

GAO

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PERFORMANCE AND ACCOUNTABILITY

Transportation Challenges Facing Congress and the Department of Transportation

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Physical Infrastructure Issues



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Highlights

Highlights of [GAO-07-545T](#), a testimony before the Subcommittee on Transportation, Housing and Urban Development, and Related Agencies; Committee on Appropriations; House of Representatives

Why GAO Did This Study

A safe, efficient, and convenient transportation system is integral to the health of our economy and quality of life. Our nation's vast transportation system of airways, railways, roads, pipelines, transit, and waterways has served this need, yet it is under considerable strain from (1) increasing congestion, (2) the large costs to maintain and improve it, and (3) the human cost of over 44,000 people killed and over 2.5 million injured each year in transportation-related accidents.

The Department of Transportation implements national transportation policy and administers most federal transportation programs. For fiscal year 2008, the department has requested \$67 billion to carry out these and other activities.

While the department carries out some activities directly, such as employing about 15,000 air traffic controllers to make certain that planes stay a safe distance apart, it does not have direct control over the vast majority of activities that it funds, such as local decisions on the priority and placement of airports, public transit, and roads. In other cases, such as railways and pipelines, the infrastructure is owned and operated by industry.

This statement presents GAO's views on major transportation challenges facing Congress and the department. It is based on GAO products, including recommendations made, and the products of others.

www.gao.gov/cgi-bin/getrpt?GAO-07-545T.

To view the full product, including the scope and methodology, click on the link above. For more information, contact Patricia Dalton at (202) 512-2834 or Daltonp@gao.gov.

PERFORMANCE AND ACCOUNTABILITY

Transportation Challenges Facing Congress and the Department of Transportation

What GAO Found

Financing mechanisms for the nation's transportation system are under stress. Our nation's transportation infrastructure is threatened by increasing demand for transportation services, and revenue from traditional funding mechanisms for the nation's highway and aviation systems may be unable to keep pace at current tax rates. In addition, freight traffic is projected to grow substantially, but current planning and financing mechanisms impede public strategies to address needs.

Our nation's **mobility** is threatened because the nation's infrastructure is under great strain. Congestion across modes (e.g., aviation, highways, and rail) is expected to worsen. However, funding by mode and the lack of performance-related goals result in little assurance that funds are being channeled to the most critical mobility concerns and that intermodal approaches can be integrated into the transportation system.

Improvements in **transportation safety** are needed to reduce the number of deaths and injuries from transportation accidents—about 95 percent of which occur on our nation's roads. Increases in congestion across modes as a result of population and economic growth could cause deterioration in transportation safety despite departmental and state efforts to reduce accidents.

The transition from the current **air traffic control system** to a broader and modernized system will be one of the department's most complex undertakings. In previous years, FAA has faced systemic management and acquisition problems that led us to designate its air traffic control modernization program as high risk. While the agency has made significant progress in recent years, a key challenge going forward will be to institutionalize these improvements and to continually improve.

In addition, the department and the transportation sector face persistent **human capital** challenges due to an impending shortage of skilled people to meet changing transportation needs. Furthermore, despite recent improvements in **financial management**, the department received a qualified opinion on its 2006 financial statements. Finally, the department is working to clarify its role in **transportation security and emergency preparedness and response**.



Source: Photodisc and Corbis.

Mr. Chairman and Members of the Subcommittee:

We appreciate the opportunity to participate in this hearing today to discuss transportation challenges facing Congress and the Department of Transportation. These issues are important for three reasons. First, the nation's economic vitality and its citizens' quality of life depend significantly on the soundness, safety, and security of its vast transportation system. This system fuels the nation's economic engine, facilitating the movement of goods and people. Second, transportation solutions are typically expensive, and the federal government's financial condition and fiscal outlook are worse than many may understand.¹ This calls for a reexamination of the goals of transportation policy, how we hold stakeholders accountable for results, and how programs are financed. Finally, as an implementer of congressional policy, the Department of Transportation must be a high-performing agency—one that innovates, delivers results, is fiscally prudent, and has a workforce that can meet 21st century challenges.²

My remarks today focus on four primary transportation challenges and some that are continuing concerns. (See fig. 1.) Some are solely within the Department of Transportation's purview; some require congressional action as well. For the most part, these challenges are the ones that we identified in 2003 as part of our series of reports of performance and accountability challenges facing the federal government.³ This is not because little or no progress has been made. In many cases there has been progress. Rather, it is because some of these challenges—such as improving mobility and transportation safety—are so vast, and the department's ability to address them is so indirect, that years of focused efforts will be needed to see measurable improvements. In addition to our completed work on these issues, we have a body of ongoing work that should be of use to Congress and the department as our country moves forward to improve the design of transportation programs, delivery of

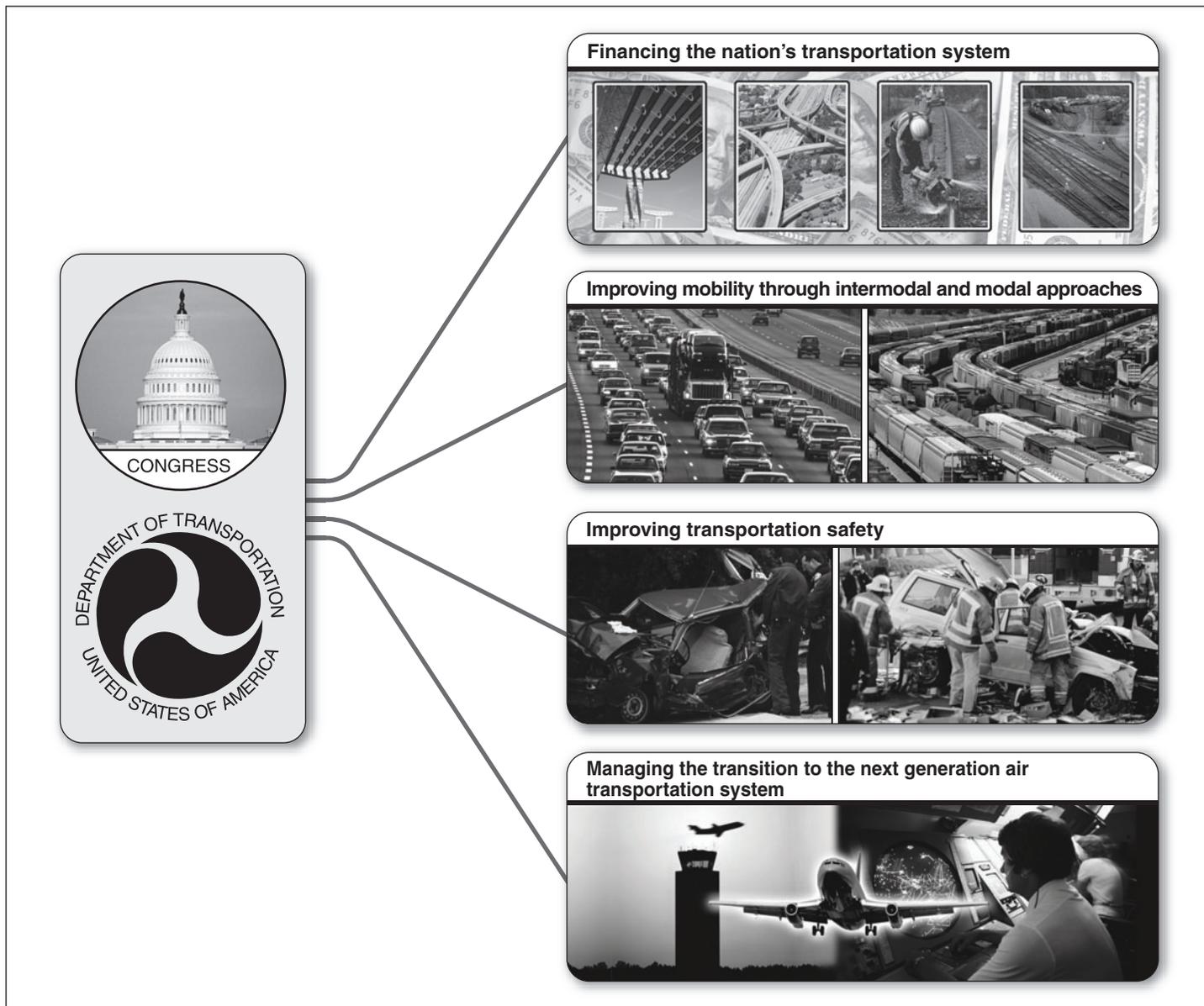
¹GAO, *Fiscal Stewardship: A Critical Challenge Facing Our Nation*, [GAO-07-362SP](#) (Washington, D.C.: January 2007).

²GAO, *21st Century Challenges: Reexamining the Base of the Federal Government*, [GAO-05-325SP](#) (Washington, D.C.: February 2007).

³GAO, *Major Management Challenges and Program Risks: Department of Transportation*, [GAO-03-108](#) (Washington, D.C.: January 2003). See <http://www.gao.gov/pas/2005/dot.htm> for a 2005 update.

services, and accountability for results (See app. I and a list of related GAO products at the end of this statement).

Figure 1: Major Challenges Facing Congress and the Department of Transportation



Sources: Photodisc and GAO.

My statement is primarily based on work that we have completed over the past several years for Congress. We also reviewed assessments of the Department of Transportation's activities prepared by its Office of Inspector General and key departmental documents, such as its budget, strategic plan, and performance and accountability report. Finally, we discussed these issues with selected senior officials within the department. We conducted our work in February 2007 in accordance with generally accepted government auditing standards.

In summary:

- **Financing mechanisms for the nation's transportation system** are under stress. The efficiency of the nation's transportation infrastructure is threatened by increasing demand for transportation services, and revenue from traditional funding mechanisms may be unable to keep pace at current tax rates. Revenues to support the Highway Trust Fund—the major source of federal highway and transit funding—are eroding, with recent estimates forecasting a negative balance of more than \$14 billion by the end of fiscal year 2012. For aviation, there is concern that with the current funding system, the costs of providing and modernizing air traffic control services might increase without a corresponding increase in revenues collected from users. In the future, freight traffic is projected to grow substantially, putting strain on our nation's transportation systems, but current planning and financing mechanisms impede public strategies to address needs, and industry's ability to fund its capacity increases to meet growth is largely uncertain. As a result of these concerns, we designated financing the nation's transportation infrastructure as a high-risk issue this year.⁴
- The challenges in reforming transportation finance systems are critical to **maintaining and improving our nation's mobility**. The nation's infrastructure is under great strain; congestion across modes is significant and expected to worsen. However, federal funding levels are not linked to specific performance-related goals and outcomes, resulting in limited assurance that federal funding is being channeled to the nation's most critical mobility needs. Furthermore, federal funding is often tied to a single transportation mode, which may limit the use of federal funds to finance the greatest improvements in mobility. It is also unlikely that mobility can be enhanced unless major modes—air, highway, rail, transit, and water—are well connected. However, intermodal connections, such as

⁴GAO, *High-Risk Series: An Update*, [GAO-07-310](#) (Washington, D.C.: January 2007).

multimodal passenger terminals and roads that link freight terminals and major highways, are among the transportation system's weakest links.

The department is implementing a number of new initiatives aimed at mitigating congestion, including providing funds to local governments to test innovative ideas for curbing congestion and new funding for projects that have national or regional benefits. In the aviation arena, the Federal Aviation Administration (FAA) is leading a multiagency effort to transform the air traffic control system in order to safely handle the projected growth in the demand for air travel. While these steps are encouraging, successfully addressing the nation's mobility needs requires strategic and intermodal approaches and solutions.

- Improving **transportation safety** is an imperative. Each year over 44,000 people are killed and over 2.5 million are injured in transportation-related accidents. Of particular concern is the limited progress in improving safety on our nation's roads, where about 95 percent of all transportation fatalities occur. Projected increases in congestion across modes, as a result of population and economic growth, could cause deterioration in transportation safety despite vigorous efforts to reduce accidents. To address these problems, the department is carrying out a number of initiatives related to improving aviation, commercial motor carrier, highway, railroad, and pipeline safety. However, certain areas require increased attention. In particular, improvements in data, performance measures, and evaluations are needed to determine whether programs are achieving intended results. For example, agencies need to develop better measures of the direct results of their efforts—such as safety improvements made as a result of enforcement of safety standards—that contribute toward reductions in accidents. This information can also hold agencies accountable for the performance of their programs and support congressional oversight.
- FAA has worked with the Joint Planning and Development Office (JPDO) to design and plan the **Next Generation Air Transportation System** (NextGen) and will face challenges as it moves toward implementation and integration of NextGen systems.⁵ This transition from the current air

⁵In 2003, Congress authorized the creation of the JPDO, housed within FAA, to plan for and coordinate the transition to the Next Generation Air Transportation System. It operates in conjunction with seven partner agencies. NextGen involves airport-curb-to-airport-curb modernization and encompasses security screening and environmental issues, as well as projects to augment the global positioning system to aid in approaches and landings and to provide new displays and data processing for air traffic controllers.

traffic control system to the broader and modernized NextGen system will be one of the Department of Transportation's most complex undertakings. In previous years, FAA has faced systemic management and acquisition problems that led us to designate its air traffic control modernization program as high risk. FAA has made significant progress in its handling of air traffic control acquisitions, but a key challenge going forward will be to institutionalize these improvements and to continuously improve in this area. FAA and JPDO also need to provide Congress with a valid and comprehensive estimate of the costs of the NextGen system, including the identification and costs of necessary research, development, and demonstration projects. One limited, preliminary estimate concluded that FAA's budget under a NextGen scenario would average about \$15 billion per year through 2025, or about \$1 billion more annually (in today's dollars) on average than FAA's fiscal year 2006 appropriation. JPDO has estimated that failure to achieve a timely transition to NextGen could result in a gap between the demand for air transportation services and available capacity that could cost the U.S. economy billions of dollars annually.

- In addition, the department and the transportation sector as a whole face persistent **human capital** challenges that put their mission performance at risk. Both face an impending shortage of people with the skills and competencies they will need in the future. Furthermore, while the department has made significant improvements in recent years in its **financial management**, it received a qualified opinion on its 2006 financial statements because of material weaknesses related to certain FAA activities. Finally, the department has retained some responsibilities and involvement in **transportation security and emergency preparedness and response** and is working with the Department of Homeland Security to further clarify its role.

Background

The safe, efficient, and convenient movement of people and goods depends on a vibrant transportation system that meets those needs. Our nation has built a vast transportation system of roads, airways, railways, pipelines, transit, and waterways that facilitate commerce and improve our quality of life. The flow of people and goods is enormous: the nation moved about 5 trillion ton miles of freight and 5 trillion passenger miles of people in 2004.⁶ Spending for commercial, personal, and government

⁶One ton-mile is the movement of one ton of freight for one mile. One passenger mile is the movement of one person for one mile. Statistics are for both interstate and intrastate travel.

transportation represents about 11 percent of the gross domestic product. Yet there is a price for this system:

- Increasing congestion on the ground and in the air delays the arrival of people and freight at their destinations and imposes economic losses. According to Department of Transportation estimates, congestion costs Americans roughly \$200 billion each year.
- The system is expensive to maintain and improve. Total federal, state and local transportation expenditures are close to \$200 billion annually.
- There is a human cost: over 44,000 people are killed in transportation-related accidents and over 2.5 million are injured each year.

The transportation system is under considerable strain from these factors, and this strain is expected to increase as the demand to move people and goods grows resulting from population growth, technological change, and the increased globalization of the economy. For example, according to the Transportation Research Board, an expected population growth of 100 million people could double the demand for passenger travel by 2040. Moreover, this population growth will be concentrated in certain regions and states, further intensifying the demand for transportation in these areas.⁷

The Department of Transportation implements national transportation policy and administers most federal transportation programs. Its responsibilities are considerable and reflect the extraordinary scale, use, and impact of the nation's transportation system. The department has multiple missions—primarily focusing on mobility and safety—that are carried out by several operating administrations. (See table 1.)

⁷Transportation Research Board, *Critical Issues in Transportation* (Washington, D.C.: 2006).

Table 1: Primary Missions of the Department of Transportation

Mission	Responsible entity within the department
Enhancing the quality and performance of the nation's highway system and intermodal connectors	Federal Highway Administration
Promoting the safety and efficiency of the national airspace system	Federal Aviation Administration
Supporting locally planned and operated public mass transit systems	Federal Transit Administration
Reducing motor vehicle crashes and their associated deaths and injuries	National Highway Traffic Safety Administration
Reducing commercial motor vehicle-related (large trucks and buses) fatalities and injuries	Federal Motor Carrier Safety Administration
Improving safety on the nation's rail systems and providing grants for intercity passenger rail activities	Federal Railroad Administration
Maintaining the safety and integrity of the nation's pipeline transportation system and the safety of transporting hazardous materials	Pipeline and Hazardous Materials Safety Administration
Strengthening the nation's maritime transportation system, including infrastructure, industry, and labor	Maritime Administration

Source: GAO presentation of Department of Transportation information.

For fiscal year 2008, the President's budget requested \$67 billion to carry out these and other activities. This budget request would support about 55,000 full-time-equivalent employees.

The department carries out some activities directly, such as employing more than 15,000 air traffic controllers to coordinate air traffic to make certain that planes stay a safe distance apart. However, the vast majority of its activities are not under its direct control. For example, in recent years the Federal Highway Administration (FHWA) has provided state governments nearly \$34 billion each year to build and improve roads and bridges and meet other transportation needs. However, for the most part state and local governments decide which transportation projects have high priority within their political jurisdictions. Similarly, while the National Highway Traffic Safety Administration (NHTSA) encourages the use of safety belts by the motoring public as a means of saving lives and reducing injuries, states determine whether and how to punish noncompliance. In other cases—notably most freight railways and pipelines—the infrastructure is owned and operated by private companies and the Department of Transportation regulates the safety of their transportation operations.

Transportation Challenges Facing Congress and the Department of Transportation

In our view, Congress and the Department of Transportation face four major transportation challenges—financing the nation’s transportation system, improving mobility, improving safety, and managing the transformation of the air traffic control system. Another three issues are of continuing concern: building human capital strategies, fostering improved departmental financial management, and improving transportation security and emergency preparedness and response.

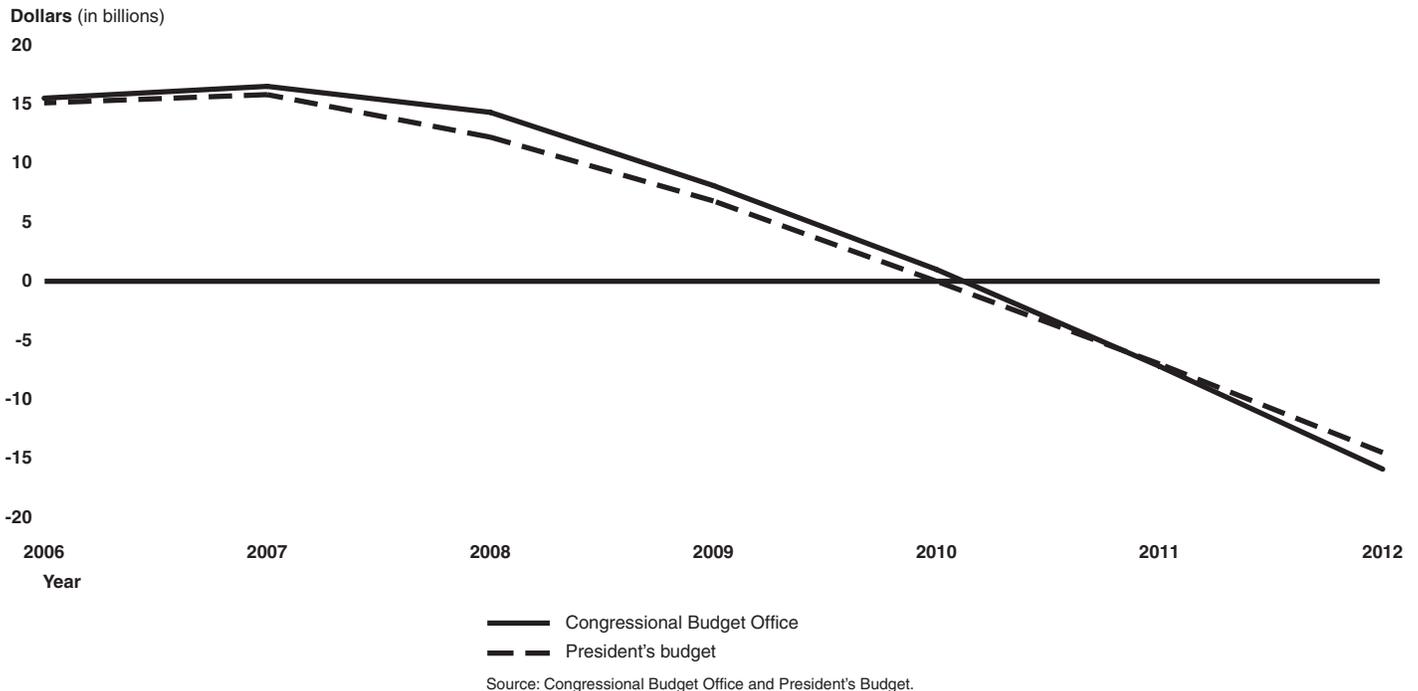
Financing the Nation’s Transportation System

The efficiency of the nation’s transportation infrastructure is threatened by increasing demand for transportation services, and revenue from traditional funding mechanisms may be unable to keep pace at current tax rates. In addition, the nation’s long-term fiscal challenges⁸ will constrain decision makers’ ability to use other revenue sources for transportation needs. As a result of these concerns, we designated financing the nation’s transportation infrastructure as a high-risk issue this year.

Revenues to support the Highway Trust Fund—the major source of federal highway and transit funding—at the current fuel tax rate are eroding. While receipts for the Highway Trust Fund, which are derived from motor fuel and truck-related taxes, are growing, the federal motor fuel tax rate of 18.3 cents per gallon has not been increased since 1993 and inflation has eroded purchasing power. In addition, increased fuel efficiency and the advent of alternative-fuel vehicles will further erode trust fund receipts. While increases in vehicle travel will increase fuel tax revenues, funding already authorized in recently enacted highway and transit program legislation is expected to outstrip the growth in trust fund receipts. According to recent estimates from the Congressional Budget Office and the President’s budget, the trust fund balance will steadily decline and reach a negative balance of more than \$14 billion by the end of fiscal year 2012. (See fig. 2.) To help remedy this situation, a commission—chaired by the Secretary of Transportation—will report later this year on recommendations to place the trust fund on a sustainable path. In addition, the Department of Transportation’s strategic plan suggests exploring tolling projects and private sector involvement to address funding constraints—ideas that some state and local governments are currently exploring.

⁸GAO-05-325SP.

Figure 2: Highway Trust Fund Year-End Balance Forecasts



Federal aviation programs are also facing growing infrastructure demands with constrained resources, and a disruption in the flow of funds may jeopardize FAA's ability to carry out its improvement programs. Demand for air travel has increased in recent years, with over 740 million passengers flying in fiscal year 2006. Failing to meet infrastructure challenges in aviation may have significant consequences, since aviation is an integral part of the economy. To meet anticipated increases in commercial aviation travel, FAA and aviation stakeholders are developing new systems to modernize and increase capacity, but it is uncertain whether the current funding system can generate sufficient revenues to meet these budgetary needs.⁹ FAA and some stakeholders have concerns that the costs of providing and modernizing air traffic control services might increase without a corresponding increase in revenues collected from users. Under one preliminary estimate of modernization costs, FAA's budget requirements would, on average, exceed fiscal year 2006 appropriation levels by approximately \$1 billion a year (in today's dollars)

⁹GAO-07-310.

through 2025. To better connect FAA's revenues with the cost of air traffic control services that it provides, the President's budget for fiscal year 2008 has proposed replacing, in fiscal year 2009, FAA's current excise tax financing system, built largely around purchases of tickets and aviation fuel, with a cost-based user fee system. This new system would aim to recover the costs of providing air traffic control services through user fees for commercial operators and aviation fuel taxes for general aviation. However, some stakeholders believe that the current structure has been effective in funding FAA and can be successful in the future, although some modifications may be necessary. In addition, the President's budget has proposed cutting and reallocating federal funds for developing projects at the nation's 3,400 airports. FAA estimates the total cost for planned airport projects eligible for funding at approximately \$42 billion (in nominal dollars) for fiscal years 2007 through 2011. FAA is also proposing that Congress allow airports to collect more revenue from other sources to help offset any reductions. Adding to uncertainty, the current excise taxes that largely fund FAA revenue are scheduled to expire at the end of September 2007, unless there is congressional action to renew them or provide an alternative source of funding to avoid a lapse of revenue in fiscal year 2008.

Freight traffic is projected to grow substantially, putting strain on ports, highways, railroads, and airports, but current public planning and financing impede strategies to address capacity investment, and industry's ability to fund its capacity increases to meet growth is largely uncertain.¹⁰ Freight mobility—the ability to move goods—is a driver of economic growth, and increasing congestion and unreliability of transportation systems can have severe economic consequences. In the future, Congress is likely to receive funding requests for additional freight projects and face decisions about the federal role in the nation's freight infrastructure.

Improving Mobility through Intermodal and Modal Approaches

While the federal government has made huge investments in our nation's transportation infrastructure in the last 50 years, the expansion of this infrastructure has not kept pace with needs and the system is currently under great strain. Congestion across modes—estimated to cost \$200 billion per year—is significant and is projected to worsen. For example,

¹⁰GAO, *Freight Railroads: Industry Health Has Improved, but Concerns about Competition and Capacity Should be Addressed*, [GAO-07-94](#) (Washington, D.C.: Oct. 6, 2006) and *Freight Transportation: Strategies Needed to Address Planning and Financing Limitations*, [GAO-04-165](#) (Washington, D.C.: Dec. 19, 2003).

travel on roads is expected to increase by about 25 percent from 2000 to 2010, freight traffic is expected to increase by 92 percent from 2002 to 2035, and demand for air travel is expected to climb by about 35 percent from 2006 to 2015. To help address congestion concerns, the federal government spends billions of dollars each year to build, maintain, operate, and improve the nation's aging transportation system. As congestion increases, federal policymakers face the challenge of ensuring that funds are used efficiently in order to prevent congestion from overwhelming the system. However, currently there is little assurance that the projects selected and funded best meet national goals for meeting the nation's mobility needs.

The department and Congress have recently taken a number of new actions to address this major threat to our nation's economic growth and quality of life. In May 2006, the department announced a national strategy that will provide \$175 million to local governments to demonstrate and test innovative ideas for curbing congestion. Certain large-scale pilot projects would be chosen based on their sponsors' willingness to implement a comprehensive congestion reduction strategy, including congestion pricing,¹¹ commuter transit services, and commitments from businesses to expand flexible work schedules. The strategy also includes initiatives to encourage private sector investment in transportation infrastructure, promote the use of operational and technological improvements, address major freight bottlenecks, and accelerate major aviation capacity projects, among other things. The department is also implementing a number of new initiatives to mitigate congestion that were called for in the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), including programs to allow states to monitor, in real-time, traffic conditions on major highways and new funding for projects that have national or regional benefits. In addition, SAFETEA-LU established a commission that will report on ways to raise revenue for highway and transit projects and also reduce the costs of congestion. Finally, in the aviation arena, FAA is the primary implementer of a multiagency effort to transform the air traffic control system in order to safely handle projected growth in the demand for air travel. I will further discuss this effort later in my statement.

¹¹Congestion pricing involves charging surcharges or tolls to drivers who choose to travel during peak periods when their use of the roads increases congestion.

While these steps are encouraging, successfully addressing the nation's mobility challenges requires strategic and intermodal approaches and solutions.¹² The nation faces a growing fiscal crisis that challenges it to fundamentally reexamine existing government programs and commitments and to make tough choices in setting priorities and linking resources to results. In particular, the Highway Trust Fund—the largest source of federal funding for transportation—was created in 1956 for the purpose of constructing the interstate highway system and, although that system is now complete, the basic construct of the program, in terms of financing and delivery mechanisms, has not changed. In addition, this and other federal transportation programs do not have mechanisms to link funding levels with the accomplishment of specific performance-related goals and outcomes related to mobility. Most highway grant programs are apportioned by formula, without regard to the needs or capacity of recipients. In addition, the preponderance of evidence suggests that federal-aid highway grants have influenced state and local governments to substitute federal funds for state and local funds that otherwise would have been spent on highways. State and local governments have broad flexibility to select most projects that receive federal funding. As such, there is little assurance that the projects selected and funded best meet national goals for addressing the nation's mobility needs.¹³ Intercity passenger rail service is also at a critical juncture, with the existing system in poor condition and federal subsidies—over \$1 billion annually in recent years—not targeted to the greatest public benefits, including congestion relief.¹⁴

Furthermore, transportation programs and funding mechanisms are largely stovepiped by modes of transportation. For example, while passenger and freight travel occurs on all modes, federal funding and planning requirements focus largely on highway, transit, and aviation passenger travel. This framework makes it difficult for intermodal projects and other modal projects (e.g., freight or passenger rail) to be integrated

¹²GAO-05-325SP.

¹³GAO, *Highway and Transit Investments: Options for Improving Information on Projects' Benefits and Costs and Increasing Accountability for Results*, GAO-05-172 (Washington, D.C.: Jan. 24, 2005); *Federal-Aid Highways: Trends, Effect on State Spending, and Options for Future Program Design*, GAO-04-802 (Washington, D.C.: Aug. 31, 2004) and *Surface and Maritime Transportation: Developing Strategies for Enhancing Mobility: A National Challenge*, GAO-02-775 (Washington, D.C.: Aug. 30, 2002).

¹⁴GAO, *Intercity Passenger Rail: National Policy and Strategies Needed to Maximize Public Benefits from Federal Expenditures*, GAO-07-15 (Washington, D.C.: Nov. 13, 2006).

into the transportation system. We have found, for example, that the limited visibility that freight projects receive in the process for planning and prioritizing transportation projects as well as the lack of a comprehensive evaluation approach, such as a cost-benefit framework, impedes the implementation of improvements to better ensure that systemwide, multimodal solutions are considered and adopted where appropriate. It is unlikely that mobility can be enhanced unless major modes—air, highway, rail, transit, and water—are well connected. However, intermodal connections, such as multimodal passenger terminals and roads that link freight terminals and major highways, are among the transportation system’s weakest links.¹⁵

The critical issues facing Congress and the department to effectively address congestion problems and enhance the nation’s mobility include:

- How narrowly or broadly should the federal role be defined?
- Should federal programs be more closely aligned with specific national interests and purposes, such as interstate freight mobility?
- Should formulas be revised to better consider need, performance, capacity, and effort by states and localities?
- Can intermodal solutions be effectively carried out within the existing federal modal program framework, or is another model needed?

Finally, a high priority should be maximizing the benefits of federal investments in transportation infrastructure and ensuring accountability for results. Each year, FHWA distributes billions of dollars—\$34.2 billion in fiscal year 2006—to state governments for projects aimed at improving the nation’s highway systems.¹⁶ However, we have found that often formal analyses are not used in deciding among alternative projects, projects often do not meet anticipated outcomes, and evaluations of outcomes are

¹⁵See [GAO-07-94](#); [GAO-04-165](#); *Intermodal Transportation: Challenges to and Potential Strategies for Developing Improved Intermodal Capabilities*, [GAO-06-855T](#) (Washington, D.C.: June 15, 2006); and *Intermodal Transportation: Potential Strategies Would Redefine Federal Role in Developing Airport Intermodal Capabilities*, [GAO-05-727](#) (Washington, D.C.: July 26, 2005).

¹⁶Once FHWA distributes funds to the states, funds are available to be obligated by the states for construction, reconstruction, and improvement of highways and bridges on eligible federal aid-highway routes and for other purposes authorized in law.

not typically conducted.¹⁷ Furthermore, we have reported on the need for improving accountability for results in FHWA's oversight of projects, through goals and performance measures, for example.¹⁸ The agency has made progress in this area, partly in response to mandated improvements in SAFETEA-LU, but a continued focus on efforts to improve accountability will be important. Finally, FAA provides funds to airport operators to provide increased capacity at the nation's airports and has estimated that the total cost for planned projects eligible for federal grants for fiscal years 2007 through 2011 will be \$42 billion. While changes the Administration is proposing may reduce the amount FAA provides, it will be essential to ensure that public benefits from these investments are maximized.

Improving Transportation Safety

Each year, tens of thousands of people are killed and millions are injured in transportation accidents in the United States. In 2005 alone, over 44,000 people were killed and over 2.5 million were injured in highway, aviation, railroad, transit, and pipeline accidents.¹⁹ (See fig. 3.) Motor vehicle crashes, in particular, exact an enormous personal and economic toll on this country and are the leading cause of death for people aged 3 through 33. While transportation safety has improved considerably over the past 4 decades, in recent years, fatalities have plateaued.²⁰ Since the highest pay-off actions—such as improvements in vehicle crashworthiness and increases in seat belt use—have occurred, future progress will be more difficult. Of particular concern is the limited progress in improving safety

¹⁷GAO-05-172.

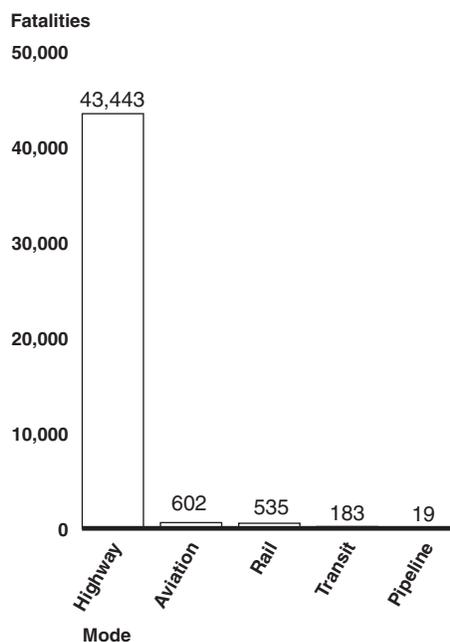
¹⁸See GAO, *Federal-Aid Highways: FHWA Needs a Comprehensive Approach to Improving Project Oversight*, GAO-05-173 (Washington, D.C.: Jan. 31, 2005). The Department of Transportation's Inspector General has also found that a top management challenge for the department is making the most of federal resources for surface infrastructure improvements through continued emphasis on project oversight. See Office of the Inspector General, U.S. Department of Transportation, *Department of Transportation's Fiscal Year 2007 Top Management Challenges*, PT-2007-004 (Washington, D.C.: 2006).

¹⁹In addition, according to the Bureau of Transportation Statistics, in 2004, 769 people were killed in waterborne transportation accidents and, in 2003, 4,666 were injured in these types of accidents. These are the latest years for which these data are available. In 2003, the Coast Guard, which is responsible for maritime safety, was transferred from the Department of Transportation to the Department of Homeland Security.

²⁰Motor vehicle fatalities, adjusted for the level of travel, have shown some improvement over the last decade, falling from 1.7 deaths per 100 million vehicle miles traveled in 1995 to 1.5 in 2005.

on our nation's roads, where about 95 percent of all transportation fatalities occur. Furthermore, motorcycle fatalities have steadily increased over the past decade (to over 4,500 in 2005). While nonhighway modes of travel are much safer, safety in these modes—such as aviation and rail—is also a major concern because when accidents occur, they can have catastrophic consequences. Projected increases in congestion across modes, as a result of population and economic growth, could cause a deterioration in transportation safety in the future despite vigorous efforts to reduce accidents.

Figure 3: Fatalities by Transportation Mode, 2005



Source: Bureau of Transportation Statistics.

Note: Aviation figures are preliminary. Of the 602 aviation fatalities, 562 occurred in general aviation, which covers all civil aircraft not flown by commercial airlines or the military.

To address these problems, the department has designated improving safety as its highest priority. Its efforts to improve surface transportation safety are wide-ranging and include programs to change driver behaviors—such as alcohol use and speeding—that cause accidents; enhance motor vehicle safety; improve the safety of highway and intersection infrastructure; and improve safety performance in the motor carrier, railroad, transit, and pipeline industries. SAFETEA-LU established

an incentive grant program—which has been quite successful—to encourage states to pass primary seat belt laws.²¹ SAFETEA-LU also mandated a number of other promising new initiatives, including a grant program for highway safety that provides states with flexibility to target funds to their most critical safety needs. Under this program, states are required to prepare strategic highway safety plans, based on an analysis of safety data, and to assess results. FAA focuses on improving safety in commercial aviation, in which accidents are rare but have the potential for a large loss of life, as well as in general aviation. The agency’s safety activities include air traffic control as well as certification and inspection of various participants in the aviation industry, such as commercial airlines, flight schools, and aircraft manufacturers.

While the department’s many efforts to improve transportation safety are to be commended, certain areas require increased attention. In particular, improvements in data, performance measures, and evaluations are needed to determine whether programs are achieving intended results. For example, in reviewing certain programs of the Federal Motor Carrier Safety Administration aimed at improving driver behavior, we found that, in some cases, funds were being directed to initiatives that lacked information on whether they worked and that evaluations of program impacts were not planned for a number of years.²² In reviewing a NHTSA grant program to help states improve the quality of their traffic safety data, we found that the agency did not have an effective process in place for monitoring progress.²³ We have also found that the effectiveness of the department’s efforts to oversee and improve the safety performance of airlines, truck companies, pipeline companies, and railroads is unclear

²¹Primary enforcement seat belt laws allow police officers to stop vehicles and write citations whenever they observe violations of safety belt laws. Since SAFETEA-LU was signed into law, three states have enacted primary seat belt laws, bringing the total number of states with such laws to 25.

²²GAO, *Truck Safety: Share the Road Safety Pilot Initiative Showed Promise, but the Program’s Future Success Is Uncertain*, [GAO-06-916](#) (Washington, D.C.: Sept. 8, 2006) and *Federal Motor Carrier Safety Administration: Education and Outreach Programs Target Safety and Consumer Issues, but Gaps in Planning and Evaluation Remain*, [GAO-06-103](#) (Washington, D.C.: Dec. 19, 2005). In addition, in reviewing NHTSA’s grants to states for reducing alcohol-impaired driving, the department’s Inspector General has found that the agency’s ability to gauge the effectiveness of these programs would be improved if states had established performance measures. See PT-2007-004.

²³GAO, *Highway Safety: Improved Monitoring and Oversight of Traffic Safety Data Program Are Needed*, [GAO-05-24](#) (Washington, D.C.: Nov. 4, 2004).

because of limitations in data, performance measures, and evaluation.²⁴ For example, agencies need to develop better measures of the direct results of their efforts—such as safety improvements made as a result of enforcement of safety standards—that contribute toward reductions in accidents. Performance measures and evaluations, supported by appropriate data, provide managers with information on program results that helps them make decisions that can improve performance, including decisions to refine programs and adjust policies and priorities. This information can also hold agencies accountable for the performance of their programs and support congressional oversight. While agencies have been making progress in this area in response to our recommendations as well as some mandated improvements in SAFETEA-LU, it is important that the department continue to improve information on the performance of its safety programs to have greater assurance that they are producing desired effects.

Furthermore, the department's ability to maintain the high level of safety in the aviation industry will depend to a large extent on FAA's ability to hire, train, and deploy its primary workforce, including safety inspectors and air traffic controllers. FAA must overcome several key challenges in this area. Planned changes in the agency's oversight approach for air carriers will result in workload shifts for its inspectors that will make it important for FAA to improve its staffing process. In addition, the agency plans to hire almost 12,000 new air traffic controllers by 2015 to replace retiring controllers and accommodate increases in air traffic and will need to train these new controllers and incorporate them into its workforce.²⁵

²⁴GAO, *Aviation Safety: FAA's Safety Oversight System Is Effective but Could Benefit from Better Evaluation of Its Programs' Performance*, [GAO-06-266T](#) (Washington, D.C.: Nov. 17, 2005); *Large Truck Safety: Federal Enforcement Efforts Have Been Stronger Since 2000, but Oversight of State Grants Needs Improvement*, [GAO-06-156](#) (Washington, D.C.: Dec. 15, 2005); *Natural Gas Pipeline Safety: Integrity Management Benefits Public Safety, but Consistency of Performance Measures Should be Improved*, [GAO-06-946](#) (Washington, D.C.: Sept. 8, 2006); and *Rail Safety: The Federal Railroad Administration Is Taking Steps to Better Target Its Oversight, but Assessment of Results Is Needed to Determine Impact*, [GAO-07-149](#) (Washington, D.C.: Jan. 26, 2007).

²⁵GAO, *Federal Aviation Administration: Challenges Facing the Agency in Fiscal Year 2008 and Beyond*, [GAO-07-490T](#) (Washington, D.C.: Feb. 14, 2007) and *Aviation Safety: FAA's Safety Efforts Generally Strong but Face Challenges*, [GAO-06-1091T](#) (Washington, D.C.: Sept. 20, 2006).

Managing the Transition to the Next Generation Air Transportation System

The current approach to managing air transportation is becoming increasingly inefficient and operationally obsolete. In 2003, Congress authorized the creation of the JPDO, housed within FAA, to plan for and coordinate the transition to NextGen, a complex and ambitious multiagency undertaking that is intended to upgrade the system by 2025 to safely accommodate increased air traffic. As the primary implementer of the transition to NextGen, FAA faces challenges in moving from planning to implementation, including institutionalizing management reforms it has made in recent years, obtaining financial and technical resources and expertise, and collaborating with JPDO on planning efforts.²⁶ If FAA does not meet these challenges, the realization of NextGen goals could be severely compromised. Without a timely transition to NextGen capabilities, JPDO officials estimate a future gap between the demand for air transportation and available capacity that could cost the U.S. economy billions of dollars annually.

FAA has had systemic management and acquisition problems that have led us to designate its air traffic control modernization program as high-risk since 1995. However, FAA has made significant progress in recent years. For example, FAA established the Air Traffic Organization to operate and modernize the air traffic control system. This organization is headed by a Chief Operating Officer who has focused on implementing more businesslike management and acquisition processes to address cost, schedule, and performance shortfalls that plagued air traffic control modernization in the past. FAA has reduced organizational stovepipes, increased accountability for costs, and begun investment reviews of major acquisitions. FAA has reported meeting its acquisition cost and schedule goals for the last 3 years.

JPDO has completed some initial planning necessary for implementing NextGen. For example, JPDO has been developing an enterprise architecture, or technical blueprint, that it expects will provide more clarity regarding its expectations for NextGen, thereby facilitating (1) coordination among JPDO's partner agencies²⁷ and private sector

²⁶GAO, *Next Generation Air Transportation System: Progress and Challenges Associated with the Transformation of the National Airspace System*, GAO-07-25 (Washington, D.C.: Nov. 13, 2006).

²⁷In addition to FAA, these agencies include the Departments of Transportation, Commerce, Defense, and Homeland Security; the National Aeronautics and Space Administration; and the White House Office of Science and Technology Policy.

manufacturers, (2) alignment across agencies of research and development activities with the blueprint, and (3) integration of modernized systems in a way that minimizes overlap and duplication and maximizes integration. As we reported in November 2006, a limited, preliminary cost estimate concluded that FAA's budget under a NextGen scenario would average about \$15 billion per year through 2025, or about \$1 billion more annually (in today's dollars), on average, than FAA's fiscal year 2006 appropriation.²⁸

Despite its progress, as the key implementer of NextGen, FAA needs to institutionalize improvements made and continuously improve. For example, we recommended that, before making decisions to fund systems already in service, FAA re-evaluate projects' alignment with strategic goals and objectives, but FAA's acquisition management guidance does not clearly indicate if this is yet the case. The agency developed a cost estimating methodology, but has yet to implement it, as well as a framework for improving system management capabilities, but has yet to institutionalize it. Additionally, we recently recommended that FAA examine its strengths and weaknesses with regard to the technical expertise and contract management expertise necessary to transition to NextGen.²⁹ In response, FAA is considering convening a blue ribbon panel to make recommendations, which we believe could help the agency begin to address this concern.

JPDO faces challenges in coordinating agencies and continuing planning necessary for implementation of NextGen. For example, work remains to synchronize NextGen's enterprise architecture with the partner agencies' planning documents and to keep the necessary research and development on track. In addition, JPDO has yet to provide Congress with a valid, comprehensive estimate of the costs to JPDO partner agencies for the required research, development, systems acquisitions, and systems integration.³⁰ Finally, continuing collaboration between JPDO and the

²⁸This preliminary estimate—developed by the Research, Engineering and Development Advisory Committee, an advisory committee to FAA—indicates that costs for a status quo scenario (i.e., no NextGen) would also be about \$15 billion per year through 2025. This is due primarily to the expectation that, under the NextGen scenario, capital expenditures would be higher than under the status quo scenario in the near term, but operations costs would be lower because of productivity improvements in the longer term.

²⁹[GAO-07-25](#).

³⁰[GAO-07-490T](#).

Office of Management and Budget is needed to allow the budget agency to make funding decisions based on a unified NextGen program. The Congressional Research Service has pointed out that Congress may examine options to align the budgets of the agencies involved, given that JPDO does not have authority over funding, personnel, and resources.³¹

Building Human Capital Strategies

The department and the transportation sector as a whole face persistent human capital challenges that put their mission performance at risk. Building human capital strategies that will allow the department and the transportation sector to attract, hire, and retain an effective workforce is an overarching issue that directly affects their ability to respond to the challenges I have outlined today.³² In particular, both are confronted with an impending shortage of skilled people that threatens to have serious short- and long-term consequences. For example, FAA alone expects to lose about 10,000, or 70 percent, of its air traffic controllers over the next 10 years, mostly due to retirement. For the department and the transportation sector as a whole, the growing demand for transportation services will collide with the reality of fewer people entering transportation-related fields. Further complicating this shortage, changes in intergovernmental responsibilities for delivering transportation services, new travel patterns, advances in technology, and changed public expectations are redefining the competencies and skills that are needed. Increasingly, transportation will require more diverse, sophisticated management and technical competencies than ever before.

The department has acknowledged that accomplishing its mission depends on a strategic approach to human capital, and it is taking steps to adopt such an approach. For example, in 2005, the agency piloted a program to expand entry-level hiring in mission-critical occupations. Also, in 2006, the agency increased its investments in human capital by 48 percent. Furthermore, the agency is working to align its human capital initiatives to meet the President's Management Agenda. In the department's current performance and accountability report, the Office of

³¹Congressional Research Service, *Reauthorization of the Federal Aviation Administration: Background and Issues for Congress* (Washington, D.C.: January 29, 2007).

³²We added strategic human capital management as a governmentwide high-risk area in 2001 because federal agencies lacked a strategic approach to human capital management that integrates human capital efforts with agency mission and program goals. See [GAO-07-310](#).

Management and Budget awarded the department top marks for current and prospective progress on its human capital initiative. However, the department has not convinced its workforce about these results. In the results of the 2006 federal employee human capital survey, the employees scored the department lower in each of the four broad areas than they did in 2004, when the survey was last conducted. Among the 36 federal agencies surveyed, the department finished in the bottom 10 for talent management and job satisfaction and in the bottom 3 for fostering a results-oriented performance culture and for leadership and knowledge management. The department will need to take further actions to address these issues, to improve its ability to respond to the challenges it faces.

Across the transportation sector, transportation agencies are also taking steps to improve human capital practices, by identifying organizational and staff competency needs, as well as other gaps. They are also beginning to investigate nontraditional sources for qualified employees, such as highly qualified retirees from other organizations, as well as ways to develop individual competencies by training the existing workforce. While these efforts are promising, these agencies vary widely, and although each has its own unique capabilities and resources to address workforce needs, all have limited resources. Furthermore, few have addressed their future workforce needs comprehensively, which further complicates efforts to predict how many people in specific job categories for each type of agency will be needed in 5 or 10 years.³³

Fostering Improved Departmental Financial Management

In 2003, we cited financial management as a major challenge facing the Department of Transportation, specifically, identifying weaknesses in the accuracy and reliability of FAA's financial information.³⁴ In recent years, the department has made significant progress in managing its finances, including substantial improvements in FAA's financial management systems and practices. Improvements have included installing a departmentwide financial system, including a new general ledger system and integrated property systems at FAA, as well as receiving unqualified opinions on its financial statements from auditors for several fiscal years

³³Transportation Research Board, *The Workforce Challenge: Recruiting, Training, and Retaining Qualified Workers for Transportation and Transit Agencies*, Special Report 275 (Washington, D.C.: 2003).

³⁴[GAO-03-108](#).

in a row. As a result of this progress, in 2005, we removed FAA's financial management from our high-risk list.

While progress has been made, work remains to ensure that the Department of Transportation soundly manages its finances and accounts for its use of federal and other funds. For fiscal year 2006, the department received a qualified opinion on its financial statements and the auditors cited two material internal control weaknesses.³⁵ This qualified opinion resulted from a material weakness at FAA relating to management's inability to support the accuracy and completeness of a \$4.7 billion account used for equipment and facility projects. The department's Office of the Inspector General has reported that correcting this deficiency will be critical for FAA to meet its stated goal of sound financial management.³⁶ The other material weakness involves the financial management, reporting, and oversight of the Highway Trust Fund agencies.³⁷ During fiscal year 2006, trust fund agencies implemented significant improvements over several previously reported deficiencies. However, weaknesses remained in several areas, including a lack of policies and procedures to ensure more timely correction of any abnormal account balances and concerns with the preparation and analysis of financial statements. The Inspector General has listed several additional steps to further improve oversight of the trust fund, including better detection of improper payments and development of realistic project cost estimates.³⁸

³⁵ A material weakness can involve one or more of the following categories: significant weakness of safeguards against waste, loss, unauthorized use, or misappropriation of funds, property, or other assets; violates statutory authority; results in a conflict of interest; deprives the public of significant services, or seriously affects safety or the environment; impairs the fulfillment of the agency's mission, and/or would result in significant adverse effects on agency credibility.

³⁶ Department of Transportation Office of the Inspector General, PT-2007-004

³⁷ Agencies using Highway Trust Fund funds include the Federal Highway Administration, National Highway Traffic Safety Administration, Federal Transit Administration, Federal Railroad Administration, Federal Motor Carrier Safety Administration, and Research and Innovative Technology Administration.

³⁸ Department of Transportation Office of the Inspector General, PT-2007-004.

Improving Transportation Security and Emergency Preparedness and Response

The size and interconnectedness of the nation's transportation systems make it highly difficult to secure against attack. In 2003, we cited transforming transportation security as a major challenge facing the Department of Transportation.³⁹ In recent years, Congress has shifted many of the department's security responsibilities to the Department of Homeland Security, which now has primary responsibility for securing the nation's transportation infrastructure, including aviation, railroad, pipeline, and other systems. The Department of Transportation has retained some involvement in securing transportation infrastructure, in part, due to overlap with its safety efforts involving freight, including the transportation of hazardous materials, and passenger rail. In light of these changes, the department faces the challenge of working with the Department of Homeland Security to clarify its remaining role in securing the nation's transportation infrastructure. The sheer number of stakeholders involved in securing transportation modes can sometimes lead to communication challenges, duplication of effort, and confusion about roles and responsibilities. For example, the department's safety standards have at times conflicted with the Department of Homeland Security's security standards. Both departments have begun efforts to strengthen coordination and cooperation to promote the security of the transportation system. The departments have signed a memorandum of understanding to define broad areas of responsibility for each department and to delineate specific security related roles, responsibilities, resources, and commitments for mass transit, rail, and other matters.⁴⁰ However, the departments' coordination efforts in this area are ongoing.

The department also coordinates with the Department of Homeland Security in developing protective measures affecting transportation and has statutory roles related to emergency preparedness, response, and recovery. This encompasses programs like FHWA's Emergency Relief program, which provides funding to states to repair or reconstruct highways and roads damaged or destroyed in disasters.⁴¹ During times of disaster, the department plays a significant role as the lead and supporting agency for coordinating transportation support. In this role, it is primarily responsible for coordinating the provision of federal and civil

³⁹GAO-03-108.

⁴⁰GAO, *Passenger Rail Security: Federal Strategy and Enhanced Coordination Needed to Prioritize and Guide Security Efforts*, GAO-07-459T (Washington, D.C.: Feb. 13, 2007).

⁴¹GAO, *Highway Emergency Relief: Reexamination Needed to Address Fiscal Imbalance and Long-Term Sustainability*, GAO-07-245 (Washington, D.C.: Feb. 23, 2007).

transportation services, as well as the recovery and restoration of transportation infrastructure, among other things. In the future, the department will be tasked to further clarify its roles and responsibilities with the Department of Homeland Security in planning for and providing evacuation assistance. Catastrophic disasters like Hurricane Katrina demonstrate the importance of transportation preparedness and response to ensure the safe evacuation of citizens in emergencies when state and local governments are overwhelmed.⁴² Yet the department's responsibilities in providing evacuation assistance have not been entirely clear. In addition, despite recent progress by the federal government in providing evacuation assistance, gaps remain. For example, the Department of Homeland Security has not yet clarified, in the federal government's plan for disaster response, the leading, coordinating, and supporting federal agencies to provide evacuation assistance when state and local governments are overwhelmed, and what their responsibilities are. One White House report recommended that the Department of Transportation be designated as the agency responsible for developing the federal government's capability to carry out mass evacuations when state and local governments are overwhelmed.⁴³

Mr. Chairman, this concludes my prepared statement. I would be pleased to respond to any questions that you or other Members of the Subcommittee might have.

GAO Contacts and Staff Acknowledgement

For further information on this statement, please contact Patricia Dalton at (202) 512-2834 or Daltonp@gao.gov. Individuals making key contributions to this testimony were Matthew Cail, Judy Guilliams-Tapia, Marietta Mayfield, Margaret Vo, and James Ratzenberger.

⁴²GAO, *Transportation-Disadvantaged Populations: Actions Needed to Clarify Responsibilities and Increase Preparedness for Evacuations*, GAO-07-44 (Washington, D.C.: Dec. 22, 2006).

⁴³White House Homeland Security Council, *The Federal Response to Hurricane Katrina: Lessons Learned* (Washington, D.C.: Feb. 2006).

Appendix I: Ongoing GAO Work Related to Transportation Challenges

Description (expected completion)	GAO contact
Transportation financing	
<ul style="list-style-type: none"> Airport capital development funding (early 2007) 	Gerald Dillingham (202) 512-2834 DillinghamG@gao.gov
<ul style="list-style-type: none"> Federal role in overseeing and funding railroad bridge and tunnel projects (mid 2007) GAO forum on transforming transportation policy (mid 2007) 	JayEtta Hecker (202) 512-2834 HeckerJ@gao.gov
<ul style="list-style-type: none"> The Federal Transit Administration's New Starts program (mid 2007) 	Katherine Siggerud (202) 512-2834 SiggerudK@gao.gov
Mobility	
<ul style="list-style-type: none"> The Federal Transit Administration's implementation and oversight of the New Freedom program (TBD^a) 	Kay Brown (202) 512-2834 BrownKE@gao.gov
<ul style="list-style-type: none"> Operational, capacity, and safety issues associated with the Airbus A380 (early 2007) 	Gerald Dillingham (202) 512-2834 DillinghamG@gao.gov
<ul style="list-style-type: none"> Introduction of very light jets into the national airspace system (mid 2007) 	Susan Fleming (202) 512-2834 FlemingS@gao.gov
<ul style="list-style-type: none"> Approaches to the efficient use of existing transportation infrastructure (mid 2007) Freight bottlenecks (late 2007) Public-private partnerships in transportation (late 2007) Restructuring the federal-aid highway program (TBD^a) Trends and performance of state contracting with the private sector (TBD^a) 	JayEtta Hecker (202) 512-2834 HeckerJ@gao.gov
<ul style="list-style-type: none"> Port preparedness and mobility of goods during natural disasters (early 2007) Barriers in addressing intermodal solutions to transportation mobility challenges (mid 2007) Corporate Average Fuel Economy program policy options (mid 2007) Surface transportation compliance with the Americans with Disabilities Act of 1990 (late 2007) 	Katherine Siggerud (202) 512-2834 SiggerudK@gao.gov
Safety	
<ul style="list-style-type: none"> The public safety impact of the Transportation Security Administration's modifications to the prohibited items list (early 2007^b) 	Cathleen Berrick (202) 512-3404 BerrickC@gao.gov
<ul style="list-style-type: none"> Implementation progress of the Uniform Carrier Registration program (TBD^a) 	Kay Brown (202) 512-2834 BrownKE@gao.gov

Description (expected completion)	GAO contact
<ul style="list-style-type: none"> Operational, capacity, and safety issues associated with the Airbus A380 (early 2007) Airport runway safety and the role of the Federal Aviation Administration (late 2007) 	Gerald Dillingham (202) 512-2834 DillinghamG@gao.gov
<ul style="list-style-type: none"> Identification of motor carriers that pose a high risk for crashes (mid 2007) Federal Motor Carrier Safety Administration identification and monitoring of unsafe motor carriers (mid 2007) 	Susan Fleming (202) 512-2834 FlemingS@gao.gov
<ul style="list-style-type: none"> Safety standards for older drivers (early 2007) Emerging trends in and challenges to preventing highway fatalities (late 2007) 	Katherine Siggerud (202) 512-2834 SiggerudK@gao.gov
Next generation air transportation system	
<ul style="list-style-type: none"> Survey of Joint Planning and Development Office stakeholders (mid 2007) The Federal Aviation Administration's air traffic control modernization program (mid 2007) 	Gerald Dillingham (202) 512-2834 DillinghamG@gao.gov
Human capital strategies	
No ongoing work	
Financial management	
<ul style="list-style-type: none"> The Federal Aviation Administration's financial management efforts (mid 2007) Highway transit funding authority (mid 2007) 	Gerald Dillingham (202) 512-2834 DillinghamG@gao.gov Katherine Siggerud (202) 512-2834 SiggerudK@gao.gov
Security and emergency preparedness and response	
<ul style="list-style-type: none"> Research and development of aviation passenger checkpoint screening technologies (mid 2007^b) Planning and implementation efforts to ensure the security of commercial vehicles (TBD^{a,b}) Vulnerabilities of tank vessels to terrorist attack (early 2007^b) Port preparedness and mobility of goods during natural disasters (early 2007) The Federal Transit Authority's emergency assistance for transit agencies (TBD^a) 	Cathleen Berrick (202) 512-3404 BerrickC@gao.gov Stephen Caldwell (202) 512-9610 CaldwellS@gao.gov Katherine Siggerud (202) 512-2834 SiggerudK@gao.gov

Source: GAO.

^aTo be determined

^bThis report may not be publicly available at this time because it may contain security sensitive information.

Related GAO Products

The following are the most pertinent GAO products to the topics discussed in this hearing statement since our 2003 report on management challenges facing the Department of Transportation. Other products can be found at GAO's Website at www.gao.gov.

Financing the Nation's Transportation System

Intercity Passenger Rail: National Policy and Strategies Needed to Maximize Public Benefits from Federal Expenditures. [GAO-07-15](#). Washington, D.C.: November 13, 2006.

Freight Railroads: Industry Health Has Improved, but Concerns about Competition and Capacity Should Be Addressed. [GAO-07-94](#). Washington, D.C.: October 6, 2006.

Aviation Finance: Observations on Potential FAA Funding Options. [GAO-06-973](#). Washington, D.C.: September 29, 2006.

National Airspace System Modernization: Observations on Potential Funding Options for FAA and the Next Generation Airspace System. [GAO-06-1114T](#). Washington, D.C.: September 27, 2006.

Highway Finance: States' Expanding Use of Tolling Illustrates Diverse Challenges and Strategies. [GAO-06-554](#). Washington, D.C.: June 28, 2006.

Highway Trust Fund: Overview of Highway Trust Fund Estimates. [GAO-06-572T](#). Washington, D.C.: April 4, 2006.

Federal Aviation Administration: An Analysis of the Financial Viability of the Airport and Airway Trust Fund. [GAO-06-562T](#). Washington, D.C.: March 28, 2006.

Freight Transportation: Short Sea Shipping Option Shows Importance of Systematic Approach to Public Investment Decisions. [GAO-05-768](#). Washington, D.C.: July 29, 2005.

Highlights of an Expert Panel: The Benefits and Costs of Highway and Transit Investments. [GAO-05-423SP](#). Washington, D.C.: May 6, 2005.

Airport and Airway Trust Fund: Preliminary Observations on Past, Present, and Future. [GAO-05-657T](#). Washington, D.C.: May 4, 2005.

Highway and Transit Investments: Options for Improving Information on Projects' Benefits and Costs and Increasing Accountability for Results. [GAO-05-172](#). Washington, D.C.: January 24, 2005.

Federal-Aid Highways: Trends, Effect on State Spending, and Options for Future Program Design. [GAO-04-802](#). Washington, D.C.: August 31, 2004.

Surface Transportation: Many Factors Affect Investment Decisions. [GAO-04-744](#). Washington, D.C.: June 30, 2004.

Improving Mobility through Intermodal and Modal Approaches

Transportation-Disadvantaged Populations: Actions Needed to Clarify Responsibilities and Increase Preparedness for Evacuations. [GAO-07-44](#). Washington, D.C.: December 22, 2006.

Federal Transit Administration: Progress Made in Implementing Changes to the Job Access Program, but Evaluation and Oversight Processes Need Improvement. [GAO-07-43](#). Washington, D.C.: November 17, 2006.

Intercity Passenger Rail: National Policy and Strategies Needed to Maximize Public Benefits from Federal Expenditures. [GAO-07-15](#). November 13, 2006.

Freight Railroads: Industry Health has Improved, but Concerns about Competition and Capacity Should Be Addressed. [GAO-07-94](#). Washington, D.C.: October 6, 2006.

Commercial Aviation: Programs and Options for the Federal Approach to Providing and Improving Air Service to Small Communities. [GAO-06-398T](#). Washington, D.C.: September 14, 2006.

Public Transportation: New Starts Program Is in a Period of Transition. [GAO-06-819](#). Washington, D.C.: August 30, 2006.

Public Transportation: Preliminary Information on FTA's Implementation of SAFETEA-LU Changes. [GAO-06-910T](#). Washington, D.C.: June 27, 2006.

Intermodal Transportation: Challenges to and Potential Strategies for Developing Improved Intermodal Capabilities. [GAO-06-855T](#). Washington, D.C.: June 15, 2006.

Commuter Rail: Commuter Rail Issues Should Be Considered in Debate over Amtrak. [GAO-06-470](#). Washington, D.C.: April 21, 2006.

Transportation Services: Better Dissemination and Oversight of DOT's Guidance Could Lead to Improved Access for Limited English-Proficient Populations. [GAO-06-52](#). Washington, D.C.: November 2, 2005.

Intermodal Transportation: Potential Strategies Would Redefine Federal Role in Developing Airport Intermodal Capabilities. [GAO-05-727](#). Washington, D.C.: July 26, 2005.

Federal-Aid Highways: FHWA Needs a Comprehensive Approach to Improving Project Oversight. [GAO-05-173](#). Washington, D.C.: January 31, 2005.

Highway and Transit Investments: Options for Improving Information on Projects' Benefits and Costs and Increasing Accountability for Results. [GAO-05-172](#). Washington, D.C.: January 24, 2005.

Federal-Aid Highways: Trends, Effect on State Spending, and Options for Future Program Design. [GAO-04-802](#). Washington, D.C.: August 31, 2004.

Improving Transportation Safety

Underinflated Tires in the United States. [GAO-07-246R](#). Washington, D.C.: February 9, 2007.

Rail Safety: The Federal Railroad Administration Is Taking Steps to Better Target Its Oversight, but Assessment of Results is Needed to Determine Impact. [GAO-07-149](#). Washington, D.C.: January 26, 2007.

Aviation Safety: FAA's Safety Efforts Generally Strong but Face Challenges. [GAO-06-1091T](#). Washington, D.C.: September 20, 2006.

Natural Gas Pipeline Safety: Integrity Management Benefits Public Safety, but Consistency of Performance Measures Should Be Improved. [GAO-06-946](#). Washington, D.C.: September 8, 2006.

Natural Gas Pipeline Safety: Risk-Based Standards Should Allow Operators to Better Tailor Reassessments to Pipeline Threats. [GAO-06-945](#). Washington, D.C.: September 8, 2006.

Truck Safety: Share the Road Safety Pilot Initiative Showed Promise, but the Program's Future Success Is Uncertain. [GAO-06-916](#). Washington, D.C.: September 8, 2006.

Rail Transit: Additional Federal Leadership Would Enhance FTA's State Safety Oversight Program. [GAO-06-821](#). Washington, D.C.: July 26, 2006.

Federal Motor Carrier Safety Administration: Education and Outreach Programs Target Safety and Consumer Issues, but Gaps in Planning and Evaluation Remain. [GAO-06-103](#). Washington, D.C.: December 19, 2005.

Large Truck Safety: Federal Enforcement Efforts Have Been Stronger Since 2000, but Oversight of State Grants Needs Improvement. [GAO-06-156](#). Washington, D.C.: December 15, 2005.

Highway Safety: Further Opportunities Exist to Improve Data on Crashes Involving Commercial Motor Vehicles. [GAO-06-102](#). Washington, D.C.: November 18, 2005.

Aviation Safety: FAA's Safety Oversight System Is Effective but Could Benefit from Better Evaluation of Its Programs' Performance. [GAO-06-266T](#). Washington, D.C.: November 17, 2005.

Aviation Safety: System Safety Approach Needs Further Integration into FAA's Oversight of Airlines. [GAO-05-726](#). Washington, D.C.: September 28, 2005.

Vehicle Safety: Opportunities Exist to Enhance NHTSA's New Car Assessment Program. [GAO-05-370](#). Washington, D.C.: April 29, 2005.

Highway Safety: Improved Monitoring and Oversight of Traffic Safety Data Program are Needed. [GAO-05-24](#). Washington, D.C.: November 4, 2004.

Managing the Transition to the Next Generation Air Transportation System

Federal Aviation Administration: Challenges Facing the Agency in Fiscal Year 2008 and Beyond. [GAO-07-490T](#). Washington, D.C.: February 14, 2007.

Next Generation Air Transportation System: Progress and Challenges Associated with the Transformation of the National Airspace System. [GAO-07-25](#). Washington, D.C.: November 13, 2006.

Next Generation Air Transportation System: Preliminary Analysis of Progress and Challenges Associated with the Transformation of the National Airspace System. [GAO-06-915T](#). Washington, D.C.: July 25, 2006.

Air Traffic Control Modernization: Status of the Current Program and Planning for the Next Generation Air Transportation System. [GAO-06-653T](#). Washington, D.C.: June 21, 2006.

Next Generation Air Transportation System: Preliminary Analysis of the Joint Planning and Development Office's Planning, Progress, and Challenges. [GAO-06-574T](#). Washington, D.C.: March 29, 2006.

National Airspace System: Transformation will Require Cultural Change, Balanced Funding Priorities, and Use of All Available Management Tools. [GAO-06-154](#). Washington, D.C.: October 14, 2005.

National Airspace System: FAA Has Made Progress but Continues to Face Challenges in Acquiring Major Air Traffic Control Systems. [GAO-05-331](#). Washington, D.C.: June 10, 2005.

Federal Aviation Administration: Stronger Architecture Program Needed to Guide Systems Modernization Efforts. [GAO-05-266](#). Washington, D.C.: April 29, 2005.

Building Human Capital Strategies

Aviation Security: TSA's Staffing Allocation Model Is Useful for Allocating Staff among Airports, but Its Assumptions Should Be Systematically Reassessed. [GAO-07-299](#). Washington, D.C.: February 28, 2007.

Aviation Safety: FAA Management Practices for Technical Training Mostly Effective; Further Actions Could Enhance Results. [GAO-05-728](#). Washington, D.C.: September 7, 2005.

Human Capital: Agencies Need Leadership and the Supporting Infrastructure to Take Advantage of New Flexibilities. [GAO-05-616T](#). Washington, D.C.: April 21, 2005.

Federal-Aid Highways: FHWA Needs a Comprehensive Approach to Improving Project Oversight. [GAO-05-173](#). Washington, D.C.: January 31, 2005.

Fostering Improved
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