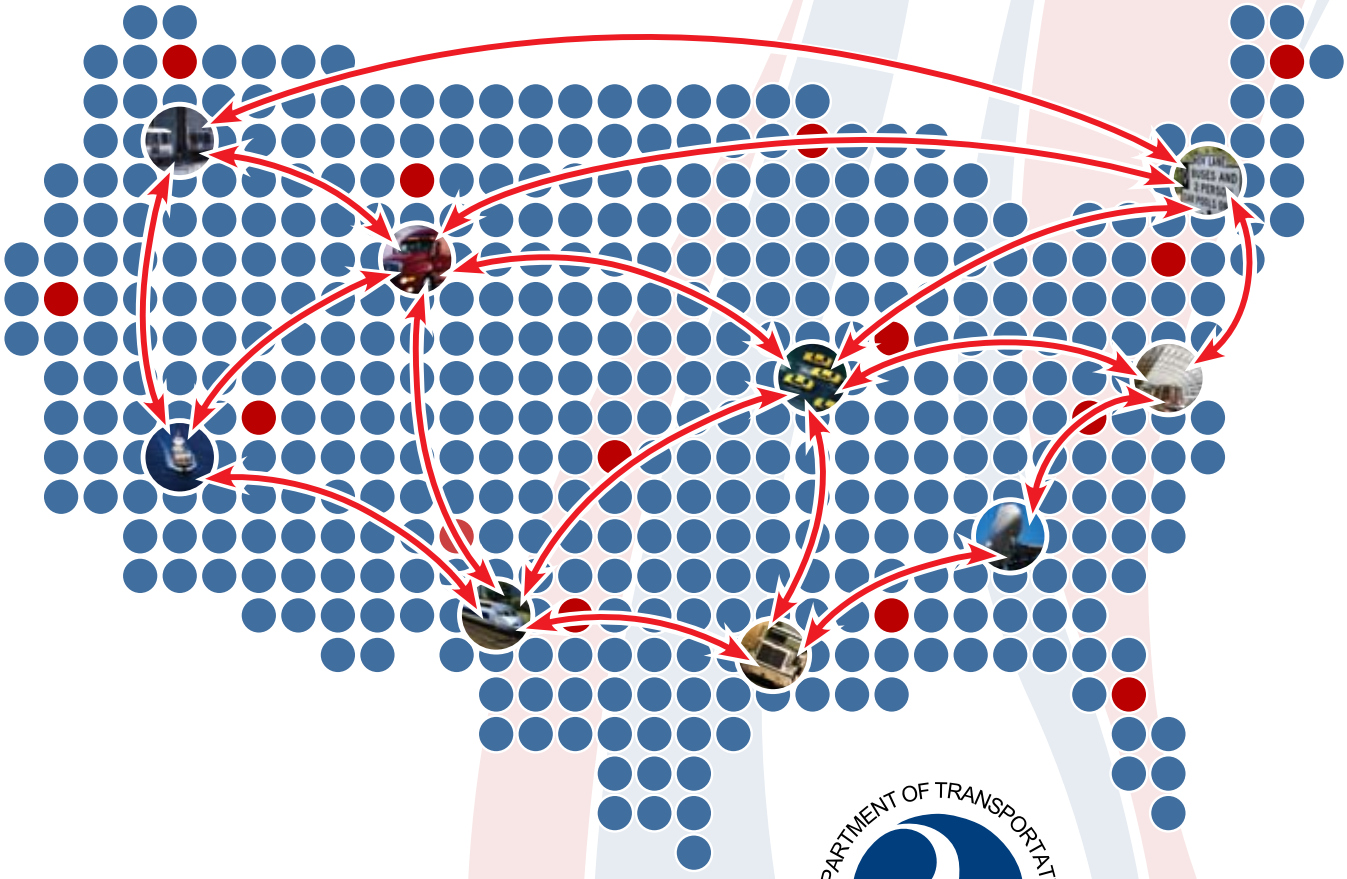
OTHER ACCOMPANYING INFORMATION






PERFORMANCE DATA COMPLETENESS AND RELIABILITY DETAILS

Each table includes a description of a performance measure and associated data provided by the agencies in charge of the measure. The Scope statement gives an overview of the data collection strategy for the underlying data behind the performance measure. The Source statement identifies the data system(s) from which the data for each measure was taken. The Statistical Issues statement has comments, provided by the Bureau of Transportation Statistics (BTS) and the agency in charge of the measure, which discuss variability of the measure and other points. The Completeness statement indicates limitations due to missing data or availability of current measures, methods used to develop projections are also provided, as appropriate. The Reliability statement gives the reader a feel for how the performance data are used in program management decision making inside DOT.

For further information about the source and accuracy (S&A) of these data, and DOT's data quality guidelines in accordance with Section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (P.L. 106-554), please refer to the BTS S&A compendium available at http://www.bts.gov/programs/statistical_policy_and_research/source_and_accuracy_compendium/index.html.

Details on DOT Safety Measures

Passenger Vehicle Occupant Highway Fatality Rate (NHTSA / FHWA / FMSCA)

Measure	Passenger Vehicle Occupant Highway fatalities per 100 million vehicle-miles traveled (VMT). Calendar Year (CY) 2008 An occupant is any person who is in or upon a motor vehicle in transport. This includes the driver, passengers, and persons riding on the exterior of a motor vehicle. VMT includes all vehicle miles traveled by all types of vehicles including passenger cars, motorcycles, buses, other 2-axle 4 tire vehicles (including vans, pickup trucks, and sport/utility vehicles), single unit 2-axle 6 tire or more trucks, and combination trucks.
Scope	The number of fatalities is a count of passenger occupant deaths which occur within 30 days of a crash involving motor vehicle traffic traveling on a trafficway customarily open to the public within the 50 States and Washington, D.C. VMT represent the total number of vehicle miles traveled by all motor vehicles on public roadways within the 50 States and Washington, D.C.
Sources	Motor vehicle traffic fatality data are obtained from the National Highway Traffic Safety Administration's Fatality Analysis Reporting System (FARS). The FARS database is based on police crash reports and other State data. Estimated 2008 VMT data is preliminary and comes from FHWA's Traffic Volume Trends (TVT); a monthly report based on hourly traffic count data in the Highway Performance Monitoring System (HPMS).
Statistical Issues	While based on historical data, the 2008 fatality rate projection is dependent on the continuation of both individual and market behavior regarding vehicle miles traveled, seat belt use and motorcycle rider and alcohol related fatalities. The assumptions inherent in these projections, together with the normal levels of uncertainty inherent in statistical evaluations, may influence the accuracy of the projection.
Completeness	FARS has been in use since 1975 and is generally accepted as a complete measure for describing safety on the Nation's highways. Total annual fatalities are available through CY 2007. The fatality projection used to calculate the 2008 rate shown in this report was estimated by modifying the 2007 fatality total for the subsequent phase-in of safety features in the on-road fleet, the scrapping of vehicles with existing safety features, a projected change in safety belt usage, a projected trend in motorcycle fatalities, and other safety-related considerations.

Reliability	The measure informs and guides NHTSA, FHWA, and FMCSA regarding highway safety policy, safety program planning, regulatory development, resource allocation, and operational mission performance, and tracks progress toward the goal of saving lives by preventing highway crashes. VMT estimates from the early months of CY 2008 are lower than for the comparable period of CY 2007. Contributing factors include, but are not limited to: high price of fuel, which my continue into the future; economic downturn; change in the mix of vehicles towards smaller and lighter cars; increased use of walking, bicycling, and motorcycle riding, as well as a greater use of mass transit. All of these factors are indications of fundamental changes in our mode of transportation that will adversely impact our ability to accurately estimate fatality and VMT projections for 2008 and beyond.

Details on DOT Safety Measures

Large Truck and Bus Fatality Rate (NHTSA / FMCSA)

Measure	Fatalities involving large trucks and buses per 100 million total VMT (CY). Large Trucks are trucks over 10,000 pounds gross vehicle weight rating (GVWR), including single unit trucks and truck tractors. A Bus is a large motor vehicle used to carry more than ten (10) passengers, including school buses, inter-city buses, and transit buses. VMT includes all vehicle miles traveled by all types of vehicles including passenger cars, motorcycles, buses, other 2-axle 4 tire vehicles (including vans, pickup trucks, and sport/utility vehicles), single unit 2-axle 6 tire or more trucks, and combination trucks.
Scope	The measure includes all fatalities associated with crashes involving trucks with a gross vehicle weight rating (GVWR) of 10,000 pounds or more. Vehicle Miles Traveled (VMT) represents the total number of vehicle miles traveled by all motor vehicles (including vehicles other than Large Trucks and Buses) on public roadways within the 50 States and the District of Columbia.
Sources	The number of fatalities comes from NHTSA's Fatality Analysis Reporting System (FARS) data, a census of fatal traffic crashes within the 50 States and the District of Columbia. Estimated 2008 VMT data is preliminary and comes from FHWA's Traffic Volume Trends (TVT); a monthly report based on hourly traffic count data in the Highway Performance Monitoring System (HPMS).
Statistical Issues	The fatality counts in FARS are generally quite accurate. The major sources of error are under reporting by some precincts and inconsistent use of the definition of a truck. Because the TVMT data provided to FHWA from each State are estimates based on a sample of road segments, the numbers have associated sampling errors. The methodology used by each of the States to estimate TVMT varies and may introduce additional non-sampling error. Although States provide TVMT estimates on an annual basis, they are only required to update their traffic counts at all sampling sites once every three years. Thus, a portion of each States' sample sites will report estimated traffic rather then actual traffic counts.
Completeness	The FARS has been in use since 1975 and is generally accepted as a complete measure for describing safety on the Nation's highways. Large truck and bus-related fatality data are complete through 2007. For 2008, the FARS data for crashes involving large trucks and buses are not available until October 2009. The value used for the 2008 rate is projected from recent trend data. The TVMT is complete through 2006. For 2007 and 2008, it is projected as a percentage of the total VMT projections. The final TVMT estimate for 2007 will be available in December 2008, and the final TVMT estimate for 2008 will be available in December 2009.




Reliability	The measure informs and guides FMCSA, NHTSA, and FHWA highway safety policy, safety program planning, regulatory development, resource allocation, and operational mission performance, and tracks progress toward the goal of saving lives by preventing large truck crashes. VMT estimates from the early months of CY 2008 are lower than for the comparable period of CY 2007. Contributing factors include, but are not limited to: high price of fuel, which my continue into the future; economic downturn; change in the mix of vehicles towards smaller and lighter cars; increased use of walking, bicycling, and motorcycle riding, as well as a greater use of mass transit. All of these factors are indications of fundamental changes in our mode of transportation that will adversely impact our ability to accurately estimate fatality and VMT projections for 2008 and beyond.

Details on DOT Safety Measures

Motorcycle Rider Fatalities (NHTSA / FHWA)

Measure	Motorcycle rider fatality rate per 100,000 motorcycle registrations A motor cycle is a two- or three-wheeled motor vehicle designed to transport one or two people, including motorscooters, minibikes, and mopeds.
Scope	The number of motorcycle rider fatalities is a count of motorcycle rider (driver and passenger) deaths which occur within 30 days of a crash involving motorcycle traffic traveling on a trafficway customarily open to the public within the 50 States and Washington, D.C.
Sources	Motor vehicle traffic fatality data are obtained from the National Highway Traffic Safety Administration's Fatality Analysis Reporting System (FARS). The FARS database is based on police crash reports and other State data. The States collect motor vehicle registration data and provide the data to the Federal Highway Administration (FHWA), which then provides the data to the public.
Statistical Issues	While based on historical data, the 2008 fatality rate projection is dependent on the continuation of both individual and market behavior regarding vehicle miles traveled, seat belt use and motorcycle rider and alcohol related fatalities. The assumptions inherent in these projections, together with the normal levels of uncertainty inherent in statistical evaluations, may influence the accuracy of the projection. The FHWA estimates of registered motorcycles may underestimate the number of motorcycles that are used on the roads each year. Data collected by the Motorcycle Industry Council (MIC) corroborate this possibility and have noted that not all motorcyclists register their bikes. (National Transportation Safety Board -- Safety Recommendation Date: Oct 3, 2007)

Completeness

FARS has been in use since 1975 and is generally accepted as a complete measure for describing safety on the Nation's highways. Total annual fatalities are available through CY 2007. The fatality projection used to calculate the 2008 rate shown in this report was estimated by modifying the 2007 fatality total for the subsequent phase-in of safety features in the on-road fleet, the scrapping of vehicles with existing safety features, a projected change in safety belt usage, a projected trend in motorcycle fatalities, and other safety-related considerations.

The vehicle registration date varies among the States. Although many States continue to register specific vehicle types on a calendar year basis, all States use some form of the "staggered" system to register motor vehicles. The "staggered" system permits a distribution of the renewal workload throughout all months. Most States allow pre-registration or permit "grace periods" to better distribute the annual registration workload.

In order to present vehicle registration data uniformly for all States, the information is shown as nearly as possible on a calendar-year basis. Insofar as possible, the registrations reported exclude transfers and re-registrations and any other factors that could otherwise result in duplication in the vehicle counts. Motor vehicle registrations are reported by major vehicle classes: automobiles, buses, trucks, and motorcycles.

Reliability

The measure informs and guides NHTSA, FHWA, and FMCSA regarding highway safety policy, safety program planning, regulatory development, resource allocation, and operational mission performance, and tracks progress toward the goal of saving lives by preventing highway crashes.

All State reported data are analyzed by FHWA for completeness, reasonableness, consistency, and compliance with data reporting instructions contained in A Guide to Reporting Highway Statistics. State reported data is adjusted if necessary to eliminate mistakes and to improve data uniformity among the States. The analysis and adjustment process is accomplished in cooperation with the States supplying the data. In some instances, corrections or revisions have been made in previously published data.

The FHWA data includes all vehicles that have been registered at any time throughout the calendar year. Data includes vehicles that were retired during the year and vehicles that were registered in more than one State. In some States, it is also possible that contrary to the FHWA reporting instructions, vehicles that have been registered twice in the same State may be reported as two vehicles. The NHTSA data includes only those vehicles that are registered as of July 1 of the given year. Therefore, they do not include vehicles registered in the last half of the calendar year or vehicles that may only be registered for a part of a year such as those for farm use.

Motorcycle registration projections into future years are problematic. Contributing factors include, but are not limited to: high price of fuel, which my continue into the future; economic downturn; change in the mix of vehicles towards smaller and lighter cars; increased use of walking, bicycling, and motorcycle riding, as well as a greater use of mass transit. All of these factors are indications of fundamental changes in our mode of transportation that will adversely impact our ability to accurately estimate fatality and VMT projections for 2008 and beyond.




Details on DOT Safety Measures

Non-occupant Fatality Rate (NHTSA / FHWA / FMCSA)

Measure	Non-occupant fatality rate per 100 million VMT. A non-occupant is any person who is not an occupant of a motor vehicle in transport and includes: pedestrians. pedalcyclists, occupants of parked motor vehicles, others such as joggers, skateboard riders, people riding on animals, and persons riding in animal-drawn conveyances. VMT includes all vehicle miles traveled by all types of vehicles including passenger cars, motorcycles, buses, other 2-axle 4 tire vehicles (including vans, pickup trucks, and sport/utility vehicles), single unit 2-axle 6 tire or more trucks, and combination trucks.
Scope	The number of fatalities is a count of occupant and non-motorist deaths which occur within 30 days of a crash involving motor vehicle traffic traveling on a trafficway customarily open to the public within the 50 States and Washington, D.C. VMT represent the total number of vehicle miles traveled by motor vehicles on public roadways within the 50 States and Washington, D.C.
Sources	Motor vehicle traffic fatality data are obtained from the National Highway Traffic Safety Administration's Fatality Analysis Reporting System (FARS). The FARS database is based on police crash reports and other State data. VMT data for 2008 are estimated based on preliminary 2008 VMT data from FHWA's Traffic Volume Trends (TVT); a monthly report based on hourly traffic count data in the Highway Performance Monitoring System (HPMS).
Statistical Issues	While based on historical data, the 2008 fatality rate projection is dependent on the continuation of both individual and market behavior regarding vehicle miles traveled, seat belt use and motorcycle rider and alcohol related fatalities. The assumptions inherent in these projections, together with the normal levels of uncertainty inherent in statistical evaluations, may influence the accuracy of the projection.
Completeness	FARS has been in use since 1975 and is generally accepted as a complete measure for describing safety on the Nation's highways. Total annual fatalities are available through CY 2007. The fatality projection used to calculate the 2008 rate shown in this report was estimated by modifying the 2007 fatality total for the subsequent phase-in of safety features in the on-road fleet, the scrapping of vehicles with existing safety features, a projected change in safety belt usage, a projected trend in motorcycle fatalities, and other safety-related considerations.
Reliability	The measure informs and guides NHTSA, FHWA, and FMCSA regarding highway safety policy, safety program planning, regulatory development, resource allocation, and operational mission performance, and tracks progress toward the goal of saving lives by preventing highway crashes. VMT estimates from the early months of CY 2008 are lower than for the comparable period of CY 2007. Contributing factors include, but are not limited to: high price of fuel, which my continue into the future; economic downturn; change in the mix of vehicles towards smaller and lighter cars; increased use of walking, bicycling, and motorcycle riding, as well as a greater use of mass transit. All of these factors are indications of fundamental changes in our mode of transportation that will adversely impact our ability to accurately estimate fatality and VMT projections for 2008 and beyond.


Details on DOT Safety Measures
Commercial Air Carrier Fatal Accident Rate (FAA)

Measure	Number of commercial air carrier fatalities per 100 million persons onboard (FY)
Scope	This measure includes both scheduled and nonscheduled flights of large U.S. air carriers (14 CFR Part 121) and scheduled flights of regional operators (14 CFR Part 135). It excludes on -demand (i.e., air taxi) service and general aviation. Accidents involving passengers, crew, ground personnel, and the uninvolved public are all included.
Sources	The data on commercial fatalities come from the National Transportation Safety Board's (NTSB's) Aviation Accident Database. Aviation accident investigators under the auspices of the NTSB develop the data. Air carriers submit data for all passengers on board to the Office of Airline Information (OAI) within the Bureau of Transportation Statistics. FAA will estimate crew on board based on the distribution of aircraft departures by make and model, plus an average of 3.5 persons on board per Part 121 cargo flight.
Statistical Issues	Both accidents and passengers on board are censuses, having no sampling error. However, crew on board will be an estimate, but crew staffing in fact varies only within a very small range for any given make-model. Departure data and enplanements for Part 121 are from the Bureau of Transportation Statistics (BTS). The crew estimate is based on fleet makeup and crew requirements per number of seats. For the current fleet, the number of crew is equal to about seven percent of all Part 121 enplanements. The average number of cargo crew on board is 3.5 per departure, based on data from subscription services such as Air Claims, a proprietary database used by insurers to obtain information such as fleet mix, accidents and claims. Cargo crews typically include two flight crew members, and occasionally another pilot or company rep, or two deadheading passengers. Part 135 data also comes from BTS and Air Claims databases, but is not as complete. AEP calls the operators where BTS data have gaps. Based on previous accident and incident reports, the average Part 135 enplanement is five per departure. Crew estimates for Part 135 are based on previous accident and incident data. Any error that might be introduced by estimating crew will be very small and will be overwhelmed by the passenger census. Also note that the fatality rate is small and could significantly fluctuate from year to year due to a single accident.
Completeness	The FAA does comparison checking of the departure data collected by BTS. This data is needed for crew estimates. However, FAA has no independent data sources against which to validate the numbers submitted to BTS. FAA compares its list of carriers to the DOT list to validate completeness and places the carriers in the appropriate category (i.e., Part 121 or Part 135). The number of actual persons on board data for any given period of time is considered preliminary for up to 12 months after the close of the reporting period. This is due to amended reports subsequently filed by the air carriers. Preliminary estimates are based on projections of the growth in departures developed by the Office of Policy, Planning and Environment. However, changes to the number of persons on board should rarely have an effect on the annual fatality rate. NTSB and FAA's Office of Accident Investigation meet regularly to validate the accident and fatality count. To overcome reporting delays of 60 to 90 days, FAA must rely on historical data, partial internal data sources, and Official Airline Guide (OAG) scheduling information to project at least part of the fiscal year activity data. FAA uses OAG data until official BTS data are available.
Reliability	Results are considered preliminary based on projected activity data. FAA uses performance data extensively for program management, personnel evaluation, and accountability. Most accident investigations are a joint undertaking. NTSB has the statutory responsibility to determine probable cause, while FAA has separate statutory authority to investigate accidents and incidents in order to ensure that FAA meets its broader responsibilities.. FAA's own accident investigators and other FAA employees participate in all accident investigations led by NTSB investigators.




Details on DOT Safety Measures
General Aviation Fatal Accidents (FAA)

Measure	Total number of fatal general aviation accidents. (FY)
Scope	The measure includes on-demand (non-scheduled FAR Part 135) and general aviation flights. General aviation comprises a diverse range of aviation activities from single-seat homebuilt aircraft, helicopters, balloons, single and multiple engine land and seaplanes to highly sophisticated extended range turbojets. The FAA would prefer to use a fatal accident rate rather than fatal accidents as the performance measure because the use of a rate measure would take into account variation in activity levels from year to year. However, unlike commercial aviation activity that is reported regularly to the Bureau of Transportation Statistics by the carriers, general aviation flight hours are based on an annual voluntary survey conducted by the FAA. Due to the voluntary nature of the survey, the accuracy of the flight hours collected is suspect and there is no readily available way to verify the data. For these reasons, the general aviation community is unwilling to use a rate measure until the validity and reliability of the survey data can be assured. The general aviation community and the General Aviation Joint Steering Committee of the Safer Skies initiative recommend development of a data collection program that will yield more accurate and relevant data on general aviation demographics and utilization. Improved survey and data collection methodologies have been developed. As a result of these efforts, the FAA, working with the General Aviation Manufacturers Association, has made several improvements to the survey. First, the sample size has been significantly increased. Second, a reporting sheet has been created to make it much easier for organizations with large fleets to report. Third, the agency worked with the Aircraft Registry to improve the accuracy of contact information. As a result, a survey was completed in FY 2004 that, for the first time, creates a statistically valid report of general aviation activity that the GA community agrees on. The next step is to create the baseline and work with the GA community on a reasonable target for the rate.
Sources	The data on general aviation fatalities come from the National Transportation Safety Board's Aviation Accident Database (NTSB). Aviation accident investigators under the auspices of the NTSB develop the data.
Statistical Issues	There is no major error in the accident counts. Random variation in air crashes results in a significant variation in the number of fatal accidents over time.
Completeness	NTSB and FAA's Office of Accident Investigations meet regularly to validate information on the number of accidents. Initial results are considered preliminary. NTSB continues to review accident results from FY 2006 and 2007. Numbers are final when the NTSB releases its report each March. NTSB continues to review accident results from FY 2007. So in March 2009, FY 2007 accident numbers will be finalized. However, the number is not likely to significantly change from the end of each fiscal year to when the rate is finalized.
Reliability	FAA uses performance data extensively for program management and personnel evaluation and accountability. Most accident investigations are a joint undertaking between FAA and NTSB. NTSB has the statutory responsibility, but, in fact, most of the accident investigations related to general aviation are conducted by FAA Aviation Safety Inspectors without NTSB direct involvement. FAA's own accident investigators and other FAA employees participate in all accident investigations led by NTSB investigators.

Details on DOT Safety Measures
Train Accidents Rate (FRA)

Measure	Train accidents per million train-miles (FY)
Scope	The Railroad Safety Information System (RSIS) is the principal monitoring strategy used by the FRA for the management, processing, and reporting on railroad-reported accidents/incidents; railroad inspections; highway-rail grade crossing data; and related railroad safety activities. The Railroad Accident/Incident Reporting Subsystem (RAIRS) is the repository of all FRA-mandated reports of railroad accidents, incidents, casualties, highway-rail grade crossing collisions, and operating information. A train accident is any collision, derailment, fire, explosion, act of God, or other event involving the operation of railroad on-track equipment (standing and moving), which results in damages greater than the current reporting threshold to railroad on-track equipment, signals, track, track structures, and roadbed. Train accidents are reported on form FRA F6180.54, Rail Equipment Accident/Incident Report. The reporting threshold for 2008 is $8,500. A train incident is any event involving the movement of on-track equipment that results in a reportable casualty but does not cause reportable damage above the current threshold established for train accidents. Operational data, including train-miles, are reported on the form FRA F6180.55, Railroad Injury and Illness Summary.
Sources	FRA's Railroad Accident/Incident Reporting Subsystem.
Statistical Issues	None
Completeness	Railroads are required by regulation (49 CFR Part 225) to file monthly reports to the FRA of all train accidents that meet a dollar threshold (currently $8,500). They are also required to file monthly operations reports of train-miles, employee-hours, and passenger train-miles. Reports must be filed within 30 days after the close of the month. Data must be updated when the costs associated with an accident vary by more than 10 percent (higher or lower) from that initially reported. Railroad systems that do not connect with the general rail system are excluded from reporting to FRA. Examples include subway systems (e.g., Washington, D.C. Metro, New York City subway, San Francisco Bay Area Rapid Transit District), track existing inside an industrial compound, and insular rail (e.g., rail that is not connected to the general system and does not have a public highway rail crossing or go over a navigable waterway).
Reliability	FRA uses the data in prioritizing its inspections and safety reviews, and for more long-term strategic management of its rail safety program. FRA has inspectors who review the railroads' reporting records, and who have the authority to write violations if railroads are not reporting accurately. Violations may result in monetary fines.

Details on DOT Safety Measures
Transit Fatality Rate (FTA)

Measure	Transit fatalities per 100 million passenger-miles traveled. (CY)




Scope	Transit fatality data includes passengers, revenue facility occupants, trespassers, employees, other transit workers (contractors), and others. A transit fatality is a death within 30 days after the incident, which occurs under the categories of collision, derailment, personal casualty (not otherwise classified), fire, or bus going off the road in the National Transit Database (NTD) reporting systems. Previous to 2002, transit involved parties that were defined as patrons, employees, and others (the safety data was collected on a fiscal year, as opposed calendar year basis). Fatalities for the performance measurement only use transit agency Directly Operated (DO) mode data. Purchased Transportation (PT) data are not part of this measure. Certain fatalities are excluded, as they are not considered to be directly related to the operation of transit vehicles. Those include suicides and fatalities occurring in parking facilities and stations, as well as fires in right-of-ways and stations. Also, the measure includes only the major transit modes (motor/trolleybus, light rail, heavy rail, commuter rail with vanpool, automated guideway, and demand response) and excludes ferryboat, monorail, inclined plane, cable car, and jitney. The passenger-miles traveled on public transit vehicles (e.g., buses, heavy and light railcars, commuter railcars, ferries, paratransit vans, and vanpools) only refer to miles while in actual revenue service to the general public. These data are reported annually by operators to the FTA National Transit Database (NTD) and to the Federal Railroad Administration's (FRA) Rail Accident and Incident Reporting System (RAIRS). FRA RAIRS data are used exclusively for commuter rail (CR) safety data. NTD and RAIRS data are an input to FTA's Transit Safety and Security Statistics and Analysis program (formerly known as Safety Management Information Statistics [SAMIS]).
Sources	The Transit Safety and Security Statistics and Analysis Annual Report, formerly SAMIS, is a compilation and analysis of transit accident, casualty, and crime statistics reported under the Federal Transit Administration's (FTA's) NTD Reporting System by transit systems that are beneficiaries of FTA Urbanized Area Formula funds. (Section 5307 grantees). Starting in 2002, commuter rail safety data are being collected from the FRA Rail Accident Reporting System (RAIRS) in order to avoid redundant reporting to NTD. Transit fatalities: Transit Safety and Security Statistics and Analysis Annual Report. Transit passenger miles: Transit Safety and Security Statistics and Analysis Annual Report.
Statistical Issues	The fatality counts in FTA's Transit Safety and Security Statistics and Analysis are a census. The major source of uncertainty in the measure relates to passenger-miles traveled. Passenger-miles are an estimate derived from reported passenger trips and average trip length. Passenger-miles are the cumulative sum of the distances ridden on passenger trips. Transit authorities have accurate counts of unlinked passenger trips and fares. An unlinked trip is recorded each time a passenger boards a transit vehicle, even though the rider may be on the same journey. Transit authorities do not routinely record trip length. To calculate passenger-miles, total unlinked trips are multiplied by average trip length. To obtain an average trip length for their bus routes, transit authorities use Automatic Passenger Counters (APCs) with GPS Technology or a FTA-approved sampling technique. To obtain passenger mile data on rail systems, ferry boats, and paratransit, transit authorities often use Smart Card or other computerized tracking systems. Passenger-miles are the only data element that is sampled in the NTD. Validation based on annual trend analysis is performed on the passenger mile inputs from the transit industry. The validation is performed by statistical analysts at the NTD contractor (Technology Solution Providers/General Dynamics Corporation).
Completeness	The information for this measure comes from the FTA's Transit Safety and Security Statistics and Analysis program, formerly FTA's Safety Management Information System (SAMIS), which uses data reported by transit operators to the NTD. Many categories and definitions were added or changed in the new NTD in 2002, and have allowed for improvements and more timely analysis of trends and contributing factors. The 20072008 measure is an extrapolation of partial-year data, particularly of passenger-miles traveled.

Reliability	An independent auditor and the transit agency's CEO certify that data reported to the NTD are accurate. Using data from the NTD to compile the Transit Safety & Security Statistics & Analysis program (formerly SAMIS) data, the USDOT Volpe National Transportation Systems Center compares current safety statistics with previous years, identifies any questionable trends, and seeks explanation from operators.

Details on DOT Safety Measures

Natural Gas and Hazardous Liquid Pipeline Incidents (PHMSA)

Measure	Number of serious incidents for natural gas pipeline incidents and hazardous liquid pipeline accidents (CY)
Scope	Gas pipeline incidents are reportable under 49 CFR 191.15 if they involve: ✧ a release of gas from a pipeline or of liquefied natural gas or gas from an LNG facility; and a death or personal injury requiring in-patient hospitalization, or estimated property damage, including cost of gas lost, of $50,000 or more; ✧ an event that results in an emergency shutdown of an LNG facility; and, ✧ an event that is significant in the judgment of the operator, even if it does not meet any other reporting criteria. Liquid pipeline accidents are reportable under 49 CFR 195.50 if there is a release of hazardous liquid or carbon dioxide and any one of the following: ✧ unintentional explosion or fire; ✧ release of five gallons or more (except certain maintenance activities); ✧ death or injury requiring hospitalization; and, ✧ estimated property damage, including cots of cleanup and recovery, value of lost product, and other property damage exceeding $50,000. Gas incidents include both gas transmission and gas distribution pipeline systems. Data are adjusted/normalized for time series comparisons to account for changes in reporting criteria over time. This includes screening out hazardous liquid spills of less than 50 barrels (or five barrels for highly-volatile liquids) unless the accident meets one of the other reporting criteria.
Sources	DOT/Pipeline and Hazardous Materials Safety Administration (PHMSA) Incident Data - derived from Pipeline Operator reports submitted on PHMSA Form F-7100.1 and F-7000.1.
Statistical Issues	A response percentage cannot be calculated as the actual population of reportable incidents cannot be precisely determined. Results in any single year need to be interpreted with some caution. Targets could be missed or met as a result of normal annual variation in the number of reported incidents.
Completeness	Compliance in reporting is very high and most incidents that meet reporting requirements are submitted. Operators must submit reports within 30 days of an incident or face penalties for non-compliance. The reported estimates are based upon incident data reported in January through June 2008. There may be a 60-day lag in reporting and compiling information in the database for analysis. Traditionally, there are more incidents in the summer than the winter. Preliminary estimates are based on data available as of middle of August, with six months of data through the end of June. The CY 2008 estimate is a projection using both a seasonal adjustment (using a 10-year baseline) and a separate adjustment to account for the historical filing of late reports (92.5 percent of reports for January - June were filed by this time last year).




Reliability	PHMSA routinely cross-checks incident/accident reports against other sources of data, such as the telephonic reporting system for incidents requiring immediate notification provided to the National Response Center (NRC). PHMSA is developing a Best Management Practice to ensure quality of the incident data. Data are not normalized to account for inflation. A fixed reporting threshold ($50,000) for property damage results in an increasing level of reporting over time. This threshold was set for gas pipeline incidents in 1985 and for hazardous liquid accidents in 1994. Data are not normalized to account for the subjective judgment of the operator in filing reports for incidents that do no meet any of the quantitative reporting criteria. This may result in variations over time due to changes in industry reporting practices. The performance measure is not normalized for changes in exposure-external factors like changes in pipeline mileage that could affect the number of incidents without affecting the risk per mile of pipeline. PHMSA uses these data in prioritizing its inspections and safety reviews, and for more long-term strategic management of its pipeline safety program.

Details on DOT Safety Measures

Serious Hazardous Materials Incidents (PHMSA)

Measure	Number of serious hazardous materials transportation incidents. (CY)
Scope	Hazardous materials transportation incidents are reportable under 49 CFR Parts 100-185. Serious hazardous materials incidents include those incidents resulting in: ✧ a fatality or major injury; ✧ the evacuation of 25 or more employees or responders or any number of the general public; ✧ the closure of a major transportation artery, the alteration of an aircraft flight plan or operation caused by the release of a hazardous material; ✧ the exposure of hazardous material to fire; or, ✧ any release of radioactive materials from Type B packaging, Risk Group 3 or 4 infectious substances, over 11.9 gallons or 88.2 pounds of a severe marine pollutant, or a bulk quantity (over 119 gallons or 882 pounds) of a hazardous material. This measure tracks only transportation-related releases of hazardous materials that are in commerce. It includes incidents in all modes of transportation (air, truck, rail, and water) except pipelines.
Sources	Hazardous Material Information System (HMIS) maintained by DOT/Pipeline and Hazardous Materials Safety Administration-derived from reports submitted on Form DOT F 5800.1.
Statistical Issues	A response percentage cannot be calculated as the actual population of reportable incidents cannot be precisely determined. Results in any single year need to be interpreted with some caution. Targets could be missed or met as a result of normal variation in the number of reported incidents.

Completeness	Each person in physical possession of a hazardous material at the time that any of the incidents occurs (loading, unloading, and temporary storage) during transportation must submit a Hazardous Materials Incident Report on DOT Form F 5800.1 (01-2004) within 30 days of discovery of the incident. Incident reports are received continuously by PHMSA. Carriers are required to submit incident reports to PHMSA within 30 days of an incident. Once received by PHMSA, it takes approximately one month for incident reports to be processed and verified. The data are then made available in the HMIS database during the next monthly update. PHMSA continues to receive reports from calendar year 2008. By the end of September 2008 actual incident data was received through August 31, 2008. PHMSA is projecting the remainder of the calendar year using the actual number of incidents that occurred during September, October, November, and December of 2007-the previous calendar year. This methodology for projecting the CY 2008 estimate is expected to be within 2-4 percent of the final estimate, which becomes available during the second quarter of CY 2008.
Reliability	PHMSA routinely cross-checks incident data against other sources of data, including the use of a news clipping service to provide information on significant hazmat incidents that might not be reported. The performance measure is not normalized for changes in exposure - external factors like changes in the amount of hazmat shipped that could affect the number of incidents without affecting the risk per ton shipped. Annual hazmat incident data are used to track program performance, plan regulatory and outreach initiatives, and provide a statistical basis for research and analysis. The data is also used on a daily basis to target entities for enforcement efforts, and review of applications for exemption renewals.

Details on DOT Mobility Measures

Highway Infrastructure Condition (FHWA)

Measure	Percent of travel on the National Highway System (NHS) meeting pavement performance standards for "good" rated ride. (CY)
Scope	Data include vehicle-miles traveled on the Highway Performance Monitoring System (HPMS) reported NHS sections and pavement ride quality data reported using the International Roughness Index (IRI). IRI is a quantitative measure of the accumulated response of a quarter-car vehicle suspension experienced while traveling over a pavement. An IRI of 95 inches per mile or less is necessary for a good rated ride. Vehicle-Miles of Travel (VMT) represents the total number of vehicle-miles traveled by motor vehicles on public roadways within the 50 States, Washington, D.C., and Puerto Rico.
Sources	Data for this measure are collected by the State Highway Agencies using calibrated measurement devices that meet industry set standards and reported to FHWA. Measurement procedures are included in the FHWA HPMS Field Manual. The VMT data are derived from the HPMS.
Statistical Issues	The major source of error in the percentages is the differences in data collection methodologies between the States and the differences in data collection intervals. FHWA is working on revisions to the HPMS data collection guidelines to minimize these potential errors. VMT data are also subject to sampling errors. The magnitude of error depends on how well the sites of the continuous counting stations represent nationwide traffic rates. HPMS is also subject to estimation differences between the States, even though FHWA works to minimize such differences and differing projections on growth, population, and economic conditions that impact driving behavior.
Completeness	The 2008 actual results for this measure are reported based on 2007 data, which may be incomplete as late as October 2008. Prior to 2007, actual results were reported in the prior year and a projection for the current year was made based on the prior year data.




Reliability	The HPMS data are collected by the 50 States, the District of Columbia, and Puerto Rico in cooperation with local governments. While many of the geometric data items, such as type of median, rarely change; other items, such as traffic volume, change yearly. Typically, the States maintain data inventories that are the repositories of a wide variety of data. The HPMS data items are simply extracted from these inventories, although some data are collected just to meet Agency requirements. The FHWA provides guidelines for data collection in the HPMS Field Manual. Adherence to these guidelines varies by State, depending on issues such as staff, resources, internal policies, and uses of the data at the data provider level. An annual review of reported data is conducted by the FHWA, both at the headquarters level and in the Division Offices in each State. The reported data are subjected to intense editing and comparison with previously reported data and reasonability checks. A written annual evaluation is provided to each State to document potential problems and to encourage corrective actions. Data re-submittal is requested in cases where major problems are identified.

Details on DOT Mobility Measures
Highway Bridge Condition (FHWA)

Measures	Percent of deck area on National Highway System Bridges classified as deficient
Scope	The National Bridge Inspection Standards (NBIS) requires the inspection of all highway bridges located on public roads and the submission of the collected bridge inventory and inspection data to the FHWA for inclusion in the National Bridge Inventory (NBI). The FHWA maintains the NBI, which contains data on nearly 600,000 highway bridges. The information in the NBI contains 95 data items for each of the bridges as required by the Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges. From the data provided, the FHWA monitors the condition of the Nation's bridges, which includes identifying those bridges that are either Functionally Obsolete or Structurally Deficient.
Sources	The bridge information is collected by the State DOTs and other bridge owners and is provided to the FHWA at least annually. As part of the FHWA NBI, NBIS, and Highway Bridge Program monitoring and oversight responsibilities, the accuracy and reliability of the submitted NBI information is constantly evaluated through data checks and field reviews by both Headquarters and field office personnel.
Statistical Issues	As with any very large dynamic database, there is always the potential for data quality issues. However, procedures are in-place to identify and correct data issues as part of the annual submittal process. Because the performance measure relies on data associated with nearly 116,000 NHS bridges, the impact of any localized data quality problem is minimized in the overall national analysis.
Completeness	The NBI is the world's most comprehensive database of bridge information. The 2008 actual results for this measure are reported based on 2007 data, which may be incomplete as late as October 2008.
Reliability	The bridge information is collected by the State DOTs and other bridge owners and is provided to the FHWA at least annually (Note: Some States provide data quarterly). As part of the FHWA's NBI, NBIS, and Highway Bridge Replacement and Rehabilitation Program monitoring and oversight responsibilities, the accuracy and reliability of the submitted NBI information is constantly evaluated through data checks and field reviews by both Headquarters and field office personnel.

Details on DOT Mobility Measures
Highway Congestion (FHWA)

Measure	Percent of total annual urban-area travel occurring in congested conditions. (CY)

Scope	Data are derived from approximately 400 urban areas. The data reflects travel conditions on freeway and principal arterial street networks. An urban area is a developed area with a density of greater than 1,000 persons per square mile. Congested conditions exist when travel occurs below the posted speed limit(s).
Sources	Data collected and provided by the State Departments of Transportation from existing State or local government databases, including those of Metropolitan Planning Organizations. FHWA's Highway Performance Monitoring System (HPMS) serves as the repository of the data. The Texas Transportation Institute utilizes HPMS data to derive the above measures.
Statistical Issues	The methodology used to calculate performance measures has been developed by the Texas Transportation Institute (TTI) and reported in their annual Mobility Study. With sponsorship from the National Cooperative Highway Research Program of the Transportation Research Board, the methodology was significantly revised in 2007 and 2008 to take advantage of new studies and detailed data sources that have not been available in previous studies.
Completeness	The 2006 and prior measures are final. The 2007 measure is preliminary, as partial 2007 HPMS data were used to construct the estimates. HPMS data is compiled from the States and verified approximately 10 months from the base year, e.g., 2008 actual numbers will not be available from HPMS until October 2009. The 2008 measure is a projection based on recent year trends.
Reliability	The HPMS data are collected by the 50 States, the District of Columbia, and Puerto Rico in cooperation with local governments. While many of the geometric data items, such as type of median, rarely change; other items, such as traffic volume, change yearly. Typically, the States maintain data inventories that are the repositories of a wide variety of data. The HPMS data items are simply extracted from these inventories, although some data are collected just to meet Agency requirements. The FHWA provides guidelines for data collection in the HPMS Field Manual. Adherence to these guidelines varies by State, depending on issues such as staff, resources, internal policies, and uses of the data at the data provider level. An annual review of reported data is conducted by the FHWA, both at the headquarters level and in the Division Offices in each State. The reported data are subjected to intense editing and comparison with previously-reported data and reasonability checks. A written annual evaluation is provided to each State to document potential problems and to encourage corrective actions. Data re-submittal is requested in cases where major problems are identified.

Details on DOT Mobility Measures

Transit Ridership (FTA)

Measure	Average percent change in transit boardings per transit market (150 largest transit agencies). (CY)
Scope	The metric is the average percent change in transit boardings. The component is transit passenger boardings within a transit market. The modes covered are: Motor Bus (MB), Heavy Rail (HR), Light Rail (LR), Commuter Rail (CR), Demand Response (DR), Vanpool (VP), and Automated Guideway (AG).
Sources	Transit Passengers: Data derived from counts made on bus and rail routes by transit agencies that are beneficiaries of FTA Urbanized Area Formula funds, as part of their monthly National Transit Database (NTD) Reporting System submissions. Data are collected from the 150 largest transit systems

Statistical Issues	The sources of uncertainty include coverage errors and auditing issues. These data are validated by the FTA Office of Budget and Policy, contractor staff. By statute, every FTA formula grant recipient in an urbanized area (defined by the Census as having a population of 50,000 or more) must report to the National Transit Database (NTD). In cities of this size, virtually every transit authority receives FTA funding, and there are only a few cities with over 50,000 persons that do not provide public transit service. Publicly-funded transit service can be directly-operated or purchased transportation. Transit authorities have accurate counts of unlinked passenger trips and fares. An unlinked trip is recorded each time a passenger boards a transit vehicle, even though the rider may be on the same journey. As a check, trips are routinely reconciled against fare revenues. The sources of uncertainty include coverage errors and auditing issues. Until 2002, reports were required only on an annual basis.
Completeness	DOT has revised this measure to better account for the impact of ridership by counting actual monthly boardings.
Reliability	For 20072008, the indicator compares transit ridership for the urbanized areas containing the 150 largest transit agencies, aggregated by mode, with the year ending June 30, 20072008. An independent auditor and the transit agency's CEO certify that annual data reported to the NTD are accurate. FTA also compares data to key indicators such as vehicle revenue-miles, number of buses in service during peak periods, etc. FTA has undertaken a major initiative to increase ridership nationwide with the planned results being a reduction in congestion. This measure is built into all FTA senior executive performance standards.

Details on DOT Mobility Measures

Transportation Accessibility (FTA)

Measures	1. Percentage of bus fleets compliant with the Americans with Disabilities Act (ADA). (CY) 2. Percent of key rail stations compliant with the Americans with Disabilities Act (ADA). (CY)
Scope	Accessibility for bus fleet means that vehicles are equipped with wheelchair lifts or ramps. Transit buses are buses used in urbanized areas to provide public transit service to the general public. Transit buses do not include private intercity buses (e.g., Greyhound), private shuttle buses, charter buses, or school buses. The percentage of bus fleets that are equipped with lifts or ramps is only a partial measure of overall accessibility under the ADA as it measures only the availability of transit buses in our National fleet that can accommodate wheelchairs through the use of mechanical lifts or ramps. Accessibility for transit vehicles under the ADA includes other equipment and operational practices that are not reflected in this indicator. Accessibility for key rail facilities is determined by standards for ADA compliance. Transit systems were required to identify key stations. A key station is one designated as such by public entities that operate existing commuter, light, or rapid rail systems. Each public entity has determined which stations on its system have been designated as key stations through its planning and public participation process using criteria established by DOT regulations. All new rail stations are required to be ADA compliant upon completion and must meet standards for new rail stations, not key stations. All altered stations are required to be ADA compliant upon completion and must meet standards for alterations of transportation facilities by public entities.

Sources	Compliant bus fleets: National Transit Database (NTD). Compliant rail stations: Rail Station status reports to the FTA.
Statistical Issues	Data are obtained from a census of publicly-funded transit buses in urbanized areas. Information on the ADA key rail stations is reported to FTA by transit authorities. These data are not based on a sample.
Completeness	At a transit authority, vehicle purchases are significant capital expenditures. Vehicles purchased with FTA funds must have a useful life of 12 years. Whether a bus is purchased or leased, the equipment on the bus is recorded, including lifts and ramps. For the last 20 years, transit agencies have reported on the equipment in their bus fleets to the FTA in their annual NTD submissions. There is a census of publicly-funded transit buses in urbanized areas. It is not a sample. Urbanized areas have more than 50,000 persons, and are defined by the Census Department. By statute, every FTA formula grant recipient in an urbanized area must report to the NTD. In cities of this size, virtually every transit authority receives FTA funding. There are only a few cities of over 50,000 persons that do not provide public transit service. Publicly funded transit service can be directly operated or purchased transportation. Data reported for key station accessibility have historically excluded those stations for which time extensions had been granted under 49 CFR 37.47(c) (2) or 37.51(c) (2). There are a total of 138 such stations for which time extensions of various lengths were granted, some of them through 2020, the maximum permitted. These deadlines are now beginning to pass, and these stations can no longer be excluded from the total key station accessibility figures; the total number of time extensions from 20072008 through 2020 stands at 19. The total number of key stations will therefore increase, and the percentage of compliant stations may decrease as they are added to the total key station count. Beginning in 20072008, the key station accessibility figures began reporting the total number of key stations, the total number that are accessible, and the number with outstanding time extensions.
Reliability	All data in the NTD are self-reported by the transit industry. The transit agency's Chief Executive Officer and an independent auditor for the transit agency certify the accuracy of this self-reported data. The data are also compared with fleet data reported in previous years and crosschecked with other related operating and financial data in the report. Fleet inventory is also reviewed as part of FTA's Triennial Review, and a visual inspection is made at that time. Information on ADA key rail stations is reported to FTA by transit authorities. The FTA's Office of Civil Rights conducts oversight assessments to verify the information on key rail station accessibility. Quarterly rail station status reports and key rail station assessments have significantly increased the number of key rail stations that have come into compliance over the last several years. FTA will primarily influence the goal through Federal transit infrastructure investment, which speeds the rate at which transit operators can transition to ADA-compliant facilities and equipment, oversight, and technical assistance.

Details on DOT Mobility Measures

Aviation Delay (FAA)

Measure	Percentage of flights arriving no more than 15 minutes late.




Scope	A flight is considered on-time if it arrives no later than 15 minutes after its published, scheduled arrival time. This definition is used in both the DOT Airline Service Quality Performance (ASQP), and Aviation System Performance Metrics (ASPM) reporting systems. Air carriers, however, also file up-to-date flight plans for their services with the FAA that may differ from their published flight schedules. This metric measures on-time performance against the carriers filed flight plan, rather than what may be a dated published schedule. The time of arrival of completed passenger flights to and from the 35 OEP airports is compared to their flight plan scheduled time of arrival. For delayed flights, delay minutes attributable to extreme weather, carrier caused delay, security delay, and a prorated share of delay minutes due to a late arriving flight at the departure airport are subtracted from the total minutes of delay. If the flight is still delayed, it is counted as a delayed flight attributed to the National Aviation System (NAS) and the FAA.
Sources	The Aviation System Performance Metrics (ASPM) database, maintained by the FAA's Office of Aviation Policy and Plans, supplemented by DOT's Airline Service Quality Performance (ASQP) causation database, provides the data for this measure. By agreement with the FAA, ASPM flight data are filed by certain major air carriers for all flights to and from most large and medium hubs, and is supplemented by flight records contained in the Enhanced Traffic Management System (ETMS) and flight movement times provided by Aeronautical Radio, Inc. (AIRINC).
Statistical Issues	Data are not reported for all carriers, only 19 carriers report monthly into the ASQP reporting system.
Completeness	Fiscal year data are finalized approximately 90 days after the close of the fiscal year.
Reliability	The reliability of ASPM is verified on a daily basis by the execution of a number of audit checks, comparison to other published data metrics, and through the use of ASPM by over 1500 registered users. ASQP data is filed monthly with DOT under 14 CFR 234, Airline Service Quality Performance Reports, which separately requires reporting by major air carriers on flights to and from all large hubs.

Details on DOT Global Connectivity Measures

Disadvantaged and Women-Owned Small Businesses (OST S-40)

Measure	1. Percent share of the total dollar value of DOT direct contracts that are awarded to women-owned businesses. (FY) 2. Percent share of the total dollar value of DOT direct contracts that are awarded to small disadvantaged businesses. (FY)
Scope	Includes contracts awarded by DOT Operating Administrations through direct procurement. It does not include FAA contracts exempt from the Small Business Act.
Sources	Prior to October 1, 2003, these data were derived from the USDOT Contract Information System (CIS, which fed the old Federal Procurement Data System (FPDS). The CIS included all USDOT contracting activities that reported to the Federal Procurement Data Center (FPDC). Migration to the new Federal Procurement Data System on October 1, 2003 enabled the removal of agency FPDS feeder systems government-wide (including CIS). New data reports will come directly from FPDS. Data are compiled by USDOT Contracting staff from Department contract documents. Selected information is either transmitted from the operating administration contract writing systems, or manually data-keyed via the FPDS web site, into the FPDS database, which can be queried to compute needed statistics. All USDOT contracts are enumerated.

Statistical Issues	Until recently the reliability of the Federal Procurement Data System/Next Generation (FPDS/NG) was an issue with DOT and other federal agencies including the Government Accountability Office (GAO). The FPDS is designed to be an accurate and reliable system, as required by the Small Business Act, Section 644(g). However, it is recognized that at least through the transitional periods of FY 2003 through FY 2007, there may be issues of synchronization and data reliability between federal agencies and the FPDS/NG. DOT currently is required to scrub FPDS/NG data and resubmit it for validation. After re-verifying these data against internal sources, there are no known major errors present in the data. Business types are as identified in the Central Contractor Registration (CCR) database. However, random variation in the number of DOT contracts as well as the number of women-owned and small disadvantaged businesses each year results in some random variation in these measures from year to year.
Completeness	The Federal Procurement Data System (FPDS) is prescribed by regulations as the official data collection mechanism for DOT acquisitions.
Reliability	There is extensive regulatory coverage to ensure data reliability. The system is used to prepare many reports to Congress, the Small Business Administration, and others. Performance goals actual data, as finalized by the Small Business Administration is the only reliable basis for program evaluations as mandated by the Small Business Act, Section 644(g).

Details on DOT Global Connectivity Measures

St. Lawrence Seaway System Availability (SLSDC)

Measure	Percent of days in the shipping season that the U.S. portion of the St. Lawrence Seaway is available. (FY)
Scope	The availability and reliability of the U.S. sectors of the St. Lawrence Seaway, including the two U.S. Seaway locks in Massena, N.Y., are critical to continuous commercial shipping during the navigation season (late March to late December). System downtime due to any condition (weather, vessel incidents, malfunctioning equipment) causes delays to shipping, affecting international trade to and from the Great Lakes region of North America. Downtime is measured in hours/minutes of delay for weather (visibility, fog, snow, ice); vessel incidents (human error, electrical and/or mechanical failure); water level and rate of flow regulation; and lock equipment malfunction.
Sources	Saint Lawrence Seaway Development Corporation (SLSDC) Office of Lock Operations and Marine Services.
Statistical Issues	None.
Completeness	As the agency responsible for the operation and maintenance of the U.S. portion of the St. Lawrence Seaway, SLSDC's lock operations unit gathers primary data for all vessel transits through the U.S. Seaway sectors and locks, including any downtime in operations. Data is collected on site, at the U.S. locks, as vessels are transiting or as operations are suspended. This information measuring the System's reliability is compiled and delivered to SLSDC senior staff and stakeholders each month. In addition, SLSDC compiles annual System availability data for comparison purposes. Since SLSDC gathers data directly from observation, there are no limitations. Historically, the SLSDC has reported this performance metric for its entire navigation season (late March/ early April to late December). Unfortunately due to reporting timelines, system availability data is only reported through September in this report.
Reliability	SLSDC verifies and validates the accuracy of the data through review of 24-hour vessel traffic control computer records, radio communication between the two Seaway entities and vessel operators, and video and audiotapes of vessel incidents.




Details on DOT Global Connectivity Measures
Bilateral Agreements (FAA)

Measure	Number of executive agreements signed and/or implementation procedures agreements concluded.
Scope	U.S. Bilateral Agreements related to aviation safety have two components: executive agreements and implementation procedures. The executive agreement is signed by the Department of State and the target country's Ministry of Foreign Affairs. It lays the essential groundwork for cooperation between the two governments and their respective aviation authorities. The implementation procedures, the second component, provide detailed operational safety and certification arrangements between the FAA and the target country's civil aviation authority. The implementation procedure is the operational portion of the bilateral agreement that allows for acceptance of aviation goods and services between the two countries. The target is achieved when either a new Executive Agreement is signed or a new or expanded implementation procedure is signed, or all substantive issues relating to the content of the agreement are completed with the target country or regional authority. (Interim measures related to the progress of negotiations may also be tracked for internal purposes during a specific fiscal year.)
Sources	The executive agreements are negotiated and maintained by the Department of State. The implementation procedures are negotiated and concluded by FAA. The official, signed implementation procedure is maintained at FAA Headquarters.
Statistical Issues	None.
Completeness	There are no completeness data issues associated with this measure since it is a simple count of the final signed new executive agreement or implementation procedures agreement. This performance target is monitored monthly by tracking interim negotiation steps leading to completion of a BASA and tracking FAA internal coordination of the negotiated draft text. The final signing of executive agreements is generally out of the control of the FAA. Many sovereign nations view these agreements as treaties that require legislative approval. The FAA and U.S. Government cannot control the timing of legislatures in other countries. Therefore, the FAA will count executive agreements only when signed. The negotiation of implementation procedures is more within FAA's control. The signed document of the executive agreement constitutes evidence of completion. For implementation procedures, evidence will be either a signed procedure or some form of agreement between both parties that material negotiations are concluded, but a formal signing ceremony is pending. This can take the form of an e-mail, meeting minutes, or other mutual agreement between the two parties that the implementation procedures activity has been concluded.
Reliability	No issues.

Details on DOT Global Connectivity Measures
Reduced Barriers to Trade in Transportation (OST-X)

Measure	Number of potential air transportation consumers (in billions) in international markets.
Scope	The number of potential air transportation consumers is the total population of the U.S. and countries with open skies aviation agreements with the U.S. By the end of FY 2008, there were more than 90 open skies agreements. This measurement includes the annual increase in population for the countries where open skies have been achieved, as well as the additional populations for newly negotiated open skies agreements. The estimate for the additional population is based on the median population size of the countries without open skies agreements. The measurement thus reflects the extent to which the liberalization resulting from open skies agreements, negotiated by DOT, increases travel opportunities between the U.S. and countries with previously restricted aviation agreements.
Sources	Estimate of the population of the U.S. and countries with open skies agreements with the U.S., Midyear Population, International Data Base, and U.S. Bureau of the Census (per website).
Statistical Issues	The International Data Base of the U.S. Bureau of the Census is a reliable source of population estimates. The Bureau's website and publications provide qualifying data notes that more fully describe technical and other issues. These qualifying notes do not significantly affect our analyses.
Completeness	The International Data Base of the U.S. Bureau of the Census is a reliable source of population estimates. The Bureau's website and publications provide qualifying data notes that more fully describe technical and other issues. These qualifying notes do not significantly affect our analyses.
Reliability	The International Data Base of the U.S. Bureau of the Census is a reliable source of population estimates. The Bureau's website and publications provide qualifying data notes that more fully describe technical and other issues. These qualifying notes do not significantly affect our analyses.

Details on DOT Global Connectivity Measures
Enhanced International Competitiveness of U.S. Transportation Providers (OST-X)

Measure	Number of international negotiations conducted annually to remove market-distorting barriers to trade in air transportation.
Scope	The number of international negotiations conducted annually to remove market-distorting barriers to trade in transportation is the number (or rounds) of meetings and negotiations that are conducted in an effort to reach open skies agreements, other liberalized aviation agreements, or to resolve problems. By the end of FY 2008, there were more than 80 open skies agreements, and 19 liberalized (but not open skies) agreements. These numbers, however, do not represent, but understate, the number of negotiating sessions that have historically been held to complete these agreements. The measurement thus reflects an estimate of the extent of and manner by which the DOT might best apply the necessary resources to open the competitive environment and provide increased travel opportunities and economic benefits.
Sources	Estimate of the number of annual negotiating sessions that are required to achieve further international aviation liberalization. It is an internal estimate generated by the Office of the Assistant Secretary for Aviation and International Affairs based on a number of analytical, economic and geopolitical factors.
Statistical Issues	Due to geopolitical factors, the nature of international aviation negotiations can follow an unpredictable course. It is impossible to gauge or comment upon the data limitations, statistical issues, data completeness and data reliability.




Completeness	Due to geopolitical factors, the nature of international aviation negotiations can follow an unpredictable course. It is impossible to gauge or comment upon the data limitations, statistical issues, data completeness and data reliability.
Reliability	Due to geopolitical factors, the nature of international aviation negotiations can follow an unpredictable course. It is impossible to gauge or comment upon the data limitations, statistical issues, data completeness and data reliability.

Details on DOT Global Connectivity Measures

Travel in Freight Significant Corridors (FHWA)

Measure	Number of freight corridors with an annual decrease in the average buffer index rating. (CY)
Scope	Travel time reliability is a key indicator of transportation system performance. The FHWA uses measured speed data to calculate a Buffer Index (BI) for each freight significant corridor. The BI is a measure of travel time reliability and variability that represents the extra time (or time cushion) that would have to be added to the average travel time to ensure on-time arrival 95 percent of the time.
Sources	Travel time data for freight significant corridors is derived using time and location data from satellite communications equipment on-board mobile commercial vehicles. A Global Positioning Satellite (GPS) device in the vehicle transmits a continuous or periodic signal to an earth orbit satellite. This technology allows commercial vehicles to serve as probes and enables direct measurement of commercial vehicle average operating speeds and travel rates and travel times. Selection of freight significant corridors and highway segments is largely based on the volume of freight moved on the segment.
Statistical Issues	The key issues are long term viability of data source, sampling size of the commercial vehicle probes, and frequency of the time and position sampling. In FY 2008, FHWA made progress in addressing the issues of a sample size frequency of sampling. By entering into arrangements with two additional technology partners, FHWA added more than 150,000 vehicles to the sample size and enabled more precise detection of a vehicle location, direction, and speed.
Completeness	FHWA is partnering with vendors that collect automatic vehicle location probe information from a customer base, primarily interstate long-haul carriers. The data provides nationwide coverage from approximately 400,000 vehicles (trucks and trailers) in the United States, Canada and Mexico. The largest majority of the data is from fleets that have signals sent to vehicles and readings taken as often as every 15 minutes. The interval between probe readings is dependent upon the subscription and services contracted for by each individual carrier. These intervals may range from every 15 minutes to every two hours. The data transmitted are: truck ID, latitude, longitude, date and time, and interstate route. In FY 2008, FHWA enhanced the completeness of the data set by adding two additional vendors that increases the percentage of local and less than truckload carriers, increases the coverage area, and provides access to the data that more accurately pinpoints a vehicle's location, direction and speed. FHWA processes and manages the data provided by the vendors to derive the information for this measure.

Reliability	Probe vehicle performance systems are designed to provide travel time, speed and delay information without traditional fixed-location traffic monitoring and data collection systems. Probe-based systems enable coverage of much larger geographic areas (i.e., entire roadway networks) without the cost of building fixed-location traffic data collection systems throughout those networks. This technique takes advantage of the significant reductions in the cost of GPS devices that report current location and time information with a high degree of accuracy. When placed in vehicles and combined with electronic map information, GPS devices are the primary component of excellent vehicle location systems. Storage and analysis of the GPS location data allow for very accurate roadway performance measurement. To provide reliable roadway performance estimates, a large enough number of vehicles must be equipped with GPS to provide an unbiased measure of roadway performance, and to provide the temporal and geographic diversity desired by the performance measurement system. A significant drawback to probe vehicle-based performance monitoring is that it does not provide information about the level of roadway use (i.e., vehicle volume), but only provides information about the speeds and travel times being experienced.

Details on DOT Global Connectivity Measures

Border Crossing Operation Reliability (FHWA)

Measure	Number of U.S. border crossings with an increase in operational reliability.
Scope	U.S. Border Crossings with an increase in operational reliability, calculated as the average annual hours of unexpected delay, compares high-delay crossing times to average delay crossing times. The reliability measure, or Buffer Index, uses the 95th percentile crossing times to represent border crossing times during periods with the heaviest volumes and/or most limited capacity and the average crossing time to represent the expected time for commercial vehicles to cross the border.
Sources	Data is being collected at five U.S.-Canada border crossings: 1) Blaine (Pacific Highway): Blaine, WA, 2) Pembina: Pembina, ND, 3) Ambassador Bridge: Detroit, MI, 4) Peace Bridge: Buffalo, NY and 5) Champlain: Champlain, NY. Data collection is best described as an automated, large-scale probe vehicle performance monitoring system using satellite-based automated vehicle location (AVL) data. Using the satellite-based method, the specific location of vehicles is determined at regular, predetermined time intervals using latitude and longitude positioning. The locations are stamped with a time, date, and vehicle identification number. The data collected is used to compute the average crossing time. The baseline crossing time (i.e., best crossing time under ideal operating conditions) and average crossing time are used to calculate average delay at the crossings under study.To support data collection, FHWA has established a partnership with the American Transportation Research Institute (ATRI). ATRI is partnering with technology vendors and commercial carriers to gain access to the data.
Statistical Issues	The key issues are long term viability of data source, sampling size of the commercial vehicle probes, and frequency of the time and position sampling. In FY 2008, FHWA made positive progress in addressing the issues of a sample size frequency of sampling. By entering into arrangements with two additional technology partners, FHWA added more than 150,000 vehicles to the sample size and enabled more précising detection of a vehicle location, direction and speed.
Completeness	Traffic travel time information is traditionally collected with fixed-location systems (e.g. loop detectors embedded in the roads and video cameras). While the border data collection methodology provides a non-intrusive way of measuring border delay, data are not collected on the universe of commercial trucks for a particular crossing. There is continuous sampling over time, but data are collected only for commercial vehicles equipped with the technology. Also, the data collection and analysis does not account for important information about the crossings that can significantly influence travel times, such as the number of inspection and processing booths, the traffic volume, or threat level. The addition of additional vendors postures FHWA to be able to collect data on the US-Mexico border in FY 2009.




Reliability	Probe vehicle performance systems are designed to provide border crossing time and delay information without traditional fixed-location traffic monitoring and data collection systems. Probe-based systems enable coverage of much larger geographic areas (e.g. the entire Northern border) without the cost of building fixed-location traffic data collection systems throughout those networks. Storage and analysis of the GPS location data allow for very accurate border performance measurement. To provide reliable border performance estimates, a large enough number of vehicles must be equipped with GPS to provide an unbiased measure of border transportation system

Details on DOT Global Connectivity Measures

International Technology/Information Agreements (FHWA)

Measure	Number of Technology/Information Agreements that promote the U.S. Highway Transportation Industry (FHWA). To date, four agreements have been signed.
Scope	Signed memorandums of cooperation between FHWA and a foreign entity (usually a foreign government). Section 506 of Title 23 U.S.C. provides that FHWA "[E]ngage in activities…to promote U.S. highway transportation expertise, goods, and services in foreign countries to increase transfers of U.S. highway transportation technology to foreign countries."
Sources	Data are collected by the FHWA Office of International Programs.
Statistical Issues	None. Data reflect a census of administrative records.
Completeness	None.
Reliability	None.

Details on DOT Environmental Stewardship Measures

Exemplary Human Environment Initiatives (FHWA)

Measure	Number of Exemplary Human Environment Initiatives undertaken. (FY)
Scope	The FHWA seeks to recognize exemplary examples of transportation projects that either create or improve conditions for human activities. Projects are exemplary if they meet a specific documented need; are innovative; are significant; demonstrate results; offer the potential for transferability; demonstrate partnering and collaboration; provide specific benefits to human activity; are mainstreamed into transportation decision-making; and benefit more than one project category. Each year a number of Exemplary Human Environment Initiatives will be selected for nationwide recognition and promotion as models for other localities to consider for implementation.
Sources	State DOT and FHWA field offices submit a list and description of human environment initiatives for consideration to FHWA Headquarters.
Statistical Issues	The data may not represent all ecosystem and habitat conservation initiatives underway. Submittals are made at the discretion of the States and FHWA field offices.
Completeness	All identified initiatives are included. However, there may be other potential qualifying initiatives that have not been identified.
Reliability	The identification of Exemplary Human Environment Initiatives may not be consistent across all States and FHWA field offices. While the criteria are carefully defined and complete, they are still subject to interpretation.

Details on DOT Environmental Stewardship Measures
DOT Facility Cleanup (OST M-93)

Measure	Twelve-month moving average number of areas in conformity lapse. (FY)
Scope	The transportation conformity process is intended to ensure that transportation plans, programs, and projects will not create new violations of the National Ambient Air Quality Standards (NAAQS), increase the frequency or severity of existing NAAQS violations, or delay the attainment of the NAAQS in designated non-attainment (or maintenance) areas.
Sources	The FHWA and FTA jointly make conformity determinations within air quality non-attainment and maintenance areas to ensure that Federal actions conform to the purpose of State Implementation Plans (SIP). With DOT concurrence, the U.S. Environmental Protection Agency (EPA) has issued regulations pertaining to the criteria and procedures for transportation conformity, which were revised based on stakeholder comment.
Statistical Issues	None.
Completeness	If conformity cannot be determined within 24 months after certain State Implementation Plan (SIP) actions (e.g., EPA's approval of motor vehicle emissions budgets), or if four years have passed since the last conformity determination, a 12-month conformity lapse grace period will start before the consequences of a conformity lapse apply. During a conformity lapse, no new non-exempt projects may advance until a new determination for the plan and Transportation Improvement Program (TIP) can be made. This condition affects transit as well as highway projects. During a conformity lapse, FHWA and FTA can only make approvals or grants for projects that are exempt from the conformity process (pursuant to Sections 93.126 and 93.127 of the conformity rule) such as a safety project and transportation control measures that are included in an approved SIP. Only those project phases that have received approval of the project agreement, and transit projects that have received a full funding grant agreement, or equivalent approvals, prior to the conformity lapse may proceed. This measure is current and has no missing data.
Reliability	There are no reliability issues. FHWA and FTA jointly make conformity determinations within air quality non-attainment and maintenance areas to ensure that Federal actions conform to the purpose of the SIP.

Details on DOT Environmental Stewardship Measures
Hazardous Liquid Materials Spilled from Pipelines (PHMSA)

Measure	Number of hazardous liquid pipeline spills in high consequence areas. (CY)




Scope	Liquid pipeline accidents (spills) are reportable under 49 CFR 195.50 if there is a release of hazardous liquid or carbon dioxide and any one of the following: 1. unintentional explosion or fire; 2. release of five gallons or more (except certain maintenance activities); 3. death or injury requiring hospitalization; or, 4. estimated property damage, including costs of cleanup and recovery, value of lost product, and other property damage exceeding $50,000. Data are adjusted/normalized for time series comparisons to account for changes in reporting criteria over time. This includes screening out hazardous liquid spills of less than 50 barrels (or five barrels for highly-volatile liquids) unless the accident meets one of the other reporting criteria. Highly-volatile liquid (HVL) spills are not included in this performance measure. HVLs evaporate on release and don't impact the environment in the usual way that other liquid petroleum products do.
Sources	DOT/Pipeline and Hazardous Materials Safety Administration (PHMSA) Incident Data-derived from Pipeline Operator reports submitted on PHMSA Form F-7000.1. Ton-mile data are calculated using a base figure reported in a 1982 USDOT study entitled Liquid Pipeline Director and then combined with data from the Association of Oil Pipe Lines and the Oil Pipeline Research Institute.
Statistical Issues	A response percentage cannot be calculated as the actual population of reportable incidents cannot be precisely determined. Results in any single year need to be interpreted with some caution. Targets could be missed or met as a result of normal annual variation in the number of reported incidents. The performance measure is a ratio of "Tons Net Loss" and "Ton-Miles Shipped." Uncertainty in either the numerator or the denominator can have a large effect on the overall uncertainty. Some factors of possible variance in the numerator include: 1) a few large spills can make PHMSA miss this goal, and 2) even when the total number of spills fluctuates, the net volume lost may increase. The denominator may fluctuate with the overall economy, i.e., the volume shipped increases with economic boom and decreases when the economy slows down. The environmental metric tracks a highly variable trend and PHMSA has noted in the past that the variability of this metric warrants close study. The past long term pattern for the trend was to generally meet or miss the goal every other year as the actual performance bounced above and below the trend line regularly. PHMSA continues to lessen the overall standard deviation of the metric over time (the performance of the trend is getting statistically more sound over time). This measure also has continued a general downward trend even though it bounces above and below the trend line over time.
Completeness	Compliance in reporting is very high and most incidents that meet reporting requirements are submitted. Operators must submit reports within 30 days of an incident or face penalties for non-compliance. The reported estimates are based upon incident data reported in January through June 2008. There may be a 60-day lag in reporting and compiling information in the database for analysis. Traditionally, there are more incidents in the summer than the winter. Preliminary estimates are based on data available as of middle of August, with six months of data through the end of June. The CY 2008 estimate is a projection using both a seasonal adjustment (using a 10-year baseline) and a separate adjustment to account for the historical filing of late reports (92.5 percent of reports for January-June were filed by this time last year).

Reliability	Projection of the environmental measure is less precise due to the nature of pipeline spills. A single large spill (10,000 barrels or more) can easily dwarf the total for all other CY spills combined. These large spills cannot be factored into a projection model due to their magnitude and infrequent and unpredictable occurrences. Thus, projections for the remaining six months of this CY assume that the average spill volume in the past six months will remain the same in the next six months. However, any large spill of non-highly volatile hazardous liquid in the next six months can move the projection upwards. PHMSA routinely cross-checks accident reports against other sources of data, such as the telephonic reporting system for incidents requiring immediate notification provided to the National Response Center (NRC). PHMSA is developing a Best Management Practice to ensure quality of the incident data. Data are not normalized to account for inflation. A fixed reporting threshold ($50,000) for property damage results in an increasing level of reporting over time. This threshold was set for hazardous liquid accidents in 1994. Data are not normalized to account for the subjective judgment of the operator in filing reports for accidents that do no meet any of the quantitative reporting criteria. This may result in variations over time due to changes in industry reporting practices. Lack of additional information for ton-mile data raises definitional and methodological uncertainties about the data's reliability. Moreover, the three different information sources introduce data discontinuities, making time comparisons unreliable. (National Transportation System (NTS) 2002). PHMSA uses this data in conjunction with pipeline safety data in prioritizing compliance and enforcement plans. However, beginning in FY 2009, PHMSA will begin reporting on the number of spills in high consequence areas as a new performance measure to replace the current one. This will address many of the reliability issues with the current measure.

Details on DOT Environmental Stewardship Measures

Environmental Impact Statements (FHWA / FAA/ FTA)

Measure	Median elapsed time in months to complete environmental impact statements for DOT funded infrastructure projects
Scope	The purpose of an Environmental Impact Statement (EIS) is to provide full and open evaluation of environmental issues and alternatives, and to inform decision-makers and the public of reasonable alternatives that could avoid or minimize adverse impacts and enhance the quality of the environment. Environmental impact statement completion time covers the period from publication of the notice of intent to publication of the record of decision for DOT-funded infrastructure projects This is a tool for measuring the agency's performance in preparing and completing Environmental Impact Statements (EISs) for DOT funded infrastructure projects. Not only will it provide a measure of the time to complete an EIS and the intermediate steps, it will also help assess the success of environmental streamlining initiatives undertaken by the DOT operating administrations.




Sources

Data are derived from FHWA, FTA, and FAA statistical compilations. FHWA data is collected primarily through the FHWA's Environmental Document Tracking System (EDTS). The EIS processing time is tracked from the Notice of Intent (NOI) to the Record of Decision (ROD) and from the date of initiation to a FONSI for EA processing time. Frequent reports are an integral part of a national communication strategy for environmental streamlining and are absolutely essential in responding to Congressional inquiries, periodic hearings, and mandated Congressional reports. FHWA prepares more than 80 percent of environmental impact statements prepared during the fiscal year.

FAA has developed and initiated a database maintained by the FAA's Office of Environment and Energy. The database collects information on all agency EISs, data heretofore not readily available. In addition the database provides information on agency Environmental Assessments, Endangered Species Expenditures, and EIS Cooperating Agency Information that are used to provide reports to DOT, Congress, and the White House. Start and completion dates of EISs are taken from published dates associated with the Notice of Intent to Prepare an EIS (start) through Draft EIS, Final EIS, and Record of Decision (completion). Source materials are contained in the project files. The project manager for the EIS maintains the files and records.

FHWA collects data for all projects primarily through the FHWA's Environmental Document Tracking System (EDTS). The EIS processing time is tracked from the Notice of Intent (NOI) to the Record of Decision (ROD).

FTA collects its data from a regional survey performed annually. Survey information is compiled and inputted into the agency's EIS excel tracking workbook.

Statistical Issues

For FAA data, the various lines-of-business are responsible for providing and updating the data on a regular basis. In most cases the data is recorded in the database by the EIS project manager. This is the sole source of the information for the database. The most likely external factor that could impact the measurement of results would be related to the project manager's workload and the ability to record data in a timely fashion.

Note that this measure does not account for "down time" in the process—for example, inactivity due to vacillating support for a project or diminished funding sources, and time required to complete ancillary studies.

FHWA: None

FTA: A list of EISs is compiled annually for the Council on Environmental Quality. The list does not always include EISs that are developed in the regions by sponsor consultants.

Completeness

All Environmental Impact Statements (EISs) that have a Notice of Intent (NOI) are entered into the system. As the NEPA process progresses, the dates for the Draft EIS, Final EIS, and the ROD are also entered. These data are relatively complete.

For FAA, completeness and reliability of the data is the responsibility of the reporting lines-of-business. The project manager's workload can affect the timeliness of recording data and therefore the completeness of the database and accuracy of the reported performance measure. When the start and completion of each EIS is recorded then the total time to complete can be calculated and the mean time to complete can be computed for the total number of projects over the time period being considered.

Reliability

There are no reliability issues. The data is submitted by the states and Headquarters verifies those dates by the Federal Register Publication dates. This measure is reliable insofar as time to complete the "environmental process," which contemplates satisfying all—in some cases, up to 20 or more—environmental laws and permitting requirements that apply to a DOT-funded infrastructure project after subtracting "down time".

Details on DOT Security Measures

Shipping Capacity (MARAD)

Measure	Percent of DOD-required shipping capacity, complete with crews, available within mobilization timelines. (FY)
Scope	This measure is based on the material availability of 44 ships in the Maritime Administration's Ready Reserve Force (RRF) and approximately 125 ships enrolled in the Voluntary Intermodal Sealift Agreement (VISA) program, which includes 60 ships enrolled in the Maritime Security Program (MSP). The performance measure represents the number of available ships (compared to the total number of ships in the RRF and VISA) that can be fully crewed within the established readiness timelines. Crewing of the RRF vessels is accomplished by commercial mariners employed by private sector companies under contract to the government. Currently there are more qualified mariners than jobs, even in the most under represented categories. However, due to the voluntary nature of this system, there is no guarantee that sufficient mariners will be available on time and as needed especially during a large, rapid activation.
Sources	Material availability of ships. Maritime Administration records (and information exchanged with DOD) on the readiness/availability status of each ship by the Office of Sealift Support (MSP/VISA ships) and the Office of Ship Operations (RRF ships). Typical reasons why a ship is not materially available include: the ship is in drydock, the ship is undergoing a scheduled major overhaul, or the ship is undergoing an unscheduled repair. The Maritime Administration and DOD also maintain records of the sealift ships enrolled in the MSP and VISA and their crew requirements. Availability of mariners. The Maritime Administration, through their Mariner Outreach System, extracts the number of qualified mariners from the data recorded in the U.S. Coast Guard's Merchant Mariner Licensing and Documentation (MMLD) system. The willingness and availability of these mariners to sail is then estimated using all available information including total U.S. requirements for deep sea mariners, recent sea service, and mariner surveys.
Statistical Issues	None.
Completeness	Data are complete.
Reliability	The data is reasonably reliable and useful in managing the reserve fleet readiness program.

Details on DOT Security Measures
DoD-Designated Port Facilities (MARAD)

Measure	Percent of DoD-designated commercial strategic ports for military use that are available for military use within DoD established readiness timelines.
Scope	The measure consists of the total number of DOD-designated commercial strategic ports for military use that forecast their ability to able to meet DOD-readiness requirements within 48-hours of written notice from the Maritime Administration, expressed as a percentage of the total number of DOD-designated commercial strategic ports. Presently, there are 15 DOD-designated commercial strategic ports. Port readiness is based on monthly forecasts submitted by the ports and semi-annual port readiness assessments by the Maritime Administration in cooperation with other National Port Readiness Network partners. The semi-annual port assessments provide data or other information on a variety of factors, including the following: the capabilities of channels, anchorages, berths, and pilots/tugboats to handle larger ships; rail access, rail restrictions, rail ramp offloading areas, and rail storage capacities; the availability of trained labor gangs and bosses; number and capabilities of available cranes; long-term leases and contracts for the port facility; distances from ports to key military installations; intermodal capabilities for handling containers; highway and rail access; number of port entry gates; available lighting for night operations; and number and capacity of covered storage areas and marshalling areas off the port.

Sources	The Maritime Administration's data are derived from monthly reports submitted by the commercial strategic ports and from MARAD/DOD semi-annual port assessments.
Statistical Issues	None.
Completeness	Data are complete.
Reliability	The data is reasonably reliable according to the Bureau of Transportation Statistics and useful in managing its port readiness program.

Details on Organizational Excellence Measures

DOT Major System Acquisition Performance (FAA)

Measure	1. For major DOT aviation systems, percentage of cost goals established in the acquisition project baselines that are met. 2. For major DOT aviation systems, percentage of scheduled milestones established in acquisition project baselines that are met.
Scope	This performance measure encompasses acquisition management data for all of DOT's major systems acquisition contracts, primarily in the FAA, but also from any office procuring a major system as defined in OMB Circular A-11, and DOT's Capital Programming and Investment Control order.
Sources	The data for acquisition programs comes from each DOT organization procuring major systems. FAA tracks and reports status of all schedule and cost performance targets using an automated database, providing a monthly Red, Yellow, or Green assessment that indicates their confidence level in meeting their established milestones. Comments are provided monthly that detail problems, issues, and corrective actions, ensure milestones and cost are maintained within the established performance target. The performance status is reported monthly to the FAA Administrator through FAA Flight Plan meetings.
Statistical Issues	The programs that are selected each fiscal year represent a cross section of programs within the Air Traffic Organization. They include programs that have an Exhibit 300 as well as what is referred to as "buy-by-the-pound" programs. The latter are typically not required to undergo a standard acquisition life cycle process. There is no bias with the selection of milestones. The milestones selected represent the program office's determination as to what effort they deem "critical" or important enough to warrant inclusion in the Acquisition Performance goal for the year. Typically there are anywhere from two to four milestones. Interim milestones are also tracked but not included in the final performance calculation.
Completeness	This measure is current with no missing data. Each DOT organization maintains its own quality control checks for cost, schedule, and technical performance data of each major systems acquisition in accordance with OMB Circulars A-11, A-109, and A-130, Federal Acquisition Regulations, and Departmental orders implementing those directives and regulations.
Reliability	Each DOT organization having major system acquisitions uses the data during periodic acquisition program reviews, for determining resource requests. It is also used during the annual budget preparation process, for reporting progress made in the President's Budget and for making key program management decisions.


Details on DOT Organizational Excellence Measures

Major DOT Infrastructure Project Cost and Schedule Performance (FHWA / FTA / FAA)

Measure	1. Percentage of major federally funded transportation infrastructure projects with less than 2 percent annual growth for project completion milestones. (FY) 2. Percentage of finance plan cost estimates for major federally funded transportation infrastructure projects with less than 2 percent annual growth in project completion cost. (FY)
Scope	Active FTA New Starts projects with Full Funding Grant Agreements larger than $1 billion; FHWA projects with a total cost of $500 million or more, or projects approaching $500 million with a high level of interest by the public, Congress, or the Administration; and FAA runway projects with a total cost of $1 billion or more.
Sources	FTA - FTA uses independent reviews and third-party assessment providers such as the Corps of Engineers and other oversight contractors to validate the accuracy of project budgets and schedules before grantees are awarded Full Funding Grant Agreements. Project/Financial Management Oversight contractors review project budgets on a monthly basis and FTA assesses projected total project costs against baseline cost estimates and schedules. FHWA - The percent cost estimates and scheduled milestones for a FHWA Major Project are measured from when the Initial Financial Plan (IFP) is prepared and approved to the required Annual Project Update or from the previous Annual Update. The update contains the latest information about the cost and schedule for each of the Major Projects. Project Oversight Managers in FHWA Division Offices provide monthly status reports as a supplement to the Annual Update. FAA - Project cost performance for each major project is measured from cost estimates submitted by the airport sponsor to support its letter of intent (LOI) and actual expenditure data sources (for grants) and airport sponsor submissions (for overall project cost). Project schedule performance is measured from the Runway Template Action Plan (RTAP), as specified in the National Airspace System Operational Evolution Partnership.
Statistical Issues	FAA - Schedule completion performance is measured for two milestones-the project design and the project construction. A project milestone is considered to meet the performance target if actual annual rate of completion is not more than 2 percent behind scheduled cumulative rate of completion, using the RTAP schedule as a base. Cost performance is measured by comparing cumulative actual costs incurred at the end of each fiscal year with cumulative costs shown in the scheduled of costs submitted with the LOI application. A project will be considered to meet the cost performance target if annual costs are no more than 2 percent higher than projected costs in the cost schedule. FHWA - A scheduled milestone is defined as being achieved upon completion of the project. Major Projects generally require 6 to 10 years from an IFP to completion. Cost estimates are prepared by comparing the costs in the most recent Annual Update to the IFP estimate or the last Annual Update. FTA - Scheduled milestone achievement is measured by the difference between the actual Revenue Operations Date and the date of the execution of the Full Funding Grant Agreement divided by the difference between the Revenue Operations Date in the Full Funding Grant Agreement and the date of execution of the Full Funding Grant Agreement. Cost estimate achievement is measured by the actual Total Project Cost divided by the Total Project Cost in the Full Funding Grant Agreement.




Completeness	FAA - Federal financial commitments to airport sponsors are tracked by two automated systems, the System of Airports Reporting (SOAR) and the Delphi financial system. These systems are updated immediately when a grant payment is made or a grant is amended or closed-out. The FAA relies on the airport sponsor to report actual project costs on a quarterly basis. Project design and construction milestones (scheduled and actual) are contained in the RTAP and developed by all involved FAA lines of business, the airport sponsor and airlines. The RTAP is comprised of tasks that must be considered when commissioning the runway and assigns accountability to the airport, airline, and FAA allowing early identification and resolution of issues that might impact the runway schedule. FHWA - The FHWA Major Projects Team maintains the project schedules and cost estimate information in a spreadsheet, which is updated when a Project IFP is approved and/or the Annual Update is received and accepted. The data is available and reported on a semi-annual basis. FTA - This measure is current with no missing data. The information is currently tracked with an in-house MS Excel database. A Web-based database, FASTTrak, is being developed to track this type of project information in the future. The measures are calculated monthly by an FTA Headquarters Engineer, checked by the Team Leader and reviewed by the Office Director.
Reliability	FAA - Reporting of Federal financial commitments to airport sponsors is done in accordance with FAA policy and guidance related to administering the Airport Improvement Program (AIP) and the authorizing statute. The FAA's AIP Branch monitors FAA regional offices for compliance with policy and guidance, including input into SOAR and Delphi, and conducts periodic regional evaluations. Actual project costs reported by the airport sponsor are verified by an annual single audit required by OMB. Such audits cover the entire financial and compliance operation of the airport sponsor's governing body. Status of the project design and construction schedule contained in the RTAP is updated quarterly, based on meetings held with the airport sponsor and airlines. FHWA - Both the IFP and the Annual Update undergo a rigorous review by the Division Office and the Major Projects Team prior to approval and acceptance. FTA - Calculations of schedule achievement are based on month of this report, and not on projected Revenue Operations Date. Re-calculations of schedule and cost baselines are made to reflect amendments to the Full Funding Grant Agreements. FTA uses independent reviews and third-party assessment providers such as the Corps of Engineers and other oversight contractors to validate the accuracy of project budgets and schedules before grantees' are awarded Full Funding Grant Agreements. FTA continues to work to improve its rigorous oversight program and has made project cost and budget performance a core accountability of every senior manager in the agency.

Details on DOT Organizational Excellence Measures

Transit Grant Process Efficiency (FTA)

Measure	Average number of days to award a grant after submission of a completed application. (FY)
Scope	FTA grants obligated during a fiscal year period for major programs: Urbanized area, non-Urbanized area, and Elderly and Persons with Disabilities formula grants; Capital grants; Job Access and Reverse Commute grants; Over-The-Road Bus grants; and Planning grants.
Sources	FTA internal databases including the Transportation Electronic Award Management (TEAM) system.
Statistical Issues	Processing time is calculated from submission date to obligation date. Zero-dollar, non-funding grant amendments are excluded from analysis.

Completeness	Data are current with no missing data, since FTA uses internal databases, including the TEAM system. All grants obligated during the fiscal year for the selected programs (see Scope section) are included in the original data set. In rare cases where the submission date is omitted (which prevents processing time calculation), missing dates are researched and added to the database prior to reporting. The zero-dollar amendments are excluded because they are not representative of the grant processing action being tested.
Reliability	The files that contain raw data from TEAM have been tested to ensure that all fiscal-year-to-date obligated grants are included and that data is current. Report programs screen various date fields to identify any missing or out-of-sequence dates that would skew averages; dates are corrected prior to reporting. Reconciliation reports of TEAM data are produced monthly and anomalies are explored and resolved. Detailed monthly grant processing progress reports provide management tools to the Regional Administrators, who continue to make this goal a top priority.




SUMMARY OF FINANCIAL STATEMENT AUDIT AND MANAGEMENT ASSURANCES

TABLE 1. SUMMARY OF FINANCIAL STATEMENT AUDIT

Audit Opinion: Unqualified Restatement: No					
Material Weaknesses	**Beginning Balance**	**New**	**Resolved**	**Consolidated**	**Ending Balance**
Timely Processing of Transactions and Accounting for Property, Plant & Equipment, including the Construction in Progress Account at the FAA	✓		✓		0
Total Material Weaknesses	1		1		0

TABLE 2. SUMMARY OF MANAGEMENT ASSURANCES

Effectiveness of Internal Control over Financial Reporting (FMFIA, Section 2) Statement of Assurance: Unqualified						
Material Weaknesses	Beginning Balance	New	Resolved	Consolidated	Reassessed	Ending Balance
Timely Processing of Transactions and Accounting for Property, Plant & Equipment, including the Construction in Progress Account at the FAA	✓		✓			0
Total Material Weaknesses	1		1			0

Effectiveness of Internal Control over Operations (FMFIA, Section 2) Statement of Assurance: Qualified						
Material Weaknesses	Beginning Balance	New	Resolved	Consolidated	Reassessed	Ending Balance
Weaknesses in the Stewardship and Oversight of Federal-Aid Projects Administered by Local Program Agencies	✓		✓			0
FISMA Noncompliance		✓				1
Total Material Weaknesses	1	1	1			1

Conformance with Financial Management System Requirements (FMFIA, Section 4)

Statement of Assurance: Unqualified						
Non-Conformances	Beginning Balance	New	Resolved	Consolidated	Reassessed	Ending Balance
Federal Accounting Standards	✓		✓			0
Total Non-Conformances	1		1			0

Conformance with Federal Financial Management Improvement Act (FFMIA)		
	Agency	Auditor
Overall Substantial Compliance	Yes	No
1. System Requirements	Yes	Yes
2. Accounting Standards	Yes	No
3. USSGL at Transaction Level	Yes	Yes




DEPARTMENT OF TRANSPORTATION
OFFICE OF THE CHIEF INFORMATION OFFICER
PENDING MATERIAL WEAKNESS

HIGH RISK AREA: Non-compliance with Federal Information Security Management Act (FISMA) of 2002, and OMB requirements for security information systems and providing privacy protection of personally identifiable information (PII).

EXECUTIVE SUMMARY	MILESTONES	PLANNED DATES O=Original L=Last Year C=Current
How shall we fix it? Improve policy and process. Evaluate and reprioritize information assurance and privacy activities and resources. Increase the visibility of performance. Tie performance to investment and program budget. Engage senior management for corrective actions. **How will we know it's fixed?** Weekly scorecards. Monthly progress reviews and reporting. Monthly reviews with the auditors for validation of direction and progress. Quarterly reviews and reporting of compliance and progress to senior management and OMB. Monthly reporting of internal assessment and verification of technical performance.	**Year Identified:**	C - 2008
	Planned (Near-Term) 1. Improve Information Security and Privacy program policy, planning, reporting, and processes.	6/2009
	2. Enhance network security, configuration management, situational awareness, and incident response capabilities.	10/2009
	3. Ensure security awareness and privacy training for Federal and contractor employees using the Departmental network.	6/2009
	4. Improve the identification, tracking, prioritization, and management of weaknesses and system vulnerabilities.	6/2009
	5. Strengthen the security of Departmental systems through certification and accreditation, use of appropriate authentication methods, and testing of contingency plans.	10/2009
	Planned (Long-Term) Incorporate Information Assurance and Privacy performance metrics into operating administration performance standards.	10/2010

IPIA REPORTING DETAILS

1. IMPROPER PAYMENT PROGRAM RISK ASSESSMENT DESCRIPTION

In prior years, the Department identified the following ten programs as being susceptible to significant improper payments. At that time, the Department identified the ten programs in the table below as having the highest potential for improper payments.

Operating Administration	Program
Federal Highway Administration	**Federal-aid Highway Program – State Project*** Federal Lands Highway Program – Contracts
Federal Aviation Administration	Operations Facilities and Equipment **Airport Improvement Program***
Federal Transit Administration	**Capital Investment Grants*** **Formula Grants***
Office of the Secretary of Transportation	Working Capital Fund DOT Payroll**
Federal Railroad Administration	Grants
*Identified in the former Section 57 of OMB Circular A-11 **For administrative purposes, payroll was reviewed as a single program for all of DOT **Bolded** programs were included in the FY 2008 nationwide IPIA review	

In accordance with Improper Payments Information Act (IPIA) requirements and OMB guidelines, during FY 2004 and 2005 six of the Programs reflected in the Table above were subject to a risk assessment and an in-depth improper payment review, including a review of payments by the Department to grantees. No improper payments exceeding both 2.5 percent of program payments and $10 million were found. The six programs were subject to a risk assessment based on the following criteria: Gross Expended Amount, Complexity of Payments, Established Internal Controls and Oversight, Type of Program Recipient, Number of Program Recipients, Volume of Payments, Probability of Growth, and Changes in the Program from the previous year. The risk criterion was used to determine the sampling size for each program. From that, each program underwent an in depth statistically based improper payment review.

Based on the FY 2004 and 2005 reviews, the Department concluded that the six programs subject to the risk assessment and improper payment test procedures were not susceptible to significant improper payments as defined by the OMB. For the remaining four programs, because of the significance of grantee payments and the fact that such payments were not tested under previous efforts due to a lack of data required for testing at the Federal level, additional testing was required. The four programs are the Federal Highway Administration (FHWA) Federal-aid Highway Program, Federal Aviation Administration (FAA) Airport Improvement Program, Federal Transit Administration (FTA) Formula Grants Program, and the FTA Capital Investment Grants Program.

2. SAMPLING PROCESS AND RESULTS

In FY 2008, the Department completed full implementation of the IPIA, which requires that agencies: (1) review programs and identify those susceptible to significant improper payments (2) report to Congress on the amount and causes of improper payments and (3) develop approaches for reducing such payments.

The Department's FY 2008 review covered the FHWA Federal-aid Highway Program, FAA Airport Improvement Program, FTA Formula Grants Program, and the FTA Capital Investment Grants Program. With respect to the Formula Grants Program, as described below, successful completion pertains to approximately one-third of the grantees.

The Department re-engaged AOC Solutions, Inc. to develop the nationwide sampling plan, collect the results from the application of test procedures, and provide a nationwide estimate of improper payments for Federal-aid Highway Program, Airport Improvement Program, Formula Grants Program, and Capital Investment Grants Program. As noted above, with respect to the Formula Grants Program, the sampling plan, test procedures, and test results only apply to approximately one-third of the grantees covered by the FTA's Formula Grant Triennial Review Program. 49 U.S.C. 5307 prescribes a Triennial Review of all Formula Grant grantees. OMB Circular A-123, Attachment C, paragraph F, provides for alternative approaches, including determining the amount of improper payments for components, such as those addressed in the foregoing statute.

The sampling plan provided sample size of sufficient size to yield an estimate with a 90 percent confidence interval within +/- 2.5 percent points around the estimate of the percentage of erroneous payments, as prescribed by OMB. The results of these efforts are discussed below.

FEDERAL-AID HIGHWAY PROGRAM

The FHWA executed the nationwide sampling plan using personnel from the FHWA division offices and covered Federal payments to grantees over the twelve-month period March 1, 2008 through February 29, 2008.

The sampling plan involved a multi-staged statistical approach that included the selection of 40 Federal payments totaling $109,732,056, 49 state payments totaling $30,910,426, and then 182 testable line items totaling $20,733,729 for testing. Consistent with the sampling plan used in 2007, the 2008 sample was designed to support a nationwide estimate of improper payments and was not designed to provide sample items to all states and territories. The states that did not appear in the IPIA sample received sample items for FIRE testing.

The test procedures applied to the line items were designed to test a range of administrative elements and contractual elements. Tests of administrative elements included determining whether payments were properly approved, billed at the correct federal participation rate, and whether billings and payments were mathematically accurate. Tests of contractual elements included determining whether payments were in accordance with contract rates/prices for specified materials and whether material quality tests indicated that materials met contractual requirements.

Improper payments totaling $149,035 were found in the sample of 182 tested items. The projection of known improper payments to the population of program payments for the twelve-month period results in an improper payment estimate of $55.1 million +/- $4 million. The estimated improper payment rate is .17% +/- .1%. This projection does not meet OMB's definition of significant improper payments ($10 million and 2.5 percent of total program payments).

The improper payments reported resulted from factors such as underpayments related to retainage not covered by contract provisions and incorrect calculations.

FTA FORMULA GRANTS PROGRAM

The FTA executed the nationwide testing program for grantees covered by the 2008 Triennial Review Program using contractor personnel. The review covered the twelve-month period March 1, 2007 through February 29, 2008.

The sampling plan involved a multi-staged statistical approach that included the selection of 8 Federal payments totaling $95,650,747, 24 transportation authorities' payments totaling $29,989,649, and then 44 testable line items from supporting invoices totaling $10,657,250 for testing. The test procedures applied to the line items were designed to test a range of administrative elements and contractual elements. Tests of administrative elements included determining whether payments were properly approved, billed at the correct federal participation rate, and whether billings and payments were mathematically accurate. Tests of contractual elements included determining whether payments were in accordance with contract rates/prices for specified materials and whether material quality tests indicated that materials met contractual requirements.

Improper payments totaling$199,874 were found in the sample of 44 tested items. The projection of known improper payments to the population of program payments for the twelve-month period results in an improper payment estimate of $47.6 million +/- 5.3 million. The estimated improper payment rate is 5.63% +/- .63%. This projection meets OMB's definition of significant improper payments ($10 million and 2.5 percent of total program payments).

The improper payments reported are attributable primarily to the absence of documentation in support of the fringe benefit rate used to recover fringe benefit costs allowable under the Formula Grants Program. While such costs are allowable charges, OMB Circular A-87, Attachment E, requires that fringe benefit charges to Federal programs be supported by formal documentation and retained in accordance with the records retention provisions of the Grants Management Common Rule.

FTA CAPITAL INVESTMENT GRANTS PROGRAM

In FY 2008 the FTA completed its first nationwide testing for this program. As with the Formula Grants Program, the sampling plan involved a multi-staged statistical approach that included the selection of 10 Federal payments totaling $321,661,382, 31 transportation authorities' payments totaling $35,783,951, and then 66 testable line items from supporting invoices totaling $12,804,680 for testing.




The test procedures applied to the line items were designed to test a range of administrative elements and contractual elements. Tests of administrative elements included determining whether payments were properly approved, billed at the correct federal participation rate, and whether billings and payments were mathematically accurate. Tests of contractual elements included determining whether payments were in accordance with contract rates/prices for specified materials and whether material quality tests indicated that materials met contractual requirements.

Improper payments totaling $43,672 were found in the sample of 66 tested items. The projection of known improper payments to the population of program payments for the twelve-month period results in an improper payment estimate of $87 million +/- $6 million. The estimated improper payment rate is 3.13% +/- .23%. This projection meets OMB's definition of significant improper payments ($10 million and 2.5 percent of total program payments).

The improper payments reported resulted from draw-downs in excess of federal participation share. The grantee reimbursed the known overdraw.

FAA AIRPORT IMPROVEMENT PROGRAM

The FAA developed and executed a sampling plan to determine the amount and cause of improper payments in the Airport Improvement Program. The FAA review covered the twelve-month period March 1, 2007 through February 29, 2008.

The sampling plan involved a multi-staged statistical approach that included the selection of 30 Federal payments to sponsors totaling $48,796,094, 30 sponsor payments totaling $37,107,109, and then 63 testable line items from invoices totaling $15,390,373 for testing. The test procedures applied to the line items were designed to test a range of administrative elements and contractual elements. Tests of administrative elements included determining whether payments were properly approved, billed at the correct federal participation rate, and whether billings and payments were mathematically accurate. Tests of contractual elements included determining whether payments were in accordance with contract rates/prices for specified materials and whether material quality tests indicated that materials met contractual requirements.

Improper payments totaling $658.44 were found in the sample of 63 tested items. The projection of known improper payments to the population of program payments for the twelve-month period results in an improper payment estimate of $.973 million +/- $0.128 million. The estimated improper payment rate is .02 percent. This projection does not meet OMB's definition of significant improper payments ($10 million and 2.5 percent of total program payments).

The known improper payments are attributable to unexplained differences between payments to sponsors and payments to contractors.


3. CORRECTIVE ACTION PLANS FOR REDUCING THE ESTIMATED RATE OF IMPROPER PAYMENTS.

FHWA FEDERAL-AID HIGHWAY PROGRAM

FHWA Division Offices listed the following reasons for the improper payments identified as a result of the IPIA review: underpayments related to retainage not covered by contract provisions and incorrect calculations.

The Department and the FHWA will continue full implementation the FHWA's Financial Integrity Review and Evaluation Program in FY 2009 to monitor State and Territory payments and provide a mechanism for assisting these entities with addressing effectively operational issues that result or could result in improper payments. The Department believes that this proactive approach will establish internal control mechanisms for both preventing and detecting improper payments through effective oversight and outreach, the latter being intended to assist grantees in improving program management.

FTA FORMULA GRANTS PROGRAM

The FTA plans on adapting its statutorily required Triennial Review Program to include procedures to test for improper payments.

In addition, the FTA will advise grantees of the provisions of OMB Circular A-87 with particular attention to the requirement that fringe benefit and indirect cost rates used for cost reimbursement be documented and retained for audit and program review. Finally, the FTA will assess the feasibility of follow-up actions to assess the extent to which grantees covered by the 2009 review are addressing deficiencies that resulted in improper payment determinations.

FTA CAPITAL INVESTMENT GRANTS PROGRAM

The FTA will advise grantees of actions needed to ensure reimbursement requests are in accordance with grant cost sharing or matching requirements.

FAA AIRPORT IMPROVEMENT PROGRAM

The FAA will advise field personnel and sponsors of the need to establish control procedures for ensuring agreement between payments and requests for Federal reimbursement.

4. DEPARTMENT ACCOMPLISHMENTS IN GRANT PROGRAMS

The Department completed its implementation of the IPIA in its major grant programs. The FHWA review of the Federal-aid Highway Program, FAA Airport Improvement Program, FTA Formula Grants Program, and the FTA Capital Investment Grants Program represented the nationwide application of an innovative research and develop strategy implemented in FY 2005 and finalized in FY 2008. Testing over the past several years has shown that the amount and rate of improper payments are not the result of systemic problems but rather are associated with generalized operational issues at some grantees.




5. IMPROPER PAYMENT ESTIMATED ERROR RATES, DOLLAR ESTIMATES[1], AND OUTLOOK[2]

Program	PY			CY[3]			CY +1			CY +2			CY +3		
	Outlays	IP %	IP $	Outlays	IP %	IP $	Est. Outlays	IP %	IP $	Est. Outlays	IP %	IP $	Est. Outlays	IP %	IP $
FHWA: Federal-aid Highway Program	33,347	0.2	55.2	32,190	0.17	55.1	39,264	NA	NA	37,513	NA	NA	35,046	NA	NA
FTA: Formula Grants Program[4]	6,281[5]	0.3	4.32	7,298	5.63	47.6	8,557	.5	14.26	9,080	.05	1.51	8,597	.05	1.43
FTA: Capital Investment Grants Program	2,663	1.1[6]	.6	2,473	3.13	87.0	2,626	.5	13.0	2,218	.05	1.11	2,098	.05	1.05
FAA: Airport Improvement Program	3,874	NA	0	4,428	.02	.973	3,967	NA	NA	4,075	NA	NA	4,200	NA	NA

1. Dollars are in millions
2. Future (CY+1 – CY+3) improper payment rates for the FAA programs are estimated to be consistent with PY and CY rates.
3. CY outlays are for the period March 2007 through February 2008 and represent the population of Federal payments for IPIA testing.
4. Results for the FTA Formula Grants Program applies only to approximately one-third of the grantees as described in Section 2 above.
5. Outlays for grantees covered by 2008 IPIA testing and upon which the FTA Formula Grants Program IP % is based, approximates $846 million.
6. PY statistics for the Capital Investment Grants Program pertain only to a single grantee.

TOP MANAGEMENT CHALLENGES

Department of Transportation

Report Number: PT-2009-005

Date Issued: November 17, 2008

Memorandum

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

Subject: INFORMATION: DOT's Fiscal Year 2009 Top Management Challenges
Report Number PT-2009-005

Date: November 17, 2008

From: Calvin L. Scovel III
Inspector General

Reply to Attn. of: JA-1

To: The Secretary
Deputy Secretary

The U.S. transportation system is vital to the Nation's economy and the quality of life for all Americans. Each year, the Department of Transportation (DOT) spends about $70 billion on a wide range of efforts to enhance mobility and safety. As required by law, we have identified nine top management challenges for the Department for fiscal year (FY) 2009.

The next Administration and the 111th Congress will face an array of challenges and difficult decisions with respect to transportation programs. This is particularly the case with relieving congestion, reaching agreement on long-term financing mechanisms for aviation and surface transportation programs, and addressing surface infrastructure, including aging bridges.

The Department faces these challenges in an environment of uncertain financial markets, volatile fuel prices, rising deficits, and a softening economy. These factors will impact all modes of transportation and require a careful reassessment of how Federal agencies do business and manage investment portfolios. Notwithstanding the unprecedented level of uncertainty, there are important opportunities to strategically position the Department, set priorities, and adjust strategies to maximize investments in transportation.

Improving transportation safety is—and must remain—the Department's overarching goal. Strong leadership will be a prerequisite for meeting the challenges facing the Department. The Department's top management challenges for FY 2009 are summarized below. An exhibit to this report compares this year's management challenges with those published in FY 2008.

- Enhancing Aviation Safety and Maintaining Confidence in FAA's Ability To Provide Effective Oversight of a Rapidly Changing Industry
- Enhancing Mobility and Reducing Congestion in America's Transportation System
- Developing a Plan To Address Projected Highway and Transit Funding Shortfalls
- Maximizing the Return on Current Highway and Transit Infrastructure Investments
- Operating the National Airspace System While Developing and Transitioning to the Next Generation Air Transportation System
- Protecting Against Increasing Cyber Security Risks and Enhancing the Protection of Personally Identifiable Information
- Preventing Catastrophic Failures and Obsolescence in the Nation's Aging Surface Transportation Infrastructure
- Improving Contract Operations and Maintaining Procurement Integrity
- Enhancing and Deploying Programs for Reducing the Serious Consequences of Surface Transportation Crashes

Key Focus Areas for the New Administration and the 111th Congress

Over the next several years, Congress, the Department, and stakeholders will face unique challenges. Our report highlights key, near-term areas of emphasis for each top management challenge. These areas include bolstering the integrity of the oversight of a rapidly changing airline industry; addressing congestion in the air and on the ground; and advancing a data-driven, risk-based approach to addressing nationwide bridge safety risks. We recognize that solution sets involve policy decisions for the current and future Administration as well as the next Congress. Our comments are aimed at enhancing safety, reducing risk with multibillion-dollar investments, and improving Federal oversight of transportation investments regardless of the chosen policy approach.

We remain committed to a proactive audit and investigative approach to prevent fraud, waste, and abuse in transportation programs and to our efforts to keep decision makers informed so that timely corrective actions can be taken. This report and the Department's response will be incorporated into the DOT Performance and Accountability Report as required by law (see appendix).

If you have any questions concerning this report, please contact me at (202) 366-1959. You may also contact David A. Dobbs, Principal Assistant Inspector General for Auditing and Evaluation, at (202) 366-1427.

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Table of Contents

1. Enhancing Aviation Safety and Maintaining Confidence in FAA's Ability To Provide Effective Oversight of a Rapidly Changing Industry

Over the last several years, the aviation industry has experienced the safest period in history. This is due in part to the Federal Aviation Administration's (FAA) oversight and the industry's efforts to advance aviation safety. However, airline consolidation and downsizing continue to dramatically change the industry, and widely publicized lapses in FAA oversight in 2008 emphasize the need for FAA to continually adapt its oversight to further enhance safety. Key challenges for FAA include:

- maintaining confidence in FAA's oversight of air carriers and certification and production of new segments of the aircraft industry;
- following through on longstanding commitments to improve oversight of external repair facilities; and
- improving runway safety by implementing new technologies, making airport-specific changes, and reinvigorating FAA initiatives.

Maintaining Confidence in FAA's Oversight of Air Carriers and Certification and Production of New Segments of the Aircraft Industry

A significant challenge for FAA will be to maintain confidence in its oversight of air carrier operations and aircraft certification and production. Our congressional testimonies in April before the House of Representatives and the Senate disclosed serious lapses in FAA's oversight at Southwest Airlines (SWA). We also testified before the House Subcommittee on Aviation in September on FAA's certification of the Eclipse Aviation EA-500 very light jet (VLJ). FAA actions in both of these instances appeared to focus primarily on promoting aviation over safety, which diminishes the public perception of FAA's ability to provide objective oversight.

The importance of these issues was underscored by the Department's recent actions to review FAA's safety oversight. In response to the safety lapses at SWA, on May 1, 2008, the Secretary of Transportation commissioned a panel to examine FAA's safety culture and its approach to safety management. In its final report, issued in September, the panel disclosed that it found FAA's safety staff was "unambiguously committed" to its safety mission but acknowledged that a remarkable degree of variation in regulatory philosophies exists among inspectors, which could create widespread inconsistencies in regulatory decision making.

Enhancing Oversight of Air Carrier Operations: In April and June, we reported that an FAA safety inspector had an overly collaborative relationship with SWA and violated FAA safety directives by permitting the air carrier to operate 46 planes without required inspections for fuselage cracks. Although FAA




identified the situation as early as April 2007, it did not attempt to determine the root cause of the safety issue nor initiate enforcement action against the carrier until November 2007. This review also identified concerns regarding FAA's failure to protect whistleblowers from retaliation. For example, after a whistleblower voiced concerns about SWA to FAA, an anonymous hotline complaint—which was never substantiated—was lodged against him, and FAA removed the whistleblower from duty for 5 months while he was under investigation. In 2007, we raised similar concerns regarding maintenance practices at Northwest Airlines, where FAA reviews of an inspector's safety concerns overlooked key findings identified by other inspectors.

Our work at SWA and other carriers has also found weaknesses in FAA's national program for risk-based oversight, the Air Transportation Oversight System (ATOS). At SWA, multiple missed ATOS inspections allowed safety directive compliance issues in SWA's maintenance program to go undetected for several years. At the time of the SWA disclosure, FAA inspectors had not completed 21 key inspections in at least 5 years.

Over the past 6 years, we have identified system-wide problems with ATOS, such as inconsistent inspection methods across FAA field offices and incomplete inspections. We recommended, among other things, that FAA strengthen its national oversight and accountability to ensure consistent and timely ATOS inspections. However, FAA still has not fully addressed this concern. We have recommended other actions to help maintain public confidence in FAA's oversight of air carriers. FAA has agreed to some of these, such as creating a national review team to conduct quality assurance reviews of FAA's air carrier oversight and implementing a process to monitor field office ATOS inspections. However, FAA has disagreed with other key recommendations, including the following:

- *Periodically rotating supervisory inspectors to ensure reliable and objective air carrier oversight.* FAA has stated that it is not financially feasible to rotate inspectors annually. Given budget constraints, FAA should consider other alternatives to ensure objective oversight. Possible alternatives include (1) incorporating assessments into its air carrier evaluation program to determine if an overly collaborative relationship exists between inspectors and the air carriers they oversee and (2) modifying its inspector training program to include additional sensitivity and integrity training for air carrier relations.

- *Establishing an independent organization to investigate safety issues identified by FAA employees.* FAA states that it has already deployed a new internal hotline for employees to resolve safety issues without fear of repercussion. However, we question the effectiveness of the hotline, which remains under the control of the Aviation Safety line of business. The serious weaknesses we identified underscore the need for an independent organization. In fact, FAA has

an independent organization to investigate employee complaints about its Air Traffic Organization. This group is staffed with former controllers and other technical experts. It recently worked with our office to conduct a high-profile investigation at the Dallas/Fort-Worth Terminal Radar Approach Control facility. The investigation substantiated serious whistleblower allegations that facility management underreported controller operational errors (when a controller fails to maintain separation between two aircraft), which created, at a minimum, the appearance of complicity.

Improving Certification and Production Oversight of New Segments of the Aircraft Industry: Another challenge for FAA will be improving its oversight of new segments of the aircraft industry. Introduction of VLJs into the National Airspace System is a key change occurring in the industry and is expected to continue over the next 2 decades. VLJs are small aircraft with advanced technologies that cost less than other business jets. In 2006, FAA certified the first VLJs, including the Eclipse EA-500. While the industry was generally excited about the introduction of this jet, some FAA employees were also concerned that it was pushed through the certification process too quickly.

A significant issue overshadowing FAA's certification of the EA-500 was the inherent risks associated with a new aircraft utilizing new technology, produced by a new manufacturer, and marketed with a new business model for its use. Because of these factors, FAA should have exercised heightened scrutiny in certifying the aircraft. Instead, our investigation found a combination of FAA actions or inactions indicating that the Agency expedited the certification processes for the EA-500 to meet a September 2006 deadline.

More importantly, because the EA-500 has advanced avionics and turbine engine technology typical of large transport aircraft combined with the light weight of smaller, private aircraft, it did not easily fit into FAA's existing certification framework. FAA chose to certify the EA-500 and other VLJs using certification requirements for general aviation aircraft rather than the more stringent certification requirements for larger transport aircraft.

A September 2008 Special Certification Review conducted by an independent FAA team concluded that the aircraft met applicable certification requirements for the four areas reviewed. However, FAA managers acknowledged that the general aviation certification requirements were inadequate to address the advanced concepts introduced on the aircraft. We understand that FAA is developing a Notice of Proposed Rulemaking (NPRM) to clarify certification requirements for VLJs. Given the issues surrounding the EA-500 certification, FAA should expedite the NPRM to allay future concerns with this expanding industry segment.




Following Through on Longstanding Commitments To Improve Oversight of External Repair Facilities

FAA continues to face challenges in identifying where critical aircraft maintenance is performed. A key issue is that FAA's risk-based oversight system does not include critical repairs performed by non-certificated repair facilities. FAA set up a system in fiscal year (FY) 2007 for air carriers and repair stations to report the volume of outsourced repairs. However, in our September 2008 report, we found that FAA's system was inadequate because it did not require mandatory air carrier reporting, an inclusive air carrier listing of *all* repair stations performing repairs to critical components, or FAA inspector validation.

We also raised concerns with FAA's guidance planned for issuance by the end of calendar year 2008. We found that the guidance, as currently drafted, does not require air carriers to report volume data for *all* repairs of critical components and inspectors to validate the data. Without this information, FAA cannot be assured that it has the precise and timely information needed to determine where it should focus its inspections. FAA is revising the guidance to address these issues.

Gathering adequate data to target inspections is important since FAA does not have a specific policy governing when inspectors should initially visit repair stations performing substantial maintenance for air carriers. Instead, FAA allows inspectors to rely on the air carriers' initial audits as a basis for approving those facilities for air carrier use. As a result, we found significant delays between FAA's initial approval of repair stations and its first inspections at those locations. For example, during a 3-year period, FAA inspectors inspected only 4 of its 15 substantial maintenance providers used by 1 air carrier. Among those uninspected was a major foreign engine repair facility that FAA inspectors did not visit until 5 years after it had received approval for carrier use—even though it had worked on 39 of the 53 engines repaired for the air carrier.

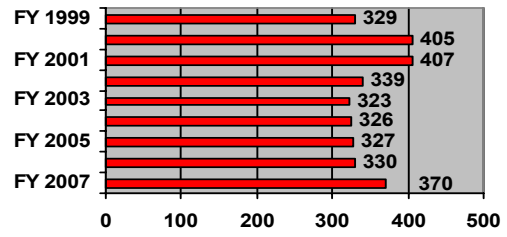
FAA needs to require its inspectors to conduct initial and follow-up on-site inspections of substantial maintenance providers to assess whether the maintenance providers comply with air carriers' procedures. In addition to their own inspections, FAA inspectors must ensure that air carriers and repair stations have strong audit systems to correct identified deficiencies, as FAA relies heavily on air carriers' oversight. In response to our report, FAA is reviewing its procedures and processes for opportunities to strengthen its guidance. However, it does not expect to complete these reviews until mid-2009.

Improving Runway Safety by Implementing New Technologies, Making Airport-Specific Changes, and Reinvigorating FAA Initiatives

Runway incidents continue to be a substantial threat to safety. The last fatal commercial aircraft accident in the United States (in 2006) occurred because the pilots of Comair flight 5191 attempted to take off from the wrong runway. A

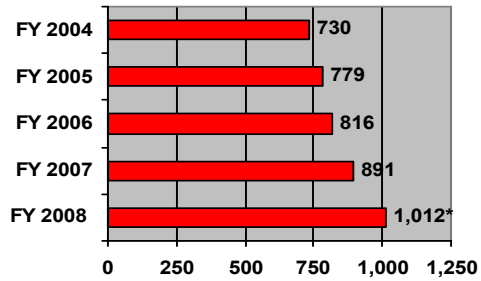
specific concern is runway incursions (any incident involving an unauthorized aircraft, vehicle, or person on a runway).[1] Since 2003, the number of runway incursions has increased again, reaching a high of 370 in FY 2007—a 13-percent increase over FY 2004 (see figure 1-1). Under FAA's new definition for categorizing runway incursions, runway incursions continue to rise even more dramatically—a 39-percent increase since FY 2004 (see figure 1-2).

Figure 1-1. Runway Incursions, Originial Definition, FY 1999 to FY 2007



Source: FAA

Figure 1-2. Runway Incursions, New Definition, FY 2004 to FY 2008



Source: FAA
*Preliminary

Many see new technology as a key runway safety solution. However, our reviews of three major FAA acquisitions[2] for improving runway safety disclosed serious concerns about what can be effectively deployed within the next several years. For example, for the Airport Surface Detection Equipment-Model X—a ground surveillance system intended to alert controllers to potential ground collisions—FAA may not meet its goal to commission all 35 systems by 2011 or achieve all planned safety benefits.

The uncertain timeline and emerging risks of FAA's runway safety technologies underscore the need for other near-term solutions. In May 2007, we reported on runway safety efforts at four airports that had experienced a surge in runway incursions: Boston, Chicago, Philadelphia, and Los Angeles. All four airports had made relatively low-cost, simple changes to their infrastructure and procedures that helped reduce the risk of runway incursions at their locations. These included improving airport lighting, signage, and runway and taxiway markings (before FAA's June 2008 deadline). In addition, the airport operators and FAA managers began tightly controlling the testing and certification of airfield drivers.

[1] Effective October 1, 2007, FAA began categorizing runway incursions using the International Civil Aviation Organization (ICAO) definition. The new definition of runway incursions includes incidents that were previously defined by FAA as "surface incidents" (where a potential conflict did not exist).

[2] Airport Surface Detection Equipment-Model X (ASDE-X), Automatic Dependent Surveillance-Broadcast (ADS-B), and Runway Status Lights.




FAA convened a task force in August 2007 to address runway safety issues. The group agreed on a short-term plan to improve runway safety, which includes conducting safety reviews at airports based on runway incursion and wrong runway departure data, improving airport signage and markings at the 75 busiest, medium- to large-sized airports, and reviewing cockpit and air traffic clearance procedures. These are the type of "airport-specific" actions that are needed; the key now will be maintaining commitment and follow through on the part of all users.

FAA must also remain focused on reinvigorating national runway safety initiatives. In response to the surge in runway incursions between FY 1999 and FY 2001, FAA took national actions to prioritize runway safety, which significantly decreased incidents between 2001 and 2003 (from 407 to 323). However, some national initiatives for promoting runway safety have subsequently waned as FAA met its overall goals for reducing runway incursions.

For example, FAA established the Runway Safety Office in 2001 to provide central oversight and accountability for runway safety initiatives throughout the Agency. However, at the time of our review, that office had not had a permanent director for almost 3 years and had undergone significant reorganization and staff reductions. FAA has since hired a director for this office and plans to reinstate its National Plan for Runway Safety to reduce runway incursions. Sustained commitment and executive-level attention will be key to the success of these initiatives.

Near-Term Focus Areas for the Transition to a New Administration

Aviation safety is and must remain FAA's top priority. Key focus areas for the short term include the following actions.

- Bolster the integrity of FAA's airline oversight by protecting whistleblowers, improving risk-based systems for targeting inspector resources, and establishing mechanisms at the national level to provide quality assurance and independent assessments of regional inspection efforts.
- Strengthen the certification process for new VLJs by clarifying certification requirements.
- Advance risk-based oversight of outsourced maintenance providers (both foreign and domestic) by developing and implementing a system for determining how much and where aircraft maintenance is performed.
- Reinvigorate efforts with strong national leadership to enhance runway safety through revised procedures and airport-specific changes at high-risk locations while waiting for new technologies to be deployed.

For further information regarding the issues identified in this chapter, please contact Lou Dixon, Assistant Inspector General for Aviation and Special Programs, at (202)-366-0500. The following related reports and testimonies can also be found on the OIG website at http://www.oig.dot.gov.

- *Review of FAA's Oversight of Airlines and Use of Regulatory Partnership Programs*
- *Testimony before the House Subcommittee on Aviation: FAA's Certification of the Eclipse EA–500 Very Light Jet*
- *FAA's Actions Taken To Address Allegations of Unsafe Maintenance Practices at Northwest Airlines*
- *Assessment of FAA's Risk-Based System for Overseeing Aircraft Manufacturers' Suppliers*
- *Review of Air Carriers' Use of Non-Certificated Repair Stations*
- *Progress Has Been Made in Reducing Runway Incursions, but Recent Incidents Underscore the Need for Further Proactive Efforts*
- *Air Carriers Outsourcing of Aircraft Maintenance*




2. Enhancing Mobility and Reducing Congestion in America's Transportation System

Congestion-related problems have impacted all modes of transportation; the Department estimates that congestion costs America almost $200 billion per year. Flight delays and cancellations have continued to be a concern in 2008, and the Nation's highways continue to experience record levels of congestion. The Department has made progress in implementing several congestion-related initiatives this past year, and it is imperative that these remain a key Federal priority across all modes. For example, the Secretary recently released a reform plan that proposes a renewed Federal focus on maintaining and improving performance on the Interstate Highway System, addressing urban congestion, giving state and local leaders greater flexibility to invest in their transit and highway priorities, and creating accountability measures to ensure investments in transportation will actually deliver results.

The Department has also taken steps to ease aviation congestion by reducing flights in the New York City area and establishing new routes through airspace redesign and air traffic control procedures. The Department is also building new runways nationwide. However, while the Department decides where to invest Federal funds to operate and expand the air traffic control system, state and local authorities select most highway and transit projects for funding. Therefore, the Department will need to work with these stakeholders to target Federal infrastructure funding to congestion relief. Specific challenges in reducing congestion include:

- reducing delays and improving airline customer service as the airlines struggle with higher fuel costs,
- keeping airport infrastructure and airspace projects on track, and
- improving intercity passenger rail's efficiency and viability as a transportation alternative.

Reducing Delays and Improving Airline Customer Service as the Airlines Struggle With Higher Fuel Costs

Reducing delays, particularly at already congested airports, and improving airline customer service are important issues facing the Nation. Peak-year 2007 trends continued into the first 6 months of 2008, with more than 1 in 4 flights (29 percent) delayed or cancelled. Not until July and August did on-time performance show a substantial improvement compared to the same months last year. On the basis of the summer improvements, year-to-date delays (through August of 2008) at the 55 airports tracked by the Federal Aviation Administration (FAA) declined 7.3 percent from the same period in 2008. During the summer of 2008, double-digit reductions in delays were experienced at 45 of the 55 airports.

Notable exceptions were Newark, where delays were up slightly; LaGuardia; John F. Kennedy (JFK); and Chicago O'Hare, where delays were down only 5.3 percent, 4.9 percent and 4.5 percent, respectively.

The decline in delays primarily stems from higher fuel costs and is expected to continue through the remainder of the year. Specifically, to offset rising fuel costs, airlines have reduced flight schedules and taken aircraft out of service, and this has provided some relief from delays. In our view, however, reducing capacity and increasing load factors can also result in more passenger inconvenience and dissatisfaction with customer service. With more seats filled, air carriers have fewer options to accommodate passengers from cancelled flights or missed connections caused by flight delays.

To explore solutions to congestion and delays in the New York City area, the Secretary formed the New York Aviation Rulemaking Committee last September. The Secretary also directed FAA to negotiate with the airlines and established temporary flight caps at JFK and Newark airports and proposed auctioning a limited number of take-off and landing opportunities (known as "slots") at JFK, LaGuardia, and Newark airports. While limiting the number of flights may reduce congestion in the short term, it is not an ideal long-term solution.

The current situation provides the Department with an important opportunity to revise its demand management policies, which are very controversial issues. Slot auctions in particular are strongly opposed by stakeholders, including the airlines and the operator of the New York area airports. Moreover, the Government Accountability Office recently concluded that FAA does not have the authority to auction arrival and departure slots.[3] The Government Accountability Office also stated that if FAA auctions slots without obtaining the necessary authority and retains and uses the proceeds, it would be in violation of the Anti-Deficiency Act. The Justice Department disagreed and found no potential for violation of the Anti-Deficiency Act. FAA issued its final rules to auction slots at the three New York airports, which will go into affect in January 2009. We believe the Department needs to further study the pros and cons of each demand management option, including who benefits and who bears the cost of implementing each option.

To improve airline customer service, the Department should continue moving forward with initiatives to improve the accountability, enforcement, and protection afforded air travelers. These initiatives include developing rulemakings to enhance passenger protection and implementing the necessary changes in the airlines' on-time performance reporting to capture all long, on-board delays and

[3] See GAO letter to Congressional Requestors, *Federal Aviation Administration—Authority to Auction Airport Arrival and Departure Slots and to Retain and Use Auction Proceeds* (September 30, 2008, B-316796).

plans to develop model contingency plans for minimizing the impact of long, on-board delays.

Keeping Airport Infrastructure and Airspace Projects On Track

The long-term solution to increasing capacity and reducing delays depends largely on expanding capacity through the Next Generation Air Transportation System (NextGen). However, NextGen is not targeted until the 2025 timeframe. While there is no "silver bullet" for addressing delays, several near-term initiatives can help relieve congestion. According to FAA, building new runways provides the largest increases in capacity. Currently, there are eight runway projects underway at seven major airports, which are expected to be complete by 2012. FAA estimates that runway projects at Washington-Dulles, Chicago O'Hare, and Seattle have the potential to accommodate an additional 300,000 operations annually. Table 2-1 provides details on the eight runway projects.

Table 2-1. Current Airfield Construction Projects

Airports	Airfield Construction Projects	Est. Completion	Cost Estimate
Philadelphia	Runway Extension	March 2009	$65 million
Seattle-Tacoma	Runway	November 2008	$1.1 billion
Washington-Dulles	Runway	November 2008	$356 million
Chicago O'Hare	Runway (9L/27R) Runway (10C/28C)	November 2008 2012	$1.7 billion
Charlotte	Runway	February 2010	$300 million
Dallas Ft. Worth	End Around Taxiway	December 2008	$79 million
Boston	Centerfield Taxiway	November 2009	$55 million

Airspace redesign efforts are critical to realizing the full benefits of runways and can also enhance capacity without new infrastructure. Currently, FAA is pursuing seven airspace redesign projects nationwide, including a major but controversial effort to revamp airspace in the New York/New Jersey/Philadelphia area. However, FAA's airspace redesign efforts still do not function as a "national" program since FAA facilities are now using their own resources to redesign airspace without coordinating with Headquarters. FAA needs to complete guidelines for managing airspace projects across the Agency's lines of business and establish realistic funding profiles for airspace projects.

Another important near-term initiative is establishing new routes that rely on equipment onboard aircraft. These new routes rely on procedures (called Area Navigation/Required Navigation Performance) that allow aircraft to fly more precise routes, which reduces fuel burn. At this stage, the challenge facing FAA is shifting from localized operations to networking city pairs, like Washington, DC,

and Chicago, IL, which will require considerable simulation modeling as well as close coordination with airspace redesign efforts and stakeholders.

Improving Intercity Passenger Rail's Efficiency and Viability as a Transportation Alternative

Intercity passenger rail is an integral part of America's transportation system, particularly in light of growing highway and aviation congestion and rising fuel prices. Amtrak, the Nation's intercity passenger rail service provider, is experiencing record revenue and ridership. However, given the constrained Federal funding environment and Amtrak's poor on-time performance, Amtrak's ability to continue to grow and reduce congestion remains uncertain.

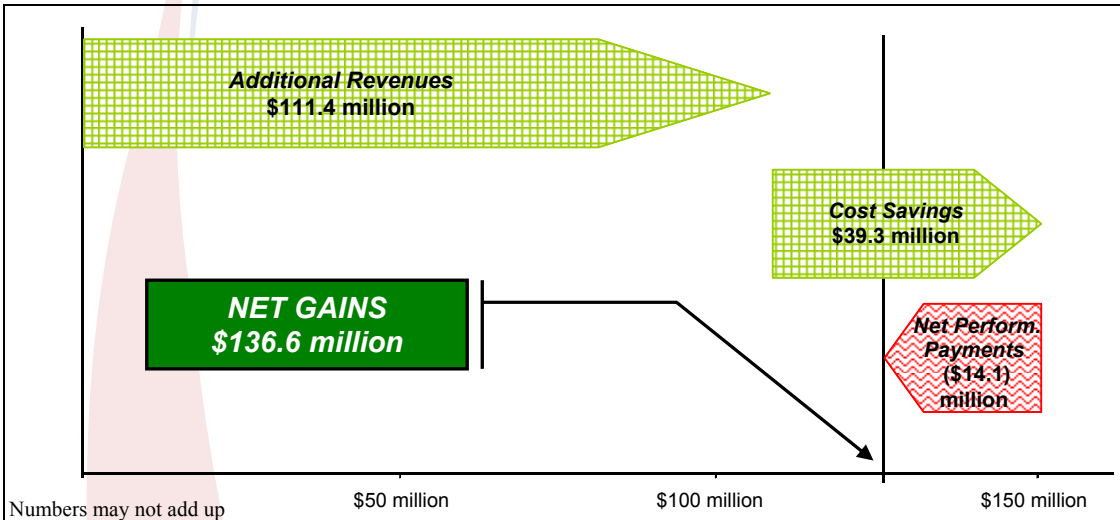
While Amtrak has recently made moderate improvement in its financial performance, its operational reform efforts have waned. Amtrak achieved $61 million in reform savings in fiscal year (FY) 2006 and $53 million in FY 2007, but it only budgeted $32 million in savings for FY 2008. As limited Federal funds are allocated to operating subsidies, it becomes more difficult to provide sufficient capital funds to improve Amtrak's performance and prepare for its long-term expansion plans. The Department needs to ensure that Amtrak continues its efforts to implement strategic reform initiatives that reduce its reliance on Federal subsidies.

Amtrak's poor on-time performance undermines the viability of intercity passenger rail as an option for travelers and weakens Amtrak's financial position by reducing its revenues and increasing its operating costs. Between FY 2003 and FY 2007, Amtrak's on-time performance off the Northeast Corridor (NEC) for long-distance routes fell from an average of only 51 percent to 42 percent; for non-NEC corridor routes, on-time performance fell from an average of 76 percent to 66 percent.

We recently reported that there are several root causes of Amtrak train delays that, if addressed, would improve Amtrak's on-time performance and financial viability. Specifically, Amtrak trains are delayed by (1) freight railroad dispatching practices, some of which deny Amtrak trains their statutory right to preference in the use of freight rail tracks and infrastructure; (2) track maintenance practices by the freight railroads and the resulting track speed restrictions; (3) insufficient track capacity; and (4) external factors beyond the freight railroad's control, such as weather.

Achieving reliable on-time performance would substantially improve Amtrak's finances. For example, an 85-percent on-time performance off the NEC in FY 2006 would have reduced Amtrak's operating loss by 30 percent, or by $136.6 million (see figure 2-1 below).

Figure 2-1. Calculation of Net Effects at 85 Percent On-Time Performance



Numbers may not add up due to rounding.

Source: OIG analysis

The Department needs to work with the freight railroads (over whose track Amtrak travels) and Amtrak to develop and implement comprehensive route management plans to improve service reliability on poor-performing Amtrak routes and seek additional funding for rail capacity expansion. The Department must also work with states that are making their own capital investments in freight rail capacity to improve the linkage between those investments and freight railroads' commitment to enhancing Amtrak train on-time performance.

Near-Term Focus Areas for the Transition to a New Administration

Given the importance of transportation to the Nation's economy and the impact of congestion, several efforts will be needed to:

- keep short-term FAA capacity initiatives on track, including new runways and airspace redesign efforts, and
- move forward with initiatives to improve the accountability, enforcement, and protection afforded air travelers.

For further information regarding the issues identified in this chapter, please contact David Tornquist, Assistant Inspector General for Rail and Maritime Program Audits and Economic Analysis, at (202)-366-9970. The following related reports and testimonies can also be found on the OIG website at http://www.oig.dot.gov.

- *FAA Short-Term Capacity Initiatives*
- *Use of the National Airspace System*
- *Aviation Industry Performance*
- *Quarterly Reports on Amtrak's FY 2008 Operational Reforms Savings and Financial Performance*
- *Analysis of the Benefits of High–Speed Rail on the Northeast Corridor*
- *Amtrak's Future Outlook and Budgetary Needs*
- *Root Causes of Amtrak Train Delays*
- *Effects of Amtrak's Poor On–Time Performance*
- *Follow-Up Review: Performance of U.S. Airlines in Implementing Selected Provisions of the Airline Customer Service Commitment*
- *Actions Needed To Improve Airline Customer Service and Minimize Long, On-Board Delays*
- *Status Report on Actions Underway To Address Flight Delays and Improve Airline Customer Service*

3. Developing a Plan To Address Projected Highway and Transit Funding Shortfalls

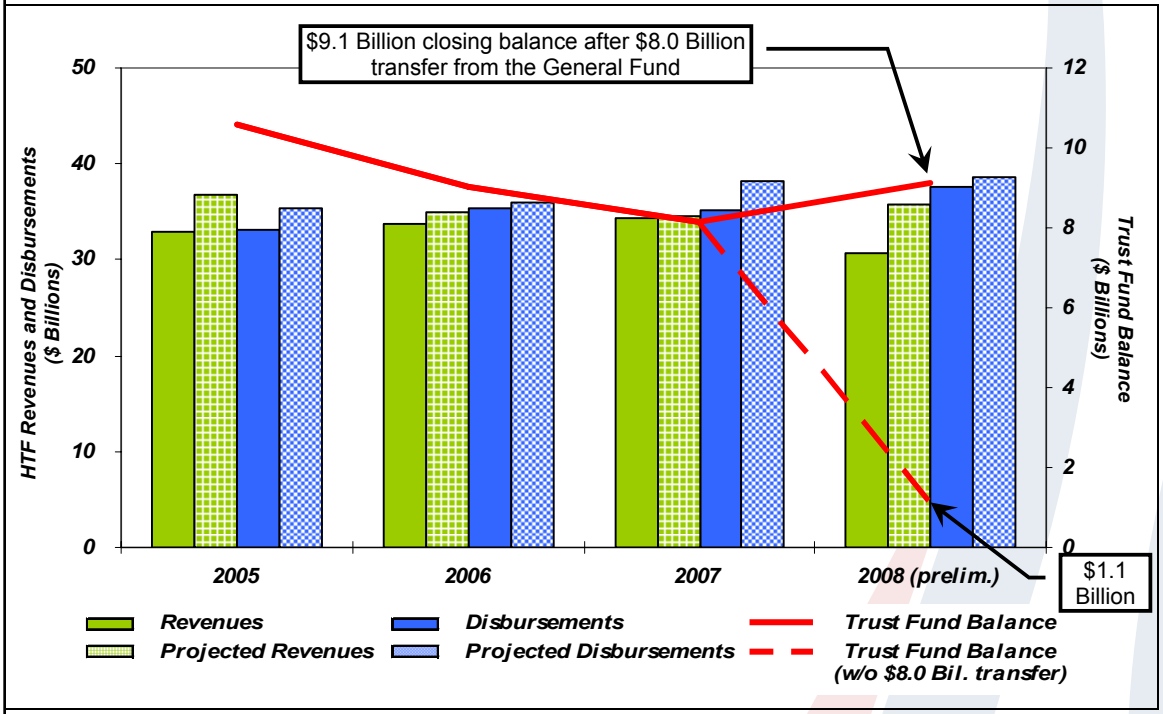
The Department faces significant challenges regarding funding for Federal highway and transit programs. In the near term, the Department must take steps to prevent recurrence of this summer's Highway Trust Fund (HTF) cash flow crisis. In the long term, it must work with Congress to enact a comprehensive funding framework that addresses revenue shortfalls in the HTF that may reduce future Federal highway spending. In addition, the Department needs to continue developing and encouraging innovative funding solutions for surface transportation infrastructure. The current surface reauthorization expires at the end of fiscal year (FY) 2009. The specific challenges the Department faces regarding highway and transit funding include:

- ensuring the highway trust fund remains solvent and
- developing a comprehensive highway funding framework for the future.

Ensuring the Highway Trust Fund Remains Solvent

To its credit, the Department recognized the urgency of a cash flow crisis in the HTF in August and requested Congress to approve legislation that would transfer $8 billion from the General Fund to the HTF. While the Department successfully managed HTF cash flow to minimize negative impacts on state departments of transportation, pending transfer of the $8 billion from the General Fund, it is uncertain how long this infusion of funds will last. The Department's ability to pay bills submitted by states for authorized costs incurred depends on the amount of funds in the HTF. That balance largely depends on Federal motor fuel excise tax receipts, which have been declining steadily in response to the unprecedented increases in fuel prices. Essentially, as fuel prices increase, motorists are cutting back on their driving, purchasing more fuel-efficient vehicles, and buying less gasoline, thereby generating fewer receipts for the HTF (see figure 3-1 below).

Figure 3-1. Highway Trust Fund – Highway Account Balance (FY 2005 – FY 2008)



Source: FHWA for actual Trust Fund revenues and disbursements and the President's Budget for projected revenues and disbursements.

Compounding the Department's near-term challenge is the fact that it does not directly control the rate at which funds are drawn from the HTF. Instead, the pace of state highway construction drives when states submit bills to the Department to be paid from the HTF. While the Department has taken steps to better manage the cash in the HTF, the potential exists for a recurrence of this summer's HTF insolvency crisis before a long-term solution can be reached. Therefore, the Department needs to maintain its focus on the HTF cash flow.

Developing a Comprehensive Highway Funding Framework for the Future

The current highway authorization expires at the end of FY 2009. The Department has issued a proposal to reform how surface transportation decisions and investments are made. However, it has yet to propose a level of highway funding for the reauthorization or a means for supporting that level of funding.

Historically, surface transportation funding has increased in successive reauthorizations:

- $155 billion authorized in the Intermodal Surface Transportation Efficiency Act[4] (ISTEA).
- $218 billion authorized in the Transportation Equity Act for the 21st Century[5] (TEA-21)—a 41 percent increase.
- $286 billion authorized in the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users[6] (SAFETEA-LU)—a 31 percent increase.

Surface transportation funding levels are generally determined by projected receipts into the HTF. The projections of HTF receipts for the upcoming surface reauthorization time period are unlikely to support current funding levels, let alone increased funding levels. The growth in highway construction and maintenance costs, which we reported on last year, and the growing demand for higher levels of surface infrastructure investment raise significant questions regarding the adequacy of a funding structure that heavily relies on the 18.4 cents per gallon Federal gasoline tax. The Department must help develop a consensus among the various stakeholders and Congress on what an appropriate level of Federal surface infrastructure investment should be and how that investment should be financed.

Alternative or supplemental funding mechanisms that might be considered include increasing the current fuel tax or imposing fees on vehicle miles traveled, vehicle registration or sales, new tolls, or customs duties. Each revenue source would have a significant impact on highway users and the economy, which the Department would need to consider carefully.

Near-Term Focus Area for the Transition to a New Administration

There is a sense of urgency facing the Department because the current surface transportation reauthorization expires at the end of this fiscal year. The Department needs to monitor the solvency of the Highway Trust Fund until a long-term financing solution can be implemented.

For further information regarding the issues identified in this chapter, please contact David Tornquist, Assistant Inspector General for Rail and Maritime Program Audits and Economic Analysis, at (202)-366-9970. The following related report can also be found on the OIG website at http://www.oig.dot.gov.

Growth in Highway Construction and Maintenance Costs

[4] The Intermodal Surface Transportation Efficiency Act (ISTEA), Pub. L. No. 102-240 (1991). This law expired in 1997 and was followed by TEA-21 and SAFETEA-LU.
[5] The Transportation Equity Act for the 21st Century (TEA-21), Pub. L. No. 105-178 (1998).
[6] Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Pub. L. No. 109-59 (2005). This law expires September 30, 2009.

4. Maximizing the Return on Current Highway and Transit Infrastructure Investments

As infrastructure needs are increasing faster than funding resources, the Department must maximize the return on its current Federal surface transportation investments. This is a critical priority because the Highway Trust Fund (HTF), which provides most of the funding for highway and transit projects, is facing insolvency earlier than expected. At the same time, the Nation's roadways are already heavily congested and demand for public transportation is growing. The Federal Highway Administration's (FHWA) and the Federal Transit Administration's (FTA) early and continuous oversight of states' project and financial management practices are key to controlling costs and schedules; avoiding construction quality problems; and preventing and detecting fraud, waste, and abuse. Considering the current tight fiscal environment at all levels of government, the Department needs to focus on:

- strengthening stewardship over the Federal Government's highway investment,
- providing strong oversight of major transit projects to maximize limited funding, and
- ensuring continued vigilance in protecting federally funded surface transportation projects from fraud.

Strengthening Stewardship Over the Federal Government's Highway Investment

To maximize the return on Federal highway funding provided to states (over $41 billion in fiscal year [FY] 2008), FHWA must continue to provide strong stewardship of major highway projects. To its credit, FHWA has enhanced its oversight of major projects and states' management practices in recent years, but sustained focus is needed to ensure that these efforts attain their goals. This task is even more imperative since HTF revenues are falling short of meeting an overwhelming demand for highway infrastructure funding.

In the past, we have reported on major oversight deficiencies on highway projects, such as Boston's Central Artery/Tunnel Project. For example, over the years, the finance plans for this project did not comply with FHWA guidance and significantly understated project costs. Moreover, our work on the Central Artery/Tunnel Project's Stem to Stern Safety Review, which was prompted by a tunnel ceiling collapse that killed a motorist, showed that major problems in construction quality may have been prevented with greater oversight at the Federal and state levels. We have learned lessons from this troubled, high-profile project.

To strengthen oversight of highway funds, Congress made several important changes in the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users.[7]

- One major change involved lowering the definition of *major projects* from $1 billion to $500 million. As a result, FHWA must provide enhanced oversight to projects now defined as major projects, including a review of the required finance plan. A finance plan is an important oversight tool that provides managers and the public with information on how much a project is expected to cost, when it will be completed, whether adequate funding is committed, and whether there are risks to completing the project on time and within budget.

- Another major change involved adding a requirement for major highway projects to have project management plans as well as finance plans. Project management plans serve as a "roadmap" to help the project team deliver a project in an efficient and effective manner by clearly defining roles, responsibilities, processes, and activities.

FHWA needs to strengthen the use of these tools and remain vigilant in its oversight of major highway projects.

Providing Strong Oversight of Major Projects To Maximize Limited Transit Funding

FTA has 15 New Starts projects with approved full funding grant agreements totaling $9.2 billion[8] in various stages of design or construction across the country that are seeking Federal funding in the FY 2009 New Starts report. FTA selects relatively few projects for New Starts each year. However, demand for New Starts funding is high and will likely continue to grow if the recent surge in transit ridership continues. FTA must ensure that its New Starts evaluation process selects the most promising projects. Accordingly, FTA must maintain a rigorous evaluation process, with particular emphasis in two key areas:

- First, FTA must ensure that the capital cost estimate for each proposed project is credible and complete; this is a key element in determining whether a project is cost effective. For example, after assessing cost estimates for the Dulles Corridor Metrorail Project, which had been in the New Start pipeline for years, two independent consultants for FTA determined that the project sponsor

[7] Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Pub. L. No. 109-59 (2005). This law expires September 30, 2009.

[8] FTA, "Annual Report on Funding Recommendations: Proposed Allocations of Funds for Fiscal Year 2009," February 2008. FTA also had 16 New Starts projects that are in the preliminary engineering or final design stages (with total requested Federal funding of $9 billion).

underestimated schedule delays; these delays increased the overall cost estimate to almost $3 billion—doubling an earlier estimate. Earlier scrutiny of cost estimates might have helped FTA avoid this situation.

To its credit, FTA is now requiring its project management oversight contractors to review cost estimates earlier in the New Starts process. FTA has also implemented a program establishing a consistent format for estimating, reporting, and managing capital costs on New Starts projects. The key to success is ensuring effective implementation across the country.

- Second, FTA must carefully evaluate whether each New Starts grantee has demonstrated stable and dependable financing sources to construct, maintain, and operate a proposed transit system or extension as well as the existing transit system.[9] This is important since the New Starts program generally provides only a maximum of 50 percent of a project's funding. In light of tight economic conditions at all levels of government, FTA must be vigilant in scrutinizing the financial plans of local project sponsors.

FTA must also provide strong oversight to keep major transit projects on schedule and within budget during construction by exercising sound project and financial management. In particular, FTA must focus on the Lower Manhattan Recovery Projects in the coming year. These high priority projects (which are separate from the New Starts program) constitute a $4.55 billion Federal investment to reconstruct and enhance New York City's transportation infrastructure after the September 11, 2001, terrorist attacks.

The Lower Manhattan Recovery Projects have experienced significant challenges, including cost estimate increases of as much as $800 million on the Permanent Port Authority-Trans Hudson Terminal Project. These projects are also being constructed in a difficult environment with large escalations in material and fuel costs and contractor shortages. The initial goal was to keep the projects as close to 100 percent Federal funding as possible and within an overall cap, which now appears unlikely.

Consequently, local grantees will need to provide the remaining funding or reduce the scope of one or more of the projects, thereby potentially diminishing the benefits that the projects would provide to travelers in New York City. In the coming year, FTA must fully exercise its oversight authority and continue to work with grantees to minimize further estimated cost increases and schedule delays and address project management problems.

[9] Local financial commitment is a major criterion that FTA uses to determine which New Starts projects are ultimately approved for a full funding grant agreement and therefore able to begin construction.




Ensuring Continued Vigilance in Protecting Federally Funded Surface Transportation Projects From Fraud

To their credit, many senior Department leaders have taken seriously their responsibility to aggressively combat fraud, waste, abuse, and other irregularities. Specifically, during the past year, the FHWA and FTA Administrators have demonstrated support for our increased fraud awareness and education outreach efforts. Despite these efforts, continued vigilance at all levels of the Department will be needed to ensure that limited transportation funding is protected from fraud. During FY 2008, our highway- and transit-related contract and grant fraud investigations yielded 75 indictments, 45 convictions, nearly $500 million in monetary recoveries, and 28 suspensions or debarments. These investigations involved schemes such as bid rigging, price fixing, product substitution, bribery and kickbacks, conflicts of interest, false statements and false claims, labor and materials overbilling, and disadvantaged business enterprise fraud.

Near-Term Focus Area for the Transition to a New Administration

To help maximize Federal infrastructure investments, we believe the Department will need to provide vigilant oversight of the $4.55 billion Lower Manhattan Recovery Projects to minimize further estimated cost increases and schedule delays.

For further information regarding the issues identified in this chapter, please contact Joseph Comé, Assistant Inspector General for Highway and Transit Audits at (202)-366-5630. The following related reports and testimonies can also be found on the OIG website at http://www.oig.dot.gov.

- *Baseline Report on Major Project Monitoring of the Dulles Corridor Metrorail Project*
- *Report on the Central Artery/Tunnel Project May 2007 Finance Plan Update*
- *Initial Assessment of the Central Artery/Tunnel Project Stem to Stern Safety Review*
- *Audit of FTA's Oversight of Pioneer Valley Transit Authority Electric Bus Cooperative Agreement*
- *Lower Manhattan Reconstruction: Lessons Learned from Large Transportation Projects*
- *Baseline Report on the Lower Manhattan Recovery Projects*

5. Operating the National Airspace System While Developing and Transitioning to the Next Generation Air Transportation System

The Federal Aviation Administration (FAA) will face challenges in balancing the needs of the current National Airspace System, which is showing signs of strain, with future training, technological, and facility requirements. However, FAA does not have a long-term financing mechanism in place, and Congress has established stop-gap measures until agreement on funding aviation programs can be reached. How FAA is funded is clearly a policy call for Congress. The specific management challenges for the Department and FAA in the coming years include:

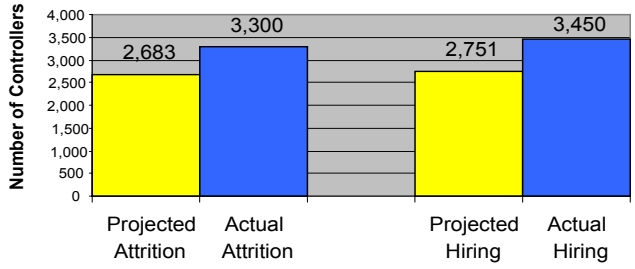
- hiring and training 17,000 new controllers through 2017,
- keeping existing projects on track and reducing risk with the Next Generation Air Transportation System (NextGen), and
- sustaining FAA's aging facilities.

Hiring and Training 17,000 New Controllers Through 2017

Over the next decade, FAA plans to hire and train nearly 17,000 controllers to replace those who were hired after the 1981 strike and are now retiring. Ensuring there are enough certified controllers at FAA's more than 300 air traffic control facilities will remain a significant watch item for the Department and Congress.

Since 2005, 3,300 controllers have left the workforce—23 percent more than FAA had projected. To keep pace, FAA accelerated its hiring efforts and has hired 3,450 new controllers—25 percent more than projected (see figure 5-1).

Figure 5-1. Controller Attrition and Hiring, Projected and Actual (FY 2005 – FY 2007)



With the surge in new hires over the last 4 years, FAA is facing a fundamental transformation in the composition of its controller workforce. While the overall size of the controller workforce remained relatively constant from April 2004[10] to June 2008, the number of controllers in training increased by nearly 68 percent and the number of fully certified professional controllers (CPC) decreased by nearly 12 percent. New controllers now represent 25 percent of the workforce (up from 15 percent in 2004). However, that percentage can vary extensively by

[10] We chose 2004 as a benchmark for comparison purposes since 2004 was the last year we audited this program and because 2004 was the year FAA first published its Controller Workforce Plan.

location—from as little as zero percent (e.g., Pittsburgh, PA, air traffic control tower) to as much as 67 percent (e.g., Rochester, MN, air traffic control tower).

A major challenge in addressing controller attrition will be training new controllers to the CPC level at their assigned locations. In June, we issued our second report on FAA's controller facility training program. FAA is taking actions at the national level to get this important program on track. For example, FAA is adding more training simulators at towers and increasing use of contractor training support—from 53 facilities in 2004 to 190 facilities in 2007. Many of FAA's efforts, however, are still in the early stages. We identified problems that we also reported in 2004—that the facility training program continues to be extremely decentralized and the efficiency and quality of the training varies from one location to another. FAA has agreed to take the following actions we recommended to improve this program:

- Establish realistic standards for how many developmental controllers facilities can accommodate.
- Continue to encourage veteran controllers to transfer to busier, higher-level facilities.
- Implement key initiatives it first proposed in 2004 to improve facility training.

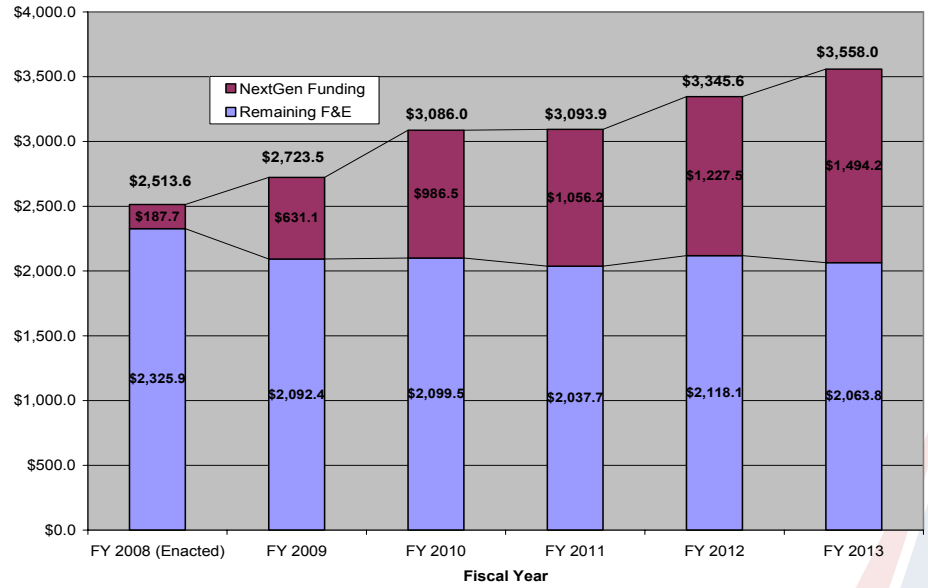
As attrition increases, FAA must also continue addressing controller human factor issues. Congress has expressed concerns regarding these issues since the influx of new controllers will need both technical and human factors (fatigue and attention) training. For example, at the request of Senator Durbin of Illinois, we are reviewing factors that could affect controller fatigue at the Chicago O'Hare Tower, Chicago Terminal Radar Approach Control, and Chicago Center.

At the request of Chairman Costello of the House Aviation Subcommittee, we are reviewing the rate and possible root causes of controller training failures (developmental controllers who fail training either at the FAA Academy or at their assigned facility). Our work on these requests is ongoing, and we plan to issue our final results early next year.

Keeping Existing Projects on Track and Reducing Risks With NextGen

FAA's capital account is now being shaped by NextGen—an enormously complex effort that will cost billions of dollars (see figure 5-2 below). FAA budget estimates show that the Agency will require $18 billion for capital efforts between fiscal year (FY) 2008 and FY 2013. This includes $5.6 billion specifically for NextGen initiatives, including demonstration projects and a satellite-based surveillance system called Automatic Dependent Surveillance-Broadcast (ADS-B).

Figure 5-2. FAA Capital Funding for FY 2008-FY 2013
(Totals in Millions)



Overall, we are not seeing the significant cost growth and schedule slips that occurred in the past with FAA's major modernization projects. This is because FAA has taken a more incremental approach to major acquisitions and has "re-baselined" a number of efforts. We recently examined progress with 18 programs valued at $17.5 billion. When comparing revised baselines, only 2 of the 18 projects we reviewed have experienced additional cost growth ($53 million) and delays (5 years). However, since inception, six of these programs have experienced cost growth close to $4.7 billion and delays of up to 12 years.

It will be important to keep existing projects on track because about 30 projects serve as platforms for NextGen initiatives. For example, core NextGen capabilities such as data link rely on enhancements to the $2.1 billion En Route Automation Modernization (ERAM) program, which provides new hardware and software for facilities that manage high-altitude traffic. Currently, the ERAM effort is on schedule; its software requirements related to NextGen are uncertain but are expected to be in the billions of dollars.

A key challenge for the Department and FAA is reducing risk with the implementation of ADS-B—a centerpiece of the NextGen portfolio. In August 2007, FAA awarded a service-based contract worth $1.8 billion for ADS-B ground infrastructure. FAA plans to implement "ADS-B Out" in the 2020 timeframe, which will require aircraft to broadcast their position to ground stations. However, the majority of capacity- and safety-related benefits are associated with




"ADS-B In," which will display information to pilots in the cockpit. ADS-B implementation faces several risks, including gaining stakeholder acceptance and aircraft equipage, addressing broadcast frequency congestion concerns, integrating with existing systems, and assessing potential security vulnerabilities in managing air traffic. Much work remains to refine cost, requirements, and expected benefits of NextGen initiatives. We have identified areas requiring sustained management attention from FAA and made the following recommendations to help the Agency reduce risk with NextGen:

- Conduct a gap analysis between the existing National Airspace System and the expected NextGen capabilities to determine funding priorities and the full range of adjustments necessary for existing capital programs until the transition to NextGen.
- Develop a mid-point architecture (a technical road map) in the 2015 timeframe that provides a way-point between the current system and NextGen.
- Assess and obtain the necessary skills with respect to contract management and systems engineering needed to manage and execute NextGen.
- Establish metrics for assessing progress with NextGen that focus on enhancing capacity, boosting productivity, and reducing operating costs.

Sustaining FAA's Extensive Network of Aging Facilities

FAA has full or partial responsibility for 420 staffed air traffic control facilities. Many FAA air traffic control facilities have exceeded their useful lives, and their physical condition continues to deteriorate. While the average facility has an expected useful life of approximately 25 to 30 years, 59 percent of FAA facilities are over 30 years old.

However, FAA still does not have adequate controls in place to ensure that the Agency's routine facility maintenance needs are sufficiently funded. Although FAA has a structured process for estimating its funding requirements for its capital account (used to fund facility replacements and large improvement projects), the same process does not exist for the Agency's operations account (used to fund recurring facility maintenance). As result, FAA currently has a backlog of over $240 million in deferred maintenance.

More importantly, FAA's newly developed processes for its capital maintenance needs are only short-term solutions that focus on sustaining the existing air traffic control infrastructure. This is because FAA has not made key decisions regarding facility consolidations and infrastructure needs—a key aspect of the transition to NextGen.

FAA requested $17 million for FY 2009 to examine various alternatives for revamping its facilities. The re-alignment or consolidation of FAA facilities is a controversial issue and a key cost driver for NextGen. Therefore, FAA must ensure that this analysis clearly addresses the technological and security prerequisites, cost drivers, benefits, and logistical concerns associated with consolidation so decision makers in Congress and the Administration will know what can reasonably be accomplished.

Near-Term Focus Areas for the Transition to a New Administration

The Department and FAA are at a crossroads with maintaining and modernizing the National Airspace System, and FAA must focus on the following efforts:

- Implementing improvements to controller training programs, including establishing realistic standards for how many developmental controllers facilities can accommodate and offering incentives to encourage veteran controllers to transfer to busier, higher-level facilities.
- Conducting a gap analysis between the existing National Airspace System and the vastly different Next Generation Air Transportation System and developing a mid-point architecture that provides a way-point between the current and NextGen systems in the 2025 timeframe.

For further information regarding the issues identified in this chapter, please contact Lou Dixon, Assistant Inspector General for Aviation and Special Programs, at (202)-366-0500. The following related reports and testimonies can also be found on the OIG website at http://www.oig.dot.gov.

- *Challenges Facing the Implementation of FAA's Automatic Dependent Surveillance - Broadcast Program*
- *Air Traffic Control Modernization: FAA Faces Challenges in Managing Ongoing Projects, Sustaining Existing Facilities, and Introducing New Capabilities*
- *Status of FAA's Efforts To Develop the Next Generation Air Transportation System*
- *Review of the Air Traffic Controller Facility Training Program*
- *Key Issues Facing the Federal Aviation Administration's Controller Workforce*
- *FAA's Fiscal Year 2009 Budget Request: Key Issues Facing the Agency*

6. Protecting Against Increasing Cyber Security Risks and Enhancing the Protection of Personally Identifiable Information

Like most Government agencies, the Department must address increased threats of sophisticated and organized attacks on departmental networks and computers. The Department must also continue to enhance security for critical national infrastructure, such as air traffic control systems. In addition, the Department continues to face challenges in protecting personally identifiable information entrusted to it. To strengthen the protection of information technology (IT) resources in fiscal year (FY) 2009, the Department will need to focus management attention on:

- implementing a robust information security program to protect data and operations,
- enhancing security protection of the air traffic control system as a critical national infrastructure, and
- enhancing the protection of personally identifiable information in its systems.

Implementing a Robust Information Security Program To Protect the Department's Data and Operations

Although the Department established an information security program in FY 2001, it has failed to incorporate information security into its management culture. The Department continues to face significant challenges in FY 2009 as it seeks to protect its data and operations while combating increasing cyber threats:

- **Strengthening Chief Information Officer (CIO) Leadership To Establish and Oversee Implementation of Security Policies:** As required by the Federal Information Security Management Act of 2002,[11] the CIO is responsible for managing the Department's information security program, including developing, implementing, and enforcing security policies. However, this office was assigned the additional responsibility of operating and maintaining the consolidated IT infrastructure to support the Operating Administrations, which has diverted management attention and resources away from its policy responsibilities. For example, the Department no longer has a designated senior official responsible for managing the information security program because that senior official position has been reassigned to the operational area.

  Further, the Department identified 52 topics that require IT security policy, but the CIO office has issued final policy on only 11 of these (21 percent). The office now has a large backlog of draft security policy related to the remaining

[11] FISMA, Pub. L. 107-296 (Nov. 25, 2002), codified at 44 USC § 3541.

41 topics. In addition, the CIO office has made little progress in enforcing the Operating Administrations' implementation of standard software configuration as required by governmental standards. As a result, the Department is behind most Federal agencies in configuring its computers to reduce vulnerabilities.

- **Increasing the Influence of the CIO:** Ineffective implementation of CIO office policies has been a longstanding problem within the Department. Unlike other Federal agencies, the Department's CIO does not have budget or performance evaluation authority over the Operating Administrations. Operating Administrations are likely to continue implementing departmental security policies ineffectively until management or budgetary consequences are clear. The Department needs to develop mechanisms to hold Operating Administration management more accountable for consistently implementing policy and security guidance.

- **Strengthening Cyber Incident Monitoring and Correction:** During FY 2008, the Department established a consolidated Cyber Security Management Center to monitor network activities in the Department and to coordinate incident reporting. The center has established a common framework to help detect cyber incidents and disseminate this information for coordinated action throughout the Department. This improved the visibility of Headquarters networks for security monitoring and better positioned the Department to combat increasing cyber security threats. However, the Department must provide full coverage of its networks for incident monitoring and ensure that incidents are reviewed and corrected in a timely manner. For example, as of June 30, 2008, there were 233 unresolved incidents, 77 of which (33 percent) had been open for more than 3 months.

Enhancing Security Protection of the Air Traffic Control System as a Critical National Infrastructure

Due to the important role of commercial aviation in fostering and sustaining the national economy and ensuring citizens' safety and mobility, the President designated air traffic control systems as part of the Nation's critical infrastructure in Homeland Security Presidential Directive (HSPD)-7. We have reported that the Department must protect air traffic control systems with a two-pronged approach to fulfill HSPD-7 requirements: preventing disruption wherever possible and minimizing disruptions when they do occur.

Implementing a business continuity plan (BCP) for en route services (which control high-altitude traffic and disseminate flight plan information to all other air traffic control facilities) and enhancing security reviews of air traffic control systems are key steps in this approach. In FY 2007 and FY 2008, the Federal Aviation Administration (FAA) made progress toward implementing a BCP for en

route services and expanded security evaluation of air traffic control systems. However, FAA's ability to handle long-term service disruptions according to the mandate of HSPD-7 remains unknown, and the methodology used to identify and test the security of air traffic control systems needs improvement.

- **Making En Route Business Continuity Capability Fully Functional:** FAA has designated a recovery site to take over the responsibilities of inoperable en route centers and has taken good steps toward preparing it, such as installing additional emergency power. FAA plans to have the recovery site ready for activation by March 2009. However, unresolved technical challenges, human integration issues, and funding uncertainty could delay the recovery site's readiness. In addition, FAA needs to assess the potential impact on air travel should it have to activate BCP operations. Mitigating the effects on the Nation's economic interests in the event that critical infrastructure is incapacitated is a key requirement of HSPD-7.

- **Improving the Methodology Used To Identify and Test the Security of Air Traffic Control Systems:** The security of the information systems that air traffic controllers rely upon is in doubt because the methodology used to identify and test system security control is inadequate. FAA's approach to certifying and accrediting these systems is to test system security controls in a laboratory environment and at selected operational sites based on risk.[12] However, there is no evidence that operational sites posing the greatest risk were the ones selected for review. Further, the review was ineffective because the review teams did not conduct independent testing; instead, they primarily relied on interviews with local system operators to determine whether security controls were implemented in operational air traffic control systems. FAA needs to enhance its reviews of operational sites and start with those that pose the greatest risk.

Enhancing the Protection of Personally Identifiable Information in DOT Systems

In recent years, the Department has made significant progress in addressing its statutory responsibility to protect personally identifiable information (PII). It has designated the CIO as Chief Privacy Officer; issued a privacy benchmark report to Congress; and established procedures for assessing the need for PII collection, use, and security. However, our tests of sampled PII systems identified the following deficiencies in how the Department implements prescribed procedures, placing these personal data at risk:

[12] FAA relies on more than 100 automated systems to direct and manage air traffic. These systems are deployed for use to hundreds of operational sites. For example, the Host Computer System is used to direct high-altitude traffic at all 20 en route centers.

- Although the departmental privacy office had evaluation documents for the 109 systems contained in its PII inventory, it could not provide completed evaluations to support that no PII is stored in the Department's other 320 systems.
- The privacy officers were unable to produce evidence that a System of Records Notice was issued for 9 of 20 sampled systems. As a result, there was no assurance that the public was properly notified of the intended use of the collected information.
- Some systems containing PII did not meet minimum security requirements, such as encrypting data during network transmission and using proper password controls to authenticate users.
- The Department has not issued policy to notify those affected by breaches of sensitive information, implemented its plan to reduce utilization of Social Security numbers, or developed policy to establish rules for handling PII, including the consequences of not following those rules.

In our opinion, the reporting structure for the Chief Privacy Officer is contributing to these deficiencies. Specifically, the Chief Privacy Officer does not report directly to the CIO but to the Chief Information Security Officer. Experts in the field note that the placement of privacy officials can greatly affect their roles—which, they say, require direct access to top management. Departmental management has agreed to reevaluate the reporting structure in FY 2009.

Near-Term Focus Areas for the Transition to a New Administration

Overall, the Department must strive to implement a mature and effective information security program and make it an integral part of the way it conducts business. In the near term, the Department needs to focus on the following issues:

- Addressing the role and authority of the Department's CIO to ensure timely issuance of information security policy and its enforcement across all Operating Administrations.
- Increasing privacy protection of PII stored on Departmental systems.

For further information regarding the issues identified in this chapter, please contact Rebecca Leng, Assistant Inspector General for Financial and Information Technology Audits at (202)-366-1496. The following related reports can also be found on the OIG website at http://www.oig.dot.gov.

- *DOT Information Security Program*
- *DOT Delphi Financial System Controls*
- *Review of DOT Privacy Policies and Procedures*
- *Audit of Security and Controls Over the National Driver Register*

7. Preventing Catastrophic Failures and Obsolescence in the Nation's Aging Surface Transportation Infrastructure

Fatal infrastructure failures in 2006 and 2007 have focused attention on obsolescence in the Nation's aging surface transportation infrastructure and the need to strengthen oversight. The Department must work with states and localities to ensure the safety of our bridges and restore or replace those that present the highest risk of catastrophic failure. This task will be challenging because, according to the American Association of State Highway and Transportation Officials, the average bridge in the United States is 43 years old, and almost one in four bridges is either structurally deficient and in need of repair or functionally obsolete and too narrow for today's traffic volumes.[13] To its credit, the Department has taken action. For example, the Federal Highway Administration (FHWA) has agreed to transition to data-driven, risk-based bridge oversight to target those bridges most in need of increased attention. This year, the Department must focus management attention on two key challenges:

- FHWA must strengthen its efforts to ensure safety for bridges and tunnels and hold states accountable for Federal funds.
- The Federal Transit Administration (FTA) must work with state and local transit agencies to identify ways to repair, rehabilitate, or replace aging transit systems.

Strengthening Efforts To Ensure Safety for Bridges and Tunnels and Hold States Accountable for Federal Funds

Recent fatal infrastructure failures underscore the significance of bridge and tunnel safety as major challenges. In 2006, ceiling panels collapsed in a tunnel in Boston's Central Artery/Tunnel Project, killing a motorist. In 2007, the catastrophic failure of the I-35W Bridge in Minneapolis killed 13 people. These tragic incidents brought renewed national attention to the safety of our bridges and tunnels. Shortly after each of these tragedies, we initiated audits to assess whether FHWA is exercising adequate oversight to help ensure public safety. FHWA must strengthen its oversight approach so that it proactively identifies safety risks, which presents an enormous oversight challenge. Specifically, of the nearly 600,000 bridges across the country, approximately 72,500 are structurally deficient.[14] Further, bridges that are classified as structurally deficient can have an array of significant problems (see figure 7-1 below).

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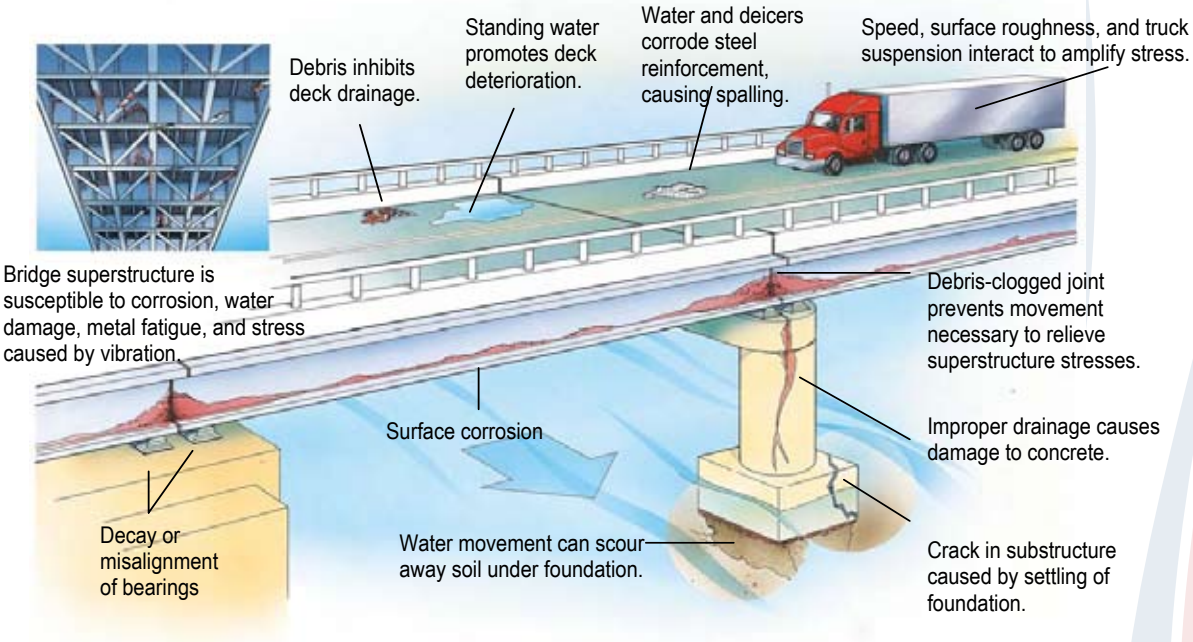
[13] American Association of State Highway and Transportation Officials, "Bridging the Gap: Restoring and Rebuilding the Nation's Bridges," July 28, 2008.

[14] The term "structurally deficient" refers to bridges with major deterioration, cracks, or other deficiencies in their structural components, including decks, girders, or foundations. In some cases, structurally deficient bridges require repair or even closure. However, most bridges classified as structurally deficient can serve traffic safely if they are properly inspected; if maximum load ratings are properly calculated; and, when necessary, the proper maximum weight limits are posted.

Figure 7-1. How Bridges Become Structurally Deficient



Source: Illustration by Jana Brenning. Copyright Jana Brenning. Reprinted with permission. Illustration first appeared in Scientific American, March 1993.

To strengthen bridge safety oversight, FHWA needs to take action in three key areas:

FHWA must implement a data-driven, risk-based approach to overseeing the safety of the Nation's bridges. A major challenge for FHWA is to make sustained progress toward implementing a data-driven, risk-based approach to overseeing the Nation's bridges. Based on our past and ongoing work on bridge issues, FHWA must pursue the following efforts in this area:

- *Assess bridge safety risks systematically across the country.* FHWA's oversight does not include systematic, data-driven oversight to comprehensively address nationwide bridge safety risks.[15] FHWA Division Offices in each state conduct annual compliance reviews of bridges, but FHWA Headquarters does not routinely analyze results to identify nationwide bridge safety risks, prioritize them, and address higher priority risks.

[15] The National Bridge Inventory, maintained by FHWA, comprises data on bridges on the National Highway System, as well as bridges maintained and operated by various state and local entities.

- *Encourage greater use of bridge management systems.* FHWA agreed to support states' use of computerized bridge management systems by conducting studies and providing technical assistance and training. However, FHWA must be more proactive in encouraging states to use these systems and helping those states most in need of technical assistance so they can implement effective bridge management systems.

FHWA must improve accountability for Federal bridge funds. The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users[16] authorized $21.6 billion for the Highway Bridge Program through 2009 to fund bridge replacement, rehabilitation, and systematic preventive maintenance. FHWA must ensure that this significant investment in addressing bridge needs is put to the best possible use by enhancing its ability to track states' use of these funds. We have reported that FHWA is unable to determine how much of the funding provided to states is actually spent on structurally deficient bridges because its financial management system does not differentiate between spending on structurally deficient bridges and other bridge-related expenditures. It is imperative that FHWA better measure how states are spending Federal bridge funds so it can assess the impact of Federal dollars on bridge conditions and help Congress consider what changes, if any, it wants to make to the Highway Bridge Program.

FHWA needs to establish a national tunnel inspection program. While the National Bridge Inspection Program has existed for decades, FHWA currently lacks a highway tunnel inspection program. In recent years, serious failures in construction quality on the troubled Central Artery/Tunnel Project highlighted the need for FHWA to enhance the safety of the Nation's tunnels. Accordingly, FHWA should implement a system to hold states accountable for inspecting and reporting on tunnel conditions. To its credit, FHWA has taken initial steps to do this. FHWA officials recently informed us that they plan to issue an advance notice of proposed rulemaking this fall to seek input on the development of national tunnel inspection standards. As we reported in our last two top management challenges reports to the Department, it is critical that FHWA implement this initiative as soon as possible.

Repairing, Rehabilitating, or Modernizing Aging Transit Systems

The Nation's largest transit systems are becoming increasingly obsolete as demand for public transportation is increasing.[17] Many of our transit systems are concentrated in large urban areas and are very old and in need of substantial

[16] Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Pub. L. No. 109-59 (2005). This law expires September 30, 2009.

[17] According to the American Public Transportation Association, Americans took almost 88 million more trips on public transportation during the first 3 months of 2008 over the same period in 2007.

upgrades or repairs.[18] FTA must work with state and local transit agencies to identify ways to repair, rehabilitate, or replace their infrastructure to meet current demand, keep up with projected ridership, and prevent any catastrophic failures caused by aging or obsolete infrastructure.

Problems with maintaining the Nation's major mass transit systems will force tough decisions during the next surface transportation authorization. These include deciding the overall level of transit funding in relation to highways and determining whether to emphasize new transit expansions in growing cities or focus more resources on supporting the rehabilitation of older, existing transit systems.

Near-Term Focus Areas for the Transition to a New Administration

Addressing the Nation's aging surface transportation will require sustained attention in both the short and long term. While long-term strategies are being developed, the Department needs to focus on the following areas in the near term:

- Advance a data-driven, risk-based approach to overseeing state bridge programs and measuring the impact of Federal funding on improving the safety of the Nation's bridges.
- Follow through on plans to establish a national tunnel inspection program.

For further information regarding the issues identified in this chapter, please contact Joseph Comé, Assistant Inspector General for Highway and Transit Audits at (202)-366-5630. The following related reports and testimonies can also be found on the OIG website at http://www.oig.dot.gov.

- *Federal Highway Administration's Oversight of Structurally Deficient Bridges*
- *FHWA Can Do More in the Short Term To Improve Oversight of Structurally Deficient Bridges*
- *Report on the Central Artery/Tunnel Project May 2007 Finance Plan Update*
- *Initial Assessment of the Central Artery/Tunnel Project Stem to Stern Safety Review*
- *Audit of Oversight of Load Ratings and Postings on Structurally Deficient Bridges on the National Highway System*
- *DOT's FY 2008 Top Management Challenges*
- *DOT's FY 2007 Top Management Challenges*

[18] Approximately 70 percent of all transit trips in the United States are concentrated in 10 cities: Baltimore; Boston; Chicago; Houston; Los Angeles; New York; Philadelphia; San Francisco; Seattle; and Washington, D.C.




8. Improving Contract Operations and Maintaining Procurement Integrity

The Department spends approximately $6.8 billion annually, or about 40 percent of its discretionary budget, on contracts to obtain goods and services. Our audits and investigations continue to find oversight and control weaknesses, fraud and abuse, and other ethics issues involving Department officials and contractors. The Department has made progress this year in managing its acquisition workforce by enhancing an annual ethics training program for acquisition and grants management personnel. However, to further enhance its acquisition and contract management oversight, the Department must focus on the following areas:

- Developing and maintaining a competent acquisition workforce to support the Department's mission.
- Improving award-fee contracting processes to better achieve acquisition objectives.
- Ensuring that suspended or debarred contractors do not obtain Government contracts or assistance agreements.
- Ensuring the acquisition workforce maintains high ethical standards.

Developing and Maintaining a Competent Acquisition Workforce To Support the Department's Mission

The Office of Management and Budget required Federal agencies to develop a human capital strategic plan for its acquisition workforce. In September 2007, the Department completed a strategic plan that addressed only part of its acquisition workforce—contract officers and contract specialists. Although the strategic plan included a skills assessment of these positions and a general discussion on retention and hiring strategies, it did not include essential workforce statistics such as retirement and attrition information, accession planning, and identification of long- and short-term needs.

Additionally, the Department continues to face challenges in developing a strategic plan for the rest of its acquisition workforce. Department officials stated they are having difficulty determining the total number of other key acquisition workforce positions, such as contracting officer technical representatives and program managers. This is because the Department lacks key information on these positions, including workforce size, knowledge and skills, attrition rates, and retirement rates. Without these critical data, the Department is unable to identify employment trends and assess the current condition of the workforce to determine the ideal composition, skill mix, and talent for its future.

Improving Award-Fee Contracting Processes To Better Achieve Acquisition Objectives

Award-fee contracts are used to motivate contractors to place emphasis on certain areas within the contract—such as cost, schedule, and performance. As of June 30, 2008, the Department had 47 ongoing cost-plus-award-fee contracts with a potential value of approximately $5.5 billion, including about $271.4 million in award fees. The Department faces significant challenges in designing and justifying the use of such contracts and must provide guidance and training to its acquisition workforce to improve the use of these contracts. As part of our ongoing, Department-wide audit of cost-plus-award-fee contracts, we issued four interim reports that addressed problems in designing and justifying these contracts.

To illustrate, the National Airspace System Implementation Support II contract is valued at approximately $234 million with approximately $18.2 million in award fees. Yet, the Federal Aviation Administration's (FAA) performance evaluation plan[19] did not include clear and measurable award-fee criteria needed to adequately evaluate contractor performance.

In another example, Volpe awarded a contract for information systems and information technology support services for approximately $178 million and established an award-fee pool of approximately $8.9 million. We found that the descriptions defining adjectival ratings (used to compute the amount of award fee), such as excellent or satisfactory performance, were vague and inconsistent and did not clearly define the basis for assigning such a rating. Evaluation criteria that do not include clearly defined metrics or specific adjectival ratings could result in inflated contractor performance evaluations and, consequently, inappropriately approved award fees. In response to these reports, the Department has agreed to take action to improve these contracts.

We also found that Department procurement offices did not justify the cost effectiveness of selecting cost-plus-award-fee-type contracts, which may not always be the appropriate choice. Through an evaluation of the administrative costs versus the expected benefits, the contracting officer should be able to assess whether the benefits the Government gains through a cost-plus-award-fee contract will outweigh the additional costs of overseeing and administering the contract.

For example, in response to our report on the National Airway Systems support services contract, valued at approximately $316 million, FAA agreed to modify the contract to a cost-plus-fixed-fee type because the cost and time required to oversee, monitor, and document the award-fee process outweighed the benefits to administer the contract.

[19] The performance evaluation plan is the basis for determining the amount of award fee and includes the award-fee criteria to be considered under each area evaluated; the percentage of award fee, if any, available for each area; and the frequency of evaluation periods.




Ensuring That Suspended or Debarred Contractors Do Not Obtain Government Contracts or Assistance Agreements

Federal regulations prohibit firms and individuals without satisfactory records of integrity and business ethics from receiving contracts and assistance agreements. The Department revised its policy in June 2005, in part, to improve timely decision making of suspension and debarment actions. However, our ongoing audit work shows that the Department needs to improve the policy—and its implementation—to ensure timelier processing and reporting of suspension and debarment actions.

For example, Operating Administrations do not consistently take suspension and debarment actions in a timely manner, even though the new order requires such actions be taken within 45 days. Twenty-five of the 45 (56 percent) actions we reviewed were not processed within 45 days. For 19 of these actions, the Operating Administrations took from 10 days to more than 2 ½ years over the 45-day standard to render final decisions. The remaining six debarment actions are still awaiting a decision from the debarring officials, which currently takes from 165 to 945 days.

Federal and Departmental regulations require the Department to enter suspension and debarment actions into the Excluded Parties Listing System[20] within 5 working days of the decision. We sampled 132 actions and found that the Department did not adhere to its policy for 63 (48 percent) of those actions—13 of which took more than 100 days to be entered.

Ensuring the Greater Acquisition Workforce Maintains High Ethical Standards

Last year, we reported that the Department needed to develop and maintain a robust ethics program to promote integrity across the myriad of transportation programs. To its credit, the Department instituted an enhanced annual ethics training program earlier this year for all acquisition and grants management personnel across the Department.

This year presents a two-fold ethics challenge for the Department and its Operating Administrations. First, they must follow through to fully implement this important annual training requirement. Secondly, the Department and Operating Administrations need to increase outreach to recipients of Department funding to ensure that they and their contractors have meaningful ethics programs and sound internal controls to prevent and detect fraud involving Department funding.

[20] A web-based system maintained by the General Services Administration contains firms or individuals excluded from Federal contracts or other Federal funding such as grants.

Overall, our investigations have consistently demonstrated the need for continual reinforcement of ethical standards—with Department employees and funding recipients and their contractors—to prevent integrity breaches in the Department's extensive contract, grant, and cooperative agreement programs. This is illustrated in the following examples:

- Two FAA acquisition officials in a regional office released confidential bid information to a foreign-owned firm, enabling the company to win a $4.3 million airport construction contract. Both officials pled guilty to felony Procurement Integrity Act violations and are no longer employed by FAA. The firm was fined $1 million and also paid $750,000 in restitution to a company victimized by the scheme.
- An Ohio Department of Transportation bridge inspector accepted bribes from a painting contractor to overlook false certifications regarding the quality and quantity of work the company performed on bridge contracts valued at nearly $8 million. The inspector resigned from state employment and pled guilty to violating the Federal highway projects fraud statute (a felony). The inspector was later fined and sentenced to probation.

Near-Term Focus Area for the Transition to a New Administration

Safeguarding Federal contract dollars for transportation is critical in the uncertain financial environment. At this juncture, the Department needs to complete the strategic plan for the acquisition workforce to ensure it has the right skill mix to oversee multimillion-dollar contracts.

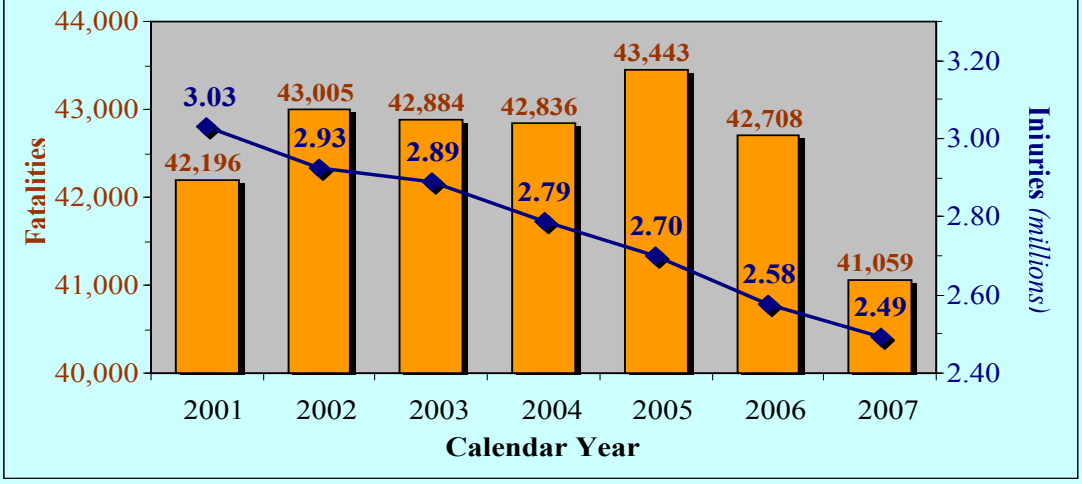
For further information regarding the issues identified in this chapter, please contact Mark Zabarsky, Assistant Inspector General for Acquisition and Procurement Audits at (202)-366-5225. The following related reports and testimonies can also be found on the OIG website at http://www.oig.dot.gov.

- *Interim Report on Award-Fee Criteria for the National Airspace System Implementation Support II Contract and Bridge Contract*
- *Interim Report on Award-Fee Criteria for the National Airway Systems Contract*
- *Interim Report on Award-Fee Criteria for the Transportation Information Project Support Contract*
- *Interim Report on Award-Fee Criteria for the System Engineering and Technical Assistance II Contract*

9. Enhancing and Deploying Programs for Reducing the Serious Consequences of Surface Transportation Crashes

Surface transportation fatalities and injuries[21] create significant public health and economic consequences. Motor vehicle traffic crashes cause more than 40,000 deaths and 2 million injuries annually in the United States (see figure 9-1) and are among the 10 leading causes of deaths in the United States. Total economic costs, including medical care, property damage, and lost productivity surpassed $230 billion in 2000—equal to more than 2 percent of the United States gross domestic product that year.[22]

Figure 9-1. U.S. Highway Fatalities and Injuries, 2001 through 2007



Source: Data from the National Highway Traffic Safety Administration

Department safety improvement programs, such as Federal motor vehicle safety standards for new cars, have contributed to major improvements in surface safety. The fatality rate in 2007 reached a historic low of 1.37 deaths per 100 million vehicle miles traveled, and the injury rate also fell. The preliminary estimate of injuries in 2007 was, for the first time, below 2.5 million, representing a decline for the eighth consecutive year and a 3.3-percent decline compared to 2006. However, the fatality rate will need to drop to 1.0 by 2011 to meet the Department's stated goal. For fiscal year 2009, the Department requested nearly $11 billion for surface safety improvement programs, 16 percent of its total budget request.

[21] Fatalities and injuries associated with passenger cars and trucks, motorcycles, school buses, commercial vehicles (i.e., trucks, trailers, buses, and motor coaches), highway-railroad crossings, and trains.

[22] Latest calculation available, NHTSA, *The Economic Impact of Motor Vehicle Crashes, 2000*, DOT HS 809 446, May 2002.

A substantial challenge for the Department is further reducing the number and rate of surface transportation fatalities. Accomplishing this is especially difficult since the Department does not directly control some of the most effective tools. States and localities have jurisdiction for critical safety activities, such as enacting and enforcing laws for seat belt and helmet usage, alcohol-impaired driving, vehicle inspection, and speed limits.

To successfully meet this challenge, the Department must establish clear Federal standards, provide analytical and empirical evidence about safety program performance, and disseminate information effectively. The Department must also demonstrate strong leadership by coordinating state and local efforts across the country and working with private sector partners, such as motor carriers, rail carriers, and motor vehicle manufacturers. Our recent work demonstrates that the Department can better meet this challenge by enhancing and deploying the following proven safety improvements:

- Promoting consistent state highway safety performance indicators to measure progress.
- Targeting unsafe motor carriers and commercial motor vehicle drivers for enforcement.
- Enhancing the Commercial Driver's License program by enforcing existing standards and adopting new standards.
- Identifying high-risk highway-rail grade crossings for safety improvements to further reduce collisions and fatalities.

Promoting Consistent State Highway Safety Performance Indicators To Measure Progress

The National Highway Traffic Safety Administration (NHTSA) is the lead Federal agency for establishing motor vehicle safety standards and reducing highway fatalities and injuries caused by driver and passenger behaviors. Each year, NHTSA distributes about $600 million in Federal formula and incentive grants for state and local programs, such as those promoting seat belt usage and reducing alcohol-impaired driving. In 2007, more than half of all vehicle fatalities were associated with not using a seatbelt, and about one-third of all crash fatalities were alcohol-related. NHTSA must balance its safety law promotion and Federal oversight responsibilities with the need for Federal, state, local, and private sector partnerships to implement safety programs.

Our audit work has shown that NHTSA can improve its ability to measure the effectiveness of Federal resources and state strategies by requiring states to use more meaningful performance indicators linked to proven strategies such as year-round sustained enforcement of alcohol-impaired driving laws. Performance




indicators would also provide states with better tools to judge their progress, allow NHTSA to compare success among states, and enhance public accountability.

Responding to our audit work, NHTSA and the Governors Highway Safety Association agreed on a minimum set of 14 performance measures for states to use for measuring their performance in priority program areas. NHTSA committed to work with the states to develop uniform definitions, protocols, and reporting requirements for each measure, especially those measures for which states do not presently collect data. NHTSA must ensure that states establish measurable goals and report progress for the measures, beginning with their fiscal year 2010 highway safety plans and annual reports.

Targeting Unsafe Motor Carriers and Commercial Motor Vehicle Drivers for Enforcement

The Federal Motor Carrier Safety Administration (FMCSA) is the lead agency for establishing and enforcing motor carrier and commercial motor vehicle driver safety requirements and standards. An ongoing challenge for FMCSA is to ensure that motor carriers and drivers operate safely on the Nation's highways. In 2007, large truck crashes killed about 4,800 people—a 4-percent reduction compared to 2006—and the fatality rate was 2.12 per 100 million vehicle miles traveled, down from 4.12 in 1988.[23] However, the most recent rate is almost 50 percent higher than the overall traffic fatality rate. Like NHTSA, however, FMCSA does not directly implement some critical safety activities but relies on state, local, and private sector partners.

FMCSA can reduce the number of large truck crash fatalities by taking stringent enforcement actions against carriers that repeatedly violate safety regulations. Our audit work found that hundreds of motor carriers repeatedly violated the safety regulations without incurring the maximum fines required by statute. Motor carriers are less likely to improve their safety performances and more likely to view fines as a cost of doing business if repeat violators are not assessed maximum fines.

In response to our audit recommendations, FMCSA agreed to enhance its controls to assess maximum fines for patterns of dangerous violations and began developing procedures to identify and notify such carriers. FMCSA initially told us it would revise its policy by May 2007, but it then delayed it to incorporate the Government Accountability Office's similar recommendations made in August 2007. FMCSA now plans to issue the revised policy by December 31, 2008. FMCSA must take action to follow through on this important commitment.

[23] Based on 2006 data, the latest available.

However, enforcement actions alone will not ensure compliance with Federal safety regulations because some individuals avoid sanctions by creating new motor carrier identities. A recent fatal crash illustrates how a carrier can circumvent an enforcement action. On June 23, 2008, FMCSA ordered a tour bus company out of service for several safety violations. On June 26, 2008, a new company with the same owners and address as the out-of-service company applied to the Department for operating authority.

On August 8, 2008—before the Department authorized the company to operate—a bus operating under the new company name crashed in Sherman, Texas, killing 17 passengers and injuring 36 others. FMCSA must improve its processes for identifying individuals who create new carrier identities after enforcement actions and prevent these "chameleon carriers" from operating on the Nation's highways.

Finally, as more foreign-owned commercial vehicles operate in the United States, FMCSA needs to ensure that Mexico-domiciled carriers, their trucks, and their drivers comply with all U.S. safety regulations. FMCSA is conducting a highly scrutinized demonstration project to evaluate the safety performance of Mexico-domiciled motor carriers that are granted long-haul authority to operate throughout the United States.

On August 4, 2008, the Department announced a 2-year extension of the demonstration project. FMCSA must work with U.S. Customs and Border Protection to implement effective quality controls to check every participating Mexico-domiciled truck and driver. FMCSA must also ensure that participation levels in the project are sufficient to provide meaningful results and take effective enforcement action against participants that violate safety laws and regulations.

Enhancing the Commercial Driver's License Program by Enforcing Existing Standards and Adopting New Standards

FMCSA must enhance the Commercial Driver's License (CDL) program by rigorously enforcing existing standards in cooperation with state and local law enforcement agencies and an industry facing record-high fuel prices and decreasing demand. Enacted in 1986 and required since 1992, the CDL program's purpose is to improve highway safety by ensuring that drivers of large trucks and buses are qualified to operate those vehicles and to remove unsafe and unqualified drivers from the highways.

Although FMCSA has improved the CDL program, it must continue rigorous enforcement of existing CDL standards. In the past 5 years, our investigations, conducted with other law enforcement agencies and FMCSA, led to the prosecution of CDL fraud schemes in 15 states. These investigations exposed schemes involving the fraudulent issuance of CDLs to individuals who obtained them through corrupt means, such as bribery of state examiners and state-

sponsored, third-party testers. As of August 2008, these investigations had generated 137 indictments and 106 convictions.

In addition to enforcing existing standards, FMCSA must strengthen the CDL program by adopting and implementing new standards. After years of discussion, FMCSA has proposed new, stronger CDL standards that will reduce the possibility that unqualified individuals can obtain CDLs. FMCSA will have to work with states to ensure sustained cooperation in implementing these new standards, because some changes may need additional state resources.

FMCSA must also work to modernize the Commercial Driver's License Information System (CDLIS), which holds records for more than 13 million drivers.[24] CDLIS is the key system for ensuring that CDL drivers cannot escape a poor driving record by moving to another state. We recommended improvements for using the income derived from the system, but FMCSA will need to require new financial reports and review the results to ensure successful implementation.

Identifying High-Risk Highway-Rail Grade Crossings for Safety Improvements To Further Reduce Collisions and Fatalities

Over the last 5 years, collisions and fatalities at highway-rail grade crossings (grade crossings) have declined. From 2003 through 2007, grade crossing collisions decreased from 3,077 to 2,749 (11 percent) and fatalities decreased from 357 to 338 (5 percent). During this period, the Federal Railroad Administration (FRA) took several actions to strengthen its Highway-Rail Grade Crossing Safety Program. For example, FRA worked with several states to develop state-specific safety action plans with initiatives for reducing collisions and fatalities. FRA also implemented procedures to improve the completeness of its grade crossing collision reporting system by conducting periodic reviews of railroads' grade crossing collision reports.

FRA can do more to further reduce grade crossing collisions and fatalities by effectively implementing the safety mandates in the Rail Safety Improvement Act of 2008,[25] which was signed by the President on October 16, 2008. This law gives FRA the authority to establish mandatory state and railroad reporting of national grade crossing inventory data that would better assist the Department in identifying high-risk dangerous grade crossings and developing risk mitigation strategies. The law also directs FRA to develop and make available to states model legislation to address sight obstructions at grade crossings with passive warning signs to improve motorists' ability to see approaching trains.

[24] As of February 2008.
[25] H.R. 2095 (2008).

Near-Term Focus Area for the Transition to a New Administration

The safety of travelers is the Department's overarching goal and number one priority. There has been progress, but additional efforts are needed to complete long-overdue revisions of policies governing repeat violators of the motor carrier safety regulations and adopt new CDL standards.

For further information regarding the issues identified in this chapter, please contact Joseph Comé, Assistant Inspector General for Highway and Transit Audits at (202)-366-5630. The following related reports and testimonies can also be found on the OIG website at http://www.oig.dot.gov.

- *Best Practices for Improving Oversight of State Highway Safety Programs*
- *Effectiveness of Federal Drunk Driving Programs*
- *Audit of the National Highway Traffic Safety Administration's Alcohol-Impaired Driving Traffic Safety Program*
- *Cross-Border Trucking Demonstration Project*
- *Interim Report on NAFTA Cross-Border Trucking Demonstration Project*
- *Issues Pertaining to the Proposed NAFTA Cross-Border Trucking Demonstration Project*
- *Follow-Up Audit of the Implementation of the North American Free Trade Agreement's (NAFTA) Cross-Border Trucking Provisions*
- *Motor Carrier Safety: Oversight of High Risk Trucking Companies*
- *Status of Safety Requirements for Cross-Border Trucking with Mexico Under NAFTA*
- *Significant Improvements in Motor Carrier Safety Program Since 1999 Act, But Loopholes for Repeat Violators Needs Closing*
- *Oversight of the Commercial Driver's License Program*
- *The Federal Railroad Administration Can Improve Highway-Railroad Grade Crossing Safety by Ensuring Compliance with Accident Reporting Requirements and Addressing Sight Obstructions*

EXHIBIT. COMPARISON OF FY 2009 AND FY 2008 TOP MANAGEMENT CHALLENGES

Items in FY 2009 Report	Items in FY 2008 Report
• Enhancing Aviation Safety and Maintaining Confidence in FAA's Ability To Provide Effective Oversight of a Rapidly Changing Industry	• Continuing To Make a Safe Aviation System Safer
• Enhancing Mobility and Reducing Congestion in America's Transportation System	• Reducing Congestion in America's Transportation System • Reforming Intercity Passenger Rail
• Developing a Plan to Address Projected Highway and Transit Funding Shortfalls	• Developing a Plan To Address the Highway and Transit Funding Issues in the Next Reauthorization
• Maximizing the Return on Current Highway and Transit Infrastructure Investments	• Continuing To Enhance Oversight To Ensure the Safety of an Aging Surface Transportation Infrastructure and To Maximize the Return on Investments in Highway and Transit Infrastructure Projects
• Operating the National Airspace System While Developing and Transitioning to the Next Generation Air Transportation System	• Addressing Long- and Short-Term Challenges for Operating, Maintaining, and Modernizing the National Airspace System
• Protecting Against Increasing Cyber Security Risks and Enhancing the Protection of Personally Identifiable Information	• Strengthening the Protection of Information Technology Resources, Including the Critical Air Traffic Control System
• Preventing Catastrophic Failures and Obsolescence in the Nation's Aging Surface Transportation Infrastructure	• Continuing To Enhance Oversight to Ensure the Safety of an Aging Surface Transportation Infrastructure and To Maximize the Return on Investments in Highway and Transit Infrastructure Projects
• Improving Contract Operations and Maintaining Procurement Integrity	• Managing Acquisition and Contract Operations More Effectively To Obtain Quality Goods and Services at Reasonable Prices
• Enhancing and Deploying Programs for Reducing the Serious Consequences of Surface Transportation Crashes	• Improving Oversight and Strengthening Enforcement of Surface Safety Programs

Exhibit. Comparison of FY 2009 and FY 2008 Top Management Challenges

APPENDIX. DEPARTMENT RESPONSE

Memorandum

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

Subject: **ACTION**: Departmental Comments on the OIG Draft Report – Top Management Challenges, Department of Transportation

Date: November 6, 2008

From: Phyllis F. Scheinberg
Assistant Secretary for Budget and Programs/Chief Financial Officer

To: Calvin L. Scovel III
Inspector General

The Office of Inspector General's Top Management Challenges identifies many of the key challenges facing the Nation's transportation systems. The United States is privileged to have a first-class transportation system in terms of both connectivity and safety. However, the Department of Transportation (DOT) now faces enormous challenges that require new and effective solutions. Many of the challenges facing the DOT, such as aging infrastructure, resource availability and funding sustainability, and increasing cyber security risks, are not unique to the DOT. We would like to offer additional perspectives on the challenges we face in the following areas: 1) safety; 2) aviation congestion; 3) market-based, data-driven, performance-oriented solutions; 4) reform of surface transportation programs; 5) financial management; 6) cash shortfall management; and 7) procurement.

Progress Achieved Improving Safety

Safety is the Department's number one priority and our progress in this area is evidence of our sustained focus on using a data-driven, risk-based approach to Federal programs and regulations. Highway safety has continued to improve as the fatality rate in 2007, the most recent year for which data are available, fell to 1.37 per 100 million vehicle miles traveled, which is the lowest rate ever recorded and the largest drop in crash-related fatalities in more than 15 years. Preliminary data show promising signs of further reductions in 2008. Continued improvements in this area are due to many factors, including the increased use of safety belts, more effective child restraint systems, increased enforcement of laws targeting alcohol-impaired driving, and continued

investment in safety oriented highway infrastructure improvements. With further progress in these areas, along with increased market penetration of crash-avoidance technologies such as electronic stability control, we can expect further improvement in the future.

The Department is also focusing its efforts on challenges in particular need of improvement, such as motorcycle safety, older drivers, and safety on rural roads. For example, motorcycle fatalities continued their nine-year upward trend, increasing another five percent in 2006. During 2008, we initiated a new Action Plan to Reduce Motorcycle Fatalities, which includes a comprehensive range of initiatives such as increasing rider and law enforcement education, better road designs, and tougher standards for labeling helmets. DOT also submitted legislation to the Congress that would enable us to better promote motorcycle helmet use. In addition, the Department recognized the demographic trend of an increasing number of older drivers and has proactively launched initiatives to address their special needs. Under the Department's rural safety initiative, we are helping States and communities develop ways to eliminate the risks drivers face on rural roads.

Strong progress also continues with aviation safety. Commercial airlines in the U.S. carry more than 750 million passengers a year and yet commercial airline crashes are rare events. The last passenger fatality to result from scheduled operations of a major U.S. carrier occurred in August 2006. Since then the U.S. air carrier system has moved 1.5 billion people with no on-board fatalities. Even with the accident rate at historic lows, the Department continued to take aggressive actions to reduce system risks. In 2008, the Federal Aviation Administration (FAA) published a major rule requiring inerting of aircraft center fuel tanks to reduce ignition risk from combustible vapors. In response to violations of airworthiness directives by a major carrier, the Secretary convened an independent review team (IRT) of safety experts to review the FAA's approach to managing risks in civil aviation, including its safety culture and implementation of safety management. Although the IRT concluded the FAA was unambiguously committed to its safety mission, the team made major recommendations to improve agency programs and safety management systems. The IRT's recommendations are now being implemented by the FAA.

Reducing the risk of runway incursions is one of the FAA's top priorities. Each year, FAA handles a massive number of air traffic operations, including over 61 million takeoffs and landings last year at airports with air traffic control towers. These operations took place at more than 500 airports and involved over 600,000 pilots and 14,000 air traffic controllers. There is no single way to reduce runway incursions given the sheer number of flights, people, and vehicles moving across airport runways and taxiways. Runway safety is a shared responsibility among pilots, controllers, and vehicle drivers. An aggressive runway safety program continues to reduce the number of serious runway incursions, and we are implementing new technologies that should bring about further improvement, particularly as we begin implementing runway status lights. Automated warning systems enhance runway safety, but education and situational awareness are the keys to preventing incursions. As a result of these combined efforts, the number of serious runway incursions dropped by more than 55 percent from fiscal

Appendix. Department Response

year 2001 through fiscal year 2007. The 24 serious incursions in fiscal year 2007 made it the safest year on record.

Action Initiated to Reduce Aviation Congestion

The Next Generation Air Transportation System (NextGen) is the FAA's plan to modernize the National Airspace System (NAS) through 2025. NextGen technologies will give pilots and air traffic controllers more detailed information and enable more direct flight routes, all while providing the highest levels of safety. Through NextGen, the FAA is planning to accommodate air traffic growth by increasing NAS capacity and efficiency while simultaneously improving safety and reducing environmental impacts. The FAA is implementing new routes and procedures that leverage emerging aircraft navigation technologies, including Performance-Based Navigation, which is helping FAA to achieve its NextGen goals.

Technology is only part of the solution for the FAA. The FAA has also taken extensive action to ensure that a sufficient number of fully trained and qualified air traffic controllers are available to accommodate expected retirements and industry growth. The FAA is on schedule in its plan to hire and train nearly 17,000 air traffic controllers over the next decade. Most recently, the FAA hired over 1,800 controllers in 2007 and over 2,100 in 2008.

The Department is also working to offer market-based solutions to reduce airport congestion, increase competition, and ultimately reduce fares to consumers. DOT recently finalized a rulemaking that would auction a small percentage of slots at New York's three most crowded airports. Given, the disproportionate impact that New York has on the rest of the nation's airspace, a successful implementation of this proposal will yield nationwide benefits. In addition, the Department continues to implement a redesign of New York's airspace to improve efficiency, as well as completing a range of other operational improvements in the New York region.

Focus on Market-Based, Data-Driven, Performance-Oriented Solutions

This Administration has changed the transportation financing debate to include market-based, data-driven, performance-oriented solutions. We have called attention to and proposed policy and programmatic reforms to address the fundamental mispricing of highways, airports and the air traffic control system. Central to those reforms is a call to use market-based pricing mechanisms to allocate existing transportation resources more efficiently, generate revenues for re-capitalization and capacity expansion, reduce wasteful spending, and mitigate adverse environmental impacts.

In addition to using market-based pricing mechanisms, utilizing private sector infrastructure markets more robustly should also play a major role in modernizing America's transportation infrastructure – from our roads and bridges, to our subways and seaports, and to our air traffic control system. Public Private Partnerships are an essential part of modern transportation financing. These partnerships can reduce project costs, accelerate project delivery, and allow States and municipalities to greatly leverage

available public resources. Among the Administration's most important transportation legacies will be the unprecedented innovation we have sparked in the very way transportation in America is financed, built, maintained and operated. The challenge we face moving forward is translating these initial innovations into a coherent national policy that will deliver fewer traffic bottlenecks in the air and on the ground, better transit services, a stronger economy, and a cleaner environment.

There is a clear role for the Federal government in helping to gain widespread acceptance of innovative and effective financing solutions across the country. This Administration believes that the Federal government should prioritize its investment resources on nationally significant projects that generate high returns for the taxpayer and focus less on process micromanagement. In addition, Federal policy should provide incentives to non-Federal officials exploring different procurement approaches that transfer more risks to non-governmental entities. Properly crafted public-private agreements can substantially reduce taxpayer exposure to cost overruns, project delays, deteriorating infrastructure quality and accountability to system users, among other protections.

The Department has led the way with innovative data-driven, performance-oriented solutions to congestion on our Nation's roads. During the last year, DOT launched major congestion reduction initiatives across all modes of transportation, for the first time seeking to coordinate discretionary grant awards on a multimodal basis within the context of a performance-based approach to reducing congestion. Federal grants awarded to innovative State and local leaders willing to pursue new congestion relief strategies hold enormous promise to reverse the precipitous decline in surface transportation performance in our major metropolitan areas.

DOT Proposes A Programmatic and Regulatory Overhaul to Federal Surface Transportation Spending

The Administration's proposal to refocus, reform, and renew our fundamental approach to the Nation's highways and transit systems will create a more effective and sustainable way to finance, operate, and maintain highways and transit systems. It also will make our highways safer and give Americans new confidence that the money they invest in transportation will actually deliver economic results instead of providing a reward for special interest constituencies. The proposal seeks to replace 102 stove-piped programs with eight consolidated, multimodal infrastructure and safety programs. This new approach to working with our State and local partners would empower those closest to the transportation issues to identify and address priorities of greatest local and regional importance. This flexible, mode-neutral approach to transportation problem solving offers new tools to address urban congestion, redoubles the Department's emphasis on safety, and focuses on making the best possible use of taxpayers' money. In addition, the proposal seeks to introduce cost-benefit analysis and a performance focus for the first time into most Federal transportation programs. We offer this visionary approach to making transportation infrastructure investments with the hope that the next Administration and the 111th Congress will give serious consideration to these ideas and approaches for congestion relief to keep America moving.

Appendix. Department Response

Financial Management

The Department continues to be a leader in budget, performance and financial management. DOT's emphasis on financial management has resulted in a renewed clean audit opinion this year with no material weaknesses, our seventh clean audit in the last eight years. The clean audit opinion is the result of countless hours of hard work by our financial managers. We are proud of the Department's exemplary efforts in this area to demonstrate the financial and program results the American people expect and deserve.

Effective Action Taken to Address Anticipated Funding Shortfall

Transportation funding is an area desperately in need of reform. The success of any programmatic reforms depends on having a coherent, effective and sustainable funding approach. This was driven home clearly by this past summer's severe cash shortage in the Highway Trust Fund (HTF). The Department had been very public with its warnings for over two years about the potential cash shortage in the HTF. The cash shortage became a reality at the end of fiscal year 2008 when increases in gasoline prices resulted in motorists driving fewer miles and consuming less fuel. Less fuel consumed resulted in lower receipts going into the HTF during the summer months when States are engaged in a majority of the year's highway construction program. As the States submitted requests for reimbursement, the cash balances in the HTF dropped precipitously.

In preparation for a potential shortfall, DOT had prepared a legal, policy, and programmatic framework for action. As a result, the Department swiftly implemented its action plan to ensure that States and other involved parties were informed and continued to receive reimbursement. In response to the crisis, Congress passed legislation, which the President subsequently signed, providing the HTF with a one-time payment of $8 billion from the General Fund.

While the recent crisis has been resolved for the time being, DOT remains concerned that we could experience another shortfall in the near future. To ensure that the Department is able to respond proactively in the event of a reoccurrence, a multimodal working group was established to create an implementation plan. The working group is: documenting lessons learned, evaluating cash management strategies, coordinating with OMB and Treasury to prepare for the next cash shortfall, conducting an in-depth analysis of outlays and earmarks to better estimate cash flow, and working to establish meaningful indicators that will help the Department determine when to implement these cash management procedures.

DOT Launches Strategic Procurement Initiatives

The Department also is working to strengthen its procurement systems. For example, the Senior Procurement Executive (SPE) initiated a three-pronged approach to make acquisition more strategic throughout DOT. First, the SPE is clarifying and formalizing procurement authority throughout DOT to effect the changes necessary to more fully

manage acquisition risk. We are also detailing the approval process for major acquisitions and strengthening organizational outreach. The SPE led the implementation of One DOT PRISM, a contract-writing system that will enhance business process reengineering, standardization and efficiencies throughout DOT. Federal Acquisition Certifications for contract specialists, contracting officers, technical representatives, and program/project managers have been implemented throughout DOT. These certifications will ensure appropriate training for key acquisition workforce members. Annual ethics training has been instituted for employees involved in procurement and grant management. Finally, DOT's Procurement Management Council has been reformed into the Strategic Acquisition Council, with the goal of making acquisition more strategic through the Department.

Thank you for the opportunity to provide additional insight on the Department's Top Management Challenges. We value the constructive comments of the Office of the Inspector General to improve the performance of the Department and its many programs.

Appendix. Department Response

U.S. DEPARTMENT OF TRANSPORTATION

SCHEDULE OF NET COST BY STRATEGIC GOAL
For the Year Ended September 30, 2008
Dollars in Thousands

The Schedule of Net Cost by Strategic Goal reports the DOT operational net cost to reflect the net cost of operations by each of the Department's six goals in its FY 2008-2012 Strategic Plan to provide the linkage between cost and performance as related to each goal. DOT programs are generally complex and incorporate significant projects within multiple Operating Administrations (OA) and organizations within the OAs. These projects are linked to multiple organizational and department–wide strategic goals. This complexity makes it difficult to track the costs related to the department-wide strategic goals. Additionally, in order to determine the costs by strategic goals, OAs would need to analyze each project and determine allocation of costs to appropriate strategic goals. Because of the complexity related to the allocations, DOT has presented their Net Cost by Strategic Goal as allocated in the 2008 Budget.

	Safety	Reduced Congestion	Global Connectivity	Environmental Stewardship	Emergency Preparedness and Response	Organizational Excellence	Total
Surface Transportation							
Federal Highway Administration	$ 8,885,221	$ 20,773,101	$ 1,113,891	$ 5,549,534	$ 369,686	$ 375,851	$ $37,067,284
Federal Transit Administration	5,167	9,757,091	-	302,266	41,727	19,698	10,125,949
Federal Railroad Administration	241,915	1,254,066	-	1,390	1,390	4,171	1,502,932
Federal Motor Carrier Safety Administration	481,883	3,942	-	-	6,898	27,592	520,315
National Highway Safety Administration	748,784	-	-	2,706	-	-	751,490
Pipeline and Hazardous Materials Safety Administration	101,879	1,803	-	19,835	6,311	3,606	133,434
Research and Innovative Technology Administration	-	9,079	-	-	-	12,711	21,790
Surface Transportation Board	-	14,261	-	-	-	15,557	29,818
Subtotal	10,464,849	31,822,423	1,113,891	5,875,731	426,012	471,896	50,153,011
Air Transportation							
Federal Aviation Administration	10,362,839	3,997,505	86,063	390,593	271,429	423,694	15,532,121
Subtotal	10,362,839	3,997,505	86,063	390,593	271,429	423,694	15,532,121
Maritime Transportation							
Maritime Administration	4,374	8,020	9,478	16,040	176,438	729	215,079
Subtotal	4,374	8,020	9,478	16,040	176,438	729	215,079
Other Programs							
Office of the Secretary	5,247	103,200	27,986	3,498	20,990	132,936	293,857
Volpe National Transportation System Center	-	1,029	-	-	-	1,441	2,470
Office of Inspector General	-	-	-	-	-	73,925	73,925
Subtotal	5,247	104,229	27,986	3,498	20,990	208,302	370,252
Total Net Cost	$ 20,837,309	$ 35,923,097	$ 1,237,418	$ 6,285,862	$ 894,869	$ 1,091,912	$ 66,270,463