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Report to Congressional Requesters

December 2008

FEDERAL-AID HIGHWAYS

Federal Requirements for Highways May Influence Funding Decisions and Create Challenges, but Benefits and Costs Are Not Tracked

GAO-09-36

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Highlights

Highlights of GAO-09-36, a report to congressional requesters

Why GAO Did This Study

As highway congestion continues to be a problem in many areas, states are looking to construct or expand highway projects. When a state department of transportation (DOT) receives federal funding for highway projects from the Federal Highway Administration (FHWA), the projects must comply with the National Environmental Policy Act (NEPA), the Davis-Bacon prevailing wage requirement, the Disadvantaged Business Enterprise (DBE) program, and the Buy America program. While complying with these requirements, states must use limited transportation dollars efficiently. As requested, GAO addressed (1) the types of benefits and costs associated with these requirements for federal-aid highway projects; (2) the influence of these federal requirements on states' decisions to use nonfederal or federal funds for highway projects; and (3) the challenges associated with the federal requirements and strategies used or proposed to address the challenges. To complete this work, GAO reviewed 30 studies, surveyed DOTs in all states and the District of Columbia, and interviewed transportation officials and other stakeholders.

What GAO Recommends

The Department of Transportation should re-evaluate the Buy America threshold and the DBE personal net worth ceiling, and modify them, if necessary. The Department of Transportation provided technical comments on the report, but took no position on the recommendation.

To view the full product, including the scope and methodology, click on GAO-09-36. For more information, contact David J. Wise at (202) 512-2834 or wised@gao.gov.

What GAO Found

Several of the studies GAO reviewed describe the benefits of environmental requirements for highway projects, such as better protection for wetlands, but none attempted to quantify these benefits. Some studies quantified certain types of environmental costs, such as costs for administering NEPA. In general, however, quantitative information on environmental benefits and costs is limited because states do not generally track such information. Several studies attempted to quantify the benefits and costs of the Davis-Bacon prevailing wage requirement; however, these studies did not focus on transportation projects specifically. Furthermore, while the studies reviewed did not identify the benefits of the DBE program, transportation officials identified some benefits of the program, such as providing greater opportunities for DBE firms. One study we reviewed identified the benefits of the Buy America program, including protecting against unfair competition from foreign firms. The studies reviewed also identified, and in some cases quantified, the costs of the DBE and Buy America programs, including administrative costs and the use of higher priced iron and steel in projects.

Of the 51 state DOTs GAO surveyed, 39 reported that, in the past 10 years, federal requirements had influenced their decision to use nonfederal funds for highway projects that were eligible for federal aid. Thirty-three of these state DOTs reported that NEPA factored into their decision to use nonfederal funds, while the other three requirements GAO reviewed were a factor only in a few states. State officials said that they use nonfederal funds for certain projects to avoid project delays or costs associated with the federal requirements or because of other factors, such as requirements imposed by a state legislature. A state's funding decision may depend on whether the state has requirements similar to these federal requirements. The decision may also take into consideration the availability of nonfederal and federal funds. For example, officials from one state said that they have limited nonfederal funds available, and as a result, like other states GAO interviewed, rely on the federal funds to finance their highway projects.

According to transportation officials and contractors, administrative tasks associated with the federal requirements pose challenges. For example, analyzing impacts and demonstrating compliance with NEPA requires extensive paperwork and documentation. State officials also said that coordinating with multiple government agencies on environmental reviews is challenging, in part because these agencies may have competing interests. Furthermore, according to state DOTs, some provisions of the federal requirements may be outdated. For example, the $2,500 regulatory cost threshold for compliance with the Buy America program for purchasing domestic steel and $750,000 regulatory personal net worth ceiling of the DBE program have not been updated since 1983 and 1999, respectively. All of these challenges may cause delays and increase project costs. Some government agencies have implemented strategies to address these challenges and these strategies have had varied success in decreasing project costs and delays.

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Abbreviations

AASHTO	American Association of State Highway and Transportation Officials
ACHP	Advisory Council on Historic Preservation
DBE	Disadvantaged Business Enterprise
DOL	Department of Labor
DOT	Department of Transportation
EA	environmental assessment
EDTS	Environmental Document Tracking System
EIS	environmental impact statement
Environment VFG	Vital Few Environmental Streamlining and Stewardship Goal
EPA	Environmental Protection Agency
ETDM	Efficient Transportation Decision Making
FHWA	Federal Highway Administration
ICC	Inter-County Connector
MPO	metropolitan planning organization
NCHRP	National Cooperative Highway Research Program
NEPA	National Environmental Policy Act
NPDES	National Pollutant Discharge Elimination System
SAFETEA-LU	Safe, Accountable, Flexible, Efficient, Transportation Equity Act: A Legacy for Users
SBA	Small Business Administration
SHPO	State Historic Preservation Office
SHRP2	Strategic Highway Research Program 2
USACE	U.S. Army Corps of Engineers

GAO
Accountability * Integrity * Reliability

United States Government Accountability Office
Washington, DC 20548

December 12, 2008

The Honorable Tom Davis
Ranking Member
Committee on Oversight and Government Reform
House of Representatives

The Honorable Bill Sali
House of Representatives

The nation's highways are critical not only to mobility—the free flow of passengers and goods through the transportation system—but also to sustaining America's economic growth. The growth of the U.S. economy will depend, in part, on the soundness and adequacy of the nation's transportation system. As demand for and congestion of our highways is increasing, states and localities are proposing highway construction or expansion projects, yet transportation dollars are limited. Federal, state, and local governments are facing financing challenges, and the future of the Highway Trust Fund—which supports highway construction and maintenance, highway safety, and transit—is uncertain. Consequently, using limited transportation dollars as efficiently as possible will be critical.

The United States has about 4 million miles of roads, including 47,000 miles of interstate highways. Most of the nation's roads and highways are not owned by the federal government but rather by state and local governments. Since Congress passed the Federal-Aid Road Act in 1916, the federal government has supported states' investment in highway construction, and in 1956, Congress established the Highway Trust Fund, which supports investment in highway construction via a grant-based cost reimbursement funding strategy. Under this strategy, the federal government reimburses states for a portion of their highway expenses after states incur the expenses. Generally, the federal share of expenses for a federal-aid highway project is 80 percent, while the state and local share is 20 percent. States rely on federal funding to construct, rehabilitate, and maintain their highway and road systems.

When a state accepts federal funding for a highway project, it is subject to several federal requirements. For example, states must ensure that

- projects go through an environmental review process, established under the National Environmental Policy Act (NEPA);

- highway contractors pay their employees at least the Davis-Bacon prevailing wage, in accordance with 23 U.S.C. § 113;

- minority- and women-owned firms are not discriminated against in the award and administration of highway projects via the Disadvantaged Business Enterprise (DBE) program (23 U.S.C. § 140; 23 C.F.R. part 230; 49 C.F.R. part 26); and

- highway contractors use American-made iron and steel to comply with the Buy America program, established under 23 U.S.C. § 313.[1]

These requirements are intended to protect the environment, enable highway workers to earn a prevailing wage, assist members of disadvantaged populations in overcoming the effects of discrimination, and help the American iron and steel industry compete in the global economy. Some of these requirements apply to transportation projects, while others apply generally to any type of construction project that uses federal funds. While recognizing the value of these requirements, some state highway officials and highway contractors are concerned that they may increase project costs by, among other reasons, delaying projects for environmental reviews or increasing the state's administrative responsibilities. In addition, the inflation that occurs during project delays reduces the purchasing power of federal funds allocated to the states. As a result, according to some state transportation officials, states have sometimes sought to use nonfederal funds for projects to avoid the costs or delays involved in complying with federal requirements.

You asked us to examine issues related to the benefits and costs of the various requirements that the federal government places on states that accept federal highway funding. Although many requirements apply to federally funded highway projects, our review focused on NEPA, the Davis-Bacon prevailing wage requirement, the DBE program, and the Buy America program. We selected these requirements on the basis of initial interviews with federal agency officials and industry experts and because these requirements are project-specific. This report discusses (1) the types of benefits and costs associated with these requirements for federal-aid highway projects; (2) the influence of these federal requirements on states' decisions to use nonfederal or federal funds for highway projects; and (3)

[1]The Buy America program referred to here is distinct from the Buy American program under the Buy American Act. The Buy America program requires that federally funded highway projects use iron and steel manufactured in the United States. The Buy American Act applies to federal contracting, including federal construction contracting.

the challenges associated with the federal requirements and strategies that federal, state, and local government agencies and contractors have used or proposed to address these challenges.

To address these issues, we gathered information from a literature review, a nationwide survey of state transportation department officials and structured interviews with some of these officials, case studies of selected states, and interviews with other industry stakeholders. Specifically, we reviewed 30 studies that address the benefits or costs of one or more of the federal requirements addressed in our review. For each of the studies we identify in this report, we reviewed its methodology, including the study's datasets, sample size, and data collection techniques, and concluded that the methodology is sufficiently reliable; however, we did not independently verify the results of these studies. We received survey responses from the departments of transportation (DOT) in all 50 states and the District of Columbia, which we refer to collectively in this report as state DOTs, and we conducted follow-up interviews with officials from 10 judgmentally selected state DOTs to obtain additional information on their survey responses. The survey used for this study is reproduced in appendix II. We selected the states for interviews on the basis of their responses to the survey, their funding levels, and geographic dispersion. We also selected five states (California, Florida, Idaho, Maryland, and Texas) as case studies based on recommendations from officials at industry associations, funding levels, and other factors.[2] We visited and conducted interviews with officials in California, Idaho, Maryland, and Texas, and conducted phone interviews with officials in Florida. At each state, we interviewed federal, state, and local government officials; highway contractors; and metropolitan planning organizations (MPO).[3] Finally, we interviewed officials from the headquarters offices of several federal agencies and industry groups. See appendix I for more information on our scope and methodology.

We conducted this performance audit from October 2007 through November 2008 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We

[2]No state was selected for both a case study and follow-up interview.

[3]Metropolitan planning organizations are responsible for developing long-range, regional transportation plans.

believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Results in Brief

According to the studies we identified, the types of benefits associated with the federal environmental, labor, and construction requirements for highway projects we reviewed include increased environmental protection, payment of prevailing wages for skilled workers, and increased protection for minority firms. These studies identified the types of costs associated with the federal requirements as inflation due to project delays, costs due to environmental mitigation, and administrative costs. However, quantitative estimates of their value are limited because many of these benefits and costs are not quantified or tracked. Specifically, several of the studies we identified describe benefits of the environmental requirements for highway projects, such as better protection for wetlands, but none attempted to quantify these benefits. Three studies we reviewed attempted to quantify some types of costs associated with the environmental review process, such as costs for administering NEPA. Quantitative information on environmental benefits and costs is limited because states have not generally tracked such information.[4] In addition, we found several studies that estimated the impact on administrative costs due to the Davis-Bacon prevailing wage requirement, but the studies did not focus on transportation projects specifically. Furthermore, while the studies we reviewed did not identify the benefits of the DBE program, transportation officials identified some benefits of the program, such as providing greater opportunities for minority- and women-owned firms on federally funded projects. Separately, one study identified the benefits of the Buy America program, including protecting against unfair competition from foreign firms. The studies we reviewed also identified, and in some cases quantified, the costs of the DBE and Buy America programs. For example, a 2001 GAO report that attempted to identify the costs of the DBE program surveyed states to determine the program's costs to each state in fiscal year 2000, and state responses for administrative costs ranged from $10,000 to $4.5 million.[5] However, state officials acknowledged that these figures were estimates and that they did not track other information such as contract costs. We also found studies that identified the types of costs of the Buy America program, including the use of higher priced iron and steel in projects and reduced bidding competition, but no studies that

[4]The Federal Highway Administration and some states, such as Oregon, are beginning to track this information.

[5]GAO, *Disadvantaged Business Enterprises: Critical Information Is Needed to Understand Program Impact*, GAO-01-586 (Washington, D.C.: June 1, 2001).

attempted to quantify the costs of the program. Although the studies we reviewed were, in some instances, sponsored or authored by organizations or individuals with a known point of view or interest that could have influenced the work, we concluded from our review of the studies' methodologies that the studies were sufficiently reliable for the purposes of our report. As noted, however, we did not independently verify the results of the studies.

Transportation officials from most states told us that the federal requirements we reviewed are among the factors that influence their decisions to use nonfederal or federal funds for highway projects. More specifically, 39 of the 51 state DOTs we surveyed reported that, in the past 10 years, federal requirements had influenced their decision to use nonfederal funds for highway projects that were eligible for federal aid. Thirty-three of these 39 state DOTs reported that the NEPA requirement factored into their decision to use nonfederal funds, while 5 or fewer of the same 39 state DOTs reported that the Davis-Bacon prevailing wage requirement, the DBE program, or the Buy America program factored into their decision to use nonfederal funds. State DOT officials we interviewed told us that they use nonfederal funds instead of federal funds for certain projects to avoid costs, including delays, associated with the federal requirements. State officials also told us other factors can contribute to their decisions to use nonfederal funds. For example, officials from one state told us that their legislature passed transportation revenue packages in 2003 and 2005 that required them to use state funding for selected projects. Nevertheless, even though states may use nonfederal funds for certain projects to potentially save time or costs, some states told us they prefer to use federal funds to avoid certain limitations associated with nonfederal funds or to obtain certain benefits associated with using federal funds. For example, one limitation associated with using nonfederal funds is that using these funds and not complying with federal requirements can preclude states from obtaining federal funds later. However, states may want to use federal funds for some projects because, according to some state officials, it can be more efficient for the state to have the Federal Highway Administration (FHWA) coordinate the many federal agencies responsible for the various environmental requirements, rather than have the state use nonfederal funds and coordinate directly with the federal agencies. In general, the type of funding a state chooses to use—nonfederal or federal—varies and depends on the circumstance in the state. For example, 16 states and the District of Columbia have environmental planning and review requirements similar to NEPA, 32 states and the District of Columbia have state prevailing wage laws similar to the Davis-Bacon prevailing wage requirement, and some states also have requirements similar to the DBE and Buy America programs. These

state requirements may eliminate some advantages in time or costs the states might otherwise gain by using nonfederal funds. In general, a state's decision to use nonfederal or federal funds is influenced by the relative availability of these funds. For example, officials from Hawaii DOT said that they have limited nonfederal funds available, and as a result, like other states we interviewed, rely on federal funds to finance their highway projects.

Federal, state, and local government agencies and contractors face several specific challenges associated with the federal requirements that can cause delays and increase project costs. However, many of these stakeholders have used or have proposed strategies to address these challenges. According to transportation officials we met with and interviewed, the challenges are related to administrative tasks and coordination with multiple government agencies, and to particular provisions of the federal requirements. For example, among the administrative challenges, state officials cited a resource-intensive process associated with NEPA requiring extensive paperwork and documentation. In addition, state and local transportation officials said that it is challenging to coordinate multiple government agencies on environmental review responsibilities because these government agencies have limited funding and staffing levels, responsibilities and priorities beyond transportation projects, and may have competing interests. Our previous work also identified similar challenges and some strategies that state governments are using to address these challenges, such as paying for staff at federal and state agencies to expedite environmental reviews.[6] According to state government officials and contractors we met with, particular provisions of the federal requirements appear to be outdated, narrowly defined, or unclearly defined, and these shortcomings make it difficult for them to implement the requirements and potentially increase project costs and delays. Specifically, officials from some state DOTs we visited pointed out that the $2,500 regulatory cost threshold for the Buy America requirement for purchasing domestic steel has remained unchanged since the program began in 1983, making more projects subject to Buy America requirements. Furthermore, some state officials we met with said that the $750,000 regulatory ceiling on a DBE contractor's personal net worth was outdated, making it difficult to find contractors who meet the program's criteria. Some federal and state agencies we spoke with have used strategies to address these challenges beyond simply

[6]GAO, *Highways and Environment: Transportation Agencies Are Acting to Involve Others in Planning and Environmental Decisions*, GAO-08-512R (Washington, D.C.: Apr. 25, 2008).

using nonfederal funds, and these strategies have had varying success in decreasing highway project costs and delays. FHWA's effort to measure the performance of environmental review processes for highway projects is one example of these strategies. More specifically, FHWA developed a performance measure to track the time it takes for projects to complete the environmental review process so that FHWA and the states can work to reduce project delays. FHWA has yet to meet its goals for this area.

In light of these findings, we are recommending that the Secretary of Transportation re-evaluate the $2,500 regulatory threshold for the Buy America program and the $750,000 regulatory personal net worth ceiling of the DBE program, and modify them, if necessary, through appropriate rulemaking. We provided a draft of this report to the U.S. Army Corps of Engineers (USACE), the Advisory Council on Historic Preservation (ACHP), the Department of Labor (DOL), U.S. DOT, and the Environmental Protection Agency (EPA) for their official review and comment. USACE, ACHP, U.S. DOT, and EPA provided technical comments, which we incorporated into the final report where appropriate. U.S. DOT took no position on our recommendation regarding the Buy America program threshold and DBE personal net worth ceiling. DOL officials notified us that they had no comments on this report.

Background

The Highway Trust Fund is a fund supported by taxes highway users pay on fuel, tires, truck purchases, and the use of heavy vehicles. The revenue from these taxes supports highway construction and maintenance, highway safety, and transit. FHWA administers the Federal-Aid Highway Program and apportions trust fund revenues to state highway departments or transportation authorities, which oversee the construction of the individual projects. Once FHWA notifies a state that a particular highway project has been approved, a state can submit receipts to FHWA after it has incurred expenses. FHWA approves reimbursements to the state for its expenses, usually for 80 percent of a project's costs; the state and local governments are responsible for the other 20 percent. Federal reimbursements from the Highway Trust Fund have risen from around $15 billion in 1990 to more than $35 billion in 2006, the last year for which data are available. The federal reimbursements that states receive vary by state; however, in general, in fiscal year 2006, the federal government provided about 35 percent of the money that states and local governments spent on highway projects. While the federal government provides most funding from the Highway Trust Fund directly to the states and the states oversee the use of these funds, by statute, states must provide some trust fund revenues to other organizations, such as MPOs, for planning purposes.

Federally funded highway projects are typically carried out in four phases: planning, preliminary design and environmental review, final design and right-of-way acquisition, and construction. In the planning phase, state and local highway planners look at transportation alternatives and work with the public to choose projects that make the most sense for their areas. According to FHWA, this phase can take up to 5 years for a major highway project. During the preliminary design and environmental review phase, states identify engineering issues, roadway alignment alternatives, transit options, project costs, and other details. In addition, the proposed project and any alternatives are examined for potential impacts on the environment, public health, and welfare. This process can take 1 to 5 years, according to FHWA, depending on the complexity of the design and possible environmental considerations that must be considered. During the final design and right-of-way acquisition phase, states develop detailed engineering plans consistent with the results of the environmental review phase and acquire the right-of-way needed to construct the project. This phase typically takes from 2 to 3 years for a major new highway construction project, according to FHWA. Finally, during the construction phase, the state evaluates bids from contractors and then oversees the selected contractor's construction of the project. The construction of a major project typically takes, according to FHWA, 2 to 6 years. See figure 1 for a more detailed description of the types of activities and stakeholders included in the phases of a highway project.

Figure 1: Typical Amount of Time Involved in Planning, Approving, and Building a Major New Highway Project

Project phase	Potential agencies involved	Typical steps	Time frame
Planning 	• Metropolitan planning organizations • State departments of transportation • Federal Highway Administration • Land management agencies (such as Bureau of Land Manangement and U.S. Forest Service)	• Assess transportation purpose and need • Solicit public comment • Gain approval to be included in the state's 20-year plan, with expectation that funds will be available • Gain approval to be included in the state's short-term plan (at least 3 years) for projects that are to be implemented, with expectation that funds will be available • Secure funding	Length of phase: 4–5 years
Preliminary design and environmental review 	• State departments of transportation • State environmental resource agencies • State historic preservation office • Advisory Council on Historic Preservation • Environmental Protection Agency • Federal Highway Administration • Land management agencies • U.S. Army Corps of Engineers • U.S. Coast Guard • U.S. Fish and Wildlife Service	• Consider alignment issues and required lanes • Identify alternatives, including not building the project, to minimize potential harm to the environment and historic sites • Select preferred alternative • Identify project cost, level of service, and construction location • Prepare a preliminary design of the highway • Solicit comments on the project and its potential effects from the public and from local governments • Gain concurrence from federal agencies from which environmental and historic preservation is required	Length of phase: 1–5 years
Final design and right-of-way acquisition 	• State departments of transportation • State environmental resource agencies • Environmental Protection Agency • Federal Highway Administration • Land management agencies • U.S. Army Corps of Engineers	• Finalize design plans • Appraise and acquire property • Relocate utilities and affected citizens before construction, if necessary • Finalize project cost estimates	Length of phase: 2–3 years
Construction 	• State departments of transportation • State environmental resource agencies • Federal Highway Administration • Land management agencies	• Advertise and evaluate bids; award contracts • Begin construction • Resolve unexpected problems • Accept delivery	Length of phase: 2–6 years **9–19 total years from planning to completion**

Sources: FHWA (data); and Art Explosion (photographs).

Note: The duration of the phases is approximate. The preliminary design and environmental review steps and the final design and right-of-way acquisition steps often overlap.

The federal, state, and local governments all have a role in the construction of federally financed highway projects. However, the state DOT is the focal point for these activities. It is responsible for setting a state's transportation goals and for planning safe and efficient transportation between cities and towns in the state. The state DOT also

designs most projects, acquires right-of-way for highway construction, and awards contracts to build projects. Local governments also carry out many transportation planning functions, such as scheduling improvements and maintenance for local streets and roads. At the federal level, FHWA is the primary agency involved in transportation project decision making and oversight. FHWA oversees the transportation planning and project activities of state DOTs by approving state transportation plans and certifying that states have met all legal requirements associated with accepting federal funding.

According to FHWA, over 70 requirements may apply to states that accept federal funding for highway projects. Some of these requirements are transportation specific, such as requirements under the DBE program and the Buy America program, while others, such as NEPA, are general requirements that can apply to other construction projects, such as federal building construction. FHWA officials stated that they identify all requirements that states must meet in the documentation FHWA provides to states when funding for a project is approved. States in turn communicate these requirements to potential bidders, so the contractors know, for example, what wages they must pay or whether they must buy American-made iron and steel.

The requirements for analyzing the environmental impact of federally funded highway projects originated in NEPA, enacted in 1969. This legislation requires agencies to consider and, if possible, avoid or mitigate potential environmental degradation from federally funded infrastructure projects before these projects moved forward. FHWA ensures that federally funded projects go through an environmental review process, as prescribed in NEPA and its implementing regulations. FHWA officials stated that under FHWA's NEPA implementation process, the lead agency must demonstrate that it will implement the project consistently with several environmental laws. Laws under FHWA's NEPA "umbrella" include, but are not limited to

- the Clean Water Act, protecting water quality and ensuring protection of wetlands;
- the Clean Air Act, protecting air quality;
- the Endangered Species Act, protecting threatened and endangered species and their habitats;

- Section 138, Title 23 of the U.S. Code, preventing the use of parkland or recreational areas in the development of highway projects, except where no feasible and prudent alternative exists; and

- the National Historic Preservation Act of 1966, identifying historic properties that may be damaged by the construction of infrastructure projects, and determining ways to avoid, minimize, or mitigate such damage.

If no federal funds are used on a project or if a project does not require federal approval, NEPA is generally inapplicable; however, these projects still must comply with all applicable federal environmental laws, which can include the Clean Water and Clean Air Acts.

While FHWA is generally the lead agency in ensuring that states comply with NEPA on federally financed highway projects, other federal agencies have responsibilities under these laws. These agencies include

- EPA (air and water quality, wetlands preservation);

- the Fish and Wildlife Service (terrestrial threatened and endangered species) within the Department of the Interior;

- the National Marine Fisheries Service (marine threatened and endangered species, effects on fish and spawning grounds) within the Department of Commerce;

- USACE (effects on U.S. waters, including wetlands); and

- ACHP (effects on historic properties).

According to FHWA, under the NEPA process, FHWA decides how extensive an environmental review a federally funded highway project will undergo. This decision is based on the size and complexity of the project, as well as the project's expected environmental impact. For example, FHWA may deem a project that is expected to have no significant environmental impact to be categorically excluded, meaning that the project will not need an environmental assessment (EA) or an environmental impact statement (EIS) to comply with NEPA. A project whose environmental impact is unknown or may be potentially significant will undergo an EA to determine if the impact could be significant and thus require an EIS. A project that is expected to have a significant environmental impact will require an EIS, which will determine the

particular environmental impacts of the project and include plans for mitigating these impacts. States usually have only a few EISs under way at any one time, since they are performed generally for the largest highway projects, which pose significant impacts to the environment. For projects undergoing an EIS, FHWA issues a Record of Decision when the process is complete. The Record of Decision indicates whether a project complies with environmental laws and determines changes to the project for environmental mitigation, such as the creation of additional wetlands to mitigate the loss of wetlands or a change in route to avoid environmental impacts. EPA is responsible for reviewing and commenting on all major federal actions for which an EIS is required and for working with FHWA to ensure compliance with environmental statutes. FHWA has the final approval authority and determines when the EIS is in compliance with applicable environmental laws and other requirements.

Outside the environmental arena, states must meet requirements for paying a prevailing wage for construction work when accepting federal highway funding. The Davis-Bacon prevailing wage requirement mandates that workers on all federal-aid highway projects receive at least the local prevailing wage for their work. The law stems from a Depression-era practice of transporting workers from a lower-paying area to bypass local workers who would demand a higher wage. The Davis-Bacon prevailing wage requirement prevented this practice by ensuring that workers on federal projects are paid at least the local prevailing local wage. DOL sets the minimum wage that must be paid in each county in the United States for various job categories, such as sheet metal worker or concrete finisher. DOL sets these minimum wage rates based on periodic surveys it conducts of employers in each county. To show they have paid the prevailing wage to their employees, highway contractors must provide their payroll data to the state DOT and certify that they have complied with the Davis-Bacon prevailing wage requirement. All subcontractors must provide this documentation to the lead contractor on a project, known as the prime contractor, who in turn provides it to the state DOT. The state then reviews the documentation to ensure compliance; if the state discovers noncompliance, the contractor must pay the employees supplemental wages to cover the difference between what was paid and the original agreed-to prevailing wage. If the contractor still does not comply with wage requirements, the state DOT may use contractual remedies, such as withholding progress payments, to ensure compliance. FHWA occasionally spot-checks the documentation to further ensure compliance with the Davis-Bacon prevailing wage requirement.

The DBE program requires that states attempt to expend a portion of the funds they receive from U.S. DOT for highways, transit, and other

transportation-related contracts to firms owned by members of disadvantaged populations. The intent of this program is to remove barriers to participation in federal contracting and ensure nondiscrimination in awarding federal contracts. Legislation, executive action, and judicial decisions have resulted in modifications to the initial program. U.S. DOT presumes disadvantaged population groups to include African-Americans, Hispanics, Asians, Native Americans, and other minorities found to be disadvantaged by the Small Business Administration.[7] To be eligible to participate in the DBE program, firms must be at least 51 percent owned by a member or members of these groups. Where there is a contract goal on a particular contract (not all U.S. DOT-funded contracts must have contract goals), the state tells the prime contractor to subcontract a set percentage of the project's work to a DBE subcontractor or, if unsuccessful, to demonstrate that a "good faith effort" was made to find a DBE subcontractor.[8]

Each state has a process for certifying firms that wish to participate in the DBE program. States use several criteria, established by U.S. DOT, to determine whether a firm can participate in the DBE program, including verifying that the owner of the DBE firm has a personal net worth under $750,000. Under the DBE rules, a DBE firm's participation counts toward a goal only if the firm performs a "commercially useful function" to ensure that the firms are not hired simply to meet the program's goals. FHWA works with states to ensure that they meet the program's goals on highway projects and also periodically audits individual state programs to ensure that the programs are operating within the law. Other U.S. DOT entities, such as the Federal Transit Administration, ensure that the DBE program's goals are met in other transportation areas. The U.S. DOT Inspector General investigates cases of possible fraud, such as where firms misrepresent themselves as minority-owned.

Finally, FHWA's Buy America program establishes requirements related to purchasing materials. Specifically, the Buy America program requires that federally funded highway projects use steel manufactured in the United States. FHWA officials said the goal of the program is to protect the U.S. steel industry from foreign competition.[9] FHWA has the statutory authority

[7]Persons who are not members of one of the above groups and own and control their business may also be eligible if they establish their "social" and "economic" disadvantage.

[8]Prime contractors can also be DBE firms, though various state officials stated that the majority of firms participating in the DBE program are subcontractors.

[9]According to FHWA and steel industry officials, the highway projects that involve the most iron and steel are generally bridge projects.

to grant waivers to states when domestic iron or steel is unavailable or when there is another compelling public interest to use imported iron or steel, and FHWA has, through regulation, established a program threshold limiting the program to projects costing over $2,500. In addition, under an alternative bid procedure, states may use foreign iron and steel if the lowest total project bid using domestic materials exceeds the lowest total bid using foreign materials by 25 percent. Contractors working on federally funded highway projects must provide documentation and a certification regarding the country in which the iron and steel originated. All manufacturing of the iron and steel must take place in the United States. If any part of the manufacturing occurs outside the United States, the iron or steel is considered foreign. State DOTs spot-check iron and steel, and the appropriate certifications, to ensure compliance. FHWA must approve the procedures that states use to verify compliance and can also perform spot checks. If a state DOT or FHWA finds that foreign iron or steel was used in a highway project, the contractor must remove the offending iron or steel. This can delay the project and add costs, although in these cases, the contractor is responsible for the additional costs to correct the mistake.

Several Types of Benefits and Costs Are Associated with Federal Requirements for Highway Projects, but Quantitative Estimates Are Limited

Many of the 30 studies we reviewed concluded that there are different types of benefits and costs linked to federal requirements for highway projects. However, only a few of these studies attempted to quantify these benefits or costs. For federal environmental requirements, the most visible and measurable benefits are fewer adverse impacts to the environment. The benefits also include improvements in air and water quality and preserving wetlands, among other things. While providing benefits, federal environmental requirements can also increase projects' overall costs. Studies have quantified some of these costs, such as those for administering NEPA, but have not quantified other types of costs, such as those that occur when projects are delayed for environmental reviews. In general, quantitative information on environmental benefits and costs is limited because states have not tracked such information; however, some states are beginning to do so. The information on the benefits and costs of the Davis-Bacon prevailing wage requirement identifies benefits due to creating a level playing field for contractors and ensuring a prevailing wage for skilled workers and costs due to administering the requirement. However, the literature we reviewed is not exclusive to transportation or highway projects. Finally, although none of the studies we reviewed identified benefits of the DBE program, transportation officials identified some benefits of the program, such as providing greater opportunities for minority- and women-owned firms on federally funded projects. The studies we reviewed did identify benefits of the Buy America program,

including protecting against unfair competition from foreign firms and costs of the DBE and Buy America programs, such as increased administrative costs to states and U.S. DOT due to participation in the DBE program and potentially higher iron and steel costs. However, none of the studies we reviewed separately estimated the costs of the Buy America program's requirements. Despite the potential for bias in studies with economic and political implications, such as those we reviewed, we concluded from our review of the studies' methodologies that the studies were sufficiently reliable for the purposes of our report. As noted, however, we did not independently verify the results of the studies.

Studies Found Benefits and Costs Associated with the Federal Environmental Requirements, but Quantitative Estimates Are Limited

Several of the studies we identified described the benefits and costs of federal environmental requirements for highway projects. However, the studies generally did not attempt to quantify the benefits and only quantified some types of costs, such as mitigation costs and costs for administering NEPA. An FHWA benefit-cost study is one of the few we found that attempted to describe the costs and benefits of environmental requirements. For example, it noted that federal environmental requirements, including those associated with NEPA, have benefits that can reduce adverse effects on the human and natural environment.[10] These benefits can include measured improvements in air and water quality and noise pollution levels; the preservation of water supplies and of historic, cultural, park, and natural resources; and increased protection of wetlands. However, the FHWA benefit-cost study indicated that assessing these benefits in economic terms and measuring them in dollars is difficult because the valuation of environmental benefits is highly subjective. The study also indicated that government agencies are not required to track and quantify these benefits and, therefore, generally do not attempt to do so.

Other studies we reviewed also found that, while federal environmental requirements produce benefits, these requirements also can cause states to incur costs.[11] In their NEPA documents, state DOTs must include plans for complying with environmental laws, as well as consider mitigating any environmental damage. According to a study FHWA commissioned in 2006, these mitigation efforts—for example, replacing wetlands, building

[10]Battelle, *The Costs of Complying with Federal-aid Highway Regulations*, a study prepared at the request of FHWA, Washington, D.C., August 2008.

[11]A project may incur costs related to compliance with environmental laws at all phases through its lifespan, including planning, environmental review, design, and construction.

sound walls to insulate surrounding areas from highway noise, or changing the route of a project to avoid environmental damage—can create costs.[12] Some of the studies that we reviewed attempted to quantify mitigation costs. A 2003 study by the Washington DOT evaluated a sample of 14 projects and concluded that mitigation efforts and costs vary from project to project.[13] Furthermore, a 2003 study published by the National Cooperative Highway Research Program (NCHRP), an effort sponsored by the American Association of State Highway and Transportation Officials (AASHTO) in cooperation with FHWA, calculated that the environmental review process adds costs to highway projects for environmental mitigation activities and that more in-depth reviews add more costs than less detailed reviews. For example, categorical exclusions on average added 1.1 percent to a project's overall construction cost, EAs on average added 1.4 percent, and projects requiring EISs on average added 2.3 percent.[14] The 2006 FHWA study, which was conducted by TransTech Management, a management consulting company, reached similar conclusions about environmental-related cost increases, including costs to process NEPA documents and mitigation costs.[15] In this study, TransTech consultants conducted case studies of six highway and bridge projects in Maryland, Montana, New Jersey, Oregon, Utah, and Washington. The study concluded that overall environmental costs for these projects—which included replacing bridges and interchanges and widening and upgrading arterial highways from two lanes to four lanes—ranged from 2 to 12 percent of total project costs and accounted, on average, for 8 percent of total project costs.[16] The study attributed some of this cost to requirements

[12]TransTech Management, Inc., *Costs Related to Compliance with Federal Environmental Laws: Case Studies in the Federal-Aid Highway Program*, a study prepared at the request of FHWA, Washington, D.C., July 2006. This study indicated that costs to replace wetlands, control erosion, and construct stormwater management structures have a much bigger impact on total project costs than staff and consultant time spent on project studies and construction engineering.

[13]Washington State Department of Transportation, *Washington State Department of Transportation Project Mitigation Costs Case Studies* (May 2003).

[14]National Cooperative Highway Research Program, *Improving Project Costing and Incorporation of New Attributes – Highways and Transit*, Report 20-24 (25) (Fairfax, Virginia, 2003).

[15]TransTech Management, Inc., *Costs Related to Compliance with Federal Environmental Laws: Case Studies in the Federal-Aid Highway Program.*

[16]These projects were selected for the study's sample because they are projects that are routinely undertaken by state DOTs. Furthermore, these types of projects experience mitigation and documentation costs. Mitigation is required to address the typical impacts on natural resources that can result from these types of projects.

for completing NEPA documentation, which involves coordinating with other agencies, performing a detailed review of project alternatives, acquiring permits, and conducting public outreach. In addition, the study identified costs for the construction of stormwater facilities, mitigation of wetland losses, erosion control, and landscaping to mitigate likely harms to the environment from the projects.

When a highway project is delayed, inflation and additional administrative and labor expenses increase its costs, and environmental requirements are one of several potential causes of project delays we identified. A 2003 GAO study reported that according to FHWA, for projects requiring an EIS and for which FHWA approved the EIS in 2001, the environmental review took an average of approximately 5 years to complete.[17] Furthermore, environmental reviews can take up a significant portion of projects' overall time frames. For example, FHWA's 2001 baseline report stated that for projects constructed in the last 30 years, environmental review for projects requiring an EIS accounted for an average of 3.6 years, or approximately 28 percent of the overall time for project completion.[18] In addition, a study jointly sponsored by FHWA and AASHTO reported that right-of-way acquisition is a major cause of delay in highway projects, and where relocation is required, it takes an average of 1 to 2 years to purchase a right-of-way after negotiations have begun.[19] Because states generally cannot begin to acquire right-of-way until the NEPA process is complete, the additional time needed for these purchases has the potential to further delay completion of a highway project. The study also cited efforts to accommodate and relocate utilities as another cause of delays during the design and construction phases of highway projects. While several state DOT officials told us that delays can increase the overall cost of a project, none could estimate how much they add to a project's costs, and the studies we reviewed did not estimate the costs attributable to environmental-related project delays.

[17]GAO, *Highway Infrastructure: Stakeholders' Views on Time to Conduct Environmental Reviews of Highway Projects*, GAO-03-534 (Washington, D.C.: May 23, 2003).

[18]Federal Highway Administration, *Evaluating the Performance of Environmental Streamlining: Development of a NEPA Baseline for Measuring Continuous Performance* (Washington, D.C., 2001).

[19]Federal Highway Administration and the American Association of State Highway and Transportation Officials, *Final Report: Strategies for Reducing Highway Project Delivery Time and Cost* (December 2003).

In general, we found that environmental cost data are not routinely collected. For example, the 2003 NCHRP report found that (1) no complete and consistent data on environmental costs were available at the state level and (2) a majority of states do not track environmental costs separately from overall project costs and no state has an environmental accounting system that tracks these costs.[20] Additionally, in its benefit-cost study, FHWA concluded that none of the 32 state DOT environmental officials that responded to a survey in the 2003 NCHRP report had studied or tracked planning, design, and environmental costs related to environmental review activities.[21]

According to its benefit-cost study, FHWA is taking steps to strengthen its own environmental cost-tracking efforts, by conducting a multiphase effort to measure the impact of NEPA and identify trends. As noted above, in 2001, FHWA completed a comprehensive baseline study that assessed the impact of the NEPA process on the total time and costs involved in completing highway projects. Phase one of the study will be used to assess future environmental streamlining efforts, including an ongoing detailed analysis of the time required to complete FHWA's EIS documents.[22] However, for phase two of the study, data limitations, such as a lack of centrally located official completion dates for projects that have gone through the NEPA process have prevented FHWA from analyzing the costs associated with NEPA compliance efforts.[23] Furthermore, recognizing the need to improve environmental cost estimating methodologies for transportation projects, including highway projects, NCHRP is creating guidelines for developing such improved methodologies. These guidelines are scheduled to be completed in late 2008.[24] Additionally, four states (Montana, Washington, Oregon, and Wisconsin) have begun or plan to begin efforts to quantify the environmental costs associated with transportation project delivery. For example, an Oregon DOT official told us that his department has been tracking annual overall environmental costs for project development since 2000, as required by the Oregon

[20]National Cooperative Highway Research Program, *Improving Project Costing and Incorporation of New Attributes – Highways and Transit.*

[21]Battelle, *The Costs of Complying with Federal-aid Highway Regulations.*

[22]Battelle, *The Costs of Complying with Federal-aid Highway Regulations.*

[23]A project's Record of Decision document records the official completion date for the NEPA process.

[24]National Cooperative Highway Research Program, *Improving Project Environmental Cost Estimates*, Report 25-25 (39) (forthcoming).

legislature. These costs have consistently averaged 4.5 percent of overall project costs.

Studies Included Information on the Benefits and Costs of the Davis-Bacon Prevailing Wage Requirement but Did Not Specifically Focus on Highway Projects

Several studies we reviewed attempted to quantify benefits and costs of the Davis-Bacon prevailing wage requirement, but these studies did not provide data exclusive to transportation or highway projects. According to FHWA's benefit-cost study, benefits associated with the Davis-Bacon prevailing wage requirement include (1) creating a level playing field for honest contractors, (2) ensuring that skilled workers are paid wages that prevail in the communities where the work is performed, and (3) minimizing predatory contracting practices that could undercut local contractors. FHWA's benefit-cost study also found that the requirement also promotes more training for labor, resulting in more experienced and qualified contractors working on highway projects.[25] In addition, the National Alliance for Fair Contracting, a labor-management organization, and the Construction Labor Research Council, an organization that researches construction labor costs, conducted studies in 1995 and 2004, respectively, which concluded that higher prevailing wages under the Davis-Bacon prevailing wage requirement contributed to higher productivity on federal highway projects. The studies concluded that the cost per mile for highway construction was inversely related to the hourly wage paid to contractors—specifically, that a higher wage rate resulted in a lower highway cost per mile—which could indicate a positive effect of the Davis-Bacon prevailing wage requirement. According to the report, higher wages attracted high-quality, highly skilled labor; enhanced productivity; and possibly offset potential labor cost savings from lower wages.

Some studies we reviewed also focused on the costs of the Davis-Bacon prevailing wage requirement in general but did not separately estimate costs for highway or transportation projects. For example, a 2004 University of Missouri-Kansas City study, commissioned by a labor-management organization, estimated a total economic loss to the state of Missouri (lost wages, sales, and income taxes) of over $300 million if

[25]Battelle, *The Costs of Complying with Federal-aid Highway Regulations.* Two studies that reference benefits and enhanced productivity are: (1) J. Petersen, "Health Care and Pension Benefits for Construction Workers: The Role of Prevailing Wage Laws," *Industrial Relations*, Vol. 39, No. 2, Oxford, UK (April 2000) and (2) The Construction Labor Research Council, *The Impact of Wages on Highway Construction Costs: Updated Analysis*, prepared for the Construction Industry Labor-Management Trust and the National Heavy and Highway Alliance, Washington, D.C., 2004.

Davis-Bacon prevailing wage laws were repealed.[26] Also, a 1995 University of Utah study commissioned by a labor union estimated that the Davis-Bacon prevailing wage requirement caused construction costs to increase, but also estimated that the federal government would incur costs from lost income tax revenue by repealing the Davis-Bacon prevailing wage laws.[27] Furthermore, a 1996 study in the *Journal of Labor Research* by a consulting economist estimated that the federal government would experience savings in wage costs if Davis-Bacon prevailing wage laws were repealed. This study also estimated that if the state and local governments subsequently repealed their prevailing wage laws, all levels of government (federal, state, and local) could experience savings in administrative and enforcement costs.[28, 29]

Studies Did Not Identify Benefits Arising from the DBE Program but Did Identify Benefits of the Buy America Program and Costs of the DBE and Buy America Programs

While we did not find any studies that identified benefits of the DBE program, FHWA and state DOT officials we spoke with said that benefits include remedying discrimination and inequality, promoting equal opportunity in the highway design and construction industry, and helping DBE firms grow their business. A U.S. DOT official agreed and said that the achievements of states in using DBE firms are indicative of the benefits of the program in providing greater opportunities for DBE firms on federally funded contracts. The U.S. DOT official also said that in 2006, DBE participation in the federal-aid highway program totaled at least $2 billion. While the studies we reviewed did not quantify the benefits of the Buy America program, the types of potential benefits related to this program, according to literature cited in FHWA's benefit-cost study, include protecting domestic employment through national infrastructure improvements that can stimulate economic activity and create jobs; protecting against unfair competition from foreign firms as a result of foreign government subsidies; and maintaining national security interests

[26]Michael P. Kelsay, L. Randall Wray, and Kelly D. Pinkham, "The Adverse Economic Impact from Repeal of the Prevailing Wage Law in Missouri," prepared for the Council for Promoting American Business (University of Missouri-Kansas City, 2004).

[27]Peter Philips, Garth Mangum, Norm Waitzman, and Anne Yeagle, *Losing Ground: Lessons from the Repeal of Nine "Little Davis-Bacon" Acts*, University of Utah, 1995. This study estimated that the prevailing wage requirement caused construction costs to increase by an average of 3 percent for each project, but also estimated that the federal government would lose over $800 million in income tax revenue.

[28]A.J. Thieblot, "A New Evaluation of Impacts of Prevailing Wage Law Repeal," *Journal of Labor Research* (Spring 1996).

[29]Data cited in both the University of Utah and the *Journal of Labor Research* studies do not reflect current 2008 dollars.

through the continued use and development of certain industries within the U.S. economy, like the iron and steel industries.

In terms of costs, a 2001 GAO report indicated that U.S. DOT, states, and local transportation agencies incur costs in implementing and administering the DBE program.[30] For example, U.S. DOT estimated that it incurred about $6 million in costs, including salaries and training expenses, to administer the DBE program for highway and transit authorities in fiscal year 2000. Sixty-nine percent of the states and transit authorities that responded to GAO's survey for the 2001 report estimated that they incurred a total of about $44 million in costs to administer the DBE program in fiscal year 2000. For individual state respondents, these administrative costs ranged from a high of $4.5 million to a low of about $10,000. However, U.S. DOT, states, and local transportation agencies had not studied or analyzed other DBE-related program costs. For example, according to the 2001 GAO study, states and transit authorities had said that the DBE program increased project costs, but 99 percent of the states and transportation agencies surveyed for the report had not conducted a study or analysis to quantify whether the DBE program has an impact on their contract costs. We reported that U.S. DOT had also not conducted such an analysis.

Finally, none of the studies we reviewed attempted to quantify the costs of Buy America program requirements. One study—FHWA's benefit-cost study—identified higher iron and steel prices, higher overall project costs, reduced bidding competition, and project delays as the major types of costs that federally funded transportation projects could incur in complying with Buy America program provisions, but the study did not attempt to quantify these costs.

Federal Requirements, among Other Factors, Influence State Funding Decisions

According to our survey results, the federal requirements we reviewed are among the factors that influence states' decisions to use nonfederal or federal funds for highway projects. Most state transportation officials we interviewed told us that the federal requirements may encourage them to use nonfederal funds for certain highway projects eligible for federal aid because they may be able to save time and costs, but they also told us that other factors influence their decisions to use nonfederal funds. Conversely, some state officials we interviewed told us they may use federal funds to avoid certain limitations associated with nonfederal funds

[30] GAO-01-586.

or to obtain certain benefits associated with using federal funds. In general, the type of funding a state chooses to use—nonfederal or federal—varies and depends on the circumstance in the state. Some states, for example, have requirements similar to the federal requirements we are reviewing. This may reduce some of the time or cost savings states might otherwise realize by using nonfederal funds. Furthermore, a state's decision to use nonfederal or federal funds is generally influenced by the relative availability of these funds.

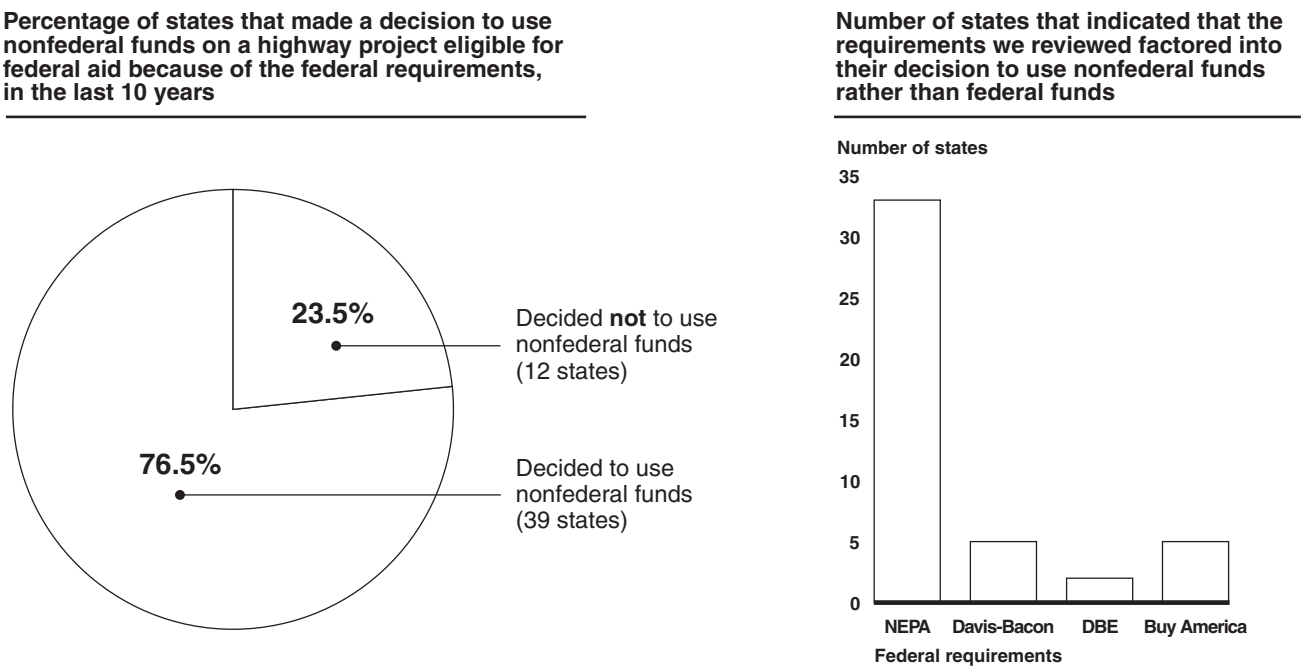
Federal Requirements May Encourage States to Use Nonfederal Funds for Certain Highway Projects, but Other Factors Also Influence Their Decision

Most state transportation officials told us that costs and delays associated with the federal requirements we reviewed have, in certain instances, encouraged them to use nonfederal funds for certain highway projects eligible for federal aid; however, other factors, such as a state legislature's requirements and the availability of nonfederal funds, also contribute to a state's decision to use nonfederal funds. More specifically, 39 of the 51 state DOTs we surveyed reported that, in the past 10 years, the federal requirements had, in at least one instance, influenced their decision to use nonfederal funds for highway projects that were eligible for federal aid.[31] A majority (33 states) of these 39 states reported that the NEPA requirement factored into their decision to use nonfederal funds rather than federal funds for highway projects. Some of the 39 states also reported that the other requirements we reviewed also influenced their decision making: 5 states noted that the Davis-Bacon prevailing wage requirement factored into their decision to use nonfederal funds; 2 states noted that the DBE program factored into their decision to use nonfederal funds; and 5 states noted that the Buy America program factored into their decision to use nonfederal funds.[32] See figure 2 for more information on how many states reported using nonfederal funds and the reasons behind these decisions. The survey used for this study is reproduced in appendix II.

[31]Some state officials told us that they use nonfederal funds for highway projects eligible for federal aid because of federal requirements other than the four requirements within our scope. For example, they may use nonfederal funds for certain projects to bypass delays due to State Transportation Improvement Plan processing and to avoid federal design standards that preclude some projects from being federally funded.

[32]In the survey we provided to states, a state could select more than one requirement as factoring into its decision to use nonfederal funds rather than federal funds. See appendix II for the survey we provided to each of the states.

Figure 2: Percentage of States Using Nonfederal Funds for Highway Projects because of the Federal Requirements, and the Requirements that Factored into States' Decisions



Source: GAO survey of state transportation officials.

Note: For the figure on the left, the states that decided not to use federal funds include 11 states and the District of Columbia.

Some state DOT officials we interviewed stated that by using nonfederal funds instead of federal funds for certain projects, they avoided project delays and costs associated with the federal requirements. Maine DOT officials, for example, told us that if they had used federal funds for several particular state-only funded projects, the projects would have been delayed by one or more construction seasons due primarily to a requirement designed to protect parklands and recreational areas.[33] Instead, Maine DOT used state resources and worked with the State Historic Preservation Officer to expedite critical bridge improvements through an accelerated review process. Maine DOT officials told us that although they cannot finance major EIS projects using only state funds,

[33]According to Maine DOT officials, since Maine's construction season is short compared to other states, it is possible for a delay of a couple of weeks to translate into more than a 12 month delay.

they are confident that if they used only state funds for these projects, planning studies at the EIS level could be expedited by a year or more without any major changes in the outcome. According to the Maine officials, state legislation outlines steps necessary in a transportation decision-making process that consider impacts to the human, social, and natural environment that are as precise or more as NEPA, but do not contain the added federal administrative responsibilities.

A few states reported in our survey that the Davis-Bacon prevailing wage requirement and Buy America program also factored into their decision to use nonfederal funds on certain projects. A New Hampshire DOT official that we interviewed told us that the Davis-Bacon prevailing wage requirement can slow a project because it imposes payroll processing requirements that create additional administrative responsibilities, particularly for small highway contractors who may not understand what they must do to comply. As a result, the state official told us they use state funds for many small resurfacing projects to reduce the administrative responsibilities for contractors. Similarly, Washington DOT officials we interviewed said that they used nonfederal funds for the Tacoma Narrows Bridge project—which cost nearly $850 million—and saved $30 million to $35 million by purchasing foreign steel instead of domestic steel. Had they used federal funds for the project, they would have had to spend these funds for domestic steel under the Buy America program.

Some states have minimized project delays by using nonfederal funds for certain aspects of a project. For example, some states have used nonfederal funds to acquire the right-of-way for a project—the rights to the land over which the highway will pass—so that they could conduct the NEPA review at the same time. Generally, federal funds cannot be used to acquire a right-of-way until FHWA completes the NEPA process.[34] Some state DOT officials told us that because states cannot conduct certain NEPA activities concurrently with other project activities, such as developing an EIS and acquiring right-of-way, projects can face delays. Ohio DOT officials said that there are risks in acquiring right-of-way before the NEPA review has been finalized. For example, after acquiring the right-of-way, the NEPA document may not be approved or may be significantly modified to require a right-of-way in a different location. Ohio DOT officials said, however, that deciding on a right-of-way alternative after obtaining sufficient information and involving the public involvement lessens this risk. By using state funds for right-of-way purchases, Ohio

[34]23 C.F.R. § 771.113(a) and 23 C.F.R. § 771.117(d)(12).

DOT officials said that they are able to reduce project costs because they avoid the impact of inflation (which would raise property and construction costs) and complete the project faster. However, these officials had not tracked or quantified the savings resulting from this practice. FHWA officials said that states have the option of acquiring right-of-way with nonfederal funds but that states that do this will not be eligible to have those acquisition costs reimbursed with federal funds. Agreeing with Ohio DOT officials, FHWA officials also said that the state bears the risk in acquiring right-of-way before the NEPA process is completed.

In addition to the federal requirements, some state officials noted that other factors play a role in their decisions to use nonfederal funds for some projects. For example, Washington DOT officials informed us that their state legislature passed transportation revenue packages in 2003 and 2005 requiring them to use state funding for selected projects.[35] They had wanted to use federal funding for some of these projects, particularly those that already have federal agency involvement due to environmental issues such as a need for permits to build in a wetland area, but the legislature denied the request. Sometimes, although not generally, a state may use nonfederal funds for projects because it has a significant amount of nonfederal funds available to it. For example, in California, more than 85 percent of funding available for transportation, including highways, originates from nonfederal sources. As a result, California funds many projects with state and local funds. However, California DOT officials explained that they use state and local funds for these projects—not because of the federal requirements—but because state funds are more available than federal funds.

States May Use Federal Funds to Avoid Certain Limitations of Nonfederal Funds or to Obtain Certain Benefits Associated with Federal Funds

States may face a number of limitations when they use nonfederal funding for highway projects and may use federal funds to avoid these limitations, or they may use federal funds because they can obtain certain benefits by using these funds. Some states told us that one limitation associated with using nonfederal funds for projects is that using these funds and not complying with certain federal requirements can preclude or delay states from obtaining federal funds later if needed. More specifically, if a state uses nonfederal funds for a specific highway project, this project is not required to meet certain federal requirements, such as the federal design standards. Consequently, if state officials need additional funding for the project during its later stages, they may find it difficult to obtain federal

[35]The Washington DOT 2003 and 2005 revenue packages increased the state gas tax by $0.05 and $0.095 per gallon, respectively.

funds because federal requirements were not previously met. However, some state officials we interviewed said that they follow or try to follow federal requirements even if they use nonfederal funds for a project because they then have the flexibility to add federal funds to the project at any stage. Furthermore, Ohio DOT officials explained that using state funds for highway projects depletes state funds that could be used to match federal funds for other highway projects or other state priorities. Finally, according to Ohio DOT officials, if nonfederal funds are used on projects, public involvement in projects may be limited or environmental issues may not undergo systematic reviews since these projects do not have to comply with the public and environmental review processes under NEPA. However, as noted below, some states have environmental requirements that are similar to NEPA's requirements, which could lessen the impact of this limitation.

Transportation officials in two states told us they often prefer to use federal funds because they can obtain certain benefits associated with using these funds. Washington DOT officials told us, for example, that if they use federal funds for a highway project, FHWA serves as the lead agency under NEPA and is responsible for coordinating the many federal agencies that are responsible for the various federal environmental requirements. However, if they use only nonfederal funds, states still must comply with federal environmental laws (such as those involved with protecting air and water quality) but must coordinate directly with the federal agencies that are responsible for those requirements, and need not go through the NEPA process. In some instances, according to the Washington DOT officials, they preferred to partially fund a state project with federal funds because they have a good working relationship with FHWA. Furthermore, FHWA can be more effective than the state in coordinating environmental issues at the federal level. Also, Massachusetts DOT officials said that federal agencies are more inclined to cooperate with and respond to another federal agency, such as FHWA, than to the state DOT, and such cooperation and responsiveness can contribute to a project's success. For example, FHWA can obtain Coast Guard permit exemptions that state DOTs cannot, allowing some federally funded projects to proceed faster than comparable nonfederal projects.

Some States Consider Differences between Federal and State Requirements When Deciding Whether to Use Nonfederal or Federal Funds for Highway Projects

Some states have requirements similar to the four federal requirements we reviewed, and some state officials told us that they consider the differences between these requirements when deciding whether to fund highway projects with nonfederal or federal funds. Furthermore, having state requirements that are similar to the federal requirements may reduce some of the time or cost savings states might otherwise gain by using nonfederal funds.

According to the Council on Environmental Quality, a federal agency that oversees NEPA, 16 states and the District of Columbia have environmental planning requirements similar to NEPA requirements. Other states, including New Hampshire and Illinois, have state environmental requirements that address specific environmental issues, such as wetlands protection, but do not have an environmental planning law like NEPA that provides for an environmental review process. FHWA's benefit-cost study noted that the extent to which state environmental requirements overlap with federal requirements varies from state to state.[36] The study also noted that state requirements that parallel NEPA requirements could be more than, less than, or just as stringent as the federal requirements. FHWA officials agreed, noting that, while some environmental processes—such as California's Environmental Quality Act—are fairly stringent like NEPA, other state environmental processes may not be. Furthermore, in some cases, a federal agency can authorize a state to use its own state environmental requirement to meet the federal requirement. For example, in the National Pollutant Discharge Elimination System (NPDES) stormwater permit program, EPA has approved most state NPDES permit programs and allows these approved states to administer permits, in lieu of EPA, to allow discharges into U.S. waters.

In addition to state environmental requirements, some states have requirements that are roughly equivalent to the Davis-Bacon prevailing wage, DBE, and Buy America requirements we reviewed:

- According to FHWA's benefit-cost study, 32 states and the District of Columbia have active prevailing wage laws. State prevailing wage laws may require higher or lower wages than Davis-Bacon prevailing wages. For example, state DOT officials told us that in certain portions of Utah and Oregon, the federal Davis-Bacon prevailing wage rate is higher than the state prevailing wage rate; however, Maryland officials told us that for many projects, Maryland's prevailing wage rate is higher than the federal

[36]Battelle, *The Costs of Complying with Federal-aid Highway Regulations.*

Davis-Bacon prevailing wage rate. Furthermore, some contractors said that they pay their employees wages that are higher than the federal Davis-Bacon prevailing wage. Similarly, Hawaii DOT officials said that they, with little or no exception, award their federal-aid highway construction contracts to unionized contractors and that union wages in Hawaii are typically higher than Davis-Bacon prevailing wage rates.

- Some states have laws to encourage participation from minority-owned enterprises in transportation projects.[37] For example, in Maryland, there are federal and state DBE programs. FHWA officials told us that state DBE programs may or may not mirror the federal DBE program and that state DBE programs vary. For example, some state programs have residency requirements to encourage local businesses, while other states do not.

- Some states have laws that require the use of domestically made steel and other materials. State requirements that are parallel to Buy America requirements are often noted in a state's standard specifications, which are included in the bid documents provided to highway contractors. For example, West Virginia has a standard specification that requires that projects use aluminum, glass, steel, and iron products that are domestically fabricated. Texas also has a steel preference provision. This provision notes that a contract awarded by Texas DOT that does not use federal aid must contain the same preference for steel and steel products as required by the federal Buy America program.

In terms of environmental requirements, some state officials said they consider the differences between state and federal requirements, while other officials may not. For example, Hawaii DOT officials told us that the differences between the state and federal environmental requirements may influence their funding decision making because the state process is less rigorous, less time-consuming, or both, and as a result, the state process is less costly than the NEPA process. Washington DOT officials noted, however, that a project employing nonfederal funds may not realize time and cost savings because projects that use these funds still have to comply with a number of federal environmental laws that require coordination among and the involvement of federal agencies to, for example, provide permits to impact wetlands. Accordingly, Washington DOT officials may or may not consider the differences between federal and state environmental

[37]State DBE programs are often identified as minority and women business enterprise (MBE/WBE) programs.

requirements when deciding whether to use nonfederal or federal funds for a highway project.

In considering prevailing wage requirements, states may choose to use nonfederal or federal funds for projects when federal Davis-Bacon prevailing wage rates are higher than the state's prevailing wage rate. For example, in an interview, Utah DOT officials told us that Davis-Bacon prevailing wages are higher than market wages in portions of Utah. Consequently, Utah DOT tries to fund complete road reconstruction projects—which are labor-intensive—with nonfederal funds so that state dollars can be stretched further. Conversely, they use federal funds—and, therefore, pay the Davis-Bacon prevailing wage rates—for smaller rehabilitation or preservation projects. This lowers Utah DOT's overall costs, but Utah DOT officials were unable to quantify savings. Similarly, Oregon DOT officials noted that in some areas of Oregon, the federal Davis-Bacon prevailing wage is higher than the state prevailing wage. However, the Oregon officials told us that state law requires that—when federal funds are involved—contractors compare the federal Davis-Bacon prevailing wage rates and the state prevailing wage rates and pay the higher of the two.

The Availability of Nonfederal and Federal Funds Also Influences States' Funding Decisions

Regardless of whether states decide to use nonfederal or federal funds for their highway projects, their decisions are generally influenced by the relative availability of these funds. Officials from many states told us that their nonfederal funds are more limited than their federal funds. Hence, the extent to which states use nonfederal funds to avoid the federal requirements is limited. Our survey responses indicate that 37 states did not often use nonfederal funds on highway projects to avoid federal requirements. More specifically, these 37 states reported that they used nonfederal funds to avoid the federal requirements less than 50 percent of the time. Officials from one of these 37 states, Hawaii, said that they have limited nonfederal funds available. As a result, the officials said that they do not often use nonfederal funds to avoid federal requirements and that they have to rely on federal funds to finance their highway projects. Similarly, other states we spoke with also rely on federal funds to finance their highway projects.

In our interviews, officials from some states that rarely use nonfederal funds to avoid federal requirements told us that if they had more nonfederal funds available, they would use those funds for highway projects more frequently in order to expedite projects. Utah is one state

that has a significant amount of nonfederal funds available for highway projects, and it uses these funds to expedite projects.[38] Utah obtains about 75 percent of the funds for its highway program from the state and about 25 percent from the federal government. Because Utah has such a high proportion of state funds available, Utah officials reported on our survey that they use nonfederal funds to avoid the federal requirements more than 50 percent of the time, but not always. Officials we spoke with also told us that because Utah has abundant state funding, the state tries to fund its smaller projects with federal funds and its larger, more complex projects with nonfederal funds. Utah officials also noted that using state funds has the benefit of generally reducing the time and cost to complete a project, though they have not quantified or tracked this information.

Government Agencies and Contractors Face Challenges Associated with Federal Requirements, and Some Are Using Strategies to Address These Challenges

The federal, state, and local government agencies and contractors we interviewed said that they face a number of challenges complying with the federal requirements associated with federal highway projects and that these challenges contributed to increased project costs and delays. The challenges deal with (1) administrative requirements and coordination with multiple government agencies and (2) provisions that state transportation officials and contractors say make it difficult for them to implement the requirements as efficiently as possible. Officials are implementing a number of strategies to address these challenges, including federal-level programs that provide states with guidance and opportunities to participate in streamlining pilot programs, as well as state initiatives to make their compliance processes more efficient.

State Transportation Departments and Highway Contractors Face Challenges Related to Administrative Requirements and Coordination with Stakeholders

Some state and local transportation officials and contractors stated that the federal requirements we reviewed add to their administrative requirements, such as preparing detailed documentation, which require substantial resources, adding to project costs and delays. They also claimed that coordinating with the multiple stakeholders involved in planning a highway project can be challenging because agencies may have competing interests and lack enforceable time frames.

[38]Utah DOT received a large increase in transportation funding from its legislature to fund its transportation needs. This funding comes from the state's general fund and sales tax revenues. According to Utah DOT officials, Utah DOT receives 83 percent of the state's sales tax revenues.

Managing Administrative Requirements

Some state and local transportation officials and contractors told us that the amount of documentation they prepare to comply with federal requirements can add to their administrative requirements. For example, state transportation officials we interviewed told us that lawsuits challenging environmental decisions can cause delays and increase costs, in part because they sometimes prepare more documentation to satisfy federal agencies that are taking precautions to avoid lawsuits. FHWA officials told us that documentation requirements are intended to enable time savings later in the highway project process. Additionally, at a September 2008 Transportation Research Board conference, several state and local transportation planners said that federal agencies encourage them to develop multiple alternative project designs that they think will never be selected just to satisfy specific federal agencies and environmental groups and to avoid lawsuits from opponents of the project.[39] According to FHWA guidance, however, the identification, consideration, and analysis of alternatives are important components of the NEPA process and contribute to objective decision making. Furthermore, the guidance states that the consideration of alternatives leads to a solution that satisfies the transportation need, while at the same time protecting environmental and community resources.

Separately, according to an AASHTO study, most EIS documents exceed 300 pages and some may even exceed 1,000 pages, even though federal regulations state that this document should normally be no more than 150 pages and those associated with complicated projects no more than 300 pages.[40] Idaho DOT officials said that for some projects designated as categorical exclusions, where the projects were expected to have no significant impact, they had to prepare the same amount and level of documentation as for projects requiring more complex EAs, which requires a longer and more detailed process than categorical exclusions because the environmental impact, if any, needs to be determined. FHWA officials, however, said that they are not aware of any recent changes in documentation trends for categorical exclusions.

According to many state transportation officials, redundancy in the requirements also increases the amount of documentation they must prepare. For example, Florida DOT officials told us that when states have

[39]Transportation Research Board, "Meeting Federal Surface Transportation Requirements in Statewide and Metropolitan Planning: A Conference," September 3-5, 2008.

[40]American Association of State Highway and Transportation Officials, *Accelerating Project Delivery* (August 2007).

requirements similar to the federal requirements, officials frequently must prepare separate documentation for both sets of requirements, raising administrative costs. However, Maryland DOT officials told us that their state and federal requirements are combined into one process in order to meet both obligations and are supportive of each other. As a result, Maryland DOT officials indicated that there did not appear to be project delays or increased project costs due to redundancies. Separately, state DOT officials said that redundancies in the federal requirements can increase their administrative costs. For instance, officials from two states told us that the documentation required for a section of the National Historic Preservation Act is very similar to documentation for the requirement aimed at protecting parklands and recreational areas, but the paperwork prepared for one does not always satisfy the other, potentially increasing the states' administrative responsibilities.

According to federal, state, and local transportation officials we spoke with, requirements related to the Davis-Bacon prevailing wage requirement can also impose administrative responsibilities on states and contractors that can raise costs. For example, the Davis-Bacon prevailing wage requirement requires contractors to submit all weekly payrolls for all employees and any requests for new job classifications to their state DOTs and ultimately to DOL. Contractors that we spoke with submit both by hard copy because they were under the impression that DOL requires a manual signature for payroll certification. As a result, according to officials from some state DOTs, states handle a large amount of related paperwork, which may add to project costs. Texas DOT, for example, estimates that they receive over 4,000 certified payrolls each week from their active contractors and subcontractors, and is responsible for reviewing 10 percent of all payrolls submitted for each contract. State and local transportation officials said that electronic submission of weekly payroll statements and certifications would make Davis-Bacon prevailing wage paperwork processing more efficient and more thorough and would decrease administrative responsibilities. Recognizing that online processing would be useful, DOL created a pilot program for selected contracting agencies and contractors to submit Davis-Bacon prevailing wage payroll statements and certifications online, and FHWA encouraged contracting agencies, such as state DOTs, to participate in the program. (See app. III for more information.)

Additionally, some state transportation officials told us that the Davis-Bacon prevailing wage classifications have not been established for common highway jobs, which contributes to additional paperwork. These officials and contractors also told us that even though the Davis-Bacon prevailing wage tables are outdated, they must still complete paperwork to

comply with the requirement. For example, in the wage table for Tampa, Florida, heavy construction does not include wages for two basic classes of jobs for bridge construction, concrete finisher and pile driver operator. Some state transportation agency officials said that if a job classification is not listed on the wage tables, contractors submit requests for a wage determination to DOL for each contract that involves that type of work. State transportation officials said that this requirement increases their paperwork responsibilities, which in turn increase costs because fulfilling these responsibilities requires an extensive amount of staff resources. For example, officials at Florida DOT said that when a new classification is added on a contract, it is only good on that particular contract and that they process hundreds of these requests each year. In general, DOL officials stated that the job classifications are sufficient. Regarding the wage tables, officials from Florida also said that the Davis-Bacon prevailing wage surveys that DOL uses to develop the wage tables are outdated. For example, DOL bases Davis-Bacon prevailing wages for highway construction in some counties in Florida on 1993 wage surveys. As a result of the outdated surveys, Florida DOT officials said that contractors typically pay higher wages than the federal Davis-Bacon prevailing wages to attract and keep employees. The Florida officials said that although contractors pay higher wages than the Davis-Bacon prevailing wage, they still must show compliance to the Davis-Bacon prevailing wage requirement on federal projects. As such, Florida officials stated the compliance process is an "exercise in paperwork." Contractors in Idaho agreed with Florida DOT officials, stating that although they pay employees the market rate (which is higher than the Davis-Bacon prevailing wage rate), they still have to adhere to Davis-Bacon prevailing wage paperwork requirements, which is costly and time-consuming to complete and submit.[41] DOL officials stated that the process they use for updating wage tables is appropriate. These officials also said that they update the wage tables at their discretion, but not on a set schedule, and that they take into account the age of the previous survey, anticipated construction volume in a state, and other factors in deciding when to update a wage table.

Managing Multiple Project Stakeholders

Some state DOT officials said that interagency coordination is a challenge in the NEPA process—both in getting all the government agencies to coordinate on a project's design and obtaining necessary permits. FHWA,

[41]If an interested party believes that a wage determination does not accurately reflect those prevailing in the area, the interested party can request reconsideration of a wage determination by presenting their request in writing accompanied by supporting data to DOL.

along with federal agencies with environmental review responsibilities (known as resource agencies),[42] relevant state agencies, and other planning stakeholders participate in and review detailed assessments of environmental impacts, in accordance with their responsibilities under federal or state laws. Florida DOT officials noted that they may coordinate with as many as 23 different entities in planning, reviewing, and constructing highway projects. The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) amended the law to require transportation agencies to engage government agencies and other planning stakeholders to collaborate during the initial project planning and throughout the NEPA process.[43] However, numerous federal, state, and local transportation officials said that it is challenging to coordinate these government agencies and planning stakeholders because these entities (1) have limited funding and staff, (2) have responsibilities and priorities beyond transportation projects, and (3) may have competing interests and missions that can be difficult to resolve. Our previous report on highways and the environment also found similar challenges. More specifically, this report found that resource agency officials viewed their core regulatory duties as their main responsibility and that resource constraints, according to these officials, hampered the resource agencies' ability to take on extra responsibilities. These constraints may limit their ability to fully participate in the early stages of environmental reviews.[44] Furthermore, competing interests and missions can increase the time frame of a project. For example, Florida DOT officials said that on a historic bridge project, the Coast Guard wanted to build a new bridge for navigational purposes, but other federal and state agencies who were responsible for historic bridges wanted to save the historic integrity of the bridge by rehabilitating it rather than constructing a new one. The disagreement between the two parties caused delays in the development of the EIS, causing the EIS to take about 5 years to complete.

Several state transportation officials and FHWA officials told us that while they collaborate with each other and the resource agencies to set deadlines, once they identified the agencies that will need to be involved in the project, approval and permitting agencies routinely miss deadlines, often delaying projects. For example, a project must receive a permit from

[42]Federal resource agencies include, but are not limited to, USACE, the Fish and Wildlife Service, EPA, and ACHP.

[43]SAFETEA-LU authorized funding for the federal surface transportation programs for highways, highway safety, and transit.

[44]GAO-08-512R.

USACE if the project involves the discharge of dredged or fill material into water. Several state DOT officials told us that this permitting process can be particularly time-consuming. One Idaho transportation official told us that for a bridge project in Idaho, Three Cities Rivers Crossing, it took an additional 1.5 years to review the EIS, partly due to USACE missing its deadline for issuing comments. FHWA officials said that there is no consequence to resource agencies or relief to transportation agencies if the resource agencies fail to meet the deadline. USACE officials said that requests for highway project reviews are evaluated in a timely manner, given that USACE has many applicants requesting authorization to impact U.S. waters, including other state and federal agencies and the general public.

State Government Agencies and Contractors Face Challenges Complying with Some Provisions of Federal Requirements

According to some state transportation officials and contractors, certain provisions within the federal requirements we reviewed appear to be outdated, narrowly defined, or unclearly defined, resulting in difficulties in implementing the requirements, and potentially increasing project costs and delays. In general, FHWA or other federal government officials did not agree with the state officials' assessment that the provisions are outdated, narrowly defined, or unclearly defined.

Several state DOT officials told us that, in their opinion, the $2,500 regulatory cost threshold for compliance with the Buy America program and the $750,000 regulatory personal net worth ceiling for the DBE program were outdated.[45] FHWA established the Buy America threshold to avoid burdening states with administrative responsibilities for small projects but has not revised the threshold since 1983. FHWA officials said that they have not revised the threshold because limited staff resources and other potential statutory program changes have delayed scheduled revisions. State DOT officials said that the cost of steel for most projects, even small ones, falls above this threshold, given recent increases in steel prices. As a result, states may not obtain the administrative relief the law intended for small projects. FHWA officials agreed that the threshold should be re-evaluated or updated, and officials at one state DOT suggested that the threshold be adjusted for inflation.

Additionally, according to some state transportation officials we met with, the DBE program's $750,000 ceiling on personal net worth is outdated. According to the state DOT officials, the ceiling does not meet current

[45]The Buy America requirement also applies if the cost of steel exceeds 0.1 percent of the total contract cost.

economic standards and has not kept up with current inflation rates. U.S. DOT established this ceiling in 1999 to ensure that wealthy individuals are not allowed to participate in the program. U.S. DOT established the $750,000 limit based on what they believed to be a well-established and effective part of the Small Business Administration's (SBA) assistance programs for small disadvantaged businesses and because the $750,000 figure provided for a reasonable middle ground in view of the wide range of suggestions calling for higher or lower ceilings. However, U.S. DOT officials said that they have not revised this ceiling since 1999 because SBA has not adjusted the thresholds for its SBA programs. Furthermore, according to a U.S. DOT official, since courts look closely at whether the DBE program is "over-inclusive" (i.e., serving people that it is not intended for), the ceiling has become important to the constitutional defense of the program as several federal court decisions have cited the existence of the ceiling as one of the factors leading them to uphold the program's constitutionality. California transportation officials said that one challenge with an outdated personal net worth ceiling for the DBE program is that the low ceiling makes it difficult to recruit new DBEs for certification and retain them in the DBE program. U.S. DOT reviewed the ceiling in 2005 when they reviewed the DBE airport concessions rule. At that time, the U.S. DOT concluded that the $750,000 cap was appropriate, as it ensured that wealthy individuals did not participate in the program. FHWA officials agreed, however, that the personal net worth ceiling should be adjusted for inflation.

According to officials at some state government agencies and contractors, the Buy America program's definition of foreign steel may be too narrowly defined, which they say has caused delays or has increased project costs. More specifically, FHWA regulations for the Buy America program state that all manufacturing processes that modify a product's physical size, shape, or chemical content must occur in the United States. For example, if steel materials are sent to a foreign country to be rolled or if a piece of machinery includes one small component of foreign steel, that product is considered to be foreign made and is not in compliance with Buy America. Florida DOT officials said one challenge with this definition is that it is difficult for them to find domestic manufacturers of mechanical systems for certain movable bridges. Florida DOT officials and contractors told us that the time they spend searching or waiting for domestic materials to be produced adds to project delays. State DOT officials also said that the Buy America provision can cause construction delays if it is discovered that the requirement is not being met after construction begins. Construction delays are generally the result of the domestic product not being available in sufficient quantities to meet project schedules or if the domestic product is not regularly produced. Furthermore, Florida DOT officials also

told us that for the movable bridges, there are many components that require some level of work in a foreign manufacturing shop that then renders the entire component as foreign, even though the majority was domestically produced. In such cases, a waiver can be requested from FHWA. However, FHWA officials said that domestic suppliers are found for the majority of waiver applications. If FHWA does not grant a waiver, the design of the project needs to be corrected or the foreign components need to be replaced with domestic components.

Lastly, some state transportation agency officials also said that the waiver provisions in the Buy America program are not clearly defined, and as a result, the waiver process may be inconsistently interpreted or applied at the federal level. Some state transportation agency officials told us that they often do not apply for Buy America waivers because the process lacks defined criteria and has led to inconsistent FHWA approvals. According to state transportation officials, waivers could help state transportation agencies reduce project costs by using potentially less expensive foreign steel. FHWA recently started posting notice of waiver requests on its Web site for public comment for a 15-day period and also published notices of findings on waiver requests in the *Federal Register*.[46] These notices include more detailed justification for approving the waiver. Officials from the American Iron and Steel Institute, an industry trade association, told us they think these changes will result in more transparent approvals; however, FHWA officials said these new notification processes will add more time to projects because additional time is needed to receive and respond to public comments, especially when there are potential domestic manufacturers of products that oppose the waiver. In addition, FHWA officials said that the process of publishing a notice of findings in the *Federal Register* requires additional time and could delay a project if a waiver is requested after construction has already begun.

[46]FHWA conducted these activities to comply with the Consolidated Appropriations Act, 2008 and the SAFETEA-LU Technical Corrections Act of 2008. The Consolidated Appropriations Act required the Secretary of Transportation to make informal public notices and comment opportunities on the intent to issue Buy America waivers and the reasons for the waivers. The Technical Corrections Act required that the Secretary publish in the *Federal Register* a detailed justification for Buy America waiver decisions and the reasons for the decisions, and provide for a public comment period.

Project Stakeholders Have Developed and Are Using Strategies to Address Challenges, with Varying Success

Congress and federal and state government agencies have developed strategies to address many of the challenges federal and state transportation agencies and contractors face in completing highway projects and complying with federal requirements. According to various agency officials and highway contractors, some of these initiatives are resulting in decreased project costs and delays, though they could not quantify the cost savings or delay reductions. Specifically, Congress has attempted to improve project delivery time frames. As we have previously reported,[47] with SAFETEA-LU, Congress made a number of changes to the environmental review processes required of state and local transportation agencies. For example, SAFETEA-LU Section 6004 amended title 23 of the U.S. Code to allow state DOTs to assume FHWA's responsibility for determining whether certain highway projects can receive categorical exclusions, in accordance with criteria to be established by FHWA. If a state assumes this responsibility, FHWA would no longer approve categorical exclusions and serve more in a monitoring role. This change made by SAFETEA-LU was intended to facilitate more efficient reviews of transportation projects, expediting completion without diminishing environmental protections. Additionally, in 2002, the President issued an executive order for expedited environmental reviews.[48] This executive order directs executive departments and agencies to accelerate their environmental reviews for permits and approvals for transportation infrastructure projects designated by the Secretary of Transportation to be "high priority." FHWA and state transportation agency officials said that the executive order has helped expedite the NEPA process. Separately, FHWA has taken initiatives to provide guidance and opportunities to better streamline compliance with the federal requirements. For example, FHWA has developed a database—the State Environmental Streamlining and Stewardship Practices Database—that provides opportunities for states to share examples of streamlining and stewardship practices. This database is available to all state DOTs through FHWA's Web site. EPA is also using electronic or online processes to assist them in streamlining projects. For example, they are using systems to allow stormwater permittees to electronically file permitting information, which reduces the amount of time that EPA needs to receive and process this information. Separately, in 2003, DOL created, and FHWA is facilitating, a pilot program for selected state DOTs to test software that provides for a Web-based format for the submission of Davis-Bacon prevailing wage payroll statements and weekly contractor certifications. The software was

[47] GAO-08-512R.

[48] Exec. Order No. 13274.

designed to eliminate the paperwork burden associated with labor compliance requirements for contractors and state DOTs. Other federal agencies, together with industry associations, have also offered guidance and training to state and local transportation officials and contractors to help them build better practices to streamline compliance activities. According to some state transportation officials, some of these federal efforts have helped states reduce project costs and delays.

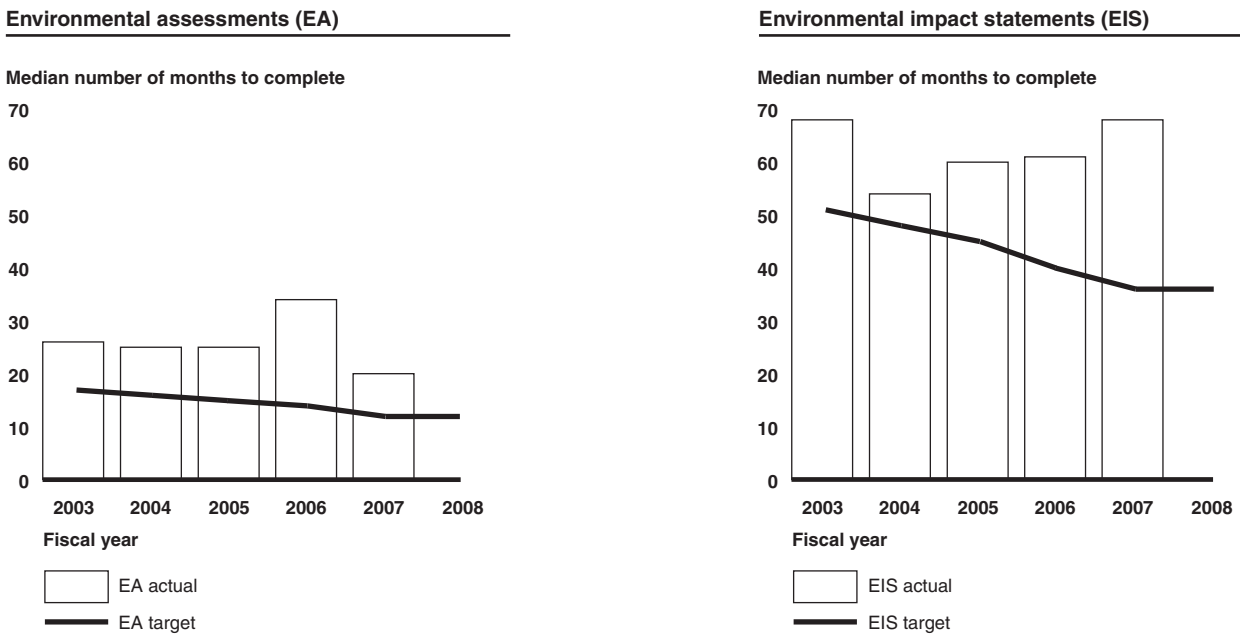
FHWA has recognized that project delays impede transportation system improvements and that streamlining environmental reviews and documentation is essential to mitigate the delays and implement highway projects more quickly and cost-effectively. Accordingly, FHWA has developed a performance measure—known as the Vital Few Environmental Streamlining and Stewardship Goal (Environment VFG)—to track the time it takes for projects to go through EAs and EISs, so that FHWA can improve the timeliness of environmental review processes, and ultimately, reduce project delays. Furthermore, by tracking time frames for environmental reviews, FHWA should be able to develop a better understanding of the key impediments to, or shortcomings in, the environmental review process, and address congressional, state, and other concerns about the process. In fiscal years 2007 and 2008, the goal of the Environment VFG was to decrease the median time to complete EAs and EISs to 12 and 36 months, respectively.[49] In developing these goals, FHWA advised state DOTs to establish deadlines, through negotiation with FHWA division offices and resource agencies, and track data to measure success through FHWA's Environmental Document Tracking System (EDTS).

Despite this framework, FHWA has not met its goals for the Environment VFG performance measure. As figure 3 illustrates, since fiscal year 2004, the median time for completing EISs has increased by almost 26 percent, while FHWA's goal for completing EISs has decreased. Furthermore, in fiscal year 2007, the median time to complete EISs reached 68 months—almost 89 percent above FHWA's goal of 36 months. The median time to complete EAs in the same fiscal year was about 67 percent greater than FHWA's goal of 12 months. FHWA officials told us that progress in meeting their goals has been slow because delays arise from federal and state governments' need to address issues that emerge during project development, such as those issues that are mentioned in this report. Some state DOT officials also said that environmental issues that are discovered during the environmental review or changes in environmental rules

[49]See figure 3 for the target goals prior to 2007.

established by EPA or at other federal agencies also contribute to delays. Furthermore, according to FHWA, the federal environmental review process, as well as state and local impediments such as funding and local controversy, can cause project delays. Additionally, as noted earlier, FHWA officials noted that there are no legal consequences for missing deadlines. Nonetheless, to improve the time frames, FWHA has analyzed the reasons for why environmental time frames have not been met and is attempting to improve the time frames by improving the environmental review process, as required by section 139, 23 U.S.C., since modified by SAFETEA-LU Section 6002, and by developing additional streamlining initiatives.

Figure 3: Median Times, in Months, Taken to Complete an Environmental Impact Statement (EIS) or an Environmental Assessment (EA) for Federal-Aid Highway Projects, Fiscal Years 2003 to 2008



Source: GAO analysis of FHWA data.

Note: According to FHWA officials, FHWA developed the Environment VFG in fiscal year 2002 and began setting EA and EIS targets in fiscal year 2003. FHWA developed EA and EIS goals for fiscal year 2008, but actual times are not available. FHWA officials said that for fiscal year 2009, the median target time to complete EISs is 60 months, effective as of October 1, 2008.

In addition to the federal government, several state transportation agencies are implementing strategies to expedite compliance with the federal requirements we are reviewing. These initiatives include

streamlining agreements, called programmatic agreements, that state DOTs have reached with federal government agencies responsible for environmental approvals and permits. For example, Texas DOT has a programmatic agreement with FHWA, the Texas State Historic Preservation Officer, and ACHP to ensure that compliance with the National Historic Preservation Act is streamlined. Under this agreement, Texas DOT acts as FHWA's agent to carry out its responsibilities under the National Historic Preservation Act, allowing the state to make findings and determinations on whether there is an adverse effect to historic properties and to complete the consultation requirements required by the act. Some state transportation officials told us that they can save time by entering into agreements with FHWA and resource agencies to spell out broad categories of projects that can be advanced under preagreed conditions, with little or no need for individualized review. Separately, to help resolve staffing shortages at resource agencies, some state DOTs fund positions for additional staff at federal and state agencies to perform environmental review activities, including approval and permitting actions for transportation projects. As we have previously reported,[50] while some states approve of the practice of funding positions at federal and state resource agencies for environmental reviews, other states believe the resource agencies should fund their own activities. USACE officials said that it is helpful to them to have stable positions at their office, funded by a state, to focus specifically on transportation issues and permitting because such a strategy helps the permitting process move more quickly and consistently. Finally, some state DOTs have developed ways to streamline the processing of the federal requirements. For example, Florida DOT officials developed the Efficient Transportation Decision Making process to address challenges they were facing in coordinating resource agencies during the NEPA process. This process seeks input from the resource agencies through an online interactive database for major projects throughout the NEPA process. According to a Florida DOT review of the Efficient Transportation Decision Making process, the process has yielded improved decision making and improved interagency relationships, among other benefits. See appendix III for more information on the initiatives mentioned in this section.

Conclusions

As the demand for highway capacity has increased and as project costs have risen, the demand for nonfederal and federal highway funds has grown, making it essential that states and localities use these funds as efficiently as possible. The four federal requirements we reviewed have

[50] GAO-08-512R.

important economic and environmental benefits, but the steps involved in compliance may add time and costs to projects. Federal and state strategies have helped to address some of the challenges involved in compliance. However, quantitative information is limited. For example, we found little information quantifying the benefits, delays, and costs of the requirements we reviewed, though some states are beginning to track environmental costs incurred during highway projects. Without quantitative information, agencies cannot compare costs and benefits or assess the impact of their actions on project time and costs. With state and local governments constructing and expanding roads at a time when transportation dollars are limited, it is critical that states use federal dollars efficiently to finance their highway projects.

In addition, some outdated provisions in the federal requirements we reviewed can limit states' ability to spend transportation dollars as effectively as possible. The $2,500 regulatory threshold for the Buy America requirement no longer serves its original purpose of exempting states from the administrative burden associated with this requirement for small projects. This administrative burden may increase the costs of small projects, and it reduces the resources available for other projects. Finally, the $750,000 regulatory personal net worth ceiling of the DBE program has not changed since 1999, and according to state transportation officials, increasing this threshold could facilitate the hiring of minority- and women-owned firms.

Recommendations for Executive Action

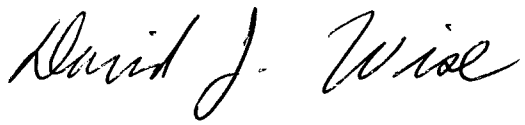
To address the challenges associated with the federal requirements we reviewed, to better ensure that federal funds are used as efficiently as possible, and to assist states in minimizing project delays and costs associated with federal requirements, we recommend that the Secretary of Transportation re-evaluate the $2,500 regulatory threshold for the Buy America program and the $750,000 regulatory personal net worth ceiling of the DBE program, and modify them, if necessary, through appropriate rulemaking.

Agency Comments and Our Evaluation

We provided a draft of this report to USACE, ACHP, DOL, U.S. DOT, and EPA for their official review and comment. USACE, ACHP, U.S. DOT, and EPA provided technical comments, which we incorporated into the final report where appropriate. U.S. DOT took no position on our recommendation regarding the Buy America program threshold and DBE personal net worth ceiling. DOL officials notified us that they had no comments on this report.

We are sending copies of this report to interested congressional committees, the Secretaries of Transportation and Labor, the Administrator of EPA, the Chief of Engineers at USACE, and the Executive Director of ACHP. The report is also available at no charge on the GAO Web site at http://www.gao.gov.

If you or your staffs have any questions, please contact me at (202) 512-2834 or wised@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs are on the last page of this report. GAO staff who made contributions to this report are listed in appendix IV.



David J. Wise
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Appendix I: Objectives, Scope, and Methodology

The objectives of this report were to review (1) the types of benefits and costs associated with selected federal requirements for federal-aid highway projects; (2) the influence of these federal requirements on states' decisions to use nonfederal or federal funds for highway projects; and (3) the challenges associated with the federal requirements and strategies that federal, state, and local government agencies and contractors have used or proposed to address these challenges.

Although many requirements apply to federally funded highway projects, our review focused on four federal requirements: the National Environmental Policy Act (NEPA), the Davis-Bacon prevailing wage requirement, the Disadvantaged Business Enterprises (DBE) program, and the Buy America program. We selected these four requirements for our review on the basis of (1) initial interviews with officials in the headquarters offices of the Federal Highway Administration (FHWA), the U.S. Army Corps of Engineers (USACE), the Environmental Protection Agency (EPA), the Department of Labor's Wage and Hour Division, and the Advisory Council on Historic Preservation's Office of Federal Agency Programs; and (2) interviews with experts at industry associations, including the National Conference of State Legislatures, the American Highway Users Alliance, the American Association of State Highway and Transportation Officials (AASHTO), the Associated General Contractors of America, the American Road and Transportation Builders Association, and the American Iron and Steel Institute. Furthermore, rather than focusing our review on broader requirements associated with transportation planning, such as requirements for developing a transportation improvement program, we focused our review on project-specific requirements.

To identify the types of costs and benefits associated with these requirements for federal-aid highway projects, we reviewed published research and studies. We identified 30 relevant studies by searching bibliographic databases, using as our criteria studies or reports that identified benefits, costs, challenges, and strategies used to address the challenges of complying with the federal requirements. After identifying the studies, we reviewed each one to determine its relevance and applicability to our objectives. The studies we reviewed included reports on highway requirements issued by the Congressional Research Service and the Congressional Budget Office, as well as studies issued by state departments of transportation (DOT), AASHTO, and the National Cooperative Highway Research Program. We also reviewed GAO reports that addressed agencies' tracking of costs and benefits of certain federal regulations. Finally, we reviewed an FHWA report entitled, *The Costs of Complying with Federal-aid Highway Regulations*. For each of the

studies we identify in this report, we reviewed its methodology, including the study's datasets, sample size, and data collection techniques, and concluded that the methodology is sufficiently reliable for the purposes of our report; however, we did not independently verify the results of these studies.

To determine the influence of these federal requirements on states' decisions to use nonfederal or federal funds for highway projects, we surveyed state DOT officials in all 50 states and the District of Columbia. In the survey, which appears in appendix II, we asked the officials how the selected federal requirements factored into their funding decisions for highway projects eligible for federal aid. After we drafted the survey, we pretested it in one state to ensure that the questions were clear and unambiguous, the terminology was used correctly, the survey did not place an undue burden on agency officials, the information could be feasibly obtained, and the survey was comprehensive and unbiased. We found the results of the pretest sufficient to administer the survey to the other states. To administer the survey, we obtained from FHWA the appropriate points of contact for transportation officials at each state DOT. Beginning on March 31, 2008, we e-mailed the survey to these transportation officials. We received a survey response from every state DOT, thereby achieving a 100 percent response rate. Because this was not a sample survey, it has no sampling errors. However, the practical difficulties of conducting any survey, such as problems in interpreting a response to a particular question or entering data into a spreadsheet, may introduce nonsampling errors. To minimize such errors, we pretested the survey, as noted, and verified the accuracy of the data keyed into our data collection tool by comparing the data with the corresponding survey. The survey used for this study is reproduced in appendix II.

To supplement the survey, and to give respondents an opportunity to elaborate on their survey responses, we selected 10 states for follow-up telephone interviews. In determining which states to select for interviews, we excluded the 5 states we used as case studies—California, Florida, Idaho, Maryland, and Texas—and chose our sample from the remaining states. We also based our selection of these 10 states on their responses to the survey, their funding levels, and geographic dispersion. The 10 states we selected for follow-up interviews with DOT officials were Hawaii, Illinois, Maine, Massachusetts, New Hampshire, Ohio, Oregon, Utah, Virginia, and Washington.

To identify the challenges associated with the federal requirements and strategies that various highway project stakeholders have used or have proposed to address these challenges, we visited and interviewed officials

in California, Idaho, Maryland, and Texas, and interviewed officials in Florida by telephone. To select these states, we considered a number of factors. We identified a nongeneralizable sample based on whether a state (1) participated in the Surface Transportation Project Delivery Pilot Program, which allowed states to assume NEPA review authority, or (2) had projects designated for streamlined environmental review, pursuant to Executive Order No. 13274. In addition, we interviewed officials from federal agencies and representatives from industry associations such as AASHTO. These agency officials and industry association representatives identified states that had initiated notable streamlined transportation planning and project development processes. Finally, we included in our sample states that had received varying levels of federal funding. At the five states in our sample, we interviewed officials from FHWA division offices; other federal organizations, such as USACE and EPA division offices; state and local transportation offices; and metropolitan planning organizations, as well as private industry contractors and consultants who worked on federally funded highway projects. To understand the strategies used to address challenges, we reviewed public and private sector research, studies, agreements, and proposals on methods and programs to streamline strategies at the federal, state, and local levels.

We conducted this performance audit from October 2007 through November 2008 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Appendix II: GAO Survey of State Departments of Transportation

United States Government Accountability Office

Survey of State Departments of Transportation and their Decisions on Funding Highway Projects

Introduction

The U.S. Government Accountability Office (GAO), the research arm of the United States Congress, is studying how federal requirements factor into states' funding decisions for highway projects eligible for Federal Aid Highway Program funds. As part of this study, GAO is surveying state Departments of Transportation.

Please help us report the most accurate information to Congress by responding to this brief survey. This survey asks for minimal information and should take **approximately 5 minutes** to complete.

Please complete this survey even if your state uses federal funding only for highway projects. We are interested in all projects that are eligible for Federal Aid Highway Program (FAHP) funds.

Please complete this survey and email it to us by **April 11, 2008**.

Instructions

This questionnaire can be completed using Microsoft Word. Please save this document to your computer and attach it to an e-mail message to **DaveR@gao.gov**. If you prefer, you may print a copy of this questionnaire, complete it by hand, and fax it to us at 202-512-8774 to the attention of Roshni Davé. Please call us at 202-512-6516 to alert us that a fax is being sent).

- Please use your mouse to navigate by clicking on the field or check box you wish to answer.
- To select a check box ☐ simply click on the center of the box. You can uncheck the box by simply clicking on the check box again.
- To answer an open-ended question, click on the response field ____ and begin typing. The box will expand to accommodate your answer.

If you have any questions about this questionnaire, please contact Roshni Davé at 202-512-6516 or DaveR@gao.gov.

Funding Decisions

1. **In the last ten years, has your state made a decision to use nonfederal funds for a highway project eligible for federal aid because of federal requirements?** *(Mark only one response)*

   Yes ☐
   No ☐ → ***SKIP to Question #4***

2. **Did the following federal requirements factor into your decision to use nonfederal funds rather than federal funds?** *(Mark only one response for each row)*

	Yes	No
National Environmental Policy Act (NEPA)	☐	☐
Davis-Bacon Act	☐	☐
Disadvantaged Business Enterprises (DBE) program	☐	☐
Buy America Act	☐	☐
Other (please specify below)	☐	☐

3. **How often does your state use nonfederal funds rather than federal funds for highway projects to avoid federal requirements?** *(Mark only one response)*

   100% of the time ☐
   More than 50% of the time but less than 100% ☐
   About 50% of the time ☐
   Less than 50% of the time but more than never ☐
   Never ☐

4. **What are the positive outcomes on highway projects of using nonfederal funds instead of federal funds?**

5. **What are the negative outcomes on highway projects of using nonfederal funds instead of federal funds?**

6. Who coordinated the completion of this survey?

Name:
Position title:
Telephone number:
E-mail address:

7. Who is most familiar with funding decisions in your state and most knowledgeable of the selected federal requirements associated with highway projects that we should contact if a follow-up interview is needed?

Name:
Position title:
Telephone number:
E-mail address:

Appendix III: Strategies Used or Proposed by Federal and State Agencies to Address Challenges Associated with Federal Requirements

Federal and state agencies have implemented or proposed the following strategies to address the challenges associated with federal requirements for highway projects.[1]

Implementing or authorizing organization	Strategy	Details
White House	Environmental Stewardship and Transportation Infrastructure Project Reviews, Exec. Order No. 13274	The 2002 executive order authorizes the Secretary of Transportation to designate infrastructure projects for expedited environmental reviews. Since these reviews were authorized, 19 projects have been selected for expedited review, including 15 highway or bridge projects. Three of our case study states—California, Texas, and Maryland—have had projects designated for expedited reviews and placed on the order's project list. State officials in California, Maryland, and Texas reported mixed results on the effectiveness of the executive order in expediting environmental reviews. Maryland transportation officials told us that placing their Inter-County Connector (ICC) project on the executive order's project list helped move the project forward. Previously, during the 1980s and 1990s, the project was stalled by high levels of controversy over environmental issues, lack of support for the project from state government leaders, and difficulty in getting stakeholders to collaborate on the project. Putting the ICC on the project list in 2003 enabled Maryland DOT to build on renewed support for the project from state government leaders by formalizing a collaborative process among stakeholders that sped up the project's delivery. This collaborative process involved the creation of an interagency workgroup through which staff-level stakeholders resolved disagreements over environmental issues before the issues were elevated to higher-level government agency authorities. Once placed on the executive order project list, the ICC moved from the planning stage to a final Record of Decision in 2006 for environmental issues in 3 years. By contrast, California DOT officials said that the executive order raised agency awareness for the projects placed on the list in their states.
White House	Council on Environmental Quality Modernizing NEPA Task Force	The task force, which formulated in 2002, is comprised of representatives from a variety of different federal agencies, such as the Environmental Protection Agency (EPA) and the U.S. Forest Service. This task force reviews current National Environmental Policy Act (NEPA) implementing practices and procedures and recommends improvements to make NEPA more effective, efficient, and timely. The task force developed several products, including a handbook, *Collaboration in NEPA – A Handbook for NEPA Practitioners*, published in October 2007, to improve the NEPA process through collaboration. State DOT officials were familiar with this task force; however, we heard varied responses from these officials on whether the products produced by the task force helped streamline environmental review processes.

[1]This compilation of strategies is not comprehensive.

Implementing or authorizing organization	Strategy	Details
Congress	The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) Section 6002: Efficient Environmental Reviews for Project Decision-making	SAFETEA-LU Section 6002 (23 U.S.C. §139) established a new process to promote efficient project management by federal agencies and enhanced opportunities for coordination with the public and other agencies. Several changes were made to the environmental review process, including a new requirement for a coordination plan for public and agency participation. We previously reported that changes in the review process can result in better project decisions; however, some state transportation officials told us that the process may not necessarily be more efficient, since extra steps required to comply with the provision adds time to environmental review. Section 6002 also changed the law to allow a 180-day limit on lawsuits challenging final federal agency environmental decisions—such as the approval of an environmental impact statement—on highway projects, when notices of those decisions are published in the *Federal Register*. We previously reported state transportation officials' opinions that this could lead to cost savings because it limits lawsuits to a period when it would not cost as much to change project plans and, after this period, work can proceed on a project without the risk of a lawsuit.
Congress	SAFETEA-LU Section 6004: State Assumption of Responsibility for Categorical Exclusions	SAFETEA-LU Section 6004 (23 U.S.C. §326) changed the law to allow state DOTs to assume responsibility for determining whether certain highway projects can receive categorical exclusions, in accordance with criteria to be established through a Memorandum of Understanding between the U.S. Department of Transportation's Federal Highway Administration (FHWA) and the state. If a state assumes this responsibility, FHWA does not approve categorical exclusions but does monitor whether the state is adequately applying FHWA's criteria. A state can assume this responsibility after waiving its sovereign immunity. To date, only two DOTs, California DOT and Utah DOT, have assumed this authority, and only Alaska DOT is seeking it. Some state transportation officials we spoke with told us that they did not pursue this approval authority because they already have agreements in place with FHWA that streamline approvals for categorical exclusions. State officials also identified the requirement to waive sovereign immunity as an obstacle to their taking advantage of the categorical exclusions approval authority. California DOT reported to FHWA that, as a result of Section 6004, they saved a median of about 28 days and a mean of 7 days for categorical exclusion determinations statewide due to administrative efficiencies and time savings associated with consultations and coordination with federal resources agencies. FHWA officials said that, in general, agreements between state DOTs and FHWA Division Offices are valuable and they can entail shorter or defined time frames for reviews and responses. However, we previously reported that, according to one resource agency, the state assumption of responsibility for categorical exclusion reviews could decrease the input from resource agencies in addressing environmental issues.[a] Although overall interest in Section 6004 is limited, states may be experiencing similar time savings with their own streamlining agreements with FHWA.

Implementing or authorizing organization	Strategy	Details
Congress	SAFETEA-LU Section 6005: Surface Transportation Project Delivery Pilot Program	SAFETEA-LU Section 6005 (23 U.S.C. §327) established a pilot program that gave five states—Alaska, California, Ohio, Oklahoma, and Texas—the opportunity to assume FHWA's environmental responsibilities for highway projects under NEPA and other federal environmental laws, after waiving sovereign immunity and entering into a Memorandum of Understanding with FHWA. FHWA continues to provide oversight. This program is designed to provide information on whether delegating these responsibilities to the state will result in more efficient environmental reviews, while meeting all federal requirements for these reviews. California, whose state DOT assumed this responsibility in July 2007, is the only state participating in the program, although Alaska has expressed interest to FHWA in applying for this in the future. The other three states declined the opportunity for various reasons, including the restriction on using state funds to acquire right-of-way for highway projects prior to the NEPA decision and the inability of the states to obtain approval from their legislatures to waive sovereign immunity, which is required for the program. Furthermore, as we previously reported, states are concerned about the amount of work required to set up such a program and want to see how the program works in California. California DOT officials told us that the time to conduct environmental reviews has decreased for the projects that have undergone the NEPA process since California assumed this authority. They told us that the median review and approval times for draft environmental documents and final environmental documents was shorter for pilot program projects compared to prepilot program projects. For example, they said it took prepilot program projects a median time of 6.1 months to complete draft environmental documents, while it took pilot program projects a median of 1.6 months, a savings of 4.5 months, to complete. Additionally, they said it took a median time of 2.0 months to complete final environmental documents for prepilot program projects and 0.8 months for pilot program projects, a savings of 1.2 months. Part of the time savings, they say, occurs because FHWA has reduced its review. FHWA published its first audit on September 23, 2008. The audit reviewed fundamental processes and procedures the state put in place to carry out the assumptions of the roles and responsibilities, but it did not report on the program's impact on environmental review time frames because it was the first audit that FHWA has conducted. Overall, FHWA found that the California DOT has made reasonable progress in implementing the startup phase of Pilot Program operations and is learning how to operate the program effectively. FHWA's second audit was held in July 2008, and the results are forthcoming in the *Federal Register*. In this audit, FHWA examined performance measures. Specifically, FHWA examined changes in the time states spent on completing environmental documents.

Implementing or authorizing organization	Strategy	Details
Congress	SAFETEA-LU Strategic Highway Research Program 2 (SHRP 2)	SAFETEA-LU authorized funding for SHRP 2, a research program that FHWA, AASHTO, and the Transportation Research Board jointly conduct to obtain information on highway safety, renewal, reliability, and capacity. Some of the research focuses on approaches and tools for systematically integrating environmental considerations into project analysis and planning. One project involves developing a collaborative decision-making framework for transportation planners to use to enhance collaboration from project planning through project development. The study includes 25 case studies of the challenges faced by state and local transportation officials when trying to manage multiple stakeholders. The report is currently in draft.
U.S. DOT	Refocus. Reform. Renew.: A New Transportation Approach for America (Proposed)	To better streamline federal requirements, in 2008, U.S. DOT has proposed to (1) allow state requirements to satisfy "substantially similar" federal requirements, (2) exempt projects with less than 10 percent federal funding from federal requirements, and (3) pilot a project for some states to opt out of federal requirements under titles 23 and 49 (except the Davis-Bacon prevailing wage requirement) in exchange for a reduction in the percentage of federal funding they would otherwise receive. The proposal also includes several specific reforms to the NEPA process: clarifying what constitutes a reasonable alternative, reducing FHWA documentation requirements by allowing the final environmental impact statements to be combined with the Record of Decision into one document to simplify the process, and broadening categorical exclusion assignment authority to states. This proposal has not been finalized.
FHWA	State Environmental Streamlining and Stewardship Practices Database	This database contains information on streamlining and stewardship practices used by states as ways to efficiently and effectively fulfill their NEPA obligations. FHWA officials said that they regularly update the database with state-nominated practices and all are available to the public on the Internet. For example, for Maryland, FHWA has 30 practices listed, including a workshop to address working relationships between participating agencies in environmental reviews, various copies of programmatic agreements (described later in this appendix), and templates for evaluating categorical exclusions. FHWA officials said that this database provides states with examples and enables states to share practices for streamlining the environmental review process. Maryland DOT officials said that this database is helpful in that it helps them acquire information more efficiently and that it expands their thinking in the development of their environmental streamlining agreements—which can ultimately reduce project costs and delays. Officials at California DOT said, however, that it is difficult for them to implement solutions from another state that does not have to comply with as many state environmental laws and regulations as California. Other states say that the database has not helped them decrease projects costs or delays.

Implementing or authorizing organization	Strategy	Details
FHWA	Pilot program to evaluate Web-based submission of Davis-Bacon prevailing wage weekly payroll statements and certification	To reduce paperwork burdens described earlier in this report, in 2003, the Department of Labor (DOL) created and FHWA is facilitating this pilot program for selected state DOTs to submit Davis-Bacon prevailing wage weekly payroll statements and contractor certifications on the Internet. Software automatically downloads information from payroll processors and performs diagnostics (including issuing an alert if an employee rate is incorrect). Officials from the two participating state DOTs that we contacted—Arizona DOT and Wisconsin DOT—told us that the new process provided automatic electronic approval of payrolls and eliminated the need for staff to manually review payrolls. An Arizona DOT official told us that it reduced the amount of paperwork and repetitive steps and created consistency for payroll submission across contractors. Both state DOT officials told us that they have received positive feedback from some contractors. Although, the Wisconsin DOT official told us that large contractors had challenges formatting their payroll systems to input data into the software and that small contractors had problems if they did not have access to computers. Other challenges both states mentioned focused on programming the software and educating contractors. Neither state DOT has tracked cost savings.
AASHTO	Center for Environmental Excellence	In consultation with FHWA, AASHTO developed the Center for Environmental Excellence to help streamline environmental review and transportation delivery processes and encourage environmental stewardship. It provides transportation professionals with guidance, training, and access to environmental tools, among other types of information. The center also provides practitioners with technical assistance, including on-call help.
State DOTs	Programmatic agreements	State DOTs have taken the lead to enter into these formal agreements with FHWA and federal and state agencies to establish actions and processes for streamlining compliance with environmental regulations. The agreements often identify categories of projects that can be advanced under preagreed conditions, with little or no need for individualized review by those agencies. Agreements address a number of issues, such as compliance with the National Historic Preservation Act,[b] NEPA, the Endangered Species Act, and other requirements. For example, the Texas DOT entered into an agreement with FHWA and the State Historic Preservation Office (SHPO) in Texas. Under this agreement, Texas DOT acts as FHWA's agent to carry out responsibilities under the National Historic Preservation Act, allowing the state to make findings and determinations on whether there is an adverse effect to historic properties and to complete the consultation requirements required by the act.[c] According to FHWA officials, programmatic agreements have helped streamline the environmental review process. Officials at the Advisory Council on Historic Preservation also indicated that programmatic agreements have improved project delivery time frames.

Implementing or authorizing organization	Strategy	Details
State DOTs	DOT-funded positions to other agencies	To help resolve staffing shortages at resource agencies, state DOTs began in the early 1990s to fund positions for additional staff at federal and state agencies to perform environmental review activities, including approval and permitting actions for transportation projects. Previous transportation legislation, the Transportation Equity Act for the 21st Century, gave states the option of using a portion of their federal-aid highway funds to pay for the positions to conduct environmental reviews and expedite NEPA activities. State DOTs must obtain the approval of FHWA division offices for such uses of these funds. According to a 2005 AASHTO survey, 68 percent of state DOTs (34 states) fund positions. Two-thirds of these positions were at state agencies and the remainder were at federal agencies. SAFETEA-LU amended the law to allow states to pay for positions whose activities extended beyond NEPA, including planning activities that precede NEPA. As we have previously reported,[d] states have mixed views on using state funds for positions at federal agencies. While some states fund positions at the federal agencies for environmental reviews, other states believe the federal agencies should fund their own activities. USACE officials told us that it is helpful to them to have stable positions at their office—funded by a state—to focus specifically on transportation issues and permitting.
Florida DOT	Efficient Transportation Decision Making (ETDM)	ETDM, established in 2004, provides an interactive online database for government agencies to provide and review environmental and other information on a project. Florida DOT and multiple federal and state agencies developed ETDM to address difficulties in getting involved federal and state agencies to coordinate and provide timely responses for highway projects. The database provides information that these agencies need to make decisions, such as project descriptions and geographic information system maps showing locations of resources. ETDM asks agencies to concur at certain points in the process to help ensure their involvement throughout the process and reduce the likelihood that they will challenge the project later. Since its implementation, 332 transportation projects have been screened through EDTM.

Implementing or authorizing organization	Strategy	Details
		Florida DOT conducted a review of how ETDM was functioning. District officials at Florida DOT reported several benefits using ETDM, including that ETDM (1) provided them with better understanding of environmental issues early in planning and project development, (2) improved decision making throughout the process, (3) improved interagency relationships, and (4) improved agency responsiveness. They also estimated that between October 2004 and March 2008, over 3 years, they have saved 600 months to complete NEPA-related review activities and around $16 million in project costs for all of their projects combined.[e] However, they said since ETDM has not been in place long enough and most projects have not been through the full project development cycle, project cost and time savings may not be fully realized. District officials also reported some challenges with ETDM. For example, they reported that some agencies commented on environmental reviews outside their jurisdictional areas and that ETDM increased project scrutiny. Other government agencies have also reported ETDM's benefits. For example, in 2004, the U.S. Fish and Wildlife Service and EPA reported that since the implementation of ETDM, they have been able to review more projects and at a higher level of review. USACE reported in 2006 that ETDM improved their staffs' knowledge of all the various pieces of the transportation and planning process, and as a result, removed one of the barriers of communication between USACE and Florida DOT. However, some Florida contractors told us that ETDM is not as beneficial as it could be because not all Florida government agencies participate as actively as others.
California DOT	Standard Environmental Reference	The Standard Environmental Reference is an online guidance document available for California transportation agencies to help them comply with NEPA and the California Environmental Quality Act. The document provides users with information on what documentation is needed in a user-friendly format. California DOT officials told us that the Standard Environmental Reference enables local transportation agencies to focus their resources on necessary elements and helps them to avoid any potential revisions later in the NEPA process.

Source: GAO analysis of information provided by federal and state agencies.

[a]GAO-08-512R.

[b]The National Historic Preservation Act requires federal agencies to take into account the effects of their activities on historic properties and afford the Advisory Council on Historic Preservation an opportunity to comment on the effects of the activity.

[c]State Historic Preservation Offices carry out the National Historic Preservation Act at the state level and consult with federal agencies during the review.

[d]GAO-08-512R.

[e]Florida DOT reported that one project in one of its Districts used the Efficient Transportation Decision Making process even though the project had already entered its planning phase. This project, unlike the other projects that used the Efficient Transportation Decision Making process, experienced increases in project costs and time.

Appendix IV: GAO Contact and Staff Acknowledgments

GAO Contact

David J. Wise, (202) 512-2834 or wised@gao.gov

Staff Acknowledgments

In addition to the contact named above, Kate Siggerud (Managing Director), Ray Sendejas (Assistant Director), Tim Bober, Roshni Davé, Anne Dilger, Bess Eisenstadt, Denise Fantone, Dave Hooper, Bert Japikse, Alex Lawrence, Ashley McCall, Patricia McClure, Elizabeth McNally, Amanda Miller, SaraAnn Moessbauer, Revae Moran, Josh Ormond, and Amy Rosewarne made key contributions to this report.

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