



**U.S. Department of
Transportation**

Office of the Secretary
of Transportation

The Inspector General

Office of Inspector General
Washington, DC 20590

October 18, 2010

The Honorable Patty Murray
Chairman
Subcommittee on Transportation,
Housing and Urban Development, and
Related Agencies
Committee on Appropriations
United States Senate
Washington, DC 20510

The Honorable John W. Olver
Chairman
Subcommittee on Transportation,
Housing and Urban Development, and
Related Agencies
Committee on Appropriations
United States House of Representatives
Washington, DC 20515

The Honorable Christopher “Kit” Bond
Ranking Member
Subcommittee on Transportation,
Housing and Urban Development, and
Related Agencies
Committee on Appropriations
United States Senate
Washington, DC 20510

The Honorable Tom Latham
Ranking Member
Subcommittee on Transportation,
Housing and Urban Development, and
Related Agencies
Committee on Appropriations
United States House of Representatives
Washington, DC 20515

Dear Chairmen Murray and Olver and Ranking Members Bond and Latham:

According to the Federal Highway Administration (FHWA), about one-fourth of the Nation's more than 600,000 bridges have major deterioration, cracks in their structural components, or other deficiencies. Given the enormity of the problem, and the limited funding available to address such deficiencies, FHWA's oversight activities must incorporate targeting higher priority bridge safety risks. Over the last 4 years, we have issued three reports on the challenges FHWA faces in improving its bridge oversight. Our January 2009 report,¹ in particular, addressed FHWA's use of data-driven, risk-based oversight to target bridge safety risks most in need of attention. Provisions in the Senate Appropriations Committee Report² accompanying the fiscal year 2010 appropriations bill for the Departments of Transportation and Housing and Urban Development, and Related Agencies direct the Office of Inspector General to

¹ OIG Report Number MH-2009-013, “National Bridge Inspection Program: Assessment of FHWA’s Implementation of Data-Driven, Risk-Based Oversight,” January 12, 2009. OIG reports are available on our website: www.oig.dot.gov.

² S. Rep. No. 111-69 (August 5, 2009).

evaluate actions FHWA has taken to date to address recommendations in the January 2009 report. This letter fulfills that directive.

Summary

In January 2009, we reported that FHWA had made limited progress implementing data-driven, risk-based bridge oversight and that its role in expanding states' use of bridge management systems could be strengthened. We made five recommendations and FHWA agreed to take corrective action in response to all of them. FHWA has completed actions in response to one recommendation, but has yet to fully implement actions in response to the other four. Specifically, FHWA established a new procedure requiring states to correct significant errors in data files submitted for FHWA's National Bridge Inventory (NBI).³ This action fully addressed one of our recommendations. To address our other recommendations, FHWA developed data-driven, risk-based metrics that can be used in assessing state compliance with the National Bridge Inspection Standards (NBIS)⁴ and initiated a pilot program at 12 Division Offices using the new metrics. FHWA has also integrated its strategic planning and risk assessment processes to create a corporate risk assessment program that will identify nationwide bridge safety risks. However, FHWA has not directed its Division Offices to work with states to mitigate such risks. FHWA committed to doing so in its written response to the January 2009 report. Fulfilling this commitment and completing other actions now underway is critically important to ensuring that FHWA's oversight activities address the Nation's most significant bridge safety risks. Details of our report findings and FHWA's actions taken to date in response to the recommendations are presented below.

FHWA Completed Action To Mitigate Data Inaccuracies, but Other Promised Actions for Enhancing Data-Driven, Risk-Based Bridge Oversight Are Not Yet Fully Implemented

FHWA completed action to require states to promptly correct data inaccuracies found by FHWA's NBI data validation program. As stated in our report, having accurate NBI data is essential for FHWA to perform effective data-driven oversight. Under a new procedure established by memorandum, NBI data files submitted with significant errors will now be returned to states through the Division Offices for immediate resolution. FHWA's corrective action fully addressed our recommendation.

Additionally, FHWA agreed to address nationwide bridge safety risks, but FHWA has not fully implemented its plan and directed Division Offices to coordinate the effort

³ The NBI database includes records with information on the location, age, condition, and load rating and posting of nearly 600,000 public highway bridges nationwide.

⁴ FHWA sets the standards for proper safety inspections of public highway bridges through the NBIS. The NBIS outlines requirements regarding the frequency with which states should conduct inspections, the qualifications of inspection personnel, and the data to be collected.

with states. Specifically, FHWA agreed to develop a comprehensive plan to routinely conduct systematic, data-driven analysis to identify nationwide bridge safety risks, prioritize them, and target those higher priority risks for remediation in coordination with states. FHWA stated in its written response to the report that it would direct Division Offices to work with states to mitigate higher priority bridge safety risks. To date, FHWA has developed and implemented a corporate risk assessment program that integrates its strategic planning and risk assessment processes to identify higher priority bridge safety risks, but has not directed Division Offices to work with states to mitigate such risks. It is critically important that FHWA follow through and fully implement its promised action to ensure that its oversight activities address the Nation's most significant bridge safety risks.

FHWA also agreed to develop and implement minimum requirements to be used during annual NBIS compliance reviews, but it has not completed this action. We reported significant differences in how FHWA bridge engineers at 10 Division Offices used NBI data reports and conducted risk assessments of states' load rating and posting practices. As a result, bridge engineers missed opportunities to identify and remediate bridge safety risks in coordination with states.⁵ We attributed these differences to FHWA's lack of minimum requirements for bridge engineers performing data-driven, risk-based oversight. FHWA's activities have included developing a uniform definition of NBIS compliance and data-driven, risk-based metrics that can be used in assessing state compliance. FHWA has also initiated a pilot program at 12 Division Offices using the new metrics. It plans full implementation by January 2011, in time for the 2011 annual compliance review.

Further, FHWA agreed to update the standards for data used to characterize a bridge's condition, but FHWA has not completed this action; we expected this effort to be time-consuming given its complexity. We recommended that FHWA coordinate with the American Association of State Highway and Transportation Officials (AASHTO) to update the standards for element-level data (i.e., more detailed, less subjective data to characterize a bridge's condition), use the rulemaking process to incorporate AASHTO's updated standards into the NBIS, and develop and implement a plan to collect element-level data after the NBIS has been updated. We reported that having more detailed bridge data would help FHWA more accurately identify and assess bridge conditions nationwide and better determine the appropriate levels of investment necessary to maintain and improve the Nation's bridges. FHWA's activities have included participating in an AASHTO task group to develop and implement the best approach to assessing bridge conditions. The task group's proposed changes were approved during the meeting of the AASHTO Subcommittee

⁵ We conducted our audit at 10 FHWA Division Offices in 10 states and at FHWA Headquarters. Our January 2009 report provides our selection criteria.

on Bridges and Structures in May 2010. FHWA is working with AASHTO to develop a plan for implementing the changes by mid-2011.

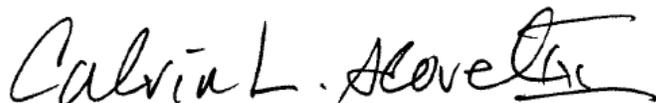
FHWA Has Not Followed Through and Provided Support to States Most in Need of Assistance in Implementing Effective Bridge Management Systems

FHWA agreed to target states most in need of assistance in implementing effective bridge management systems for technical assistance and training resources, but has not fully implemented its corrective action. These systems can recommend bridge replacement and repair projects that, given limited resources, best address safety priorities. We found as part of our audit that states were not fully benefiting from bridge management systems in part because FHWA played a limited role in expanding states' use of them. FHWA responded by developing a survey to collect data at the Division Office level on states' use of bridge management systems, but has not followed through and provided support to those states most in need of assistance. FHWA's efforts will not be completed until it takes the necessary step of using the survey data to target its technical assistance and training resources as appropriate.

In closing, we commend FHWA for the action it took in resolving errors in NBI data files and for the other actions that are underway. However, FHWA must follow through on its plan to work with states in mitigating higher priority nationwide bridge safety risks; implement its uniform definition of NBIS compliance and data-driven, risk-based metrics; work with AASHTO to update standards for element-level data; and provide support to states most in need of assistance with bridge management systems. Accordingly, we will continue our monitoring efforts of FHWA's actions until it demonstrates that it has fully implemented all our recommendations.

Thank you for your continuing efforts to improve safety oversight of the Nation's bridges. If you have any additional questions, please contact me at 202-366-1959 or Joseph Com e, Assistant Inspector General for Highway and Transit Audits, at 202-366-5630.

Sincerely,

A handwritten signature in black ink that reads "Calvin L. Scovel III". The signature is written in a cursive style with a prominent flourish at the end.

Calvin L. Scovel III
Inspector General