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Cost and Oversight Issues on Major Highway and Bridge Projects

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Mr. Chairman and Members of the Subcommittee:

We are here today at your request to discuss recent efforts by the U.S. Department of Transportation (DOT) and the Federal Highway Administration (FHWA) to better oversee and control the costs of major highway and bridge projects—80 percent of which are often paid by the federal government.[1] Given the needs to improve the nation's transportation infrastructure, it is important that major projects be managed effectively and cost efficiently. A growing demand for resources since September 11 only heightens the need to ensure their effective management.

Managing major highway and bridge projects involves many factors other than cost, including safety, quality, mobility, and environmental impact. Nevertheless, given their magnitude, cost increases on major projects often take center stage, especially in light of the growing competition for federal dollars. My testimony today (1) summarizes our past work and recent work by others on the cost and oversight of major highway and bridge projects, (2) presents the results of our current work on efforts by FHWA and DOT to improve the management and oversight of these projects, and (3) describes options identified in our past and current work to enhance federal oversight of these projects, should Congress determine that such action is needed and appropriate.

In summary:

- Over the past several years, we have identified problems with the costs and oversight of major highway and bridge projects. In 1997, we reported that the overall amount of and reasons for cost increases on highway and bridge projects could not be determined because data were not readily available from FHWA or the states. We also reported that efforts by Congress to obtain such information had met with limited success. We found, however, on many of the projects for which we could obtain information, that costs had increased, sometimes significantly, and that several factors accounted for the increases. For example, initial cost estimates were not reliable predictors of a project's total cost or financing needs because they were developed at the environmental review stage and

[1] There is currently no standard definition of what constitutes a "major" project. The definition has been applied to projects with a total cost of as little as $10 million and as much as $1 billion.

reliable cost estimates were not an objective at that stage. We further reported that cost containment was not an explicit statutory or regulatory goal of FHWA's oversight; therefore, the agency had done little to ensure that cost containment was an integral part of the states' project management. Our work identified several options for enhancing the oversight of major projects. Recent reports by DOT's Office of Inspector General, as well as reviews by state audit and evaluation agencies, have also shown that the escalating costs and management of major projects continue to be a problem.

- FHWA and DOT have undertaken several efforts since 1997 to improve the management and oversight of major highway and bridge projects. First, FHWA implemented a legislative requirement that projects expected to cost $1 billion or more have annual finance plans, including detailed cost estimates. So far, three projects have approved finance plans and FHWA has identified five additional projects that will soon require finance plans.[2] While indications are that the finance plan requirement has improved the oversight of some major projects, many multibillion-dollar corridor projects representing a substantial investment of federal funds will not be covered by the requirement because the projects will be constructed as a series of smaller projects that will cost less than $1 billion each. In addition, projects of importance for reasons other than cost—such as national or regional significance—may not be included. Second, in December 2000, a DOT task force made several recommendations to, among other things, improve the skills and qualifications of staff overseeing major projects and to conduct more rigorous financial reviews of such projects. The task force also recommended legislation to clarify FHWA's statutory authority and to resolve a potential ambiguity between the states' authority to oversee design and construction activities on certain projects and FHWA's responsibility to oversee multibillion dollar "megaprojects." DOT did not formally implement the task force's recommendations, according to officials, because of the turnover in key positions and need to reevaluate policy that came with the change in administrations in January 2001, and because of higher priorities brought on by the events of September 11, 2001. Third, on the basis of a report by an FHWA task force, FHWA announced a new policy in June 2001 to introduce greater risk-based oversight into its day-to-day activities. It did

[2]FHWA also requires finance plans for projects funded under the Transportation Infrastructure Finance and Innovation Act. Currently, two projects authorized under the act have approved finance plans, and FHWA has identified two additional projects that will require finance plans.

so, in part, because it believed that statutory changes in FHWA's oversight role since 1991 had resulted in internal confusion and wide variation in interpretations of that role. However FHWA has not yet incorporated the new policy into its performance goals or developed mechanisms to measure and report its results. As a result, FHWA could not say whether the internal confusion and variation in interpretations of the agency's oversight role identified by the task force had been resolved. While both DOT's and FHWA's task forces have identified needed improvements in FHWA's oversight of major projects, neither has addressed many of the concerns we have raised in the past. For example, recent congressional efforts to obtain information about cost growth on major projects have continued to meet with limited success because accurate and complete data to determine the extent of and reasons for cost growth on major highway and bridge projects are not available.

- Whether solutions to the problem of cost growth on major highway and bridge projects warrant greater federal oversight is ultimately a policy decision for Congress. Such a decision would require Congress to determine the appropriate federal role—balancing the states' desire for flexibility and more autonomy with the federal government's interest in ensuring that billions of federal dollars are spent efficiently and effectively. Should Congress decide to address cost growth and oversight of major highway and bridge projects, our past reviews have presented options, including measures to improve the quality of initial baseline estimates and to track progress over the life of projects. The DOT task force's recommendations also included ideas that could be explored. Finally, our current work has identified three additional options, should Congress decide that major highway and bridge projects would benefit from greater federal oversight. Each of these options entails costs and challenges that must be weighed against their potential benefits.

Background

FHWA provides funding to the states for roadway construction and improvement projects through various programs collectively known as the federal-aid highway program.[3] Most highway program funds are distributed to the states through annual apportionments according to

[3] Most of the funding for these programs is derived from highway user taxes such as excise taxes on motor fuels, tires, and the sale of trucks and trailers, and taxes on the use of heavy vehicles.

statutory formulas; once apportioned, these funds are generally available to each state for eligible projects. The responsibility for choosing projects to fund generally rests with state departments of transportation and local planning organizations. The states have considerable discretion in selecting specific highway projects and in determining how to allocate available federal funds among the various projects they have selected. For example, section 145 of title 23 of the United States Code describes the federal-aid highway program as a federally assisted state program and provides that the federal authorization of funds, as well as the availability of federal funds for expenditure, shall not infringe on the states' sovereign right to determine the projects to be federally financed.

While FHWA approves state transportation plans, environmental impact assessments, and the acquisition of property for highway projects, its role in approving the design and construction of projects varies. Relatively few projects are subject to "full" oversight in which FHWA prescribes design and construction standards, approves design plans and estimates, approves contract awards, inspects construction progress, and renders final acceptance on projects when they are completed. Under the Transportation Equity Act for the 21st Century (TEA-21), FHWA exercises full oversight of certain high-cost Interstate system projects.[4] On projects that are not located on the Interstate system but are part of the National Highway System,[5] the states may assume responsibility for overseeing the design and construction of projects unless the state or FHWA determines that this responsibility is not appropriate. For projects not located on the National Highway System, states are required to assume oversight responsibility for the design and construction of projects unless they determine that it is not appropriate for them to do so. TEA-21 requires FHWA and each state to enter into an agreement documenting the types of projects for which the state will assume these oversight responsibilities.

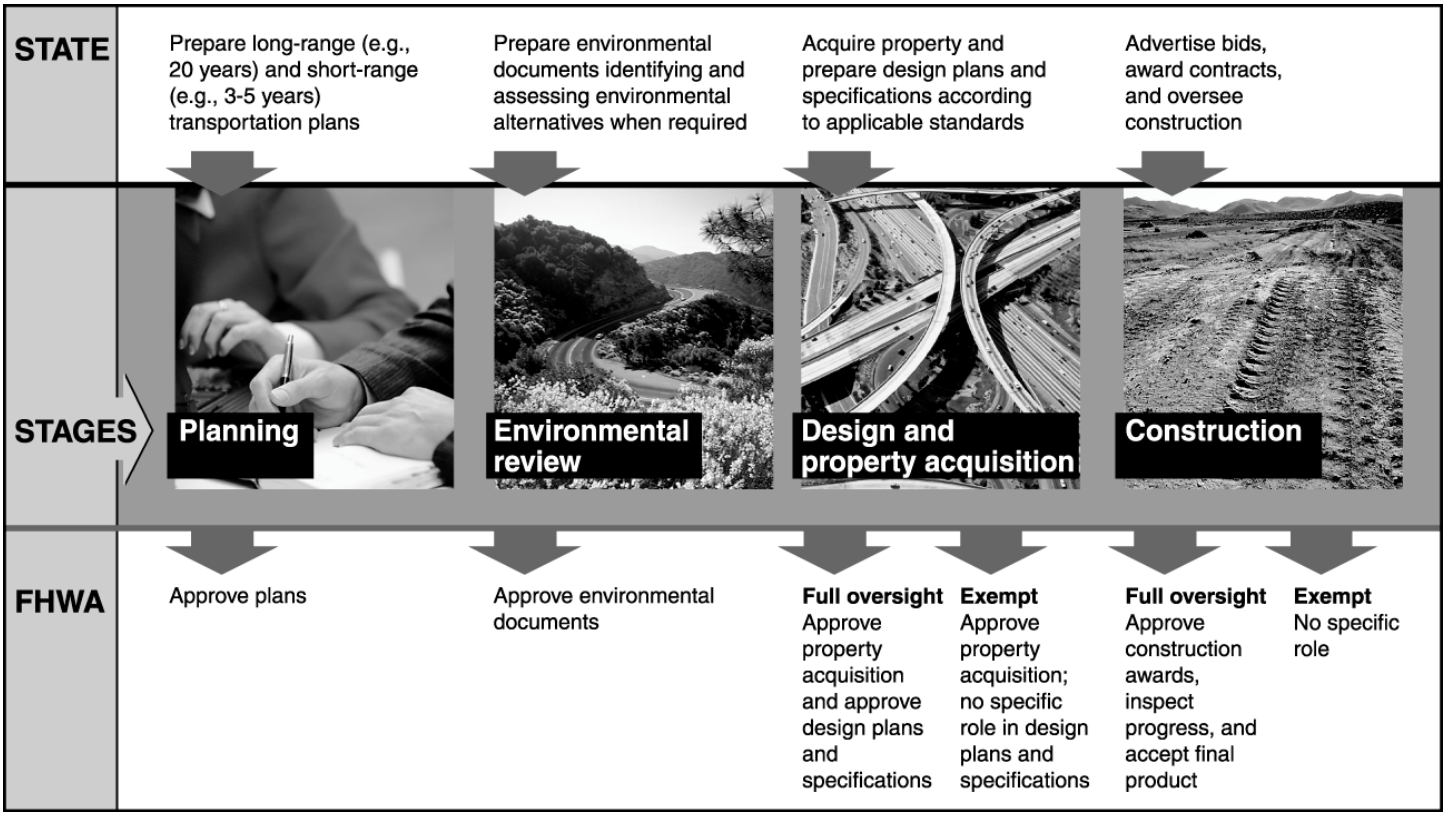
A major highway or bridge construction or repair project usually has four stages: (1) planning, (2) environmental review, (3) design and property

[4] For other types of Interstate system projects, states may assume responsibilities for projects to resurface, restore, and rehabilitate Interstate roadways, as well as for Interstate construction or reconstruction projects estimated to cost less than $1 million.

[5] Designated in 1995, the 160,000-mile National Highway system consists of the Interstate Highway System and other principal arterial routes that serve major population centers, international border crossings, national defense requirements, and interstate and interregional travel needs. Other highways and roads make up the remaining 4 million miles of roads in the United States.

acquisition, and (4) construction. The state's activities and the corresponding FHWA approval actions are shown in figure 1.

Figure 1: Stages of a Highway or Bridge Project



In TEA-21, Congress required states to submit annual finance plans to DOT for highway and bridge projects estimated to cost $1 billion or more. Congress further required each finance plan to be based on detailed estimates of the cost to complete the project, and on reasonable assumptions about future increases in such costs.

Problems Identified with the Costs and Oversight of Major Highway and Bridge Projects

Over the past several years, we have identified problems with the costs and oversight of major highway and bridge projects. For example, in our 1997 report on managing the costs of major highway and bridge projects,[6] we reported that overall information on the amount of and reasons for cost increases on major projects was not available because neither FHWA nor state highway departments tracked this information over the life of projects. In addition, congressional efforts to obtain information had met with limited success. In September 1994, the Chairman of the Subcommittee on Oversight of Government Management and the District of Columbia, Senate Committee on Governmental Affairs, asked FHWA to identify the 20 active highway projects, estimated to cost $100 million or more, that had experienced the highest percentage cost growth and to identify the amounts of and the reasons for this cost growth. Lacking consolidated data, FHWA field officials had to compile this information manually, and in April 1995, FHWA provided the subcommittee with information on 20 projects in 17 states whose estimated total cost ranged from $205 million to $2.6 billion and whose cost increases ranged from around 40 percent to around 400 percent. However FHWA's information on the reasons for cost growth was incomplete and generally unreliable. For example, FHWA was unable to identify reasons for cost growth on 2 of the 20 projects, and the reasons cited for cost growth on a third project included the caveat "wild guess only." On the projects that FHWA reported the reasons for cost growth, it did so in 74 different categories, which made a comparative analysis of projects in different states nearly impossible. In contrast to the federal-aid highway program, our 1997 report found that, for acquisitions of major capital assets, the Office of Management and Budget requires federal agencies to prepare baseline cost and schedule estimates and to track and report the acquisitions' cost performance. These requirements apply to programs managed by and acquisitions made by federal agencies, but they do not apply to the federal-aid highway program, a federally assisted state program.

While overall data on cost growth were not readily available, costs increased on many of the major highway projects that we examined for the 1997 report. For 30 ongoing projects initially estimated to cost over $100 million, the costs increased from the initial estimates on 23 and decreased or remained the same on 7. The cost increases ranged from 2 to 211 percent. In the six states we visited, we found that although many

[6] *Transportation Infrastructure: Managing the Costs of Large-Dollar Highway Projects* (GAO/RCED-97-47, Feb. 27, 1997).

factors can cause costs to increase, several factors worked together to increase costs on the projects we reviewed. Most cost increases occurred during the design phase, in part, because the initial cost estimates were not reliable predictors of the total costs or financing needs. Rather, these estimates were developed for the environmental review—whose purpose was to compare project alternatives, not to develop reliable cost estimates. In addition, each state used its own methods to develop its estimates, and the estimates included different types of costs, since FHWA had no standard requirements for preparing cost estimates. For example, one state we visited included the costs of designing a project in its estimates, while two other states did not. We also found that costs increased on projects in the states we visited because (1) the initial estimates were modified to reflect more detailed plans and specifications as projects were designed and (2) the projects' costs were affected by, among other things, inflation and changes in scope to accommodate economic development over time.

In addition, we found that FHWA's project approval process consisted of a series of incremental actions that occurred over the years required to plan, design, and build a project. For many major projects, constructed by the state as a series of smaller projects, FHWA approved the estimated cost in segments, when individual project segments were ready for construction, rather than agreeing to the total cost of the entire project at the outset. By the time FHWA approved the cost of a major project, a public investment decision might effectively have been made because substantial funds would already have been spent on designing the project and acquiring property, and many of the increases in the project's estimated costs would already have occurred.

Finally, we reported in 1997 that cost containment was not an explicit statutory or regulatory goal of FHWA's full oversight. On projects where FHWA exercised full oversight, it focused primarily on helping to ensure that the applicable safety and quality standards for the design and construction of highway projects were met. According to FHWA officials, controlling costs was not a goal of their oversight and FHWA had no mandate in law to encourage or require practices to contain the costs of major highway projects. While FHWA influenced the cost-effectiveness of projects when it reviewed and approved plans for their design and construction, we found it had done little to ensure that cost containment was an integral part of the states' project management.

DOT's Inspector General and State Audit and Evaluation Agencies Cite Continuing Problems

Recent reports by DOT's Office of Inspector General have cited continued problems with managing costs on major projects and highlighted the challenges for FHWA to effectively oversee them. Since 1997, the Inspector General has issued several reports on FHWA's oversight and stewardship of major projects, including the Central Artery/Tunnel and the Woodrow Wilson Bridge. Among other things, the Inspector General recommended improvements in the Central Artery/Tunnel project's cost management and insurance programs. In a January 2001 report on DOT's management challenges, the Inspector General concluded that FHWA had focused on engineering at the expense of transportation planning, project cost control, and assurance that funds were spent appropriately. In February 2002, the Inspector General reported signs of improvement in FHWA's stewardship over major projects, but found that FHWA needed to better institutionalize its oversight efforts and proactively strengthen its oversight and stewardship processes.

Recent reviews by state audit and evaluation agencies have also highlighted concerns about the cost and management of major highway and bridge programs. For example:

- In July 2000, Virginia's Joint Legislative Audit and Review Commission reviewed the Virginia Department of Transportation's 6-year transportation development plan because of concerns that road construction projects were facing large cost overruns or were encountering delays. The commission concluded that cost estimates prepared during the design phase were substantially below the final costs and that final construction costs for projects exceeded the amounts budgeted by substantial amounts. The commission estimated that the $9 billion 6-year plan might understate the cost of projects by $3.5 billion. The commission found that several factors appear to explain why project cost estimates are well below final project costs. These factors include not anticipating changes, expanding the scope of projects, not adjusting estimates for inflation, and not consistently including amounts for contingencies. The study also found that major design errors and the failure to detect significant field conditions contributed to construction costs that exceeded the amounts budgeted for construction.[7]

[7] Joint Legislature Audit and Review Commission of the Virginia General Assembly, *Review of Construction Costs and Time Schedules for Virginia Highway Projects*, House Document No. 31 (Richmond: Jan. 9, 2001).

- In February 2000, the Colorado state auditor's office concluded that the state department of transportation needed to enhance its project management and oversight capability. The state auditor reviewed the department's policies and practices relating to cash and project management and found that the department did not have a database for monitoring the design and preconstruction phase of projects, even though 70 percent of total project time was spent on preconstruction. In addition, the department did not have a system to provide comprehensive, timely, or accurate information on the status of construction projects and contracts.[8]

- In January 2002, the Connecticut auditors of public accounts reported that the state department of transportation's use of change orders substantially increased costs through major revisions in the scope of projects. The auditors also reported that some of these revisions should have been contemplated during the design phase. According to the report, more complete project planning would help to avoid the need for construction change orders. Furthermore, the auditors reported that the use of change orders requires negotiation after a contract has been awarded, thereby negating the advantage for the state that comes from the competitive bidding process and increasing costs.[9]

- In February 2000, the Texas state auditor's office found that increases in workload had strained the state department of transportation's ability to manage the design process and minimize cost overruns and delays. The auditor's office reported that while the amount of construction had increased by 93 percent since fiscal year 1996, staffing in the design area had increased by 15 percent. Thus, the report concluded that the state might not be able to maintain effective controls over a highway design function that appeared to be at capacity.[10]

[8] State of Colorado Office of the State Auditor, *Department of Transportation Cash and Project Management Performance Audit* (Denver: Feb. 2000).

[9] State of Connecticut Auditors of Public Accounts, *Auditor's Report Department of Transportation for the Fiscal Years Ended June 30, 1999 and 2000* (Hartford: Jan. 10, 2002).

[10] Texas State Auditor's Office, *An Audit Report on the Department of Transportation's Highway Design Function*, Report No. 00-014 (Austin: Feb. 2000).

FHWA and DOT Have Made Efforts to Improve Oversight but More Remains to Be Done

FHWA and DOT have undertaken several efforts to improve the management and oversight of major highway and bridge projects since our 1997 report. FHWA has implemented TEA-21's requirement for finance plans for highway and bridge projects estimated to cost $1 billion or more, and both DOT and FHWA have recently undertaken initiatives to improve the oversight of major projects. While DOT and FHWA have made progress in addressing FHWA's oversight of major projects, not all large highway projects will have finance plans, and more remains to be done to implement DOT's and FHWA's recent initiatives.

FHWA Has Implemented TEA-21's Finance Plan Requirement

FHWA implemented TEA-21's requirement that states develop annual finance plans for any highway or bridge project estimated to cost $1 billion or more. Specifically, FHWA developed guidance that requires state finance plans to include a total cost estimate for the project, adjusted for inflation and annually updated; estimates about future cost increases; a schedule for completing the project; a description of construction financing sources and revenues; a cash flow analysis; and a discussion of other factors, such as how the project will affect the rest of the state's highway program. As of April 2002, three federal-aid highway projects over $1 billion had approved finance plans—the Central Artery/Tunnel in Massachusetts, the I-25/I-225 Southeast Corridor in Colorado, and the I-95 Woodrow Wilson Bridge project between Virginia and Maryland. FHWA has identified five other $1 billion projects that will soon require finance plans. In addition, FHWA also requires projects funded through the Transportation Infrastructure Finance and Innovation Act to have finance plans.[11]

There are indications that the finance plan requirement has produced results. For example, in Massachusetts, projections of funding shortfalls identified in developing the Central Artery/Tunnel project's finance plan helped motivate state officials to identify new sources of state financing and implement measures to ensure that funding was adequate to meet expenses for the project. In addition, DOT's Office of Inspector General has found that state managers have been fully informing the public of

[11] The Transportation Infrastructure Finance and Innovation Act program was authorized under TEA-21 to provide federal credit assistance, including direct loans, loan guarantees, and lines of credit, to major transportation projects of national or regional significance. This assistance is limited to 33 percent of a project's total estimated cost. Currently, two projects authorized under the act have approved finance plans, and FHWA has identified two additional projects that will require finance plans.

projected increases in project costs during the past 2 years. The Inspector General also recently concluded that the cost estimates on the project were generally reasonable and that financing sources were adequate to complete the project.

While FHWA has implemented TEA-21's finance plan requirement, some major corridor projects will not be covered by the requirement because they will be constructed as a series of smaller projects that will cost less than $1 billion each. FHWA has identified 43 planned projects that will have total costs that meet or exceed the $1 billion threshold. While 21 of these projects will require finance plans some time in the future, the remaining 22 are corridor projects that will be built in "usable segments"—separate projects costing less than $1 billion each—and therefore will not require finance plans. According to FHWA officials, states plan these long-term projects in segments because it is very difficult for them to financially plan for projects extending many years into the future. Nevertheless, these major projects represent a large investment in highway infrastructure. For example, planned corridor projects that will not require finance plans total almost $5 billion in Arkansas, about $12.3 billion in Texas, about $5.3 billion in Virginia, and about $4.2 billion in West Virginia. In addition, the $1 billion threshold does not consider the impact of a major highway and bridge project on a state's highway program. For some states, even a project that costs less than $1 billion accounts for a larger percentage of the state's federal funding than a project that costs over $1 billion in another state. In Vermont, for instance, a $300 million project would represent a larger portion of the state's federal highway program funding than a $1 billion dollar project would in California.

Finally, the $1 billion threshold may not include projects that are important for reasons other than cost, such as projects that have national or regional significance and projects important to, or needed to meet border security or national defense needs. For example, a project to rebuild the Springfield interchange on Interstate 95 in Virginia—one of the busiest interchanges on the Interstate Highway System that helps carry major passenger vehicle and freight traffic along the East Coast—has not been required to have a finance plan. However, its cost estimate has grown from $395 million in 1997 to $685 million in 2002, and FHWA has listed it among the major projects it is closely monitoring.

DOT and FHWA Have Developed Oversight Initiatives

DOT and FHWA have undertaken several additional efforts to improve the management and oversight of major highway and bridge projects. First, in December 2000, DOT issued a task force report concluding that a significant effort was needed to improve the oversight of transportation megaprojects — including highway and bridge projects that would cost at least $1 billion, involve a high level of public or congressional interest, or significantly affect a state's overall transportation program. The task force made 24 departmentwide recommendations, including recommendations to improve DOT's internal processes by establishing an executive council to oversee major projects, instituting regular reporting requirements, and incorporating goals and outcomes for DOT's oversight efforts into the performance plans required by the Government Performance and Results Act of 1993 (GPRA) for the department, as well as into the plans of FHWA and DOT's other operating administrations. The task force made several human-capital-related recommendations, including establishing a professional cadre of megaproject managers with required core competencies, training, and credentials. It also proposed a set of recommendations to be applied to recipients of DOT funds, including requiring project management plans, instituting project management oversight reviews, and designating "at-risk" projects.

According to the DOT task force report, implementation of 7 of its 24 recommendations would require legislation. The task force recommended that DOT consider these in its proposals for the surface transportation program's reauthorization and other legislation. For example, the task force recommended legislation to clarify FHWA's authority to oversee all proposed megaprojects. While the task force believed that FHWA had adequate authority to ensure the proper expenditure of federal funds on federal-aid highway projects, it noted that states assume responsibility for the design and construction of any projects that are not part of the National Highway System (unless they conclude it would be inappropriate to do so). Hence, the task force noted, FHWA could be precluded from exercising full oversight of some planned multibillion-dollar projects that will not be constructed on the National Highway System. In addition, the task force recommended establishing a separate funding category for preliminary engineering and design—those activities that generally accomplish the first 20 to 35 percent of a project's design. The task force concluded that a separate funding category would allow a new decision point to be established. Initial design work could proceed far enough so that a higher-quality, more reliable cost estimate would be available for decisionmakers to consider before deciding whether to complete the design and construction of a major project—and before a substantial federal investment had already been made. The task force also

recommended legislation to expand the use of negotiated procurements and to fund independent project management oversight reviews and professional training and credentials for project managers.

According to officials from FHWA and DOT's Office of the Secretary, the DOT task force's recommendations were not formally implemented because of the turnover in key positions and the need to reevaluate policy that came with the change in administrations in January 2001 and because of higher priorities brought on by the events of September 11, 2001. FHWA officials told us, however, that they believe some actions the agency has taken—such as establishing an oversight team for major projects, designating an oversight manager for each project, and publishing a quarterly newsletter on major project oversight—are responsive to the task force's recommendations.

In addition to the DOT task force's effort, in March 2001, FHWA issued a report of its own stewardship and oversight task force. The FHWA task force concluded that changes in the agency's oversight role mandated by the two highway program authorizations enacted since 1991 had resulted in internal confusion and wide variation in interpretations by FHWA personnel of the agency's roles in overseeing projects. For example, the task force found that because many projects were classified as exempt from FHWA's oversight, inconsistencies in oversight had resulted. According to FHWA officials, some of its field offices were taking a "hands off" approach to these projects. The task force recommended that FHWA revise its policy on stewardship and oversight to recognize that, while states have assumed responsibility for approving the design and construction of many projects, FHWA is ultimately accountable for the efficient and effective management of federal funds and for ensuring that the federal highway program is delivered in a manner consistent with applicable laws, regulations, and policies. The task force also recommended incorporating its new policy into the performance goals in its GPRA-required performance plan to provide a direct link between FHWA's oversight activities and business goals. Finally, the task force recommended using the performance plan to monitor progress.

In response to its task force's recommendations, FHWA directed its field offices in June 2001 to conduct risk assessments within their states to identify areas of weakness, set priorities for improvement, and work with the states to meet those priorities. FHWA further instructed its division offices to revise and update the program oversight agreements that TEA-21 requires FHWA to maintain with each state to reflect these initiatives. While this new policy has the potential to improve its oversight of major

projects, FHWA did not set goals or timetables for completing these actions and has not yet established procedures to measure and report on its results. For example, in April 2002, FHWA officials did not know whether the risk assessments it directed its field offices to conduct had been carried out, what the results were, how many agreements with the states had been revised, or what those revisions entailed. As a result, FHWA officials said they could not report whether the problems of internal confusion and wide variation in interpretations of the agency's roles in overseeing projects reported by its task force in 2001 had been resolved. In addition, our review of a draft of FHWA's soon-to-be-released FY 2003 performance plan indicates that FHWA had not yet developed performance goals or measurable outcomes linking its oversight activities to its business goals nor had it developed the monitoring plan its task force had recommended.

Finally, neither DOT's nor FHWA's recent initiatives address many of the concerns we have raised in the past. For example, accurate and complete data to determine the extent of and reasons for cost growth on major highway and bridge projects are not available today, and more recent congressional efforts to gather complete and accurate information about the extent of and the reasons for cost growth have met with limited success. In 2000, the Chairman of the Subcommittee on Transportation, House Committee on Appropriations, asked FHWA to provide information on how many major federal-aid highway projects had experienced large cost overruns. Because FHWA did not routinely record this information, officials reviewed records for over 1,500 projects authorized over a 4-year period. For the purposes of this study, FHWA identified major projects as those that were expected to cost $10 million or more to construct and had experienced cost increases of 25 percent or more. FHWA identified 80 such major projects, 12 of which were part of the Central Artery/Tunnel project in Massachusetts. However, FHWA measured only the increase in costs that occurred after the projects had been fully designed. Thus, cost increases that occurred during the design of the project—where we have reported much of a project's cost growth occurs—were not reflected in FHWA's data. In addition, in 2001, the American Association of State Highway and Transportation Officials asked the states to submit data on cost increases on around 400 major projects completed over an 18-month period. However these data also measured only the increases in costs that occurred after the projects had been fully designed.

Options to Enhance Federal Oversight of Major Projects

Ultimately, it is up to Congress to decide whether efforts to control cost increases on major highway and bridge projects warrant greater federal oversight. Such a decision would require a determination of the appropriate federal role—given both the states' desire for flexibility and more autonomy and the federal government's interest in ensuring that billions of federal dollars are spent efficiently and effectively. In 1998, as Congress faced reauthorization of the federal-aid highway program, we presented options for enhancing FHWA's role in overseeing the costs of major highway and bridge projects. Should Congress, in reauthorizing TEA-21, decide to enhance FHWA's role, these options would still be available. They include the following:

- Have states prepare total cost estimates early in the life of major projects to serve as a baseline for measuring cost performance over time. Having early, more reliable cost estimates could assist policymakers in understanding the extent of the proposed federal, state, and local investment in these projects and assist program managers in reliably estimating the total financing requirements.

- Have states track the progress of projects against their initial baseline cost estimates. Expanding the federal government's practice for its own agencies to the federally assisted highway program could enhance accountability and potentially improve the management of major projects by providing managers with real-time information for the early identification of problems and for making decisions about project changes that could affect costs. Tracking progress would also help identify common problems and provide a better basis for estimating costs in the future.

- Establish performance goals for containing costs and implementing strategies for doing so as projects move through their design and construction phases. Requiring or encouraging the use of goals and strategies could improve accountability and make cost containment an integral part of how states manage projects over time.

- Establish a process for the federal approval of major projects. Clearly, this is the most far-reaching option; however, requiring federal approval of major projects at the outset—including the approval of cost estimates and finance plans—could provide greater certainty in state planning and could help ensure successful financing by providing additional assurances to those financial markets where less traditional forms of financing are involved.

The DOT task force's report of December 2000 provides additional specific options worthy of consideration, should Congress favor greater federal oversight. For example, the task force's recommendation on establishing a separate funding category to accomplish initial design work on projects is responsive to issues we have raised in the past and has the potential to improve the reliability of initial baseline estimates and the cost performance of major projects over time.

Finally, should Congress decide that major highway and bridge projects warrant greater federal oversight, our current work has identified three additional options. First, while Congress has expressed concern about cost growth on major projects, it has had little success obtaining timely, complete, and accurate information about the extent of and the reasons for this cost growth on projects. One option to address this would be to have FHWA develop and maintain information on the cost performance of particular major highway and bridge projects, including changes in estimated costs over time and the reasons for such changes. Such an undertaking would be difficult and possibly costly, but it could help define the scope of the problem and provide insights needed to fashion appropriate solutions. Second, while Congress has decided that enhanced federal oversight of the costs and funding of projects estimated to cost over $1 billion is important, projects of importance for reasons other than cost may not, as discussed earlier, receive such oversight. Thus, another option would be to incorporate other projects into FHWA's structure for overseeing the costs and financing of major projects. Should Congress believe such an action would be beneficial, additional criteria for redefining major projects would be needed. The benefits of additional review over more projects would, however, have to be weighed against the effect it would have on FHWA's finite resources. Finally, FHWA's oversight role has changed since 1991; today, FHWA conducts less day-to-day oversight of most highway projects, while exercising greater oversight of certain larger projects. These changes have created uncertainty within FHWA about its role and authority in overseeing projects, as noted by both DOT's and FHWA's task forces. Our past work has also shown that FHWA viewed its role in controlling costs on projects as limited because it did not believe it had a statutory or regulatory mandate to ensure that cost containment was a part of the states' project management practices. Should FHWA and DOT continue to experience uncertainty regarding FHWA's role and authority, another option would be to clarify FHWA's role in reviewing the costs and management of major projects and resolve any uncertainties that have been identified.

Mr. Chairman that concludes my prepared statement. I will be happy to answer any questions you or the other members of the subcommittee have.

Scope and Methodology

To perform our work, we reviewed prior GAO reports and testimonies on major highway and bridge projects, reviewed applicable laws and regulations, analyzed reports of the DOT and FHWA task forces and of state audit and evaluation agencies, interviewed federal and state transportation officials, and visited one state department of transportation. We conducted our work from November 2001 through April 2002 in accordance with generally accepted government auditing standards.

Contacts and Acknowledgments

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