TOP MANAGEMENT CHALLENGES

Department of Transportation

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Memorandum

U.S. Department of Transportation
Office of the Secretary of Transportation
Office of Inspector General

Subject: ACTION: DOT's Top Management Challenges
PT-2005-008

Date: November 15, 2004

From: Kenneth M. Mead
Inspector General

Reply to Attn. of: J-1

To: The Secretary
The Deputy Secretary

The Office of Inspector General (OIG) has identified 10 top management challenges for the Department of Transportation (DOT) for fiscal year (FY) 2005. In considering the items for this year's list, we continue to focus on the Department's key strategic goals to improve transportation safety, capacity, and efficiency. We have also identified three emerging issues, which we believe will become increasingly important to the Department over the coming years. These issues encompass resolving shortfalls between trust fund revenues and expenditures, accomplishing DOT's missions through interdependency with other Federal agencies, and addressing staffing challenges in the area of human resource management. Further, the Department will need to adapt nimbly to changes in the airline industry's financial circumstances.

The OIG's list for FY 2005 is summarized below and presented in greater detail later in this report. This report will be incorporated into the DOT Performance and Accountability Report, as required by law. The exhibit to this report compares this year's list of management challenges with the list published in FY 2004.

- Getting the Most Value From Investments in Highway and Transit Infrastructure Projects
  - *Delivering Projects On Time and Within Budget*
  - *Ensuring the Best Value From Transit Projects*

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- Delivering Air Traffic Control Services and Fielding New Air Traffic Control Equipment While Controlling Costs in a Fixed Budget Environment
  - *Funding FAA During a Period When Funding Requirements Significantly Outpace Revenue From Aviation Taxes*
  - *Addressing an Expected Surge In Controller Attrition: Where, When, and How Many*
  - *Containing Costs of Existing Projects While Effectively Managing a New Multi-Billion Dollar Project*

- Increasing Aviation Capacity and Mitigating Delays
  - *Addressing Capacity Needs in Both the Long- and Short-Term*

- Ensuring Safety in a Changing Aviation Environment
  - *Adjusting Safety Oversight to Current Trends in the Industry*
  - *Reducing Operational Errors and Runway Incursions as Traffic Rebounds*

- Ensuring That Safety Programs Lead to More Lives Saved
  - *Cutting Across Traditional Boundaries and Effectively Targeting Federal Grants to Areas Having the Greatest Potential for Saving Lives*

- Strengthening Financial Management to Protect Federal Funds
  - *Freeing Up Hundreds of Millions of Dollars in Idle Funds to Be Used More Productively on Active Projects*
  - *Exercising Greater Stewardship Over the More Than $35 Billion Awarded Annually on Highway and Transit Projects*
  - *Consolidating or Replacing Fragmented Financial Systems Used to Process Billions of Dollars Annually*
  - *Implementing Cost Accounting Systems, Especially at FAA, to Help Executives to Improve Their Operations*

- Holding the Line on Programs Conducive to Fraud
  - *FHWA and FTA Programs Involving Highway and Transit Infrastructure*
  - *FMCSA Programs Related to Commercial Drivers' Licenses*
  - *DOT's Disadvantaged Business Enterprise Program*

- Improving Cost Effectiveness of $2.7 Billion in Information Technology Investments and Continuing to Enhance Computer Security
  - *Departmental Oversight of IT Investments and Security: DOT Needs to Implement a Robust and Consistent Management Review Process*
  - *Departmental IT Funding and Operations: DOT Needs to Better Coordinate Budget Requests to Align IT Resources With Responsibilities*

- Restructuring the Intercity Passenger Rail System to Match Fiscal Capacity

- Management Attention Needed to Strengthen Oversight of Title XI Loan Guarantees
  - *Status of Areas Identified in March 2003 Audit Report*
  - *New Areas Requiring Management Attention*

In addition to the 10 management challenges presented, this report includes the following three emerging issues. These issues are overarching in nature, and will require Secretarial direction or cross-modal coordination.

- Ensuring Transportation Funds Are Adequate to Meet Growing Needs
  - *Anticipated Aviation Trust Fund Revenues are Less than Projected*

- Growing Interdependency Among DOT and Other Federal Agencies to Ensure Safe, Secure, and Efficient Transportation
  - *Transportation Security*
  - *Environmental Stewardship*

- Meeting Human Resource Needs Given Retirements and Changing Skill Mix
  - *Addressing an Expected Surge in Controller Attrition*
  - *Rebuilding the Federal Highway Administration's Workforce While Balancing the Changing Skill Mix*

Another area we wish to mention is the issue of the financial difficulties in the airline industry. Over the next year, high fuel prices and weakness in airline yields are likely to continue the current financial pressures on the airline industry. Three carriers are in bankruptcy today and most of the others are struggling to reduce costs and restructure their operations, even low-cost carriers. With such widespread financial problems, many of the Department's safety and infrastructure programs, which are geared to regulating and being financed by a more economically stable industry, will need to adapt nimbly to these changing industry circumstances. Of key importance are well-planned and well-executed

maintenance and operations oversight to assure the public that financial distress does not compromise safety and setting and adhering to priorities for funding airport and airway infrastructure to ensure that scarce trust fund revenues are well spent.

If you have any questions concerning this report, please call me at (202) 366-1959 or Todd J. Zinser, Deputy Inspector General, at (202) 366-6767. You may also contact Alexis M. Stefani, Principal Assistant Inspector General for Auditing and Evaluation, at (202) 366-1992.

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1 Getting the Most Value From Investments in Highway and Transit Infrastructure Projects

The extended Transportation Equity Act for the 21st Century (TEA-21) reauthorization process has made unmistakably clear the overwhelming demand for transportation dollars when Highway Trust Fund revenues are falling short of what is required to meet those demands. Our work has highlighted some instances where highway and transit funds were not effectively managed, including identification of over $800 million in Federal obligations sitting idle during the last 5 years and significant delays and cost increases on projects, such as the Springfield Interchange in Virginia and the Tren Urbano transit system in Puerto Rico.

With fewer resources to fund important transportation projects, the Department of Transportation needs to ensure that infrastructure improvements are delivered on time and within budget and that taxpayer investments are those that yield the greatest benefits for the given costs. Taking these actions is critically important, as a 1-percent improvement in the efficiency with which states managed the $700 billion investment in highway projects over the last 6 years would have yielded an additional $7 billion for infrastructure improvements—enough to fund 9 of 18 active major projects. At the same time, transportation program fraud continues to deny state and transit authorities of much needed funds for infrastructure improvements and, consequently, is cited as a separate top management challenge in Section 7 of this report, "Holding the Line on Programs Conducive to Fraud."

Delivering Projects On Time and Within Budget

Our reviews of large highway and transit projects have disclosed that stronger stewardship of the over $35 billion in Federal funds invested annually in these projects is essential. As evidenced by its reauthorization proposal and other initiatives, the Department's senior leadership has taken positive steps toward strengthening stewardship of highway and transit funds. For example, the Federal Highway Administration (FHWA) is implementing initiatives to: (1) refocus its oversight activities based on risk assessments of state management practices and (2) establish a review program of grants payments to help ensure that Federal funds are properly managed.

These initiatives are critical to strengthening oversight of project delivery and financial stewardship, but will require a fundamental change in the way FHWA conducts business. A recent audit found that the FHWA risk-assessment process

could be strengthened to enhance the reliability and consistency of assessment results and facilitate analysis to identify program-wide risks. For example, the Texas Division Office rated work zone safety as satisfactory, although they had 14.3 percent of the Nation's work zone fatalities—the highest of any state. In contrast, the Illinois, Ohio, and Delaware Division Offices, with work zone fatalities accounting for 0.2 percent to 3.6 percent of nationwide fatalities during the same period, rated their work zone program risk higher.

Implementing FHWA's grant management initiative will also be challenging as FHWA continues to lack basic performance data on highway projects. Our review of the management information system used by FHWA to monitor the performance of more than 120,000 Federal-aid project segments disclosed that the system does not capture project cost and schedule data needed to determine whether FHWA is successfully achieving the Department's performance goals or to determine how well states are managing Federal-aid funds.

For example, the lack of project data in this system has made it difficult for FHWA to measure whether it is meeting the Department's President's Management Agenda goals of ensuring that at least 95 percent of major Federally funded infrastructure projects meet, or come within 10 percent of, cost and schedule estimates established in project or contract agreements. FHWA must rely on data calls to state departments of transportation and project officials for cost and schedule information, which is then manually maintained on a spreadsheet by FHWA.

Ensuring the Best Value From Transit Projects

The Federal Transit Administration's (FTA) New Starts program relies on full funding grant agreements, which are long-term funding commitments that help meet the financial requirements of large transit projects. Because FTA awards relatively few of these agreements each year and funding to support the pipeline of New Starts projects is limited, it is crucial that only the most promising projects are selected as candidates for funding. As of the most recent annual report, there were 27 New Starts projects with full funding grant agreements and another 37 in the pipeline that were collectively seeking $24.3 billion in Federal funding. However, the proposed House transit reauthorization bill authorizes $9.5 billion to fund all New Starts program expenses over 6 years and $4.8 billion for grant agreements that extend beyond the 6 years.

Our recent testimony of FTA's rating and evaluation of New Starts transit systems stated that while FTA's current evaluation process is much better than in years past, highway congestion relief benefits are not directly accounted for in the evaluation criteria. Because congestion relief must be a critical element in justifying New Starts projects, the FY 2005 House Committee on Appropriations

Report directed FTA and FHWA to determine how congestion relief could be implemented as an evaluation procedure and rating in the New Starts process. Our audit also noted that projects are proposed for funding based on equal weightings of cost effectiveness and land use. Further, based on a review of projects that were proposed in the early 1990s and are now in operation, we found that local ridership estimates (which are an important factor in evaluating projects) were not consistently reliable. Addressing these issues would facilitate a more consistent selection of projects that provide the greatest tangible benefits.

For further information, the following reports and testimonies can be seen on the OIG web site at http://www.oig.dot.gov:

- *October 2003 Finance Plan for the Central Artery/Tunnel Project*
- *The Rating and Evaluation of New Starts Transit Systems*
- *DOT FY 2004 Budget and Management Challenges*
- *Opportunities to Control Costs and Improve the Effectiveness of Department of Transportation Programs*
- *Controlling Costs and Improving the Effectiveness of Federal Highway Administration and Federal Transit Administration Programs*

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2 Delivering Air Traffic Control Services and Fielding New Air Traffic Control Equipment While Controlling Costs in a Fixed Budget Environment

A continued focus for the Federal Aviation Administration (FAA) this year will be delivering safe, efficient, and cost effective air traffic services as well as systems that been delayed for years within an extremely tight budget environment. This past year, we have seen positive signs from Administrator Blakey and her staff as they began reining in FAA's longstanding, unabated operating cost growth. However, FAA is not used to operating in this type of environment, and to instill cost control within the Agency's organizational culture will require a long-term and focused commitment on the part of management.

We see three key issues that will need to be addressed over the next several years:

- Funding FAA's budget during a period when funding requirements significantly outpace revenue from aviation taxes,
- Addressing an expected surge in controller attrition, and
- Containing costs and fielding existing modernization projects that have been delayed for years while effectively managing a new multi-billion dollar project.

Funding FAA During a Period When Funding Requirements Significantly Outpace Revenue From Aviation Taxes

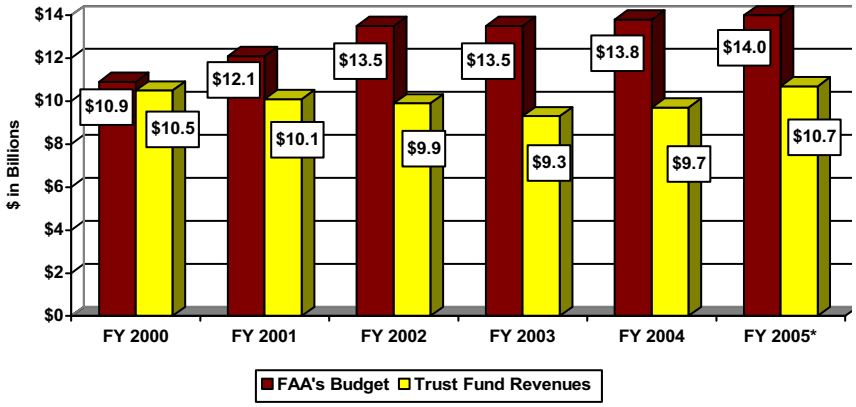
Although air traffic levels have shown improvement from the sharp declines of 2001, there still remains a substantial decline in projected Aviation Trust Fund revenues. In fiscal year (FY) 2000, the Trust Fund collected $10.5 billion in revenue; however, in FY 2003, the Trust Fund collected only $9.3 billion in revenue, a reduction of 12 percent. Those decreases can be attributed largely to reduced yields from the 7.5-percent ticket tax because of lower fares and lower enplanements. However, while revenues have declined, FAA's budget has increased substantially over the same time frame. Between FY 2000 and FY 2003, FAA's budget increased from $10.9 billion to $13.5 billion, an increase of 24 percent. In FY 2005, FAA's budget is expected to exceed Trust Fund revenues by over $3 billion.

In FY 2000, none of FAA's budget was funded from the General Fund. In contrast, over $3 billion (or 22 percent) of FAA's FY 2004 budget was paid for by the General Fund. As FAA increasingly turns to the General Fund to make up for revenue shortfalls, the Agency will be competing with other critical Federal

programs for dollars during a period when the Government is facing a substantial Federal deficit.

There are a handful of difficult options—none of them easy—to address the expected mismatch between funding availability and projected funding needs. First, adopt a "do-nothing approach" that would freeze budgets at levels consistent with resource projections. Second, turn to the General Fund to subsidize growing shortfalls; an option which is problematic during times of Federal deficits. The third, and perhaps most painful, option would be to reevaluate the current tax structure and determine what alternatives exist to more efficiently align users and costs through changes in the tax structure or by imposing user fees.

Figure 2-1. FAA: Agency's Budget vs. Trust Fund Revenues



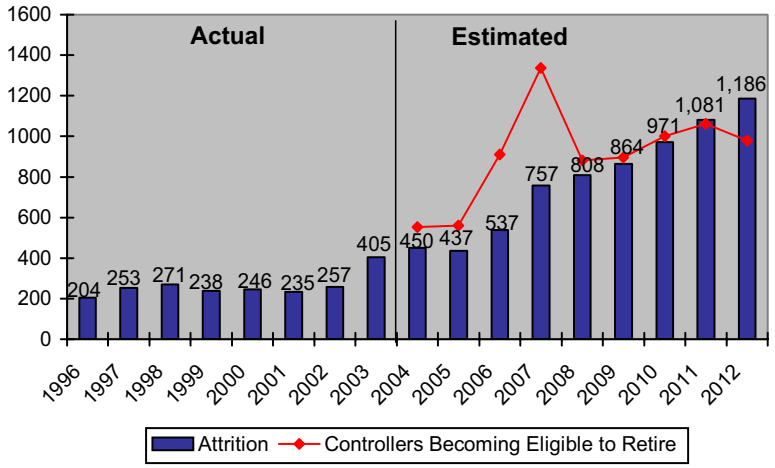
Source: OIG Analysis of FAA Data.
* Estimated

Addressing an Expected Surge in Controller Attrition: Where, When, and How Many

Controlling operating costs will continue to be a major focus for FAA. Although FAA has made progress in beginning the process of reining in a history of unabated cost growth in the operations account, achieving further reductions in operating costs represents a tremendous challenge as salaries and benefits make up approximately 73 percent of FAA's operating budget. Initiatives such as new air traffic systems, technological improvements, efforts to redesign the National Airspace System, consolidating locations, and actions to correct longstanding staffing imbalances all have the potential to significantly improve productivity.

An important issue this coming year will be starting negotiations with FAA's largest union, the National Air Traffic Controllers Association, over a new contract. The current contract, which was extended, is due to expire in September 2005. Another key issue FAA will need to address is determining how many controllers it will need and where and when it will need them. FAA estimates that nearly half the controller workforce will leave the Agency between FY 2005 and FY 2012. To hire and train that many controllers within a severely constrained operating budget, FAA must identify ways to make every stage of its process for hiring, placing, and training new controllers more efficient and cost effective. Currently, it takes an average of 3 years for new controllers to become fully certified. FAA is working on a congressionally mandated plan to address controller staffing, which is due to be completed by the end of December. As part of our ongoing audit of FAA's initiatives to address controller staffing, we will be reviewing FAA's plan.

Figure 2-2. FAA Air Traffic Controller Attrition Compared to Retirement Eligibility*



Source: OIG Analysis of FAA Data.
* Attrition data are as of May 2004. The number of controllers becoming eligible includes only those controllers reaching retirement eligibility in that year and does not include prior years. Retirement eligibility estimates are as of December 31, 2003.

Containing Costs of Existing Projects While Managing a New Multi-Billion Dollar Project

FAA's Facilities and Equipment account, which funds the Agency's major acquisitions, has decreased from $2.9 billion in FY 2004 to a requested level of $2.5 billion for FY 2005. The Agency's January 2004 Capital Investment Plan shows that funding for this account is expected to remain in the $2.5 billion range for the next several years. FAA major acquisitions have a long history of cost growth, schedule slips, and shortfalls in performance. In fact, in FY 2003, we reported that 14 of 20 major acquisitions accounted for cost growth of over $4.3 billion. The cost growth alone accounts for more than one year's budget for modernizing the National Airspace System.

FAA is now in the position of funding projects that have been delayed for years while starting an ambitious $2.1 billion project called the En Route Automation Modernization effort to replace the Host, which is the central nervous system of the National Airspace System. Two projects in particular that have been chronically delayed and over budget are the Standard Terminal Automation Replacement System (STARS)—a new controller terminal computers and display system—and the Wide Area Augmentation System (WAAS)—a new satellite-based navigation system. Table 2-1 shows cost and schedule variances associated with these programs.

Table 2-1. Cost and Schedule Variances

Program	Estimated Program Costs ($ in Millions)		Percent Cost Growth	Implementation Schedule		Implementation Delay
	Original	Current		Original	Current	
WAAS	$892	$3,300*	270%	1998-2001	2003-2013	12 Years
STARS	$940	$2,100**	123%	1998-2005	2002-2012	7 Years

Source: OIG Analysis of FAA Data.
* This includes sunk program costs of about $900 million.
** This is FAA's estimate of the cost to deploy STARS to all 162 operational sites and is subject to additional validation. Currently, STARS is limited to 50 sites at $1.46 billion. These costs do not include technical refresh.

Both projects have been delayed for years by requirements changes and technical difficulties, among other things, and FAA expects to be funding both projects well into the foreseeable future. Figure 2-3 shows the impact of having to fund these two programs as well as the En Route Automation Modernization program.

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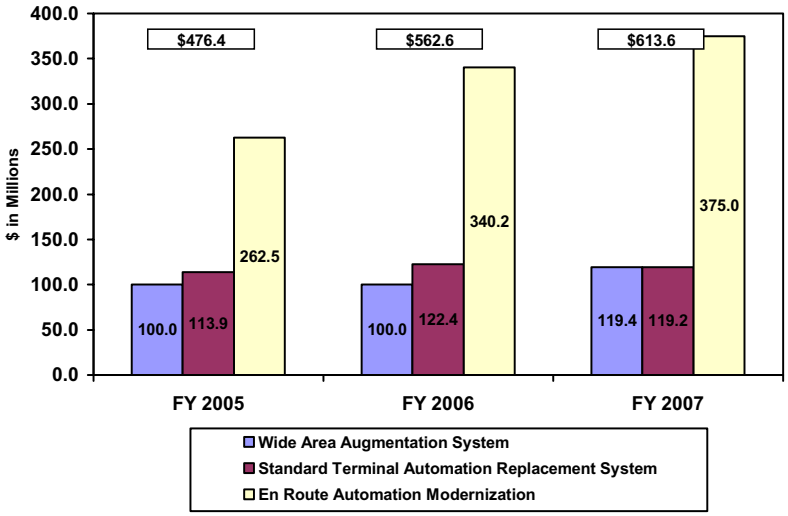
Figure 2-3. FAA's Planned Investments in Three Major Acquisitions FY 2005 Through FY 2007 ($ in Millions)



Source: OIG analysis of FAA data.

The challenges facing FAA with respect to its major acquisition programs are getting control of costs of existing projects, determining what the Agency's priorities are, and improving the overall management of its major acquisitions in a constrained budget environment. As a first step, FAA needs to develop reliable cost and schedule baselines (from start to finish) for a number of ongoing billion-dollar projects. These include STARS, the Airport Surveillance Radar-11, and the FAA Telecommunications Infrastructure effort. For each of these projects, it is not clear what the total cost will be or how long it will take to complete the project. A specific concern arising from delays with STARS is how to address urgent needs caused by aging equipment at critical sites, like Chicago.

Until the new baselines are established, FAA will not be in position to manage its overall modernization portfolio or set expectations for what can be accomplished within existing and projected funding levels. Also, our work on a wide range of projects shows that FAA can improve its overall management of major acquisitions by relying more on fixed-price contracts to control costs instead of cost-plus contracts that place the risk with the Government.

For further information, the following reports and testimonies can be seen on the OIG web site at http://www.oig.dot.gov:

- *Key Issues for the Federal Aviation Administration's FY 2005 Budget*
- *Status Report on the Advanced Technologies and Oceanic Procedures*
- *FAA's FY 2005 Budget: Opportunities to Control Costs and Improve Effectiveness of Programs*
- *Observations on Bringing Fiscal Discipline and Accountability to FAA's Air Traffic Control Modernization Program*
- *FAA Needs to Reevaluate STARS Costs and Consider Other Alternatives*
- *Status Report on FAA's Operational Evolution Plan*
- *Addressing Controller Attrition: Opportunities and Challenges Facing the Federal Aviation Administration*
- *Opportunities to Improve FAA's Process for Placing and Training Air Traffic Controllers in Light of Pending Retirements*
- *FAA's Management of and Control Over Memorandums of Understanding*
- *Safety, Cost, and Operational Metrics of the Federal Aviation Administration's Visual Flight Rule Towers*

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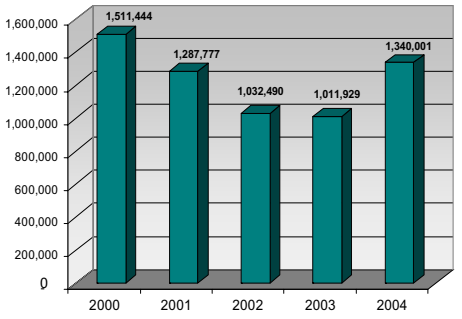
3 Increasing Aviation Capacity and Mitigating Delays

After a few years of relative reprieve from aviation congestion, traffic and delays are once again returning; in some markets they are approaching levels experienced in 2000, generally considered the worst period ever for aviation gridlock. We see the Department of Transportation's challenge as determining how and where traffic is likely to grow over the next decade, and planning for adequate investment in facilities, technology, and operational improvements to address both the long- and short-range needs. The Department's long-term challenge will be keeping planned technological and infrastructure projects on schedule while effectively implementing short-term initiatives to relieve congestion and delays in the interim.

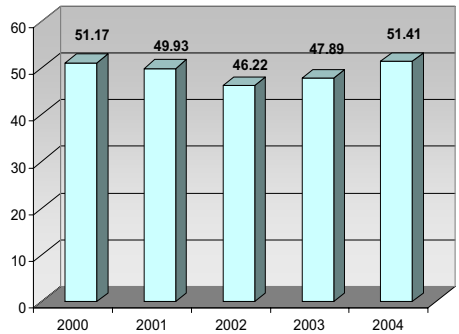
Traffic is returning with the Federal Aviation Administration's (FAA) Air Route Traffic Control Centers reporting 2004 year-to-date operations that nearly equal or exceed 2000 levels. With this growth in operations has come an increase in the number of aviation delays, with the incidence, rate, and length of delays approaching 2000 levels. As the following figures illustrate, the number of arrival delays in the first 9 months of 2004 was within 11 percent of number of arrival delays in the same period in 2000, the rate of delay (22 percent) is approaching the 25 percent experienced in 2000, and the length of delays in 2004 (51.41 minutes) actually exceeds the 2000 average delays (51.17) for the first 9 months of that year.

Figure 3-1. Total Number of Arrival Delays, 2000 Through 2004 - First 9 Months of Each Year



Source: FAA data

Figure 3-2. Average Minutes of Delay, 2000 Through 2004 - First 9 Months of Each Year



Source: FAA data

Delays were particularly disruptive earlier this year at several key airports. At Chicago O'Hare, the number of delays in the first 5 months of 2004 was 40 percent greater than the same period in 2000; and 2004 delays also averaged 10 minutes longer (66 minutes versus 56 minutes). For the first 5 months of 2004, airports in Salt Lake City and Ft. Lauderdale also experienced delays exceeding year 2000 levels by 31 percent and 23 percent, respectively. Table 3-1 identifies the number, percentage, and length of delays for the Nation's top delayed airports in the first 9 months of both 2004 and 2000.

Table 3-1. Ranking Report for Delayed Flights

	9 Months 2004				9 Months 2000				'04 vs. '00	
Airport	Rank 2004	Arrival Delays	% Delayed	Minutes	Rank 2000	Arrival Delays	% Delayed	Minutes	Delays	Minutes
Chicago-O'Hare	1	105,297	28.91	65.48	1	100,962	31.81	58.36	4%	7.12
Atlanta	2	91,060	25.61	52.83	2	84,075	26.11	51.93	8%	0.9
Dallas-Ft. Worth	3	51,921	17.45	55.45	4	57,921	19.38	52.44	-10%	3.01
Newark	4	44,002	28.1	61.25	10	44,812	29.55	60.94	-2%	0.31
Philadelphia	5	42,335	25.94	55.55	9	46,485	30.04	54.02	-9%	1.53
Los Angeles	6	41,435	18.01	47.3	3	69,210	28.28	47.61	-40%	-0.31
Denver	7	36,608	17.67	48.14	5	53,845	29.2	49.76	-32%	-1.62
Washington-Dulles	8	36,396	24.95	56.29	12	38,954	25.96	52.28	-7%	4.01
NY-LaGuardia	9	35,717	24.48	58.55	8	47,020	35.5	60.29	-24%	-1.74
Cincinnati	10	35,069	18.55	50.18	13	35,684	22.07	45.35	-2%	4.83
Minneapolis	11	34,902	18.36	47.11	17	33,151	18.78	50.33	5%	-3.22
Houston	12	34,817	18.94	49.53	21	29,923	18.92	50.36	16%	-0.83
Phoenix	13	34,688	19.44	47.87	11	43,981	25.11	47.78	-21%	0.09
Las Vegas	14	33,415	22.89	48.41	15	35,504	26.81	48.11	-6%	0.3
Detroit	15	30,862	16.47	47.84	18	32,967	18.83	52.58	-6%	-4.74

Source: FAA

Addressing Capacity Needs in Both the Long- and Short-Term

It is generally agreed that where new construction is an option, building new runways provides the largest increase in system capacity. The Department's challenge will be to keep these projects on track while identifying short-term initiatives to manage delays such as airspace redesign, technological improvements, procedural changes, and potential administrative or market-based solutions.

However, in some markets, physical improvements, airspace redesign, or technology cannot or will not provide sufficient capacity to accommodate expected demand. One potential option in such markets is an administrative approach—where the Government makes decisions for the market. Another alternative to new construction are market-based solutions, such as peak-hour pricing or slot auctions, which use market forces to effect change. In addition to pursuing the traditional infrastructure, technology, and procedural solutions to congestion, the timing is right for the Department to explore potential market-based initiatives designed to more efficiently allocate existing capacity.

New Runways and Airspace Redesign Initiatives. FAA's modernization program will provide incremental enhancements; however, over the long term, adding new runways provides the largest increase in system capacity. In addition, improving the efficiency of existing airport capacity by redesigning airspace is also critical for taking full advantage of new runways and enhancing the flow of air travel around existing runways and airports. The Department's challenge will be to keep these projects on track.

FAA tracks new runways as part of its Operational Evolution Plan (OEP). The OEP was developed in direct response to delays and cancellations that reached intolerable levels in the summer of 2000. FAA estimates that new runways will account for the single largest factor in the projected increase in capacity promised by the OEP. Since the summer of 2000, seven new runways have been built (Phoenix, Detroit, Orlando, Denver, Miami, Houston, and Cleveland). Currently, seven more new runways are being tracked as part of the OEP and are expected to be completed within the next 4 years.

In addition to the seven new runways in FAA's OEP, Chicago O'Hare is currently planning to add one new runway, extend two existing runways, and relocate three others as part of the O'Hare Modernization Program (OMP). This program is aimed at increasing capacity and reducing significant delay problems. While initial relief is anticipated in 2007 following the opening of the new runway, it is estimated that the OMP will take until 2013 to complete. The environmental process alone is not expected to be completed until September 2005—over 3 years after the process began. This completion date could be further delayed because of anticipated legal challenges from groups opposing the OMP.

FAA's airspace redesign efforts are also critical to increase capacity and reduce delays. Currently, FAA is pursuing over 40 individual projects, including large-scale efforts to redesign airspace in the New York/New Jersey/Philadelphia area; the Los Angles Basin; and in the Midwest around the Chicago O'Hare, Detroit, and Minneapolis Airports. Our ongoing work shows that FAA's airspace redesign projects are often delayed by 3 years or more because of changes in a project's scope, environmental issues, and problems in developing new procedures. Moreover, there is inadequate coordination between airspace redesign teams and FAA organizations that manage resources (new equipment or radio frequencies) often needed to implement airspace changes. FAA needs to get its airspace redesign efforts on track and determine what can reasonably be expected of the projects and when they can be completed.

Interim Steps and Alternatives to New Construction. Because new runways are not immediate solutions (in some cases, such as space-constrained New York-LaGuardia, they are not viable solutions), alternatives to new construction must be considered for both the short- and long-term. Since the summer of 2000, FAA and

the airlines have made a number of technological, operational, and procedural improvements that increase the efficiency of existing capacity and will help to enhance the flow of air travel in the near term.

These improvements include collaborative decision-making systems that link FAA's command center and airline operating centers to improve communications during delayed conditions. FAA has also instituted new procedures, including "delay triggers," which institute holds on traffic from feeder airports when delay conditions at the receiver airport reach 90 minutes or more. In addition, FAA's air traffic control modernization initiatives, such as new automated controller tools, are expected to provide incremental capacity improvements.

The Department has also demonstrated a willingness to intervene administratively when delays reach a critical point. Three times in the past year, the Department has negotiated voluntarily schedule reductions at Chicago-O'Hare by the two dominant carriers. The first two negotiations, while achieving net reductions in delays, did not fully realize the anticipated delay-reduction goals, and it is too soon to tell whether the third effort will be successful. Intervention of this nature by the Department entails a certain risk—the Department assumed a role (schedule planning) that has been delegated exclusively to the carriers since deregulation. Such actions, while potentially effective in the short term by preventing delays in one choke-point from cascading throughout the system, have the potential to negatively impact competition by favoring one class of carriers over another or impacting service to small communities.

The Department's challenge in the short term will be to remain flexible and pro-active in implementing solutions that will adequately mitigate congestion until long-term projects can be fully completed. The Department will also need to identify those markets that realistically are not conducive to new construction as a short- or long-term solution and evaluate alternatives. For example, Federal and state approvals of the Boston-Logan Airside Improvements Planning Project stipulated that Massport commit to the development of a demand management program. Massport has proposed a revenue-neutral, peak-hour pricing plan that is currently undergoing public comment.

Before an effective market-based strategy can be successfully implemented, the Department—along with industry stakeholders—will need to address a range of complex issues. These include:

- Who has the authority to set the fees? Under what circumstances will they be set? Will there be controls on the amounts?
- Whose approval is needed for an airport authority to develop and institute a market-based strategy?

- Who gets the revenue from any fee-adjusted pricing scheme?
- What can the funds be used for?
- What would the implications be for small- and medium-sized communities?

For further information, the following reports and testimonies can be seen on the OIG web site at http://www.oig.dot.gov:

- *Airline Industry Metrics: Trends in Demand and Capacity, Aviation System Performance, Airline Finances, and Service to Small Airports; Fifth Edition (January 2004)*
- *Airline Industry Metrics: Trends in Demand and Capacity, Aviation System Performance, Airline Finances, and Service to Small Airports; Sixth Edition (August 2004)*
- *Short- and Long-Term Efforts to Mitigate Flight Delays and Congestion (May 2004)*
- *Short- and Long-Term Efforts to Mitigate Flight Delays and Congestion (June 2004)*
- *Status Report on FAA's Operational Evolution Plan*

4 Ensuring Safety in a Changing Aviation Environment

In terms of safety, the Federal Aviation Administration (FAA) and U.S. carriers have maintained a remarkable safety record. There has not been a fatal accident of a large passenger air carrier in almost 3 years. However, we have experienced an unfortunate series of commuter accidents. Larger air carriers are operating newer, more sophisticated aircraft and have established internal systems, such as Flight Operational Quality Assurance, to collect and analyze data to improve the safety of flight operations. These factors have contributed to large air carriers' remarkable safety record. However, FAA needs to remain vigilant in adjusting its oversight to trends in the industry. The significant trends that bear watching include: the deterioration of air carriers' financial condition, the growth of low-cost and regional air carriers, and the increased use of outside repair facilities for aircraft maintenance. In addition, FAA must continue its efforts to reduce runway incursions and operational errors.

Adjusting Safety Oversight to Current Trends in the Industry

FAA has a significant challenge in ensuring its safety oversight keeps pace with current trends in the aviation industry. Network air carriers have faced record-breaking monetary losses—at least $21.8 billion in the past 3 years. Two network air carriers are in bankruptcy and one more is on the verge of bankruptcy. In addition, one low-cost air carrier has recently declared bankruptcy. However, most low-cost and regional air carriers are continuing to grow at a phenomenal rate. From 2000 to 2003, these carriers' passenger market share, based on passenger enplanements, grew from 29 to 40 percent. FAA forecasts that low-cost and regional air carriers could account for more than 50 percent of the passenger market share in 2015. To remain competitive, network carriers are making unprecedented changes to their operations, such as:

- Increasing the use of outsourced maintenance providers,
- Restructuring routes and aircraft fleets,
- Using aircraft for more hours in the day,
- Utilizing pilots and flight crews for longer hours, and
- Reducing staff significantly.

Providing oversight of air carrier outsourcing, or use of external repair facilities, has been particularly challenging for FAA. While FAA has recognized that substantial changes to its oversight of repair stations are needed, proposed changes are still under development. FAA must continue to make improvements in this

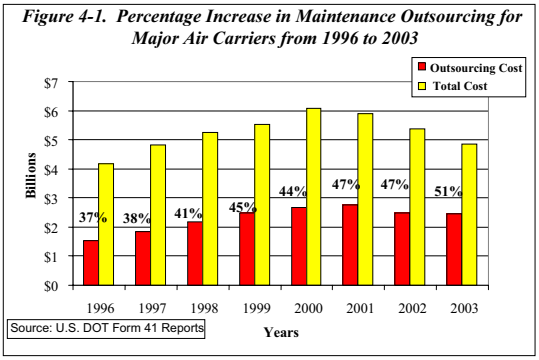


Figure 4-1. Percentage Increase in Maintenance Outsourcing for Major Air Carriers from 1996 to 2003

area because major air carriers now outsource 51 percent of their maintenance expense, compared to just 37 percent in 1996.

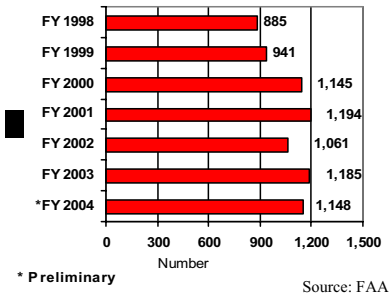
In addition, the January 2003 Air Midwest accident highlighted the fact that air carriers are also using independent mechanic services and non-certified repair facilities to perform maintenance work that is not subject to FAA's direct oversight. FAA must continue its efforts to develop an improved oversight program for outsourced maintenance. In addition, FAA must continue to improve its air carrier oversight systems to respond effectively to the challenges being presented by an ailing network and growing low-cost air carrier industry. FAA has made noteworthy progress in the past 6 years in moving its oversight systems toward a more data-driven, risk-based approach, but we found the systems were not mature and refined enough to allow inspectors to effectively adjust their surveillance to industry changes.

Reducing Operational Errors and Runway Incursions as Traffic Rebounds

As air traffic operations increase, there are two key areas to watch—operational errors (when air traffic controllers allow planes to come too close together in the air) and runway incursions (potential collisions on the ground). Reducing operational errors and runway incursions has been a key performance goal for FAA in the past year.

As shown in Figure 4-2, FAA reduced the number of operational errors from 1,185 during fiscal year (FY) 2003 to 1,148 during FY 2004. More importantly, FAA significantly reduced the most serious incidents. From FY 2003 to FY 2004, operational errors rated as high severity decreased 27 percent (from 55 to 40).

Figure 4-2. Operational Errors, FY 1998 to FY 2004



Source: FAA

In addition, for the fourth consecutive year, FAA was successful in reducing the most serious runway incursions (those rated in FAA's two highest risk categories). These incidents decreased from 32 in FY 2003 to 28 in FY 2004.

Despite FAA's progress in reducing serious incidents, they still occur too often. In FY 2004, either one high severity operational error or one serious runway incursion occurred every 5 days.

We also have concerns regarding FAA's process for reporting operational errors. FAA has an automated system that identifies when operational errors occur at only 20 of its 524 air traffic control facilities. FAA depends on an unreliable system of self-reporting operational errors at tower and terminal radar approach control (TRACON) facilities.

We recently reported that operational errors at these facilities have not been accurately reported. We determined that in FY 2003, 22 percent of the operational errors occurring at TRACON and towers were identified as a result of reports from pilots, neighboring air traffic control facilities, or other outside sources. The statistics indicate that FAA cannot rely on a system that is based on facility personnel self-reporting operational errors. FAA needs a procedure that will provide greater assurance that substantially all operational errors are being reported. We recommended that FAA require tower and TRACON facilities to periodically review voice and radar tapes to assess whether errors are being fully reported. FAA agreed with our recommendations and plans to establish a workgroup within the Air Traffic Organization that will develop an action plan to ensure accurate and full reporting of operational errors. This coming year, it is imperative for FAA to correct this vulnerability in reporting and to make certain operational errors are accurately reported for each facility.

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For further information, the following reports and testimonies can be seen on the OIG web site at http://www.oig.dot.gov:

- *Controls Over the Reporting of Operational Errors*
- *Review of Air Carriers' Use of Aircraft Repair Stations*
- *Operational Errors and Runway Incursions: Progress Made, but the Number of Incidents is Still High and Presents Serious Safety Risks*
- *Air Transportation Oversight System*

5 Ensuring That Safety Programs Lead to More Lives Saved

Highway, commercial vehicle, and rail safety initiatives all have received significant levels of funding under the Transportation Equity Act for the 21st Century (TEA-21), and these trends are expected to continue under pending reauthorization legislation. Sustained levels of funding have been matched by reductions in the overall highway and rail fatality rates. The absolute numbers of highway and rail-related fatalities have also declined; although in some categories, such as motorcycle riders, fatalities have actually increased since TEA-21 started. Overall, more than 40,000 people still die each year on the Nation's highways and at rail crossings, and the Department of Transportation has set ambitious targets for reducing fatality rates in the future.

The growth in overall funding, past fatality trends, and future targets are shown below.

Figure 5-1. Funding and Fatality Trends Highway Safety

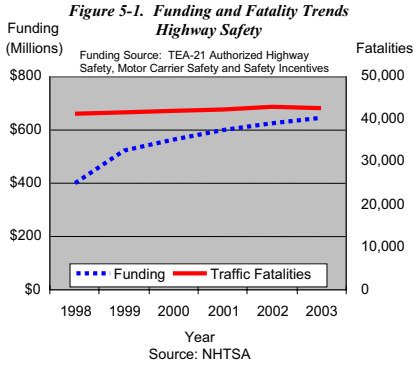


Figure 5-2. Actual and Targeted Highway Fatality Rate

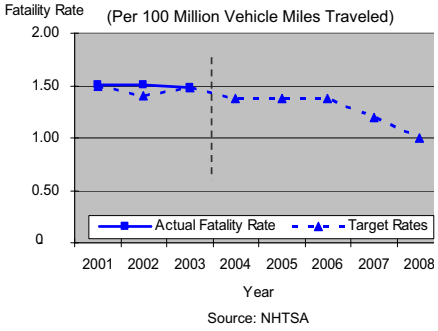


Figure 5-3. Funding and Fatality Trends Rail Safety

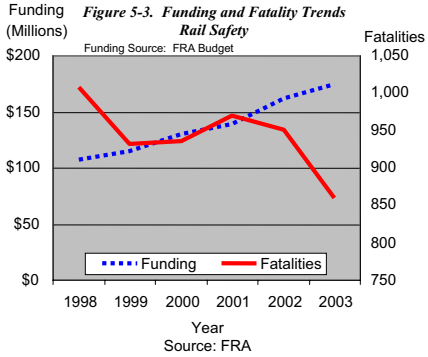
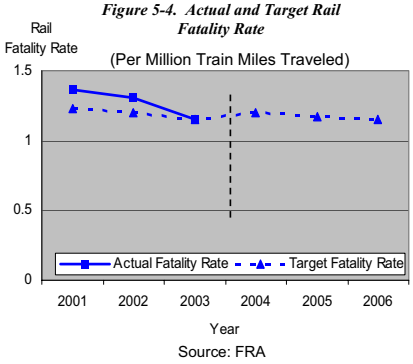
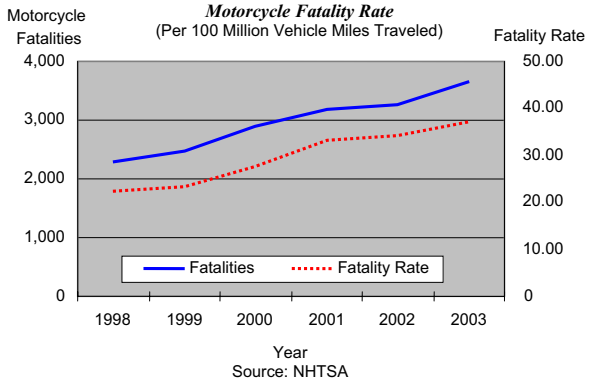


Figure 5-4. Actual and Target Rail Fatality Rate



One area that has increased significantly is motorcycle fatalities, which have increased by 59 percent, or 1,367 fatalities, since 1998. The fatality rate for motorcycle riders has also increased. In the case of both highway and rail fatality rates, the Department met its targets in 2003 after not meeting the targets in 2001 and 2002.

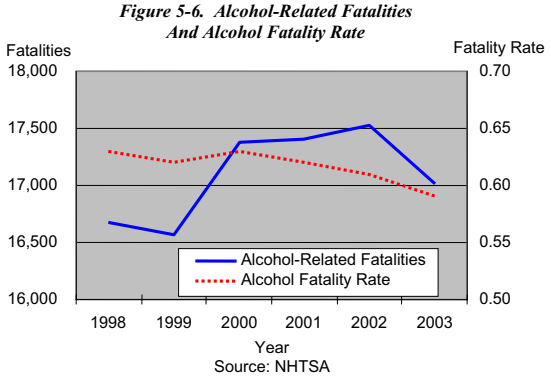
Figure 5-5. Motorcycle Fatalities and Motorcycle Fatality Rate
(Per 100 Million Vehicle Miles Traveled)



Source: NHTSA

The Department has had limited success in its efforts to reduce alcohol-impaired driving. Since 1998, total alcohol-related fatalities increased slightly to 17,013 fatalities in 2003, while the alcohol fatality rate decreased by 6 percent to .59 fatalities per 100 million vehicle miles traveled.

Figure 5-6. Alcohol-Related Fatalities And Alcohol Fatality Rate



Source: NHTSA

The Department has been successful in reducing the large truck fatality rate but further reductions are needed to meet its goals. In fiscal year (FY) 2000, the large truck fatality rate declined from 2.7 fatalities per 100 million truck miles traveled in the previous year to 2.6, a level above the target rate of 2.57. The target rate of 2.45 was achieved in FY 2001, and in FY 2002, the target rate of 2.32 was exceeded by an actual rate of 2.30. In 2003, the actual rate is estimated to have declined further to 2.25, above the target of 2.19. The number of fatalities involving large truck crashes slightly increased in 2003 from 4,939 to 4,986. To reach its 2008 performance goals for truck safety, the Department must reduce the rate of large truck fatalities even further to 1.65.

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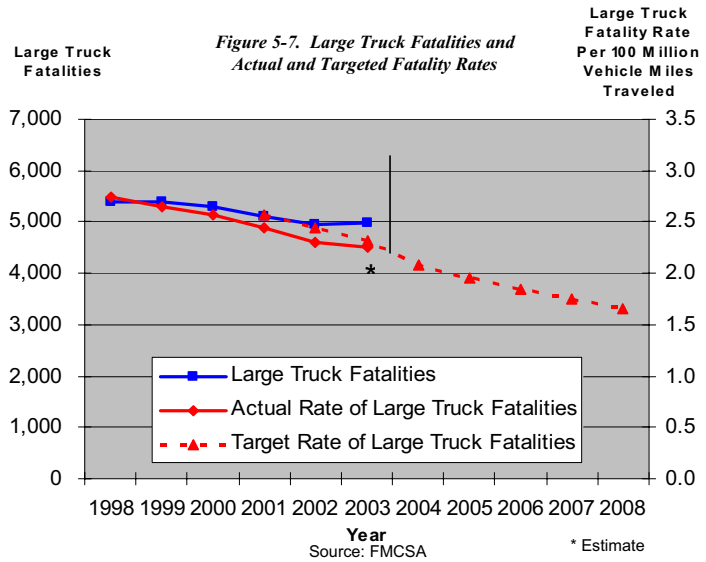
Figure 5-7. Large Truck Fatalities and Actual and Targeted Fatality Rates



Meeting the ambitious goals for reducing highway fatality rates set by the Department will be difficult. The overall highway fatality rate must drop from 1.48 per 100 million vehicle miles traveled in 2003 to 1.38 in 2006 and to 1.0 by 2008. Assuming that vehicle miles traveled remain constant, the 1.0 rate goal would save 30,929 lives between 2004 and 2008. However, given that vehicle miles traveled have increased historically by 10 percent between 1998 and 2003, reducing the absolute number of fatalities may be difficult even if progress is made on reducing highway fatality rates.

The rail-related fatality rates currently targeted for 2004 and 2005 are higher than the actual fatality rates for 2003. After we called this to their attention, Federal Railroad Administration officials told us they will adjust this performance measure in early 2005.

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Cutting Across Traditional Boundaries and Effectively Targeting Federal Grants to Areas Having the Greatest Potential for Saving Lives

Transportation experts have pointed out the difficulties in making quantum leaps in improving safety. A complex variety of factors contribute to crashes including driver behavior, vehicle defects, and road and bridge conditions. Significant safety improvements may also require the Department to cut across traditional organizational boundaries. Improvements will also depend on targeting Federal safety grants to areas having the greatest potential for saving lives and spending funds in a timely manner. Ensuring that program expenditures and levels of effort bring about corresponding reductions in crashes and fatalities will require leadership by the various modal administrations and the consideration of actions that may be controversial.

Overcoming Obstacles to Increasing Seat Belt Usage. Seat belt usage increased from 70 percent in 1998 to an estimated 80 percent in 2004, and states with primary seat belt laws—which allow a motorist to be ticketed solely for not wearing a seat belt—increased from 14 states in 1998 to 21 states in 2004. Success in seat belt usage has been achieved through the National Highway Traffic Safety Administration's (NHTSA) programs, such as "Click It or Ticket," where law enforcement agencies conduct zero-tolerance enforcement backed by advertising campaigns. However, challenges remain with increasing seat belt usage for part-time and chronic non-users and with overcoming states resistance to stronger seat belt laws. Truck drivers are another group with low seat belt usage that may be in need of additional focus.

Addressing SUV Rollover Issues. Additional attention is needed in the area of Sport Utility Vehicles (SUV). In 2003, 59 percent of SUV occupant fatalities involved a rollover, the largest percentage for any vehicle type. There was also a 7-percent increase in the number of SUV occupants killed in single SUV rollovers. NHTSA should continue efforts to improve safety standards and establish new requirements that will mitigate the impact of rollovers.

Pursuing Laws to Discourage Alcohol-Impaired Driving. Alcohol-related fatality rates decreased from .63 per 100 million vehicle miles traveled in 1998 to .59 in 2003 and all states have adopted a .08 Blood Alcohol Concentration law. Still, alcohol-related fatalities remained near 17,000 deaths per year. NHTSA should work with states to effectively use the funds available for alcohol-related programs and continue to encourage the adoption of open container and repeat offender laws.

Spotting Vehicle Defects. Without advanced analytical capabilities for its recently completed safety defect database, NHTSA will be challenged to ensure that the "early warning" information being reported is thoroughly and consistently analyzed to spot dangerous safety trends, such as the failures in Firestone tires.

Curbing CDL Fraud By Strengthening Controls. As discussed in more detail in Section 7 of this report, "Holding the Line on Programs Conducive to Fraud," over the past 5 years we have investigated and prosecuted commercial drivers' licenses (CDL) fraud schemes in 21 states. These investigations found over 8,000 CDLs that were issued to drivers who obtained their CDLS through corrupt state or state-approved testing processes. Curbing CDL fraud helps ensure that only drivers with the requisite skills obtain CDLs. The Federal Motor Carrier Safety Administration (FMCSA) has increased the depth of state CDL reviews, and we are working to support FMCSA's efforts to deter and prevent CDL fraud. However, the challenge will be to improve controls at the state level over the issuance of CDLs.

Improving Safety Data. Completeness and accuracy of data on crashes and other safety events are critical to identifying high-risk motor carriers for review. We previously reported that states failed to report to FMCSA an estimated one-third of large trucks involved in crashes annually. In response, FMCSA has posted reports on the Internet showing states that are not adequately reporting crash data, removed certain data from its web site until data quality is improved, and is working with NHTSA to improve state reporting of crashes. The challenge will be to obtain consistent and complete reporting across the multitude of state jurisdictions.

Targeting Approaches to Reduce Highway-Rail Grade Crossing Fatalities and Accidents. In June 2004, we reported that for the Department to achieve the magnitude of reductions in grade crossing fatalities and accidents accomplished over the past 10 years, it will need a careful analysis of accident trends and a plan that strategically targets remaining problem areas. This will require addressing unsafe motorist behavior, targeting actions at crossings that are equipped with protective devices, and closing additional crossings. Despite the safety benefits, closures are often difficult to achieve because of local community opposition linked to concerns about emergency response time, traffic delays, neighborhood impacts, and public inconvenience.

For further information, the following reports and testimonies can be seen on the OIG web site at http://www.oig.dot.gov:

- *Review of NHTSA's Progress in Implementing Strategies to Increase the Use of Seat Belts*

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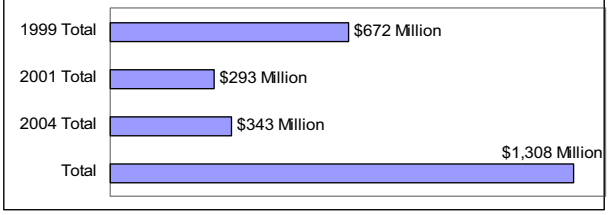
- *Follow-up Audit on NHTSA's Office of Defects Investigation*
- *Progress and Challenges in Implementing the TREAD Act*
- *NHTSA Office of Defects Investigation*
- *Improving the Testing and Licensing of Commercial Drivers*
- *Disqualifying Commercial Drivers*
- *Improvements Needed in the Motor Carrier Safety Status Measurement System*
- *Investment Review Board Deliberations on the Motor Carrier Management Information System*
- *Report on the Audit of the Highway-Rail Grade Crossing Safety Program*

6 Strengthening Financial Management to Protect Federal Funds

The Department of Transportation's (DOT) efforts to correct longstanding financial management deficiencies are evident in the progress it has made over the last several years. This year, DOT received its fourth consecutive clean financial statement opinion and met the Office of Management and Budget's (OMB) accelerated date to submit audited financial statements by November 15, 2004. All departmental Operating Administrations now use the new Delphi accounting system, and DOT is the only major Federal agency that uses a single modern accounting system. The Federal Aviation Administration (FAA) also improved its oversight of cost-reimbursable contracts to the extent that it is no longer a material weakness. Further, while the Federal Highway Administration (FHWA) still has a long way to go, it made progress in its efforts to correct weaknesses in its financial management practices. These steps improved DOT's ability to protect the billions of dollars in resources entrusted to it each year. The significant remaining challenges are listed below.

Freeing Up Hundreds of Millions of Dollars in Idle Funds to Be Used More Productively on Active Projects

Figure 6-1. Department-Wide Inactive Obligations Audit Results



In fiscal year (FY) 1999, we identified $672 million in inactive obligations, including $284 million in FHWA funds, that were no longer needed or valid. In FY 2001, we identified $293 million, including $238 million in unneeded FHWA funds. Despite repeated audits and new DOT guidance, in FY 2004, we identified $343 million in inactive obligations; this included $284 million in FHWA funds. By freeing up these idle funds, they may become available to finance active projects. It is especially important to identify and use idle funds in this period of tight budget constraints.

In FY 2004, FHWA committed to implement best practices for identifying idle funds. When implemented, these actions should ensure that highway resources do not sit idle when they could be used to enhance transportation facilities.

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Exercising Greater Stewardship Over the More Than $35 Billion Awarded Annually on Highway and Transit Projects

FHWA must establish stronger financial and cost controls to better ensure that grant funds are protected from fraud, waste, and abuse. This is especially important in a time of large deficits. (See Emerging Issue section, "Ensuring Transportation Funds Are Adequate to Meet Growing Needs.") FHWA, however, currently provides little financial oversight of the billions of dollars it provides to states and municipalities each year. Over the last year, there has been a major shift in direction, and the Department now recognizes the need to improve its oversight of these resources. As a result, plans are underway to implement much improved processes to provide the needed oversight. Follow through to ensure the reforms are implemented promptly and effectively will be the key to sustained improvement in this area. The Federal Transit Administration (FTA) has systems in place to monitor resources provided to transit authorities and municipalities, but it too could do a better job of protecting Federal funds. We also continue to handle significant numbers of fraud cases. Over the last 5 years, our investigations have yielded 128 convictions and more than $90 million in recoveries from highway and transit system fraud.

We previously reported that FHWA frequently did not perform financial management reviews of grantees. This year, we identified additional issues that raise further questions about the adequacy of FHWA's oversight. FHWA does not require its Division Offices to assess grantee financial management risks, review grantee payment processes, or spot check a sample of payments for reasonableness. To illustrate, FHWA did not provide this financial management oversight for 41 of 45 grant projects—with obligations totaling $113 million—that we looked at this year. FHWA also reported that its payment system was modified to automatically pay grantees without any review by an FHWA official. Fourteen Division Offices made payments of about $4 billion this year using this method. FHWA management discontinued the practice as soon as they discovered it existed.

DOT is undertaking two efforts to improve FHWA grant oversight. First, the FHWA Administrator plans to establish a new policy in FY 2005 that will require Division Offices to perform much more stringent oversight, including reviewing state payment processes and testing a sample of actual payments. This represents a good first step—a commitment and a plan. After it is approved, it will still take time to implement and, as with any major change, FHWA will face a significant challenge implementing the policy in its 52 Division Offices. When fully implemented, the new policy will go a long way to reduce the risk of losses to fraud, waste, or abuse. Second, we are working with the Office of the Secretary and OMB to establish a pilot project to estimate the extent of improper payments in the highway program.

We have testified that FTA provides more oversight of how grantees use Federal resources than FHWA, but it can still do a better job. For example, FTA uses project management oversight and financial management oversight contractors to provide early warnings of cost, schedule, and quality problems. However, the quality of this oversight can be improved, particularly in the areas of spot checking grantee cost and schedule estimates. To illustrate, in the case of Puerto Rico's Tren Urbano, costs almost doubled from $1.25 billion to $2.25 billion, and the project encountered a 3-year delay in opening the system to passengers. Although FTA required Tren Urbano to prepare a plan to address the issues, the plan was not adequate because it did not identify actions or establish time frames to address all safety-critical issues.

Consolidating or Replacing Fragmented Financial Systems Used to Process Billions of Dollars Annually

DOT has significantly improved financial management by deploying a new Department-wide accounting system, called Delphi. DOT must complete its efforts to improve system security and correct unreliable data that were transferred to the new system. However, DOT also needs to improve other financial management systems that provide critical information to the departmental accounting system. Those systems are used to manage billions of dollars of grants, make billions of dollars in payments, and maintain inventories of DOT-owned property throughout the country. However, the systems are fragmented, with several Operating Administrations maintaining systems to perform similar functions. They are also obsolete, since they do not meet important Federal financial management system requirements. For example, DOT received almost $9 million to operate seven different grant management and payment systems in FY 2004. DOT will be challenged to consolidate these systems and to bring them into compliance with requirements. DOT has begun analyzing opportunities to consolidate and modernize these systems, but those efforts are in the early stages.

Implementing Cost Accounting Systems, Especially at FAA, to Help Executives to Improve Their Operations

DOT is responsible for ensuring that its annual budget of about $58 billion is used efficiently and effectively. Cost accounting is a basic tool that the private sector uses to improve operational efficiency and control costs. The FAA Administrator has pledged to have a fully operational cost accounting system in place by September 30, 2005 for its $14 billion budget. A reliable system to track its $6.2 billion in annual labor budget is also critical to an effective cost accounting system. The Administrator has committed to implement a labor distribution system by June 2005. However, FAA now faces several challenges to complete

its system. FAA must revamp the system to account for recent significant organizational changes; deploy the system to two other lines of business; begin assigning actual labor costs and other unassigned service costs to specific facilities and activities; and implement financial and performance measures for activities, which are critical to achieve performance efficiencies and cost savings.

DOT's 11 other Operating Administrations have made varying progress implementing cost accounting systems. Six smaller Operating Administrations have partially implemented cost accounting systems for all or significant portions of their operations and two other Operating Administrations have implemented systems for all or significant portions of their operations, but must integrate their systems with Delphi. However, the three remaining Operating Administrations, including FHWA and FTA (which together receive more than $35 billion for highway and transit grants annually), are currently designing their systems.

For further information, the following reports and testimonies can be seen on the OIG web site at http://www.oig.dot.gov:

- *Inactive Obligations, Department of Transportation*
- *Inactive Obligations, Federal Highway Administration (September 24, 2001)*
- *Inactive Obligations, Federal Highway Administration (March 31, 2004)*
- *Inactive Obligations, Maritime Administration*
- *Consolidated Financial Statements For Fiscal Years 2001 and 2000, Department of Transportation*
- *Consolidated Financial Statements For Fiscal Years 2003 and 2002, Department of Transportation*
- *Implementing a New Financial Management System, Department of Transportation*
- *Computer Security of Delphi Financial Management System, Department of Transportation*

7 Holding the Line on Programs Conducive to Fraud

For the Department of Transportation (DOT), fraud has the serious potential for diverting critical funds from our infrastructure programs, subverting the efforts of our safety regulators, and undermining the very integrity of important public policy. We are identifying fraud prevention and detection as a management challenge this year not because the Department is more susceptible to fraud than other Federal departments, but because over the past several years, our investigative results point to three areas where fraud has a particularly insidious effect on the Department's mission: (1) Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) programs involving highway and transit infrastructure, (2) Federal Motor Carrier Safety Administration (FMSCA) programs related to commercial drivers' licenses, and (3) DOT's Disadvantaged Enterprise Program. As noted below, the Department is taking action in response to our results and recommendations. Its challenge now is to remain focused on achieving greater progress in these key areas.

FHWA and FTA Programs Involving Highway and Transit Infrastructure

Approximately $35 billion a year is being expended for upkeep and expansion of the Nation's highway and transit infrastructure. Given today's great demand and increasingly tight budgets, getting the most for our money by aggressively ferreting out and deterring fraud is of critical importance. In our investigations, we have encountered a wide variety of fraud schemes, such as state inspectors accepting bribes in exchange for approving substandard construction or materials, bid-rigging by contractors, false claims for work not performed or for inferior material, and kickbacks between contractors. *In one recent case, a Florida highway construction contractor was debarred by the state for an unprecedented 30 years and fined $1.5 million for submitting millions of dollars in fraudulent claims on a $30 million resurfacing project. The fraud scheme involved exploitation of the state's claim settlement process*. Since fiscal year (FY) 1998, investigations by our office—many conducted with the help of FHWA, FTA, and other state and Federal law enforcement agencies—have resulted in the conviction of 178 individuals and companies. We are currently investigating more than 135 such schemes in 37 states.

The Department has taken steps toward improving oversight and stewardship in this area. In particular, FHWA has implemented initiatives (see Section 1) to: (1) refocus its oversight activities based on risk assessments of state management practices and (2) establish a review program of grant payments to help ensure that Federal funds are properly managed. For its part, FTA has been utilizing project

management oversight contractors to perform monitoring and oversight for FTA's major capital investments. Also, FHWA, FTA, and the Office of Inspector General (OIG) have responded to the imperative need for improved information sharing to prevent, detect, and investigate fraud by co-sponsoring three national fraud awareness conferences over the past 6 years. In addition, these agencies are launching an important, web-based initiative aimed at improving information sharing among Federal, state, and local transportation oversight providers.

An overarching challenge for the Department is to continue to strengthen oversight, promote early detection of fraud, and aggressively investigate and prosecute fraud when detected. Because unscrupulous elements in the industry treat criminal and civil fines and restitution as simply a cost of doing business, meaningful and timely debarment is an important safeguard to protect the Government. Earlier this year, the Department established a working group to examine ways to strengthen internal procedures for suspension and debarment of contractors indicted and convicted of fraud. While a draft proposal is imminent, the Department needs to adopt a final policy by the end of this year.

The Department and Congress have also identified Motor Fuel Excise Tax Evasion (MFETE) enforcement as an issue requiring greater attention. Congress has recognized that MFETE represents a significant drain on Highway Trust Fund revenues, estimating losses of up to $1 billion annually. A more vigorous and collaborative enforcement effort by Federal and state agencies is needed to more effectively target a wide variety of emerging MFETE schemes. From 1991 to 2003, the OIG participated with FHWA, the Internal Revenue Service, the Federal Bureau of Investigation, and state agencies in approximately 40 MFETE task force investigations; this resulted in 187 indictments, 171 convictions, and $33.7 million in recoveries. As prescribed in the Senate Appropriations Committee Report for FY 2005, the Department needs to develop a coordinated enforcement strategy with the Treasury Department and enter into a memorandum of understanding to further strengthen enforcement efforts.

FMCSA Programs Related to Commercial Drivers' Licenses

Over the past 5 years, we have participated in the investigation and prosecution of commercial drivers' license (CDL) fraud schemes in 21 states. During this period, over 75 investigations—carried out with the Federal Bureau of Investigation and other law enforcement agencies, with the strong support of FMCSA—found over 8,000 CDLs issued to drivers who obtained their CDLs through corrupt state or state-approved testing processes. These most often have involved "third-party examiners," i.e., private individuals and companies certified by a state to test CDL applicants. Instead of properly testing applicants, we have found too many cases where, in exchange for a bribe, a third-party examiner will pass applicants without a test or will supply test answers to applicants. *In a recent OIG investigation, a*

driver who caused a fatal crash in 2003, which killed a family of five in Pennsylvania, had been tested by a third-party examiner who was convicted of fraudulently certifying CDL test results.

In last year's "Top Management Challenges" report, we recommended that the Department take greater action to prevent drivers from fraudulently obtaining CDLs. FMCSA has taken positive steps in this direction. Every year, FMCSA conducts compliance reviews in approximately 16 states to determine if states are in compliance with its regulations. Recently, FMCSA restructured its compliance review process to add a new CDL fraud component, including an assessment of state CDL fraud countermeasures.

Following up on suspect CDL holders and expanding the use of covert testing of third-party examiners are areas that need considerably greater attention. Under its current regulations, FMCSA cannot require states to retest suspect CDL holders. *A recent OIG investigation identified one Georgia third-party examiner who falsified over 600 CDL skill tests*. FMCSA recently awarded a contract for the review of the entire CDL process to identify areas susceptible to fraud, as well as ways to improve the CDL process and eliminate potential fraud before it occurs. This review will include developing a model state program, to include the critically important covert testing and retesting of suspect CDL holders. While the contractor will be working with the International Association of Chiefs of Police and the American Association of Motor Vehicle Administrators, it is important that FMCSA be closely involved in this review.

Additionally, demonstrating legal presence in the U.S. should be a requirement to obtain a CDL. In a 2002 audit report—and again in June of this year—we recommended to the Department that all CDL applicants demonstrate citizenship or legal presence. The Department plans to address this recommendation through rulemaking, but to date has not issued a proposed rule. We are concerned about the delay and urge the Department to issue a regulation as expeditiously as possible.

DOT's Disadvantaged Business Enterprise Program

Last year, we identified disadvantaged business enterprise (DBE) fraud as a top management challenge. Fraud schemes and widespread perceptions of unfairness have permeated the program and undermined the important public policy goal of promoting DBEs. OIG is currently investigating 45 DBE fraud schemes in 19 states. Fraud schemes include cases where parties fraudulently obtained DBE certification status or permitted their companies to be used as false "fronts" or "pass-throughs," whereby the DBE performs little or no work. This is primarily an issue in DOT's highway, transit, and airport construction programs. *In a recent OIG case in New York, a DBE subcontractor pled guilty to fraud associated with*

an $8 million FHWA-funded contract. The DBE falsely claimed to have performed concrete, masonry, and paving work required under the contract, when in fact, the work was performed by a non-DBE contractor. OIG investigations have also uncovered problems with state agencies not providing adequate oversight of their programs.

In the area of airport concession contracts, we have seen a number of cases involving a perception of "pay to play." This means that DBEs perceive pressure to contribute to political campaigns in order to be competitive for lucrative airport concession contracts. For example, as part of an investigation of the DBE program at the New Orleans International Airport, we interviewed over 134 DBE contractor representatives, with more than 60 percent expressing that it was necessary to make political contributions to successfully compete for these contracts. Even though we found only one case of an alleged quid pro quo (which we are investigating), widespread perceptions still exist. Also, there is currently no personal net worth limit as part of the eligibility requirements to qualify as an airport concession DBE. This has made the program vulnerable to charges that it benefits millionaires who have held airport concession contracts for years. Through a pending rulemaking, the Department has proposed to institute a cap on the personal net worth of those eligible to receive DBE airport concession contracts.

Early this year, the Secretary of Transportation established a senior-level working group to develop and implement strategy for enhanced compliance, enforcement, and oversight of the DBE program. Thus far, this group has formulated some recommendations for departmental action and obtained action plans from FHWA, FAA, and FTA. For instance, FHWA plans to require all Division Offices to conduct a risk assessment of each state's compliance with essential DBE program requirements; it also requires that risk assessments be used to establish priorities and focus resources on state programs that are most vulnerable to fraud.

A challenge for the Department is to make greater, more tangible progress in strengthening the oversight of its DBE programs; this includes finalizing the rulemaking to cap the personal net worth of airport concession DBEs and the efforts of its working group. The Department needs to prescribe guidelines for a more hands-on approach to program oversight, such as elements of the methodology we utilized in our New Orleans investigation *(e.g., site visits, DBE and prime contractor interviews, application and certification file reviews, and work-site surveillance.)* Even if applied on a selective basis, such an approach would enable the Operating Administrations to better assess the compliance actions of state and local agency DBE program managers and to directly gauge the extent of regulatory compliance by participating DBEs and applicants. This type of model would also facilitate the identification of best practices, program-wide.

For further information, the following reports and testimonies can be seen on the OIG web site at http://www.oig.dot.gov:

- *Remarks of Inspector General Kenneth Mead at the 2004 National Fraud Awareness Conference*
- *Controlling Costs and Improving the Effectiveness of Federal Highway Administration and Federal Transit Administration Programs*
- *Opportunities to Control Costs and Improve Effectiveness of Department of Transportation Programs*
- *Letter to Reps. Istook and Vitter on Disadvantaged Business Enterprise Fraud at New Orleans Transportation Agencies*

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8 Improving Cost Effectiveness of $2.7 Billion in Information Technology Investments and Continuing to Enhance Computer Security

The Department of Transportation (DOT) is responsible for one of the largest information technology (IT) investment portfolios among civilian agencies. It relies on hundreds of computer systems to support key missions such as air traffic control operations and distributions of billions of dollars in Federal funds. Annually, DOT invests about $2.7 billion in IT acquisitions and operations. Over 80 percent of these investments are in air traffic control system modernization projects, many of which have experienced significant cost overruns and schedule delays. During fiscal year (FY) 2004, DOT made strides in increasing departmental oversight of major IT investments and identifying opportunities to consolidate systems in common business areas, as part of the newly developed IT capital planning and investment control process. However, these efforts are in an early stage of implementation and still present challenges to the Department.

During FY 2004, DOT also made a concerted effort to correct computer security weaknesses identified in previous years. DOT had reported its information security program as a material internal control weakness for FY 2001 through FY 2003. Based on the progress the Department has made, we are of the opinion that the DOT's information security program could instead be considered a reportable condition. However, continued improvements are still needed, especially in the area of enhancing air traffic control systems security. DOT needs to make certain that it follows through aggressively to implement planned corrective actions in order to prevent the computer security program from deteriorating into a significant deficiency next year.

Departmental Oversight of IT Investments and Security: DOT Needs to Implement a Robust and Consistent Management Review Process

The Department has established an Investment Review Board (the Board), chaired by the Deputy Secretary, to review, approve, and modify major IT investments. FY 2004 marked the first full year of the Board's operations. The Board has expanded its review beyond "cross-cutting" support systems, such as the departmental accounting system, to include Operating Administration-specific IT investments. This is a critical step because over 90 percent of the Department's IT budget is appropriated directly to the Operating Administrations. While the Board meetings serve as a good vehicle to keep departmental senior management

informed of the Operating Administrations' IT investments, more needs to be done to influence the decision-making process for these investments.

- The Board needs to perform more substantive and proactive reviews of IT investments. The Board has reviewed 10 major projects, with a total life cycle cost of $7.5 billion, through September 2004. However, we determined that for 3 of the 10 projects, known management problems were not presented to the Board. A further review of Board meeting minutes showed that the Board raised substantive questions about the status of only 1 project; as a result, 9 of the 10 projects continued without modification. Overall, the Board is not being presented with the information it needs to make informed decisions about whether to continue, modify, or terminate projects. We also found that the Board focused its review on projects that were already considered troubled—those experiencing more than 10 percent cost increases or schedule delays. While reviewing these projects is important, the Board also needs to review "high risk" projects before they become troubled.

  This is especially needed for new, costly, and complex acquisition programs, such as the Federal Aviation Administration's (FAA) En Route Automation Modernization Program. Also, projects, such as the Standard Terminal Automation Replacement System (STARS) and the Wide Area Augmentation System (WAAS), that have been re-baselined after encountering substantial cost increases and schedule delays, should remain on the Board's watch list. In September 2004, the Department enhanced its selection criteria to identify these types of projects for Board review. This is a step in the right direction.

- FAA needs to enhance computer security over its air traffic control systems. However, the Board also has a responsibility to provide oversight of FAA's progress to ensure that critical computer security weaknesses are corrected in a timely manner. While the Department has made good progress in securing computer system operations overall, we recently reported that air traffic control computer systems need to be better protected. First, FAA needs to commit to reviewing all operational air traffic control systems—at en route, approach control, and airport terminal facilities for adequate security—within 3 years. Second, FAA needs to commit to implementing a robust contingency plan to restore essential air service in the event of a prolonged disruption of service at an en route facility. In addition, FAA needs to finalize its implementation plan for using smart card technologies to authenticate air traffic control system users.

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Departmental IT Funding and Operations: DOT Needs to Better Coordinate Budget Requests to Align IT Resources With Responsibilities

The departmental Chief Information Officer (CIO) office's responsibilities have changed significantly in recent years, as a result of the effort to enhance IT security and the shutdown of the former Transportation Administrative Service Center. In addition to providing IT policy directions, the CIO office is responsible for providing IT security services and maintaining common network, e-mail, and telephone systems in DOT Headquarters. The latter is reimbursed by the Operating Administrations through the Department's Working Capital Fund. However, this funding arrangement was not clearly stated in either the CIO office's or the Operating Administrations' budget submissions. Also, the CIO office is planning multiple IT consolidation initiatives in the Department. These activities have significant budget implications. The Department needs to adjust the IT budget submission practice to better align resources with responsibilities and to avoid the appearance of duplicate budget requests.

- The CIO office and Operating Administrations need to clearly describe the sources and uses of IT funds in budget submissions. The CIO office's full responsibilities and funding levels are not reflected in its budget submission. For FY 2005, the CIO office's direct budget request of $16.7 million accounts for only about 25 percent of the resources that will be provided during the year. The remaining 75 percent, or $50.8 million, will be reimbursed by the Operating Administrations through the Working Capital Fund. However, this shared funding responsibility was not clearly stated in the budget submissions.

- The Department needs to realign IT budget submission and project management responsibilities for proposed system consolidation projects. The Board has approved an initiative to consolidate multiple systems maintained by individual Operating Administrations in 11 common business areas for cost savings. For example, one of the initiatives is to consolidate office IT infrastructure ($192 million in annual investments) used to support desktop computers, local area networks, and e-mail transmissions. Historically, each Operating Administration made its own investment decisions and submitted separate budget requests to fund its system operations. Consolidating systems in these common business areas presents cost saving opportunities and helps eliminate the appearance of duplicate budget requests. However, it will require a more centralized approach and adjustments to the Department's IT project management and budget submission practices.

For further information, the following reports and testimonies can be seen on the OIG web site at http://www.oig.dot.gov:

- *DOT Information Security Program*
- *Security and Controls Over FAA En Route Center Computer Systems*
- *Consolidated DOT Financial Statements for Fiscal Years 2003 and 2002*
- *Shutdown of TASC's Transportation Computer Center*

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9 Restructuring the Intercity Passenger Rail System to Match Fiscal Capacity

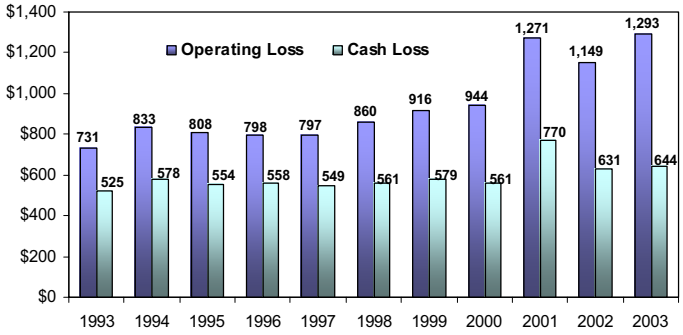
The Department of Transportation (DOT) must continue to work with Congress to break the cycle of appropriations without authorization for Amtrak and to realign the size, operations, and governance of the intercity passenger rail system to match the levels and sources of funding available. When David Gunn became president of Amtrak in 2002, he implemented a strategy of maintaining and rebuilding the existing Amtrak system. However, due to insufficient revenue from passengers, state contributions, and Federal subsidies, this approach required further deferral of needed capital investment. While this may have appeared reasonable for a short period of time, with the expectation that reauthorization would validate Amtrak's strategy and was just around the corner, after more than 2 years, this approach is no longer workable. Unsustainably large operating losses, poor on-time performance, and increasing levels of deferred infrastructure and fleet investment are a clarion call to the need for significant changes in Amtrak's strategy. Amtrak's management must find ways to reduce its need for operating subsidies and set better priorities for its capital dollars. For instance, programming millions of scarce capital dollars for fixing long-distance sleeper cars when bridges on the Northeast Corridor are beyond their functional and economic lives and must be refurbished and replaced is unacceptable.

Amtrak cannot continue to defer capital investment with the hope that reauthorization will eventually provide sufficient funding to operate the entire system. Reauthorization could take a variety of forms including: (1) a requirement to focus development on corridors where passenger rail service can make economic sense, (2) decreased funding and elimination of certain operations, (3) increased funding for further development of the existing system, (4) maintaining and funding the existing system, and (5) any combination of the above. But those are decisions for Congress and the Administration to make in the course of reauthorization.

Judging by the House and Senate marks for fiscal year (FY) 2005 for $900 million and $1.2 billion, respectively, and in view of the fact there is no authorization for Federal funding in 2005, it seems likely that Amtrak will receive substantially less Federal funding than its request of $1.8 billion. This means that Amtrak's Board of Directors needs to direct Amtrak management to prepare a budget that does not increase its already substantial deferred capital requirements and provides for operation of the railroad, consistent with its likely appropriation and other available funds.

Amtrak's 2003 operating loss increased by $144 million more than 2002 levels to $1.3 billion, and its cash loss increased by $13 million to an overall loss of $644 million.[1] Through June 2004,[2] Amtrak's total operating and cash losses were $945 million and $495 million, respectively. In fact, Amtrak's cash loss has exceeded $500 million in each of the last 10 years and is projected to do so for the foreseeable future. Figure 9-1 shows Amtrak's operating and cash losses for the period from 1993 to 2003.

Figure 9-1. Operating and Cash Losses, 1993 Through 2003 ($ in Millions)



Source: Amtrak's annual financial statements.

Because Amtrak's operating and capital needs have exceeded the public resources provided, Amtrak sought external financing and is now burdened with a heavy debt load and substantial principal and interest payments that must be satisfied in the coming years. Just to service current and long-term debt and capital lease obligations of $4.8 billion will require an average of about $300 million per year (see Figure 9-2).

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[1] The operating loss includes depreciation and other non-cash items that are subtracted to determine the cash loss.

[2] This assessment report covers Amtrak's financial and operating results through the first 3 quarters of fiscal year 2004. Just within the last few days, Amtrak made available its preliminary, unaudited results for the entire fiscal year 2004. Amtrak reported fiscal year 2004 operating and cash losses of $1.3 billion and $635 million, respectively. These results are similar to the losses reported for fiscal year 2003. We will include an analysis of Amtrak's audited 2004 results in our next report.

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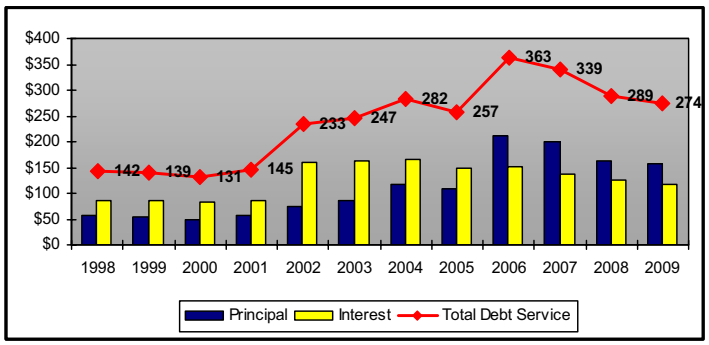
Figure 9-2. Amtrak's Historical and Forecast Debt Service Principal and Interest Payments, 1998 Through 2009 ($ in Millions)



Source: Amtrak's annual financial statements.

Note: 2006 assumes repayment of the $100 million RRIF loan and 2007 payments include early pay off of locomotive and passenger car leases, which reduce later year principal and interest payments.

The mismatch between the public resources made available to fund intercity passenger rail service, the total cost of maintaining the system that Amtrak continues to operate, and proposals to restructure the system make up the dysfunction that must be resolved in the reauthorization process of the Nation's intercity passenger rail system. Currently, Amtrak receives direct funds from ticket revenues, state operating support, and Federal subsidies. Amtrak also benefits from state capital contributions for projects on rail infrastructure, stations, and passenger equipment. For example, California's Intercity Rail Capital Program, dated March 2004, shows a total capital spending of $107 million in 2003-2004 for rail infrastructure. Most of this amount, $104 million, comes from state and local sources; the remaining $3 million comes from Federal sources. In spite of these multiple sources of funds, the total funding Amtrak receives from all sources is not sufficient to maintain the current system in a state of good repair.

The Administration is willing to provide additional Federal funds if Amtrak restructures operations to focus on developing short-distance corridors (routes with end-to-end distances of less than 500 miles), targeting improvements to the services that hold the greatest potential for future passenger growth. However, continuing the stalemate in reauthorization will delay implementation of this or any other restructuring options. In addition, the lengthy delay in finding and confirming nominees to Amtrak's Board of Directors diminishes the ability of the Board to perform needed oversight and meet its corporate responsibilities as well as work with Congress and the Administration to plan for the future of the passenger rail system.

In the meantime, the current grant process established by appropriation has been positive for maintaining discipline in Amtrak's budgeting and spending within available funds, and the Department should maintain a strong oversight presence to assure this discipline continues. However, this should not be relied upon as a long-term solution.

The existing system is not sustainable at current funding levels, and corridor development cannot progress in any meaningful way until reauthorization legislation is enacted. The corridors are the sources of great potential passenger benefits. They are an undeveloped viable alternative to congested roads and airports until a consensus is reached on Amtrak's role and on the direction of the Nation's future passenger rail system, as well as the means to achieve them.

For further information, the following reports and testimonies can be seen on the OIG web site at http://www.oig.dot.gov:

- *Amtrak's Loan Condition 8*
- *The Future of Intercity Passenger Rail Service and Amtrak (October 2, 2003)*
- *The Future of Intercity Passenger Rail Service and Amtrak (April 29, 2003)*

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10 Management Attention Needed to Strengthen Oversight of Title XI Loan Guarantees

As of June 30, 2004, the Maritime Administration's (MARAD) consolidated Title XI loan guarantee portfolio was valued at $3.6 billion, with another $1.4 billion in pending loan guarantee applications. The loan guarantees are designed to assist private companies in obtaining financing for the construction of ships or the modernization of U.S. shipyards—with the Government holding a mortgage on the equipment or facilities financed.

In September 2004, we issued a follow-up audit report of the Title XI Loan Guarantee Program. We initiated this follow-up audit as a result of the Emergency Wartime Supplemental Appropriation passed by Congress on April 16, 2003.[3] The bill provided $25 million for the costs of new Title XI loan guarantees that will remain available until September 30, 2005. However, Congress prohibited MARAD from obligating or expending these funds "… until the Department of Transportation Inspector General certifies to the House and Senate Committees on Appropriations that the recommendations of report CR-2003-031[4] have been implemented to his satisfaction."

MARAD has developed policies and procedures that address each of the five recommendations from our March 2003 audit report. However, in verifying the development of these policies and procedures, we found three new issues that need to be fixed to ensure that the full intent of the recommendations from our March 2003 report are addressed. This is of considerable importance because MARAD has determined that over 25 percent of its portfolio is at an elevated risk of default. Consequently, we made three new recommendations to enhance management of the Title XI program. Our certification of the adequacy of MARAD's implementation, as required by Congress, was contingent upon a satisfactory written response from MARAD that would include an action plan with steps and milestones to address these new recommendations. Subsequently, MARAD provided a written response that satisfactorily addressed the intent of the recommendations.

Strong leadership and staff committed to implementing the strengthened procedures are critical to realize the intended benefits and reduce the risk profile of the Title XI loan guarantee portfolio. The Department will need to monitor MARAD's progress to ensure appropriate actions are taken to mitigate risks to the

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[3] *Making Emergency Wartime Supplemental Appropriations for the Fiscal Year 2003*, Public Law 108-11.

[4] OIG Report Number CR-2003-031, "Title XI Loan Guarantee Program," March 27, 2003. OIG report can be accessed on our website: www.oig.gov.

$3.6 billion portfolio of loan guarantees outstanding as well as for new guarantees that are approved.

Establishing good procedures is just the first step; fully implementing them is another. While MARAD has worked to get satisfactory procedures in place, the proof will be in the follow through and implementation with respect to specific loan guarantee applications. Therefore, we will conduct a follow-up audit of this implementation at a date still to be determined.

Status of Areas Identified in March 2003 Audit Report

Risk Mitigation. MARAD strengthened its procedures for review and approval of new loan guarantee applications. For any waivers or modifications to the standard loan approval criteria that would increase the risk to the Government, MARAD performs a risk analysis and determines whether compensating measures are available or necessary, and then presents the results of its analysis to the Department of Transportation Credit Council.[5] The Credit Council assesses the financial viability of the application and its consistency with departmental credit policies, Federal requirements, and departmental regulations on credit assistance. The Credit Council will provide a recommendation to the Maritime Administrator regarding the financial viability of the proposed project for consideration in approving or disapproving the application.

External Review Process. MARAD and the Credit Council are working on general guidelines that would require external reviews for applications from companies for start-up operations—for starting a new service, applying new technologies, or employing more complex finance transactions—and for large dollar transactions that represent a significant portion of the potential borrower's debt. MARAD will seek Credit Council concurrence for any application that MARAD believes *does not* require an external review.

Financial Monitoring. By far, the most difficult area for MARAD to address was the establishment of a formal process for monitoring the financial condition of its Title XI portfolio companies. MARAD re-established a "Credit Watch" process for those companies experiencing some form of financial difficulty. These borrowers had outstanding loan guarantees valued at more than $935 million, or over 25 percent of its Title XI loan guarantee portfolio. Timely financial monitoring will continue to be a challenge for MARAD, especially as new

[5] Department of Transportation Order 2301.1, "Establishment of the Department of Transportation Credit Council," June 10, 2004.

loan guarantees are approved and more frequent reporting requirements are imposed on borrowers. MARAD must focus its efforts on catching up with financial analyses of the borrowers in its current portfolio before expending significant resources on new loan guarantee applications.

Asset Monitoring. MARAD established a more formal process to monitor whether or not each guaranteed vessel is current with respect to its marine insurance, classification, Coast Guard inspection, and other required certifications related to its physical condition. MARAD also developed a better process for documenting the actions taken with respect to seized assets and for maximizing recoveries from their disposal. MARAD appointed a technical representative to monitor each vessel and has contracted with outside parties to ensure that the vessels receive appropriate maintenance and security measures.

New Areas Requiring Management Attention

Fully Fund Reserve Fund Requirements and Enforce Financial Agreements. MARAD was not sufficiently enforcing the reserve requirements established to mitigate the risks of noncompliant loans. MARAD has recently established a plan to review each company's Reserve Fund requirements. Once these reviews are completed, MARAD has promised to take the necessary actions, utilizing all remedies available to cure any defaults. MARAD has also promised to review each company's financial statements for any other defaults that have a substantial financial impact or increase the financial risk to MARAD and pursue remedies to those defaults.

Establish Effective Default Management. In our view, MARAD lacks sufficient expertise or resolve to effectively address troubled loans. Because of the magnitude of dollars involved and the specialized set of skills required to effectively resolve complex financial situations, in coordination with the Credit Council, MARAD is developing a detailed action plan to secure access to advisors outside MARAD with the requisite capacity and technical sophistication to negotiate solutions to distressed loans.

Acquire Suitable Financial Monitoring Software. MARAD's rudimentary financial monitoring system is inadequate to effectively manage its $3.6 billion portfolio. Developing a computerized database system is essential for MARAD to efficiently and promptly assess the financial condition of the companies in its portfolio and to track trends in these companies' finances and operations. MARAD has been advised by the Office of the Secretary that the Department wants to implement a monitoring system that can be used by all of the Department credit programs for purposes of efficiency and consistency. MARAD has taken the initial lead on this issue and has set forth a three-phase plan for the Department to develop, acquire, and implement a new monitoring system. According to MARAD, the first phase of this project is currently underway.

For further information, the following reports and testimonies can be seen on the OIG web site at http://www.oig.dot.gov:

- *Title XI Loan Guarantee Program (March 27, 2003)*
- *Title XI Loan Guarantee Program (June 5, 2003)*
- *Title XI Loan Guarantee Program (September 28, 2004)*

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Emerging Issue: Ensuring Transportation Funds Are Adequate to Meet Growing Needs

The aviation and highway trust funds, which are major sources of transportation funding, have historically served to account for receipts from taxes paid by users of the highway and aviation systems and to fund, in turn, some of the costs of those systems. The trust funds, which are supported by a mixture of passenger, fuel, and user taxes, are not generating sufficient revenues today to cover anticipated costs and needs. At this time, the surface transportation reauthorization, which establishes a framework for the Highway Trust Fund agencies' future budgets, has not been finalized.

Changes in the aviation sectors have resulted in less revenue flowing into the trust fund. These include the economic downturn, and lower average airfares ($109 in September 2004 versus $147 in September 2000). One of the primary components of the Aviation Trust Fund is the 7.5 percent tax applied to airline tickets. The lower average base ticket prices have significantly suppressed revenues flowing into the Trust Fund.

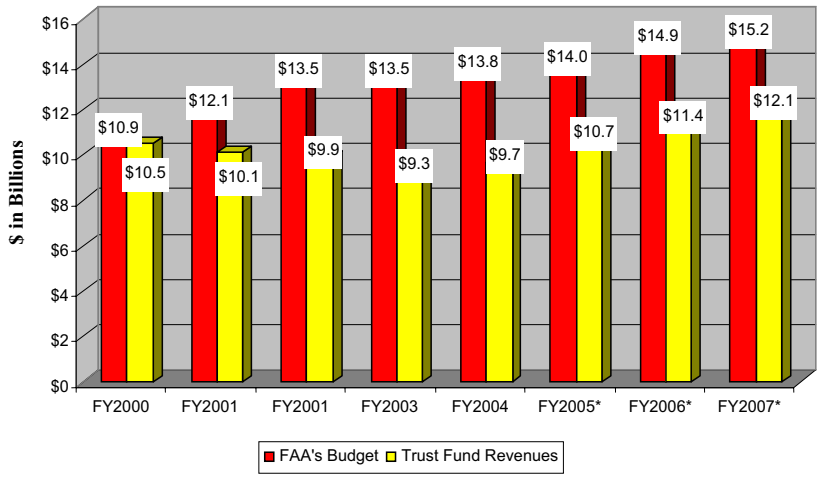
At the same time, the costs of building, operating and maintaining the systems are continuing to rise. There are a handful of options—none of them easy—to address the expected mismatches between funding availability and projected funding needs. These options include adopting a "do-nothing" approach; turning to the General Fund, which is a problematic option during times of Federal deficits; or reevaluating the current tax structure.

The Department of Transportation's challenge in the next few years will be to evaluate whether the current aviation funding method adequately matches system costs and to determine the desirability and feasibility of alternative financing methods.

Anticipated Aviation Trust Fund Revenues are Less than Projected

Over the past 4 years, the Aviation Trust Fund has seen its revenue drop significantly. In fiscal year (FY) 2000, the Trust Fund collected $10.5 billion in revenue. In FY 2003, the Trust Fund collected only $9.3 billion in revenue, a reduction of 12 percent. Those decreases can be attributed to lower ticket prices and reductions in air travel. However, while revenues have declined, the Federal Aviation Administration's (FAA) budget has increased substantially over the same time frame. Between FY 2000 and FY 2003, FAA's budget increased from $10.9 billion to $13.5 billion, an increase of approximately 24 percent. In FY 2005, FAA's budget is expected to exceed Trust Fund revenues by over $3 billion.

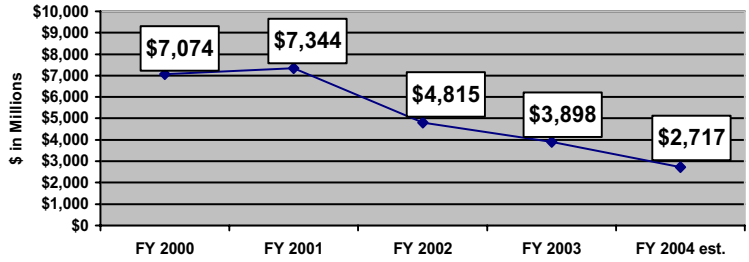
Figure E-1. FAA: Agency's Budget vs. Trust Fund Revenues



Source: FAA and U.S. Treasury.
* Projected revenue and budget (Reauthorized levels).

Historically, the difference between revenues and budget has been funded through a combination of drawing down the prior surplus balance of the Trust Fund and tapping the General Fund of the Treasury. However, both options are in jeopardy in the very near term. The prior surplus balance of the Trust Fund has been drawn down extensively. In FY 2000, the surplus balance was over $7 billion; by the end of FY 2004, the estimated surplus balance had dropped to less than $3 billion (a 62-percent decrease).

Figure E-2. Aviation Trust Fund: Ending Balance



Source: FAA and U.S. Treasury.

There are a handful of options—none of them easy—to address the expected mismatch between funding availability and projected funding needs. First, adopt a "do-nothing approach" that would freeze budgets at the levels consistent with resource projections. Second, turn to the General Fund to subsidize growing shortfalls, which would entail FAA competing with other critical Federal programs for scarce funding during a period when the Government is facing a substantial Federal deficit. The percentages of FAA's total budget paid with general revenues have ranged from zero in FY 2000 to 22 percent in FY 2004. Even if budgets were frozen at current levels—about $14 billion—spending down the Trust Fund balance would not be sufficient. For example, in FY 2005, Trust Fund revenues are projected to total $10.7 billion, $3.3 billion short of FAA's current $14 billion budget. With no growth allowed in FY 2005, the available trust fund balance of $2.7 billion would fall $600 million short of covering the balance. The third, and perhaps most painful, option would be to reevaluate the current tax structure and determine whether alternatives exist to more efficiently align users with costs through changes in the tax structure or by imposing user fees.

Emerging Issue: Growing Interdependency Among DOT and Other Federal Agencies to Ensure Safe, Secure, and Efficient Transportation

The U.S. transportation system is a vast, diverse, interconnected network of modes and is critical to our economy and national security, including military mobilization and deployment. As the backbone of the U.S. economy, transportation comprises 11 percent of the gross domestic product, approximately $1.1 trillion annually and supports one in eight jobs.

In the past few years, there has been a growing interdependency among Federal agencies in executing their responsibilities to protect the Nation's critical transportation infrastructure, its citizens, and the environment. This is especially noticeable in the areas of *transportation security* and *environmental stewardship*.

Transportation Security

The attacks of September 11, 2001, demonstrated the vulnerabilities of the Nation's transportation system to the terrorist threat. Terrorist events around the world have also shown that transportation systems are often targets of attack; roughly one-third of terrorist attacks worldwide target transportation systems. For the Department of Transportation (DOT), the growing interdependency among Federal agencies is never more evident than with the responsibility to secure the U.S. transportation system and protect its users from criminal and terrorist acts, especially in areas such as vulnerability assessments, emergency preparedness and response, and hazardous materials oversight and enforcement activities.

Following September 11, 2001, a series of Homeland Security Presidential Directives were issued communicating presidential decisions about the homeland security policies of the United States. The Presidential Directives[6] that address the interdependency relationship among the various executive departments and agencies are at too general a level to provide clear guidance on each department's role and responsibility to protect the Nation's critical infrastructure, including the transportation system. For example, although the Directives direct DOT and the Department of Homeland Security (DHS) to, among other things, collaborate in regulating the transportation of hazardous materials by all modes, including pipelines, and to coordinate in establishing a national program and a multi-year planning system to conduct homeland security preparedness exercises, it is not

[6] Homeland Security Presidential Directive-1, "Organization and Operation of the Homeland Security Council," Homeland Security Presidential Directive/HSPD-7, "Critical Infrastructure Identification, Prioritization, and Protection," issued December 2003; and Homeland Security Presidential Directive/HSPD-8, "National Preparedness," issued December 2003.

clear from an operational perspective what "to collaborate" and "to coordinate" encompass.

A September 2004 Memorandum of Understanding (MOU) was signed by the two departments to improve their cooperation and coordination in promoting the safe, secure, and efficient movement of people and goods throughout the transportation systems.

Finalizing the MOU was the first of many critical steps accomplished by DOT in what is a very dynamic process, but much more remains to be sorted out between the two departments. A lack of clearly defined roles among the Federal entities at the working level could lead to duplicating or conflicting efforts, less than effective intergovernmental relationships, overuse of resources, and—most importantly—raise the potential for problems in responding to terrorism.

DOT has identified more than 100 agreements either existing or under development with DHS. The two departments need to complete their efforts in:

Sorting out security roles and responsibilities. Clearly defined roles and responsibilities between DOT and DHS are required in order to avoid duplicating or conflicting efforts, improve intergovernmental relationships, effectiveness in the use of resources, and—most importantly—effectively responding to terrorism. The delineation of roles and responsibilities between DOT and DHS cannot be overstated. For example, some transit agencies had three separate vulnerability assessments conducted by DOT and DHS. In regards to pipeline security, DOT and DHS have not decided whether an agreement is required. However, Congress has recommended that DOT's Office of Pipeline Safety create an MOU with DHS and the Federal Energy Regulatory Commission regarding pipeline safety and security. Without clearly defining each agency's responsibilities, it is unclear who would be responsible for overseeing the protection of the Nation's pipeline infrastructure, especially in the event of a terrorist attack.

Breaking the bottlenecks where negotiations on agreements are being delayed. There are several extremely important agreements that have not been finalized and some that need to be initiated. If the agreements will involve funding agreements or use of resources, such as inspectors, DOT and DHS need to sort out which agency pays for what, how much it will cost, and what the terms will be. For example, DOT and DHS are still negotiating agreements for rail and transit security. These agreements must be finalized so it is clear who will fund research and development, emergency communications, and the use of Federal Railroad Administration inspectors.

Executing the conditions and terms of the agreements once they are finalized. Once DOT and DHS execute an agreement clearly defining the roles and

responsibilities of each agency, they must then follow through and execute the terms. Currently, the Federal Aviation Administration (FAA) and the Transportation Security Administration (TSA) have a Memorandum of Agreement addressing the collaborative relationship between the two agencies, including hazardous materials issues. However, some of the provisions in the Agreement have not been fully implemented. For example, in the Agreement, FAA and TSA agreed to establish procedures for a referral process when TSA finds a passenger with prohibited hazardous items in their carry-on baggage. Such items could include fireworks, tear gas, flammable gas torches, or household bleach. No system-wide referral procedures have been developed. FAA has developed an automated system to track passenger violations of hazardous materials regulations. However, instead of using FAA's system, TSA is developing its own system.

Environmental Stewardship

The growing interdependency among Federal agencies can also be found in the development of transportation infrastructure projects and environmental stewardship. These projects include new highways and transit systems, airport runways, and pipeline repairs or relocations.

Congress and the Administration felt that projects were still taking an inordinate amount of time to receive construction approval and that these delays in high priority projects create social, economic, and environmental problems. For example, the median time to process environmental documents for major highway projects in fiscal year 2004 was more than 4 years; and over the past 3 years, the median time to develop and process environmental documents for major transit projects was more than 3 years.

In response to legislation and Executive Orders, DOT Operating Administrations and the Office of the Secretary have adopted polices and procedures for streamlining environmental review processes. While improving the effectiveness of transportation project delivery, the Administration has also proposed surface transportation legislation calling for measures that would protect the environment while improving the effectiveness of project delivery. In addition, Interagency Task Forces have been established to expedite the environmental review and permitting processes. The President issued an Executive Order in May 2003 establishing the Interagency Task Force comprised of 10 Federal agencies, including DOT, which would develop and ensure implementation of a coordinated environmental review and expedite the permitting process, so that pipeline repairs could be made within the time period specified by Federal safety regulation.

Although an MOU has been signed in connection with the Executive Order, the question is whether the MOU will be effective in expediting the environmental review and permitting processes. Pipeline safety repairs and relocations are being

delayed. In one case, it took nearly 3 years and more than 40 permits before the operator was given approval to relocate the pipeline. In our opinion, the provisions in the MOU are too general to provide clear guidance on each agency's responsibility for coordinating and expediting the environmental review and pipeline repair permitting processes. Also, there are no deadlines to help foster quicker reviews and decision processes, nor are the agencies held accountable for not abiding by the provisions of the MOU. Task Force members need to work together to define the roles and responsibilities of each agency for expediting environmental reviews and permitting processes and establish deadlines to help foster quicker reviews and processes. If the participating agencies cannot effectively expedite the environmental review and permitting processes, it may be necessary for Congress to take action.

Emerging Issue: Meeting Human Resource Needs Given Retirements and Changing Skill Mix

The Department of Transportation (DOT) has made progress in its human capital initiatives and is one of few Federal agencies to obtain a "green" status score in this element of the President's Management Agenda. However, human resources management will be a concern for DOT for many years to come, particularly with the upcoming retirement wave of air traffic controller and senior management staff. The Department is in the early stages of addressing this issue and must explore alternatives that will enable Operating Administrations to recruit and retain top talent for the DOT workforce.

DOT's nationwide workforce of approximately 60,000 is largely tenured and experienced, and the Department benefits greatly from its employees' consistent baseline of skills and experience. However, this benefit is accompanied by a potential risk as the average age of permanent DOT employees continues to rise, and large numbers of employees begin closing in on retirement. For example, in fiscal year (FY) 1999, the average age of a DOT employee was 44.7 years. At the end of FY 2003, the average age went up to 46.1 years, with fewer than 2,500 employees under the age of 30, Department-wide. To illustrate, approximately 11 percent of DOT employees were eligible for retirement at the end of FY 2003. In FY 2007, about 23 percent are projected to be eligible, including large numbers of supervisory staff.

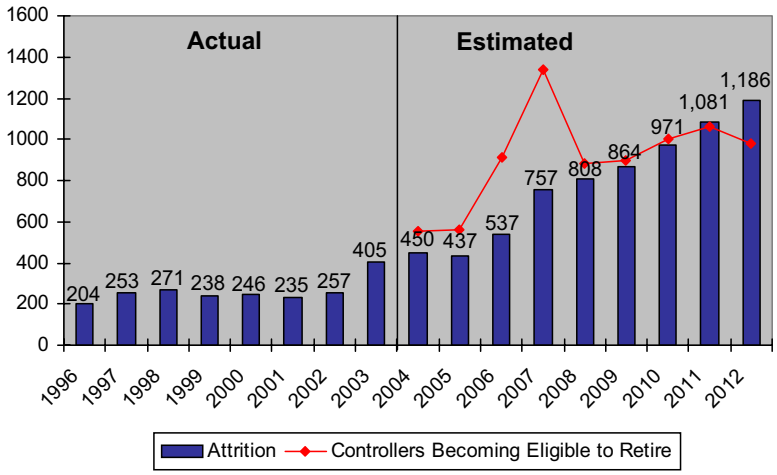
DOT's agencies operate under United States Code Title 5; only the Federal Aviation Administration (FAA) is partially exempt. Title 5 provides for central Federal regulatory systems for human resource management, including highly structured compensation and staffing procedures. The Department of Homeland Security and the Department of Defense are leading in the development of options such as organization-specific benefits packages for retirement, greater employer contributions to benefits packages, and streamlined hiring and promotion based on skills and achievements rather than specific occupational duties or seniority.

While the attrition increase may not significantly impact every Operating Administration, some, such as FAA and the Federal Highway Administration (FWHA), are already encountering challenges. As the two examples below illustrate, these Operating Administrations are currently projecting rising attrition rates and predicting problems with the prompt replacement of experienced, mission-critical staff. Although it will be a challenge to hire and retain a sufficient quantity of quality staff, there is also an opportunity for agencies to revamp their organizations by hiring a workforce with the latest technical skills and knowledge and placing them where they are needed most.

Addressing an Expected Surge in Controller Attrition

Attrition in FAA's air traffic controller workforce is expected to rise sharply in upcoming years as controllers hired after the 1981 Professional Air Traffic Controllers Organization controllers' strike become eligible to retire. FAA currently estimates that nearly half (47.3 percent) of its controller workforce of 15,000 could leave the Agency between FY 2005 and FY 2012. Since new trainees currently take an average of 3 years to become fully certified controllers, FAA needs to begin identifying ways to make every stage of its process for hiring, placing, and training new controllers more efficient and cost effective. While addressing the expected surge in controller attrition represents a significant challenge, there are opportunities as well. A point worth noting is that new controllers will generally have lower base salaries than the retiring controllers they replace (the average base salary of a fully certified controller today is about $113,000). Over time, this could help reduce FAA's average base salary and, in turn, help reduce FAA's operating cost growth. However, if FAA does not place new controllers where and when they are needed, the potential reductions in base salaries will be offset by lower productivity from placing too many or too few controllers at individual facilities.

Figure E-4. FAA Air Traffic Controller Attrition Compared to Retirement Eligibility*



Source: OIG Analysis of FAA Data.

* Attrition data are as of May 2004. The number of controllers becoming eligible includes only those controllers reaching retirement eligibility in that year and does not include prior years. Retirement eligibility estimates are as of December 31, 2003.

Rebuilding the Federal Highway Administration's Workforce While Balancing the Changing Skill Mix

FHWA faces a growing set of challenges around the recruitment, retention, and management of its workforce. FHWA is facing numerous vacancies in mission-critical positions as large numbers of staff are expected to exit their positions, according to the FY 2003 through FY 2007 FHWA Workforce Plan. About 60 percent of the FHWA workforce (1,732 employees) is expected to "turnover" during these 5 years due to expected retirements, normal attrition, and vacancies created by internal promotions. Of this amount, 170 represent senior staff, which comprise 57 percent of FHWA's managerial workforce (grades GS-15 and above). FHWA also risks losing additional staff to the Title 5-exempt agencies, and this could further drain its institutional knowledge.

However, this turnover also presents the opportunity to improve the workforce skill mix within the Agency. As of June 30, 2004, engineers held almost 40 percent of FHWA's 2,858 permanent positions, while financial specialists held less than 4 percent. New missions, new technology, and new ways of doing business have generated the need for a workforce with a broader range of technical and management skills. For example, FHWA needs staff with financial management skills to provide guidance on innovative financing techniques for projects and to evaluate key state processes for managing Federal-aid funds. Therefore, FHWA must address the gaps in staff numbers and in the critical skills and competencies that will be needed to exercise program and project oversight, while maintaining continuity of operations and retention of experienced staff and program knowledge.

In February 2003, the House Appropriations Committee directed FHWA to develop a strategy for achieving a more multidisciplinary approach towards its oversight activities, to include identification of staff with private sector management skills, such as financing and cost estimation. In response to this direction, the FHWA Administrator agreed to develop the workforce skills needed in the planning, environmental, financial, and engineering areas related to the delivery of the Federal-aid highway program.

In FY 2004, FHWA established an Employee Multidisciplinary Development Program focused on providing both existing and entry-level staff with specialized +training in cost estimating, process reviews, project management, and other skill areas required for effective oversight. FHWA reported that as of June 30, 2004, 60 employees were participating in FHWA's Professional Development Program. However, given the size of FHWA's workforce and that some courses are still in development, this approach will be slow in bringing about needed changes in the skill sets and proficiency levels that are required throughout the various disciplines and functional areas within FHWA.

EXHIBIT. COMPARISON OF FY 2005 AND FY 2004 TOP MANAGEMENT CHALLENGES [60]

Items in FY 2005 Report	Items in FY 2004 Report
• Getting the Most Value From Investments in Highway and Transit Infrastructure Projects	• Protecting Taxpayer Investments in Highway and Transit Infrastructure Projects. Continue efforts to ensure that highway and transit projects are delivered on-time, within budget, and free from fraud; and aggressively fight motor fuel tax evasion, which is a drain on revenue for the Department.
• Delivering Air Traffic Control Services and Fielding New Air Traffic Control Equipment While Controlling Costs in a Fixed Budget Environment	• Improve Fiscal Discipline at FAA. Controlling operations cost growth and addressing fundamental problems with major acquisitions.
• Increasing Aviation Capacity and Mitigating Delays	• None
• Ensuring Safety in a Changing Aviation Environment	• Aviation Safety. Ensure FAA safety oversight keeps pace with industry and economic changes while maintaining a focus on long-standing safety issues.
• Ensuring That Surface Safety Programs Lead to More Lives Saved	• Highway Safety. Keep unsafe drivers and vehicles off the road by stopping states from issuing Commercial Driver Licenses to unqualified drivers, identifying high-risk motor carriers for review, and implementing the TREAD Act to facilitate proactive identification of vehicle safety defects.
• Strengthening Financial Management to Protect Federal Funds	• Financial Accountability. Free up hundreds of millions of dollars in idle funds, improve oversight of billions of dollars in cost-reimbursable contracts, and fully implement the new Delphi financial management system.
• Holding the Line on Programs Conducive to Fraud	• Disadvantaged Business Enterprise Program. Increase oversight of the Disadvantaged Business Enterprise Program to reduce fraud and ensure the Program benefits truly disadvantaged businesses.
• Improving Cost Effectiveness of $2.7 Billion in Information Technology Investments and Continuing to Enhance Computer Security	• Information Technology Management. Protect critical information technology (IT) systems from attack and maximize returns on DOT's $2.7 billion in annual IT investments.
• Restructuring the Intercity Passenger Rail System to Match Fiscal Capacity	• Intercity Passenger Rail. Restructure the intercity passenger rail system to match fiscal capacity.
• Management Attention Needed to Strengthen Oversight of Title XI Loan Guarantees	• MARAD Loan Defaults. Minimize financial loss to the Government from MARAD's $3.7 billion Title XI Loan Guarantee Program.
• None	• Hazardous Materials Safety and Security. Strengthening the oversight of Hazardous Materials (HAZMAT) shipments by increasing cross-modal inspection and enforcement activities.

EXHIBIT. Comparison of FY 2005 and FY 2004 Top Management Challenges