateways and trade corridors.

The federal government must perform a critical role:

- Working through difficult intergovernmental relationships;
- Providing resources for complex, multi-state or multi-jurisdictional projects; and,
- Encouraging the public and private sectors to pursue innovations that improve infrastructure performance, financing or development.

#### **Need for a Comprehensive Approach**

While the events of August have shone a spotlight on the state of the nation's bridges, it is important to recognize that the I-35 W collapse is symptomatic of a much larger infrastructure problem. The poor condition of the nation's infrastructure is not confined to bridges alone. As I outlined earlier, the business community looks holistically at transportation infrastructure. So, in addition to bridges we must address:

- Road traffic, which has already shot up 40% between 1990 and 2005 while capacity has increased just 2% and is expected to skyrocket in coming years.

- Our transit systems earned a D+ rating from the American Society of Civil Engineers. Transit investment is falling even as transit use increased faster than any other mode of transportation—up 21%—between 1993 and 2002. As the Committee discusses bridge needs, it is important to note that according to the *2006 Conditions and Performance Report* issued by USDOT the percentage of elevated transit structures in adequate or better condition decreased from 91 percent in 2002 to 84 percent in 2004, and the percentage in substandard or worse condition increased from 9 to 16 percent.
- The antiquated air traffic control system that is a contributing factor to a third of all U.S. flights being cancelled or delayed in July this year. U.S. airlines could have 1 billion customers by 2015 and more passengers mean more planes. The use of smaller regional jets and the growth in business and general aviation are also factors in congestion. The costs of inaction are steep—aviation delays cost \$9 billion in 2000 and are on target to hit more than \$30 billion by 2015. There is also the cost no one likes to talk about—the potential for significant loss of life in midair or on overcrowded runways.
- Ports that are straining under the weight of cargo volumes that are doubling or tripling. By 2020, every major U.S. container port is projected to at least double the volume of cargo it was designed to handle. Select East Coast ports will triple in volume, and some West Coast ports will quadruple.
- Rail infrastructure requires nearly \$200 billion over the next 20 years to maintain existing infrastructure and to accommodate freight growth.
- Our inland waterways need serious attention—removing obstructions, widening channels, and replacing locks. The number of dams deemed unsafe by our civil engineers has risen 33% to more than 3,500 since 1998.
- AASHTO has estimated that intercity passenger rail corridors will require \$60 billion in capital investment over the next 20 years to maintain existing infrastructure and to expand capacity.

What can the federal government do specifically with regard to a freight transportation system?

- Improve road connections between ports and intermodal freight facilities and the national highway system;
- Improve connectivity and capacity so that railroads can efficiently and reliably move cargo between ports and inland points;
- Develop a national intermodal transportation network so that cargo can flow at speed among multiple alternative routes; and,
- Help prioritize infrastructure improvements of long-term network plans and projects of national significance and then reserve funding for such projects.

**National Highway System Bridge Reconstruction Initiative Proposal**

What about bridges, which are the main topic of today's hearing?

We applaud Chairman Oberstar for his leadership in proposing a National Highway System Bridge Reconstruction Initiative to address the nation's deficient bridges. The evidence of need is compelling: since 1966, 1,500 bridges have actually collapsed. Today, one quarter of our nation's bridges are structurally deficient or functionally obsolete, which threatens our economy. Consider a June 2004 study by the Oregon Department of Transportation that reported the potential economic impact of structurally deficient bridges in that state of \$123 billion over the next 25 years. The same study points out that two Interstate highways in Oregon, I-5 and I-84, are critical links in the North American trade network and need unrestricted access by trucks, which still carry the overwhelming percentage of freight in this country by weight.

In particular, we are pleased that the Chairman intends to ensure that a bridge program emphasizes addressing the needs of the system and improving oversight. We agree that it is critical to address the backlog of bridge maintenance by investing based on public safety and need. The Chairman's intent to distribute funding via a formula and to prohibit congressional and administration earmarking is on target. In addition, we support updating national bridge inspection standards and requiring state governments to immediately inspect structurally deficient bridges.

Before considering a new source of funds for bridges, however, we encourage Congress to hold states accountable for the expenditure of existing resources. We are concerned about the creation of a separate program without addressing the shortcomings of the existing bridge program in SAFETEA-LU. Although there is a clear shortage of funds to address the widespread deficiencies in bridges, the Chamber would first like Congress to ensure that existing dollars apportioned to states through the bridge program are used on priority bridges. We question why states are diverting bridge dollars to other SAFETEA-LU funding categories and returning bridge contract authority to the Federal government when Congress rescinds that authority in appropriations bills.

If these practices are allowed to continue, the result of a new bridge program may not be additional funding to address public safety and bridge needs. Rather, states may be encouraged to divert even more of their existing bridge program dollars to non-bridge projects – essentially creating a substitution effect.

It is clear that chronic underinvestment is a major contributing factor to the problems across all modes of transportation; however, misuse of funding, a lack of resource prioritization, and poor comprehensive planning must also be addressed. Every option must be on the table to address the enormous problems of the aging transportation infrastructure including spending infrastructure dollars more wisely, ensuring that states do not divert their transportation funding away from its intended use in the name of "flexibility," attracting more private investment, encouraging public-private partnerships, investing in new technologies, and, yes, raising user fees.

### **The Chamber's Commitment: Let's Rebuild America**

Permit me to address briefly what the nation must do to meet the enormous and urgent challenge that I have just outlined and tell you what the U.S. Chamber intends to do.

Those of us who have worked on infrastructure for many years have learned that on this issue public attention spans are short. Government decision making is slow and diffuse. Politicians rarely look beyond the needs of their own states and districts. The news media mostly yawn unless there is a tragedy.

If we really want to move this country off the dime and build a modern and safe infrastructure, then the business community must step up to the plate and lead.

The Chamber of Commerce of the United States will organize, fund, and lead this critical effort. We are launching a major, multimillion dollar initiative called Let's Rebuild America.

We will put money, people, research, programs, and strong political action around a sustained, long-term campaign to rebuild the economic platform of our nation. We will employ every resource at our disposal—our policy expertise, our lobbying clout, our grassroots capabilities, and our communications channels. We will appeal to every American who is sick of pollution, tired of congestion, fed up with rising costs, and concerned about their safety.

To succeed, we need all transportation and infrastructure stakeholders at the table—all modes, all industries, builders, carriers, users, and shippers alike. It is time for us all to roll up our sleeves and go to work. The business community will lead this effort—but to do so all of the infrastructure providers, passenger and freight carriers, and the traveling public and shippers must be united. We must put an end to the intramural squabbles that have divided stakeholders—mode versus mode, shipper versus carrier, urban versus rural, and region versus region. We will all lose unless we rally and unite around an urgent and compelling mission—to rebuild America.

Four key goals will define the mission and underpin the work of our Let's Rebuild America initiative.

#### **Documenting the Problem with Solid, Indisputable Research**

First, we will document in a factual and comprehensive way the totality of America's infrastructure needs—not just what is required to patch things up, but what we must do to move our country and economy forward in a competitive world.

Our experience tells us that putting a credible body of facts on the table and gaining widespread agreement on those facts are critical first steps to forging consensus and forcing action.

We have joined with others in asking the Rand Corporation to prepare a definitive report that documents the current state of our infrastructure and outlines the future needs of a \$13



trillion economy that will grow to \$20 trillion by 2020, given a 3% growth rate. Researchers will also break out their findings state-by-state so that we can put an infrastructure report card in front of every governor and state legislature in the country. Perhaps, then, they will see the light—and feel the heat!

#### **Educating Americans about the Benefits of Infrastructure and the Cost of Failure**

Our second goal is to educate the public, the business community, policymakers, and government at all levels about the benefits of investing in infrastructure and the cost of failure.

Using the Rand study and other research— and backed by an aggressive communications program—we will widely disseminate a series of compelling messages to build grassroots support for infrastructure.

The people of our country must know, and be reminded again and again, that we can create good American jobs, clean the air, succeed in a global economy, preserve a good quality of life, and save innocent lives by investing in our infrastructure.

#### **Spurring Private Investment in Infrastructure**

Our third goal is to unleash and unlock the potentially hundreds of billions of dollars in private investment just waiting to be spent on critically needed power plants, pipelines, refineries, transmission lines, broadband lines, port facilities, railroads, airports, and privately constructed roadways.

The money is there—ready, willing, and able—if government and regulators would just get out of the way.

No one objects to timely environmental reviews, and we all support strong health and safety protections. But the red tape, lawsuits, and mind-numbing regulations we have imposed on our infrastructure systems and transportation modes defy common sense.

The Chamber's Let's Rebuild America initiative will identify and seek to reform those rules and policies that threaten the efficiency of our logistics system and obstruct positive investments in our nation's future.

#### **Fostering an Honest Dialogue on Public Financing**

Yet even with these approaches, there is no question that as a nation, we are going to have to find and invest more public dollars in our infrastructure.

Our fourth goal is to foster an honest national dialogue on how and where we are going to find the public money to meet critical infrastructure needs. There is no single answer to that question—and that's good! It means we have options, but all the options must be on the table.

First, we must do more to ensure that public dollars are spent wisely. That means ending waste and targeting the highest priority projects. It means a sensible mix of projects based on actual needs and not on politics or ideologies—for example, more road construction in some communities, more investment in mass transit in others.

It also means ending the practice of diverting money intended for infrastructure to other programs. Politicians should start paying a price when they skim money from dedicated transportation funds to pay for projects of their own choosing. It breaks trust with the taxpayers who expect their user fees to go toward their intended purposes.

Both the federal and state governments are guilty of this practice. U.S. Secretary of Transportation Mary Peters says that only 60% of federal highway funds actually are spent on “core” needs—highways and bridges. In Texas, the Legislature’s budget for the next two fiscal years will divert \$1.6 billion in infrastructure funding to other needs. That amount is up 15% from the previous budget cycle and a major step in the wrong direction. And Texas is hardly alone among the states.

The Federal Aviation Administration is even poaching its capital budget to pay for operations. That’s shortsighted, dangerous, and wrong.

In addition to cutting waste and ensuring that infrastructure dollars are spent as promised, we can also stretch public dollars by tapping the growing interest in public-private partnerships and other innovative financing arrangements.

Then, we are going to have to face this fundamental fact—we are a growing people and a growing country with aging infrastructure. We have to fix what we have, and then, if we want a new road, a new runway, or a new transit system, we’ve got to buy it. No one is giving them away for free.

Therefore, along with other options, we are going to have to consider an increase in the federal gasoline user fee. This could take the form of a straightforward increase in a fee that hasn’t been raised in 14 years—as long as the proceeds are dedicated to transportation.

## **Conclusion**

Mr. Chairman, Mr. Ranking Member, and members of the Committee, I hope each of you will closely follow the announcements we will make in the coming weeks as we roll out our Let’s Rebuild America initiative. We welcome your ideas, your expertise, and your criticisms. We will do the critical research, build an irrefutable case, and educate and mobilize the American people. We will tell a compelling story so that policy makers spur private investment by removing regulatory roadblocks, embracing innovation and technology, and supporting increases of public investment in infrastructure along with measures to ensure that the money is spent wisely and efficiently.

The question facing America is this: Are we still a nation of builders? Are we still a can-do society? Are we still the kind of people who can rally to a great cause with a shared sense of mission and national purpose?

It's worth recalling that after the great wars of the last century, the challenge facing America was to rebuild other countries, countries that were in ruins—even our former enemies. And we did it. Our challenge today is to rebuild our own country—a country that is hardly in ruins but which has serious unmet needs.

Surely we ought to be able to create the vision, forge the consensus, secure the resources, and find the political courage to make this happen.

I believe that we can, and I believe that we will. And business must lead the way.

It shouldn't take a disaster like the bridge collapse to focus the nation's attention on our vast infrastructure challenges. But now that we have that focus, we must not lose it.

Thank you very much for the opportunity to be here today.

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**Testimony of**

Malcolm T. Kerley, P.E.  
Chair, Highway Subcommittee on Bridges and Structures  
American Association of State Highway and  
Transportation Officials

REGARDING

**STRUCTURALLY DEFICIENT BRIDGES IN THE UNITED STATES**

**BEFORE THE  
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE**

**OF THE  
UNITED STATES HOUSE OF REPRESENTATIVES**

**September 5, 2007**

Founded in 1914, AASHTO represents the departments concerned with highway and transportation in the fifty States, the District of Columbia and Puerto Rico. Its mission is a transportation system for the nation that balances mobility, economic prosperity, safety and the environment.



**Introduction**

Mr. Chairman, my name is Malcolm Kerley. I am the Chief Engineer for the Virginia Department of Transportation. I chair the Highway Subcommittee on Bridges and Structures of the American Association of State Highway and Transportation Officials (AASHTO). I am a registered Professional Engineer in the State of Virginia..

On behalf of AASHTO, I want to thank you for holding this hearing and to express our support for your proposed National Highway System Bridge Reconstruction Initiative. We appreciate the focus on infrastructure needs in America that you have brought forth along with the proposal to create a new trust fund dedicated to bridge infrastructure. The State Departments of Transportation (State DOTs) consider bridge safety and bridge preservation to be one of our highest priorities, and we take this responsibility to preserve the safety and mobility of the traveling public very seriously.

I am here to provide you and the public with the answers to some critical questions that have arisen since the tragic collapse of the Interstate 35W bridge in Minneapolis:

1. What have states done since the accident to make doubly sure the nation's bridges are safe?
2. How are states investing bridge money?
3. Are current funding levels adequate for the job at hand?

Every state conducts a thorough and continual bridge inspection and rehabilitation program. America's bridges are inspected every two years by trained and certified bridge inspectors, conditions are carefully monitored, and, where deterioration is observed, corrective actions are taken.

While we know all states comply with federal bridge inspection standards, each state has a responsibility to ensure that it develops more detailed program appropriate to its unique circumstances.

Since August 1, in compliance with federal requests, every state has reviewed or is in the process of re-inspecting its steel deck truss bridges. Based on the reports of this review, we can say that these bridges are safe.

Nonetheless, of the almost 600,000 bridges across the country, roughly 74,000 (or 12.4%) are classified as "structurally deficient." This means that one or more structural condition requires attention. This may include anything from simple deck repairs to reinforcement of support structures.

Classifying a bridge as “structurally deficient” does not mean that it is unsafe. But it does mean that work is needed.

#### **How are states spending their bridge funding?**

As age and traffic take a toll on bridge conditions, states wage a daily campaign to preserve them in good condition.

Reports alleging a diversion of federal bridge funding are misleading because they focus only on federal Bridge Program data and fail to look at the total picture of all the resources states commit to bridge improvements.

**The fact is that states are spending dramatically more money on bridges than is provided under the federal Bridge Program.**

- In 2004 the federal Highway Bridge Program provided some \$5.1 billion to the states.
- That year, states actually spent \$6.6 billion in federal aid for bridge rehabilitation. State and local funding added another \$3.9 billion for bridge repairs.
- As the FHWA reports, in 2004, a total of \$10.5 billion was invested in bridge improvements by all levels of government.
- This pattern was the case in the years prior to and since 2004.

Transfers between federal programs are simply a project management tool, and do not reflect actual levels of state bridge spending.

A case in point is that of the Maryland Department of Transportation’s bridge spending. News media reported that the department had transferred \$32.5 million of federal bridge funds to other categories in 2006. What the article failed to report, although the information was provided, was that while Maryland received \$168 million in the federal Highway Bridge Program over the last four years, it actually spent at least \$305 million to address bridge needs.

In addition, states are not credited with bridge spending when a bridge is rehabilitated as part of a larger transportation project. Again in Maryland, the state invested \$12 million as part of the \$65 million I-695 Beltway Project. However, that spending is not tracked at the state or federal levels as bridge investment.

Therefore, federal estimates are clearly well below actual state bridge expenditures.

In other examples, California since 1998 has received \$3.28 billion in federal bridge apportionments, but has spend at least \$4.8 billion on bridge projects.

Oregon’s 10-year state bonding program is providing \$1.3 billion of state funding for the rehabilitation of hundreds of deficient bridges. This is twice the amount they receive in federal bridge funding.

**Progress made reducing deficiencies over past 15 years**

The U.S. Department of Transportation reports that states have reduced, by almost half, the number of structurally deficient bridges on the nation's highway system since 1990 – from approximately 24 percent to 12 percent – despite the fact that traffic has grown markedly on Interstate and other arterials over the past decade. This effort reflects a long-term commitment of the state and federal governments to bridge safety, and we are proud that this progress has been made. The reduction in deficient bridges has even outpaced improvements in congestion, safety, and pavement deficiencies.

However, a huge backlog still remains.

**Is Current Funding Adequate?**

According to U.S. DOT's *2006 Conditions and Performance Report*, the backlog of needed repairs on National Highway System bridges alone total over \$32 billion, which includes over \$19 billion needed on Interstate Highway System bridges. Structurally deficient bridges on the National Highway System only represent one-tenth of the total number of structurally deficient bridges on the U.S. road network. As wear and tear on our nation's infrastructure continues, it will only continue to increase the needs in coming years.

During the last reauthorization of the federal transportation bill, our message to Congress regarding the need for more resources was heard – the Safe, Accountable, Flexible and Efficient Transportation Equity Act – a Legacy for Users increased guaranteed spending levels for transportation by 38 percent over the previous bill. For the Highway Bridge Program, SAFETEA-LU gradually increased annual funding levels by a more modest 6 percent over the life of the bill (from FY 2005 to FY 2009).

Far outpacing that increased funding have been dramatic increases in materials costs for steel, concrete, fuel, asphalt. States report that prices jumped 46 percent over the years from 2003-2006. In addition, the *Conditions and Performance* report attributes increases in the "cost to maintain highways" to the rising cost of construction in large urbanized areas due to environmental mitigation and construction strategies (such as night work) intended to reduce the impacts of work zones on users.

Aside from the well-documented dramatic increases in construction costs, there have been equally dramatic increases in traffic, especially heavy trucks, on the nation's major highways. Today, the average mile of Interstate highway carries 10,500 trucks per day. By 2035, that number is expected to more than double to 22,700 trucks per day.

The truck issue also extends to overweight vehicles. As an example, in Iowa, the DOT's Bridge Office issues an average of 50 permits per day for trucks weighing over 156,000 pounds, or approximately 7,500 permits per year. These trucks are roughly twice the standard "legal" weight limit, causing significant wear and tear on the system, but are necessary for the economic health of our country. And these numbers are only anticipated to increase.

Thus, we are left with a system that has challenges to meet, and a program that does not have enough funding to overcome the current backlog.

#### **Current bridge deficiencies**

Currently, of the almost 600,000 bridges across the country, roughly 74,000 (or 12.4 percent) are classified as “structurally deficient.” This classification means that one or more structural conditions require attention. Most bridges are inspected every two years by trained and certified bridge inspectors, conditions are carefully monitored, and where deterioration is observed more frequent inspection and corrective actions are taken.

It cannot be stated emphatically enough that the classification of a bridge as “structurally deficient” does not indicate that it is unsafe, though it may require the posting of a vehicle weight restriction. The terminology of “structurally deficient” is not a description of the safety and strength of the bridge, it is a description created for the purpose of allocating federal bridge funds based on need.

#### **Comments on the National Highway System Bridge Reconstruction Initiative**

Congressman Oberstar’s proposal suggests a four-point approach:

1. *Significantly Improve Bridge Inspection Requirements*  
Within this strategy, five requirements have been proposed:

##### Immediately Update National Bridge Inspection Standards

The most recent update to the National Bridge Inspection Standards was implemented in January 2005. The program was changed significantly in several areas:

- The fracture-critical inspection interval was shortened (not to exceed 24 months) and the qualifications for underwater inspectors were increased (80 hours of training are now required).
- The qualification requirements for Program Managers and Team Leaders were increased. For example, non-licensed engineers must take a 10-day class and have 5 years experience, with most of that experience taking place directly in field inspection, to become a Team Leader.
- States must have a quality control and assurance program in place for their bridge inspection program. The program should include periodic field review of inspection teams, periodic bridge inspection refresher training for program managers and team leaders, and independent review of inspection reports and computations.

These recent updates to the National Bridge Inspection Standards demonstrate that the Federal Highway Administration is diligent in updating and advancing inspection standards.



In addition, states frequently supplement federal inspection requirements with more detailed data collection and analysis. For example, 40 states currently employ an element level inspection process that focuses on individual components of a structure.

While all states comply with federal bridge inspection standards, states have undertaken their responsibility to develop a more detailed program appropriate to their unique circumstances.

Nonetheless, AASHTO stands ready to work with the National Transportation Safety Board and the Federal Highway Administration to cooperatively revise and implement bridge inspection standards if recommended.

#### Immediately Inspect All Structurally Deficient Bridges on the NHS

Responding to the request by the Federal Highway Administration, states have reinspected or evaluated as a precaution, the more than 700 steel deck truss bridges similar in design to the I 35W bridge that failed in Minneapolis. However, it should be noted that the cause of the failure of the Minneapolis bridge has not been determined nor directly attributed to a deficiency in the inspection process.

Under the current inspection process, all federal-aid bridges are inspected at least every two years. States routinely schedule structurally deficient bridges for more frequent inspections, perhaps every year or even every six months.

The current bridge inspection program has developed a sound database of bridge conditions on which to evaluate funding needs and which can serve as a future baseline of improvements.

A blanket federal mandate for massive and immediate reinspections of structurally deficient bridges on the NHS would result in repetition of work that has been done perhaps only a few months ago. It would serve to disrupt the cycle of inspections of other bridges, and stretch both manpower and financial resources thin.

Since there are currently 6,175 structurally deficient bridges on the NHS, a sudden requirement to re-inspect would be both inefficient and costly, diverting funds from bridge repair needs. For example, Pennsylvania has approximately 600 of these bridges. At an average rate of \$4,000 per bridge inspection, this aspect of the proposal could cost more than \$2.4 million in Pennsylvania alone.<sup>1</sup>

States are making substantial investments in bridge inspection. For example, the state of Virginia spends \$13.5 million per year. Oregon spends \$8 million and California spends some \$14 million.

Any proposal to intensify the level of bridge inspections should consider focusing such efforts on the most critical concerns. A classification of a bridge as structurally deficient may be the result of a very low rating in one of three categories, decking, superstructure and substructure. In California, for example, 95 percent of structural deficiency is based upon

deck cracking and paint issues. While such deficiencies may contribute to a rough ride, they do not render the bridge susceptible to failure. Any effort to target more intensive inspection requirements should be focused on those bridges which have superstructure or substructure deficiencies.

It is also important to remember that there are many bridges labeled structurally deficient because of superficial deck cracking, waterway clearance, paint condition, and issues not related to the overall integrity of the bridge. It may be necessary to revisit the definition of "structurally deficient" before requiring additional non-routine inspections.

#### Recalculate the Load Rating for All Structurally Deficient NHS Bridges

Recalculating load ratings requires recent or additional inspections to make the new ratings meaningful, and significant resources would need to be diverted from other National Bridge Inspection Standards activities. Load rating is already a required entry for each bridge in the NBI database each time the bridge is inspected. This does not, however, mean that a recalculation of the load ratings is always needed. Many times, recalculation is only performed if the bridge has shown significant changes since its last inspection. Since calculating a load rating is something that can be done as part of the inspection, it seems that it would be sufficient to recalculate all of the load ratings for structurally deficient bridges as they are being inspected on their usual two-year cycle, instead of requiring immediate recalculation, which would disrupt the normal cycle of National Bridge Inspection Standards activities and be an inefficient use of time and funding.

#### FHWA to Conduct Annual Compliance Reviews

Most FHWA division offices are currently performing annual audits of each state's National Bridge Inspection Standards program.

#### Institute Computerized Bridge Management Systems

Currently, 43 states plus Puerto Rico and the District of Columbia along with several local agencies (including Los Angeles and Phoenix) and six international agencies are using an AASHTO BRIDGEWare® software program called *Pontis*®. This is a computer-based bridge management system developed to assist in the challenging task of managing an agency's structures. Pontis can store bridge inventory and inspection data, formulate network-wide preservation and improvement policies for use in evaluating the needs of each bridge in a network, and make recommendations for what projects to include in an agency's capital plan for deriving the maximum benefit from limited funds.

Once inspection data have been entered, Pontis can be used for maintenance tracking and federal reporting. Pontis integrates the objectives of public safety and risk reduction, user convenience, and preservation of investment to produce budgetary, maintenance, and program policies. Additionally, it provides a systematic procedure for the allocation of resources to the preservation and improvement of the bridges in a network. Pontis accomplishes this by considering both the costs and benefits of maintenance policies versus investments in improvements or replacements.

Responses from an informal August 2007 AASHTO survey<sup>1</sup> found that 17 of 37 states use an in-house computerized bridge management system that allows for prioritization and monitoring of elements in conjunction with either Pontis data collection or an in-house database. In some cases, Pontis is used by the states as a data collection system only, but many states are also using the management capabilities of Pontis, which allow them to predict bridge element deterioration levels and prioritize spending.

As noted, most states have some form of computerized bridge management system in place; however, the complexity and abilities vary. The goal of this effort may be to better define the abilities a state should have within its bridge management system and allow for flexibility within each state to accomplish these goals in the most efficient manner possible.

2. *Provide Dedicated Funding*

While providing dedicated funding for a short-term program such as the NHS Bridge Reconstruction Initiative is desirable, AASHTO recommends retaining as much flexibility as possible to allow engineers and policy makers the ability to focus money where it will do the most good, not necessarily where a mathematical formula says it should go.

In addition, to help ensure quicker implementation of this proposed temporary program, AASHTO recommends considering the provision of funding with no requirement for state or local match, which will get money out to projects more quickly and will not preempt other infrastructure needs by taking away state matching funds that have already been committed to other needed projects.

3. *Distribute Funds based on "Public Safety and Need"*

To make quick progress in this effort, it seems logical to attack the most pressing needs first through a program that identifies the greatest needs through a review of existing bridge data. In addition, AASHTO applauds the effort to eliminate earmarks in this and other transportation programs, as these earmarks take funding away from previously prioritized projects. However, in whatever manner the funds are ultimately distributed, it is recommended that flexibility be provided so that the funding can be used in the most efficient and effective manner, as has been demonstrated already by current state spending for bridge projects.

4. *Establish an NHS Bridge Reconstruction Fund*

If a new fund is established, AASHTO recommends ensuring that the funding for this program comes from a new funding source, so as not to divert existing funding from other critical needs.

### **Moving Forward**

This proposal is a great *first* step toward the level of total investment that is needed to meet the infrastructure challenges of the future. However, while we continue to make progress in addressing bridge replacement and rehabilitation needs, there just isn't enough money to close the gap. And each year, as bridges continue to age and deteriorate, it is an uphill battle to keep up with the demands.

According to the 2006 *Conditions and Performance* report, maintaining the current investment level of \$10.5 billion annually would reduce the backlog of bridge needs by half over 20 years. An investment level of \$12.4 billion per year for bridge system rehabilitation would eliminate the backlog by 2024, excluding any kind of necessary spending on expansion or enhancements. Congressman Oberstar's initiative proposes to eliminate the backlog of needs for structurally deficient bridges on the National Highway System over five years. That would allow other bridge investment to be directed to the remaining non-NHS bridge needs, and to keeping pace with deterioration that may occur in the future.

And of course, the gap between available funding and needs for bridges is reflective of the larger funding and needs gap that exists for the entire surface transportation system. Current overall needs, or "cost to improve" the highway and bridge system in its entirety, stands at \$131.7 billion per year, or 87.4 percent higher than what we spent in 2004.

In addition to providing needed additional funding, we recommend investigating what can be done to streamline processes that delay the implementation of needed repairs on our nation's highway system, including reducing environmental red tape and allowing the use of proprietary engineering-related products that could spur innovation in long-term solutions.

#### **Conclusion**

AASHTO and the State DOTs stand ready to help Congress address the needs for transportation infrastructure in America. The tragic Minneapolis bridge collapse rightly raises concerns about the condition and needs of the nation's bridges. AASHTO and the State DOTs continue to work with NTSB and others as they investigate the cause of this tragic event, and when a cause has been identified we are committed to working jointly with Congress to address the issue head-on and to correct the situation in the most expedient way possible. Until that time, it is important to avoid premature speculations, and diligently obtain all relevant data to arrive at the appropriate solution.

*Attachment***Background on the National Bridge Inspection Standards (National Bridge Inspection Standards)**

The National Bridge Inspection Program applies to all bridges longer than 20 feet. State inspectors are required to submit data from their bridge inspections to FHWA on an annual basis (by April 15<sup>th</sup>). These data form the National Bridge Inventory. The National Bridge Inspection Standards program sets up a mechanism to identify the nation's structurally deficient and functionally obsolete bridges, to evaluate the overall conditions of bridges nationwide, and to form the statistical basis for developing the cost-to-repair estimates that are used in the Highway Bridge Program apportionment formulas.

*Inspections*

In general, there are three types of inspections: routine inspections, fracture critical inspections, and underwater inspections. During routine inspections, engineers and trained inspectors look for any signs of distress that could compromise the structural integrity of the bridge. The conditions are documented, monitored, and repairs are recommended if necessary. Inspectors may also order additional investigation if needed, such as taking samples of the concrete deck for testing. The same process is followed on the superstructure and the substructure (foundations). In addition, specialized teams of engineers and technicians conduct "fracture critical" inspections of steel bridges and underwater inspections of bridge piers that are in waterways.

The federal government sets the standards for bridge inspection (23 CFR 650, subpart C), and these standards are the basis for the Bridge Inspectors Reference Manual. This manual is used by federal, state, and contractor personnel for guidance in bridge inspection. The manual outlines how, with what frequency, and by whom bridge inspection is to be completed.

States are responsible for the inspection (and conformance with federal requirements) of all public highway bridges within the state (except for those owned by the federal government or tribally owned). Inspections are conducted by state employees or certified inspectors under contract to a state DOT.

*Frequency of Inspections*

- In general, the required frequency for bridge inspection is every 24 months. States may identify bridges that require less than a 24-month frequency. States can also request FHWA approval to inspect certain bridges on an up to 48-month frequency (usually newer bridges).
- Frequency of underwater inspection is generally 60 months, but may be increased to 72 months with the permission of the FHWA Division Office.
  - All states meet these requirements, and many exceed them. For example, many states, such as Ohio, inspect all of their bridges on an annual basis, and several states also inspect structures measuring less than 20 feet in length, which is not required by the National Bridge Inspection Standards.
- The most common on-site inspection is a visual inspection by trained inspectors, one of whom must meet the requirements of "team leader," as described by the National Bridge Inspection Standards .

*Load Ratings*

- Load rating of a bridge must be under the responsibility of a registered Professional Engineer.
  - Load rating is part of the required National Bridge Inspection Standards inspection and must be evaluated each time a bridge is inspected.
  - Structures that cannot carry legal loads must be posted.
- FHWA inspectors in Division offices conduct audit inspections on an annual basis to assure that states are complying with the bridge inspection requirements.

*Qualifications of Inspectors*

- The National Bridge Inspection Standards sets rigorous standards for the qualifications and training of bridge inspection personnel, including varying levels of education, professional certification (such as a Professional Engineer or certified bridge inspector certification), directly-related experience in bridge inspection, and comprehensive training through FHWA-approved outlets for the different levels of oversight.

*Funding Allocation to States*

- No state receives more than 10 percent of the total, nor less than ¼ percent of the total apportionment in any given year.
- Funding is allocated based on the following factors:
  - Deck area of deficient bridges
  - Unit price on a state-by-state basis
- Federal share for the Highway Bridge Program (HBP) is typically 80 percent, with 90 percent for Interstate bridges (but can go as high as 95 percent in select cases).
- Funding remains available until expended.
- Up to 50 percent of HBP funding may be transferred to the National Highway System (NHS) or the Surface Transportation Program (STP).
- 15 percent or more of HBP funds must be spent on non-Federal-aid bridges

<sup>1</sup> AASHTO Standing Committee on Highways issued an informal survey to its members in early August 2007 in response to the Minneapolis bridge collapse. These are responses from that survey.



Pete Rahn, President  
Director, Missouri Department of Transportation

John Horsley, Executive Director

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October 22, 2007

The Honorable James L. Oberstar  
Chairman  
Committee on Transportation and Infrastructure  
U.S. House of Representatives  
B-370A Rayburn House Office Building  
Washington, D.C. 20510

Attention: Peter Gould

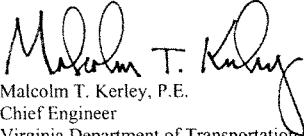
Dear Chairman Oberstar:

Thank you for inviting me to testify on September 5, 2007, before the Committee on behalf of the American Association of State Highway and Transportation Officials. We share your deep concerns with the tragic collapse of the Minneapolis I-35W Bridge and appreciate your leadership in examining this critical component of our nation's transportation official.

Enclosed are answers to questions submitted by Representative Peter DeFazio, Chairman of the Subcommittee on Highways and Transit, for the hearing record.

Again, thank you for seeking AASHTO's input to your assessment of the federal bridge program. We stand ready to provide any additional information or technical assistance you may require.

Sincerely yours,



Malcolm T. Kerley, P.E.  
Chief Engineer  
Virginia Department of Transportation

Response to Representative Peter DeFazio  
House Committee on Transportation and Infrastructure  
October 22, 2007

**1. Do we really have greater confidence of our knowledge about which bridges in the U.S. are at actual risk of failure than we did back in the 1980s with the collapse of the Mianus River Bridge and the Schoharie Creek Bridge?**

The simple answer is yes. The collapse of the Mianus River Bridge emphasized the need for specialized bridge inspection equipment and maintenance, including non-destructive testing (NDT) methods for assessing critical areas and periodic maintenance and cleaning of critical elements. The collapse of the Schoharie Creek Bridge spotlighted the importance of accurately predicting the effects of scour and designing bridges with adequate erosion protection around piers and abutments to resist those effects. In both cases, research efforts in the subject areas were increased.

Because of these events, and because of a sustained emphasis on bridge safety over the past three decades, we now have greater inspection technology available to us, backed by significant research, which allows us to say with greater certainty where and how a bridge is deteriorating. We also have the tools and sensors available to measure the deterioration and make more accurate predictions as to how fast the deterioration is happening.

Highly trained inspectors qualitatively document visible damage, degradation, and distress in structural elements during their periodic bridge inspections, which occur at least every two years and, on the most critical bridges, on an annual basis. In addition, quantitative measurements such as the loss of steel due to corrosion and the size of cracks in concrete are documented during this process.

In addition to visual inspection, commonly used non-destructive testing (NDT) techniques include the magnetic particle method to detect cracks in suspected areas, ground penetrating radar to evaluate bridge decks with overlays, infrared thermography and ultrasonic testing to identify cracks that are either too small to be seen or are beneath the surface of the metal, and dye-penetrating tests which also detect cracks that are not visible to the naked eye.

Research is currently being conducted at the Turner Fairbank Highway Research Center, which is part of the Federal Highway Administration (FHWA), as part of their Long-Term Bridge Performance Program that will provide even more detail and data on how bridges perform over their lifetime. In addition, the National Cooperative Highway Research Program (NCHRP), which is funded by the State DOTs, has conducted several recent projects on fracture-critical bridges as well as new inspection technology.

The updated and revised National Bridge Inspection Standards (NBIS) was implemented in January 2005, and the bridge inspection coding and recording system is currently being revised and should be ready for publishing by the end of the year. The NBIS program was changed significantly in several areas.



- The fracture critical inspection interval was shortened (not to exceed 24 months) and the underwater inspection qualifications were increased (80 hours are now required).
- Program manager and team leader qualification requirements were increased. For example, non-licensed engineers must participate in a 10-day class plus have 5 years experience, with most of that experience taking place directly in field inspection.
- States must have a quality control and assurance program in place for the National Bridge Inventory (NBI) program. This program should include periodic field review of inspection teams, periodic bridge inspection refresher training for program managers and team leaders, and independent review of inspection reports and computations

These latest updates to the National Bridge Inspection Standards allow us to feel confident that we have an excellent bridge inspection program in place. Also, according to a recent American Association of State Highway and Transportation Officials (AASHTO) survey, 24 out of 40 states responding stated that they go above and beyond the requirements of the current NBIS. Examples from these programs include: states that have a greater frequency of underwater inspections (two years instead of five); states that perform annual inspections on *all* of their bridges; states that inspect bridges with length less than 20 feet; and states that have stricter requirements for the certification and training of their inspectors.

Lastly, during the development of the AASHTO Load and Resistance Factor Design (LRFD) Bridge Code, which is now required for all federally-funded bridges as of October 1, 2007, the bridge community learned more about how to design more reliable bridges by gathering immense amounts of significant statistics on past bridges. These statistics were then analyzed to show how past bridges performed, where they were over-designed, and where they may not have had as much factor of safety built in as the industry would like to see today. Today's newly designed bridges will have longer life and be safer, more reliable, and more efficient because of these efforts.

**2. Would uniform standards for the National Bridge Inspection Program make oversight of state programs easier, and ensure that data submitted to the National Bridge Inventory are consistent?**

The National Bridge Inspection Standards (NBIS) have a level of standardization already built into the system. All states must submit their data in a common format and within the same type of database. Any discrepancies in the data lie solely within the professional judgment of the individual inspectors and their interpretation of the requirements for rating individual aspects of a bridge. This being said, all inspectors are required to undergo the same type of training and have the same amount of experience as dictated by the National Bridge Inventory (NBI) program. As stated before, many states go above and beyond the NBIS for training and certification of their inspectors.

The updated NBI program, implemented in January 2005, also requires states to institute a quality assurance/quality control (QA/QC) program to ensure that quality data is entered into the

system. FHWA provides guidance on instituting these programs in the individual states. (Additional information can be found on the NBIS web site at: <http://www.fhwa.dot.gov/BRIDGE/nbis/nbisframework.cfm> )

There does seem to be some differences in the way that that FHWA Division Offices in each state oversee the bridge inspection processes. Many states mention that their FHWA Division Office does an annual audit of their data and often accompanies the inspectors to evaluate inspection methods. It is not entirely clear how each of the Division Offices performs its audits or how often these audits are done. This may be an area of the NBIS that needs more standardization to ensure a greater degree of quality control.

**3. In implementing rescissions of unobligated contract authority balances in highway program funds, States have chosen to disproportionately rescind contract authority from the Congestion Mitigation and Air Quality Improvement (CMAQ) program, the Bridge program, and transportation enhancement funds.**

**Although the Highway Bridge Program represents approximately 11 percent of the overall program funding level in SAFETEA-LU, rescissions of contract authority available for this program have equaled approximately one-third of total rescissions.**

**I know 41 percent of Minnesota's rescissions since 2003 have come from the bridge program. I also note that both Michigan and Virginia have rescinded significant amounts of their bridge program funds.**

**Since the apportionment of bridge program funds is based on the state's relative share of the cost to repair bridges, can you explain why this program has received disproportional cuts?**

Since FY 1976, through the use of obligation limitations, Congress has provided apportionments for the federal highway program in excess of the actual amount of funds that could be committed. While states would prefer that full funding of authorizations be provided, until recently, this practice of distributing contract authority above the obligation ceiling has resulted in providing states with the flexibility to control the balances among the Federal-aid Highway Program categories based on priorities.

According to a recent survey of bridge spending conducted by AASHTO, a consistent set of guiding principles became evident for the 38 respondents (representing 37 states and the District of Columbia) when applying rescissions. In the survey, the following types of federal funds were identified as the most likely candidates for rescission:

- Oldest available funds risking lapsing
- Program funds with the highest unobligated balances, often accumulated over years due to obligation limitations

The factors mentioned above are reflective of the variations in the relative degree of flexibility accorded to different core federal highway program categories. Many states note that proportional application of rescissions could hamper the support of scheduled and ongoing design and construction initiatives and disrupt cash flow. In addition, future capital program needs as dictated by the publicly-determined statewide and metropolitan transportation improvement programs may affect the decisions behind the distribution of rescissions at the state level.

In general, the survey indicates great fluctuations in the proportion of different core federal highway program categories comprising a state's total rescission amounts in a given year. For example, in addition to the rescission figures you mentioned from Minnesota, Michigan, and Virginia, 100 percent of Wyoming's rescissions in FY 2007 came from the NHS program, 83 percent of Texas's rescissions in FY 2006 came from the STP program, and 100 percent of Georgia's rescissions in FY 2004 came from the Interstate Maintenance program. This shows that states are not necessarily targeting any particular federal program category such as bridge or CMAQ; rather, their decisions are driven primarily by the need to preserve programming flexibility based on a confluence of aforementioned factors.

It should also be noted that states spend a significant amount of their own funds and federal funds originally transferred away from the federal bridge program to maintain and rehabilitate many bridges around the country that may not be specifically eligible for funding under the federal bridge program. As I mentioned in my September 5 testimony, in 2004, states spent \$6.6 billion in federal aid for bridge rehabilitation which was greater than the \$5.1 billion of federal bridge program funds provided that year, while state and local funding added another \$3.9 billion for bridge repairs.

In summary, the need to preserve the ability for states to apply rescissions in ways that least adversely impact their highway programs is critical because it affords states with the discretion to use federal dollars on high priority projects that are programmed and ready for letting. Broadly speaking, this approach allows for state and local governments to manage their limited resources to best leverage federal funds.

**How has the off-system set-aside been affected by the disproportional rescission?**

Virginia does not view that bridge funds, including off-system, are being unreasonably impacted by its rescissions. The determination of which funds to rescind is impacted by the time of year that the rescission is made. Factors in this decision are the appropriation amounts available while ensuring full utilization of obligation authority by the end of the year.

Virginia is a donor state and receives approximately 92% of its contributions to the Highway Trust Fund. Virginia takes great effort to ensure that it maximizes the use of all federal funds while following the guidelines and laws established. In addition, Virginia utilizes other federal and state funds for bridge work. For example, in FY 2007, 40% of the redistributed obligation authority that Virginia received was used for funding bridge work.

4. **States are now allowed to transfer up to 50 percent of the bridge money to their National Highway System or Surface Transportation Program apportionments. However, if a state chooses to transfer funds, the transfer will result in a deduction of the amount of transfer from the total cost of deficient bridges in such state and all states for the succeeding fiscal year. Despite this penalty, states continue to transfer significant portion of their bridge program fund to other accounts.**

**Since the bridge program is subject to equity bonus calculation, I am curious if your state receives any benefits under the equity bonus program by reducing future bridge apportionments?**

In Virginia, the possible impact of federal bridge fund transfers on Equity Bonus calculations is not considered when performing such transfers.

Furthermore, Virginia will not be transferring any future bridge apportionments. The Code of Virginia requires that federal bridge funds be allocated as required by federal law. The following is from the 2007 Virginia Acts of Assembly, Chapter 847, item 427 C.7.b.:

"Federal funds apportioned as the Highway Bridge Program shall be allocated and obligated as required by federal law to eligible projects across the Commonwealth. The Commonwealth Transportation Board shall consider the sufficiency and deficiency ratings of such eligible projects in making their allocations."

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*Before the*

**COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE  
UNITED STATES HOUSE OF REPRESENTATIVES**

*Statement of*

**THE AMERICAN TRUCKING ASSOCIATIONS, INC.**

*On*

**Structurally Deficient Bridges in the United States**

**Tim Lynch**

**Senior Vice President, Federation Relations and Strategic Planning  
American Trucking Associations**

**September 5, 2007**



***Driving Trucking's Success***

**The American Trucking Associations, Inc.  
950 North Glebe Road  
Suite 210  
Arlington, VA 22203**

## INTRODUCTION

Chairman Oberstar, Congressman Mica, members of the Committee, thank you very much for inviting the American Trucking Associations<sup>1</sup> to testify on the condition of the Nation's infrastructure and bridges. Members of this committee well understand the importance of the nation's infrastructure. It is unfortunate that it took the tragic collapse of the Interstate 35W bridge to focus the public's and media's attention on the vulnerabilities of the highway system. However, we must not lose this opportunity to educate the American people about the very real safety and economic consequences of failing to adequately maintain and improve the system. We thank you for providing a forum that will help to inform the debate and, hopefully, move us toward agreement on solutions to the challenges we face.

The trucking industry and the highway system that supports it are the linchpins in the nation's freight transportation system. The industry hauls 69 percent of the freight by volume and 84 percent by revenue. In addition, the trucking industry plays an important role in the movement of intermodal rail, air and water freight. Truck tonnage is projected to increase, reaching toward the 14 billion ton mark by 2017. Trucking revenue accounts for \$623 billion of our nation's economy. The rest of the transportation modes combined account for \$116 billion. By 2017, trucking revenue will exceed \$1.1 trillion, and the trucking industry will represent 85.1% of the market. This growth, of course, means that a lot more trucks will be on the road. We estimate another 2.7 million more trucks will be needed to serve the nation's economy, a 40 percent increase.<sup>2</sup>

A reliable network of highways is crucial to our industry's ability to deliver goods safely, efficiently and on schedule. Since deregulation and completion of the Interstate Highway System over the previous quarter century, the trucking industry has made continuous improvements that have allowed its customers to significantly reduce inventories and create manufacturing and supply chain efficiencies that have saved the U.S. economy billions of dollars, increased salaries, slowed consumer price increases and created innumerable jobs. Any disruption to the movement of freight on our nation's highway system will jeopardize these gains.

## THE NATIONAL HIGHWAY SYSTEM: AMERICA'S CONVEYOR BELT

Mr. Chairman, our highway infrastructure is a network of roads, bridges, and tunnels that link our Nation together. That network includes super-structures like the Chesapeake Bay Bridge or the Woodrow Wilson Bridge that are vital links in moving people and goods. However, that system also includes bridges over creeks and streams that may only carry a few cars and trucks on any given day. Both are important and both need to be maintained. But tragedies like the I-35 bridge collapse highlight how vulnerable our system is when a structure on a major highway is damaged, closed or load-posted. The resulting traffic disruptions distress local and regional economies due to higher freight rates and lost business opportunities. Significant costs are also

<sup>1</sup> The American Trucking Associations is the largest national trade association for the trucking industry. Through a federation of other trucking groups, the industry-related conferences and its 50 affiliated state trucking associations, ATA represents more than 37,000 members covering every type of motor carrier in the United States.

<sup>2</sup> Global Insight, *U.S. Freight Transportation Forecast to...2017*, 2006.

incurred due to lost time and wasted fuel sitting in congestion and having to divert to alternative routes. Burning additional fuel produces greater emissions, affecting people's health and potentially contributing to climate change.

Mr. Chairman, as was pointed out above, the trucking industry moves the vast majority of the Nation's freight. Much of this freight moves on the National Highway System. This 162,158-mile network comprises just 4.1% of total highway miles, yet it carries nearly 45% of total vehicle miles.<sup>3</sup> The Interstate Highway System, which is a subset of the NHS, carries 41% of truck traffic, even though it has just one percent of total highway miles. Furthermore, the NHS provides critical links to more than 200 important military installations and ports.<sup>4</sup> The NHS can be described as the country's conveyor belt. In fact, many businesses that have dramatically reduced their inventories rely on trucks as an integral part of their assembly lines. Trucks traveling on the NHS deliver goods to manufacturing facilities, stores, homes and intermodal facilities. However, when this network experiences inefficiencies, whether due to posted bridges or daily congestion, the economic impacts ripple throughout the supply chain and can greatly impact the health of regional economies.

Despite its obvious importance to the Nation, significant portions of the NHS are in poor condition, are routinely congested, and have been starved by insufficient investment. Of the more than 116,000 NHS bridges, over 6,000 are structurally deficient and more than 17,000 are functionally obsolete.<sup>5</sup> Furthermore, 760 NHS bridges are load-posted.<sup>6</sup> Posting of bridges forces trucks to use alternative routes, increasing freight transportation costs and requiring greater fuel use, which produces more emissions. NHS bridges carry nearly two-thirds of the travel on structurally deficient or functionally obsolete bridges.<sup>7</sup> The current NHS bridge investment backlog is estimated to be \$32.1 billion.<sup>8</sup> Mr. Chairman, it is clear that due to the NHS' critical role in meeting transportation needs, and because of the NHS' significant spending requirements, future bridge investments must be concentrated on this highway network.

#### **MEETING HIGHWAY INVESTMENT NEEDS**

While this hearing and the public's attention are, understandably, focused on bridges, we must not forget that bridges are simply individual components of the highway network. Mr. Chairman, the National Highway System Bridge Reconstruction Initiative (NHS BRI) can be a good model for future highway investment decisions. The emphasis on prioritizing investment based on greatest need and the stipulations against earmarking are principals that can and should be applied to the entire federal highway program.

According to the Federal Highway Administration, today's \$70 billion investment in highways and bridges would have to nearly double – to \$132 billion – in order to significantly improve

<sup>3</sup> *Highway Performance Monitoring System*, 2004.

<sup>4</sup> FHWA 2006 *Status of the Nation's Highways, Bridges, and Transit: Conditions and Performance*, Chapter 12.

<sup>5</sup> FHWA National Bridge Inventory, Aug. 2, 2007.

<sup>6</sup> *Ibid.*, Dec. 31, 2006.

<sup>7</sup> *Ibid.*, 2004.

<sup>8</sup> FHWA 2006 *Status of the Nation's Highways, Bridges, and Transit: Conditions and Performance*.

highway conditions and reduce congestion.<sup>9</sup> Bridge rehabilitation costs alone are \$2 billion short of what is needed annually. Federal investment in highways must rise by 50% above forecasted levels by 2015 just to maintain current levels of highway condition and performance.<sup>10</sup>

Given the reluctance to raise necessary revenues for surface transportation, this level of investment is unlikely. Therefore, a new highway investment strategy, modeled on the NHS BRI, is needed to ensure that the most critical projects receive sufficient funding. ATA recommends that the Committee focus first on critically deficient bridges and congestion-inducing bottlenecks that plague Interstate Highway System segments with significant freight flows. For example, a preliminary study for the Federal Highway Administration (FHWA)<sup>11</sup> identified the highway bottlenecks that caused the greatest amount of delay for trucks. The study estimated that the more than 200 identified bottlenecks cost the trucking industry more than 243 million hours annually, with a direct financial cost of approximately \$7.8 billion. The study estimates that highway bottlenecks account for 40 percent of congestion, with the remainder caused by accidents, bad weather, construction, special events and poor signal timing.

Over the past 20 years the Highway Bridge Program (HBP) and its predecessor, the Highway Bridge Replacement and Rehabilitation program (HBRR), has been funded at a level equivalent to roughly 11% to 14% of total annual transportation program apportionments.<sup>12</sup> Under SAFETEA-LU the program provides an average \$4.1 billion annually for HBP. However, beginning with ISTEA, up to 40% of HBP state apportionments can be "flexed" to non-bridge related projects. Mr. Chairman, we encourage the Committee to reconsider this provision during SAFETEA-LU reauthorization in order to ensure that all HBP resources are dedicated to bridges. Furthermore, any bridge on a public road is eligible under this program. ATA recommends that eligibility be narrowed to allow spending only on NHS bridges in order to focus limited resources on the most critical highways.

#### **HIGHWAY AND BRIDGE DETERIORATION**

Mr. Chairman, even the most well designed and best maintained bridge will deteriorate over time for a variety of reasons. All vehicles, including trucks, play a role in this process. It is important to understand, however, that bridge collapses are generally the result of singular events, and are not usually caused by the slow progression of deterioration. In fact, of the dozen investigations conducted by the National Transportation Safety Board into bridge collapses over the last thirty years, NTSB found that none were due to deterioration. The events were the result of the bridge being struck by a barge or vehicle, an earthquake, flood or other unanticipated occurrence.<sup>13</sup>

If a bridge does collapse due to fatigue or other structural issues, it is likely that this could have been prevented by better inspection, maintenance and management practices. Therefore, Mr.

<sup>9</sup> *Ibid.*

<sup>10</sup> American Road and Transportation Builders Assn., *The Nation's Highway and Transit Investment Needs through 2015: An Analysis of the U.S. DOT 2006 Report on Conditions and Performance of the Nation's Highways, Bridges and Mass Transit Systems*. April 2, 2007.

<sup>11</sup> Cambridge Systematics and Battelle Memorial Institute for the Federal Highway Administration, "An Initial Assessment of Freight Bottlenecks on Highways," Oct. 2005.

<sup>12</sup> Congressional Budget Office, *Highway Bridges: Conditions and the Federal/State Role*. Aug. 10, 2007.

<sup>13</sup> NTSB website, Aug. 23, 2007: [http://www.nts.gov/Publictn/H\\_Acc.htm](http://www.nts.gov/Publictn/H_Acc.htm)



Chairman, we support your efforts to enhance inspection procedures and techniques, and to improve bridge management.

**CONCLUSIONS**

ATA looks forward to working with the Committee to address the Nation's bridge and other highway infrastructure needs. We recognize our responsibility to help finance these needs. However, Mr. Chairman, our members - and we believe the public at large - view highway user charges as an investment in mobility and safety. We look to Congress, the Administration, and the states to allocate that investment in a rational manner. In short, a good return on their investment. Thank you for giving me this opportunity to testify and I will be pleased to respond to any questions.

**Statement of Robert J. McFarlin, Assistant to the Commissioner for Policy,  
Office of the Commissioner, Minnesota Department of Transportation**

**Before the Committee on  
Transportation & Infrastructure  
U.S. House of Representatives  
September 5, 2007**

Chairman Oberstar, Ranking Member Mica, and Members of the Committee, thank you for the opportunity to come before you today.

August 1, 2007, was a tragic day for Minnesota; at 6:05 pm that day the Interstate 35W bridge in Minneapolis collapsed into the Mississippi River. Thirteen people died and many more were injured. We continue to mourn those who died, comfort their families and tend to the injured. We will not forget them or this tragedy.

Many organizations from all levels of government participated in the rescue and recovery operations. We want to thank the Minnesota Congressional Delegation and the entire Congress for quickly coming to the aid of Minnesota and authorizing \$250 million in emergency relief funds. The overwhelming bipartisan expression of support from Congress has been very gratifying to the people of Minnesota.

We also want to express our appreciation to the administration and the federal government agencies, particularly Secretary Peters and the United States Department of Transportation (USDOT), for the outstanding response and cooperation in helping Minnesota respond to this tragedy. The federal government's response to this incident and assistance to the state, from all levels, has been exemplary.

Next, I want to thank the National Transportation Safety Board, and in particular Chairman Rosenker, for its thorough and expeditious approach toward investigating the reasons for the collapse. The one thing we know for certain today, is that we don't know the cause of the bridge collapse. Speculation about the cause is just that – speculation – and not a particularly productive exercise. We are confident that the NTSB has the expertise and experience to identify the cause and we are cooperating with them in every way possible.

**Statewide bridge inspection of Mn/DOT bridges**

At the direction of Governor Pawlenty, on August 2, 2007, the Minnesota Department of Transportation began an accelerated inspection of all

bridges on the state highway system. This is in addition to the routine bridge inspection program already in place. Governor Pawlenty directed that all 3,800 bridges on the state highway system be inspected by the end of the calendar year. Normally our bridges are inspected either once every year or every two years, depending on the condition of the bridge.

In the first five days, we inspected all five under deck truss bridges in Minnesota, which were similar in structure type to the I-35W bridge. Of the remaining 3,800 bridges on the state highway system, approximately 1,650 had been inspected as of August 31, and the rest will be completed by December 1, 2007.

Among the 3,800 bridges on state highways, we have placed a priority on inspecting those classified as Structurally Deficient by Federal Highway Administration (FHWA) standards. Our most current data show that there are 127 Structurally Deficient bridges on Minnesota's state highway system. To date, 102 of those have been inspected. We are proceeding at a rate of 10 inspections per week.

Minnesota has 230 Fracture Critical Bridges; some are on the state highway system, but some are also located on local road systems. (A Fracture Critical Bridge is a structure where the design of the bridge is such that the failure of one structural member could cause collapse of the bridge. The phrase "fracture critical" does not refer to the condition of the bridge.) All of the Fracture Critical bridges in Minnesota, on both the state and the local road systems, will also be inspected, whether they are structurally deficient or not. To date, we have completed 81 of those inspections, and are proceeding at a rate of 15 inspections per week.

The inspection program is being conducted by Mn/DOT inspectors with assistance from two consulting engineering firms, PB Americas and Baker Engineering. PB Americas is also under contract to the state to review our bridge inspection standards and practices and to offer recommendations.

#### **Recovery operations**

The recovery of those missing after the collapse of the bridge was a multi-agency effort. All agencies involved displayed a common commitment to the priority of recovery until all 13 of the missing people were accounted for. It was a slow, deliberate and respectful process. Navy dive crews began working at 2 a.m. on August 6, joining the recovery efforts that were begun by state and local agencies immediately after the collapse. In addition, the FBI deployed a submersible search vehicle

equipped with cameras, high-intensity lights and a recovery apparatus as well.

Mn/DOT has contracted with Carl Bolander and Sons of St. Paul for debris removal, which began in earnest on August 20, when the state concluded its recovery operation for those who perished in the collapse.

Approximately 100 vehicles have been removed from the site. Bridge debris is being removed methodically in cooperation with the NTSB. Pieces of the collapsed bridge are being stored downriver on the Mississippi River flats.

NTSB investigators, along with FHWA and other bridge experts, will use the recovered pieces and other data in their analyses to identify the causes of the I-35W bridge collapse. Mn/DOT anticipates completing debris removal and site clean-up in mid-October, 2007.

#### **Reconstruction of the I-35W Mississippi River bridge**

Mn/DOT has begun the process of building a new bridge to replace the structure that once carried more than 140,000 vehicles and 5,700 commercial vehicles across it daily.

Recovering emotionally from a tragedy of this magnitude takes time, but the critical importance of the I-35W corridor to our entire state requires us to respond in a rapid but thoughtful manner as we begin to design and build a new bridge.

The new I-35W bridge, which will be built as a design-build project, has a target completion date of late 2008. Construction may start as soon as mid-October. Safety will not be sacrificed for schedule. Quality will not be compromised in either the design or the construction.

Mn/DOT's preliminary design for the new I-35W bridge calls for 10 lanes of traffic, five in each direction, which is two lanes wider than the former bridge. The new bridge will be 189 feet wide to provide more lane and shoulder capacity; 80 feet wider than the former bridge. The structure will be designed for a 100-year life span. The bridge will be built so that it is structurally capable of carrying a light rail line in the future. The additional lane capacity will be dedicated to transit in the future, including managed lanes and bus rapid transit.

Mn/DOT has chosen to accelerate the delivery of the bridge project using the design-build best-value procurement process. The agency issued a

Request for Proposals on August 23 to five design-build teams previously short-listed to rebuild the I-35W bridge.

Mn/DOT believes that the design-build concept is the best fit for the I-35W bridge rebuild because of many beneficial factors. Design-build brings designers and contractors together early in the project development process. It differs from traditional design-bid-build projects in that it allows for the overlapping of design and construction so less time is spent preparing engineering plans. That means construction can begin after only a portion of the final detailed design has been completed.

The design-build process does not compromise quality. Based on the overwhelming success of Mn/DOT's past design-build projects, Mn/DOT is confident that using design-build will result in a project that meets the public's demand for quality, aesthetics, performance and fiscal accountability. Mn/DOT will consider steel or concrete-and-steel construction as design possibilities.

Key to expediting this rebuilding effort are the partnerships between Mn/DOT and local, state and federal agencies. Mn/DOT began working with these agencies within hours after the collapse and their cooperation has been outstanding. We will continue to work in cooperation with them throughout the duration of the project.

Mn/DOT representatives have presented a preliminary design for the new bridge to the Minneapolis City Council Intergovernmental Relations Committee, the Metropolitan Council Transportation Advisory Board, the Central Corridor Management Committee, the Minnesota House and Senate Transportation Committees, and Hennepin County and the communities along the I-35W corridor.

Public open houses have been held at numerous locations in Minneapolis and the surrounding suburbs, including the Roseville Area High School in Roseville, at the University of Minnesota, and at the IDS Center in downtown Minneapolis. There will be several more open houses where the public is invited to view the tentative plans and talk with Mn/DOT staff and project engineers.

There will be many opportunities for the public to comment on the design of the new bridge. For those who cannot attend these public events, the Mn/DOT Web site, [www.mndot.gov](http://www.mndot.gov), makes participation easy. A click on the bridge homepage offers links to the latest information regarding the collapse and a new page dedicated to the rebuilding. There, visitors can

review proposed plans for the I-35W rebuild and submit comments pertaining to the new bridge.

The principal funding for the new bridge will come from the federal government's emergency relief program. However, improvements to interchanges on either end of the bridge are being discussed with the City of Minneapolis and Hennepin County. When pursued, these will be separate projects and will require separate funding.

The project timeline calls for the design teams to submit technical proposals by September 14, and price and schedule proposals by September 18. The bid letting will take place on September 19. Final project award is expected by the end of September.

#### **Minnesota bridge investments**

This tragedy was especially shocking and troublesome to Mn/DOT because Minnesota has one of the strongest bridge replacement, repair, and inspection programs in the nation. Minnesota is consistently among states with the fewest deficient bridges and currently ranks sixth best in this measure across the nation.

In recent years, Minnesota has made a significant effort to increase investment in its bridge program. Since 2003, Mn/DOT has invested \$390 million in the replacement or repair of state bridges. Expenditures for maintenance of state bridges have doubled since 2004. Mn/DOT's spending on state highway bridges has consistently exceeded federal funding made available solely for bridges. Minnesota's total federal apportionments under the federal aid bridge program over the last five years have been \$185 million for state, county and city bridges. Our obligation limit, the amount that federal law actually makes available to us, has been only 85% to 95% of that amount under SAFETEA-LU. In addition, federal law limits the use of money in the Highway Bridge Repair and Replacement program to only those bridges with certain sufficiency ratings. Minnesota routinely uses flexible funds from other federal funding program categories to pay for bridge repair and replacement. In contrast to the amount available from federal bridge funds (approximately \$160 million over the last five years), MnDOT has spent \$390 million on state highway bridges alone, more than twice the amount available from federal bridge funds over the last five years. Minnesota has been able to do that by choosing to spend more flexible federal system funds on bridges.

**Bridge inspection standards**

The bridge inspection standards followed in Minnesota comply with the National Bridge Inspection Standards (NBIS) established by the FHWA. All of our bridge inspection team leaders must be certified to meet federal standards. This requires completion of a 10 day course "Safety Inspection of In-Service Bridges," which is developed by the FHWA. Certification further requires two years of inspection experience for engineers and five years for non-engineers. Additionally, periodic refresher training is required to maintain one's certification.

Inspection involves a visual assessment and rating of the bridge components. Measurements are taken when corrosion is found and non destructive testing methods such as ultrasonic or magnetic particle testing is done to detect cracks in steel members. Under-bridge inspection units (snoopers) or other lift equipment is used so the inspector has close access to the individual members of the bridge. Inspection of Fracture Critical bridges requires the inspector to be within 24 inches of the members.

**Recommendations for improvement of bridge inspection programs**

The National Bridge Inspection Standards were extensively revised in 2005. Those revisions involved qualifications of bridge inspectors, establishment of inspection frequency and requiring the responsibility for determining load ratings be assigned to a professional engineer. Minnesota revised its inspection program to comply with those changes. The FHWA and states may need time to determine if those changes are having the desired effect.

The I-35W bridge tragedy is currently being investigated by the NTSB. Although progress is being made, the NTSB will be conducting a thorough investigation before issuing its findings on the cause of the collapse. NTSB has stated it may take up to 18 months to complete that process.

Until the cause of the bridge collapse is determined, it is very difficult to make recommendations about what changes should be made to our design, construction, inspection and maintenance practices. It is much too early to speculate about changes or improvements that should be made. In addition, any such changes should be based upon recommendations from organizations with a national perspective such as the FHWA or the American Association of State Highway and Transportation Officials (AASHTO).

**Conclusion**

In closing, I commend the Committee for holding today's hearing, and again want to thank Congress for the considerable help it is providing to the State of Minnesota.

The loss of this vital I-35W transportation link is costing road-users an estimated \$400,000 per day. The Minnesota Department of Employment and Economic Development has calculated that there is an additional loss of roughly \$120,000 each day to businesses affected by the loss of the bridge. This route is important to the well-being and economic vitality of the entire region. There is great public interest in having this bridge constructed and opened to traffic without delay.

Again, I want to thank this Committee, the Minnesota Congressional Delegation, and the entire Congress for so quickly coming to Minnesota's aid in this tragedy. We are also so very grateful for the response and continuing support of the administration and federal government agencies. It's imperative that we maintain the public's faith in Minnesota's- and our nation's- network of highways and bridges.

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395 John Ireland Boulevard  
Saint Paul, Minnesota 55155-1899

October 22, 2007

Peter Gould  
B-370a Rayburn House Office Building  
Washington, DC 20515

Dear Mr. Gould:

Thank you for the opportunity to provide additional information following the September 5<sup>th</sup> House Transportation and Infrastructure Committee hearing on structurally deficient bridges. Attached are responses to each of the questions provided. Please let me know if you, Congressman Oberstar or Congressman DeFazio have any additional questions or need further information.

Sincerely,

A handwritten signature in black ink, appearing to read "Bob McFarlin".

Bob McFarlin  
Assistant to the Commissioner

Attachment

cc: Congressman James L. Oberstar

**Response of Bob McFarlin to Questions for the Record  
Committee on Transportation and Infrastructure  
Hearing on Structurally Deficient Bridges in the U.S.  
September 5, 2007  
Questions from Rep. Peter DeFazio  
Chairman, Subcommittee on Highways and Transit**

- 1) Do we really have greater confidence of our knowledge about which bridges in the U.S. are at actual risk of failure than we did back in the 1980s with the collapse of the Mianus River Bridge and the Schoharie Creek Bridge?

**Yes. The underwater inspection program and requirement to identify the scour potential for bridges has significantly improved bridge knowledge. Bridges with deep piling are classified as not critical while those with shallow foundations are scour critical. A scour critical structure further requires development of an action plan for implementation during flood events.**

**Nationwide the bridge community has continued to study, research and improve our knowledge of fatigue in the last twenty years.**

- 2) Would uniform standards for the National Bridge Inspection Program make oversight of state programs easier, and ensure that data submitted to the National Bridge Inventory are consistent?

**The Minnesota Department of Transportation (Mn/DOT) believes the National Bridge Inspection Standards (NBIS) provide uniform standards for the states. NBIS was revised in 2005.**

- 3) In implementing rescissions of unobligated contract authority balances in highway program funds, States have chosen to disproportionately rescind contract authority from the Congestion Mitigation and Air Quality Improvement (CMAQ) program, the Bridge program, and transportation enhancement funds.

Although the Highway Bridge Program represents approximately 11 percent of the overall program funding level in SAFTEA-LU, rescissions of contract authority available for this program have equaled approximately one-third of total rescissions.

I know 41 percent of Minnesota's rescissions since 2003 have come from the bridge program. I also note that both Michigan and Virginia have rescinded significant amounts of their bridge program funds.

Since the apportionment of bridge program funds is based on the state's relative share of the cost to repair bridges, can you explain why this program has received disproportional cuts?

**In discussing the rescission of unobligated federal contract authority within the highway program, and in particular the federal bridge program, it is**

important to make clear two key facts: (1) the need for states to implement federally mandated rescissions is a result of Congress not appropriating enough federal funds to meet federal budget authorization levels; and (2) how a state manages mandated rescissions has no direct relationship to the amount of money that a state actually invests in maintaining and reconstructing bridges.

Mr. Malcolm T. Kerley, P.E., chair of the AASHTO Highway Subcommittee on Bridges and Structures, was correct in his September 5, 2007, testimony to the committee when he states, "Reports alleging a diversion of federal bridge funding are misleading because they focus only on federal Bridge Program data and fail to look at the total picture of all the resources states commit to bridge improvements. The fact is that states are spending dramatically more money on bridges than is provided under the Highway Bridge Program. . . . Transfers between federal programs are simply a project management tool, and do not reflect actual levels of state bridge spending."

Mn/DOT works closely with local transportation agencies to select and prioritize the projects that are planned and programmed in the Statewide Transportation Improvement Program (STIP). Extensive data, evaluation processes, criteria, and performance measures are used in planning and selecting transportation priorities. Bridge and road preservation has been Mn/DOT's top priority for many years. This priority is evidenced by the significant reduction in structurally deficient and functionally obsolete bridges at all levels of government within the state since 1993 (see attached table excerpted from the Mn/DOT Minnesota Bridges Report, October 2006).

In selecting bridge projects, Mn/DOT evaluates bridge condition and performance, it does not use funding categories or sources as a factor in determining needs and priorities. For example, over the past five years (2003-07), Mn/DOT spent approximately \$390 million of state and federal formula funds on Interstate and National Highway System (NHS) bridge repair and replacement. During this timeframe, Minnesota only received about \$185 million in Federal Highway Bridge Program apportionments and only received obligation authority for about 85-90% of those apportionments. Consequently, Mn/DOT's bridge spending has more than doubled the amount of funding made available through the Bridge Program over the past five years.

Although Mn/DOT's \$390 million in bridge investments came partially from Bridge Program funding, the majority came from other sources such as state funds and the Federal Interstate Maintenance (IM), Surface Transportation, and NHS Programs. It is often more efficient to use state, IM, STP or NHS funds for bridge projects. State funds are not subject to federal project development requirements, federal authorization processes, or federal oversight requirements. IM, STP and NHS funds have broader, more flexible eligibility requirements, and IM funds allow for greater utilization of federal funding with a lower state match requirement.

Because other funds can be more efficiently used for bridge repair and replacement, they are used more often than Bridge funds for such projects. This results in unobligated bridge apportionments accumulating in the Bridge Program. Unobligated apportionments lapse after four years.

Since Congress began rescinding significant amounts of contract authority (i.e. apportionments) in 2003, it has become important for states to carefully manage their unobligated apportionment balances. States try to first take rescissions from unobligated apportionments that will lapse in the near future. The goal is to mitigate the risk of having to rescind apportionments that will actually be needed to obligate a project, since that could result in the loss of obligation authority and project delay.

In short, Mn/DOT has used more flexible funds for its bridge investments resulting in a larger share of less flexible Bridge Program funds being available to cover rescissions. Furthermore, Mn/DOT's focus on bridges as a top priority has resulted in a level of bridge investment greatly exceeding the federal funding provided the state through the Bridge Program. The management of rescissions has had no impact on Minnesota maintaining bridge safety as an investment priority.

How has the off-system set-aside been affected by the disproportional rescission?

Rescission of off-system set-aside (bridge apportionment) has had no impact on the off-system bridges. As indicated in the preceding answer, Minnesota does not use apportionment category in selecting projects, rather Minnesota uses the flexibility in apportionment categories to fund the projects that come forward through the state's decentralized planning and programming process.

Mn/DOT does not rescind apportionment that will be needed for projects that are identified by our local partners for inclusion in the STIP. If more off-system bridges were identified then off-system bridge apportionment available, Mn/DOT would simply use the more flexible on/off-bridge system apportionment for the additional off-system bridges.

- 4) States are now allowed to transfer up to 50 percent of the bridge money to their National Highway System or Surface Transportation Program apportionments. However, if a state chooses to transfer funds, the transfer will result in a deduction of the amount of transfer from the total cost of deficient bridges in such state and all states for the succeeding fiscal year. Despite this penalty, states continue to transfer a significant portion of their bridge program fund to other accounts.

Since the bridge program is subject to equity bonus calculation, I am curious if your state receives any benefits under the equity bonus program by reducing future bridge apportionments.

Mn/DOT considers the impact of transferring Federal Bridge apportionment on the following year's apportionment and obligation authority. However, the basic formula

used to determine the amount of Bridge apportionment the state receives in the year after the state transfers Bridge apportionment has (at the most) minimal impact.

All states are guaranteed a minimum level of return on what a state's contribution to the Highway Trust Fund is through the Equity Bonus Program. Minnesota being a donor state (receiving more Equity Bonus because the state receives less than the guaranteed level) will receive more through Equity Bonus, making up any difference lost through the reduction in Bridge apportionment. Because Minnesota is a donor state, there is no downside to transferring Bridge apportionment.

If Minnesota were a donee state, it is our belief after analyzing the formula used to determine bridge apportionment that the transfer of Bridge apportionment would have minimal impact on the level of funding received under this program.

**STRUCTURES ELIGIBLE FOR REPLACEMENT  
STRUCTURALLY DEFICIENT  
FUNCTIONALLY OBSOLETE  
SUFFICIENCY RATING < 50  
ALL STRUCTURES 10 FT AND OVER  
ALL ROUTE SYSTEMS  
2005**

TIME PERIOD	-----ROUTE SYSTEMS-----				Total	STRUCT AREA (1000's Sq Ft)	ESTIMATED IMPROVE COST (MILLIONS)	S.D.	F.O.	DEF RR/ HWY
	TRUNK HIGHWAY	COUNTY	TOWNSHIP	CITY						
Totals July 1993	273	775	1,025	234	2,307	4,197	\$573.8			
Repl/Rem in 1993	15	82	83	14	194	782	\$60.5			
Add'l Def 1993-94	26	40	47	4	117	1,429	\$49.8			
Totals July 1994	284	733	989	224	2,230	4,844	\$563.1			
Repl/Rem in 1994	37	100	137	13	287	710	\$190.6			
Add'l Def 1994-95	12	65	50	6	133	261	\$165.9			
Totals July 1995	259	698	902	217	2,076	4,395	\$538.4			
Repl/Rem in 1995	39	87	75	12	213	547	\$68.8			
Add'l Def 1995-96	14	40	28	16	98	283	\$24.4			
Totals July 1996	234	651	855	221	1,961	4,131	\$494.0	1,623	85	253
Repl/Rem in 1996	33	87	113	24	257	635	\$61.8	240	7	10
Add'l Def 1996-97	7	60	68	12	147	256	\$54.9	136	7	4
Totals July 1997	208	624	810	209	1,851	3,752	\$487.1	1,519	85	247
Repl/Rem in 1997	34	48	70	7	159	353	\$41.7	150	4	5
Add'l Def 1997-98	14	20	63	10	107	299	\$24.6	103	3	1
Totals July 1998	188	596	803	212	1,799	3,698	\$470.0	1,472	84	243
Repl/Rem in 1998	13	101	87	6	207	258	\$36.8	192	8	7
Add'l Def 1998-99	1	-1	-92	-6	-98	119	(\$6.7)	-101	35	-32
Totals Nov. 1999	176	494	624	200	1,494	3,559	\$426.5	1,179	111	204
Totals Apr. 2001	156	423	498	186	1,263	3,602	\$423.2	1,016	46	201
Totals Apr. 2002	100	365	531	92	1,088	2,913	\$300.0	1,044	44	198
Totals Apr. 2003	78	365	465	86	994	2,919	\$283.6	951	43	199
Totals Apr. 2004	77	315	384	75	851	2,520	\$245.9	822	29	195
Totals Apr. 2005	65	310	365	76	816	2,303	\$231.3	788	28	193
Totals Apr. 2006	56	311	346	78	791	2,299	\$237.7	760	31	189



STATEMENT OF

SUSAN G. MILLER, P. E.

COUNTY ENGINEER

FREEBORN COUNTY, MINNESOTA

AND

PRESIDENT-ELECT OF THE NATIONAL ASSOCIATION OF COUNTY  
ENGINEERS

ON BEHALF OF

THE NATIONAL ASSOCIATION OF COUNTIES

AND

THE NATIONAL ASSOCIATION OF COUNTY ENGINEERS

ON

STRUCTURALLY DEFICIENT BRIDGES IN THE UNITED STATES

BEFORE THE

HOUSE COMMITTEE ON TRANSPORTATION AND

INFRASTRUCTURE

SEPTEMBER 5, 2007

WASHINGTON, DC

Good Afternoon Chairman Oberstar, Ranking Member Mica and members of the Committee. My name is Sue Miller and I am the County Engineer Freeborn County, Minnesota. Today I am representing the National Association of Counties (NACo) and National Association of County Engineers (NACE) where this year I serve as its President-elect. I want to thank the Committee for the opportunity to present a local government perspective on the status and condition of bridges.

I hope to offer some thoughts regarding the existing Highway Bridge Replacement and Rehabilitation Program (HBRRP) and the bridge inspection program and possible ways to improve them. Finally, County Engineers consider bridge safety to be one of our top priorities and we take this responsibility very seriously. As a former bridge inspector I supervise and certify the bridge inspections done by my staff.

Freeborn County is a small rural county in south central Minnesota bordering Iowa with a population of about 32,000. We have 176 bridges identified on the National Bridge Inventory System, of which 13 are considered structurally deficient and none are functionally obsolete. We estimate that it will take \$3.53 million to replace these 13 bridges. By comparison, my neighboring County of Fillmore, population 22,000, has 165 structurally deficient bridges of a total of 465 structures. This represents well over \$50,000,000 of needed transportation investment in today's dollars.

Freeborn County receives no federal bridge funds but gets bridge money from the State of Minnesota's bridge fund. NACo and NACE would like to determine how much of the federal bridge program funds get spent on bridges owned by local governments or even on non-federal aid bridges. We ask the Committee to request from FHWA data on what percentage of the federal bridge program goes to non-federal aid bridges in each state, it should be a minimum of 15 per cent, as well as what other federal bridge funds and Surface Transportation Program dollars by state go to county and city governments for bridge rehabilitation and replacement.

Let me indicate how important federal bridge funds are to many local governments. Unlike the federal and state governments that rely on user fees for highway funding, local governments rely primarily on property taxes or "own source revenue" to finance their bridge improvements. Raising



property taxes is often unpopular politically and from the perspective of many of our citizens see little connection between better bridges and increasing taxes. Do not leave rural local government out of increased federal funding for bridges or our rural economy will suffer because we will not be able to raise property taxes high enough to meet the needs of all the users.

I want to stress that every day even in our nation's rural areas we face situations which could result in a catastrophic collapse of one of our bridges. It was a miracle that no one was killed on the school bus involved in the I-35 collapse. In Freeborn County, or any other rural county where the majority of children are transported by buses, imagine what could happen if one of our school buses crossing local bridges daily to school was involved in a bridge collapse. I have four children riding those buses and I think about that as a mom too, not just as the county engineer.

I also think about the economic importance of bridges in rural areas. In my county, for example, renewable fuel production has emphasized how vital our transportation system is to support one of the countries leading biodiesel producers, with an annual output of 30 million gallons per year, and additionally two ethanol plants producing 105 million gallons per year. A collapsed, closed or weight posted bridge can have a tremendous negative economic impact on the agricultural, mining or logging industry in our communities. A closed or posted bridge can mean no or limited access to or from agricultural processing plant and that can have a profound impact on the economy of a rural county.

We also have some observations on the Bridge Inspection Program and the Adequacy of Training for Local Bridge Inspectors. The current regulations (23 CFR part 650) note that State DOT's are responsible for inspections for all non federal bridges regardless of ownership. However, it should be noted that some states delegate this authority to counties. The opportunity, availability and affordability of training are concerns of local agencies. In some states no HBRRP or federal funds are made available to local government for inspections. The qualifications for personnel implementing the inspection program require that the state or delegated agency must be accomplished by a licensed professional engineer and have completed the FHWA comprehensive bridge inspection training program. Many counties in some states do not have a licensed professional engineer.

I believe the education and training package maybe appropriate, but it is very costly for local government agencies, especially smaller local ones with limited staff time. Consideration of a tiered approach should be explored based on the types of bridge structure inspected, i.e. many local agencies bridges are relatively simple structures and would not require the expertise for lift, suspension, and other complex type structures. Additionally, as noted by the previsions witness, the National Highway Institute training is offered primarily to state agencies, is very costly for local agencies to afford, and since time slots are very limited, is often unavailable to locals. We would continue to encourage repackaging their training programs for local use and would recommend that this training be turned over to the Local Technical Assistance Program (LTAP) to develop and deploy.

This completes my testimony and I would happy to respond to any questions committee members may have.



*National League of Cities*

**STATEMENT OF**

**THE HONORABLE KATHLEEN NOVAK  
MAYOR, NORTHGLENN, COLORADO**

**BEFORE THE  
HOUSE COMMITTEE ON TRANSPORTATION AND  
INFRASTRUCTURE**

**SEPTEMBER 5, 2007  
WASHINGTON, DC**

Statement of  
Mayor Kathleen Novak  
On behalf of the National League of Cities  
Before the House Transportation and Infrastructure Committee  
September 5, 2007

Good afternoon, Mr. Chairman and Members of the Committee. I am Kathie Novak, Mayor of Northglenn, Colorado. I am here today on behalf of the National League of Cities, the oldest and largest organization representing local elected officials in America's cities and towns. I appreciate the opportunity to present the views of local elected officials on the state of our nation's bridges and our transportation infrastructure in general.

We appreciate the leadership of this committee in protecting our nations' infrastructure. From water resources, to bridges, highways, and our transit and aviation systems, this committee has demonstrated their commitment to our nations' economy, environment and quality of life. As our transportation infrastructure shows its age, local elected officials want to work with you on a new commitment to rebuilding a robust and safe infrastructure that serves our communities and keeps our economy moving.

Under President Eisenhower's leadership, this country created a national transportation system that has become the backbone of our nation's development from coast to coast and spurred unparalleled economic growth in our cities and towns, where 7 out of 10 residents, or 218 million people, in America call home. The tragedy in Minneapolis reminds us that investment in our transportation system cannot be put aside to the future. Maintenance and continuous investment in improvements requires a renewed financial commitment at all levels of government and a long term, comprehensive national plan for the future.

Our transportation system, built and maintained through an innovative federal-state-local government partnership and the private sector, continues to be, and may be now more than ever, the key to our nation's economic growth, business competitiveness, quality of life, and national security. Federal support through the highway trust fund has sustained this

intergovernmental partnership. Current levels of federal spending, however, fall far short of the actual costs of maintaining and improving our nation's infrastructure, and the shortfall is too large for local governments to make up on our own.

While there are varying estimates of the cost of maintaining our national highway system, there is general agreement that the system is deteriorating and in need of a significant upgrade that can only be achieved through a new national commitment to maintaining our critical infrastructure.

The American Society of Consulting Engineers (ASCE) gave our nation's infrastructure an overall grade of "D." Having just sent a child off to college, I wouldn't be satisfied with that outcome, nor should we as a nation be willing to allow the first class transportation infrastructure system we developed over the last several decades to disintegrate and risk harm to our citizens. ASCE's most recent estimates of the total cost needed by all levels of government to update our infrastructure – airports, bridges, roads and transit, brownfields, dams and levees, drinking and wastewater and inland waterways – is \$1.6 trillion.

In the words of the House Appropriations Committee: "[I]t is well documented that our nation's transportation infrastructure is aging...and the investment needs of our nation's highway and transit systems are significant. Without additional revenues for transportation investment, the nation will be unable to reduce congestion, maintain aging bridges and highways, or expand capacity."

Statistics from my home state of Colorado, confirm what ASCE and the House Appropriations Committee are telling us. Colorado has nearly 17,000 bridges—8,389 of which are part of the interstate system. Of those, 580, or 7 percent, are structurally deficient and 808, or 10 percent, are functionally obsolete.

As I'm sure many of you did when the Minneapolis bridge collapsed, I thought about what the impact would be in my own home state. Of the nearly 7 percent of the interstate system bridges that are structurally deficient, one Denver span is traveled by more than 139,000 motorists each day. Ladies and gentlemen, allowing our bridges to deteriorate is a national calamity waiting to happen.

Three thousand-seven hundred and fifty seven of Colorado's bridges are owned by the state and more than 4,790 bridges are owned by cities and counties. Of the 3,757 state-owned spans, 110 are considered in need of replacement and another 375 are in need of rehabilitation.

Colorado spends about \$30 million a year on bridge repair and replacement, out of an annual transportation budget of \$1 billion. Locally, Colorado cities and counties commit billions of dollars to roads, bridges and streets. In 2005, local governments – cities and counties combined – spent \$1,281,463,760 on these systems. The Colorado Municipal League and Colorado Counties, Inc. have estimated a total of \$31.065 billion for improvements, maintenance and preservation needs through the year 2030. With an estimated \$18.836 billion available, that leaves us with a \$12.2 billion shortfall. We estimate \$1.680 billion for bridges alone over this time period. We continue to raise local taxes to fund that shortfall but we cannot do it at the local level alone.

I know we are not unique. The federal government has to play a bigger role in maintaining our national transportation infrastructure. Together we must do more to prevent future calamities.

A July report from the General Accountability Office found that state and local governments face large and growing fiscal challenges over the next decade and without policy changes, face an increasing gap between expenditures and receipts. These large and growing fiscal challenges to state and local governments will impact the long term ability of local governments to shoulder the burden placed on them in the absence of a federal commitment of resources.

The report, "State and Local Governments: Persistent Fiscal Challenges Will Likely Emerge within the Next Decade," found that the combination of state requirements for balancing their operating budget and growth of health related costs will force state and local governments to make tough choices on spending and tax policy to meet budget requirements and promote favorable bond ratings. Already, many local governments are unable to raise taxes locally due to state restrictions.

We believe that your proposal to fund a separate bridge program is a step in the right direction towards meeting our infrastructure investment needs and national goals, but a more comprehensive approach to infrastructure and

bridge repair is critical for the long term. We look forward to working with the Committee to reauthorize federal surface transportation programs and to reenergize our national vision for a national infrastructure program that keeps our citizens safe, helps move goods quickly, and focuses on safety, congestion relief, protecting our air quality and increasing energy efficiency and conservation and accountability for the billions of dollars spent on transportation programs and improvements throughout the nation. As a nation and as intergovernmental partners we need to make the preservation, maintenance and modernization of our transportation system a national priority and commitment.

While cities and states are experimenting with different options for raising funds for transportation infrastructure, we know that public-private partnerships may only be part of the answer. The solution will require an intergovernmental partnership and collaboration among local, state and federal agencies to ensure that we make wise decisions as we plan for our country's future.

Poor road conditions, deteriorating bridges, and congested urban highways and public transit systems threaten our safety, our economy and our environment. My colleagues and I are working at the local level to find the revenue to invest in our infrastructure and plan for the future. We need your support for increased revenue and a shared vision for a first class transportation infrastructure that contributes to the economic growth, safety and vitality of our nation.

Thank you for the opportunity to speak on behalf of America's cities and towns.

STATEMENT OF  
THE HONORABLE MARY E. PETERS  
SECRETARY OF TRANSPORTATION  
Before the  
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE  
U.S. HOUSE OF REPRESENTATIVES  
SEPTEMBER 5, 2007

Chairman Oberstar, Ranking Member Mica, and Members of the Committee, I am honored to be here today. Accompanying me is J. Richard Capka, the Federal Highway Administrator.

America was stunned on the evening of August 1, 2007, when the Interstate 35 West (I-35W) bridge over the Mississippi River in Minneapolis, Minnesota, collapsed. Numerous vehicles were on the bridge at the time and there were 13 fatalities and 123 people injured. We extend our deepest sympathy to the loved ones of those who died and to the injured.

We do not yet know why the I-35W Bridge failed, and our Department is working closely with the National Transportation Safety Board (NTSB) as it continues its investigation to determine the cause or causes. In the interim, we are taking every step to ensure that America's infrastructure is safe. I have issued two advisories to States in response to what we have learned so far, asking that States re-inspect their steel deck truss bridges and that they be mindful of the added weight construction projects may bring to bear on bridges.

Immediately upon learning of the collapse, at the direction of President Bush, I deployed a team, led by Administrator Capka, to coordinate the Federal response on-site in Minneapolis. The morning of August 2, I was at the scene with them. The DOT team, including the continuous on-site support of the FHWA Minnesota Division Office and Deputy Federal Transit Administrator Sherry Little, is providing expertise in bridge engineering and construction, environmental assessments and planning, transit programs, and Federal contracting, to assist State and local officials in the recovery, debris removal, temporary traffic rerouting, and restoration of transportation services. This team is also working with the State to expedite the process for reconstructing the bridge.

Federal support has included a quick release of \$5 million in Emergency Relief Federal-aid Highway funding to the State of Minnesota to initiate recovery operations. Those funds were made available the day after the disaster to help restore the traffic flow, to clear the debris, to set up detours, and to begin the repair work.

President Bush signed legislation on August 6 authorizing \$250 million in emergency relief funding. The legislation also made available \$5 million to reimburse Minneapolis for increased transit operations to serve commuters until highway traffic service is restored on the bridge. Fifty million dollars in Emergency Relief funds were released on



August 9 to ensure the State's recovery efforts can proceed without delay. As the State completes the assessment of the total damage and the ultimate cost to replace this bridge, we stand ready to ensure that appropriate funding is made available to replace it. Indeed, with Congress' assistance, we are committed to making funds available to the State as they are needed to ensure that the bridge is rebuilt as quickly as possible.

While not part of the emergency response funding, we have also provided an additional \$13.2 million in immediately available transit funds in connection with our announcement of Minneapolis as an "Urban Partner" under our Congestion Initiative, a broad initiative for managing surface transportation in the Minneapolis area.

The I-35W bridge over the Mississippi River in Minneapolis originally opened in November 1967 and became one of the critical facilities in a vital commercial and commuting corridor. The bridge was an 8-lane, steel deck truss structure that rose 64 feet above the river before its collapse. The main span extended to 456 feet to avoid putting piers in the water, which would have impeded river navigation. As of the 2004 count, an estimated 141,000 vehicles traveled per day on the bridge.

FHWA is assisting the NTSB as they conduct a thorough investigation, which includes a structural analysis of the bridge. Within days of the collapse, development of a computer model based upon the original design drawings for the bridge began at FHWA's Turner Fairbank Highway Research Center in McLean, Virginia. This model can run simulations to determine the effect on the bridge of removing or weakening certain elements to recreate, virtually, the actual condition of the bridge just prior to and during its collapse.

By finding elements that, if weakened or removed, result in a bridge failure similar to the actual bridge failure, the investigators' work is considerably shortened. While examination of the physical members of the bridge being recovered from the site provide the best evidence of why the bridge collapsed, the analytical model allows the evaluation of multiple scenarios which can then be validated against the physical evidence. This work is expected to take several months and my experts will be there, on the ground, to provide assistance. We need to fully understand what happened so we can take every possible step to ensure that such a tragedy does not happen again. Data collected at the scene, with the help of the Federal Bureau of Investigation's 3-D laser scanning device, are being used to assist in the investigation.

On August 2, the day after the collapse, I requested that the DOT Inspector General conduct a rigorous assessment of the Federal-aid bridge program and the National Bridge Inspection Standards (NBIS). The NBIS, in place since the early 1970s, generally requires safety inspections for all highway bridges in excess of 20 feet in total length on public roads at least every two years. Safety is ensured through hands-on inspections and rating of components, such as the deck, superstructure, and substructure, and the use of non-destructive evaluation methods, and other advanced technologies. The composition and condition information is collected in the national bridge inventory (NBI) database, maintained by FHWA.

The I-35W bridge has been inspected annually by the Minnesota Department of Transportation (MNDOT). The most recent inspection was begun by MNDOT on May 2, 2007. No imminent dangers were observed and MNDOT planned to continue inspecting the bridge in the fall following completion of construction work on the bridge.

Federal, State, and local transportation agencies consider the inspection of our nearly 600,000 bridges to be of vital importance and invest significant funds in bridge inspection activities each year. We strive to ensure that the quality of our bridge inspection program is maintained at the highest level and that our funds are utilized as effectively as possible. The Inspector General will be monitoring all of the investigations into the collapse and reviewing our inspection program to decide and advise us what short- and long-term actions we may need to take to improve the program. Though we will have to wait for the NTSB's report before we can conclude if the inspection program played any role in this collapse, we must have a top-to-bottom review to make sure that everything is being done to keep this kind of tragedy from occurring again.

In the aftermath of this tragedy, a necessary national conversation has begun concerning the state of the Nation's bridges and highways and the financial model used to build, maintain and operate them. It is important to understand that, while we must do a better job of improving the Nation's transportation systems, we do not have a broad transportation infrastructure "safety" crisis.

Since 1994, the percentage of the Nation's bridges that are classified as "structurally deficient" has declined from 18.7% to 12.0%. The term "structurally deficient" is a technical engineering term used to classify bridges according to serviceability, safety, and essentiality for public use. The fact that a bridge is classified as "structurally deficient" does not mean that it is unsafe for use by the public. Since 1995 the percentage of travel taking place on roads that are considered "good" has increased from 39.8% to 44.2%. Overall, approximately 85% of travel takes place on pavement that is considered "acceptable." FHWA estimates that it will cost approximately \$40 billion a year to maintain the physical condition of our Nation's highways and bridges and approximately \$60 billion a year to substantially improve the quality of current roads and bridges. In 2005, Federal, State, and local governments together made over \$75 billion in capital investment to rehabilitate highways and bridges in the U.S. and improve their operational performance. If we include operational, administrative, and debt service costs in addition to capital investments, the U.S. spent nearly \$153 billion on highways and bridges in 2005.

These infrastructure quality numbers should and can be improved with more targeted investment strategies, but it is inaccurate to conclude that the Nation's transportation infrastructure is subject to catastrophic failure. We have quality control systems that provide surveillance over the design and construction of bridges. We have quality control systems that oversee the operations and use of our bridges. And we have quality control over inspections of bridges to keep track of the attention that a bridge will require to stay in safe operation. These systems have been developed over the course of many decades and are the products of the best professional judgment of many experts. We will ensure

that any findings and lessons that come out of the investigation into the I-35W bridge collapse are quickly learned and appropriate corrective actions are institutionalized to prevent any future occurrence.

A more accurate description of our current and broader problem is that we have an increasingly flawed investment model and a system performance crisis. Many are calling for a renewed national focus on our Nation's highway infrastructure. I applaud Ranking Member Mica for starting the conversation about a multimodal National Strategic Transportation Plan. And while I agree that our infrastructure models need to be reexamined, it is imperative that we actually focus on the right problem.

When faced with an underperforming division, the response of any credible business organization is to assess the cause of underperformance and to implement policies and practices intended to reverse performance declines. In my assessment, the underperformance in the highway sector is fundamental, not incremental. In other words, increases in Federal taxes and spending would likely do little, if anything, without a more basic change in how we analyze competing spending options and manage existing systems more efficiently.

Because tax revenues are deposited into a centralized Federal trust fund and re-allocated on the basis of political compromise, major decisions on how to prioritize investments--and thus, spend money--are made without consideration of underlying economic or safety merits. The degree to which one capital investment generates more returns than a competing investment is the most basic question asked in virtually every other capital intensive sector of the economy. Yet, when it comes to some of our largest and most critical investments we make as a Nation -- highways and bridges -- there is virtually no analysis of this question. There is no clearer evidence of this failure to prioritize spending than the disturbing evolution of the Federal highway program. This program has seen politically-designated projects grow from a handful in the surface transportation bill enacted in the early 1980s to more than 6,000 enacted in SAFETEA-LU. The cost of these earmarks totaled \$23 billion -- a truly staggering figure.

The real cost of these earmarks is much higher. Looking at a sample of various recent earmarks, we found that the Federal earmark amounts themselves comprised on average only 10% of the total project cost. Because of this, State departments of transportation will typically either delay the earmarked project indefinitely or re-allocate resources from higher priorities to fill the funding gap. In addition, earmarks present large administrative burdens for States that must dedicate scarce personnel resources to managing lower priority projects that are subject to earmarking. In short, earmarks ripple through the entire Federal-aid program structure.

In addition to earmarks, there are more than 40 special interest programs that have been created to provide funding for projects that may or may not be a State and local priority. As a former State DOT director, I have had first-hand experience with the difficulties created when Washington mandates override State priorities.

While it is true that not all of these investments are wasteful, it is also true that virtually no comparative economic analysis is conducted to support these spending decisions. No business could survive for any meaningful period of time utilizing a similar investment strategy. Not surprisingly, new economic literature reveals that the returns on our highway investments have plummeted into the low single digits in recent years.

The Department is working with States to encourage them to regularly use benefit cost analysis (BCA) when making project selection decisions. Currently, approximately 20 States make some use of BCA, while 6 States use the technique regularly. The Government Accountability Office (GAO) recently conducted two studies to identify the key processes for surface transportation infrastructure planning and decisionmaking, with a particular emphasis on the role of economic analysis methods and the factors that affect the use of such methods.

These studies are *Highway and Transit Investments: Options for Improving Information on Projects' Benefits and Costs and Increasing Accountability for Results* (GAO-05-172); and *Surface Transportation: Many Factors Affect Investment Decisions* (GAO-04-744). The former report noted that "the increased use of economic analytical tools, such as benefit-cost analysis, could improve the information available to decision makers and, ultimately lead to better-informed transportation investment decision making" (GAO-05-172, p. 6).

Among other reasons, GAO cited "political concerns" for why BCA is not more widely utilized in U.S. public sector surface transportation decisionmaking. GAO observed that projects may be important for a particular interest group or constituency even though it is not efficient from an economic standpoint. At a minimum, BCA would provide additional transparency to decisions that are less cost-beneficial. Ideally, BCA would actually begin to reverse inefficient decisions from being made in the first place.

GAO also noted that BCA results are rarely reviewed in light of actual project outcomes. In other words, not only is BCA underutilized in the project planning process, but it is also rarely utilized to assess the efficacy of previous investments. This is in stark contrast to typical capital investment models employed in the private sector. It is important that Congress and the Department work together to establish far more productive means to ensure that scarce resources are flowing to projects that benefit the public the most. BCA is likely to be one of our most effective tools to advance that objective.

Moreover, since Federal transportation funding levels are not linked to specific performance-related goals and outcomes, the public has rightfully lost confidence in the ability of traditional approaches to deliver. Performance-based management can help establish and maintain accountability. As former Washington State DOT Secretary Doug MacDonald noted, "transportation agencies need to demonstrate to taxpayers that they get a dollar's worth of value for a dollar's worth of tax." The use of performance measures, by helping to identify weaknesses as well as strengths, can improve the transportation project selection process and the delivery of transportation services.

In addition to an insufficient performance and cost-benefit focus, the current gas tax-dependent model does virtually nothing to directly address the growing costs of congestion and system unreliability. Indirect taxes on gasoline, diesel fuel, motor vehicles, tires, property and consumer products – the dominant means of raising revenues for transportation – are levied regardless of when and where a driver uses a highway. This leads to a misperception that highways are “free,” which in turn encourages overuse and gridlock at precisely the times we need highways the most. Consistent with the views of almost every expert that has looked at the issue, GAO recently released a report arguing that gas taxes are fundamentally incapable of balancing supply and demand for roads during heavily congested periods.

The data simply do not lie in this case. Relying extensively on gas and motor vehicle taxes, virtually every metropolitan area in the U.S. has witnessed an explosion in traffic delays over the last 25 years. Meanwhile, in recent years, the increase in surface transportation funding has significantly outpaced the overall growth of non-defense, non-homeland security Federal discretionary spending. And, since 1991, capital outlays at all levels of government have nearly doubled. Economists have long understood the connection between payment mechanisms and system performance, but technology and administrative complexities limited the ability of policymakers to explore alternatives. Today, those barriers no longer exist.

This is one of the main reasons that our Department has been strongly supporting States that wish to experiment with electronic tolling and congestion pricing. Nationwide, the majority of projects in excess of \$500 million currently in development are projected to be financed at least in part with electronic tolls. In the middle of August, we announced Federal grants in excess of \$800 million to some of the country’s largest cities to fully explore the concept of electronic tolling combined with expanded commuter transit options and deployment of new operational technologies. Nationwide, the trends are inescapable and encouraging.

We believe that to the extent feasible, users should finance the costs of building, maintaining and operating our country’s highways and bridges. What is increasingly clear is that directly charging for road use (similar to the way we charge for electricity, water, and telecommunications services) holds enormous promise to generate large amounts of revenues for re-investment and to cut congestion. Equally important, however, prices send better signals to State DOTs, planners, and system users as to where capacity expansion is most critical. Prices are not simply about demand management, they are about adding the right supply.

The current financial model is also contradictory to other critical national policy objectives. As a country, we are rightfully exploring every conceivable mechanism to increase energy independence, promote fuel economy in automobiles, stimulate alternative fuel development, and reduce emissions. President Bush has urged Congress to pass laws that will substantially expand our alternative energy capabilities and increase Corporate Average Fuel Economy requirements for automobiles and light trucks. The

Federal Government should be strongly encouraging States to explore alternatives to petroleum-based taxes, not expanding the country's reliance upon them.

Finally, the current highway and bridge financial model fails to provide strong incentives for technology development and deployment, particularly when contrasted to other sectors of the economy. It is imperative that we find more effective means to ensure that the rewards of a given advancement – for example, in extended life pavements or more sophisticated traveler information systems – can accrue in part to those firms or individuals that come forward with creative ideas. It is no coincidence that we are seeing a technology boom in markets that have pricing structures that reward innovation. Pricing infrastructure usage more closely to its true costs will not only reduce congestion and more appropriately target resources, it will also provide new incentives for innovation.

The I-35W bridge collapse was both a tragedy and a wake-up call to the country. We have a duty to ensure a safe transportation system for all who use it. Moreover, our country's economic future is tied in large part to the safety and reliability of our transportation infrastructure. Before reaching the conclusion that additional Federal spending and taxes is the right path, we should critically examine how we establish spending priorities today. We need a data-driven, performance based approach to building and maintaining our Nation's infrastructure assets – a process where we are making decisions based on safety first, economics second, and politics not at all. And we need an underlying framework that is responsive to today's and tomorrow's challenges, not those of the 1950s.

I look forward to working with you and would be pleased to answer any questions you may have.

**QUESTIONS FOR THE RECORD  
For the Honorable Mary E. Peters  
Secretary of Transportation**

**September 5, 2007 Hearing  
Structurally Deficient Bridges**

**Committee on Transportation and Infrastructure  
U.S. House of Representatives**

**Questions from Chairman Peter DeFazio**

**QUESTION 1: Secretary Peters, over the past couple of weeks you have been quoted as stating that, “only about 60 percent of the funding that goes out under the highway trust fund supports core programs” purposes.**

**We have looked into this assertion and find no credible data to back it up. The only potential point of reference we have been able to find is from the Heritage Foundation. In fact, a Congressional Research Service analysis found that at most 20 percent of the total trust fund authorizations can be specifically shown to be for non-highway/bridge activities. This total included investments in public transportation, which is an integral component of our intermodal transportation network and a key to mitigating urban congestion.**

**Please provide a specific list of the programs that you view as constituting “leakage” from the Highway Trust Fund; the budget authority provided in SAFETEA-LU for each of the programs identified; and the percentage of the 40 percent that each of the programs makes up?**

**ANSWER:** Roughly 60% of the funding in the current Federal surface transportation bill is used for formula funds under the highway program that provide States the maximum flexibility to build, maintain and ensure the safety of highways and bridges. These programs include the Interstate Maintenance, National Highway System, the Highway Bridge Program, the Surface Transportation Program, the Highway Safety Improvement Program, the Congestion Mitigation and Air Quality Program and the Equity Bonus Program. The annual average authorized level for these programs under SAFETEA-LU, removing set-asides and takedowns, is \$30,777 million, or a little more than 60 percent of the overall SAFETEA-LU annual average authorization level of \$50,540 million.

The question of whether each of the remaining programs that comprise the remaining of 40% of Federal funding fulfills meritorious purposes is secondary to the larger question of what the Federal role is in transportation. Federal program proliferation and the growth of the role of special interests in Federal transportation spending are symptoms of our failure to answer this question.

**QUESTION 2: In your written testimony, you state “there are 40 special interest programs that have been created to provide funding for projects that may or may not be a State or local priority.”**

**Please provide a complete list of the “special interest” programs; the budget authority provided in SAFETEA-LU for each of the programs identified; and the percentage of overall highway program funds that each of these “special interest programs represents?”**

**ANSWER:** Programs, set-asides and earmarks rob States and local authorities of discretion to invest according to their own needs by substituting Federal priorities for State and local priorities. Federal spending requirements that circumvent State and local priorities are increasingly advanced because a political interest in Washington, DC does not believe that State and local officials are adequately addressing that political interest's concerns. Unfortunately, without any Federal metrics to justify such circumvention, the problem has grown appreciably worse in recent years.

To illustrate, the DOT IG recently analyzed 27 FHWA, FTA, and FAA programs with 7,760 earmarks valued at \$4,202,447, 200. The IG reported that, “7,724 earmarks either were not subject to the DOT agencies’ authority to review and select projects based on merit or bypassed the States’ normal planning and programming processes.”

Moreover, the IG reported that:

Earmarks can reduce funding for the States’ core transportation programs. For example, according to FHWA officials, funding for three earmarked programs (High Priority Projects, Highway Priority Projects, and Surface Transportation Projects) reduced apportionments to the states for core transportation programs. For FY 2006, Congress earmarked over 5,600 projects valued at over \$3.5 billion in these 3 programs—almost 10 percent of FHWA’s annual budget. Based on discussions with State officials, FHWA officials believed many of these projects would not have been high priority candidates for funding under the States’ formula programs. However, FHWA was required to fund the projects because they were earmarked thereby reducing States’ apportionments by \$3.5 billion.

**QUESTION 3: To help Committee members understand the foundation for some of your statements, please describe the role you feel is appropriate for the federal government to play in meeting the nation’s transportation needs?**

**ANSWER:** Given the role of the US highway system in supporting interstate commerce, the Federal government’s investment strategy should have a more targeted focus on system-wide safety and performance of the Interstate System and the National Highway System. That focus should be driven by quantitative economic analysis, not special interest politics.



In addition, Federal policies, programs and research should more readily accommodate and encourage innovative new approaches to managing and constructing transportation systems at the State and local level. This is particularly true in our major metropolitan areas that generate about 86 percent of national GDP and currently suffer regularly from substantial system performance failures. There are great opportunities to better integrate transit policies with highway policies to produce more efficient transportation systems in our metropolitan areas. Current approaches fail to do this.

The Federal Government should also assist States in developing common metrics to evaluate the costs and benefits of various projects, as well as incorporate a greater emphasis on cost/benefit analysis for our own investment decisions. Finally, the Federal government's safety programs should be guided more by data, analysis, and flexibility to support investments that produce the greatest safety gains on all public roads and recognize that safety challenges vary meaningfully from State to State.

**QUESTION 4: On page 6 of your written testimony, you state, "Relying extensively on gas and motor vehicle taxes, virtually every metropolitan area in the U.S. has witnessed an explosion in traffic delay over the last 25 years." The Texas Transportation Institute's periodic congestion report consistently concludes congestion is getting worse because the population in these cities was increasing, more people were driving, and we aren't adding new system capacity.**

**Are you suggesting the gas tax is now the cause of growing congestion?**

**ANSWER:** The way we pay for transportation is a fundamental barrier to eliminating congestion. Unlike virtually every other good or service, there is no transportation price mechanism to align supply and demand during periods of high demand (rush hour) on congested roads. As a result, we ration transportation supply on a first come, first served basis, not based on value to the user. Currently fuel and motor vehicle taxes, combined with other forms of indirect taxes (e.g., sales, property), are the predominant means to pay for transportation in the U.S. These taxes are not prices and do not reflect the relative scarcities of transportation supply at various times of the day. As a result, growing congestion and unreliability are now substantial costs on top of the indirect taxes that are also being paid. The question is not "Are we paying?", but rather "Are we paying efficiently?"

A move from indirect payment to direct payment will reduce congestion, promote safety by improving flow conditions and generate substantial revenues that can be leveraged and re-invested far more effectively than indirect taxes. Critically, prices are also a powerful signal that can be used to add sustainable capacity in places where supply constraints are the greatest. In other words, prices are a supply side policy as much as they are a demand side policy.

**QUESTION 5: On page 6 of your written testimony, you also state, "In addition to an insufficient performance and cost-benefit focus, the current gas tax-dependent**

**model does virtually nothing to directly address the growing costs of congestion and system unreliability.”**

**Can you please explain how a user fee that was last adjusted almost 15 years ago, which has seen its purchasing power significantly reduced by inflation and construction material cost increases – would in any way be keeping up with the transportation demands of today?**

**ANSWER:** The gasoline tax is a flat tax. It does not vary with the level of congestion. It is not a direct user fee. Even though the Federal gasoline tax itself has not increased recently, Federal transportation expenditures have far outstripped inflation in the last 15 years, growing faster than the vast majority of non-defense, non-homeland security expenditures during this Administration. The relevant analysis is not what the tax level is, but rather how substantial increases in Federal spending correlate to improved system performance. Obviously, as we and others have described, the data related to this point is overwhelmingly negative. As we have said, there is little evidence to support the view that further increases in Federal taxes and spending will produce different results in the future absent a fundamental change in approach. Moreover, while the federal excise tax on fuels has not been increased in the past 14 years, the amount of the excise tax on fuels that goes into the Highway Trust Fund has been increased twice, when the fuel tax that was previously reserved for deficit reduction was redirected into the Highway Trust Fund (2.5 cents per gallon in 1995, and 4.3 cents per gallon in 1997).

Public opinion survey after survey confirms that the public opposes gasoline tax increases, particularly when compared to tolls or direct pricing as an alternative. People in rural areas (who drive long miles and pay disproportionately higher fuel taxes) object to paying higher fuel taxes because they think the money will be spent to combat congestion in cities. People in cities have seen continued deterioration of their transportation systems even as overall spending levels have increased substantially. In fact, it is the norm in major metropolitan areas for projected congestion levels to be worse even after a major tax increase is imposed. The public has rightfully lost confidence in this form of payment.

**QUESTION 6: Throughout your testimony, you talk about the “flawed investment model,” and call for applying user charges that are directly tied to road usage. Such an approach would require some form of tolls or rationing of roadway usage through congestion tolling.**

**Could you provide the Committee with an estimate of the equivalent per gallon tax for such congestions taxes or tolls?**

**ANSWER:** Congestion charges, unlike gasoline taxes, sales taxes and property taxes, would vary with the cost of congestion. On heavily congested roadways during peak periods in urban areas, the congestion charges would likely exceed (assuming conversion of these taxes to an equivalent per mile charge) the array of taxes that transportation system users are paying. On less congested roadways, the charges would likely be less

than the array of taxes that transportation system users are currently paying. This is precisely the point; charges vary depending on predicted or actual roadway conditions (depending on the type of charging system). Indirect taxes do not vary with congestion levels or send signals to system users about the relative scarcity of transportation capacity.

**QUESTION 7: In your testimony you state that maintaining the current conditions of the nation's roadways would require \$40 billion in annual investment by all levels of government. While it is accurate that the C&P report found that to maintain the current level of user costs would require \$41 billion in roadway and bridge rehabilitation, the model assumes that \$31 billion in system capacity expansions would be required to maintain current roadway conditions.**

**Is it not true that without the additional capacity expansions assumed in the model, user costs of system conditions and performance would increase significantly? Is it not also true that without the \$31 billion in enhancements, roadway and bridge conditions would deteriorate significantly because of increased demand and usage of the facilities?**

**ANSWER:** The 2006 edition *Status of the Nation's Highways, Bridges, and Transit: Conditions and Performance* Report to Congress (C&P Report) projected the Cost to Maintain Highways and Bridges to be approximately \$78.8 billion annually over 20 years, stated in constant 2004 dollars. This figure is defined as the combined level of Federal, State, local, and private funds required to maintain the current level of conditions and performance on highways, as represented by average highway user costs and the bridge investment backlog. The C&P report breaks this total down into three main components: \$40.7 billion for system rehabilitation investments, directed at maintaining the physical condition of the Nation's roadways and bridges, \$31.0 billion for system expansion investments, and \$7.1 billion for system enhancements (including safety enhancements, traffic control facilities and environmental enhancements). The figures cited in my testimony pertain to the system rehabilitation component of this scenario.

It is true that expansions to the effective capacity of the highway system (through the construction of new facilities, the physical expansion of existing facilities, and implementation of new strategies and technologies to maximize the throughput on existing facilities) will continue to play a crucial role in the operational performance of the system in the face of increased demand over time. If combined highway capital investment by all levels of government were to be scaled back from the 2004 level of \$70.3 billion down to \$40.7 billion, and this amount were to be directed solely to the rehabilitation of the existing system, the operational performance of the highway system in terms of congestion levels would significantly worsen, and the costs experienced by highway users would rise significantly as you have suggested. Maintaining average highway user costs at current levels would require a combination of system rehabilitation and system expansion expenditures; the optimal mix between different types of investment will vary widely depending on the particular circumstances faced by the State and local owners of different components of the system.

**QUESTION 8: What are DOT and FHWA doing to increase their oversight of the bridge inspection program to ensure that proper inspection training, procedures, techniques and technology are being fully utilized and implemented in a uniform manner to mitigate human error and subjective assessments?**

**ANSWER:** There are several recent examples of increased oversight activities. As a result of the recent Office of Inspector General (OIG) audit of FHWA's oversight of bridge load rating and posting practices, we have initiated in-depth reviews of each State's bridge load rating and posting procedures. FHWA also developed several standard reports that are generated from data in the National Bridge Inventory (NBI) as tools for monitoring and addressing data quality issues. As a result of National Bridge Inspection Standards (NBIS) regulation provisions, which became effective in January 2005, FHWA increased oversight of follow-up actions taken in response to critical bridge inspection findings, plans of action for scour critical bridges, fracture critical bridge inspections, and quality control/quality assurance.

FHWA's array of bridge inspection training courses serve as an effective means of ensuring that proper inspection training, procedures, techniques and technology are being implemented in a uniform manner to mitigate human error and minimize subjectivity in inspections. In the last few years, FHWA has revised the Bridge Inspector's Reference Manual and developed a new course in underwater bridge inspection. Currently, we are reviewing methods to allow the "Safety Inspection of In-Service Bridges" course to be presented over the internet to allow better access to this material.

**Background:**

FHWA Division Offices are responsible for providing oversight of each State's bridge inspection program. The primary means of monitoring the State program is through a comprehensive annual review. The review includes a look at overall compliance with the NBIS as well as the quality of bridge inspection.

A typical review consists of a field check of several bridges to compare inspection reports for quality and accuracy; interviews with bridge inspection staff to review procedures; and a review of various inventory data reports to assess compliance with such things as frequencies, load posting, and data accuracy. Annual reviews are supplemented with periodic in-depth reviews of specific program areas.

The FHWA Resource Center assists in oversight by providing expert technical assistance to Division Offices and partners; assisting in development and deployment of policies, technologies, and techniques; and deploying market ready technologies. Also, the FHWA Resource Center assists in coordinating and conducting bridge inspection reviews and program exchanges, as well as delivering and updating training.

FHWA Headquarters' oversight responsibilities include issuing bridge inspection policies and guidance; maintaining the NBI; monitoring and updating our array of bridge

inspection training courses; collecting, reviewing, and summarizing the Division Office annual reports; and monitoring overall NBIS compliance.

**QUESTION 9: Can you provide the Committee with additional information regarding the steps taken by DOT and FHWA to upgrade the reliability and timeliness of identifying bridge deficiencies so that we can catch problems sooner and repair these structures at lower cost?**

**ANSWER:** FHWA published a research report in 2001 entitled *Reliability of Visual Inspection for Highway Bridges*. As part of the 2005 update to the National Bridge Inspection Standards (NBIS) regulation, FHWA identified improvements to the regulation that would help address the findings from the research.

Specifically, the regulation was revised to incorporate a requirement to establish quality control/quality assurance procedures. These procedures are required to incorporate a bridge inspection refresher training component. Also, training requirements were added as part of the enhanced inspection Team Leader and Program Manager qualification provisions.

Improved inspection and measurement technologies have been a high priority for FHWA bridge research for more than twenty years. Over that time, FHWA has sponsored dozens of research projects in this area, a number of which have resulted in commercially available technologies and methods.

The current Research and Technology program, however, is somewhat limited. The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) provided funding for only one program in bridge inspection/non-destructive evaluation (NDE) technology. This program, called "Steel Bridge Testing" (section 5202(d); 119 Stat. 1787), is focused on improving the technology for characterizing fatigue cracks in steel bridge members.

Other NDE technology programs are being conducted via leveraged funding with States, the National Science Foundation, and others.

With respect to the timeliness issue, the 2005 NBIS regulation introduced specific requirements for follow-up on critical findings, which are defined in the regulation as structural or safety related deficiencies that require immediate follow-up inspection or action.

**QUESTION 10: Do we really have greater confidence of our knowledge about which bridges in the U.S. are at actual risk of failure than we did back in the 1980s with the collapse of the Mianus River Bridge and the Schoharie Creek Bridge?**

**ANSWER:** Yes, we do. We have learned lessons from each major bridge failure and have taken the necessary actions to update our policies, regulations, guidance, and training as needed. For example, partially as a result of the failures mentioned, two

special classifications of bridges--fracture critical and scour critical--were developed to ensure that our knowledge, inspection, and monitoring of such structures is improved. The 2005 revisions to the National Bridge Inspection Standards regulation further enhanced inspection requirements by requiring hands-on inspections of fracture critical bridge members every twenty-four months and plans of action for all scour critical bridges. These improvements, as well as many others, have resulted in a greater overall confidence level.

**QUESTION 11: Do you believe developing a uniform, consistent approach regarding the type and frequency of inspections of vulnerable bridges would be beneficial?**

**ANSWER:** Yes, and a uniform, consistent approach exists. The established National Bridge Inspection Standards (NBIS) (23 CFR 650 Subpart C) not only define the frequency and types of inspections (routine, underwater, fracture critical member, damage, in-depth, and special inspections), they also define procedures to be used in inspecting and rating highway bridges, quality control/quality assurance, as well as follow up on critical findings. FHWA will continue to update the NBIS as necessary and will closely consider any suggested revisions that result from the ongoing DOT IG audit of the national bridge inspection program or the NTSB investigation into the Minneapolis I-35W bridge collapse.

**QUESTION 12: Would uniform standards for the National Bridge Inspection Programs make oversight of state programs easier, and ensure that data submitted to the National Bridge Inventory are consistent?**

**ANSWER:** Yes, and uniform standards exist. The established National Bridge Inspection Standards (23 CFR 650 Subpart C) set the national standards for the proper safety inspection and evaluation of all highway bridges in accordance with 23 U.S.C. 151. Annually, FHWA Division Offices review State compliance with the National Bridge Inspection Standards as well as the overall quality of the State's bridge inspection program. The established Highway Bridge Replacement and Rehabilitation Program (23 CFR Subpart D) defines procedures for consistent data submittal to the National Bridge Inventory.

**QUESTION 13: Do you agree that implementing such requirements for the most vulnerable bridges would lead to a data-driven, performance-based program that ensures that priority is placed on the bridges that are most in need of repair or reconstruction?**

**ANSWER:** Since uniform standards for the National Bridge Inspection Program are already in place and consistent data is being reported to the National Bridge Inventory (NBI), States are currently using data-driven approaches to programming their bridge activities.

The NBI data is currently used in the initial prioritization to identify structures that need attention and for the apportionment of Federal bridge funds to the States. The States, with more detailed information on their structures, are in the best position to identify their specific needs, and the final selection of bridge projects currently rests with the States.

States utilize bridge management systems of varying levels of complexity to identify their needs and assemble their programs. FHWA supported the development of Pontis, a bridge management program, and is currently offering support and classes in its use to the States.

Because bridge owners are the ones most familiar with the specific situations surrounding their bridge inventories, the current approach for identifying highest priority bridge needs at the State level is considered appropriate.

**Questions from Rep. Ellen Tauscher**

**QUESTION 1: Within the highway trust fund funding formula, states are provided varying flexibility with which they can use to make rescissions to contract authority. Can you explain why most states have heavier rescissions to their bridge funds than to other accounts? Do you believe that there are critical bridge safety projects that are not being addressed because states are using those funds on other non-critical projects?**

**ANSWER:** Beginning with the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), Congress has provided the States with ever-increasing flexibility to use highway funds so as to best meet local transportation needs and priorities.

There are understandable reasons why a State would opt to rescind bridge funds before other program funds, but this does not mean that the State places a low priority on bridges. In general, States will tend to rescind the least flexible funds. For example, a State would maximize its overall flexibility by rescinding the less flexible bridge funds and retaining the significantly more flexible Surface Transportation Program (STP) funds, which the State can use for both bridges and wide variety of other types of projects.

Critical bridge safety projects should be a high priority in a State's transportation plan. Rescinding bridge funds does not mean that those bridge projects will not be funded, as States are more than making up the difference by using other Federal-aid categories for bridge projects. Obligations of Federal highway funds for bridges, using funding under the Interstate Maintenance, STP, National Highway System, Equity Bonus, and other program categories, consistently exceed apportionments for the bridge program. Since 2003, total obligations for bridges have exceeded funds apportioned under the bridge program by an average of \$600 million annually.

**QUESTION 2: The Department of Transportation has estimated that \$65 billion could be invested today to address bridge deficiencies. Does the Department have a plan for providing the funds necessary to make these necessary improvements?**

**ANSWER:** The \$65.2 billion bridge investment backlog figure cited in the *2006 Status of the Nation's Highways, Bridges, and Transit: Conditions and Performance* report to Congress (C&P report) represents the costs of improving all existing bridge deficiencies if the benefits of doing so exceed the costs. This figure is based on an analysis of bridge conditions in the year 2004, and is stated in constant 2004 dollars. This analysis defines deficiencies broadly, and covers potential corrective actions to particular bridge elements on bridges that are classified as not deficient, as well as potential actions on bridges classified as structurally deficient and/or functionally obsolete. As good stewards of both the safety and the tax dollars of the American people, what we need to do is very carefully examine the criteria used to determine which bridges are repaired or replaced.



The C&P report estimates that an average annual investment of \$8.7 billion over the next 20 years would be adequate to address newly accruing bridge deficiencies and keep the size of the bridge investment backlog from growing. Actual spending on bridge rehabilitation and replacement by all levels of government in 2004 was \$10.5 billion, so we are making progress in reducing the backlog of bridge needs. The percentage of the Nation's bridges that are classified as "structurally deficient" has declined from 18.7% to 12.0% since 1994.

**QUESTION 3: During reauthorization of the highway bill, the President rejected Congress' call for \$375 billion in spending on critical infrastructure. Does the Department and Administration still believe that this funding was excessive? If so, does the Administration believe that there is funding available to make all necessary improvements?**

**ANSWER:** The Administration's position on an appropriate funding level for SAFETEA-LU balanced program needs and fiscal constraints. The President has consistently maintained that additional funding at the cost of a fuel tax increase is not an acceptable burden for the American people. The Administration proposal provided substantial increases in funding for major program categories, while minimizing the number of special programs.

I do believe that the available funds could be better invested. Our first obligation to the taxpayer is to spend their highway tax dollars on the highest transportation priorities. Decisions should be based on economic analysis and data-driven asset management approaches to ensure that our infrastructure investments are wisely made.

**QUESTION 4: Within the bridge program, the Department outlines bridges which it believes are structurally deficient. Can you describe, once this information is gathered, how the Department ensures that improvements are being made to the most critical bridges? Does the Department need greater enforcement ability to ensure that repairs and replacements are being made?**

**ANSWER:** Each State is required to develop a Statewide Transportation Improvement Program (STIP) that identifies and prioritizes the funding for, and scheduling of, future transportation projects and programs, covering a minimum of 4 years (23 CFR 450.216). All projects (bridge projects included) authorized for Federal-Aid funding must be included in the State's STIP. FHWA provides a list of bridges within a State that are eligible for bridge program funds (23 CFR 650.409). The State's STIP is subject to FHWA review and approval (23 CFR 450.218). The annual STIP review and approval process provides the opportunity for FHWA to work with the State to plan and prioritize future projects that give consideration to rehabilitating, replacing, load posting, and/or removing from service highway bridges, especially bridges in the most danger of failure (23 CFR 650.411).

The Department does not need greater enforcement ability to ensure that bridge repairs and replacements are being made. FHWA has sufficient enforcement authority, including the ability to withhold Federal-Aid funds if warranted.

**Questions from Rep. Christopher Carney**

**QUESTION 1: Since the 1988 regulation issued by the FHWA that allows the extension of inspection intervals, do we know how many bridges' inspection intervals have been extended? Are you able to accurately and specifically identify those bridges that have had their inspection interval exceeded?**

**ANSWER:** According to National Bridge Inventory (NBI) data from December 2006, there are 28,712 bridges with a routine inspection frequency greater than 24 months. The specific bridges can be identified from the NBI data. The accuracy of the data is dependent upon the efforts put forth by the States to ensure data quality. We believe that States accurately report this data based upon feedback received by FHWA division staff following their annual compliance reviews.

**QUESTION 2: Is the Bridge Condition Rating data shared freely with the state/feds? Is there a close working relationship?**

**ANSWER:** Yes, bridge condition ratings are shared as part of the National Bridge Inventory (NBI) data. The NBI data is available on the FHWA's Website at <http://www.fhwa.dot.gov/bridge/nbi/ascii.cfm>. We work closely with the States to compile the data on an annual basis.

**QUESTION 3: I understand why we would want to conduct a Bridge Condition Rating inspection and then calculate from that a load rating for a particular bridge, but it seems to me – if I understand correctly – that Bridge Condition Rating inspections weren't enough and so a load rating inspection was instituted. This doesn't make sense to me. Either a bridge can handle the traffic it experiences or it can't. Am I missing something? Does this just seem more confusing that it is? I shudder to think that such confusion contributed in any manner to the I-35W catastrophe.**

**ANSWER:** The National Bridge Inspection Standards (NBIS) require all bridges (as defined in the NBIS) to be load rated to their safe load-carrying capacity (23 CFR 650.313). The NBIS (23 CFR 650 Subpart C) also define the different types of inspections (routine, underwater, fracture critical member, damage, in-depth, and special inspections). The "routine" inspection is the most common type of bridge inspection performed. These regularly scheduled inspections include examining all the individual parts of a bridge, assigning condition ratings for structural elements and appraisal ratings for other components, recording the physical and functional condition, identifying possible future problems, reviewing previous inspection reports and data, and determining the in-service safety of the bridge. From the information and the data that is collected from the "routine" inspection, a determination for a bridge load re-rating can be made. The I-35W bridge had undergone several routine inspections as well as in-depth inspections. According to MNDOT data, the bridge had also been load rated several times in its lifetime and was determined capable of safely carrying legal traffic loads.

**QUESTION 4: Is it wise, in light of the tragedy in Minneapolis, to continue allowing states to divert up to 50 percent of the bridge funds to either the National Highway System or Surface Transportation Programs?**

**ANSWER:** We don't know yet why the I-35 bridge failed. As we continue the investigation into exactly what happened and why, we are taking every step to ensure that American's infrastructure is safe.

I believe that we should establish the proper standard to which bridges should be maintained and allow transfers out of dedicated bridge program funds only when a State can demonstrate that its bridges are maintained to that standard. I have asked the Inspector General to include this issue in his review of the bridge program.

The ability to transfer funds is an element of the increased flexibility Congress has provided the States, beginning with ISTEA, for using highway funds so as to best meet local transportation needs and priorities. Few States have transferred bridge funds since the flexibility was first introduced.

Further, the act of transferring does not mean that less money is being spent on bridges. While States are transferring some bridge funds, they are more than making up the difference by using other Federal-aid categories for bridge projects. Obligations of Federal highway funds for bridges, using funding under the Interstate Maintenance, Surface Transportation Program, National Highway System, Equity Bonus, and other program categories, consistently exceed apportionments for the bridge program. Since 2003, total obligations for bridges have exceeded funds apportioned under the bridge program by an average of \$600 million annually.

**Questions from Rep. John Hall**

**QUESTION 1: Secretary Peters, on page four of your written testimony you state, “In addition to earmarks, there are more than 40 special interest programs that have been created to provide funding for projects that may or may not be a State and local priority.” Would you be willing to provide a list of these 40 programs? Are transit programs, enhancement programs, CMAQ, or Safe Routes to School included in this list of 40 programs?**

**ANSWER:** Roughly 60% of the funding in the current Federal surface transportation bill is used for formula funds under the highway program that provide States the maximum flexibility to build, maintain and ensure the safety of highways and bridges. These programs include the Interstate Maintenance, National Highway System, the Highway Bridge Program, the Surface Transportation Program, the Highway Safety Improvement Program, the Congestion Mitigation and Air Quality Program and the Equity Bonus Program. The annual average authorized level for these core programs under SAFETEA-LU, removing set-asides and takedowns, is \$30,777 million, or a little more than 60 percent of the overall SAFETEA-LU annual average authorization level of \$50,540 million.

The question of whether each of the remaining programs that comprise the remaining of 40% of Federal funding fulfills meritorious purposes is secondary to the larger question what the Federal role is in transportation. Federal program proliferation and the growth of the role of special interests in Federal transportation spending are symptoms of our failure to answer this question.

**QUESTION 2: Secretary Peters, I am also interested if you could elaborate on the “specific performance-related goals and outcomes” mentioned on page five of your written testimony. Do you envision quarterly reports along the lines of Washington’s “Gray Notebook” or some other monitoring mechanisms?**

**ANSWER:** The “Gray Notebook” published quarterly by the Washington State Department of Transportation (*Measures, Markers, and Mileposts*) is a good example of the kind of performance reporting we need more of in the Nation’s transportation system. Here in Washington, DC, the U.S. Department of Transportation publishes every three years our Strategic Plan, which contains just the sort of performance benchmarks used in the Gray Notebook. Whether the reports are quarterly, annually, or triennially, performance reporting is critical to telling us whether we are getting our money’s worth from our transportation investments and operating practices and if program goals have been met. We believe that performance reporting, like that found in the Gray Notebook, is essential to promoting efficient strategies by shining light on strategies that are failing. For example, we should consider requiring that States report more complete and standardized performance information. Moreover, we should consider developing new guidelines on how to spend Federal funds based on the performance of States’ transportation systems.

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**Mark V. Rosenker**  
**Chairman**

**Testimony of Mark V. Rosenker, Chairman  
National Transportation Safety Board  
Before the  
U.S. House of Representatives  
Committee on Transportation and Infrastructure  
on  
Structurally Deficient Bridges in the United States  
September 5, 2007**

Good morning, Chairman Oberstar, Ranking Member Mica, and Members of the Subcommittee. Thank you for allowing me the opportunity to present testimony on behalf of the National Transportation Safety Board. I am privileged to represent an agency that is dedicated to the safety of the traveling public.

**Overview**

As you know, the Safety Board is charged with investigating major transportation accidents, including highway accidents, determining their probable cause, and making recommendations to prevent similar accidents from happening again. Changes in highway or vehicle design, driver training, occupant protection, and regulatory oversight are frequently recommended.

**Environment**

Every day there are approximately 19,000 accidents on our Nation's highways, causing over 43,000 fatalities and 3 million injuries each year. The economic cost of these accidents is estimated to be about \$231 billion a year, or over \$800 for every person living in the United States. Without even attempting to calculate the emotional losses to the families of these victims, just the economic cost is a tremendous burden on our society.

Highway accident investigations present their own set of unique circumstances for the Board. As you know, the regulation and oversight of the aviation industry is solely a Federal function and receives oversight solely from the Federal Government through the Federal Aviation Administration and accident investigation by the NTSB.

In contrast, highway accident investigation and regulation is very decentralized. Virtually all of the 7 million highway accidents, which occur each year, are investigated at the state and local level by over 18,000 police departments, which employ some 800,000 staff. They investigate the majority of these accidents and provide an invaluable service to the safety community by documenting the circumstances of these accidents. Their hard, dedicated work greatly assists the Board in our investigations and the data they gather feeds into national

databases that assist in the decision-making of Federal regulator agencies such as the National Highway Traffic Safety Administration (NHTSA), the Federal Motor Carrier Safety Administration (FMCSA), the Federal Highway Administration (FHWA), and of course the Congress.

However, in this highly decentralized environment, the Safety Board provides a unique service. The Board is virtually the only organization that conducts comprehensive, thorough highway accident investigations that drill down into the root causes of accidents. These investigations are conducted in the same objective, comprehensive, and independent manner as the NTSB's aviation investigations and we often find root causes that are not readily apparent from the less exhaustive investigations conducted by state and local governments. Our investigations afford us the opportunity to make safety recommendations on highway safety issues that other organizations may be unaware of or may have overlooked.

#### **Accident Selection Criteria**

Because of the Board's small size, our effectiveness depends on our ability to select the most appropriate accidents and safety issues to investigate; issues and accidents that will lead to recommendations that will make a substantial contribution to the safety of the Nation's highway system. Given the volume of highway accidents, this is not an easy task, and it precludes any rote formula for selecting accidents.

Recognizing this, the Board's mandate in Chapter 11 of *United States Code 49* is very broad. It charges the NTSB with investigating "highway accidents, including railroad grade crossing accidents, the Board selects in cooperation with a State." Given the millions of highway accidents that take place each year (19,000 per day), the Board must be highly selective in choosing those that will identify safety issues of national significance. Therefore, before we launch on an accident, we ask four basic questions:

- Is there high public interest?
- Are there potentially new issues, which others or we have not addressed?
- Can we make a difference?
- Do we have the resources?

#### **Recent Safety Issues Uncovered**

The Board's small highway staff delivers considerable value for the citizens of the United States by thoroughly investigating selective accidents and identifying new safety issues. Just in the past year, the Safety Board has addressed a number of important highway safety issues, including:

- highway median barriers,
- toll plaza designs,
- collision warning systems,
- heavy vehicle and passenger vehicle incompatibility,
- highway construction oversight,



- cell phone use by bus drivers,
- motorcoach occupant protection,
- inconsistencies in Federal accident databases,
- emergency egress from motorcoaches,
- fire resistance of motorcoach materials and designs,
- motorcoach wheel bearing maintenance,
- transportation of pressurized aluminum gas cylinders,
- emergency transportation of persons with special needs,
- Federal oversight of the motorcoach industry,
- epoxy use in highway construction,
- inspection of tunnels,
- tunnel design and construction, and
- motorcycle safety.

One of the reasons I am particularly proud to work for the Safety Board is that when tragedies do occur, the Board is able, by conducting thorough, objective, and transparent investigations, to restore the public's confidence in the safety of our transportation systems. Following its investigation, the Safety Board makes focused, appropriate recommendations to fix safety deficiencies so similar, future tragedies can be prevented.

#### **Boston "Big Dig" Tunnel Accident**

For example, when the ceiling panels collapsed in one of the Big Dig tunnels in Boston last year, Congress immediately turned to the Safety Board to investigate this tragedy because of our reputation for thorough, independent accident investigations; and our independence is the key. Any number of other organizations could have conducted an investigation, and many still are, but for such a high-profile, high-cost, high-visibility project as the Big Dig, with all the problems that it has had, the Congress recognized that the public needed an independent body to lead this investigation.

As you may recall, the accident occurred on July 10, 2006, when a section of the ceiling panels of the D Street portal of the I-90 connector tunnel became detached from the tunnel and fell onto the roof of a sedan, killing one of the two occupants. A total of about 26 tons of concrete and suspension hardware fell onto the vehicle.

The 30 NTSB staff members who worked on this investigation (almost 10 percent of the agency) examined the role of 24 organizations (15 of which were potentially associated with the cause), and sifted through 400,000 documents to complete the investigation.

What resulted from this investigation radically changed the thinking in the highway construction industry about the long-term structural properties of epoxy in overhead applications as they relate to epoxy creep. It is now extremely unlikely that any design or construction company will ever use epoxy the way it was used in Boston without a thorough understanding and testing of the product.

Most importantly, once the public became aware that the Safety Board was conducting this investigation, they were reassured that the ultimate cause of the ceiling collapse would be found and proposed solutions would be made. So when we have a bridge collapse in Minneapolis, the public demands answers, and it turns to the Safety Board for those answers to restore their confidence in our highway bridges.

#### **What we bring to the table**

Therefore, it is important to understand what the Board brings to the table. First, we bring accident investigation expertise and methodology that has a worldwide reputation for finding the root cause of transportation accidents. Second, our willingness to allow parties to participate in our investigations expands our resources up to 10 fold and builds on our expertise by allowing us to utilize some of the world's experts in transportation safety. The collective knowledge of all the participants in our investigations ensures that all options are examined, and no stone goes unturned. Third, the openness of our investigations reassures the public that they will eventually have access to all the facts we uncover and that we are confident enough in our analysis that we make the entire process available for public scrutiny. Finally, our independence ensures that an unbiased judgment will be made by an organization that does not have a vested interest in the transportation mode being investigated. If we do our job right, using all these tools, the public will be reassured that the problems that resulted in, or caused an accident, will be ultimately identified and remedied. That is the value of the Board in this endeavor.

#### **Historical Perspective: (Bridge Accident Investigations and the National Bridge Inspection Program)**

Discussions of the Nation's highway infrastructure and the safety of older bridges often begins with the 1967 Safety Board investigation of the collapse of the 39-year-old Silver Bridge in Point Pleasant, West Virginia, in which 46 people were killed. This is because, as a direct result of the Board's recommendations, the FHWA established national inspection standards for locating, inspecting, evaluating, and correcting bridge deficiencies to ensure that bridges are safe. Shortly thereafter Congress established the Highway Bridge Replacement and Rehabilitation program and the Discretionary Bridge Program—the precursors to the bridge inspection programs of today.

In fact, the majority of the improvements that have been made to the Nation's bridge inspection programs, stem directly from NTSB investigations and recommendations of significant bridge collapses. For example:

- After the 1987 bridge collapse into the Schoharie Creek in New York, in which 10 people were killed, the FHWA established a scour inspection program.
- After the 1983 I-95 bridge collapse into the Mianus River in Greenwich, Connecticut in which 3 people died, the FHWA established a fracture critical inspection program.
- After the 1985 Chickasawbogue Bridge collapse in Mobile, Alabama, the FHWA established an underwater bridge inspection program.

These were all direct outcomes of the Safety Board's recommendations.

Like the establishment of the National Bridge Inspection Program, the Board is now in the forefront of the safety of the Nation's tunnels. As a result of our investigation into the Boston Big Dig ceiling collapse, the Board found that there were no national inspection standards or procedures for tunnels. Therefore, the Board recommended to the FHWA to:

- Seek legislative authority to establish a mandatory tunnel inspection program similar the National Bridge Inspection Program; and
- Once provided with the authority, then implement a tunnel inspection program that will identify critical inspection elements and specify an appropriate inspection frequency.

We hope that this program comes to fruition.

#### Update/Status of Minneapolis Investigation

I will now turn to the issue at hand--the August 1 collapse of the I-35W Bridge over the Mississippi River in Minneapolis, Minnesota. Approximately 1,000 feet of the 1,900-foot-long truss-built bridge collapsed, with approximately 456 feet of the center span falling about 108 feet into the 15-foot-deep river. There were a total of 110 vehicles on the portion of the bridge that collapsed, and about 17 vehicles fell into the water. At the time of the accident, roadway construction was being conducted on the center span, and four of the bridge's eight lanes were closed for re-paving. The bridge had last been inspected by the Minnesota Department of Transportation (MnDOT) on June 15, 2006.

Let me give you a little insight into our investigative process and the status of our ongoing investigation.

The Safety Board launched a team of 19 investigators and support staff, roughly 3 times the usual number for a major launch. The investigators included engineers and experts from many disciplines. Eventually all of the Board's highway engineers and all of our metallurgical and materials lab specialists, including the Board's senior metallurgist, would become involved in the investigation along with several specialists in survival, human, and vehicle factors, and members of our disaster assistance program, who work with the victims' families. The on-scene recovery effort would eventually require round-the-clock monitoring of the recovery operations as many of these investigators pulled duty to monitor the 24-hour work to remove and recovery the bridge span and to analyze and document the critical bridge components. It would take 20 days to complete victim recovery.

In addition, as is our practice, parties to the Board's investigation were established, including the FHWA, the Minnesota Department of Transportation, the Minnesota State Patrol, the Minneapolis Police Department, the Hennepin County Sheriff's Department, and Progressive Contractors, Inc. These parties participate in collecting evidence and facts, under the leadership of Board employees. They do not, however, participate in the analysis of those facts, or the

development of conclusions or recommendations made by the Safety Board. Each Group is headed and managed by an NTSB investigator and an Investigator-In-Charge (or IIC) manages the Groups.

The following Groups were created, but additional groups can be established anytime:

- Highway Factors and Bridge Construction Group
- Bridge Design Group
- Witness Group
- Survival Factors/Emergency Response Group
- Scene Mapping and Evidence Collection Group
- Video and Photogrammetry Analysis Group
- Structural Investigation Group
- Computer Modeling Group
- Transportation Disaster Assistance Group

I will briefly describe the status of each of these groups' investigation.

#### **Highway Factors and Bridge Construction Group**

The Highway Factors and Bridge Construction Group is collecting information to evaluate the effects, if any, of the bridge construction and rehabilitation that was ongoing at the time of the accident. The Board has already interviewed 25 construction workers and truck drivers who were involved in delivering and/or using the construction material on the bridge. The Group is also reviewing the daily construction records and diaries to determine the location of construction equipment and raw materials on the bridge at the time of the collapse, and to verify the weights of those vehicles and materials. The Board has obtained core samples of the bridge deck material to get a better picture of the deck thickness to help make an assessment about the amount of concrete on the bridge at the time of the accident and its weight. The Board has also obtained a photograph of the bridge and the construction staging area that was taken by a passenger on an airplane that was departing from Minneapolis on the afternoon of the collapse. In addition, information is being gathered on the permitted loads that have traveled across the bridge in the past 12 months. The Highway Group will develop a historical list of the various construction projects and modifications that have been performed on the bridge since its original construction.

The weights of the various construction materials that were delivered to the work site between 11:00 a.m. and 2:30 p.m. on August 1 are currently estimated to be about 383,000

pounds. The combined weight of the loads and construction vehicles was about 575,000 pounds, or 287 tons.

#### **Bridge Design Group**

The Bridge Design Group will look at a number of factors that concern the bridge design, other deck truss bridges of similar design, and maintenance and inspection practices. Safety Board investigators have received records from the bridge designer and will assess the original design calculations.

The Bridge Design Group will also conduct a detailed analysis of the adequacy of the National Bridge Inspection Program as it relates to identifying any preexisting problems with the Minneapolis I-35 bridge. Components of this program include the national bridge inspection standards (NBIS) and the national bridge inventory (NBI), which currently rate bridges using a bridge sufficiency rating system to identify structurally deficient and functionally obsolete bridges. The adequacy of these programs to identify any problems found with this bridge will be examined. The I-35 bridge was considered structurally deficient because of a relatively low rating of its superstructure.

#### **Witness Group**

The Witness Group will accomplish a number of tasks, including the collection of eyewitness descriptions, pictures, videos, or other evidence associated with the collapse. For example, investigators interviewed the crew of a dinner cruise ship that was near the bridge at the time of the collapse. This work is being done in cooperation with the Minneapolis Police Department and other agencies. The Witness Group will also be interviewing witnesses and vehicle occupants and evaluating these statements to document the motion of the bridge during the collapse sequence and the position of vehicles and witnesses prior to the collapse. So far the Board has contacted or interviewed 314 witnesses and received more than 180 calls to the witness hotline.

#### **Survival Factors/Emergency Response Group**

The Survival Factors/Emergency Response Group will document the post-collapse positions of vehicles on the bridge, the types of injuries received by vehicle occupants and construction workers, and the effectiveness of the emergency response to the accident. So far, the Group has documented 109 of the 110 vehicles involved in the collapse. One vehicle remains under debris. A total of 185 people were on the bridge at the time of the collapse, 17 of whom were construction workers. Of the 185, 133 were injured, and 13 were killed. The initial response to the tragedy involved more than 50 agencies, with the Minneapolis Police arriving within 3 minutes, the Minneapolis Fire Department responding within 4 minutes, and search and rescue operations by the Hennepin County Sheriff's Department beginning within 7 minutes. Ten hospitals accepted victims from the accident.

**Scene Mapping and Evidence Collection Group**

The participants in the Board's Scene Mapping and Evidence Collection Group are continuing to collect evidence and document the final rest positions of the vehicles on the bridge and the exact positions of each of the bridge components, utilizing a number of tools and collection methods. The FBI, MnDOT, and local police departments are providing assistance. The Mapping Group's diagrams and computerized data will provide detailed measurements of the configuration of the collapsed bridge structure for further evaluation in conjunction with the finite element analysis being performed under the direction of our Computer Modeling Group. Eventually, 3-D views will also be available for illustrative and evaluation purposes.

**Video and Photogrammetry Analysis Group**

The Video and Photogrammetry Analysis Group has obtained the original security camera video equipment and footage provided by the Army Corps of Engineers that shows a portion of the bridge collapsing, which you have likely seen on TV and the Internet. This Group is reviewing the video and all the recording components in our laboratory. We are also engaged in a detailed review and analysis of all other photographic and video imagery that was created prior to and following the accident, to fully document the sequence of events. Tools used early on in this effort included a high-resolution gyro-stabilized camera mounted on a state police helicopter used to photograph the bridge's superstructure.

**Structural Investigation Group**

The Structural Investigation Group has members from FHWA and MnDOT and is collecting and documenting the structural components of the bridge and working to determine the initiating location and failure sequencing of the structure. This has involved conducting inspections of the accessible areas of the bridge since the first day of the investigation. This work continues slowly as the tedious effort to remove damaged portions of the bridge must be conducted without destroying any critical evidence.

The Structural Group continues to examine gusset plates at particular locations and have observed damage that warrants further investigation (gusset plates are steel plates that tie steel beams together). Safety Board investigators are verifying the loads and stresses on the gusset plates at these and other locations, as well as assessing the materials used in the construction of the gusset plates to help determine whether these locations represent primary or secondary failure points.

The Structural Group has completed its initial documentation on all observable portions of the structure and therefore, the south and north approach spans have been released to MnDOT for removal. Additional structural areas of the truss portion of the bridge are being examined as they are removed from the water or uncovered on land. A layout area in "Bohemian Flats Park," not far from the accident site, has been established to store portions of the bridge for further analysis. Selected portions of the main trusses and floor trusses are being laid out at the Park. Once layouts are complete, another overall examination will be conducted.

Some components have been chosen for more detailed laboratory examination and materials characterization. Portions of those components may be shipped to the Board's Laboratory in Washington if further examination and analysis is deemed necessary. This will begin after layouts have been examined.

The sequencing study that is planned will take factual observations regarding fracture locations and directions, deformation patterns, damage marks, and the final resting positions (compared to the original location), and will attempt to generate an overall sequence of separation, leading back to the earliest identifiable fracture area or areas. Right now, it is unknown how far this process will take us, because we have not recovered all of the structure. Nevertheless, we are hopeful that it will at least give us options on which our computer modeling effort to may concentrate.

So far, the Safety Board has only recovered about one half of the bridge structure, the remaining half still being in the water.

#### **Computer Modeling Group**

The Computer Modeling Group is working with the Federal Highway Administration and MnDOT to conduct a structural analysis of the bridge, using computational Finite Element Analysis methods. Within days of the collapse, development of the computer model, based upon the original design drawings, began at the FHWA's Turner-Fairbank Highway Research Center in McLean, Virginia.

The Group is currently validating a global finite element model of the bridge to explore loading and failure scenarios. The finite element model of the bridge is being revised based on the measured deck thickness from core sections and physical examination of the bridge structure. All structural elements have been incorporated into the model; however, some aspects of stiffness, weight, and connections between elements are being modified to match the condition of the bridge on the day of the accident. Strain gage data from a 2001 study by the University of Minnesota is being used to ensure that the model accurately mimics the structure. In addition to information from the wreckage, the modeling effort will require input data from tests of the material properties of the critical structural elements. The testing will be performed by FHWA under the Board's supervision, once the wreckage has been assessed on-scene and then sent to Turner-Fairbank for laboratory examination.

The loads calculated in the global model will be used in more detailed models of specific structural members. The choice of the structural members studied with the more detailed modeling will be guided by the findings in the wreckage. The goal of the detailed modeling is to identify specific failure mechanisms that participated in the collapse.

Historical records concerning the bridge design and any engineering analysis of the components have been collected from MnDOT and the original bridge designer. Calculations include the main truss members, but no documents showing the calculations regarding riveted gusset plate connections have been found so far. The Group will continue to review all available design calculations.

**Transportation Disaster Assistance Group**

The Board's Transportation Disaster Assistance Group worked on scene with 74 other local, state, and Federal agencies that assisted in the disaster. The Board received outstanding cooperation from all these organizations, and in particular, the Minneapolis Police Department and the Minnesota State Patrol were extremely helpful. The Board conducted briefings for between 40 and 50 family members each evening concerning the progress of the NTSB's investigation. These briefings were held at the on-scene Family Assistance Center that was operated by the Minneapolis Police Department. Briefings began the 2nd day after the disaster and continued for the next 9 days. The Minneapolis Police Department Chaplains then worked directly with families at their homes until victim recovery operations were completed. As an example of the magnitude of the assistance provided, the Red Cross served 33,000 meals in the first 10 days of the disaster.

**Summary**

The Board is still in the initial stages of its investigation and, as you can see, there is still much work to be done. As new and significant developments occur, we will be sure to keep the committee and the public informed. Today, there are still NTSB investigators on scene in Minneapolis, and they are likely to be there until November or however long it takes for the bridge components to be fully recovered.

Thank you for the opportunity to speak today and I would be delighted to respond to any questions you may have.



October 19, 2007

Honorable James L. Oberstar  
Chairman  
Transportation and Infrastructure Committee  
2165 Rayburn House Office Building  
Washington, D.C. 20515

Dear Chairman Oberstar:

Thank you for your letter of October 1, 2007, transmitting questions from Congressman DeFazio for response from the National Transportation Safety Board regarding issues from your September 5<sup>th</sup> full committee hearing on "Structurally Deficient Bridges in the United States."

Enclosed please find the Safety Board's response to Congressman DeFazio's questions.

If you have any questions, please do not hesitate to call me at (202) 314-6035, or Ms. Brenda Yager, Director of Government and Industry Affairs, at (202) 314-6006.

Sincerely,

/s/

Mark V. Rosenker  
Chairman

Enclosure

cc: Congressman Peter DeFazio

**QUESTIONS FROM CONGRESSMAN PETER DEFAZIO  
FOR THE RECORD  
TO THE NATIONAL TRANSPORTATION SAFETY BOARD  
HEARING ON STRUCTURALLY DEFICIENT BRIDGES IN THE U.S.  
SEPTEMBER 5, 2007**

**QUESTION:** It is critical that states utilize uniform computer management systems. My understanding is that each state operates some form of a bridge management program, but while the IT platform may be the same, each state has developed unique systems for inventorying bridges and managing their program.

Do you think that FHWA is doing enough to ensure states are providing uniform, reliable data?

**RESPONSE:** The NTSB is examining this question as part of our on-going investigation into the Minnesota bridge collapse and will be obtaining further information as the investigation proceeds.

As you know, the 1991 Inter-Modal Surface Transportation Efficiency Act mandated that all states develop and implement a Bridge Management System by October 1998. The Minnesota Department of Transportation (MnDOT) adopted an element based bridge inspection format in 1994 called Pontis. An "element" refers to structural members (beams, pier columns, decks, etc.) or any other components (railings, expansion joints, approach panels, etc.) commonly found on a bridge. The MnDOT bridge inspection manual includes approximately 150 elements, including the American Association of State Highway and Transportation Officials (AASHTO) commonly recognized (CoRe) structural elements, as well as elements added by MnDOT to better represent the bridge types and components found in Minnesota. The Pontis element condition ratings provide a detailed condition of the bridge by dividing the bridge into separate elements, which are then rated individually based upon the severity and extent of any deterioration. This rating system was developed by AASHTO, and is outlined in the "AASHTO Guide for Commonly Recognized (CoRe) Structural Elements." Pontis is currently used by approximately 43 states.

Our initial investigation has been focused on the inspection of the accident bridge to determine the probable cause of the collapse of the bridge. Should we find any problems or issues related to data uniformity or reliability, however, we will make recommendations to AASHTO, the Federal Highway Administration (FHWA), the states, or whoever can act upon those recommendations to make improvements to ensure uniform, reliable data. In addition, it is our understanding that the Department of Transportation's Office of the Inspector General (DOT-OIG) is examining the effectiveness of the National Bridge Inspection Program.

**QUESTION:** Do you believe developing a uniform, consistent approach regarding the type and frequency of inspections and the type of technology utilized would be beneficial?

**RESPONSE:** Our investigation has been focused on the inspection of the accident bridge to determine the probable cause of the collapse, and we have not taken a global look at the data used in the National Bridge Inspection Program. Although the NTSB has not made specific recommendations in this area in the past, typically we would expect that the FHWA would ensure that a program such as the National Bridge Inspection Program would result in uniform and consistent data from the states.

**QUESTION:** Would uniform standards ensure that data submitted to the National Bridge Inventory are consistent, and lead to a data-driven, performance-based program?

**RESPONSE:** Our investigation so far has only examined factors related to the accident bridge. However, based on the previous question, we generally agree that developing uniform standards would help to ensure that data submitted to the National Bridge Inventory remains consistent, and would hopefully lead to a data-driven, performance-based program. The DOT-OIG addressed this issue in an "Audit of Oversight of Load Ratings and Postings on Structurally Deficient Bridges on the National Highway System" dated March 21, 2006. The audit recommended that the FHWA develop a risk-based, data-driven approach and metrics to focus on ensuring that states coordinate with other states to improve the accuracy and completeness of the bridge inventory and reporting of results to Congress. The audit focused on the errors found in the calculation of bridge load ratings and in the posting of maximum weight limit signs on bridges in a three state sample.

**Testimony for the  
House Transportation and Infrastructure Committee**

**Mayor R.T. Rybak**

**Wednesday, September 5, 2007**

Chairman Oberstar, Members of the Committee, my name is R.T. Rybak and I am the Mayor of Minneapolis. Thank you for the opportunity to testify today on behalf of the City of Minneapolis as well as the US Conference of Mayors.

On behalf of my city and the entire state of Minnesota, please accept our heartfelt gratitude for your efforts to secure early authorization of Emergency Relief dollars to help us respond to the catastrophe of the I-35W Bridge collapse. Your dedication to do whatever it takes to come to the assistance of our community will not be forgotten.

Every day in America there are moments when millions of us cross paths without ever seeing who we are. People walk by on the sidewalk or a shopping mall without saying hello. Cars switch lanes in heavy traffic without paying attention to who is behind the other wheel. We live the same place but often don't know who we really are.

Then something happens that forces us to look up from our daily routine to see what and who is really around us.

That happened dramatically, and tragically, in Minneapolis at 6:05 p.m. on August 1, 2007.

- A marketing director whose husband and daughters had dinner waiting on the table;
- An amateur baseball player driving home to see his wife and their two young kids;
- A pregnant Somali nursing student and her little girl;
- A Cambodian woman and her son with Downs Syndrome, who were inseparable, even in death;
- A vegetable salesman from Mexico whose young family was scattered across two countries;
- A former missionary who worked in computers; and
- A veteran construction worker who loved ice fishing, hunting and peach pie.

Today they and six others are gone. Many others, including a bus filled with school children, were on the bridge but escaped alive.

All these separate lives, intersecting for one tragic moment in Minneapolis, are now woven together forever. It's during times like these that we realize we really aren't all that separate after all. We realize that in the middle of a tragedy, and every moment of every day, we all share common ground.

This should have a special resonance for those of us in government, because we provide that common ground....the services we all share: public safety, roads and bridges, public water, garbage removal, snowplowing, public housing, libraries, schools and parks.

In our roles as stewards of the common ground, we should take this lesson out of the bridge collapse in Minneapolis: **When you invest in quality government you get quality results. When you don't invest, there are consequences.**

In Minneapolis, we *have* invested in public safety and emergency preparedness. Minneapolis, in strong partnership with the federal government, has invested more than \$50 million on emergency preparedness in the last five years. Because of that investment, Minneapolis and all our partners were prepared to respond to the bridge collapse with professionalism, coordination and excellence.

In Minneapolis, and in cities across the nation, we *have not* invested as we must in roads, bridges and transit, and our lack of investment has serious consequences.

I say this as the Mayor of a city recovering from a tragedy that was not an act of God. It was a failure of man. For some time, we have known that our rates of investment have not kept pace with rising maintenance and rehabilitation needs. Rising costs for energy and oil-based products, steel and many construction materials have only added to this increased liability.

As a representative of the U.S. Conference of Mayors, I can tell you that mayors across the country have sounded the alarm about the lack of investment in infrastructure, especially transportation, long before the I-35W Bridge collapsed.

- During debate on SAFETEA-LU, the Conference and its members supported Congressional efforts to increase the federal gas tax to extend federal commitments to fund transportation infrastructure.
- Recently, the Conference endorsed this Committee's package of transportation-related initiatives that were included in the energy legislation approved last month by the House of Representatives.
- While the Conference has not addressed the issues specifically before us today, in the past we have been willing to support raising new revenues to deal with our critical transportation needs.

Mr. Chairman, on behalf of the mayors, I want to commend your personal efforts to champion provisions that bar States from using rescission orders to undermine Congressional commitments help cities address local bridge needs.

As we start the debate on the legislation before this Committee today, I would like to draw your attention to concerns among the mayors about practices that undermine local priorities.

- Mayors know that most states, including my own, are not raising new revenues for transportation. Your own federal data demonstrates this. In fact, states are increasingly financing their transportation programs with borrowed funds or by advancing the use of future federal dollars (e.g. Advance Construction, GARVEE, etc.). At the same time, local revenue commitments nationwide are outpacing those of the states. In almost every case, we are doing this with non-user revenues.
- Given this lack of revenue, bridge improvements and the maintenance of existing infrastructure have suffered. This translates into below average obligation rates for the

Bridge Program, especially the 15% share for Off-System bridges, which mostly benefits city- and county-owned bridges. At the same time, states are more and more transferring Bridge funds to other program categories and increasing rescissions of Bridge Program balances.

Our concerns extend beyond the Bridge Program. I cite these examples to illustrate the need to take a fresh look at current practices and move toward making needed reforms. The Conference has been a strong champion of performance measures and other methods that require states and localities to show the public how our resource commitments make a difference.

We mayors understand that there is no free lunch when it comes basic infrastructure. Every day we are required to keep a relentless focus on results, because every day our citizens see at the grassroots whether or not we are providing the basic services they expect, and whether they are getting a good value for their tax dollars.

As policy makers, we need to be honest about our needs to improve mobility, and what it will cost to get there. Minnesota is a case in point.

In Minnesota, like everywhere around the country, people are driving more, and this puts more pressure on our road capacity. Today, we in Minnesota are spending 31% less per vehicle on transportation than we were in 1975. As a result, our roads are dramatically more congested than five years ago. The average driver in the Minneapolis Saint Paul region spends a full work week stuck in traffic every year. We know that both roads and transit are essential to solving this problem, and we have a plan for an integrated system that would increase mobility and create transportation choices for the people who live, work and visit our region. The problem is that we have dramatically underfunded this plan – both in terms of the capital required to build an integrated system as well as the dollars required to operate it. To give you an idea of the gap, the difference between what we have and what we need is estimated to be about \$19 billion over the next 20 years. Every year we wait, this gap grows.

The Federal government has been a strong partner with state and local governments when it comes to transportation funding. But too often state governments have not stepped up to the plate. I regret that many states, including Minnesota, have relied heavily on borrowing to fund transportation projects, leaving us to fall further and further behind. Too often, counties and cities are forced to fund basic road and bridge improvements through local property tax increases.

This is not a long-term solution.

- This is why as Mayor of Minneapolis I strongly endorse increases to the state gas tax to fund road and bridge improvements, and why I strongly support strategies like a regional sales tax dedicated to transit funding.
- It is also why I personally endorse the proposal by Chairman Jim Oberstar for a temporary increase in the federal gas tax and to repair or replace bridges nationwide.

We know that when we make these investments in transportation infrastructure, we get results. Here are two quick examples:

- In June of 2004, the Hiawatha Light Rail Line in Minnesota opened for service. Stretching 12 miles, it connects downtown Minneapolis with the Minneapolis-St. Paul International Airport and Bloomington, including the Mall of America. Approximately \$700 million in federal, state and local investments in the Hiawatha Corridor have gotten

results: Over 19,000 people ride Hiawatha LRT every day, reducing congestion, improving air quality, and giving people better choices for how to get around. Ridership has drastically outpaced projections. In addition, public investment in Hiawatha LRT has inspired 5,400 new housing units along the corridor. Overall, we have seen over \$1.5 billion in private investment along the corridor so far since 2002. These are excellent results. The problem is that at our current rate, Minnesota will build one new LRT line every 20 years.

- In November of 2006, Denver RTD opened its newest light rail line in the Southeast Corridor, which connects Colorado's two largest employment centers. The total regional investment is \$879 million, and this investment has delivered results. The 19 mile long line has generated development either under construction or in the works of \$4.25 billion -- not a bad rate of return.

Unlike Minnesota, Colorado has been able to deliver on its regional transportation plan with more than just one LRT line. The primary reason why is FasTracks, a 0.4% regional sales tax increase passed in 2002 that helps fund a 12-year, \$4.7 billion build-out of its rail and bus system. Simply put, Denver and Colorado have stepped up to the plate with reliable regional funding to match the federal contribution, and this makes all the difference in the world.

The lesson is clear. If you invest in quality government you get quality results and if you don't invest there are consequences. As Senator Klobuchar said, "In America bridges should not just fall down." Having lived through the tragedies that I have seen in these past few weeks, those of us who are stewards of the common ground should vow to never again have the kind of consequences we saw in Minneapolis.

**Before the Committee on Transportation and Infrastructure  
United States House of Representatives**

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For Release on Delivery  
Expected at  
10:00 a.m. EDT  
Wednesday  
September 5, 2007  
CC-2007-095

# **Federal Highway Administration's Oversight of Structurally Deficient Bridges**

**Statement of  
The Honorable Calvin L. Scovel III  
Inspector General  
U.S. Department of Transportation**





Chairman Oberstar, Ranking Member Mica, and Members of the Committee:

Thank you for the opportunity to testify today on the National Bridge Inspection Program, particularly the Federal Highway Administration's (FHWA) oversight of structurally deficient bridges within the National Highway System. This hearing follows closely the collapse on August 1 of the Interstate 35W bridge in Minneapolis, which spanned the Mississippi River. I personally visited the site of this tragedy and saw how cars, buses, trucks, and tons of concrete and twisted metal were sent into the water. Like you, I mourn the lives that were lost. As you know, under the current National Bridge Inspection Program, the states, with oversight by FHWA, are responsible for inspecting bridges on public roads. The primary purpose is to identify and evaluate bridge deficiencies in order to ensure public safety. I will assist the Committee and the Secretary of Transportation in any way I can in determining whether the current program delivers the highest level of bridge safety and, if not, how it can be improved.

My testimony today is based on work carried out by our audit and engineering staff concerning bridge safety over the past 3 years. We have also utilized the engineering expertise of the U.S. Army Corps of Engineers. In March 2006, we issued a report on FHWA's oversight of load ratings and postings on structurally deficient bridges on the National Highway System.<sup>1</sup> We have also performed audit work on other bridge issues, including bridges destroyed by Hurricane Katrina, the Zakim Bridge on Boston's Central Artery/Tunnel Project, and the San Francisco-Oakland Bay Bridge. Today, I will discuss our previous work dealing with structurally deficient bridges and make several observations regarding FHWA's actions to address our prior recommendations to improve its oversight of bridges. Specifically:

- Federal oversight of bridge inspections and funding for bridge rehabilitation and replacement constitute significant issues for the U.S. Department of Transportation (DOT).
- FHWA needs to develop a data-driven, risk-based approach to bridge oversight to better identify and target those structurally deficient bridges most in need of attention.
- Action can be taken now to strengthen the National Bridge Inspection Program and FHWA's oversight.

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<sup>1</sup> OIG Report Number MH-2006-043, "Audit of Oversight of Load Ratings and Postings on Structurally Deficient Bridges on the National Highway System," March 21, 2006. OIG reports are available on our website: [www.oig.dot.gov](http://www.oig.dot.gov).

## **Federal Oversight of Bridge Inspections and Funding for Bridge Rehabilitation and Replacement Constitute Significant Issues for DOT**

Federal oversight of bridge inspections and funding of bridge rehabilitation and replacement have been significant issues for DOT for years. The safety of the Nation's bridges depends upon a complex web of Federal, state, and local activities, including such items as maintenance and rehabilitation, inspections and reviews, and load ratings and postings. While states are ultimately responsible for ensuring that bridges within their jurisdictions are safe, FHWA is responsible for overseeing the states in this effort, and for providing technical expertise and guidance in the execution of bridge inspection, repair and maintenance, and remediation activities.

The National Bridge Inventory comprises data on 599,976 bridges, including 116,086 bridges on the National Highway System, as well as bridges maintained and operated by various state and local entities. Many bridges require enhanced attention: nationwide, almost 80,000 bridges are considered functionally obsolete and nearly 72,500 are structurally deficient. In five states, more than 20 percent of the bridges are considered structurally deficient. The term "structurally deficient" refers to bridges that have major deterioration, cracks, or other deficiencies in their structural components, including decks, girders, or foundations. Regular inspections that check for corrosion, decay, and other signs of deterioration are important tools for ensuring that bridges are safe. In some cases, structurally deficient bridges require repair of structural components, or even closure. But most bridges that are classified as structurally deficient can continue to serve traffic safely if they are properly inspected, the bridges' maximum load ratings are properly calculated, and, when necessary, the proper maximum weight limits are posted.

Of the National Highway System's bridges, 6,149, or 5.3 percent, are categorized as structurally deficient. National Highway System bridges carry over 70 percent of all bridge traffic. The price of repair or remediation of these bridges is high. An FHWA report issued in January of this year estimated that about \$65 billion could be invested immediately to address current bridge deficiencies.

Bridge safety first emerged as a high-priority issue in the United States in the 1960s. In 1967, corrosion caused the Silver Bridge on the Ohio River between Ohio and West Virginia to collapse, killing 46 people. In 1968, in hopes of avoiding further catastrophes, Congress responded by holding hearings on bridge design, inspection, and maintenance, determining that serious safety concerns and problems of lost investment and replacement costs "elevate bridge inspection and maintenance problems to national priority." In 1971, FHWA issued standards for

identifying, inspecting, evaluating, and acting upon bridge deficiencies to ensure that bridges are safe for the traveling public. However, disaster struck again with further bridge collapses, including those of the Mianus River Bridge in Connecticut in 1983 (with 3 deaths), the Schoharie Creek Bridge in New York in 1987 (10 deaths), the Hatchie River Bridge in Tennessee in 1989 (8 deaths), and the Arroyo Pasajero Bridge (sometimes called Twin Bridges) in California in 1995 (7 deaths). Investigations showed that these collapses were caused at least in part by structural deficiencies created by the elements. The loss of lives, injuries, and significant economic impact resulting from these collapses, as well as the recent Minneapolis bridge collapse, underscore the significance of bridge safety as a major issue for DOT.

**National Bridge Inspection Standards.** According to current inspection standards, when bridge inspectors identify deficiencies that pose safety problems, a bridge should either be repaired to correct the deficiencies, posted with signs to restrict the size and weight of vehicles allowed, or, if the deficiencies are serious enough, closed to vehicular traffic.

While FHWA provides the oversight of state bridge inspections and programs, the states themselves are responsible for performing actual bridge inspections on public roads. The inspection standards provide a definition of bridges (greater than 20 feet long) and outline requirements regarding the frequency of inspections, qualifications of inspection personnel, and data to be collected. According to the standards:

- Most bridges are to be inspected at 2-year intervals.<sup>2</sup>
- Each state is required to have a bridge inspection organization capable of performing inspections, preparing reports, and determining bridge ratings in accordance with the American Association of State Highway and Transportation Officials (AASHTO) standards and provisions in the Code of Federal Regulations.
- Each bridge shall be rated as to its safe load-carrying capacity. If the calculated load rating is less than the state's maximum legal load, the bridge must have signs posted as to the maximum permitted load, or be closed.
- The findings and results of bridge inspections, including safe load ratings, shall be recorded by state inspectors on standard paper or electronic forms, and submitted to the National Bridge Inventory.

Each year, FHWA's Office of Bridge Technology collects bridge inventory data from the states for use in updating its inventory. Along with maintaining the

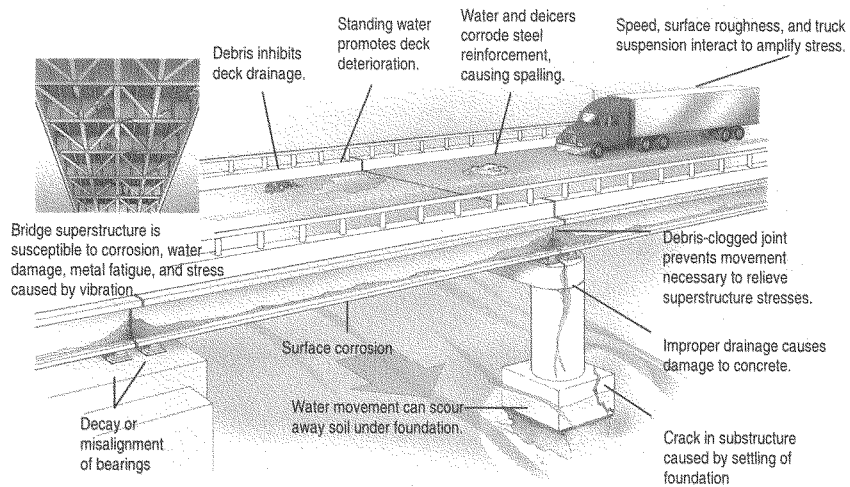
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<sup>2</sup> States determine when more frequent inspections are required based on the specific needs of a bridge.

inventory of public highway bridges, FHWA is responsible for submitting a biennial report to Congress on the conditions of all bridges in that inventory. FHWA also performs an annual review of each state's bridge inspection program and compliance with inspection standards. Bridge inventory data provide important information on bridge location, age, ownership, and condition.

**Structurally Deficient Bridges, Load Ratings, and Postings.** A total of 6,149 National Highway System bridges (of the 116,086 National Highway System bridges in the inventory) were classified as structurally deficient as of last month. Figure 1 depicts how a bridge can become structurally deficient.

**Figure 1: Water, Salt, Stress, and Corrosion Can Make a Bridge Structurally Deficient**



Source: Illustration by Jana Brenning. Copyright Jana Brenning. Reprinted with permission. Illustration first appeared in *Scientific American*, March 1993.

Table 1 shows the top ten states with the highest proportion of structurally deficient bridges on the National Highway System in the United States. Table 2 shows the highest average daily traffic (ADT) traveling over structurally deficient bridges on the National Highway System. The three attachments to my testimony provide additional details on structurally deficient bridges by state.

**Table 1: Ten States<sup>a</sup> with the Highest Proportions of Structurally Deficient Bridges on the National Highway System (NHS)**

State	Total Number of NHS Bridges	Total Number of Structurally Deficient NHS Bridges	Percentage of State's NHS Bridges that are Structurally Deficient
Rhode Island	272	55	20.2%
Pennsylvania	3,831	571	14.9%
California	7,467	1,030	13.8%
Vermont	477	56	11.7%
Alaska	389	40	10.3%
Michigan	2,541	261	10.3%
Oklahoma	2,733	280	10.2%
West Virginia	1,137	108	9.5%
Massachusetts	2,020	187	9.3%
Puerto Rico	580	50	8.6%

<sup>a</sup> Includes the District of Columbia and Puerto Rico.

Source: National Bridge Inventory, August 28, 2007.

**Table 2: Ten States with the Most Average Daily Traffic (ADT) over Structurally Deficient NHS Bridges**

State	Total Number of NHS Structurally Deficient Bridges	Total ADT over NHS Structurally Deficient Bridges (vehicles)
California <sup>a</sup>	1,030	64,470,654
Pennsylvania	571	14,568,954
New York	227	8,923,614
New Jersey	175	7,630,571
Massachusetts	187	7,301,293
Illinois	297	7,226,804
Kentucky	113	6,900,153
Michigan	261	6,432,596
Oklahoma	280	5,034,530
Ohio	178	4,791,339

<sup>a</sup> Two bridges in California had no reported ADT in the National Bridge Inventory.

Source: National Bridge Inventory, August 28, 2007.

Proper reviews of the calculations of a bridge's maximum safe load ratings are important because as a bridge ages, corrosion and decay can decrease its capacity to support vehicles.

The practice of calculating the load rating of structurally deficient bridges and, if necessary, posting signs to keep heavier vehicles from crossing them, serves to protect structurally deficient bridges from powerful stresses caused by loads that exceed a bridge's capacity. The load rating is a calculation of the weight-carrying capacity of the bridge and is critical to its safety. A load rating is performed separately from the bridge inspection, but is based upon design capacities supplemented with data and observations of the bridge's physical condition provided by a bridge inspector. The load rating, expressed in tons, serves as the basis for posting signs noting the vehicle weight limit restriction, which can be referred to more simply as the bridge's maximum weight limit. Some bridges are weakened to the point that signs must be posted to bar vehicles heavier than the calculated maximum load.

**Federal Funding for the Nation's Bridges.** Congress has long recognized the vital national interest of assisting states in improving the condition of bridges. In 1978, Congress passed legislation authorizing the Highway Bridge Replacement and Rehabilitation Program and the Discretionary Bridge Program to provide states with funds needed to correct structural deficiencies. In 2005, Congress replaced the Highway Bridge Replacement and Rehabilitation Program and the Discretionary Bridge Program with the Highway Bridge Program, and broadened the scope to include systematic preventive maintenance.<sup>3</sup> Overall, a total of \$21.6 billion was authorized for the Highway Bridge Program through 2009.

For fiscal year 2007, states were allocated more than \$5 billion to be used for bridge construction, repair, and remediation under the Highway Bridge Program. According to FHWA officials, while the agency tracks all Federal bridge funding, its financial management system does not differentiate between spending on structurally deficient bridges and other bridge-related expenditures. As a result, FHWA is unable to tell how much of the funding it provides to the states is actually spent on structurally deficient bridges. As part of our comprehensive audit of FHWA's oversight of the bridge program, we will be evaluating this issue and will report back to the Secretary of Transportation.

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<sup>3</sup> Safe, Accountable, Flexible, Efficient Transportation Equity Act—A Legacy for Users, Public Law No. 109-59 (2005).

### **FHWA Needs to Develop a Data-Driven, Risk-Based Approach to Bridge Oversight to Better Identify and Target Those Structurally Deficient Bridges Most in Need of Attention**

Our March 2006 report found that FHWA could improve its oversight of the states to ensure that maximum weight limit calculations and postings are accurate. The need for improved oversight was evidenced by our finding that, based on a statistical projection, the load ratings for as many as 10.5 percent of the structurally deficient bridges on the National Highway System are inaccurate.<sup>4</sup>

To address deficiencies in its oversight, we recommended that FHWA develop a risk-based, data-driven approach with metrics to target the bridge problems most in need of attention. Since last year, FHWA has taken steps to address these deficiencies. In April 2006, for example, FHWA convened a working group to evaluate options and make recommendations for action.<sup>5</sup> Based on the work of this group, FHWA has initiated several specific efforts to improve oversight of structurally deficient bridges, including load ratings and posting. However, more action is needed. In the coming months, we plan to continue our evaluation of these initiatives.

**FHWA did not require its Division Offices to analyze bridge inspection data to better identify and target those structurally deficient bridges most in need of load limit recalculation and posting.** FHWA's Division Offices in the three states we reviewed in depth—Massachusetts, New York, and Texas—did not ensure that the states' bridge load ratings were properly calculated and corresponding postings performed. Our statistical sample showed similar problems nationwide. The FHWA working group identified the agency's risk management process as one way to address our findings:

- For the most recent risk management cycle, the FHWA's Associate Administrator for Infrastructure directed Division Offices, in a memorandum dated February 22, 2007, to incorporate an assessment of bridge load rating and posting practices into the evaluation of risk for their program areas. As of August 23, ten Division Offices had submitted the results of this assessment. However, FHWA representatives informed us that they have just begun their review and do not know the extent to which Division Offices identified load ratings and postings or other potential risks related to bridges.

<sup>4</sup> Derived from a statistical projection based on an analysis of a random sample performed by the U.S. Army Corps of Engineers of 67 bridges drawn from all 50 states, the District of Columbia, and Puerto Rico. The margin of error is +/- 5.3 percent.

<sup>5</sup> The working group included representatives from the Office of Bridge Technology, Division Offices, and the Resource Centers.

- The February 2007 memorandum also directed Division Offices to conduct an in-depth review of bridge load rating and posting practices within the next 3 years as a supplement to the annual compliance review for the National Bridge Inspection Standards. If load rating and posting practices are identified as a high risk as part of the risk assessment process, Division Offices must conduct the in-depth review within 1 year. Upon completion of an in-depth review, according to the February 2007 memorandum, Division Offices must continue to monitor load rating and posting procedures as part of the annual review of compliance with National Bridge Inspection Standards and the annual risk assessment process, and to implement response strategies as warranted.

Going forward, FHWA needs to ensure the effectiveness of these new risk management initiatives:

- As part of FHWA's risk management process, Division Offices are given the latitude to analyze, prioritize, and manage identified risks across their program areas. FHWA needs to take aggressive action to ensure that the Division Offices are conducting a rigorous and thorough assessment of potential risks associated with load rating and posting practices of structurally deficient bridges as part of the risk assessment process. FHWA should also ensure that these evaluations are completed by Division Offices and done in a rigorous and thorough manner.
- Further, FHWA needs to ensure that, if a high-risk area is identified, the Division Office follows up with an in-depth review and conducts it in a timely and rigorous manner. The recent bridge collapse in Minneapolis has increased the urgency of making sure that any potential risks are identified and corrective actions taken expeditiously.

**The time that FHWA engineers have available for bridge oversight is limited.** An FHWA Division Office exists in every state as well as the District of Columbia and Puerto Rico. Each FHWA Division Office has a bridge engineer, in some cases assisted by additional engineering staff, designated to handle Federal bridge program oversight responsibilities. In addition, FHWA bridge engineers perform other activities. We found that time constraints restricted bridge engineers' reviews to only a small percentage of the total number of bridges in the state. For example, one FHWA engineer in a large state informed us that he spent only about 15 percent of his time on oversight of the bridge inspection program. The majority of his time was spent providing technical assistance, construction inspection, and in committee meetings, among other tasks. FHWA needs to examine whether bridge engineers are devoting sufficient time and effort to



examining the structurally deficient bridges most in need of attention, including those requiring load rating recalculations and postings. Based on the results of this assessment, FHWA should make the necessary resource decisions to strengthen oversight in this area.

**FHWA would benefit from an oversight program that makes substantially greater use of data and metrics to target bridge inspections for its compliance reviews.** Given the thousands of bridges that FHWA oversees and the limited time its engineers have available, a data-driven approach would help FHWA bridge engineers focus on inspections and compliance reviews. That is, they could address the bridge problems most in need of attention. FHWA has undertaken several initiatives to make greater use of such an approach, although more aggressive action must be taken going forward. Specifically, FHWA has:

- *Modified the Bridge Program Manual<sup>6</sup> to provide better guidance to Division Office bridge engineers conducting the annual compliance reviews.* The FHWA Bridge Program Manual has been revised to specifically define FHWA's expectations for the bridge engineers' reviews of load ratings and postings, including defining the minimum level of review. In particular, the revised manual states that bridge engineers should independently review Federal and state bridge data to determine how well load rating policies and procedures are being implemented. The manual is currently under review by the Office of Management and Budget. It is critical that this manual be finalized and distributed to Division Offices as quickly as possible to ensure that FHWA engineers have the guidance necessary to make greater use of existing bridge data.
- *Implemented new National Bridge Inventory reports that are intended to identify problem areas in load rating data.* The National Bridge Inventory database, which is the official source of nationwide bridge information, contains several reporting tools for data analysis, as well as a new module that allows the generation of eight different standard load rating and posting reports that can, for example, identify bridges that have been reconstructed but that have no updated load rating. Problem areas identified through these reports should be addressed during the annual compliance review. FHWA has proactively distributed these reports to Division Offices. For example, according to FHWA, its Illinois Division Office has used the reports to resolve data discrepancies with the Illinois Department of Transportation. FHWA needs to continue to ensure that these reports are actually being used as a tool

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<sup>6</sup> The manual is a collection of all of the basic program and technical information needed by FHWA bridge engineers to perform their duties in an efficient and effective manner.

for identifying and correcting data errors, and not just viewed as a data-collection exercise.

- *Agreed to promote greater use of computerized bridge management systems.* According to FHWA officials, the agency will continue to provide the states with technical assistance and training related to the use of automated bridge management systems. For example, FHWA and AASHTO developed two computerized bridge management programs (Pontis and Virtis) to help states better manage bridge inspections.

To its credit, FHWA's Office of Asset Management also promised to continue to provide technical and program assistance to other FHWA offices, partners, and customers in the development and implementation of comprehensive bridge management systems. FHWA also maintains a Bridge Management Information Systems Laboratory to identify and analyze causes and trends of deficiencies within the nation's bridge inventory. To fully implement a risk-based, data-driven approach, FHWA must aggressively promote the use of these computer-based resources going forward. We will assess initiatives such as these as we conduct further work on FHWA's National Bridge Inspection Program.

### **Action Can Be Taken Now to Strengthen the National Bridge Inspection Program and FHWA's Oversight**

The bridge collapse in Minneapolis has focused attention on FHWA's oversight of the Nation's bridges and underscores the importance of vigilant oversight of states' efforts to inspect and repair structurally deficient bridges. FHWA must be more aggressive in implementing the initiatives it has already identified as being critical to improving its oversight of structurally deficient bridges, as well as identifying any other needed changes. As we evaluate the National Bridge Inspection Program, we will make recommendations where appropriate to improve the program and how it is implemented by FHWA.

**FHWA Needs to Take Aggressive Action Going Forward.** The implementation of FHWA's recent initiatives to improve oversight of structurally deficient bridges is the responsibility of its 52 Division Offices. It is too early to tell the extent to which each Division Office has started to implement these new initiatives, or whether they are working effectively. FHWA needs to ensure that it carefully monitors the progress of implementing these initiatives in its Division Offices, systematically evaluates their effectiveness, and shares lessons learned about what is working well or not working well in each state. The Minneapolis bridge

collapse increases the urgency of making sure that these new initiatives are being fully implemented in a timely manner and working as intended.

FHWA can take action immediately to improve oversight of the nation's bridges. Specifically, FHWA should:

- Identify and target those structurally deficient bridges most in need of recalculation of load ratings and postings, using a data-driven, risk-based approach.
- Finalize and distribute the revised Bridge Program Manual to the Division Offices as quickly as possible and ensure that FHWA engineers make greater use of existing bridge data as part of the annual compliance review process.
- Ensure that each of the 52 Division Offices conducts rigorous and thorough assessments of any potential risks associated with structurally deficient bridges, as directed in February 2007, and define how it will respond to any specific high-priority risks that Division Offices have identified.

**We Are Undertaking a Comprehensive Audit of the National Bridge Inspection Program.** Shortly after the Minneapolis bridge collapse, the Secretary of Transportation asked us to undertake an audit of the National Bridge Inspection Program. Our work will be separate and distinct from the National Transportation Safety Board's investigation, which will focus specifically on the events and conditions that led to the Minneapolis bridge collapse.

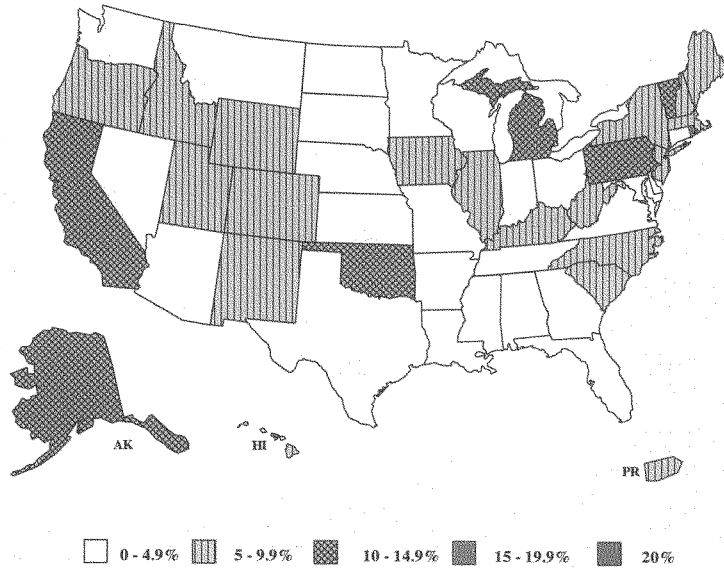
Our audit work will proceed in three concurrent phases, with sequential reporting dates. Specifically, our audit work will focus on the following efforts.

- An assessment of the corrective actions that FHWA has taken to address the recommendations we made in our March 2006 report on structurally deficient bridges. We have already initiated this effort and plan to issue a report later this year.
- A study of Federal funding provided to states for bridge rehabilitation and repair. We will assess FHWA's management and tracking of such funding, the extent to which states effectively and efficiently use these funds to repair or replace structurally deficient bridges, and whether states are using bridge funding for other purposes.
- A comprehensive review of FHWA's oversight activities to ensure the safety of National Highway System bridges across the country.

Going forward, our overall objective is to evaluate FHWA's implementation of the National Bridge Inspection Program and make recommendations for improvement in order to provide assurance that FHWA is doing everything that should be done to ensure bridge safety. We will report back to the Committee and the Secretary of Transportation as we identify additional steps that could be taken to improve the National Bridge Inspection Program.

Mr. Chairman, this concludes my statement. I would be happy to answer any questions that you or other members of the Committee may have at this time.

**Percentage of National Highway System Bridges that  
Are Structurally Deficient within Each State**



Source: National Bridge Inventory, August 28, 2007.

Note: No states are within the 15-19.9 percent range. The state with 20 percent is Rhode Island. For the District of Columbia, which is not shown on the map, the percentage of National Highway System bridges that were structurally deficient is 7.8 percent.

**Structurally Deficient Bridges on  
the National Highway System (NHS), by State**

State	Total Number of NHS Bridges	Total Number of NHS Structurally Deficient Bridges	Percentage of NHS Bridges that are Structurally Deficient
Alabama	2,776	108	3.9%
Alaska	389	40	10.3%
Arizona	2,631	26	1.0%
Arkansas	1,929	43	2.2%
California	7,467	1,030	13.8%
Colorado	2,212	136	6.1%
Connecticut	1,571	66	4.2%
Delaware	250	0	0.0%
District of Columbia	115	9	7.8%
Florida	4,109	22	0.5%
Georgia	2,529	33	1.3%
Hawaii	414	31	7.5%
Idaho	740	41	5.5%
Illinois	3,627	297	8.2%
Indiana	2,447	108	4.4%
Iowa	1,848	122	6.6%
Kansas	2,397	41	1.7%
Kentucky	1,802	113	6.3%
Louisiana	2,676	90	3.4%
Maine	448	28	6.3%
Maryland	1,472	47	3.2%
Massachusetts	2,020	187	9.3%
Michigan	2,541	261	10.3%
Minnesota	1,659	47	2.8%
Mississippi	2,166	32	1.5%
Missouri	2,768	125	4.5%
Montana	1,264	27	2.1%
Nebraska	1,270	39	3.1%
Nevada	788	7	0.9%
New Hampshire	684	46	6.7%
New Jersey	2,503	175	7.0%
New Mexico	1,782	105	5.9%
New York	3,580	227	6.3%
North Carolina	2,638	160	6.1%
North Dakota	528	9	1.7%
Ohio	4,148	178	4.3%
Oklahoma	2,733	280	10.2%
Oregon	1,520	99	6.5%
Pennsylvania	3,831	571	14.9%
Puerto Rico	580	50	8.6%
Rhode Island	272	55	20.2%
South Carolina	1,375	107	7.8%
South Dakota	811	29	3.6%
Tennessee	3,075	74	2.4%
Texas	15,302	184	1.2%

## Attachment 2

State	Total Number of NHS Bridges	Total Number of NHS Structurally Deficient Bridges	Percentage of NHS Bridges that are Structurally Deficient
Utah	1,104	69	6.3%
Vermont	477	56	11.7%
Virginia	3,306	112	3.4%
Washington	2,325	89	3.8%
West Virginia	1,137	108	9.5%
Wisconsin	2,720	102	3.8%
Wyoming	1,330	108	8.1%
<b>Totals</b>	<b>116,086</b>	<b>6,149</b>	<b>5.3%</b>

Source: National Bridge Inventory, August 28, 2007.

## Attachment 3

**Total Average Daily Traffic (ADT) over Structurally Deficient National Highway System Bridges, by State**

State	Total Number of NHS Structurally Deficient Bridges	Total ADT over NHS Structurally Deficient Bridges
Alabama	108	1,843,479
Alaska	40	195,084
Arizona	26	330,523
Arkansas	43	693,481
California	1,030	64,470,654
Colorado	136	3,904,935
Connecticut	66	2,631,506
Delaware	0	0
Dist. of Columbia	9	465,950
Florida	22	826,229
Georgia	33	720,480
Hawaii	31	903,595
Idaho	41	630,490
Illinois	297	7,226,804
Indiana	108	1,893,712
Iowa	122	1,299,190
Kansas	41	493,375
Kentucky	113	6,900,153
Louisiana	90	1,681,910
Maine	28	244,650
Maryland	47	2,508,885
Massachusetts	187	7,301,293
Michigan	261	6,432,596
Minnesota	47	1,698,025
Mississippi	32	217,600
Missouri	125	3,280,648
Montana	27	165,610
Nebraska	39	275,749
Nevada	7	91,221
New Hampshire	46	1,297,756
New Jersey	175	7,630,571
New Mexico	105	961,623
New York	227	8,923,614
North Carolina	160	3,396,600
North Dakota	9	35,555
Ohio	178	4,791,339
Oklahoma	280	5,034,530
Oregon	99	1,223,689
Pennsylvania	571	14,568,954
Puerto Rico	50	2,689,250
Rhode Island	55	2,340,137
South Carolina	107	1,609,250
South Dakota	29	127,840
Tennessee	74	3,178,830
Texas	184	3,391,248



**Attachment 3**

State	Total Number of NHS Structurally Deficient Bridges	Total ADT over NHS Structurally Deficient Bridges
Utah	69	1,535,767
Vermont	56	428,464
Virginia	112	3,300,043
Washington	89	1,426,717
West Virginia	108	1,287,250
Wisconsin	102	2,220,266
Wyoming	108	255,185
<b>Totals</b>	<b>6,149</b>	<b>190,982,305</b>

Source: National Bridge Inventory, August 28, 2007.

Note: Two bridges in California had no reported ADT in the National Bridge Inventory

**U.S. Department of Transportation  
Office of Inspector General  
Questions for the Record  
Committee on Transportation and Infrastructure  
U.S. House of Representatives  
Hearing on Structurally Deficient Bridges in the U.S.  
September 5, 2007**

*1) It is critical that states utilize uniform computer management systems. My understanding is that each state operates some form of a bridge management program, but while the IT platform may be the same, each state has developed unique systems for inventorying bridges and managing their program.*

The Federal Highway Administration (FHWA) and the American Association of State Highway and Transportation Officials (AASHTO) developed a computerized bridge management program, Pontis, and a specialized bridge load rating program, Virtis, that can help states track bridge conditions, including the progress of scheduled maintenance and necessary repairs. Currently, 43 states, Puerto Rico, and the District of Columbia have licenses to use Pontis. However, the degree to which states use Pontis varies. Other states either use in-house bridge management system software or none at all.

Our March 2006 report on structurally deficient bridges included a recommendation for FHWA to evaluate greater use of computerized bridge management systems to improve states' management of bridge programs and FHWA's oversight. This was based on our conclusion that the information provided by these systems could help prioritize limited resources and provide better data for FHWA's risk assessments of state bridge programs.

Shortly after the Minneapolis bridge collapse, the Secretary of Transportation asked us to undertake an independent review of the National Bridge Inspection Program and FHWA's oversight of the Nation's bridges. One phase of our audit work will focus on assessing the corrective actions taken by FHWA to address the recommendations made in our March 2006 report. As part of this effort, we will evaluate FHWA's actions to foster greater use of these computerized bridge management systems and this will enable us to determine whether FHWA should be doing more. Further, we intend to gain a better understanding of states' capabilities related to managing their bridge data, such as through the use of Pontis or in-house bridge management systems.

*Do you think that FHWA is doing enough to ensure states are providing uniform, reliable data?*

In our March 2006 report we estimated that 40.5 percent of state-level load rating data for structurally deficient National Highway System bridges does not match data in the National Bridge Inventory. As noted in our report, incorrect load rating data in the National Bridge Inventory could affect whether a bridge is properly reported in the bridge statistics submitted to Congress for safety and funding decisions. As part of our ongoing audit work, we will assess the accuracy of data in the National Bridge Inventory and evaluate FHWA's efforts to ensure that states are providing uniform and reliable data.

*2) Inspector General Scovel, I find it interesting that in your testimony you note that while FHWA tracks Federal bridge funding, the agency is unable to track how much Federal money is spent on structurally deficient bridges.*

*Do you find that problematic?*

Yes, we do. According to FHWA officials, its financial management system tracks all Federal bridge funding but does not differentiate between spending on structurally deficient bridges and other bridge-related expenditures. FHWA reports that it is working to develop a process to use Bridge Inventory and financial management systems data to identify the amount of Federal funds spent on structurally deficient bridges. One phase of our audit work involves a study of Federal funding provided to states for rehabilitation or replacement of deficient bridges in the inventory, including how these funds are managed.

*Do you anticipate that your review of FHWA's bridge program will suggest solutions?*

I would expect that FHWA will take steps to bring more transparency to Federal bridge funding, and our report to the Secretary of Transportation will include recommendations for areas needing improvement.

*3) Do you believe developing a uniform, consistent approach regarding the type and frequency of inspections and the type of technology utilized would be beneficial?*

It is unclear whether a more uniform, consistent approach is appropriate since bridges do not all have the same specific needs. The primary goal is to locate and evaluate existing bridge deficiencies to ensure the safety of the traveling public. To that end, the National Bridge Inspection Standards outline the requirements for the type and maximum time period between inspections. For example, routine inspections are to occur at regular intervals not to exceed twenty-four months. Certain bridges may be inspected more frequently based on states' criteria, which takes into account factors such as age, traffic characteristics, and known deficiencies. Other bridges may be inspected at intervals greater than twenty four months, not to exceed forty-eight months, with written FHWA approval. FHWA's Bridge Inspector's Reference Manual and the AASHTO Manual for Condition Evaluation of Bridges provides guidance on the types and procedures of inspections, including various technologies and their suitability for use in the field.

Our ongoing comprehensive review of the National Bridge Inspection Program will include an examination of current regulations and assess whether additional regulations are necessary, such as more detailed regulations related to inspection intervals or minimum requirements for the type of technology used for bridge inspections. With this review, we will determine what actions would be beneficial to help ensure bridge inspections are conducted in a consistent manner.

*4) Would uniform standards ensure that data submitted to the National Bridge Inventory are consistent, and lead to a data-driven, performance-based program?*

Our March 2006 report on structurally deficient bridges included a recommendation for FHWA to coordinate with states to improve the accuracy and completeness of data in the National Bridge Inventory. Specifically, we noted that FHWA should focus on reducing discrepancies, including the most frequent deficiency identified in our statistical sample—the failure of information in the National Bridge Inventory to match bridge load rating results in state databases.

**United States House of Representatives  
Transportation and Infrastructure Committee**

**The Honorable James Oberstar, Chairman**

**Written Testimony  
of  
Michigan Department of Transportation  
Director Kirk Steudle**

**September 5, 2007**

Mr. Chairman, Representatives, thank you for allowing me the opportunity to testify here today in regard to structurally deficient bridges and Chairman Oberstar's National Highway System Bridge Reconstruction Initiative.

My name is Kirk Steudle, and I am Director and Chief Executive Officer at the Michigan Department of Transportation. First of all, I would like to express my sympathy to the families who have suffered because of the tragic collapse of the I-35W bridge in your home state, Mr. Chairman. When a tragedy like this occurs, it ripples across the transportation industry. Believe me when I say that, as transportation professionals, we all take it very much to heart.

The proposal you are considering prompts an important and overdue discussion of inadequate investment in transportation infrastructure.

More funding for bridges is clearly needed, but I strongly urge you not to stop there. Additional support for structurally deficient bridges needs to be combined with sound long term asset management of the infrastructure. Road and bridge funding programs have not kept pace with the state of the practice of asset management.

MDOT only spent between 87 and 89 percent of its Federal Highway Bridge Program funds in the past two years, not because we weren't investing in bridges, but because the rules for use of Federal Highway Bridge Program funds are too restrictive. The program sets the priorities for state DOTs because of its restrictive rules, and those priorities are not compatible with an asset management process.

In order to achieve the asset management goals we set for ourselves, MDOT has had to look beyond the Federal Highway Bridge Program to fund its priorities. MDOT made the choice to dedicate an additional \$75 million annually in state transportation funds, just for bridge preservation. We also used federal funds from other core programs to repair and replace bridges, because federal bridge funds were too restrictive to allow us to make the improvements we felt were needed.

MDOT inspects its bridges more thoroughly and more often than is required by federal law. We set strategic goals for road and bridge preservation. We manage our network of bridges, slowing their deterioration with capital preventive maintenance. And we sometimes make investment choices that are not easily accomplished with limited and highly structured federal funds. But as a result, we've improved our overall bridge condition from 79 percent good or fair bridges in 1998 to 86 percent good or fair today.

I have a few recommendations for you to consider which would make the current Federal Highway Bridge Program more flexible and more useful to states that take a proactive asset management approach to improvement of their transportation infrastructure.

**1. Do not take a "worst first" approach, but an asset management approach.**

For worst first, Michigan can say "been there, done that." While we were focused on fixing the worst problems, other bridges were becoming the new worst problems. Of

course, you want to address anything that poses an imminent threat. Beyond that, an asset management approach keeps bridges from deteriorating, and systematically upgrades those in poor condition. This raises the overall condition of the system over time, and it works. In less than ten years, we were able to take our bridges from 79 percent in good and fair condition to 86 percent.

2. **Revise the Federal Highway Bridge Program to allow full expenditures of bridge funds under an asset management approach.**
  - Eliminate the 100 point sufficiency ratings and the arbitrary cutoff points for determination of eligibility for use of Federal Highway Bridge Program funds. The sufficiency rating system has not been modified in over 30 years, and for many agencies, this system actually encourages them to let bridges deteriorate into poor condition so they will qualify for funding. If a state has an asset management program in place, it should be able to use federal funds on the slate of bridge projects it identifies as most efficiently preserving the bridge network.
  - If the sufficiency rating system remains, at a minimum, states should be allowed to use federal bridge funds for rehabilitation or replacement of structurally deficient bridge decks when the other major elements, such as superstructure and substructure, are still in good or fair condition. Left unattended, a structurally deficient bridge deck accelerates the deterioration of other bridge elements. From an asset management standpoint, it simply does not make sense to exclude rehabilitation and replacement of bridge decks, even if the rest of the structure is in fair to good condition. It's like saying you should not replace or repair the shingles on your home's roof until moisture has been allowed to penetrate and destroy the drywall or crack the foundation.
  - Eliminate the "ten year rule" that prevents state DOTs from using Federal Highway Bridge Program funds on a bridge more than once in ten years. Less expensive preventive maintenance and rehabilitation projects more effectively preserve the condition of a network of bridges. While Michigan has been able to gain exceptions to this rule, this practice was developed upon a "worst first" strategy and penalizes agencies that proactively preserve their bridges. It is an artificial barrier to best asset management practices.

These programmatic changes would allow state DOTs to accomplish more with the resources they are granted.

A short-term bridge program is a good start, and Michigan's traveling public could clearly benefit from additional funding for bridges, but I strongly encourage you to remember that the same types of challenges that exist for the bridge program exist for the entire highway program. They just have not been as visibly and tragically demonstrated.

Inflation has eroded the buying power of the federal motor fuel tax and if the current rate remains unchanged, by 2015, the purchasing power of the current 18.4 cent motor fuel tax will be 30 percent of what it was in 1993. More urgently, the Federal Highway Trust Fund is

expected to have a shortfall of \$4.3 billion in 2009. As you consider the need for bridge funding, I encourage you not to lose sight of the entire transportation funding picture.

Thank you, Chairman Oberstar, for bringing this important and necessary debate on funding for transportation infrastructure to the forefront.





JENNIFER M. GRANHOLM  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF TRANSPORTATION  
LANSING

KIRK T. STEUDLE  
DIRECTOR

October 22, 2007

The Honorable James L. Oberstar, Chairman  
Committee on Transportation and Infrastructure  
United States House of Representatives  
2165 Rayburn House Office Building  
Washington, D.C. 20515

Dear Chairman Oberstar:

Thank you for your letter of October 1, 2007, asking additional questions about how states use Federal Highway Bridge Program (HBP) apportionments. On behalf of the Michigan Department of Transportation (MDOT) the questions and the answers are listed below.

Questions from Representative Peter DeFazio

**Question 1: Do we really have greater confidence of our knowledge about which bridges in the U.S. are at actual risk of failure than we did back in the 1980s with the collapse of the Mianus River Bridge and the Schoharie Creek Bridge?**

**Answer:** I believe we can have confidence that we have greater knowledge about which bridges in the U.S. are at actual risk of failure than we did back in the 1980s. Since that time, our bridge engineers have continuously studied bridge deficiencies to better understand which present safety concerns. Our bridge inspection procedures have evolved accordingly.

As a result, we have fracture critical inspection training and procedures. Our design and load rating codes use the latest developments in statistical based methodologies (load and resistance factor design and load rating). We have more nondestructive testing tools than ever before, such as ground penetrating radar, ultrasonic testing, and thermal imaging. The National Bridge Inspection Standards were updated by the Federal Highway Administration (FHWA), clarifying and strengthening certain requirements, such as action plans for scour critical bridges and fracture critical inspection requirements. Research has been done by universities, consultants, and states, investigating bridge structural issues such as weigh-in-motion studies, fatigue life investigations, and calibration of load distribution factors. We can be confident the engineers examining the I-35W Bridge will determine what the cause of failure was and new inspection, design, load rating, and evaluation procedures will be developed to provide additional safeguards and further advance our understanding of aging fracture critical bridges. This is not to say we should become complacent or overly confident. Our bridge population is aging, and new structural issues will arise. We need to continue to be on guard.

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LH-LAN-0 (01/03)

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**Question 2: Would uniform standards for the National Bridge Inspection Program make oversight of state programs easier, and ensure that data submitted to the National Bridge Inventory are consistent?**

**Answer:** The National Bridge Inventory (NBI) rating system provides an overall condition rating for the deck, superstructure, and substructure, and serves well as a program oversight tool. To complete an NBI rating, a bridge inspector must add up all the deficiencies the element has, take into consideration the severity of the deficiencies, and then make an overall condition assessment. The NBI rating system clearly tells what the bridge condition is and it serves as a good performance measure that rates the overall condition of the nation's bridges. It also serves as a method to put bridges in general categories of need. Bridges in fair condition are preventive maintenance candidates, while bridges in poor condition or worse are rehabilitation or replacement candidates.

NBI condition ratings do not tell you what the specific needs are for a bridge, and FHWA has always had difficulty giving guidance to inspectors about how to balance the severity of a single deficiency with the need to provide an overall rating of the element.

Beyond the NBI, FHWA and the American Association of State Highway and Transportation Officials (AASHTO) provides regulations, specifications, manuals, training, and guides that support uniform bridge ratings for a bridge's major elements. FHWA is currently working on an update to the Recording and Coding Guide for the Structure Inventory and Appraisal (SIA) of the nation's bridges (referred to here as the FHWA SIA Guide), the previous update being done in December 1995. The updated draft guide, Specifications for the National Bridge Inventory, has been reviewed by states, local agencies, and the public; and it provides additional guidance for the NBI condition ratings.

In December 2006, FHWA also released an update to the Bridge Inspectors Reference Manual. The manual provides comprehensive detail into bridge materials, bridge types, bridge distress and element deficiencies, and guidance for condition ratings for both NBI and the commonly recognized elements established by AASHTO. FHWA also offers training for fracture critical bridges and guidance for development of action plans for scour critical bridges. AASHTO plays a big role in development of manuals for design and load rating of bridges, analysis (example, fatigue analysis), and organizing and sponsoring bridge research.

My staff and I believe the wealth of guidance and training is sufficient. It allows states to develop more detailed guidance tailored to specific conditions and structures, while providing a consistent framework for describing and rating elements and overall condition.

If, however, steps were taken to move toward greater national uniformity, AASHTO is the best organization to undertake this work. AASHTO member states are on the front lines of bridge inspection, and understand the tactical and practical implications of decisions made to make oversight easier. AASHTO has a proven record of working with states to develop engineering standards that partners can accept.

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**Question 3a: Since the apportionment of bridge program funds is based on the state's relative share of the cost to repair bridges, can you explain why this program has received disproportional cuts (in response to rescissions of contract authority)?**

**Answer:** While I cannot speak for other states on this issue, I do believe the reason why states rescind HBP funds in disproportion to other funds is because HBP funds are less flexible than funds of other programs, such as Interstate Maintenance (IM), National Highway System (NHS), or Surface Transportation Program (STP) funds. As I mentioned in my testimony to the Transportation and Infrastructure Committee, FHWA has established eligibility requirements for use of HBP funds that make utilizing these funds challenging, particularly for a state such as Michigan that practices an asset management approach to maintaining and improving transportation infrastructure. Eligibility requirements, such as the ten-year-rule and the sufficiency rating, make it difficult to use HBP funds effectively in anything but a "worst-first" repair strategy. When Congress legislates a rescission, states will generally look first to those funds that are least likely to be used, or where there are large unobligated balances remaining. The fact that so many states rescind HBP funds should be a clear indicator that the program is in need of some improvement.

We feel that the Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users represented some progress toward improving the HBP by including systematic preventive maintenance as an eligible expense. However, a recent AASHTO state survey showed less than half of the states have been given permission by FHWA to use HBP funds for preventive maintenance and few, if any, local agencies have been given permission. The remaining states are not yet allowed to use HBP funds for preventive maintenance because they have not been able to prove to their local FHWA division office that they have a "systematic plan." Michigan, like Minnesota, has been given allowance by FHWA to do systematic preventive maintenance because we have sound bridge management systems. However, despite being given allowance to do preventive maintenance, important categories of work remain that continue to be ineligible for federal bridge funding. A very important rule of asset management is one must have a funding source that is compatible and supportive of the strategic plan. Today, the funding provided through the HBP is neither compatible nor supportive of our strategic plan.

FHWA, at least in Michigan, is very clear that HBP funds are not meant to fund a fully comprehensive bridge preservation program. But just because HBP funds are being returned does not mean that states are not investing in bridges. Bridges do not exist in a vacuum; they are part of a road network and are eligible for IM, NHS or STP funds as well. In the past two fiscal years, Michigan has invested nearly \$100 million of other federal funds in our bridges. In an asset management approach to preservation of the transportation network, it would be logical when doing significant work on a highway corridor to work on bridges on or over that corridor at the same time; but if the bridges do not meet FHWA's sufficiency ratings, they are not eligible for HBP funds.

**Question 3b: How has the off-system set-aside been affected by the disproportional rescission?**

In Michigan, the off-system set-aside has not been affected by the disproportional rescission. Most off-system bridges in Michigan are under the jurisdiction of local transportation agencies (counties, cities, and villages). MDOT shares federal funds with these local transportation agencies and works closely with them to ensure they receive an appropriate level of off-system bridge funds. Our local partners use that funding very well, generally leaving very little left that might be rescinded.

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**Question 4: Since the bridge program is subject to the equity bonus calculation, I am curious if your state receives any benefits under the equity bonus program by reducing future bridge apportionments?**

**Answer:** The simple answer would be yes, although the actual financial benefit would be very slight. The real benefit would come in the greater flexibility for use of equity bonus funds as opposed to HBP funds. However, MDOT has not transferred apportionments from the HBP in over a decade.

If Michigan chose to use the flexibility in 23 U.S.C. 126(a) by transferring HBP apportionments to other program accounts, then when future HBP apportionments are reduced as a result of the transfer, the amount calculated under the equity bonus program would increase slightly. The dollar amount changes in HBP and equity bonus apportionments under those circumstances essentially negate each other.

Under 23 U.S.C. 144(e)(4), when a state opts to transfer apportionments from their HBP to another program, the state's HBP apportionment in the succeeding year is not reduced by the amount of apportionments transferred. Rather, the amount transferred is used to reduce the total cost to replace/rehabilitate deficient bridges in that state and, consequently, the total cost to replace/rehabilitate deficient bridges in the U.S. is reduced as well.

As an example, suppose Michigan, rather than obligating all HBP apportionments in FY 2006, opted instead to transfer 50 percent of base HBP apportionments (amount apportioned before the revenue-aligned budget authority and equity bonus distributions). In FY 2006, Michigan's base HBP apportionments totaled \$122 million. If we transferred half that amount (\$61 million), then when FY 2007 HBP apportionments are calculated, the total cost to replace/rehabilitate structurally deficient bridges in Michigan and the U.S. would be reduced by \$61 million. This would have the effect of reducing our HBP apportionments by only \$4.86 million, while the aggregate apportioned amounts of HBP funds going to other states would increase by the same amount.

The equity bonus apportionments are determined by a complex formula in which three separate conditions must be satisfied simultaneously for all states. If there are any changes to the distribution of amounts apportioned among states in any of the programs used in that calculation, the results of the equity bonus calculations change. Following the hypothetical example in the above paragraph, Michigan's equity bonus apportionment in the year following a transfer of bridge apportionments would increase by \$4.90 million. The end result when combining the reduction in HBP apportionments with the increase in the equity bonus apportionments is that our total apportionments would increase by \$43,000. In addition, the distributional changes to the HBP apportionments among states would also result in aggregate equity bonus apportionments increasing by \$1.47 million.

Questions from Representative Candice Miller

**Question Regarding the Times Herald Editorial about the Allen Road Bridge.**

**Answer:** This bridge was severely damaged by a high load hit this past May. The equipment-hauling semi did extensive damage to two of the six large beams that carry Allen Road over eastbound I-69. MDOT bridge inspectors immediately went to the site to assess the damage. It was their determination that this bridge could not safely carry traffic and, therefore, it was closed immediately. The closure automatically caused this bridge repair to be considered as emergency repair status.

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MDOT has a statewide bridge repair crew capable of doing many steel repairs... MDOT also has a bridge design unit that specializes in preparing contracts for emergency repairs. The damage to this bridge was so extensive that two steel girders needed to be replaced, which is work beyond the capabilities of our statewide bridge repair crew. Therefore, the special structures design unit prepared contract plans, completing the detailing of this repair in less than 30 days. A project to repair the bridge was bid in MDOT's July 2007 letting, less than 70 days after the initial incident. While the Port Huron Times Herald may consider this time excessive, the standard time to complete field work, design, advertise, and then bid a bridge contract is measured in months and years rather than in days.

The editorial implies that this work could simply have been added to the existing road resurfacing contract on I-69 in the area, but that is flatly not the case. Different types of contractors do different types of work and it would not be practical or reasonable to expect that an asphalt paving contractor would be able to repair a bridge.

When a new steel beam or girder is needed, the process involves ordering the girder from a steel fabricator. The fabricator orders the steel to make the girder from a steel mill or searches for the needed steel from warehouses. Once the fabricator gets the needed steel, the girder is fabricated and delivered to the job site. Because of the long lead time for receiving steel girders, the contractor (Posen Construction) ordered the girders immediately upon being notified that they were the low bidder. Please note that the beams being replaced are very large (over 33 inches in height and over 70 feet long) and along with other necessary appurtenances, have to be fabricated for each specific bridge. The beam fabricator, The Kard Group of Minister, Ohio, originally quoted a time frame of February or March of 2008 for the fabrication and delivery of these beams. Due to the diligence of the contractor and allowance by MDOT to use an alternate type of beam (plate girder versus rolled beam), the time frame for delivery was shortened to this fall.

*The contractor hopes to take delivery of the girders by late October, complete the forming and concrete pours by early November and, with appropriate cure time, have the Allen Road bridge reopened to traffic before the Thanksgiving Holiday.*

The Times Herald editorial implies that MDOT has not been forthcoming regarding the construction schedule of this repair. We have responded to any and all inquiries regarding this project. MDOT certainly recognizes the impact of bridge closures on area mobility. At the time of the closure, we contacted local emergency responders, the St. Clair County Road Commission, and the media (via press release) to notify them all of the issue and posted detour.

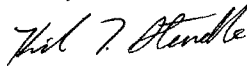
Neither MDOT nor our contractor has been delinquent in addressing this issue. In fact, the projected time frame for completion is shorter than most situations of this type. The last high load hit of this magnitude in this region caused a bridge (22 Mile Road over M-53 in Macomb County) to be shut down for over nine months due to beam fabrication and weather issues.

The nature of an emergency repair is that there will be some uncertainty in specific dates and timelines. Please be assured that MDOT and our contractor have sought to minimize inconvenience and pass along the best information that we have to all who might be concerned.

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~~In closing, thank you again for this opportunity to respond to your questions. If you have additional questions, or if I can be of further assistance to you or your committee, please do not hesitate to contact me at 517-373-2114.~~

Sincerely,

A handwritten signature in cursive script, appearing to read "Kirk T. Steudle".

Kirk T. Steudle  
Director



STATEMENT OF

GEORGE T. WEBB, P. E.

COUNTY ENGINEER

PALM BEACH COUNTY, FLORIDA

AND

PRESIDENT OF THE NATIONAL ASSOCIATION OF COUNTY

ENGINEERS

ON BEHALF OF

THE NATIONAL ASSOCIATION OF COUNTIES

AND

THE NATIONAL ASSOCIATION OF COUNTY ENGINEERS

ON

STRUCTURALLY DEFICIENT BRIDGES IN THE UNITED STATES

BEFORE THE

HOUSE COMMITTEE ON TRANSPORTATION AND

INFRASTRUCTURE

SEPTEMBER 5, 2007

WASHINGTON, DC

Good Afternoon Chairman Oberstar Ranking Member Mica and members of the Committee. My name is George Webb and I am the County Engineer in Palm Beach County, Florida. Today I am representing the National Association of Counties (NACo) and National Association of County Engineers (NACE) where this year I serve as its President. County engineers and elected county officials consider bridge safety to be one of our top priorities and take this responsibility very seriously.

First I want to thank the Committee for the opportunity to present a local government perspective on the status and condition of bridges. I hope to offer some thoughts regarding the existing Highway Bridge Replacement and Rehabilitation Program (HBRRP) and its relationship to the Chairman's initiative.

Palm Beach County is a large urban county with a population of over 1.1 million. My highway and bridge budget is about \$140 million annually. We have 230 county bridges identified on the National Bridge Inventory System and we are very fortunate that only one is considered structurally deficient and 49 are functionally obsolete. This is due to the fact that because of growth related investments the majority of the bridges in my county were built or rebuilt in the last 30 years and our financial emphasis on system preservation. State-wide in Florida, there are 260 structurally deficient bridges, with 204 owned by local government and 56 by the State.

However, over the next decade or so Palm Beach County's bridges will be wearing out, in part because of high traffic volumes. Some of our bridges carry over 50,000 vehicles per day, which is more traffic than many rural Interstates. Palm Beach County already knows that we face having to replace three draw bridges in the next 10-15 years at a cost of \$50 million each. We don't have the funds for this. In contrast, the State of Florida also needs to replace another three to five draw bridges on the state system in my county and they have access to both state gas tax revenue and the federal bridge program to pay for these projects. Regarding inspection, I have three staff that are certified to inspect bridges. More of my staff need to be certified but we find that the National Highway Institute training programs, at least in Florida, have very limited slots for local government staff.

Let me add that nationally the bridge situation is more critical for local government. Of the 597,340 bridges in the United States, 298,638 are owned



by local government, about 51 per cent of the total. Of the total bridges in the U.S., 154,101 bridges are either structurally deficient or functionally obsolete. Of the 73,784 bridges rated "structurally deficient", about 52,000 or 70 per cent are owned and maintained by local government, mainly counties. The 6,175 on the National Highway System are almost all state-owned. In 38 states of the 50 states, a higher per cent of local government bridges are deficient than state bridges. In 31 states, the total number of local deficient bridges is higher than state-owned bridges.

The National Highway System Bridge Reconstruction Initiative proposes a trust-fund approach modeled after the Highway Trust Fund and financed through a dedicated source of revenue. We generally support this concept for funding this new bridge program. That being said we do feel the reach of the proposed legislation is somewhat limited and should be more inclusive and expanded to include all structurally deficient bridges, not just those on the NHS. Non-NHS bridges that are structurally deficient do pose a threat to public safety and are often very important to a regional economy. In addition we would recommend no requirement for state or local match, which will get the funds out to projects more quickly and will not compete with other infrastructure needs by taking away state (and local) matching funds that have already been committed to other needed projects. Finally, we are concerned what would happen to the existing Federal Highway Bridge Replacement and Rehabilitation Program in the next highway reauthorization if this new bridge program becomes law and whether this could lead to local bridges no longer being eligible for federal bridge funds.

Finally, all levels of government need to continue to strive to accomplish system preservation on our deficient bridges. System preservation is not the replacement project or the major rehabilitation which seems to grab the headlines, but the continuous program of inspection, maintenance and minor repairs needed to both maintain and extend the life of the structure. We in local government remain committed to system preservation but need your help in getting to a point where system preservation can effectively be accomplished. Therefore we strongly urge the Congress to proceed on this new and hopefully expanded initiative to restore our bridge infrastructure nationwide.

This completes my testimony and I would happy to respond to any questions committee members may have.

**Questions for the Record for George Webb**  
**Committee on Transportation and Infrastructure**  
**Hearing on Structurally Deficient Bridges in the U.S.**  
**September 5, 2007**  
**Questions from Rep. Peter DeFazio**  
**Chairman, Subcommittee on Highways and Transit**

Do we really have greater confidence of our knowledge about which bridges in the U.S. are at actual risk of failure than we did back in the 1980s with the collapse of the Mianus River Bridge and the Schoharie Creek Bridge? Answer: **In 1980 the National Bridge Inspection Program was just beginning to take shape. Since then many procedural improvements and increased knowledge of structural bridge inspection have been developed. Some examples of this are:**

**Fracture critical inspection (Fatigue of a fracture critical pin connection is what caused the Mianus River collapse); Scour inspection (scour was the cause of the Schoharie Bridge collapse); and Culvert inspection (Developed after several tragic failures). Over the years there have been many more improvements.**

**So to answer the question, I believe that we are much better prepared today to assess the condition of our bridges than we were back in 1980.**

Would uniform standards for the National Bridge Inspection Program make oversight of state programs easier, and ensure that data submitted to the National Bridge Inventory are consistent?

**We have uniform standards in place. The National Bridge Inspection Standards (NBIS) were established in 1971. It sets national policy regarding bridge inspection frequency, inspector qualifications, report formats, and inspection and rating procedures. Initially, there were three manuals developed for the program. Since then numerous others have been developed and all have been continually amended to include new knowledge and changes in the standard. FHWA does yearly quality assurance reviews in the States to ensure compliance. In Florida the DOT Central Office Structures Maintenance provides oversight, training and policy for all the individual DOT Districts throughout the state. It is my understanding that each state is required to follow NBIS guidelines there is some freedom to choose reporting format (Florida uses PONTIS), and, if desired, to provide additional requirements – as an example, some states require professional engineers do inspections. If I understand the question correctly, would using one nationwide reporting system (like PONTIS), make oversight of state programs easier? I would have to defer to the FHWA since I am not familiar with other state's reporting systems and any issues those systems may or may not cause FHWA.**

States are now allowed to transfer up to 50 percent of the bridge money to their National Highway System or Surface Transportation Program apportionments. However, if a state chooses to transfer funds, the transfer will result in a deduction of the amount of transfer from the total cost of deficient bridges in such state and all states for the succeeding fiscal

year. Despite this penalty, states continue to transfer significant portion of their bridge program fund to other accounts.

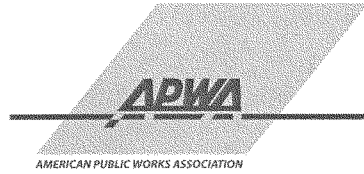
Since the bridge program is subject to equity bonus calculation, I am curious if your state receives any benefits under the equity bonus program by reducing future bridge apportionments? **The Florida Department of Transportation does not transfer bridge funds to other categories; in fact they augment the current allocations with Equity Bonus funds.**

As a result of other states shifting bridge funds, we believe they would receive larger **bridge apportionments in the future (as the number of their deficient structures could be expected to rise). Florida would then receive less (as the overall amount allocated to the federal bridge program stays the same). However, we would then receive more Equity Bonus funds in order to ensure Florida receives the required percentage as denoted in SAFETEA-LU. So, I do not believe that Florida receives any benefits under the current formula.**

**Additional response by Susan G. Miller, County Engineer, Freeborn County, MN**

Especially at the local level, counties are intimately aware of the life expectancy of our infrastructure and since the 1980s the challenge has been in “managing for risk of failure”. Changing the National Bridge Inspection Program, easing oversight, and watch guarding data in no way **improves the structural integrity** of this country’s bridges.

What will truly improve our bridges is a strong investment in all public infrastructure proactively managing economic resources for the betterment of the transportation users. In concurrence to Rep. Peter DeFazio’s dissent on funding initiatives that seemingly reward poor stewardship of the nation’s bridges, NACo supports public policy based on sound asset management principles. While NACo appreciates the State’s desire for flexibility, diversion from core responsibilities may not be advantageous public policy for a national program.



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## **Structurally Deficient Bridges**

### **Statement of**

**William A. Verkest, P.E.  
President**

**American Public Works Association**

**To the House Committee on  
Transportation & Infrastructure**

**September 5, 2007**

Mr. Chairman and members of the House Transportation and Infrastructure Committee, thank you for the opportunity to submit testimony for this hearing on structurally deficient bridges. My name is Bill Verkest, President of the American Public Works Association (APWA). I submit this statement today on behalf of the more than 29,000 public works professionals who are members of APWA, including our nearly 2,000 public agency members.

APWA is an organization dedicated to providing public works infrastructure and services to millions of people in rural and urban communities, both small and large. Working in the public interest, our members design, build, operate and maintain our vast transportation network, as well as other key infrastructure assets essential to our nation's economy and way of life.

We join with others in expressing our deepest sympathy to everyone affected by the I-35W bridge collapse in Minneapolis on August 1. We remain saddened by this tragedy and continue to extend our support to local, state and federal officials working on recovery and rebuilding.

The tragic failure of the I-35W bridge is a stark reminder of the importance of public infrastructure to the daily lives of all people and to the welfare and safety of every community. But this essential public asset is aging and deteriorating. It is suffering the effects of chronic underinvestment and is in critical need of funding for maintenance, repair and improvement.

Our nation's highway bridges are no exception. The average span currently is more than 40 years old. More than one in every four is rated structurally deficient or functionally obsolete and in need of repair, improvement or replacement. Of the more than 594,000 publicly-owned bridges on which we depend for personal mobility and movement of freight, more than 158,000 are rated deficient, with more than 77,700 classified as structurally deficient and more than 80,600 as functionally obsolete.

Local governments own in excess of 300,000 bridges, more than half of publicly-owned bridges in the U.S. Of the total local inventory nationwide, 29 percent is rated structurally deficient or functionally obsolete.

Standards have been in place since the early 1970s requiring safety inspections every two years for all bridges greater than 20 feet in length on all public roads. Some bridges may be subject to more frequent inspections, and some structures in very good condition may receive an exemption from the two-year cycle and be inspected once every four years. These inspections, carried out by qualified inspectors, collect data on the condition and composition of bridges.

Structurally deficient bridges are characterized by deteriorated conditions of significant bridge elements and reduced load-carrying capacity. Functional obsolescence results from changing traffic demands on the structure and is a function of the geometrics of the bridge not meeting current design standards. Neither designation indicates a bridge is unsafe. But they do indicate a need for repair, improvement or replacement.

We cannot ignore the underinvestment in bridge maintenance, rehabilitation and replacement. It is a major contributing factor undermining efforts to adequately address deficiencies. Nationwide, the backlog of bridge investment needs is now estimated to total \$65.2 billion.

As a nation, we are failing to meet the needs of a transportation system increasingly overburdened by rising travel, a growing population and more freight. Additional traffic volumes and heavier loads are placing ever greater stress on bridges often designed for lighter loads. The US Department of Transportation reports that the funding backlog could be invested immediately in a cost-beneficial fashion to replace or otherwise address currently existing bridge deficiencies.

Local governments' ability to fund necessary bridge improvements has eroded significantly over the years. They have limited financial means to adequately address deficiencies and typically do not have the capacity to do major repairs or capital work on the magnitude of a bridge replacement without funding support.

Sharp increases in the costs of construction materials and supplies in the past few years are compounding the funding challenge for local governments. In Washington State for example, escalating material and supply costs and one of the largest construction programs in the nation have had a severe impact on delivering local agency projects. It is not unusual to take 10 years or more from the time funding can be secured and replacement done. And with the recent industry cost index increases, the gap is growing and will continue to grow.

Immediate action to increase investment is crucial to accelerating local bridge repair and replacement programs. Most bridges on local roads were either built to older standards or are so old they are in urgent need of repair or replacement. It is not uncommon that bridges have gone for years, even decades, without the appropriate action to repair or replace, due to lack of funds. This is particularly true in more rural areas.

In many cases, locally-owned bridges were often designed to carry traffic volumes and loads less than present conditions demand. As congestion increases on the Interstate System and state highways, local roads become diversion routes, supporting ever increasing levels of usage. Freight volumes, too, have increased faster than general-purpose traffic, adding demands on all parts of the system. Automobile technology allowing for greater speeds has made many bridge geometrics substandard.

Deficient bridges are rated, prioritized and repaired or replaced as funding is available. When funding is insufficient, deferred maintenance, increased inspections, weight limits and closures are often the only options.

APWA has been and will continue to be an advocate for the development of public policies which ensure the safe and efficient management and operation of our public infrastructure. As Congress considers the needs of our bridge system, we urge you to consider the following recommendations.

APWA supports a determined, comprehensive national effort to increase investment to eliminate the bridge funding backlog needed to repair, rehabilitate and replace all publicly owned bridges -- including local bridges -- as part of a zero bridge deficiencies goal. Such an effort, however, should not stop there. It needs sustained and sustainable funding to ensure ongoing system preservation and maintenance at a level necessary to prevent future deficiencies of all publicly-owned bridges.

APWA also supports updating bridge inspection standards and strengthening data collection and reporting procedures; evaluating active bridge monitoring systems; and strengthening inspector qualifications and training and inspection technologies, research and procedures for all publicly-owned bridges, including those on our local system. We believe that a program to strengthen research, technology, procedures and standards must be supported by full federal funding necessary to carry out and sustain it.

In conclusion, our nation's bridge system is aging, deteriorating and suffering the effects of decades of underinvestment. The result is the unacceptably high levels of deficiencies we see today. APWA believes that working together in partnership with local, state, federal and private sector partners, we can and must take immediate action to address our bridge needs. But it will take funding and leadership. Increased investment to repair or replace deficient bridges is vital to achieve a safer and more efficient transportation network. A strengthened inspection program can help ensure that we make wise investments to maintain and preserve all bridges.

Mr. Chairman, we thank you for holding this hearing and are especially grateful to you and Committee members for the opportunity to submit this statement. APWA and our members stand ready to assist you and the Committee as we move forward to address our nation's bridge needs.



*American Society of Civil Engineers*

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**Testimony of  
The American Society of Civil Engineers**

**Before the**

**House Committee on Transportation and Infrastructure**

**on**

**Structurally Deficient Bridges in the United States**

**September 5, 2007**



**Testimony of  
The American Society of Civil Engineers  
Before the  
House Committee on Transportation and Infrastructure  
on  
Structurally Deficient Bridges in the United States**

**September 5, 2007**

Chairman Oberstar, Congressman Mica and Members of the Committee:

Good morning. I am Andrew Herrmann, a Board Member of the American Society of Civil Engineers (ASCE)\*, and the Managing Partner of Hardesty & Hanover, LLP, a transportation consulting engineering firm headquartered in New York. I am a licensed Professional Engineer in 26 states. During my 34 year career I have been responsible for many of the firm's major fixed and movable bridge projects. My experience covers inspection, rating, design, rehabilitation, and construction of bridges.

Let me start by thanking you for holding this hearing. As someone who has worked in this field for many years, I can say that there are few infrastructure issues of greater importance to Americans today than bridge safety.

I am pleased to appear today to be able to lend ASCE's expertise to the problem of the nation's crumbling infrastructure that was highlighted by the tragic events of August 1, 2007 when the I35W Bridge in Minneapolis collapsed into the Mississippi River.

I am also pleased to voice ASCE's strong support of the **National Highway System Bridge Reconstruction Initiative**, which would provide dedicated funding to States to repair, rehabilitate, and replace structurally deficient bridges on the National Highway System (NHS).

***I. Bridge Conditions***

More than 4 billion vehicles cross bridges in the United States everyday and, like all man-made structures, bridges deteriorate. Deferred maintenance accelerates deterioration and causes bridges to be more susceptible to failure. As with other critical infrastructure, a significant investment is essential to maintain the benefits and to assure the safety that society demands.

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\* ASCE, founded in 1852, is the country's oldest national civil engineering organization. It represents more than 140,000 civil engineers in private practice, government, industry, and academia who are dedicated to the advancement of the science and profession of civil engineering. ASCE is a 501(c)(3) non-profit educational and professional society.

In 2005, ASCE issued the latest in a series of assessments of the nation's infrastructure. Our *2005 Report Card for America's Infrastructure* found that as of 2003, 27.1% or 160,570 of the nation's 590,753 bridges were structurally deficient or functionally obsolete, an improvement from 28.5% in 2000. In fact, over the past 12 years, the number of deficient bridges (both structurally deficient and functionally obsolete categories) has steadily declined from 34.6% in 1992 to 25.8% in 2006.

However, this improvement is contrasted with the fact that one in three urban bridges (31.2% or 43,189) were classified as structurally deficient or functionally obsolete, much higher than the national average.

In 2005, the FHWA estimated that it would cost \$9.4 billion a year for 20 years to eliminate all bridge deficiencies. In 2007, FHWA estimated that \$65 billion could be invested immediately in a cost beneficial manner to address existing bridge deficiencies.

The ten year improvement rate from 1994 to 2004 was 5.8% (32.5% - 26.7%) less deficient bridges. Projecting this rate forward from 2004 would require 46 years to remove all deficient bridges. Unfortunately the rate of deficient bridge reduction from 1998 on to 2006 is actually decreasing with the current projection from 2006 requiring 57 years for the elimination of all deficient bridges. Progress has been made in the past in removing deficient bridges, but our progress is now slipping or leveling off.

There is clearly a demonstrated need to invest additional resources in our nation's bridges. However, deficient bridges are not the sole problem with our nation's infrastructure. The U.S. has significant infrastructure needs throughout the transportation sector including roads, public transportation, airports, ports, and waterways. As a nation, we must begin to address the larger issues surrounding our infrastructure so that public safety and the economy will not suffer.

## ***II. Bridge Inspection Program***

The National Bridge Inspection Standards (NBIS), in place since the early 1970s, require biennial safety inspections for bridges in excess of 20 feet in total length located on public roads. These inspections are to be performed by qualified inspectors. Structures with advanced deterioration or other conditions warranting closer monitoring are to be inspected more frequently. Certain types of structures in very good condition may receive an exemption from the 2-year inspection cycle. These structures may be inspected once every 4 years. Qualification for this extended inspection cycle is reevaluated depending on the conditions of the bridge. Approximately 83 percent of bridges are inspected once every 2 years, 12 percent are inspected annually, and 5 percent are inspected on a 4-year cycle.

Information is collected documenting the conditions and composition of the structures. Baseline composition information is collected describing the functional characteristics,

descriptions and location information, geometric data, ownership and maintenance responsibilities, and other information. This information permits characterization of the system of bridges on a national level and permits classification of the bridges. Safety, the primary purpose of the program, is ensured through periodic hands-on inspections and ratings of the primary components of the bridge, such as the deck, superstructure, and substructure. This classification and condition information is maintained in the National Bridge Inventory (NBI) database maintained by FHWA. This database represents the most comprehensive source of information on bridges throughout the United States.

Two documents, the American Association of State Highway and Transportation Officials' (AASHTO) *Manual for Condition Evaluation of Bridges* and the Federal Highway Administration's (FHWA) *Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges*, provide guidelines for rating and documenting the condition and general attributes of bridges and define the scope of bridge inspections. Standard condition evaluations are documented for individual bridge components as well as ratings for the functional aspects of the bridge. These ratings are weighted and combined into an overall Sufficiency Rating for the bridge on a 0-100 scale. These ratings can be used to make general observations on the condition of a bridge or an inventory of bridges.

The factors considered in determining a sufficiency rating are: S1- Structural Adequacy and Safety (55% maximum), S2- Serviceability and Functional Obsolescence (30% maximum), S3- Essentiality for Public Use (15% maximum), and S4- Special Reductions (detour length, traffic safety features, and structure type--13% maximum).

In addition to the sufficiency rating, these documents provide the following criteria to define a bridge as structurally deficient or functionally obsolete, which triggers the need for remedial action.

**Structurally Deficient** – A structurally deficient (SD) bridge may be restricted to light vehicles because of its deteriorated structural components. While not necessarily unsafe, these bridges must have limits for speed and weight, and are approaching the condition where replacement or rehabilitation will be necessary. A bridge is structurally deficient if its deck, superstructure, or substructure is rated less than or equal to 4 (poor) or if the overall structure evaluation for load capacity or waterway adequacy is less than or equal to 2 (critical). Note a bridge's structural condition is given a rating between 9 (excellent) and 0 (representing a failed condition). In a worse case scenario, a structurally deficient bridge may be closed to all traffic.

**Functionally Obsolete** – A bridge that is functionally obsolete (FO) is safe to carry traffic but has less than the desirable geometric conditions required by current standards. A bridge is functionally obsolete if the deck geometry, underclearances, approach roadway alignment, overall structural evaluation for load capacity, or waterway adequacy is rated less than or equal to 3 (serious). A functionally obsolete bridge has older design features and may not safely accommodate current traffic volumes, vehicle sizes, and

vehicle weights. These restrictions not only contribute to traffic congestion, but also pose such major inconveniences as lengthy detours for school buses or emergency vehicles.

**Structural Capacity** –Components of bridges are structurally load rated at inventory and operating levels of capacity. The inventory rating level generally corresponds to the design level of stresses but reflects the present bridge and material conditions with regard to deterioration and loss of section. Load ratings based on the inventory level allow comparisons with the capacities for new structures. The inventory level results in a live load which can safely utilize an existing structure for an indefinite period of time. The operating rating level generally describes the maximum permissible live load to which the bridge may be subjected. This is intended to tie into permits for infrequent passage of overweight vehicles. Allowing unlimited numbers of vehicles to use a bridge at the operating level may shorten the life of the bridge.

Bridge Engineers and Bridge Inspectors:

Bridge inspection services should not be considered a commodity. Currently, NBIS regulations do not require bridge inspectors to be Professional Engineers, but do require individuals responsible for load rating the bridges to be Professional Engineers. ASCE believes that non-licensed bridge inspectors and technicians may be used for routine inspection procedures and records, but the pre-inspection evaluation, the actual inspection, ratings, and condition evaluations should be performed by licensed Professional Engineers experienced in bridge design and inspection. They should have the expertise to know the load paths, critical members, fatigue prone details, and past potential areas of distress in the particular type of structure being inspected. They must evaluate not only the condition of individual bridge components, but how the components fit into and affect the load paths of the entire structure. The bridge engineer may have to make immediate decisions to close a lane, close an entire bridge, or to take trucks off a bridge to protect the public safety.

### ***III. National Highway System Bridge Reconstruction Initiative***

ASCE applauds the quick action by Chairman Oberstar to announce legislation that would address the public safety issues posed by the National Highway System's structurally deficient bridges. This is a promising display of support that has often been lacking for the problem of our nation's crumbling infrastructure. However, it is essential to remember that this legislation, while a good first step, is not the sole solution.

ASCE strongly supports quick action to enact the NHS Bridge Reconstruction Initiative which would create a dedicated fund to repair, rehabilitate, and replace structurally deficient bridges on the NHS. This is accomplished through four components:

- Improving bridge inspection requirements;
- Providing dedicated funding for structurally deficient NHS bridges;
- Distributing funds based on public safety and need; and
- Establishing a bridge reconstruction trust fund.

A thorough review of the current bridge inspection requirement seems appropriate and there must be greater emphasis on the steps needed to address a structurally deficient bridge once it has been classified. ASCE strongly supports a requirement that bridge inspections be performed by licensed professional engineers who are certified bridge inspectors. The initiative's compliance reviews of state bridge inspection programs and increased emphasis are good steps to improving the states bridge programs. These efforts, however, must emphasize bridge safety not bureaucracy.

A dedicated funding source to repair, rehabilitate, and replace structurally deficient bridges on the NHS would be a good complement to the current FHWA bridge program because of the emphasis on NHS bridges. NHS bridges carry a large percentage --more than 70 percent --of all traffic on bridges. Of the 116,172 bridges on the NHS, 6,175 are structurally deficient of which 2,830 are part of the Interstate System. The investment backlog for these deficient bridges is estimated to be \$32.1 billion.

The requirement to distribute funds based on a formula which takes into account public safety and needs is an excellent step in creating a program that addresses public safety first. ASCE's Cannon of Ethics states clearly that public safety, health, and welfare should be the engineer's primary concern. Any bridge safety program should be based on providing for public safety first.

ASCE has long supported the creation of trust funds for infrastructure improvement. Unfortunately, the passage of SAFETEA-LU left a significant gap in funding the well-documented needs of our nation's surface transportation programs. During the SAFETEA-LU debate, it was estimated that \$375 billion was needed for the surface transportation program, but only \$286 billion was authorized in the law. This initiative would be a first step in addressing the long term needs of the nation. However, this effort should not detract from the investment needs debate during the reauthorization of SAFETEA-LU in 2009.

#### *IV. ASCE's policies regarding bridges*

Funding programs for transportation systems, i.e., federal aviation, highways, harbors, inland waterways, and mass transit as documented by the U.S. Department of Transportation, need to be increased, to provide orderly, predictable, and sufficient allocations to meet current and future demand. The Highway Trust Fund is in danger of insolvency (as other trust funds may be in the future) and must receive an immediate boost in revenue to ensure success of multi-modal transportation programs. In fact, the Office of Management and Budget estimates that in FY 2009 the Highway Account of the Highway Trust Fund will be in the red by as much as \$4.3 billion.

The safety, functionality, and structural adequacy of bridges are key components necessary to support and ensure the safe, reliable, and efficient operation of transportation infrastructure and systems which provide mobility of people and the movement of goods

and services. Federal policy establishes the minimum bridge safety program components necessary for both public and private bridges to ensure an adequate and economical program for the inspection, evaluation, maintenance, rehabilitation, and replacement of our nation's bridges.

Continued neglect and lack of adequate maintenance will ultimately result in higher annual life-cycle costs of bridges due to shortened service life. Therefore, investment to improve the condition and functionality of the nation's bridges will reduce the required investment in the future.

#### Bridge Safety

For the continued safety of the nation's bridges, ASCE advocates that a bridge safety program for both public and private bridges be established, fully funded, and consistently operated to upgrade or replace deficient bridges and to properly maintain all others. This program should preserve full functionality of all bridges to support the operation of safe, reliable and efficient transportation systems, and to allow these systems to be utilized to their full capacity. Such programs should include as a minimum:

- Regular programs of inspection and evaluation that incorporate state-of-the-art investigative and analytical techniques, especially of older bridges which were not designed and constructed to current design loading and geometric standards;
- Posting of weight and speed limits on deficient structures;
- Implementing and adequately funding regular system-wide maintenance programs that are the most cost-effective means of ensuring the safety and adequacy of existing bridges;
- Establishing a comprehensive program for prioritizing and adequately funding the replacement of functionally obsolete and structurally deficient bridges;
- Setting a national goal that fewer than 15% of the nation's bridges be classified as structurally deficient or functionally obsolete by 2010; and

#### Transportation Funding

Adequate revenues must be collected and allocated to maintain and improve the nation's transportation systems and to be consistent with the nation's environmental and energy conservation goals. A sustained source of revenue is essential to achieve these goals.

ASCE recommends that funding for transportation system improvements, associated operations, and maintenance be provided by a comprehensive program including:

- User fees such as motor fuel sales tax;
- User fee indexing to the Consumer Price Index (CPI);
- Appropriations from general treasury funds, issuance of revenue bonds, and tax-exempt financing at state and local levels;
- Trust funds or alternative reliable funding sources established at the local, state, and regional levels, including use of sales tax, impact fees, vehicle registration fees, toll revenues, and mileage-based user fees developed to augment allocations from federal trust funds, general treasuries funds, and bonds;

- Refinement of the federal budget process to establish a separate capital budget mechanism, similar to many state budgets, to separate long-term investment decisions from day-to-day operational costs;
- Public-private partnerships, state infrastructure banks, bonding, and other innovative financing mechanisms as appropriate for the leveraging of available transportation program dollars, but not in excess of, or as a means to supplant user fee increases;
- The maintenance of budgetary firewalls to eliminate the diversion of user revenues for non-transportation purposes, and continuing strong effort to reduce fuel tax evasion.

#### *V. Conclusion*

Successfully and efficiently addressing the nation's infrastructure issues, bridges and highways included, will require a long-term, comprehensive nationwide strategy—including identifying potential financing methods and investment requirements. For the safety and security of our families, we, as a nation, can no longer afford to ignore this growing problem. We must demand leadership from our elected officials, because without action, aging infrastructure represents a growing threat to public health, safety, and welfare, as well as to the economic well-being of our nation.

Thank you, Mr. Chairman. That concludes my statement. I would be pleased to answer any questions that you may have.

# # #

Roger A. Wentz  
Executive Director  
rogerw@atssa.com



September 4, 2007

The Honorable James L. Oberstar  
Chairman  
Transportation and Infrastructure Committee  
United States House of Representatives  
2365 RHOB  
Washington, D.C. 20515

Dear Chairman Oberstar:

The American Traffic Safety Services Association (ATSSA) applauds your leadership in addressing the pressing need to ensure the safety of our nation's system of bridges. In announcing your National Bridge Plan, you observed that 154,101 bridges are deficient, including 73,784 structurally deficient bridges and 80,317 functionally obsolete bridges.

ATSSA understands that the implementation of a plan of this scope will take time and resources. We support your efforts to identify a dedicated resource to fund this program. The thoughtful consideration that you have put into the development of this plan, including restrictions on the use of dedicated funds and prohibition of earmarks, will serve to assure American taxpayers that this is money well spent.

America's road and bridge users deserve to know that they can travel safely to and from work, on personal errands and on their vacations. We hope that you will consider the inclusion of safety features in the National Bridge Plan, including those on roads and approaches to bridges.

Please call on us at ATSSA for whatever assistance we can provide. We appreciate your leadership and the opportunity to participate in this important effort.

Sincerely,

Roger A. Wentz

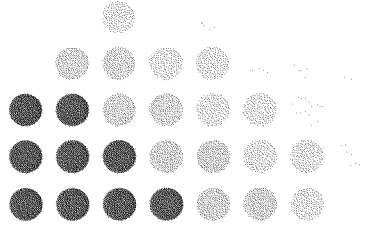
A M E R I C A N   T R A F F I C   S A F E T Y   S E R V I C E S   A S S O C I A T I O N  
15 RIVERSIDE PARKWAY • SUITE 100 • FREDERICKSBURG, VA 22406-1072  
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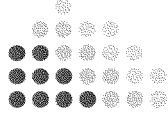


# Local Government Transportation Needs

Mike Braaten  
Colorado Municipal League

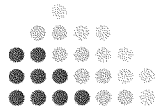
Chip Taylor  
Colorado Counties, Inc.





## Overview

- Local Government
  - Road Statistics
  - Revenue
  - Expenditures
- Local Government Needs
  - Road
  - Transit
  - Aviation
- Concerns with Existing Funding

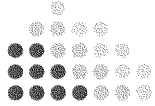


# Local Government – Road Statistics

## Centerline Miles Maintained by all levels of Government – 2000 - 2005

Government Entity	2000	2005	Difference '00-'05	Percent Change	Average Percent of Total of Total ('05)
State	9,086	9,148	62	0.6%	10%
Counties	55,240	58,689	3,449	6.2%	67%
Municipalities	12,651	14,796	2,145	17.0%	17%
Other <sup>1</sup>	8,432	4,964	-3,468	-41%	6%
Total	85,409	87,597	2,188	2.6%	100%

<sup>1</sup>Includes Forest Service



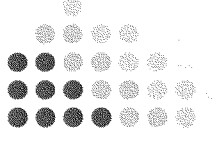
# Local Government – Road Statistics

## Centerline Miles, Paved and Unpaved – 2000 - 2005

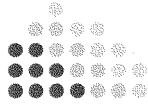
	2000	2005	Difference '00-'05	Percent Change '00-'05	Percent of 2005 centerline miles
<b>Counties</b>					
Paved	10,273	11,371	1,098	10.6%	19.4%
Unpaved	44,967	47,318	2,351	5.2%	80.6%
<b>Municipalities</b>					
Paved	11,631	13,793	2,162	18.5%	93.2%
Unpaved	1,019	1,003	-16	-1.5%	6.7%

# Local Government – Revenue

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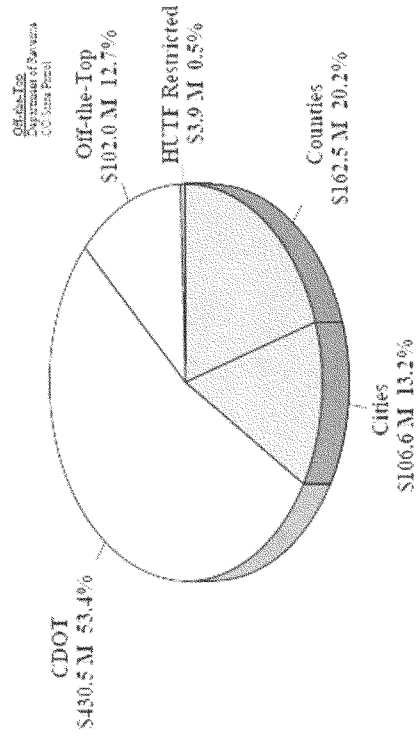


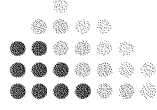
- 1) Highway Users Tax fund (HUTF)
- 2) Road and Bridge mill levy



# Local Government – Revenue

Colorado Highway Users Tax Fund  
FY 2007 Distribution  
**\$805.6 Million**





# Local Government – Revenues

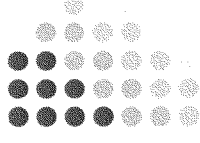
## HUTF

- First \$0.07 of excise tax<sup>1</sup>
  - 26% - counties
  - 9% - municipalities
  - 65% - state
  
- Remaining \$0.15 of excise tax<sup>2</sup>
  - 22% - counties
  - 18% - municipalities
  - 60% - state

<sup>1</sup>(CRS 43-4-205 (5))

<sup>2</sup>(CRS 43-4-205 (6))

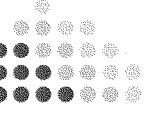
# Local Government – Revenues



## County Road & Bridge Mill Levy

- Counties authorized to implement road and bridge mill levy (CRS 43-2-202 (2))
- 50% share-back with municipalities





## **Local Government - Expenditures**

2005 Expenditures for roads, bridges & streets:

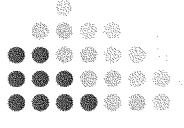
County: \$467,200,051

Municipal: \$814,263,709

Total Local Gov't

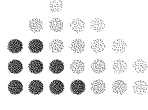
Contribution: \$1,281,463,760

Source: 2005 annual receipts and expenditures reports



## Local Government Needs

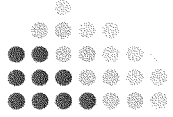
- Road
  - Roadway System Backlog
  - System Preservation
  - Routine Maintenance
  - Future Mobility Needs
  - Bridge Needs
- Transit
- Aviation



## Local Government Needs

● Roads <sup>1</sup>	
● Roadway System Backlog	\$0.805 billion
● System Preservation	\$ 17.995 billion
● Routine Maintenance	\$ 5.931 billion
● Future Mobility Needs	\$ 4.655 billion
● Bridge	\$1.680 billion
<b>Total</b>	<b>\$ 31.066 billion</b>
Available local revenue	\$18.836 billion
<b>Shortfall</b>	<b>\$ 12.2 billion</b>

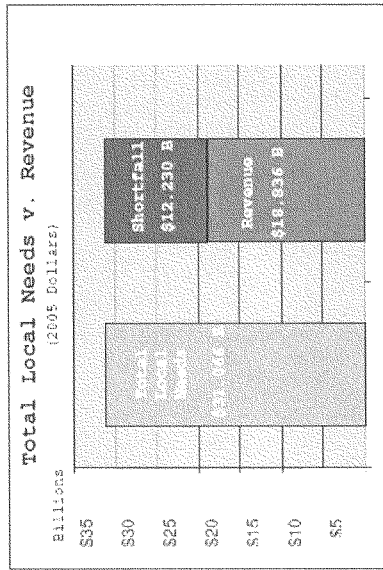
<sup>1</sup> 2005-2030 needs and their associated values expressed in constant 2005 dollars

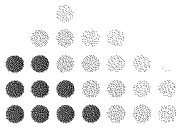


# Local Government Needs

- Roads 2005 - 2030

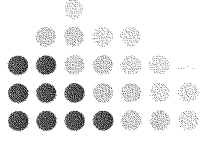
Local Needs Technical Report  
2030 STATEWIDE TRANSPORTATION PLAN





## Local Government Needs

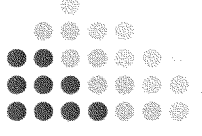
- Transit 2004 – 2030
  - Only 48% of all needed transit trips are currently being met.
  - Unconstrained project needs      \$45 billion
  - Fiscally constrained funding needs      \$23 billion
  - **Unmet financial need      \$22 billion**



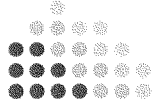
# Local Government Needs

- Aviation 2005 – 2025
  - Funding Needs \$1.96 billion
  - Available Funding \$1.32 billion
  - Shortfall \$637 million

## **Concerns with Existing Funding**



- Growth in off-the-top diversions
- Locals Creating Regional Transportation Authorities
- Lack of partnership with recent funding sources



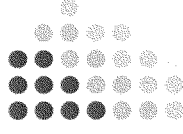
# Concerns with Existing Funding

- Growth in off-the-top diversions

HUTF Distributions, 2000 and 2006

	Off-the-top	CDOT	Counties	Municipalities
2006	\$100,083,157	\$423,057,144	\$159,784,049	\$104,524,982
2000	\$69,148,087	\$397,666,091	\$150,442,915	\$97,475,066
Increase in dollar amount from '00 total to '06 total	\$30,935,070	\$25,391,053	\$9,341,134	\$7,049,916
Percent increase, '00 to '06	44.7%	6.4%	6.2%	7.2%

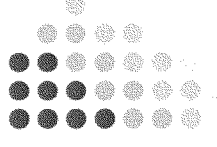




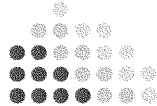
## Concerns with Existing Funding

- Locals Creating Regional Transportation Authorities (RTA)
  - 4 RTAs operating in the state – El Paso County (2), Gunnison and the Roaring Fork.
    - Upon voter approval, RTAs may levy:
      - sales and/or use tax
      - impose an annual motor vehicle registration fee
      - a visitor benefit tax
      - or issue bonds.

# Concerns with Existing Funding



- Lack of partnership with recent funding sources
  - No direct local share-back
    - HB02 -1310 – General Fund surplus to CDOT
    - SB 97-1 – Sales and use tax revenue to CDOT



# Thank you.

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**Chip Taylor**  
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M. JOHNSON  
GOVERNOR

STATE OF CONNECTICUT  
EXECUTIVE CHAMBERS

September 5, 2007

Hon. James L. Oberstar, Chairman  
House Transportation and Infrastructure Committee  
2165 Rayburn HOB  
Washington, DC 20515

Hon. John Mica, Ranking Member  
House Transportation and Infrastructure Committee  
2163 Rayburn HOB  
Washington, DC 20515

Dear Chairman Oberstar and Ranking Member Mica:

As partners in maintaining and improving the national transportation system the federal government and the states have long worked together to provide our citizens a safe, convenient and efficient transportation system. This strong partnership has resulted in a robust and strong system; however, that system is aging is in need of renewed attention in the area of maintenance and repair. Today I join with my colleagues from other states to urge a significant increase in funding for repairs and maintenance for structurally deficient bridges on the national highway system.

As you well know, the Bureau of Transportation Statistics ("BTS") recently produced a report that found over twelve percent of bridges in the United States to be structurally deficient. The report concluded that 73,784 bridges across the country presently require significant maintenance attention, rehabilitation or replacement. The scope of the task before the Congress to address this issue is enormous and a failure to act immediately to substantially increase funding for bridge repair and replacement poses a tremendous threat to the country's economy and more importantly, the safety of our citizens.

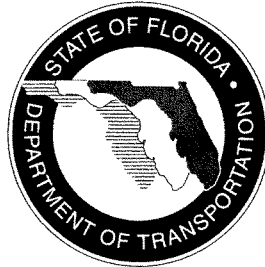
As Governor, I have made bridge repair and replacement a priority in state transportation funding. Most recently, I committed \$100 million for additional repair and replacement of deteriorating state bridges. However, the mission of maintaining all of Connecticut's bridges, particularly on the interstate system, cannot be borne by this state alone. The depth and severity of the problem that the BTS revealed in its report clearly demonstrates a need for significant federal leadership on this issue. To address this critical need, increased federal dollars are imperative.

Today your committee continues its exploration into the status of bridge safety on the interstate highway system by holding this hearing. I urge you to use this forum and the information gathered today to rally the rest of the Congress to increase funding for bridge repair, maintenance and replacement. Thank you.

Sincerely,

A handwritten signature in cursive script, appearing to read "M. Jodi Rell".

M. Jodi Rell  
Governor



Written Testimony of  
Stephanie C. Kopelousos  
Secretary  
Florida Department of Transportation

To the  
United States House of Representatives  
Committee on Transportation and Infrastructure

Hearing on  
Structurally Deficient Bridges in the United States  
10:00 a.m., 2167 Rayburn HOB  
September 5, 2007

**Mr. Chairman and Members of the Committee:**

I am Stephanie Kopelousos and I serve as the Secretary of Transportation in the State of Florida. Thank you for the opportunity to submit written testimony for today's hearing, 'Structurally Deficient Bridges in the United States.' Please consider these key points from the State of Florida.

The Florida Department of Transportation's bridge program has a long and solid safety record. This is not by happenstance, but through a long tradition that establishes the safety and preservation of the State's Highway System as our top transportation priority -- both in substantive law and in funding allocations.

This process begins with a comprehensive bridge inspection program that reviews all 11,564 bridge structures in Florida at least once every two years. These inspections include detailed reviews of bridge deck and supporting elements, as well as other bridge features such as side rails, lighting, joints and related safety items. Areas of the bridge that are underwater are also thoroughly inspected. A comprehensive inspection report is prepared that identifies both the overall bridge condition rating and any resulting repair work needed on the bridge.

If an inspection reveals that a bridge is unsafe, the Department closes the bridge. If a bridge cannot safely support trucks, the Department restricts all trucks over the acceptable weight for travel on the bridge.

Issues identified during the inspection on the 6,503 State of Florida bridges are funded in the Department's Five-Year Work Program. When it is no longer feasible to repair or rehabilitate State bridges, then a bridge replacement is funded no later than the 5<sup>th</sup> year of the next Five-Year Work Program. Inspection reports are provided to the local owner of the 5,061 local bridges in Florida. The Department then works closely with the local owner to ensure the bridge is safe. The Department also provides 20 percent of Federal bridge program funds available to Florida for the rehabilitation and replacement of local bridges.

Overall, Florida will spend about \$1.6 billion on bridge repair/replacement over the Five-Year Work Program for fiscal years 2007-08 to 2011-12. Of this amount, less than \$100 million annually is provided by the Federal bridge program. The State of Florida spends all Federal bridge funds, plus augments this with other Federal funds and a significant amount of State funds to ensure that Florida's bridges are safe and preserved over time.

I am proud that less than one percent of the State bridges are designated as needing improvements (structurally deficient). Further, that funding is in place or will be during our next update of the Five-Year Work Program (for recently identified bridges needing improvement) to repair or replace the bridges needing improvement. Overall, about three percent of the 11,564 bridges in Florida are categorized as needing improvement.

As you know, due to Hurricane Ivan, in 2004 Florida lost the I-10 Bridge over Escambia Bay near Pensacola for a period of time. The impact of losing this vital bridge connection to interstate commerce and to the Pensacola area was devastating. In Florida, it was a clear illustration of why we must all be diligent in ensuring that our road and bridge infrastructure is safe and well preserved over time.

We applaud your Committee for examining this very critical issue. As I mentioned previously, in Florida, by law and policy we ensure that State roads and bridges are adequately maintained and well preserved over time. However, if you examine the allocation of funding for the Federal bridge program, which is based on the number of bridges needing improvement, you will notice that this policy is not consistent among states. We are concerned that as solutions are being considered by this Committee in the coming weeks, that if funding is being proposed and allocated by this same bridge program formula, it would reward states that have been less diligent in taking care of their bridges and punish states like Florida that have done a good job taking care of their bridges. Based on this current formula, Florida would provide over 5% of the annual funding for this program and receive less than .4% back for bridge programs.

Might it be possible to examine a performance based system where the additional funds are subject to the overall allocation approach, including the minimum guarantee provided by the Equity Bonus calculation? Further, that each state must augment their bridge program funding with their Equity Bonus Federal funding (flexible funding) if they have more than a certain percentage of bridges that need improvement (structurally deficient). This would provide an incentive for all states to adopt policies that help ensure that bridges are maintained and preserved.

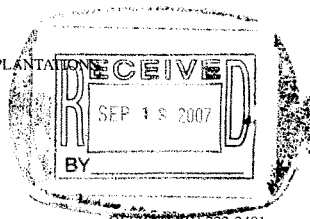
We also remain concerned with the recent language passed by the House calling for a \$3.47 billion rescission of transportation "apportionments" in 2007. However, please understand that these apportionments do not represent true funds which can be spent to finance transportation projects. These apportionments merely represent maximum annual caps Congress has set for each transportation program. The true funds are the amounts of federal budget authority (a.k.a. Obligation Authority) Congress designates annually to actually finance and pay for projects. Each year the amount of Obligation Authority the State of Florida receives never rises to the level of the annual caps on each program. In a nutshell, the proposed legislation would rescind unobligated funds across the board in their transportation programs that have been previously given to states. In the past, states were given at least limited flexibility to determine where rescissions would originate. However, the level of past rescissions and the prior limitations have resulted in some program areas having little to no apportionments above the available obligation authority. One of these areas in Florida is the Federal bridge program. Therefore, pro-rata rescissions will result in projects being funded with Federal bridge funds to be deferred or eliminated. We request that this provision be changed and the States given the ability to use "unfunded" apportionments to meet future rescission requirements.

Thank you Mr. Chairman and Committee Members. I appreciate the opportunity to share these thoughts with you today.



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STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS



**Jerome F. Williams**  
Director

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August 31, 2007

The Honorable James L. Oberstar  
US House of Representatives  
2365 Rayburn House Office Building  
Washington, DC 20515


Dear Representative Oberstar:

Attached please find testimony for the House Transportation and Infrastructure Committee for the full hearing on structurally deficient bridges in the United States. Rhode Island's Representative Patrick Kennedy asked that I forward this to you.

Should you have any questions or wish to follow up with me on this nationally important topic please feel free to contact my office at 401-222-2481.

Thank you.

Sincerely,

  
Jerome F. Williams  
Director

Cc: Rep. Patrick Kennedy

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

**Jerome F. Williams**  
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***Full Committee - Structurally Deficient Bridges in the United States***

**Testimony for the House Transportation and Infrastructure Committee**

**Jerome F. Williams, Rhode Island  
Director of the Department of Transportation**

**September 5, 2007**

As Director of the Rhode Island Department of Transportation (RIDOT) I would like to submit this written testimony regarding the status of Rhode Island's roads and bridges to you and the House Transportation and Infrastructure Committee for the full hearing on structurally deficient bridges in the United States. The objective of this testimony is to use Rhode Island as an example of infrastructure needs citing the condition of our roadways and to show through a strategic review of the State's transportation priorities how we are utilizing our resources to the best of our ability.

Rhode Island has 764 bridges and 1,200 miles of State roadway. The Ocean State has the dubious distinction, however, of having the highest percentage of structurally deficient bridges in the country. More than half are currently rated as structurally deficient and/or functionally obsolete.

With that said, Rhode Island recognizes the position it is in and has begun to take steps to rectify this situation. By reprioritizing our future construction projects based on safety and infrastructure age and lifespan we are determining what needs to be fixed first. Even with this action, however, the State still experienced some non-structural spalling concrete a few weeks ago which sent the local media into a frenzy.

RIDOT is vigilant with its bridge inspections but with the northeast having the oldest infrastructure in the country, coupled with New England's freeze thaw cycles, the sand and salt erosion that comes from clearing snowy roads, and vehicles that are much heavier than in years past, maintenance will continue to be our greatest challenge.

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Over the last few months the Department has spent a half million dollars in emergency repairs on the Sakonnet River Bridge which connects the towns of Tiverton and Portsmouth to keep the bridge in a safe and passable condition. Weight limits were reduced to 22 tons and while the bridge is slated for replacement, with construction set to begin late next year, it will most likely continue to be rehabilitated before construction can begin.

In an effort to stretch the dollars we have, a review of the Sakonnet River Bridge project resulted in a savings of approximately \$40 million. This number was achieved partially by extending an abutment rather than extend the bridge.


RIDOT is in the midst of the relocation of part of I-195 in Providence in an effort to improve its transportation system. When completed, the project, branded the Iway, will replace 19 bridges. Many of these bridges will need to be supported with shoring until the Iway is fully open in 2009. In the meantime they continue to be inspected on a regular basis.

The transportation needs of Rhode Island are at a critical stage. Dollars are an issue and the Federal dollars this state receives are not sufficient to meet the demand for improvements. There is a constant need vs. cash flow tug of war going on and unfortunately the needs continue to grow.

Recently, I personally visited every transportation project scheduled to be in the State's three year Transportation Improvement Program to see firsthand the complexity of the existing work, the overall condition of the infrastructure, and the needs that are not being met. I am now in the process of amending our overall Transportation Improvement Program in an effort to move more dollars into our bridge program. Many projects will have to be put off until new funds are available.

Rhode Island knows how to spend its dollars wisely. Allow us to do so by increasing the allocation to the Ocean State. The smallest state in the nation should not have the stigma of having the highest number of sufficient bridges. This ratio needs to be realigned.

Respectfully Submitted,

  
Jerome F. Williams  
Director

**Joint Testimony  
of  
San Juan County Commissioners Bruce Adams, Lynn Stevens and Kenneth Maryboy  
and  
Navajo County Supervisors Percy Deal and Jesse Thompson  
Submitted to the  
House of Representatives  
Committee on Transportation and Infrastructure  
September 5, 2007 Hearing on  
Structurally Deficient Bridges in the United States  
Submitted September 20, 2007**

**Introduction**

Chairman Oberstar, Representative Mica, and members of the Committee, we appreciate this opportunity to submit testimony about structurally deficient bridges in the United States. While you heard from hearing witnesses who represented a wide range of jurisdictions and perspectives, including federal, state, county, and city governments, as well as private industry, no one mentioned Tribes. We are two counties in two states who share transportation infrastructure with four tribes. Our commitment is to ensure that Indian children get to school on roads and bridges that are as safe as those used by urban commuters on the National Highway System.

San Juan County, Utah and Navajo County, Arizona are located in the Four Corners Region of the southwest United States. We are blessed with breathtaking beauty that is known around the world because of places like Canyonlands National Park, Natural Bridges National Monument, Monument Valley, and the Navajo, Hopi and White Mountain Apache reservations. We are located in the heart of the Colorado Plateau and enjoy the majestic rock formations of our frontier landscape, but we also struggle with dirt roads that routinely wash out bridges and culverts. Because we are remote and scarcely populated, our transportation infrastructure is not a priority for state or federal government.

Yet our shared constituency is a large American Indian population for whom the federal government has a Trust Responsibility to construct and maintain roads and bridges. The majority of San Juan County's population is Native American (55.9% Navajo and White Mesa Ute), many of whom are school aged children, most of whom live below the poverty level. Navajo County similarly has a 48.8% Native American population that is made up of Navajo, Hopi and White Mountain Apache school kids whose parents financially struggle well below the national median income.

Other hearing witnesses have already testified about ways to address the 73,784 bridges in the United States that are structurally deficient, but we seek to focus your attention upon the 4,300 bridges in Indian Country whose conditions (24% are structurally deficient) make life even more

difficult for people already struggling to gain the same access to education, medical care and economic opportunities as other Americans.

The issue of tribal transportation improvement in general, and bridge improvement in particular, must be considered within the context of a fatality rate on Indian reservation roads that is four times the national average. The tragic bridge collapse in Minneapolis cruelly taught us that the only bridge that matters is the one you are about to cross. Bridges in poor, rural tribal communities -- whether Indian Reservation Road (IRR) or County bridges -- should be as much of a national priority as any bridge on the National Highway System (NHS).

### **Problems**

#### **1. Our Constituents are Overlooked**

Unfortunately, the United States Department of Transportation maps of structurally deficient bridges in the United States -- maps that are displayed on this Committee's website -- do not reveal the twelve structurally deficient IRR bridges in the congressional districts shared by San Juan County, Utah and Navajo County, Arizona. The reason for this omission is that our bridges are not listed on the NHS. No matter how dangerous or difficult our bridges become, they will never be listed within that database.

The logic of this omission is obvious -- the NHS consists of 46,747 miles of major highway that are critical to interstate traffic. We understand that 45.5% of all vehicle miles traveled in the U.S. are traveled on the NHS and, as such, must be considered practical and political priorities. But we fear that some policy makers in Washington, DC do not understand that roads and bridges in Indian Country are as critically essential to regional safety, health, education and commerce as any metropolitan superstructure.

66% of the 82,000 miles of Indian Reservation Roads today are still unimproved dirt roads. Of the 2 billion vehicle miles traveled annually on these roads, many are unavoidable to get from one side of a congressional district to another. Most of the 1,000 structurally insufficient IRR bridges that are not worth mention on your maps are Indian school bus routes that determine whether Native American children get to school today.

#### **2. We are Under Resourced**

There is an estimated backlog of \$7 billion of improvement needs for the Bureau of Indian Affairs (BIA) and selected state and local IRR roads. The Navajo Nation alone needs \$100 million per year for the next 20 years just to satisfy its unmet present and future transportation needs. For tribal communities like ours, whose private achievements and public services are not just impacted, but undermined everyday by this profound infrastructure deficit, it is easy to criticize federal action, or the lack thereof.

However, we thank Congress for the improvements it made to the IRR Program through SAFETEA-LU. We appreciate that Congress increased its annual funding and authorized more program flexibility and local control. Most relevant to the subject of this hearing, Congress authorized a new \$14 million per year IRR Bridge Program that helps design and rehabilitate deficient bridges in Indian Country, whether they are owned by the BIA, State or County. We thank Congress.

The problem is that \$14 million does not go far when it is split between 562 federally recognized tribes. In 2002, the Navajo Nation testified to Congress that it had 46 bridges that were identified as being structurally deficient, and that Navajo needed at least \$5.2 million for planning and design in order for those bridges to advance to reconstruction. Unfortunately, the good intention of the IRR Bridge Program is not enough for Indian Country because its funding level is simply too low.

As counties, we are eligible to apply for state set aside grants of federal-aid highway funds for "off-system" bridges. However, the problem again is that we local communities have more needs than the states have funds. Discretionary bridge program grants tend to be small and competitive and we -- as local governments in remote, sparsely populated areas -- are not as competitive as our urban and suburban counterparts.

The only other source of bridge maintenance funding available to us from the federal government, through the states, is the Indian School Bus Route Maintenance Program. SAFETEA-LU increased its funding from \$1.5 million to \$1.8 million annually, which must be split between the three states and 11 counties within those states that share jurisdiction with the Navajo Nation. This is an effective program that allows us the flexibility we need to respond to our Navajo constituents, but we need increased funding to partner more effectively with the tribe.

## **Solutions**

### **1. Special Project Funding**

Our constituents are hard working families who hate to see their tax dollars wasted. The Administration testified at this hearing against transportation earmarks. However, what is easily derided inside the beltway as pork barrel spending is for us the only resource for tribal transportation projects -- projects that would otherwise remain unfunded for years, even generations, while they wait to move up a federal priority list.

Navajo Mountain is the perfect example of a community enjoying the benefit of a High Priority Project authorization, whose public health, safety and education would otherwise be held hostage by a federally derived priority list that otherwise pits Navajo communities against each other. Small and remote, even by Navajo standards, Navajo Mountain is only accessible by Navajo Route 16 (N16), which is 11 miles of federal legacy -- a washboarded, washed out, and often impassable BIA road. But what N16 leads to is Navajo's future -- two state-of-the art BIA

schools filled with Navajo children.

N16 is finally getting paved thanks to the High Priority Project funding that SAFETEA-LU makes available to roads and bridges. Another community of Navajo school children is Halchita, Utah, where kids are looking forward to finally getting a bridge through Fiscal Year 2008 Public Lands Discretionary Funds so that they will not have to keep missing school (approximately 40 days each year) when their bus cannot cross the wash. To these children, that earmark is not pork, it is a lifeline.

## **2. Bridge Program for Counties in Payment in Lieu of Taxes States**

Other hearing witnesses have suggested that vitally needed bridge improvements can be paid for through user fees and property taxes. For communities like ours, these options are not feasible. We don't have enough drivers to make a toll system viable and we don't have enough private land available to raise significant tax revenues. Similarly, a data driven, performance based approach to systematically address structurally deficient bridges won't work in tribal communities. We don't now have the numbers and never will.

San Juan County has the smallest population (14, 104) but largest land base (total area: 7,821 miles) of any county in Utah. Most of the county's land is nontaxable government enclaves: 25.5% is Indian Reservation and 35.5% belongs to the U.S. Forest Service and U.S. Bureau of Land Management. The state of Utah owns 5.3% of the land.

Navajo County is similarly situated with a population of only 108,432 people with a land area of 9,954 square miles. 66% of the county is comprised of Indian Reservations. 9% is held by the U.S. Forest Service and U.S. Bureau of Land Management. The state of Arizona owns 5.9%.

A one size fits all approach does not work. A new bridge program is needed for counties located in Payment in Lieu of Taxes states. Such a program could help fill the gap between the Indian Reservation Road Bridge Program and state bridge program set asides for local governments. In particular, we recommend that such a program prioritize funding for projects on Indian school bus routes.

## **Conclusion**

The federal government has a Trust Responsibility to plan, construct, reconstruct and improve roads and bridges in Indian Country pursuant to the Snyder Act and other subsequent federal statutes. Before this Administration and Congress take on new obligations to improve the nation's bridges, fulfillment of existing obligations to Indian reservations should be considered a priority. We hope we have helped initiate a dialogue that continues as you develop any new bridge initiative.

We fully understand that if you have never been to the Four Corners Region, you can not possibly imagine the challenges our tribal constituents face everyday just trying to get their children to school. We invite you to come visit us so you can see for yourself. Thank you for your consideration of our testimony. We look forward to partnering with you to make bridges safer for all of us.