U.S. Department of Transportation

ANNUAL PERFORMANCE REPORT

FISCAL YEAR 2012

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FOREWORD

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The United States Department of Transportation's (DOT or Department) Annual Performance Report (APR) for fiscal year (FY) 2012 provides an overview of the Department's performance accomplishments to Congress, the President, and the American people.

The Annual Performance Report is one in a series of reports required under the Government Performance and Results Modernization Act of 2010 (GPRA Modernization Act). The report provides information about DOT's highest priorities, achievements, initiatives, challenges, and performance as an organization. Additionally, the report details information about DOT's stewardship over the financial resources entrusted to the Department.

The Department's FY 2012 annual reporting includes the following components:

AGENCY FINANCIAL REPORT (AFR) [PUBLISHED NOVEMBER 2012]

DOT organizes the AFR into three major sections:

- The **MANAGEMENT'S DISCUSSION AND ANALYSIS** section provides executive-level information on the Department's history, mission, organization, key activities, analysis of financial statements, systems, controls and legal compliance, accomplishments for the fiscal year, and management and performance challenges facing the Department.
- The **FINANCIAL DETAILS** section provides a message from the Chief Financial Officer, consolidated and combined financial statements, the Department's notes to the financial statements, and the report of independent auditors.
- The **OTHER ACCOMPANYING INFORMATION** section provides *Improper Payments Information Act* reporting details and other statutory reporting requirements.

ANNUAL PERFORMANCE REPORT (APR)

The Department produces the APR in conjunction with the FY 2014 President's Budget Request and provides detailed performance information and descriptions of results by each key performance measure.

Both reports are available on the Department's website at: http://www.dot.gov/budget.

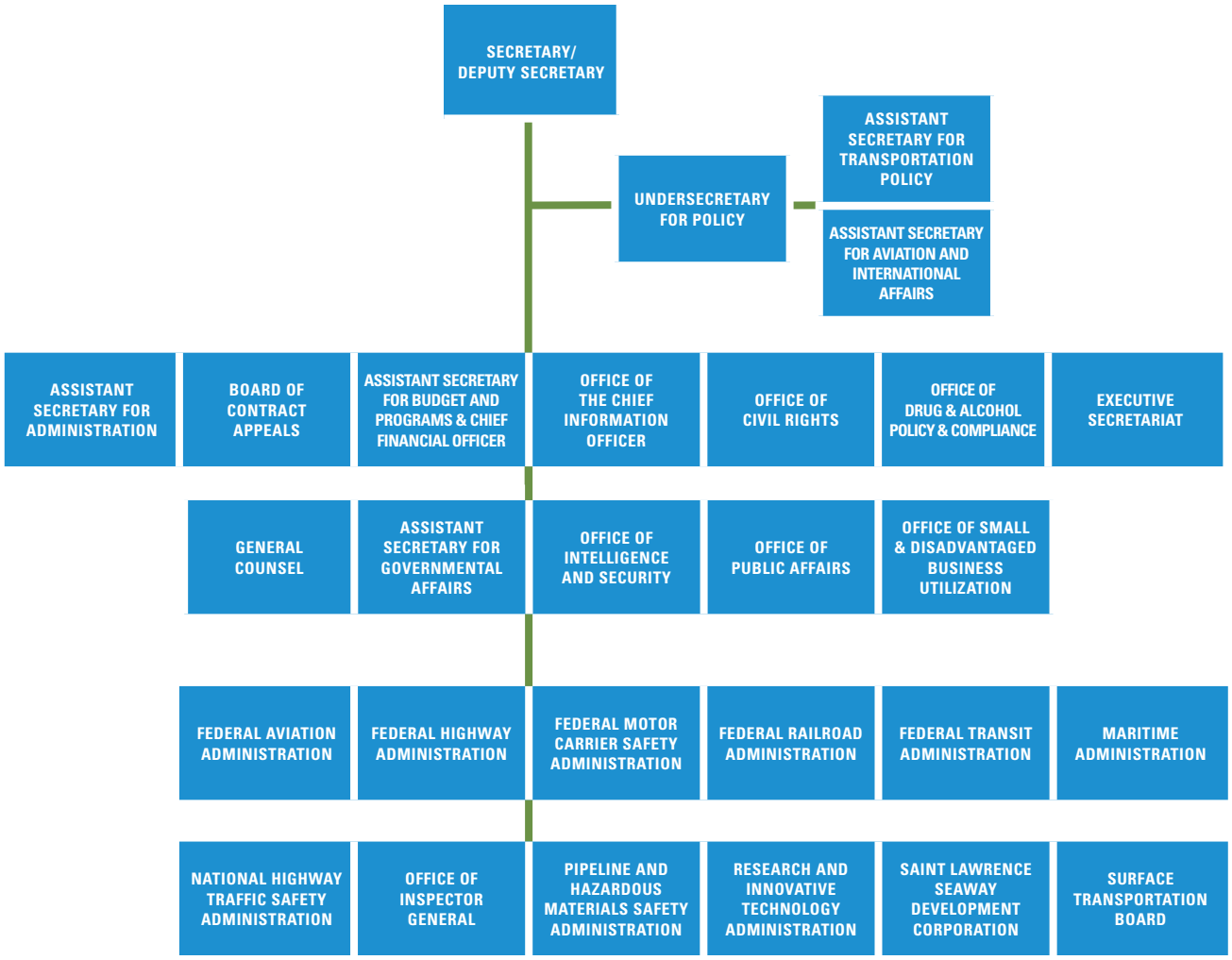
ORGANIZATION

HISTORY

Established in 1967, DOT sets Federal transportation policy and works with State, local, and private sector partners to promote a safe, secure, efficient, and interconnected National transportation system of roads, railways, pipelines, airways, and seaways. DOT's overall objective of creating a safer, simpler, and smarter transportation system is the guiding principle as the Department moves forward to achieve specific goals.

HOW WE ARE ORGANIZED

DOT employs more than 57,000 people in the Office of the Secretary (OST) and through twelve Operating Administrations (OAs), each with its own management and organizational structure.



OVERVIEW OF LEGISLATIVE AUTHORITIES

The Secretary of Transportation, under the direction of the President, exercises leadership in transportation matters. Section 101 of Title 49 United States Code describes the United States Department of Transportation purposes as follows:

- The national objectives of general welfare, economic growth and stability, and security of the United States require the development of transportation policies and programs that contribute to providing fast, safe, efficient, and convenient transportation at the lowest cost consistent with those and other national objectives, including the efficient use and conservation of the resources of the United States.

- A Department of Transportation is necessary in the public interest and to—

  - ensure the coordinated and effective administration of the transportation programs of the United States Government;

  - make easier the development and improvement of coordinated transportation service to be provided by private enterprise to the greatest extent feasible;

  - encourage cooperation of Federal, State, and local governments, carriers, labor, and other interested persons to achieve transportation objectives;

  - stimulate technological advances in transportation, through research and development or otherwise;

  - provide general leadership in identifying and solving transportation problems; and,

  - develop and recommend to the President and Congress transportation policies and programs to achieve transportation objectives considering the needs of the public, users, carriers, industry, labor, and national defense.

OPERATING ADMINISTRATIONS AND INDEPENDENT ORGANIZATIONS

OFFICE OF THE SECRETARY (OST): The Office of the Secretary oversees the formulation of national transportation policy and promotes intermodal transportation. Other responsibilities include negotiation and implementation of international transportation agreements, assuring the fitness of U.S. airlines, enforcing airline consumer protection regulations, issuance of regulations to prevent alcohol and illegal drug misuse in transportation systems, and preparing transportation legislation.

FEDERAL AVIATION ADMINISTRATION (FAA): The Federal Aviation Administration's mission is to provide the safest, most efficient aerospace system in the world.

FEDERAL HIGHWAY ADMINISTRATION (FHWA): The mission of the Federal Highway Administration is to improve mobility on our Nation's highways through national leadership, innovation, and program delivery.

FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION (FMCSA): The Federal Motor Carrier Safety Administration's primary mission is to reduce crashes, injuries, and fatalities involving commercial motor vehicle (CMV) transportation through education, innovation, regulation, enforcement, financial assistance, partnerships, and full accountability.

FEDERAL RAILROAD ADMINISTRATION (FRA): The mission of the Federal Railroad Administration is to enable the safe, reliable, and efficient transportation of people and goods for a strong America, now and in the future.

FEDERAL TRANSIT ADMINISTRATION (FTA): The Federal Transit Administration's mission is to improve public transportation for passengers and America's communities.

MARITIME ADMINISTRATION (MARAD): The Maritime Administration's mission is to improve and strengthen the U.S. marine transportation system to meet the economic, environmental, and security needs of the Nation.

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION (NHTSA): The National Highway Traffic Safety Administration's mission is to save lives, prevent injuries, and reduce economic costs due to road traffic crashes, through education, research, safety standards, and enforcement activity.

OFFICE OF INSPECTOR GENERAL (OIG): The Inspector General Act of 1978, as amended, established the Office of Inspector General as an independent and objective organization within the DOT. The OIG is committed to fulfilling its statutory responsibilities and supporting members of Congress, the Secretary, senior Department officials, and the public in achieving a safe, efficient, and effective transportation system.

PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION (PHMSA): PHMSA's mission is to protect people and the environment from the risks of hazardous materials transportation.

RESEARCH AND INNOVATIVE TECHNOLOGY ADMINISTRATION (RITA): The Research and Innovative Technology Administration works to advance DOT priorities for innovation and research in transportation technologies and concepts.

SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION (SLSDC): The Saint Lawrence Seaway Development Corporation's mission is to serve the marine transportation industries by providing a safe, secure, reliable, efficient, and competitive deep draft international waterway, in cooperation with the Canadian Saint Lawrence Seaway Management Corporation.

SURFACE TRANSPORTATION BOARD (STB): The Surface Transportation Board is charged with promoting substantive and procedural regulatory reform in the economic regulation of surface transportation, and with providing an efficient and effective forum for the resolution of disputes and the facilitation of appropriate business transactions.

PERFORMANCE FRAMEWORK

PERFORMANCE FRAMEWORK

All actions undertaken by the Department are aimed at making measurable improvements in our transportation system, the security of our Nation, and the quality of American life. In the *Annual Performance Report*, DOT holds itself accountable to the public for effectively bringing to bear the Department's resources in improving the Nation's transportation system. The Department uses these results to improve its strategies and resource decisions.

OUR MISSION

To serve the United States by ensuring a fast, safe, efficient, accessible, and convenient transportation system that meets our vital national interests and enhances the quality of life of the American people, today and into the future.

DOT's performance framework is as follows:

- The **DOT STRATEGIC PLAN** provides a comprehensive vision for improving the Nation's complex and vital transportation system. DOT released a new Strategic Plan covering FY 2012 – 2016. The Plan, "Transportation for a New Generation," serves as the framework for this year's report. Through the Strategic Plan's five strategic goals – safety, state of good repair, economic competitiveness, livable communities, and environmental sustainability – DOT is able to articulate the longer-term focus of the Department. In addition to the broad goals, the plan targets specific outcomes DOT wants to achieve and identifies key challenges.

- The **DOT PERFORMANCE BUDGET** operationalizes the Strategic Plan, and provides direct linkages between DOT's budget request and the results the public can expect for programs within each of the Department's Operating Administrations. The performance budget defines the performance goals and measures used to manage progress toward our strategic goals. It describes in detail one fiscal year's resources and programmatic effort within a strategic context. The performance budget also aligns requested funding to the Department's strategic goals.

- This **DOT ANNUAL PERFORMANCE REPORT** provides a public accounting of the Department's FY 2012 performance results.

- **PERFORMANCE ACCOUNTABILITY** for DOT organizations, senior executives, and employees embed the philosophy of managing for performance into the Department's culture and daily practices. Performance accountability within the Department is accomplished through the following mechanisms:

  - **DOT ORGANIZATIONAL ASSESSMENTS OF PERFORMANCE**—A review of each Operating Administration's performance is completed at the end of the fiscal year. The assessments measure each organization's success in meeting Department-wide performance targets, achieving results of program assessments, and addressing management challenges or material weaknesses identified by DOT's Office of Inspector General. The results of these assessments are factored in to the personal performance evaluations of the Department's senior executives.

  - **EMPLOYEE PERFORMANCE PLANS**—Prepared for each year, these plans document expected levels of employee performance that clearly link to DOT's strategic goals through the performance framework.

HOW DOT WORKS TO ACHIEVE ITS STRATEGIC GOALS AND PERFORMANCE GOALS

The Department achieves its goals through its leadership role in U.S. transportation policy, operations, investment, and research. To influence results, DOT programs rely on a number of actions, processes, and tools. These include:

- **DIRECT OPERATIONS AND INVESTMENT IN DOT CAPITAL ASSETS THAT PROVIDE CAPABILITY,** such as air traffic control and the Saint Lawrence Seaway operations.
- **INFRASTRUCTURE INVESTMENTS AND OTHER GRANTS,** such as grants for investment in highway, rail, transit, marine highways and shipyards, airport, and Amtrak capital infrastructure, and grants for safety, job access, or other important transportation programs.
- **INNOVATIVE FINANCIAL TOOLS AND CREDIT PROGRAMS,** such as those provided for by the Transportation Infrastructure Finance and Innovation Act (TIFIA) and the Railroad Rehabilitation and Improvement Financing (RRIF) Program.
- **RULEMAKING,** in a broad array of areas including: equipment, vehicle, or operator standards; for improving safety; and providing aviation consumer protection.
- **STATE/LOCAL ORGANIZATIONAL CAPACITY BUILDING,** through training, best practices, peer-to-peer exchanges, and other activities that strengthen the capability of State Departments of Transportation, metropolitan planning organizations, and tribal and local governments to play their essential front-line role in planning, investing in, and operating highway and transit systems.
- **ENFORCEMENT,** to ensure compliance, including inspections, investigations, and penalty action.
- **RESEARCH AND TECHNOLOGY DEVELOPMENT AND APPLICATION,** such as fostering new materials and technologies in transportation, and transportation related research.
- **EDUCATION AND OUTREACH,** such as consumer awareness, public service, and campaigns to influence personal behavior.
- **PUBLIC INFORMATION,** such as that provided by the Bureau of Transportation Statistics in RITA and other DOT Operating Administrations, so that States, localities, tribes, regions, and private sector entities can better plan their transportation activities.

Some of these tools and actions reside entirely within the Federal Government, but most involve significant partnering with State and local authorities and with the transportation industry. The items identified include the broad areas of action that DOT – and State and local governments – commonly uses to realize desired results.

PERFORMANCE HIGHLIGHTS

This is the first year that the Department of Transportation will report against "Transportation for a New Generation," DOT's Strategic Plan for FY 2012 – 2016. Under this Strategic Plan, the Department continues to track many of the measures found in the previous plan, but as the agency builds upon progress in improving transportation and develops new strategic priorities, some new measures were developed.

An overview of the Department's strategic goals and brief discussion of performance results are provided below. A complete analysis of DOT's successes and challenges related to FY 2012 performance targets is included in the following chapters.

SAFETY

Improving transportation safety remains DOT's top priority. The Department tracks the safe movement of Americans and products on the highways, in the air, on transit systems, on railroads, and through pipelines. Preliminary performance results show that the Department is on target or exceeding the target for all but one of the goals based on the most current available data. DOT does not anticipate achieving its FY 2012 target for the number of fatal general aviation (GA) accidents per 100,000 flight hours, because the number of fatal GA accidents continues to decline more slowly than anticipated. Most of the fatalities occurred in the area of experimental aircraft, which are predominately amateur-built. These aircraft accounted for approximately 28 percent of GA fatal accidents while contributing to less than 6 percent of GA flying hours. FAA continues to pursue multiple avenues for addressing this issue.

STATE OF GOOD REPAIR

Recent reports on the condition of the Nation's highways, bridges, transit assets, and passenger rail facilities reveal that many fall short of a state of good repair and thus compromise the safety, capacity, and efficiency of the U.S. transportation system. DOT's role in achieving a state of good repair is through strong programmatic emphasis and new resources aimed at improving the condition and performance of the Nation's transportation infrastructure. DOT also encourages its government and industry partners to make optimal use of existing capacity and apply sound asset management principles throughout the system.

In FY 2012, preliminary results show that the Department met or exceeded its target for each of the state of good repair outcomes for which data are currently available. The Department will report 2011 and 2012 results for the backlog of transit capital assets in need of replacement or refurbishment following publication of the 2013 Conditions and Performance Report.

ECONOMIC COMPETITIVENESS

DOT has established a goal to support the U.S. economy by fostering smart, strategic investments that serve the traveling public and facilitate freight movement. The Department's central strategies for achieving maximum economic returns on its policies and investments include leading the development of high-speed and intercity passenger rail and a competitive air transportation system; minimizing traffic delay due to congestion in urban areas and in freight-significant highway corridors; improving the performance of freight rail and maritime networks; advancing transportation interests in targeted markets around the world; and expanding opportunities in the transportation sector for small businesses. In FY 2012, final results show that the Department met or exceeded its targets for the economic competitiveness outcomes.

LIVABLE COMMUNITIES

Fostering livable communities – places where coordinated transportation, housing, and commercial development gives people access to affordable and environmentally sustainable transportation – is a transformational policy shift for DOT. Through the principles established in the livable communities strategic goal, the Department will pursue coordinated, place-based policies and investments that increase transportation choices and improve access to public transportation services for all Americans. Based on preliminary and final results, DOT met or exceeded targets for six of eight livable communities. The Department will continue developing and implementing strategies to achieve the performance targets of the two remaining performance measures – increasing transit "market share" among commuters to work and increasing the percent of intercity passenger rail stations that comply with the requirements of the *Americans with Disabilities Act of 2010*.

ENVIRONMENTAL SUSTAINABILITY

While the transportation sector is a significant source of greenhouse gas (GHG) emissions, the Department is working to address and mitigate this challenge through strategies such as fuel economy standards for cars and trucks, more environmentally sound construction and operational practices, and by expanding opportunities for shifting freight from less-fuel-efficient modes to more-fuel-efficient modes. Based on preliminary and final results, the Department met the targets for 9 of 11 performance measures. Though preliminary results show that the number of hazardous liquid pipeline spills with environmental consequences exceeded the target set for FY 2012, PHMSA has proposed to increase pipeline safety oversight to mitigate environmental impacts of future spills.

PERFORMANCE SUMMARY TABLES

Safety Performance Summary

PERFORMANCE MEASURE	2007	2008	2009	2010	2011	TARGET 2012	ACTUAL 2012	MET OR NOT MET
Roadway fatality rate per 100 million vehicle-miles traveled (VMT). (NHTSA, FHWA, FMCSA)	1.36	1.26	1.15	1.11	1.10*	1.05	TBD^	Met (2011)*
Passenger vehicle occupant fatality rate per 100 million VMT. (NHTSA, FHWA, FMCSA)	1.08	0.97	0.89	0.84	0.83–0.89*	0.85	0.83–0.89*	TBD
Motorcyclist rider fatality rate per 100,000 motorcycle registrations. (NHTSA, FHWA, FMCSA)	72.48	68.52	56.36	54.82	56–58*	63	56–58*	TBD
Non-occupant (pedestrian and bicycle) fatality rate per 100 million VMT. (NHTSA, FHWA, FMCSA)	0.18	0.18	0.17	0.17	0.16–0.17*	0.16	0.16–0.17*	TBD
Large truck and bus fatality rate per 100 million total VMT. (NHTSA, FHWA, FMCSA)	0.169	0.153 (r)	0.122(r)	0.133	0.136*	0.117	0.110–0.127*	TBD
Number of commercial air carrier fatalities per 100 million persons onboard. (FAA)	N/A	0.4	6.7	0.3	0.0*	7.6	0.0*	Met*
Number of fatal general aviation accidents per 100,000 flight hours. (FAA)	N/A	N/A	1.17	1.10	1.13*	1.07	1.10*	Not Met*
Category A&B runway incursions per million operations. (FAA)	0.393	0.427	0.227	0.117	0.138	0.395	0.356	Met
Pipeline incidents involving death or major injury. (PHMSA)	45	39	48	38	36	43	32*	Met*
Hazardous materials incidents involving death or major injury. (PHMSA)	36	24	29	23	33	34	26*	Met*
Transit fatalities per 100 million passenger-miles traveled. (FTA) (r)	N/A	N/A	N/A	0.533	0.535	0.543	TBD#	Met (2011)
Rail-related accidents and incidents per million train-miles. (FRA)	17.298	16.906	16.885	16.664	15.991	16.300	14.557*	Met*
Cumulative number of States and localities that adopt roadway designs that accommodate all road users (complete streets). (OST)	N/A	N/A	15	22	26	26	27	Met

Notes: (r) Revised Performance Measure, * Based on Preliminary Results, ^ 2012 Actual Available December 2013, # 2012 Actual Available September 2013

State of Good Repair Performance Summary

PERFORMANCE MEASURE	2007	2008	2009	2010	2011	TARGET 2012	ACTUAL 2012	MET OR NOT MET
Percent of travel on the National Highway System (NHS) roads with pavement performance standards rated "good." (FHWA)	N/A	N/A	N/A	55.0%(r)	54.3%	56.0%	56.2%	Met
Percent of deck area (i.e., the roadway surface of a bridge) on NHS bridges rated structurally deficient. (FHWA)	8.4%(r)	8.2%(r)	8.2%(r)	8.3%(r)	7.8%	7.8%	7.1%	Met
Backlog of transit capital assets in need of replacement or refurbishment (as defined by an estimated condition rating of 2.5 or lower). (FTA)	N/A	N/A	N/A	$77.7 billion	TBD^	$77.6 billion	TBD^	TBD
Percent of runway pavement in excellent, good, or fair condition for paved runways in the National Plan of Integrated Airport Systems. (FAA)	96.6%	96.9%	97.0%	97.2%	97.4%	93.0%	97.5%	Met

Notes: (r) Revised, ^ 2011 and 2012 Actuals Available Following Release of Conditions and Performance Report

Economic Competitiveness Performance Summary

PERFORMANCE MEASURE	2007	2008	2009	2010	2011	TARGET 2012	ACTUAL 2012	MET OR NOT MET
Travel time reliability in urban areas as measured by the Travel Time Index. (FHWA)	1.24(r)	1.21(r)	1.19(r)	1.21	1.21	1.21	1.20	Met
Travel time reliability in freight significant corridors as measured by the buffer index. (FHWA)	15.0	14.4	13.8	13.7	13.8	15.0	13.5	Met
Number of corridor programs that achieve initial construction. (FRA)	N/A	N/A	N/A	N/A	3	1	1	Met
Number of individual construction projects that achieve initial construction. (FRA)	N/A	N/A	N/A	N/A	8	14	19	Met
Average daily airport arrival and departure capacity at Core Airports. (FAA)	102,545	103,222	101,691	101,668	87,338	86,835	88,590	Met
Percent of operational availability for the reportable facilities that support Core Airports. (FAA)	99.83%	99.82%	99.78%	99.79%	99.72%	99.70%	99.75%	Met
Initial operating capability on ERAM at continental U.S. En Route centers. (FAA)	N/A	N/A	N/A	N/A	2	7	7	Met
Percent of time the U.S. portion of the Saint Lawrence Seaway system and locks are available. (SLSDC)	99.4%	98.8%	99.4%	99.8%	99.0%	99.0%	99.7%	Met
Ships available to meet DOD's requirements for commercial sealift capacity (as measured by the number of ships contractually enrolled in the maritime security program). (MARAD)	60	60	59	60	60	60	60	Met
Operating days in U.S. foreign commerce and available to meet DOD's requirements (as measured by the number of ship operating days that ships enrolled in the MSP were actually operating in U.S. foreign commerce). (MARAD)	N/A	N/A	N/A	21,436	21,557	19,200	21,593	Met
Number of Twenty Foot Equivalent (TEU) containers transported across America's Marine Highway corridors. (MARAD)	N/A	N/A	N/A	N/A	1,061	3,500	8,221	Met
Number of U.S. Merchant Marine Academy (USMMA) graduates. (MARAD)	210	219	198	198	205	210	219	Met
Number of State Maritime Academy graduates. (MARAD)	N/A	N/A	N/A	575	545	592	642	Met
Percent of NAS on-time arrivals at Core Airports. (FAA)	86.96%	87.29%	88.98%	90.55%	90.41%	88.00%	92.36%	Met
Number of air carriers reviewed to ensure they meet the requisite standards for obtaining or retaining economic authority to operate. (OST)	N/A	N/A	22	20	26	18	27	Met
Reach new or expanded bilateral and multilateral agreements to remove market-distorting barriers to trade in transportation. (OST)	3	4	4	7	4	3	4	Met
Percent of total dollar value of DOT direct contracts awarded to small, disadvantaged businesses. (OST)	19.30%	16.19%	13.36%	14.00%	19.50%	15.00%	18.08%	Met
Percent of total dollar value of DOT direct contracts awarded to women-owned businesses. (OST)	10.40%	8.12%	10.94%	8.00%	11.10%	6.00%	8.81%	Met

Notes: (r) Revised

Livable Communities Performance Summary

PERFORMANCE MEASURE	2007	2008	2009	2010	2011	TARGET 2012	ACTUAL 2012	MET OR NOT MET
States with policies that improve transportation choices for walking and bicycling. (FHWA)	N/A	N/A	N/A	21	24	26	26	Met
States that have developed an Americans with Disabilities Act (ADA) transition plan that is current and includes the public rights-of-way. (FHWA)	N/A	N/A	N/A	N/A	13	12	15	Met
Number of transit boardings reported by urbanized area transit providers. (FTA)	9.9 billion	10.3 billion	10.1 billion	10.0 billion	10.1 billion	10.1 billion	10.3 billion#	Met#
Number of transit boardings reported by rural area transit providers. (FTA)	118 million	128 million	131 million	141 million	142 million	144 million	TBD^	Met (2011)
Areas with increased transit "market share" among commuters to work in the 50 most populous urbanized areas. (FTA)	N/A	N/A	N/A	0	1	4	TBD^	Not Met (2011)*
Number of key rail stations verified as accessible and fully compliant. (FTA)	N/A	N/A	N/A	513	522	531	567	Met
Number of intercity rail passenger-miles traveled. (FRA)	5.65 billion	6.16 billion	5.90 billion	6.33 billion	6.53 billion	6.60 billion	6.80 billion	Met
Percent of intercity passenger rail stations that comply with the requirements of the ADA. (FRA)	N/A	N/A	N/A	N/A	N/A	2%	0%	Not Met

Notes: # Projection from Trends, ^ 2012 Actual Available Late 2013, * 2011 Interim Target Developed Prior to 2012-2016 Strategic Plan Release

Environmental Sustainability Performance Summary

PERFORMANCE MEASURE	2007	2008	2009	2010	2011	TARGET 2012	ACTUAL 2012	MET OR NOT MET
NAS energy efficiency (measured by fuel burned per miles flown). (FAA)	-13.87%	-13.52%	-14.03%	-15.25%	-14.50%	-14.00%	-14.76%	Met
Number of people exposed to significant aircraft noise around airports. (FAA)	N/A	383,465	291,768	317,596	315,293	386,000	319,901	Met
Hazardous liquid pipeline spills with environmental consequences. (PHMSA)	95	124	107	93	114	99	114*	Not Met*
Percent reduction of vehicle fleet petroleum use. (OST)	11%	8%	14%	5%	4.9%	14%	14.5%	Met
Percent improvement in water efficiency. (OST)	N/A	2%	3.3%	(1.2%)	(9.7%)	10%	.9%	Not Met
Percent recycling and waste diversion. (OST)	N/A	N/A	N/A	##	##	6%	11%	Met
Percent of all applicable contracts that meet sustainability requirements. (OST)	N/A	N/A	N/A	##	95%	95%	95%	Met
Percent reduction in green-house gas emissions from facilities and fleets. (OST)	N/A	N/A	N/A	7.9%	15.4%	4%	29%	Met
Percent reduction in green-house gas emissions from employee business travel and commuting. (OST)	N/A	N/A	N/A	(4.7%)	0.1%	2%	14%	Met
Cumulative number of ships safely removed from the Suisun Bay Reserve Fleet for disposal. (MARAD)	N/A	N/A	N/A	11	26	2	36	Met
Percent of alternative-fuel and hybrid vehicles in the transit revenue service fleet. (FTA)	39%	42%	43%	44%	45%	46%	TBD^	Met (2011)

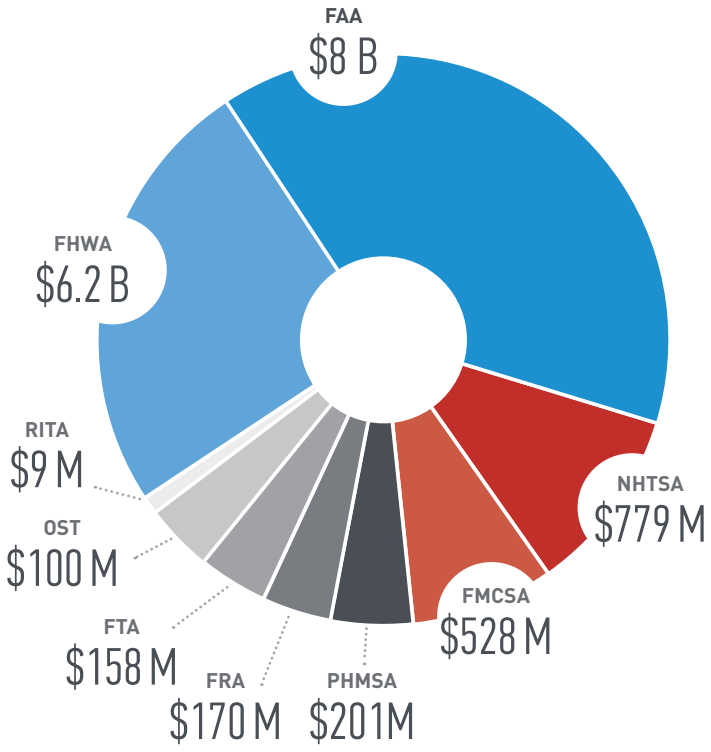
Notes: * Based on Preliminary Results, ^ 2012 Actual Available Late 2013, ## Data unavailable

SAFETY

SAFETY

Safety is the Department of Transportation's number one priority. Over the past decade, annual transportation-related fatalities have dropped from 45,300 to fewer than 34,500, based on preliminary 2011 data. In FY 2012, DOT dedicated nearly $16.3 billion to improving safety on the roadways, in the air, on the railroads, and on transit systems.

NET BUDGETARY RESOURCES BY STRATEGIC GOALS: FY 2012 ENACTED



TOTAL $16,290,308,000

ROADWAY SAFETY

In the first decade of the 21st century, the United States experienced more than 400,000 fatalities and more than 26,000,000 injuries on the Nation's roadways. Roadway crashes are among the leading causes of death in the U.S., especially among young people. The Department strives to address these issues and make the U.S. roadway system the safest in the world. To accomplish this goal, DOT works with all of its stakeholders to reduce transportation-related fatalities and injuries.

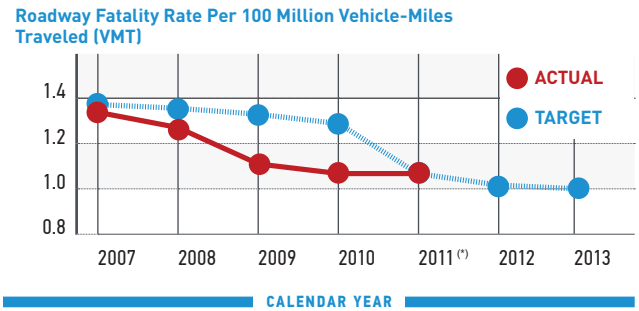
A comprehensive approach is needed to address roadway safety challenges and issues. To address this need, DOT developed the Roadway Safety Plan (RSP) in 2012 to coordinate safety initiatives across the Department (http://www.dot.gov/policy/transportation-policy/dot-roadway-safety-plan). The RSP was initiated with the recognition that addressing the challenges of roadway safety requires the collective efforts of many people and organizations working together to significantly reduce crashes, serious injuries, and fatalities on the Nation's roadways. Three agencies, the National Highway Traffic Safety Administration (NHTSA), the Federal Highway Administration (FHWA), and the Federal Motor Carrier Safety Administration (FMCSA) are working together to address multiple dimensions of roadway safety. The goal, designated as one of the Department's Agency Priority Goals, is to reduce the rate of roadway fatalities to 1.03 per 100 million vehicle-miles traveled (VMT) by the end of 2013.

WHAT ARE WE MEASURING?

The roadway fatality rate is the total number of people killed in motor vehicle related crashes per 100 million VMT. Crashes that occurred exclusively on private property, including parking lots and driveways, are excluded.

2012 RESULTS: TBD

Target: 1.05 fatalities per 100 million VMT.
Actual: TBD – DOT expects to release preliminary estimated data for calendar year 2012 in April 2013.



*Preliminary estimate for 2011.

DESCRIPTION OF RESULTS

Since reaching a near-term high in 2005, there has been an unprecedented decline in roadway fatalities. Preliminary estimates for 2011 indicate roadway fatalities will reach the lowest level since 1949. This translates to a 1.9 percent decrease from the 32,999 fatalities in 2010. However, early projections for the first six months of 2012 show an increase of 9 percent in fatalities over the same period in 2011. Until additional information is available, it is too soon to know if this trend will continue through the end of 2012 or to determine the possible reasons for any increase over last year.

In addition to the overall fatality rate, DOT tracks four broad subcategories of road user roadway fatality rates: passenger vehicle occupants, motorcyclists, pedestrians and bicyclists (collectively referred to as non-occupants in this report), and fatalities from large trucks and buses. Dividing the overall roadway fatality rate into these subcategories allows the Department to pinpoint the challenges associated with each area and develop targeted solutions to reduce roadway fatalities.

PUBLIC BENEFIT STATEMENT

Safer roads, vehicles, and drivers save lives, reduce injuries, and decrease damage to business and personal property. In fact, motor vehicle crashes not only impact the people involved but also the economy. The cost of roadway crashes in the U.S. is an estimated $230.6 billion per year (based on 2000 data). NHTSA, FHWA, and FMCSA work to prevent roadway crashes though the development of data-driven, workable, and self-sustaining roadway safety programs.

MEASURE #1

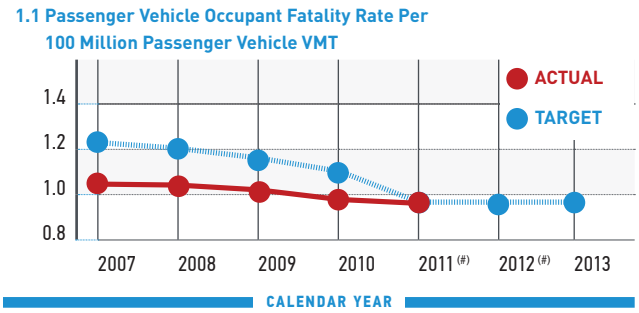
Reduce the rate of passenger vehicle occupant fatalities per 100 million VMT. (NHTSA, FHWA, FMCSA)

WHAT ARE WE MEASURING?

This measure calculates the number of occupants of passenger vehicles killed in crashes on public roadways. A passenger vehicle is a motor vehicle with a gross vehicle weight rating (GVWR) less than 10,000 pounds and includes passenger cars and light trucks (pickup trucks, vans, SUVs, and other light trucks). Passenger vehicles make up more than 90 percent of registered vehicles and account for nearly 90 percent of total VMT.

2012 RESULTS: TBD

Target: 0.85 passenger vehicle occupant fatalities per 100 million passenger vehicle VMT.
Actual: Preliminary estimates project 0.83–0.89 passenger vehicle occupant fatalities per 100 million passenger vehicle VMT in calendar year 2012.



#Projected based on preliminary data for 2011.

DESCRIPTION OF RESULTS

Congress authorized the Highway Safety Improvement Program (HSIP) through the *Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users* (SAFETEA-LU) in 2005. In FY 2012, States significantly increased their spending of HSIP funds. In FY 2012, $1.6 billion was appropriated for the HSIP. Highway safety obligations by the States rose from 76 percent in FY 2011 to 80 percent in FY 2012. This increase in safety spending translates into many additional safety infrastructure projects, such as Safety Edge™, roundabouts, and rumble strips and stripes that will support reductions in roadway fatalities and serious injuries nationwide. FHWA hosted three Tribal Transportation Safety Summits in 2012. The summits provide an opportunity for tribal, State, and Federal transportation staff, tribal leaders, and safety advocates to meet and identify safety issues affecting Native Americans, discuss and prioritize solutions, and coordinate ongoing activities. NHTSA continued to vigorously promote the successful "Click It or Ticket" high visibility enforcement (HVE) campaign in 2012. Largely as a result of these efforts, which involved approximately 10,000 police agencies nationwide, National seat belt use increased to 86 percent in 2012. Distracted driving also continues to be a major focus and priority of DOT. In Moving Ahead for Progress in the 21st Century (MAP-21), a new grant program was authorized to

support the development of State distracted driving programs for States that have enacted and are enforcing comprehensive primary distracted driving laws.

MEASURE #2

Reduce the rate of motorcyclist rider fatalities per 100,000 motorcycle registrations. (NHTSA, FHWA, FMCSA)

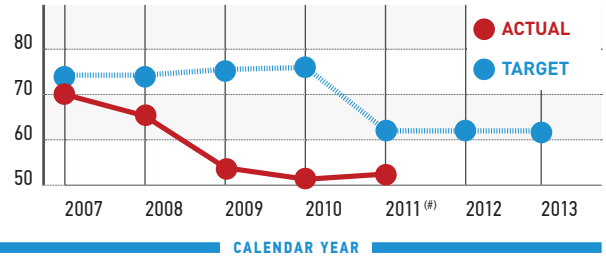
WHAT ARE WE MEASURING?

This measure compares the number of riders and passengers of motorcycles killed in crashes on public roadways compared to the total number of motorcycle registrations. The definition of a motorcycle includes mopeds, two- or three-wheeled motorcycles, off-road motorcycles, scooters, mini bikes, and pocket bikes.

2012 RESULTS: TBD

Target: 63 motorcyclist rider fatalities per 100,000 motorcycle registrations.
Actual: Preliminary estimates project 56 – 58 motorcyclist rider fatalities per 100,000 motorcycle registrations in calendar year 2012.

1.2 Motorcyclist Rider Fatality Rate Per 100,000 Motorcycle Registrations



#Projected based on preliminary data for 2011.

DESCRIPTION OF RESULTS

The updated prioritization of the National Agenda for Motorcycle Safety has helped stakeholders employ effective countermeasures to reduce motorcyclist fatalities, as evidenced by a decline in motorcyclist fatalities and injuries in 2010. The final rule that upgraded the "DOT" certification labeling requirements to make it more difficult to mislabel novelty motorcycle helmets is intended to support increased use of DOT-compliant helmets. In 2011, DOT-compliant motorcycle helmet use increased significantly to 66 percent (up from 54 percent in 2010). NHTSA estimates that helmets saved the lives of 1,550 motorcyclists in 2010. An additional 706 lives could have been saved if all riders had worn helmets during the year.

In 2012, only 19 States, the District of Columbia, and Puerto Rico required helmet use by all motorcyclists. Research shows that motorcycle helmet use rates drop significantly after a State repeals mandatory helmet law while fatalities rise. Currently there is pending legislation in nine States to repeal the mandatory helmet use law for all motorcyclists. The "Model National Standards for Entry-Level Motorcycle Rider Training" are being voluntarily adopted by states through support from NHTSA efforts. A demonstration project was initiated in one State to evaluate methods to increase compliance with motorcycle driver licensing requirements, and impaired riding enforcement demonstration efforts were initiated during 2012 in four States.

MEASURE #3

Reduce the rate of non-occupant (pedestrian and bicycle) fatalities per 100 million total VMT. (NHTSA, FHWA, FMCSA)

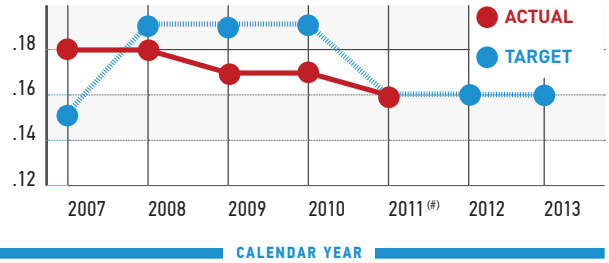
WHAT ARE WE MEASURING?

This measure calculates the number of non-occupants killed in crashes per 100 million VMT. A non-occupant is any person who is not an occupant of a motor vehicle in transport and includes the following: pedestrians; bicyclists; occupants of parked motor vehicles; and others such as joggers, skateboard riders, people riding on animals, and persons riding in animal-drawn conveyances.

2012 RESULTS: TBD

Target: 0.16 non-occupant fatalities per 100 million total VMT.
Actual: Preliminary estimates project 0.16 – 0.17 non-occupant fatalities per 100 million total VMT in calendar year 2012.

1.3 Non-Occupant (Pedestrian and Bicycle) Fatality Rate Per 100 Million Total VMT



#Projected based on preliminary data for 2011.

DESCRIPTION OF RESULTS

FHWA conducted technical assistance workshops and webinars that were attended by more than 2,800 people on non-occupant fatality topics including pedestrian hybrid and rectangular rapid flashing beacons, accommodating pedestrians at roundabouts, and engineering and design solutions at medians. The agency improved public and professional knowledge of pedestrian safety issues by writing articles and publishing newsletters focused on effective countermeasures and FHWA's efforts in pedestrian safety.

An evaluation of the effectiveness of NHTSA's Walk and Bike Safely for Beginning English Language Learners curriculum was initiated in FY 2012. This curriculum is designed specifically for use by teachers and volunteers working with adult immigrants who are new English language learners. Four major ongoing pedestrian safety demonstration projects also continued in 2012. These projects combine education and enforcement efforts, for both pedestrian and motor vehicle drivers, to support engineering efforts in areas with elevated pedestrian fatalities. Efforts were initiated to update an existing educational video for children ages 7 to 12.

MEASURE #4

Reduce the rate of large truck and bus fatalities per 100 million total VMT. (NHTSA, FHWA, FMCSA)

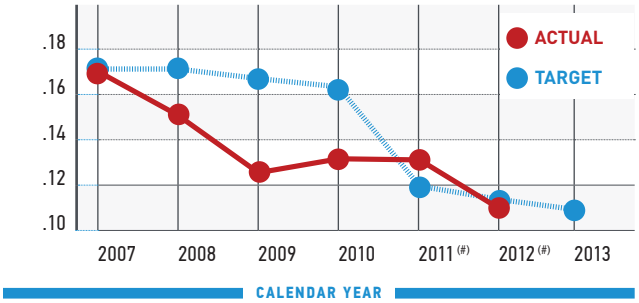
WHAT ARE WE MEASURING?

This measure compares the total number of fatalities in all crashes involving at least one large truck or bus to the total number of VMT. A large truck is defined as a motor vehicle with a gross vehicle weight rating (GVWR) greater than 10,000 pounds, and a bus is a motor vehicle designed to carry more than 10 passengers, not including the driver.

2012 RESULTS: TBD – 1,873 FATALITIES INVOLVING LARGE TRUCKS AND BUSES OCCURRED DURING THE FIRST SIX MONTHS OF CY 2012.

Target: 0.117 fatalities involving a large truck or bus per 100 million total VMT.
Actual: Preliminary estimates project 0.110 – 0.127 fatalities involving a large truck or bus per 100 million total VMT in calendar year 2012.

1.4 Large Truck and Bus Fatality Rate Per 100 Million Total VMT



#Projected based on preliminary data for 2011.

DESCRIPTION OF RESULTS

In 2011, the estimated number of large truck and bus fatalities (4,018) increased by an estimated 1.8 percent over 2010 (3,944) while over the past five years (2007 – 2011) fatalities fell more than 21 percent.

FMCSA expects large truck and bus fatalities to decline as it fully implements its Compliance, Safety, Accountability (CSA) commercial vehicle enforcement model, which continues to modernize agency efficiency and effectiveness of enforcement activities through early contact with a greater number of motor carriers.

In FY 2011, FMCSA implemented its "Rule of Three" strategic framework which is designed to: (1) raise the safety bar to enter the commercial motor vehicle industry; (2) ensure commercial motor vehicle operators maintain high standards to remain in the industry; and (3) remove high-risk carriers, vehicles, drivers, and service providers from operating.

Raising the safety bar to enter the industry addresses the safety challenge of New Entrants. Congress authorized the New Entrant Safety Assurance Program (NESAP) in the Motor Carrier Safety Improvement Act (MCSIA) of 1999, and with the enactment of SAFETEA-LU in 2005, authorized $35 million in annual grant funds for States to conduct New Entrant Safety Audits of new motor carriers entering the industry. In FY 2010, FMCSA implemented a rule to strengthen the effectiveness of the NESAP by establishing more stringent safety criteria that would prohibit carriers not fit to operate safely from continuing to operate until safety improvements are made. Motor carriers that fail safety audits are required to submit a Corrective Action Plan (CAP) documenting how they are addressing safety. Failure to submit a CAP or adhere to the plan and failure to improve compliance results in the carrier being denied permanent registration.

Additionally, to ensure that unsafe motor carriers are placed out-of-service and not reissued authority under new identities, the agency instituted a New Applicant Screening (NAS) system that helps detect unsafe carriers that disband operations and reincarnate as new entities in an attempt to avoid their previous safety records. FMCSA currently uses the system to screen all passenger and household goods carriers. Further, the agency continues to work toward a final rule for the Unified Registration System (URS), which will replace three current identification and registration systems, thereby improving the agency's ability to prevent carriers from reincarnating.

Maintaining high safety standards for carriers to remain in the industry is accomplished through the CSA enforcement model, the key tool for maintaining high safety standards and identifying and removing high-risk operators. CSA uses weighted statistical analysis of leading carrier risk indicators to prescribe measures of enforcement intervention commensurate with the carrier's safety risk. The guiding principle is that early intervention can reform poor performance before it becomes a problem. With CSA, FMCSA is proactively addressing problems instead of reacting to tragic events. The primary tool is the Safety Measurement System (SMS), which prioritizes the targets of interventions and enforcement actions, thus optimizing scarce human resources.

From the December 2010 rollout through the end of CY 2011, violations per roadside inspection fell by 8 percent with driver violations per inspection falling by 10 percent, the most significant improvement in violation rates in the last 10 years. The agency implemented 11 changes to enhance the SMS in December 2012. These changes reflect public input and provide FMCSA more precise information to assess a carrier's over-the-road safety performance.

On April 21, 2012, FMCSA published the National Registry of Certified Medical Examiners final rule. The National Registry requires all medical examiners who conduct physical examinations for interstate Commercial Motor Vehicle (CMV) drivers to meet specific training and knowledge requirements so they can better determine whether a CMV driver's medical fitness for duty meets FMCSA standards. Further, as of May 21, 2014, all medical certificates must be issued by an examiner on the registry.

In December 2011, the agency published a final rule to prohibit the use of hand-held cell phones. In FY 2012, FMCSA launched the SaferBus App along with other free, user-friendly, online tools including FMCSA's "Think Safety: Every Trip, Every Time" checklist to help consumers make sound and safe decisions on which bus company to select.

Removing high-risk operators from the Nation's roadways is where FMCSA takes final action after all other enforcement methods have been exhausted to ensure unfit carriers and drivers are removed from our National roadways. This includes strategic use of penalties, holding carriers accountable, removing arbitration loopholes, and using new roadside enforcement technologies for screening unsafe vehicles and removing them from service. The ultimate sanction is the issuance of operations out-of-service orders to prohibit unsafe companies from continued operation.

Hours of Service (HOS)—In December 2011, FMCSA published a final rule to amend the hours of service requirements for CMV drivers. The rule limits the use of the 34-hour restart provision to once per week and must include two rest periods between 1 a.m. and 5 a.m. This change reduces the maximum on-duty time accumulated during the workweek before driving is prohibited, thereby reducing the fatigue-related crash risk involving CMVs.

CSA Enforcement Model—FMCSA anticipates that CSA will help the agency and State partners achieve a greater reduction in CMV crashes, injuries, and fatalities by enabling enforcement personnel to address safety issues on a much larger population of motor carriers through a more effective and efficient use of resources. Additionally, CSA provides on-line tools that allow motor carriers to "self-evaluate" their safety performance. The tools help motor carriers identify where they are having difficulties so they can proactively make safety improvements in their operations before they become worse.

FUTURE OUTLOOK

DOT is committed to an integrated approach to safety that combines infrastructure engineering, education, enforcement, and emergency medical services. As demonstrated by the successful reductions in fatalities after the initiation of multidisciplinary State Strategic Highway Safety Plans, it is clear that an integrated, collaborative approach provides the best safety results for the traveling public. The enactment of MAP-21 creates a streamlined, performance-based, and multimodal program to address the many challenges facing the U.S. transportation system. MAP-21 strengthens the successful HSIP by dramatically increasing the size of the program, strengthening the linkage among modal safety programs, and creating a positive agenda to make significant progress in reducing roadway fatalities. MAP-21 also continues to build on other aggressive safety efforts, including the Department's fight against distracted driving and its push to improve transit and motor carrier safety.

Focus on People—FHWA will increase offerings of training courses for Federal, State, and local practitioners, particularly in focus States and cities, which promote engineering and design solutions to address safety needs. FHWA will also promote the use of highly effective countermeasures described in "Guidance Memorandum on Promoting the Implementation of Proven Safety Countermeasures." FMCSA is working to help influence all drivers operating in and around CMVs and develop education programs for high-risk drivers operating around CMVs (e.g., young, aging, and aggressive drivers). FMCSA's current effort is the Ticketing Aggressive Cars and Trucks (TACT) partnership with State law enforcement, which targets traffic enforcement activities for unsafe driving.

FMCSA efforts include: seeking to promote greater outreach and public involvement; ensuring high-risk populations receive education that positively impacts roadway safety and the CMV industry; increasing issuance of grants to a broader array of recipients (e.g., school educators and driver education programs, local enforcement, and safety outreach organizations); and expanding partnering efforts with new stakeholder groups (e.g., medical review officers, substance abuse professionals, laboratories, shippers, receivers, and brokers) to improve rulemakings and implementation of new initiatives.

NHTSA will continue to work closely with States, territories, and tribes to implement traffic safety programs at the State and local levels. It will also conduct behavioral safety research, National high-visibility enforcement campaigns, and pilot tests to develop new safety countermeasures. The most significant upgrade to NHTSA's data systems in 30 years was initiated in FY 2012. This multi-year data modernization project will enhance the agency's ability to collect and analyze crash data and will improve the information technology infrastructure. These data collection systems and databases provide the foundation upon which NHTSA establishes and evaluates its programs.

Focus on Roads—FHWA will pursue a broad range of activities that will translate into safer roadways, including: working with State, tribal, and local agencies to expand data collection, analysis, and evaluation to focus on improvements that address the highest risks and provide the greatest safety benefits; engaging its full suite of resources including peer exchanges, safety summits, technical assistance, training courses and workshops to advance deployment of the most effective tools and countermeasures; and using research and technologies to advance innovation.

Focus on Vehicles—NHTSA is at the forefront of efforts to advance vehicle safety in the U.S. Ongoing research of new technologies in FY 2013 may offer great potential for enhancing vehicle safety, such as vehicle-to-vehicle (V2V) and vehicle-to-infrastructure (V2I) communications. In August 2012, the agency initiated the largest-ever road test of connected vehicle crash avoidance technology in collaboration with the Research and Innovative Technology Administration (RITA).

Nearly 3,000 cars, trucks, and buses equipped with V2V "connected" Wi-Fi technology to enable vehicles and infrastructure to "talk" to each other in real time to help avoid crashes were deployed by December 2012. MAP-21 directs the Secretary to establish a Council for Vehicle Electronics, Vehicle Software, and Emerging Technologies within NHTSA to build and integrate the agency's expertise in passenger motor vehicle electronics and other new and emerging technologies.

Technology also contributes to driver distraction. NHTSA will continue to implement a multi-year comprehensive research plan to address this growing challenge. In FY 2013, NHTSA will complete a pilot project to evaluate the effectiveness of high-visibility law enforcement at the State level to reduce distracted driving. NHTSA has also begun developing voluntary Driver Distraction Guidelines for vehicle and system developers to promote device designs that minimize distraction potential. The guidelines are being produced in three phases. The first phase went out for public comment in 2012 and focused on visual-manual interfaces within the vehicle. The second phase, due out in 2013, will focus on portable aftermarket devices used by drivers. The third phase, in 2014, will deal with voice-based interfaces for in-vehicle and portable devices.

FMCSA will enhance collaboration with existing partners and use them as a force multiplier in support of the agency's regulatory process. The agency will enhance participation through fostering nontraditional partnerships to address CMV transportation issues. These issues include driver medical standards, passenger transportation, driver licensing, and consumer protection. FMCSA will continue to partner with other DOT agencies on safety standards for large trucks and buses. FMCSA expects to build a coordinated network of safety stakeholders to advance the agency's CMV "Safety 1st" Culture strategic focus area, and it intends to implement new large truck and bus-related safety measures in support of the agency's 2012–2016 Strategic Plan.

EXTERNAL FACTORS

The combined effects of fluctuating gas prices, economic activity, and the change in both the mix of vehicles (i.e., towards increased use of smaller cars and motorcycles) and the means of transportation (i.e., towards walking and bicycling, as well as mass transit) indicate fundamental changes in the Nation's transportation system. Though improvements can be made to affect the number and rate of roadway fatalities, these annual statistics are also affected by the number of people using occupant restraint systems and personal safety gear (e.g., seat belts, child safety seats, and motorcycle helmets), the number of impaired drivers on the road, the number of drivers who are speeding, and the number of drivers who are distracted. Traffic safety laws that are either passed or repealed by States also influence these numbers. For example, States that pass primary enforcement seat belt laws have higher overall seat belt use rates on average compared to those with secondary laws, where police officers are permitted to write a seat belt use citation only after a vehicle is stopped for some other traffic infraction. In contrast, States that repeal traffic safety laws can see the number of fatalities rise quickly. For example, this has occurred in States that have repealed all-rider motorcycle helmet use laws.

For the CMV industry, the above external factors play a role in safety performance. When fuel prices rise and the economy is down, carriers that operate on the margin are more susceptible to cutting corners on safety and going out of business. This may remove less fit operators from the roads and reduce exposure by other non-CMV vehicles, which may influence performance measures in a positive way. However, when fuel prices are low and the economy is up, the opposite impact is generally realized for a short period until these external factors stabilize.

PARTNERS

DOT works closely with partners at the Federal, State, tribal, and local levels to address every facet of transportation safety. The Department provides guidance and technical assistance to State, tribal, and local governments, and to metropolitan planning organizations to help in the development and implementation of comprehensive safety programs. DOT also develops effective countermeasures and enforcement programs to promote safe driving behaviors for passenger and commercial vehicle drivers. Safety partner groups play an important role in disseminating and implementing training and educational efforts. DOT also works with partners in the private sector on the development of safer vehicles and roads and on improved business practices for commercial operators.

AVIATION SAFETY

This remains one of the safest periods in aviation history for both commercial and general aviation. Over the last three and a half years, more than 2.5 billion airline passengers reached their destinations safely. As the stewards of aviation safety in the U.S., the Federal Aviation Administration (FAA) and its industry partners have built a system that operates more than 30,000 scheduled commercial flights daily and has reduced the risks of flying to all-time lows.

FAA will focus resources on improving air transportation safety by continuing to emphasize a positive safety culture, by making improvements to aviation standards, and through industry oversight. Additionally, FAA will take action to manage risk by proactively identifying hazards with a risk-based approach to the agency's continuous analysis of aviation data. Commercial Aviation Safety, General Aviation Safety, and Runway Safety are three of the areas where FAA will concentrate efforts to improve safety.

Reducing the risk of aviation accidents is one of the Department's Agency Priority Goals. The goal sets performance targets and tracks the progress against General Aviation (GA) and Commercial Aviation fatal accident rates and runway incursions. Reducing the number of runway incursions also lessens the probability of accidents that potentially involve fatalities, injuries, and significant property damage. Approximately 80 percent of fatal accidents are directly related to some form or combination of human factors. These run the range of external organizational influences, inadequate supervision, personnel factors (such as self-imposed stress), individual acts (such as skill-based errors), misperception errors, and judgment and decision-making errors. Fatal air carrier accidents have declined in terms of the average number of fatalities per accident. FAA oversees the safety of approximately 220,000 GA active aircraft in the United States. These aircraft include amateur-built aircraft, rotorcraft, balloons, and highly sophisticated turbojets. Therefore, by tracking the rate of fatal GA accidents per flight hours, FAA can more accurately pinpoint safety concerns or trends to help form different prevention methods. The success of FAA and industry collaborations on safety initiatives continues to drive a lower general aviation fatal accident rate.

PUBLIC BENEFIT STATEMENT

FAA's aviation safety measures improve overall safety for the flying public. As fatal air carrier accidents have declined in terms of the average number of fatalities per person on board, the commercial aviation metric is helping FAA sharpen its focus on improving air travel safety. By tracking the rate of general aviation fatal accidents per flight hours, the FAA can more accurately pinpoint safety concerns or trends indicating potential safety concerns. The agency's runway incursion metric helps reduce the probability that the public will be injured or killed in an accident resulting from a runway incursion.

MEASURE #1

Limit the rate of fatalities per 100 million persons onboard commercial air carriers. (FAA)

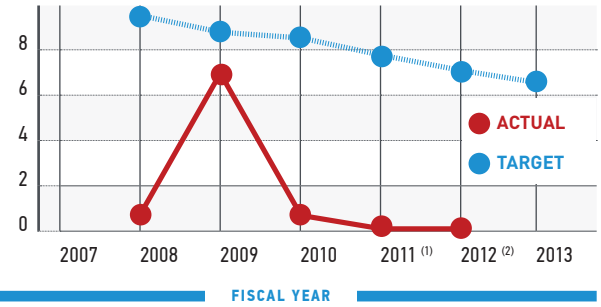
WHAT ARE WE MEASURING?

This metric measures the number of fatalities per 100 million persons onboard commercial aircraft, and it includes both scheduled and nonscheduled flights of U.S. passenger and cargo air carriers and scheduled passenger flights of commuter operators. 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.

2012 RESULTS: TARGET MET, BASED ON PRELIMINARY RESULTS

Target: 7.6 fatalities per 100 million persons onboard commercial aircraft.
Actual: 0 commercial air carrier fatalities occurred during FY 2012.

2.1 Number of Commercial Air Carrier Fatalities Per 100 Million Persons Onboard



1 Preliminary estimate. Final result available March 2013.
2 Preliminary estimate. Final result available March 2014.

DESCRIPTION OF RESULTS

In FY 2012, with no commercial fatal accidents, FAA was successful in maintaining the commercial air carrier rate below 7.6 fatalities per 100 million people onboard. The agency's focused, data-driven safety agenda, with its emphasis on using the latest technology and training to break the chain of events that lead to accidents, along with the work of the Commercial Aviation Safety Team (CAST), continues to keep the skies safe for commercial airspace passengers.

The technology used by pilots, mechanics, flight attendants, and air traffic controllers has evolved. Today, pilots must possess not only the navigation, stick, and rudder skills they have always had to learn, but they must be "system managers" who are intimately familiar with the complexity of operations. FAA's training programs work to equip pilots with the skills required to deal with any situation.

MEASURE #2

Limit the general aviation (GA) fatal accident rate per 100,000 flight hours. (FAA)

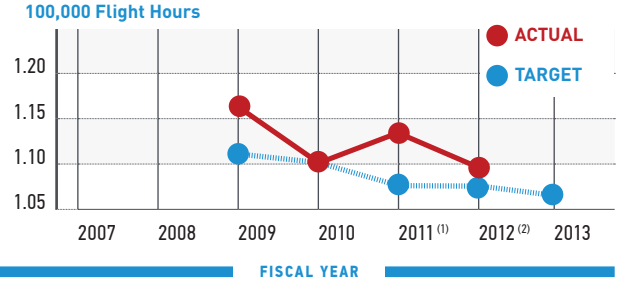
WHAT ARE WE MEASURING?

This metric measures the number of fatal accidents per 100,000 general aviation flight hours. This metric includes on-demand and general aviation flights. General aviation comprises a diverse range of aviation activities, including single-seat homebuilt aircraft, helicopters, balloons, single and multiple engine land and seaplanes, and highly sophisticated, extended range turbojets.

2012 RESULTS: TARGET NOT MET, BASED ON PRELIMINARY RESULTS

Target: 1.07 general aviation fatal accidents per 100,000 flight hours.
Actual: 1.10 general aviation fatal accidents per 100,000 flight hours.

2.2 Number of Fatal General Aviation Accidents per 100,000 Flight Hours



1 Preliminary estimate. Final result available March 2013.
2 Preliminary estimate. Final result available March 2014.

DESCRIPTION OF RESULTS

FAA does not anticipate meeting its FY 2012 GA target. Based on preliminary estimates, FAA finished the year with a rate of 1.10 fatal accidents per 100,000 flight hours. "Loss of Control" continues to be the leading cause of fatalities, accounting for about 70 percent of all fatal GA accidents. Estimates demonstrate that approximately 80 percent of fatal accidents are directly attributable to human factors.

A large percentage of GA fatalities occurred in the area of experimental aircraft, which are mostly amateur-built. That is, they have been fabricated and assembled by people who undertook the construction project solely for their own education or recreation. These aircraft accounted for approximately 27.8 percent of GA fatal accidents in FY 2012 while contributing to slightly fewer than 6 percent of GA flight hours.

Although Alaska accounts for only 2 percent of the Nation's population, approximately 5 percent of GA accidents occur in the State. With more than three-quarters of Alaskan communities having no access to highways or roads, many communities depend on general aviation for access to food, mail, jobs, schools, medical services, and travel. However, the State's topography and extreme weather present unique safety challenges to pilots, resulting in a relatively high number of accidents.

In FY 2012, FAA continued to work jointly with the Alaska aviation community through a number of organizations and safety programs, including the Medallion Foundation, the Circle of Safety program, the FAA Safety Team, the Alaska Air Carriers Association, the Alaska Aviation Safety Foundation, and the Alaska Airman's Association.

MEASURE #3

Limit the rate of Category A & B runway incursions per million operations. (FAA)

WHAT ARE WE MEASURING?

A runway incursion is any occurrence at an aerodrome (a location from which aircraft flight operations take place) involving the incorrect presence of an aircraft, vehicle, or person on the protected area of a surface designated for the landing and takeoff of aircraft. Runway incursions can create dangerous situations that can lead to serious accidents potentially involving fatalities, injuries, and significant property damage.

The FAA tracks all runway incursions and measures the rate of the following two categories of most serious runway incursions:

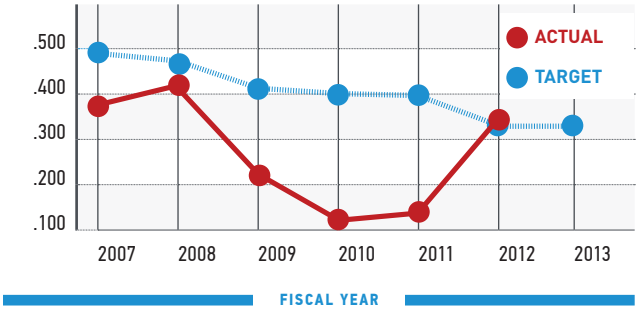
CATEGORY A—a serious incident in which a collision was narrowly avoided.

CATEGORY B—an incident in which separation decreases and there is a significant potential for collision, which may result in a time-critical corrective/evasive response to avoid a collision.

2012 RESULTS: TARGET MET

Target: Limit runway incursions to 0.395 occurrences per million operations.
Actual: 0.356 runway incursions per million operations.

2.3 Category A&B Runway Incursions Per Million Operations



DESCRIPTION OF RESULTS

The reduction in the number and severity of runway incursions is one of FAA's top priorities. FY 2012 final results for the rate of Category A and B runway incursions was 0.356, just below the established end-of-year goal of 0.395 serious events per million operations. FAA has met expectations for this indicator with 18 Category A and B Runway Incursion surface events.

This year, FAA requested and received updated action plans from Airports, Terminal Services, and Flight Standards organizations, describing steps to be taken to reduce runway incursions. Additionally, separate focused efforts were initiated to address surface risk associated with airport construction, closed runways, approach hold procedures, and call sign confusion. FAA has taken specific actions to instill an open reporting culture so that safety issues are brought to light and addressed. The implementation of non-punitive voluntary safety reporting programs simplified safety reporting processes outlined in new FAA safety orders. New tools supporting these processes have resulted in removing barriers to reporting all surface events.

Although the rate of Category A and B runway incursions was within the established target, the increase in the rate from the previous three years is a trend that is not acceptable. FAA is working diligently with the aviation community to implement mitigations, raise awareness, and educate pilots, drivers, and controllers on the risks of runway incursions. As many foreign air carriers operate within the United States, FAA also continues to support International Civil Aviation Organization runway safety programs. These efforts will be supported by the new Surface Risk Analysis Process, which will improve FAA's ability to determine root causes and correct the hazards affecting runway safety. FAA anticipates these efforts will have a positive impact, resulting in a reduction in the number of runway incursions and risk to the flying public.

FUTURE OUTLOOK

While FAA achievements have brought aviation to an unprecedented level of safety, identified sources of risk within aviation provide the basis for moving forward to the next level of safety. FAA's work with stakeholders to stimulate cooperation for the open reporting of safety concerns is key to the agency's successful safety efforts. Each member of the aviation community plays a vital role in the efforts to ensure the U.S. continues to have the safest airspace system in the world.

The General Aviation Joint Steering Committee (GAJSC) continues efforts to take a more focused, data-driven approach to understanding fatal accident causes and contributing factors. This is a government-industry group that manages efforts to reduce fatal general aviation accidents. The GAJSC meets to review GA accident trends, establish areas for special emphasis, and share information.

NextGen is a transformative change in the management and operation of how we fly, which will reduce delays, save fuel, and lower carbon emissions. This comprehensive initiative integrates new and existing technologies, including satellite navigation and advanced digital communications. Automatic Dependent Surveillance-Broadcast (ADS-B) is FAA's satellite-based successor to radar. ADS-B makes use of global positioning system (GPS) technology to determine and share precise aircraft location information, and streams additional flight information to the cockpits of properly equipped aircraft The introduction of ADS-B enhances GA pilots' awareness of other traffic and improves safety in areas that radar cannot reach, such as Alaska and the Gulf of Mexico. In addition, FAA continues to work with various members of the GA community to promote education and training on night landings, weather, and other areas of concern. Furthermore, FAA will rely on GAJSC for a data-driven approach to improving safety, as well as focus on training initiatives, such as the Airmen Testing Standards and Training Aviation Rulemaking Committee.

FAA continues working on a number of projects directly tasked to the agency by Congress in the *Airline Safety and FAA Extension Act of 2010*. FAA is developing a pilot training rule (RIN 2120-AJ67) with a target completion date in FY 2013. Depending on the outcome of the final rule, this rulemaking effort is likely to represent the most significant overhaul of crew training in the last 20 years. If finalized, the provisions included in the notice of proposed rulemaking (NPRM) would require pilots, flight attendants, and dispatchers to demonstrate their skills in real operations.

Additional initiatives in FAA's plan to reduce runway incursions include:

RUNWAY SAFETY COUNCIL

- By 2013, reduce the rate of serious runway incursions by 25 percent from 2008 levels
- As of September 30, 2012, the Root Cause Analysis Team analyzed and evaluated 18 Category A and B runway incursions and reported the results and recommendations to the Council

RUNWAY SAFETY ACTION TEAMS (RSAT)

- Support Local RSAT meeting performed by Air Traffic Facility Managers
- Develop a new RSAT support model for airport stakeholders that enhances the ability to track actions and ensures the timely implementation of hazard mitigations

RUNWAY STATUS LIGHTS

- By the end of 2015, runway status lights will be operational at 23 airports

LOW COST GROUND SURVEILLANCE (LCGS)

- Conduct operational evaluation of LCGS at pilot sites

FAA is committed to mitigating the risks of runway incursions. The agency continues ongoing outreach, education, and awareness programs to affected groups through mass electronic mail communications, training animations, and the following webpage: http://www.asias.faa.gov/portal/page/portal/asias_pages/asias_home/welcome_tab.

EXTERNAL FACTORS

Approximately 80 percent of fatal accidents are directly related to some form or combination of human factors including external organizational influences, inadequate supervision, personnel factors (such as self-imposed stress), individual acts (such as skill-based errors), misperception errors, and judgment and decision-making errors. Runway incursions are the result of an air traffic controller, pilot, or vehicle/pedestrian event. FAA has direct influence on air traffic controller performance, but indirect influence on pilots and airport personnel.

PARTNERS

FAA partners in this effort include the National Transportation Safety Board, Commercial Aviation Safety Team, General Aviation Joint Steering Committee, International Helicopter Safety Team, Congress, industry organizations, manufacturers, training schools, associations, and civil airworthiness authorities and international organizations.

FAA co-chairs the Runway Safety Council with Airlines for America. Other Runway Safety Council members include the Air Line Pilots Association, Aircraft Owners and Pilots Association, National Association of Flight Instructors, National Business Aviation Association, Regional Airline Association, National Air Traffic Controllers Association, Airport Councils International-North America, and the American Association of Airport Executives.

PIPELINE SAFETY

MEASURE: Reduce the number of natural gas and hazardous liquid pipeline incidents involving death or major injury. (PHMSA)

While pipelines are by many measures the safest mode for transporting hazardous liquid and natural gas, the nature of their cargo is inherently dangerous. To address this hazard, the Pipeline and Hazardous Materials Safety Administration (PHMSA) has designed and implemented a strong, risk-based, systems approach to protect the safety, security, and reliability of the Nation's pipeline infrastructure. This approach also helps provide secure and reliable transportation of the Nation's energy resources.

PHMSA recognizes the importance of a strong continued focus on excavation or construction-related damage—the leading cause of serious pipeline incidents involving death or injury, especially in natural gas distribution systems where people work and live in closest proximity to pipelines.

PUBLIC BENEFIT STATEMENT

Reducing pipeline incidents involving death or major injury directly impacts public and occupational safety, and contributes to achieving the DOT strategic goal for safety.

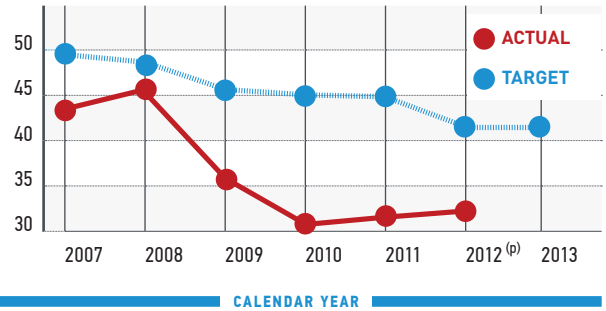
WHAT ARE WE MEASURING?

Deaths and injuries reflect the most important safety outcomes in transportation, and the number of incidents with death or major injury reflects the risk of these outcomes.

2012 RESULTS: TARGET MET, BASED ON PRELIMINARY ESTIMATE

Target: 30-43 pipeline incidents involving death or major injury.
Actual: 32 (projected) pipeline incidents involving death or major injury.

3.1 Pipeline Incidents Involving Death or Major Injury



(p) Preliminary estimate.

DESCRIPTION OF RESULTS

Pipeline operators reported 32 incidents with death or major injury in FY 2012—including 26 from gas distribution systems, 3 from gas transmission, and 3 from hazardous liquid pipeline systems. These incidents resulted in 14 deaths and 52 injuries. The largest single cause was "other outside force damage" to gas distribution systems, including damage by vehicles or a separate fire or explosion that damaged the pipeline.

FUTURE OUTLOOK

PHMSA is dedicated to improving oversight of pipeline safety, including oil spill response plan reviews and expansion of its participation in oil spill drills; and will continue to advance the "811 - Call Before you Dig" public awareness campaign, expand geospatial data collection and analysis to help identify high-risk areas, and gradually expand the risk-based inspection program.

EXTERNAL FACTORS

Excavation damage, damage from natural forces (e.g., storms and flooding), and other outside force damage are all significant causes of pipeline failure.

PARTNERS

State pipeline safety agencies, which inspect approximately 80 percent of all pipelines.

HAZARDOUS MATERIALS SAFETY

MEASURE: Reduce the number of hazardous materials incidents involving death or major injury. (PHMSA)

Energy products and hazardous materials underpin the American economy and our way of life. They also introduce some inherent risk to the public, the environment, and property. PHMSA is focused on protecting people and the environment from the risks inherent in transportation of hazardous materials. The agency leads the national program to identify and evaluate safety risks, develop and enforce standards for transporting hazardous materials, educate shippers and carriers, investigate hazardous materials incidents, conduct research, and provide grants to improve emergency response to incidents.

PUBLIC BENEFIT STATEMENT

Reducing hazardous materials incidents involving death or major injury directly impacts public and occupational safety, and contributes to achieving the DOT strategic goal for safety.

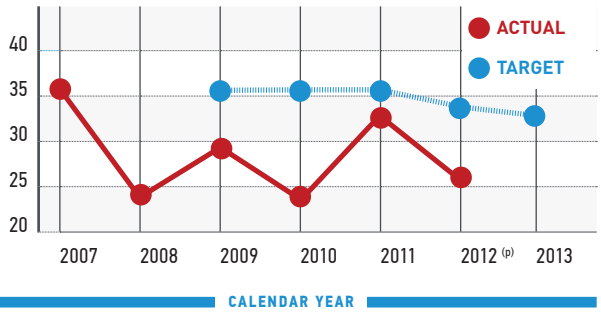
WHAT ARE WE MEASURING?

Deaths and injuries reflect the most important safety outcomes in transportation, and the number of incidents with death or major injury reflects the risk of these outcomes.

2012 RESULTS: TARGET MET, BASED ON PRELIMINARY ESTIMATE

Target: 22-34 hazardous materials incidents involving death or major injury.
Actual: 26 (preliminary) hazardous materials incidents involving death or major injury.

3.2 Hazardous Materials Incidents Involving Death or Major Injury



(p) Preliminary estimate.

DESCRIPTION OF RESULTS

Hazardous materials carriers reported 26 (projected) incidents with death or major injury in FY 2012. These incidents resulted in 11 deaths and 29 injuries. There were also 107 evacuations involving more than 5,000 people to help prevent injuries from hazardous materials incidents.

FUTURE OUTLOOK

PHMSA will continue modernizing its transactional information systems and quality and program evaluation capabilities; increasing its enforcement and inspection capabilities; recruiting new special permits and approvals specialists, scientists, engineers, data analysts, and training specialists; and fulfilling the requirements of MAP-21.

The Federal Motor Carrier Safety Administration (FMCSA) will continue to seek to refine enforcement and compliance interventions through more intensive oversight of the motor carrier industry, including more fully defining the hazardous materials motor carrier population for purposes related to the Compliance, Safety, Accountability Safety Measurement System (CSA SMS), expanding enforcement of and compliance with the Hazardous Materials Safety Permit requirements, and continuing research into nurse tank integrity and testing procedures.

The Federal Railroad Administration (FRA) will continue to improve its stewardship of rail safety programs, including the hazardous materials safety program. FRA is committed to reducing the non-accident hazardous materials release rate to 1.22 per 200 million hazmat ton-miles.

In FY 2013, the Federal Aviation Administration (FAA) Hazardous Materials Safety Program (HMSP) will: (1) continue implementation of a Safety Management System (SMS) program that integrates risk-based oversight of air carriers through surveillance activities in coordination with FAA Office of Aviation Safety certificate management teams; (2) enhance regulatory oversight of air carriers and air mode shippers in accordance with the Hazardous Materials Regulations (HRMs) through new risk-based tools; (3) enhance outreach on air transportation of undeclared hazardous materials; (4) increase coordination with other civil aviation authorities to improve safety; (5) and, continue research efforts with FAA's Office of Aviation Research (Tech Center) to measure the risks associated with lithium batteries and possible mitigation through packaging and fire.

EXTERNAL FACTORS

Since this measure is not normalized for changes in risk exposure, there are several factors that could affect the outcomes, including the volume shipped, total vehicle miles of travel, or changes in the mix of hazardous materials shipped. These external factors are driven largely by economic conditions.

PARTNERS

FMCSA, FAA, FRA, and the U.S. Coast Guard all contribute to achieving this goal through prevention programs focused on their modes of transportation. State and local emergency responders play an important role in mitigating the consequences of incidents that do occur.

TRANSIT SAFETY

MEASURE: Reduce transit fatalities per 100 million passenger-miles traveled. (FTA)

According to the National Safety Council, passengers on the Nation's bus, rail, and commuter rail systems are 40 times less likely to be involved in a fatal accident than passengers in cars and trucks. Nevertheless, each year there are more than 200 fatalities related to public transportation. Slightly more than half of transit fatalities come from incidents involving the Nation's heavy rail and light rail systems, even though such systems account for less than half of the Nation's public transportation trips. Under laws in effect through June 2012, FTA established regulations for a State-managed safety oversight program for the Nation's heavy rail and light rail systems with a goal of reducing fatalities on these systems. In addition, FTA established a program of voluntary oversight for transit bus systems, including on-site reviews for selected systems, and developed the requirement for drug and alcohol testing for transit operators. Finally, FTA awards research grants that identify new technologies and best practices to enhance transit safety.

Moving Ahead for Progress in the 21st Century Act (MAP-21) enacted in July 2012 provides FTA with new authority to establish and regulate transit safety standards.

PUBLIC BENEFIT STATEMENT

Safety is FTA's highest priority. Every year, there are more than 10 billion boardings on the Nation's public transportation systems. Monthly transit boardings exceed the total number of U.S. commercial airline boardings in an entire year, and transit accounts for almost as many boardings each day as Amtrak has in an entire year. With so many Americans relying upon public transportation for their everyday needs, safety on public transportation is critical if it is to remain a viable option for meeting the Nation's transportation needs.

WHAT ARE WE MEASURING?

A fatality is reported for any death occurring within 30 days of a transit incident, as a result of that incident. The transit fatality data include all modes of transit, except commuter rail, the Alaska Railroad, and the New York-New Jersey Port Authority Trans-Hudson (PATH) Trains, as these systems are subject to safety regulations from the Federal Railroad Administration (FRA). Fatalities may occur while traveling on transit or while boarding, alighting, or waiting for transit vehicles to arrive. An injury or fatality may also occur while not using transit, such as in the cases of being struck by a transit vehicle as a pedestrian, or as a transit employee working in the transit right-of-way. Fatalities include suicides, but do not include deaths resulting

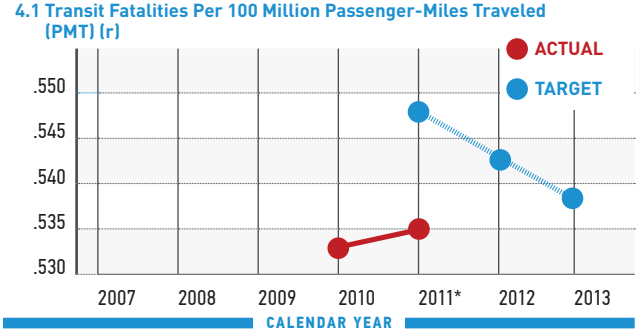
from a medical condition (e.g., a heart attack or stroke) while riding transit. Fatalities also do not include deaths occurring in maintenance shops or administration buildings.

Consistent with the safety performance measures for other modes of transportation, fatalities are compared to total passenger miles traveled (PMT). By dividing total fatalities by passenger miles, this measure is normalized for any increase in fatalities resulting simply from increased ridership.

2012 RESULTS: TBD

Target: 0.543 transit fatalities per 100 million PMT.
Actual: 2012 data not available. FTA's National Transit Database will report fatality rates in September 2013.

4.1 Transit Fatalities Per 100 Million Passenger-Miles Traveled (PMT) (r)



(r) Revised.
*New target developed in 2011.

DESCRIPTION OF RESULTS

Actual 2012 data are not yet available. FTA's National Transit Database will report fatality rates in September 2013. There were 228 transit fatalities in 2011, a slight increase from the 221 fatalities in 2010. Passenger miles also increased slightly from 41.5 billion in 2010 to 42.6 billion in 2011. This caused a very slight increase in the transit fatality rate from 0.533 in 2010 to 0.535 in 2011. Effectively, this measure is unchanged from 2010 to 2011.

FUTURE OUTLOOK

FTA will continue implementing its new safety oversight authorities for transit rail systems established in MAP-21, including new transit safety rulemakings.

EXTERNAL FACTORS

Prior to the passage of MAP-21, FTA developed safety standards for transit agencies to reference as necessary. With the enactment of MAP-21, FTA will play a more proactive role in the regulation and oversight of public transportation safety. The agency will continue to work with its State Safety Oversight Agency partners to implement effective oversight of the Nation's bus and rail transit systems.

FTA does not directly operate public transportation systems. Local decisions and actions will continue to have a significant impact on the safety of public transportation.

PARTNERS

FTA's partners in this effort include transit agencies, State Departments of Transportation, State Safety Oversight Agencies, local governments, and research entities.

RAILROAD SAFETY

MEASURE: Reduce rail-related accidents and incidents per million train-miles. (FRA)

To ensure the safety of the Nation's rail operations and infrastructure, FRA relies on the issuance, implementation, and enforcement of safety regulations; administration of financial assistance programs to invest in selected rail corridors; and research and development of new technology and operating practices. Nevertheless, during FY 2012, rail-related incidents resulted in 710 fatalities and 7,585 injuries.

PUBLIC BENEFIT STATEMENT

Improved rail technology and equipment, increased awareness of highway-rail grade crossing safety, and better operating practices result in fewer deaths and injuries, fewer hazardous material releases into the environment, and lower medical expenses and lost productivity.

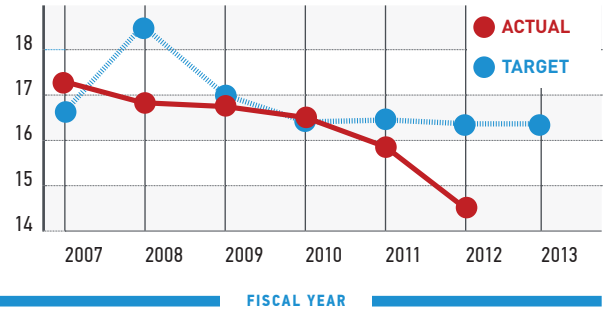
WHAT ARE WE MEASURING?

This measure summarizes FRA's internal safety performance measures and reflects the complexity of America's rail environment (e.g., train accidents, employee accidents/incidents, grade crossing incidents, and trespasser incidents).

2012 RESULTS: TARGET MET

Target: 16.300 rail-related accidents and incidents per million train-miles.
Actual: 14.557 rail-related accidents and incidents per million train-miles.

5.1 Rail-Related Accidents and Incidents Per Million Train-Miles



DESCRIPTION OF RESULTS

The FY 2012 rate of rail-related accidents and incidents was the lowest level since FRA began collecting safety data in the 1970s. For the 10-year period FY 2003 through FY 2012, the number of reportable rail-related accidents and incidents declined from 14,295 to 10,788 (25 percent); train accidents fell from 2,991 to 1,756 (41 percent); grade-crossing incidents decreased from 2,934 to 2,020 (31 percent); and casualties dropped from 10,069 to 8,295 (18 percent).

FUTURE OUTLOOK

Preliminary data for FY 2012, along with analytical forecasting, indicate that the downward trend will continue for the next several years. FRA will continue to strengthen its inspector force and implement new approaches to reduce further rail-related accident and incident rates. In the next two years, FRA will:

- Develop and implement risk reduction programs on each class I railroad, each railroad with an inadequate safety record, and each passenger railroad.
- Expand to a nationwide program the Confidential Close Call Reporting System. This initiative enhances railroad safety cultures by building trust and relying on the program's core operating principles—voluntary, confidential, non-punitive reporting and using data to recommend corrective actions.
- Integrate automated methods into the track inspection program, increasing efficiency and cost-effectiveness.
- Continue providing oversight and technical assistance for positive train control systems implementation.

EXTERNAL FACTORS

To achieve higher levels of safety performance, railroads must assimilate system safety and risk reduction programs and new technologies, such as positive train control. FRA is committed to helping to resolve technical and spectrum availability issues that could hinder positive train control implementation. Moreover, two categories of incidents—both with strong behavior influences—account for almost 97 percent of rail-related deaths. Consequently, these incidents are difficult to address effectively. Many of the people killed in grade-crossing incidents die because motor vehicle drivers illegally avoid protective devices at grade crossings. Additionally, hundreds of people die while trespassing on rail rights-of-way.

PARTNERS

Private rail operators and labor; other Federal, State, and local governments; domestic and international associations, councils, and organizations as members of the Rail Safety Advisory Committee; and grant recipients.

IMPROVED SAFETY EXPERIENCE FOR ALL ROAD USERS

MEASURE: Increase the cumulative number of States and localities that adopt roadway designs that accommodate all road users (Complete Streets). (OST)

Many communities have joined a national movement for Complete Streets, which encourages safe access to destinations for everyone, regardless of age, ability, income, ethnicity, or mode of travel. Rather than defining movement by mode of travel, an inclusive design focuses on the desired outcome of a transportation system that supports safe and universally inclusive roadway use. The policies at the State and local level can lead to transportation projects that are designed for the safe use of bicyclists, transit users, and pedestrians of all ages and abilities.

PUBLIC BENEFIT STATEMENT

Policies for roadway designs that accommodate all road users benefit communities by ensuring safe, accessible, and healthy streets in their communities.

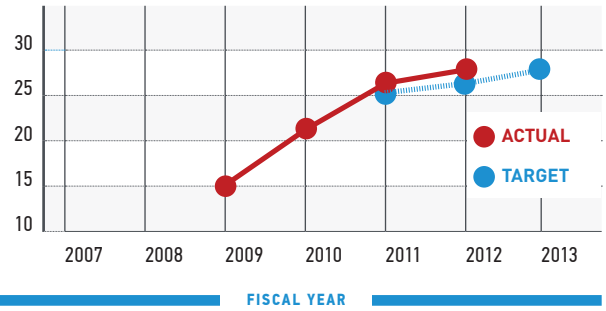
WHAT ARE WE MEASURING?

DOT measures the effectiveness of the DOT Safety and Livability initiatives by the increase in the number of States and localities that adopt roadway design policies that accommodate all road users.

2012 RESULTS: TARGET MET

Target: 26 States adopting roadway design policies that accommodate all road users.
Actual: 27 States adopted roadway design policies that accommodated all road users.

6.1 Cumulative number of States that adopt roadway designs that accommodate all road users (Complete Streets)



DESCRIPTION OF RESULTS

By the end of FY 2012, 27 States, the District of Columbia, and the Commonwealth of Puerto Rico have adopted or committed in writing to Complete Streets policies. Additionally, 379 regional and local jurisdictions have adopted or committed to Complete Streets policies aimed at achieving roadway designs that accommodate all road users in their community transportation networks.

FUTURE OUTLOOK

The outlook for additional States and communities to adopt inclusive and safer roadway design policies is good, given the increase in 2012.

EXTERNAL FACTORS

The estimates for States and jurisdictions that have adopted Complete Streets policies are based on reviews of State and community legislation or ordinances, transportation plans, comprehensive plans, and design guidance. However, due to the differences among States and communities in the various vehicles for the policies, a summary of these policies may not reflect some aspects of the policies.

PARTNERS

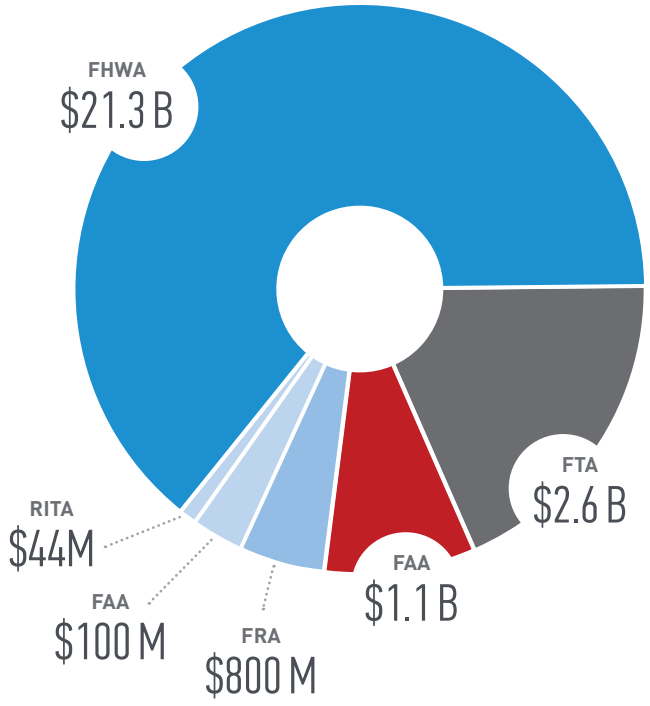
DOT's partners in this effort include State DOTs, local transportation agencies and jurisdictions, bicycle and pedestrian advocacy groups, health advocacy groups, and Safe Routes to Schools coalitions.

STATE OF GOOD REPAIR

STATE OF GOOD REPAIR

Preserving the health of our road, bridge, transit, and airport runway infrastructure is critical to the functionality and cost effectiveness of the Nation's transportation system. According to the current data estimates, pavement conditions and roadway surfaces on the National Highway System's roads and bridges are exceeding the 2012 targets.The Department is making efforts to reduce the backlog of transit capital assets in need of replacement or refurbishment, and the National Plan of Integrated Airport Systems (NPIAS) surpassed its 2012 runway condition target by maintaining 97.5 percent of NPIAS paved runways in excellent, good, or fair condition.

NET BUDGETARY RESOURCES BY STRATEGIC GOALS: FY 2012 ENACTED



TOTAL $26,052,172,000

HIGHWAY INFRASTRUCTURE (FHWA)

Over the past five years, pavement condition declined for 34 percent of all travel on the National Highway System (NHS). At the same time, more than 50 percent of States reported an increase in the number of bridges on the NHS eligible for rehabilitation. The condition of pavement and bridges across the country varies considerably, with many States struggling to maintain current conditions. The Department will continue to make the State of Good Repair goal a top priority in its ongoing commitment to advance strategies and initiatives to improve the condition of the Nation's roads and bridges. A key component of MAP-21 is the requirement that the States develop and implement asset management plans and performance plans specifically for highway and bridge infrastructure.

The performance measures associated with this goal are used to assess the overall condition of pavements and bridges in order to determine if highway infrastructure on the NHS is able to support system mobility needs, and determine if investments made to maintain and improve infrastructure conditions are effective. Under MAP-21, the NHS is an approximate 223,000-mile network composed of the Interstate System, all principal arterial routes including border crossings on these routes, intermodal connectors including toll facilities, and a strategic highway network and its connectors that are important to national defense. It provides mobility to the vast majority of the Nation's population and almost all of its commerce, supports national defense, and promotes intermodal connectivity.

PUBLIC BENEFIT STATEMENT

Maintaining the National Highway System, including its bridges and roads, in a State of Good Repair benefits the American public through lower vehicle operating costs (i.e., less wear-and-tear) for NHS users and ensures better use of Federal and State funds for capital investment.

MEASURE #1

Increase the percent of travel on NHS roads with pavement performance standards rated "good." (FHWA)

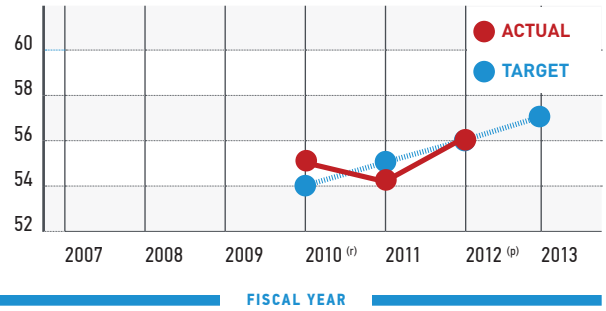
WHAT ARE WE MEASURING?

This measure is derived from Vehicle-Miles Traveled (VMT) data on reported NHS sections and pavement ride quality data reported using the International Roughness Index (IRI). IRI is a statistic used to estimate the amount of roughness in a measured longitudinal profile. An IRI of 95 inches per mile or less is necessary for a good rated ride. See the FHWA Highway Performance Monitoring System (HPMS) Field Manual for more details at http://www.fhwa.dot.gov/policyinformation/hpms/fieldmanual/.

2012 RESULTS: TARGET MET, BASED ON PRELIMINARY RESULTS

Target: 56.0 percent of travel on NHS roads with pavement performance standards rated "good."
Actual: 56.2 percent of travel on NHS roads with pavement performance standards rated "good."

1.1 Percent of Travel on the National Highway System (NHS) Roads with Pavement Performance Standards Rated "Good"



(r) An estimate of 54.7% for the 2010 result was reported earlier.
(p) Projection based on preliminary data.

DESCRIPTION OF RESULTS

Pavement conditions on the NHS improved in recent years through 2010, driven in part by the large increase in Federal highway capital investment under the American Recovery and Reinvestment Act of 2009 and a decrease in prices of construction materials from a peak in 2006. This trend was reversed in 2011, as construction materials prices began to rise and spending by all levels of government declined on NHS pavements. Highway spending is estimated to have increased slightly during 2012, which would support a resumption of the long-term trend toward improvements in pavement condition. In 2012, an estimated 56.2 percent of vehicle-miles traveled on the enhanced NHS occurred on pavements with good ride quality.

In FY 2012, FHWA worked with States to improve highway construction and performance on and off the NHS. A national workshop was held to discuss how key condition indices could be used to assess overall infrastructure health. These approaches were later piloted on a multi-State interstate corridor with good results. Efforts continued between FHWA and the American Association of State Highway and Transportation Officials (AASHTO) to develop definitions for highway pavement condition and agree upon a national definition for State of Good Repair.

In 2011, more than 3,600 miles of public roads accessing America's national parks, forests, refuges, and tribal communities were improved. The multimodal facilities accessing parks, forests, and wildlife refuges allow visitors to enjoy these national treasures for years to come. The transportation infrastructure in tribal areas provides vital access to critical community services including hospitals and schools.

MEASURE #2

Reduce the percent of deck area (i.e., the roadway surface of a bridge) on NHS bridges rated structurally deficient. (FHWA)

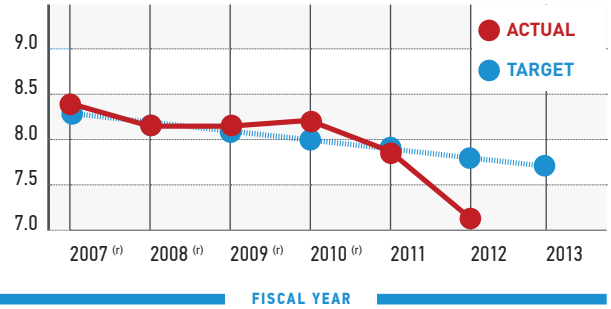
WHAT ARE WE MEASURING?

This measure serves as an indicator of trends in bridge conditions across the Nation. The measure was revised in FY 2012 to track progress in addressing the structurally deficient class of bridges. A bridge is rated as structurally deficient if significant load carrying elements are in poor or worse condition due to deterioration and damage, or if the waterway opening provided is inadequate and could lead to overtopping that would cause intolerable traffic interruptions. The surface area of the bridge deck accounts for size differences among bridges and avoids the pitfall associated with counting bridges regardless of their size.

2012 RESULTS: TARGET MET

Target: 7.8 percent of deck area on NHS bridges rated structurally deficient.
Actual: 7.1 percent of deck area on NHS bridges rated structurally deficient.

1.2 Percent of Deck Area (i.e., the Roadway Surface of a Bridge) on NHS Bridges Rated Structurally Deficient



(r) Revised.

DESCRIPTION OF RESULTS

Between FY 2007 and FY 2012, percent of deck area on structurally deficient bridges on the NHS declined from 8.4 percent to 7.1 percent. In FY 2013, the NHS has expanded to include principal arterial routes that connect to the NHS. States are in the process of identifying the additional bridges on the redefined NHS that will be included in the analyses of results beginning in FY 2013. FHWA continued to work with the States in the application of effective Bridge Management Systems, which are designed to assist decision makers in the selection of cost-effective bridge preservation, rehabilitation, and improvement strategies and actions. Targeted strategies such as providing technical assistance to specific States have been developed to further advance bridge management principles and practices. In addition, FHWA focused attention on ensuring the safety of existing bridges through enhanced oversight of compliance with national inspection standards.

FUTURE OUTLOOK

DOT continues to face the challenges of developing improved tools and techniques to help States better allocate scarce resources, and providing effective oversight of Federal investments through better use of data, management tools, and performance measures. FHWA will continue to work with AASHTO and other partners to develop and deploy best practices for bridge management and preservation, as well as improve pavement condition. Key initiatives will include:

- Enforcing the MAP-21 requirement for all States to maintain their NHS bridge conditions so that no more than 10 percent of the deck area is on bridges classified as structurally deficient;
- Inspecting and evaluating bridges, tunnels, and other highway assets, as well as providing training for bridge and tunnel inspectors;
- Establishing standards and guidance for States for reporting on the new National Highway Performance Program (NHPP) authorized under MAP-21;
- Developing data collection plans for new and existing federal partners and establishing performance measures and targets that support the Federal Lands Transportation Program;
- Establishing minimum condition levels for interstate pavements before repurposing NHPP funds for other needs; and,
- Issuing guidance and/or regulations that require each State to develop a risk- and performance-based Asset Management Plan for the NHS to improve asset condition and system performance.

EXTERNAL FACTORS

There are several factors that affect FHWA's ability to improve pavement quality. The availability of transportation funding and available revenue from Federal, State, and local sources needed to support pavement condition improvements to the target levels is a critical factor. State and local highway agencies, not FHWA, select projects, which may or may not address pavement quality. Other factors include the costs of materials and construction services to deliver highway projects that are highly dependent on worldwide demand, and the quality of the design and construction of highway projects. States select bridge projects for programming and have considerable flexibility in prioritizing how the funds are used (e.g., type of work performed). Other factors are the increased costs of materials and construction services to deliver bridge projects, the availability of human and material resources, and the quality of the project design and construction.

PARTNERS

State DOTs, local transportation departments, universities, the Transportation Research Board (TRB), and AASHTO.

TRANSIT ASSETS (FTA)

MEASURE: Reduce the backlog of transit capital assets in need of replacement or refurbishment (as defined by an estimated condition rating of 2.5 or lower). (FTA)

In the June 2010 National State of Good Repair Assessment, FTA estimated a $77-billion backlog of the Nation's transit assets in need of replacement or refurbishment. This accounted for 29 percent of all transit capital assets nationwide that FTA estimates are currently in marginal or poor condition. FTA continues to encourage its transit grantees to "fix it first," and to adopt a comprehensive transit asset management plan to maintain safe, reliable, and efficient transit service.

According to FTA's National Transit Database, transit agencies spent (outlayed) $10.5 billion in Federal funds in 2011. Two-thirds of this amount, $6.9 billion, was spent directly on capital projects. The remaining $3.6 billion went towards operating expenses, such as eligible operating assistance and projects for preventive maintenance on capital assets. From the more than $15.7 billion spent by transit systems on capital projects in 2011 from all sources of funding, 64 percent ($10.0 billion) was spent on projects to replace and rehabilitate assets in order to achieve a state of good repair, as opposed to projects for system expansion. FTA has also initiated additional research on asset management practices in response to MAP-21 state of good repair requirements.

PUBLIC BENEFIT STATEMENT

Transit assets in poor or marginal condition are less reliable and subject to in-service failures, which produces missed transit vehicle trips and other passenger delays. In the worst-case scenario, in-service failures may directly impact the safety of an otherwise safe system. Finally, transit systems not in a state of good repair do not produce quality service for riders, with impacts ranging from unsightly graffiti and general disrepair, to failures of the heating and air conditioning systems during extreme weather events.

WHAT ARE WE MEASURING?

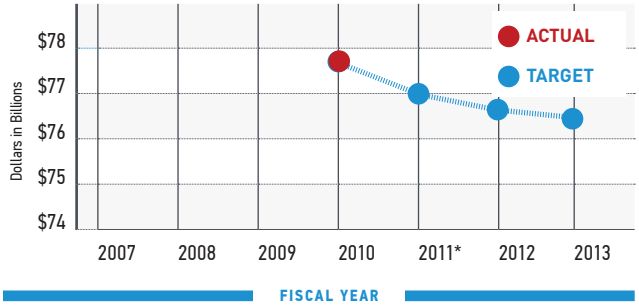
FTA annually estimates the Nation's transit state of good repair backlog using its Transit Economic Requirements Model (TERM). TERM relies on a combination of data from FTA's National Transit Database and TERM surveys to estimate the national capital asset inventory, including the age and replacement cost of each asset in the inventory. TERM uses this inventory and runs it through a set of pre-defined "decay curves" that allow it to estimate the condition of each asset in the inventory based upon age. These condition estimates form the basis of model results, with the replacement dollar value of each asset with an estimated condition rating of 2.5 or lower on a scale of 1 to 5 being added to the national state of good repair backlog.

National Transit Database data are collected monthly from urbanized area transit providers and annually from rural transit agencies. FTA analyzes the data and releases the results a year after the conclusion of each Federal fiscal year.

2012 RESULTS: TBD

Target: $76.8-billion backlog of transit capital assets in need of replacement or refurbishment from all funding sources.
Actual: 2012 data are not yet available. The 2012 estimate from the TERM model will be developed once 2012 National Transit Database data are available in October 2013.

2.1 Backlog of Transit Capital Assets in Need of Replacement or Refurbishment (As Defined by an Estimated Condition Rating of 2.5 or Lower)



*The 2011 actual data for the state of good repair backlog of transit capital assets in need of replacement or refurbishment will be released as part of the 2013 Conditions & Performance Report to Congress.

DESCRIPTION OF RESULTS

The data are not yet available to determine whether the FY 2011 and FY 2012 targets were met. FY 2010 data was used as a baseline. MAP-21 requires FTA to collect comprehensive asset inventory data that will be available to support this measure beginning in FY 2013. An independent expert panel convened by the Transportation Research Board to review the FY 2010 estimate will report its findings in early 2013.

FUTURE OUTLOOK

MAP-21 directed FTA to establish a national transit asset management system, which includes a requirement for each FTA grantee (including recipients and their subrecipients) to develop a transit asset management plan. Transit asset management plans provide a systematic way for transit agencies to prioritize investments for achieving a state of good repair. MAP-21 established a deadline of October 1, 2013, for a rulemaking to implement these state of good repair requirements.

MAP-21 also created a new state of good repair grant program that will target Federal resources toward reducing this backlog.

EXTERNAL FACTORS

FTA does not directly operate transit systems and does not make specific funding decisions for transit agencies to prioritize state of good repair projects. Transit agencies and State and local governements decide how to spend FTA formula funds. Additionally, the lack of industry-wide asset management practices could limit progress.

FTA estimates that at current funding levels from Federal, State, and local sources, the transit state of good repair backlog is likely to increase given the wide range of assets in service today.

PARTNERS

FTA's partners in this effort include transit agencies, State DOTs, local governments, metropolitan planning organizations, transit industry trade organizations, research entities, and private sector consultants and software developers in the asset management industry.

AIRPORT RUNWAYS (FAA)

MEASURE: Maintain percent of runway pavement in excellent, good, or fair condition for paved runways in the National Plan of Integrated Airport Systems (NPIAS). (FAA)

FAA has had a highly effective, well-established process in place for many years to ensure that runway conditions at the Nation's airports are maintained in a state of good repair. FAA funds infrastructure development at eligible public-use airports. Funding for routine maintenance is limited to those airports that do not have sufficient revenue sources for periodic repairs, usually the smaller non-hub primary and non-primary airports. Airports of all sizes rely on FAA financial assistance for significant rehabilitation, resurfacing, and reconstruction of runways and major taxiways.

PUBLIC BENEFIT STATEMENT

Periodic maintenance of runways, particularly resurfacing, has proven a cost-effective way to delay the need for major runway rehabilitation. Maintaining runway pavement conditions requires careful coordination, often years in advance of a runway rehabilitation project. Projects must be timed carefully, regardless of whether they involve the phased reconstruction of a single-runway airport or the sequential resurfacing of multiple runways over a period of several years. Some of the nation's largest airports resurface their runways on an established revolving basis. As a result, at times the FAA is able to exceed the goal. However, this does not necessarily represent a sustained trend. For major reconstruction, runways must typically be taken out of service for a full construction season or longer. It can be particularly challenging to rehabilitate one runway while keeping intersecting runways operational. FAA works with airports to ensure that the system never has too many runways out of service at any given time.

WHAT ARE WE MEASURING?

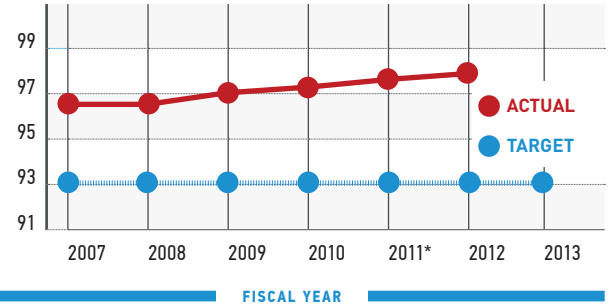
This metric tracks, on an annual basis, the percentage of open and paved runways at public use airports included in the Federal airport system that meet FAA's standard for safe operation of aircraft considered to be in excellent, good, or fair condition. The metric covers all paved runways at federally funded NPIAS airports.

2012 RESULTS: TARGET MET

Target: Maintain runway pavement in excellent, good, or fair condition for at least 93 percent of the paved runways in the NPIAS.

Actual: Maintained runway pavement in excellent, good, or fair condition for 97.5 percent of the paved runways in the NPIAS.

3.1 Percent of Runway Pavement in Excellent, Good, or Fair Condition for Paved Runways in the National Plan of Integrated Airport Systems



DESCRIPTION OF RESULTS

FY 2012 performance results indicate the Nation's airports continue to remain in a state of good repair. FAA was able to meet the FY 2012 and prior fiscal year targets due to the success of multiple efforts by the agency and the Nation's airports. FAA prioritizes investments to preserve existing infrastructure in a state of good repair. Federally obligated airport sponsors are required to maintain a systematic approach to preventive pavement maintenance. All airports provide capital needs data included in the NPIAS on a biennial basis. High-priority capital projects, such as runway pavement rehabilitation and/or reconstruction projects, are prioritized and considered for Airport Improvement Program (AIP) funding as part of the annual update of the three-year Airports Capital Improvement Plan (ACIP) process. Funding runway pavement projects directly contributes to the goal of maintaining a certain level of runways in excellent, good, or fair condition.

FUTURE OUTLOOK

In addition to continuing these successful practices, FAA also plans to update priorities for infrastructure investments—including runway capabilities—to maintain and enhance existing airport capacity across all types of airports.

EXTERNAL FACTORS

The airport sponsor is responsible for maintaining runway pavement. Economic factors may determine when the airport sponsor is able to fund pavement rehabilitation. *Note:* an airport sponsor is defined as legally, financially, and otherwise able to assume and carry out the certifications, representations, warranties, assurances, covenants, and other obligations required of sponsors, which are contained in the Airport Improvement Plan (AIP) project application and grant agreement forms.

PARTNERS

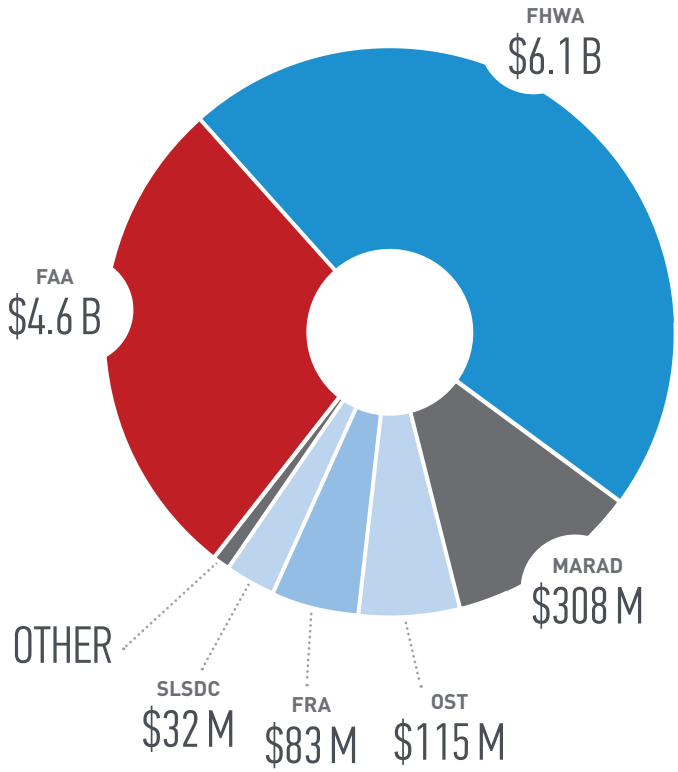
FAA's internal partners in this effort include Regional Airports Divisions and Airports District Offices, the Air Traffic Organization (especially the Technical Operations unit for coordination of impacts to navigational aids), the Flight Procedures Office, the Flight Standards Service, and the William J. Hughes Technical Center. External partners include State aeronautical agencies, aviation industry associations, airlines, and other aeronautical user groups.

ECONOMIC COMPETITIVENESS

ECONOMIC COMPETITIVENESS

Maintaining and preserving an efficient transportation network is critical to sustaining the competitiveness of our economy. The Department's economic competitiveness goal is to foster smart, strategic investments that will serve the traveling public, facilitate freight movement, and bring equitable economic benefits to the Nation. In 2012, DOT invested nearly $11.4 billion to enhance the economic competitiveness of our Nation's transportation system.

NET BUDGETARY RESOURCES BY STRATEGIC GOALS: FY 2012 ENACTED



OTHER

FTA	$4 M
FMCSA	$3 M
RITA	$370K

TOTAL $11,371,027,000

MAXIMIZE ECONOMIC RETURNS ON POLICIES AND INVESTMENTS (FHWA)

Highway congestion adversely affects our economy, our communities, and our quality of life. According to the Texas A&M Transportation Institute's 2011 Urban Mobility Report[1], traffic congestion continues to worsen in American cities of all sizes, creating a $101 billion annual drain on the U.S. economy in the form of 4.8 billion lost hours resulting from travel delay and 1.9 billion gallons of wasted fuel. Congestion causes the average peak-period traveler to spend an extra 34 hours of travel time and consume an additional 14 gallons of fuel annually, amounting to a cost of $713 per traveler. While automobile and truck congestion currently imposes a relatively small cost on the overall economy of about 0.6 percent, the cost of congestion grew at more than double the growth rate in the Gross Domestic Product (GDP) over the past 25 years. If current trends continue, congestion is expected to impose a larger proportionate cost in the future. Over the next 40 years, the U.S. population is expected to rise by 43 percent and the GDP is expected to almost triple. To support this growth, the demand for both freight and passenger transportation is expected to increase by about two-and-a-half times by 2050. Maintaining and preserving an efficient transportation system is critical to maintaining the competitiveness of our economy.

Operational improvements to ensure an efficient transportation system are critical to sustaining and enhancing the competitiveness of our economy, and new investment in the Nation's infrastructure will still be required. Therefore, innovative strategies that combine project financing, procurement, financial management, and revenue generation techniques are being explored as a possible path forward in delivering critical transportation services. Additionally, FHWA administers the multimodal Transportation Infrastructure Finance and Innovation

1. 2011 Annual Mobility Report, Texas A&M Transportation Institute: http://mobility.tamu.edu/ums/.

Act (TIFIA) program that provides credit assistance to help finance surface transportation projects of national and regional significance.

PUBLIC BENEFIT STATEMENT

The U.S. economic competitiveness position is strengthened by limiting travel delays for system users, leveraging Federal investment in highway infrastructure projects, and improving roadway efficiency and productivity that drives economic growth.

MEASURE #1

Reduce the Travel Time Index in Urban Areas. (FHWA)

WHAT ARE WE MEASURING?

The Travel Time Index (TTI) is the ratio of the average peak period travel time compared to a free-flow travel time, which is reported for 19 urban areas in the U.S. This measure provides a snapshot of the state of congestion on the Nation's roads, specifically in urban areas, and is the closest to a nationwide congestion measure that can be developed using existing highway sensor data and Highway Performance Monitoring System volume data sets and mature performance measurement methodology. For more details, see the FHWA *Urban Congestion Report* at http://ops.fhwa.dot.gov/perf_measurement/reliability_reports.htm.

2012 RESULTS: TARGET MET

Target: Achieve a TTI of 1.21 in FY 2012.
Actual: Achieved a TTI of 1.20 in FY 2012.

1.1 Travel Time Reliability in Urban Areas as Measured by the Travel Time Index

(r) Revised after measure was redefined to reflect congestion in 19 urban areas.

DESCRIPTION OF RESULTS

Since peaking in urban areas at 1.24 in FY 2007, the TTI declined to 1.19 in FY 2009 during a period in which travel nationwide also declined following the economic recession. In FY 2010, the TTI increased to 1.21, due to a return to normal levels of traffic, and remained at this level during FY 2011. In FY 2012, the TTI declined slightly to 1.20.

The TTI represents the extra time a driver spends in traffic during congested traffic as compared to light traffic. A TTI of 1.20 means that a trip that normally takes 20 minutes in light traffic would take 24 minutes, or 4 minutes longer, on average in congested traffic. Therefore, the lower the number the better. The recent trends in TTI suggest that traffic congestion has improved slightly overall in these urban areas, even though significant delay from non-recurring events such as traffic crashes still occur.

Past congestion reduction efforts have led to an increased availability of 511 traveler information telephone service for nearly 75 percent of the American public; the development, testing, evaluation, and implementation of innovative adaptive control, corridor management, and congestion pricing strategies; and a greater emphasis on improving reliability in major freight corridors, international border crossings, and intermodal connectors. In FY 2012, FHWA provided technical assistance and guidance to States in implementing the *Real-Time System Management Information Final Rule;* conducted traffic incident management workshops in 14 urban areas; conducted decision-maker meetings in 14 urban areas and States; and began conducting Strategic Highway Research Program 2 Traffic Incident Management Responder Train-the-Trainer sessions in urban areas.

In FY 2012, FHWA implemented a robust awareness, capacity building, and technical assistance program. Highlights of the program include: webinars that reached more than 3,000 participants; individually tailored technical assistance events for five States; a National Project Oversight Managers conference that provided 25 technical training sessions for more than 90 attendees; project management training for more than 25 FHWA employees; and publication of resource materials. Additionally, a *Public-Private Partnership (P3)* toolkit was developed and tested. The toolkit includes modules for Risk Assessment, Value for Money Analysis, and a Public Sector Comparator. The toolkit will help to ensure that Public-Private Partnership procurements are executed in a manner that serves the public. To further assist project sponsors, the multimodal Project Finance Center was established. The TIFIA program delivered $1.1 billion in credit support to advance the Presidio Parkway (CA), Downtown Tunnel/Midtown Tunnel (VA), and Crenshaw Light Rail projects (CA). In the aggregate, these loans will support $4.7 billion of public and private investment in infrastructure.

FHWA provided training on Traffic Incident Management to U.S. and Mexican State officials as part of broader efforts to improve reliability of transportation in the border region. Unlike similar domestically focused efforts, this training event integrated foreign counterparts into discussions of border incident planning and response, building knowledge that should facilitate appropriate response to incidents affecting Mexican roads that carry traffic across the U.S. border.

MEASURE #2:

Improve travel time reliability in freight significant corridors. (FHWA)

WHAT ARE WE MEASURING?

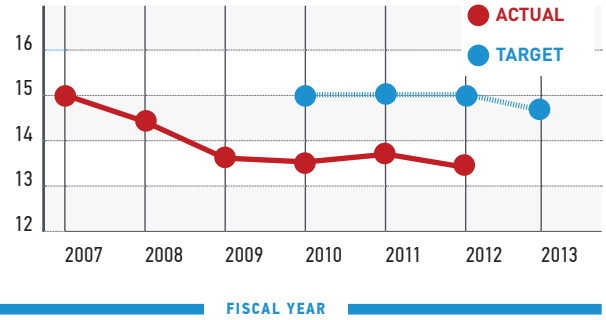
The buffer index is a measure of travel time reliability, which represents the extra time commercial freight carriers should add to their average travel time in order to ensure on-time arrival, at least 95 percent of the time, for an end-to-end trip along a corridor. The extra time is added to account for unexpected delays. The buffer index, expressed as a percentage, decreases as trip reliability improves. The measure is derived from measured commercial vehicle average speeds for 25 interstates carrying significant freight volumes annually. For more details, see the FHWA *Freight Performance Measurement: Travel Time in Freight Significant Corridors* report at: http://ops.fhwa.dot.gov/freight/freight_analysis/perform_meas/fpmtraveltime/index.htm.

2012 RESULTS: TARGET MET

Target: Limit the freight corridor buffer index to 15 percent in FY 2012.

Actual: Limited the freight corridor buffer index to 13.5 percent in FY 2012.

1.2 Travel Time Reliability in Freight Significant Corridors as Measured by the Buffer Index



DESCRIPTION OF RESULTS

In FY 2012, reliability on freight corridors declined slightly as the buffer index increased to an average of 13.5 percent. This represents a slight decrease compared to FY 2011. FHWA undertook activities to help improve the performance and reliability of the freight system through the construction of freight facilities and the deployment of advanced technologies, in addition to delivering a freight professional development program to educate and train freight transportation professionals. FHWA awarded six grants to States for construction of truck parking facilities that will help relieve parking shortages; held eight freight performance measure workshops for partners around the country to improve their understanding and use of tools to identify, measure, and develop solution sets for truck reliability and congestion issues; released ton-mile estimates and updated time series data for the Freight Analysis Framework for freight practitioners to better plan for trucks; published the *Freight and Land Use Handbook* that offers case studies and solutions for improving the efficiency of freight; and advanced the Freight Advanced Traveler Information System program.

FUTURE OUTLOOK

Future efforts will support the continued implementation of operations-based congestion reduction strategies in the Nation's largest metropolitan areas, increase the availability of real-time traveler information, and focus on improving reliability in major freight corridors, international border crossings, and intermodal connectors. Key future initiatives include establishing techniques to measure congestion when it occurs; assessing the performance of the highway system, including measuring the relationship between freight movement and congestion; and fostering the use of techniques and tools to strengthen routine traffic operations and control practices while proactively managing the transportation system during disruptions such as traffic incidents, work zones, adverse weather, special events, and emergency situations.

MAP-21 requires DOT to establish a National Freight Network and develop a National Freight Strategic Plan, which will effectively serve as a National Freight Policy. These actions will guide investment decisions subject to the Transportation Secretary's discretion, provide States with a national perspective for their planning effort, influence State freight mobility decisions, and provide context to the potential increase of the Federal share for freight-oriented projects. DOT is further directed to encourage each State to establish a freight advisory committee and develop a freight plan that provides comprehensive strategies for immediate and long-range activities and investments. This is particularly important since States now have broadened flexibility to use Federal funding to improve performance on the designated national freight network. DOT will also develop new and improve existing tools to support an outcome-oriented, performance-based approach to evaluate proposed transportation freight projects.

Additionally, FHWA will continue its efforts to administer a robust program of awareness, capacity building, research, and technical assistance designed to assist State and local governments in considering and implementing the innovative strategies to assemble the funding needed to deliver transportation projects, particularly for those projects that are large, complex, and costly.

With MAP-21, the lending capacity of the TIFIA program increased dramatically. During MAP-21's two-year authorization period, TIFIA will be able to provide up to $17 billion in credit assistance. In contrast, approximately $1 billion in loans were provided per year prior to MAP-21. The increased level of assistance now available could potentially leverage up to $50 billion in additional public and private infrastructure investment.

In the international arena, FHWA and DOT will establish and maintain information sharing relationships with specific countries, including Brazil, China, Russia, Australia, Netherlands, and Sweden; share U.S. practices through World Road Association technical committees and high-level management of

its safety-related undertakings; and coordinate DOT-wide input into the National Export Initiative, including participation in interagency groups focusing on identification of export opportunities in key markets such as Brazil.

EXTERNAL FACTORS

There are a number of external factors that can affect the volume of travel and level of congestion. These factors include the level of unemployment, quantity of freight shipments, and the price of fuel. When the economy grows, freight volumes increase and place a strain on the available capacity. Private industry carriers determine which transport modes and facilities to use for moving freight, taking into account the cost and performance. While FHWA provides funds for constructing highway facilities and promotes improved strategies for operating highways, States and metropolitan planning organizations decide how funds are used for State and local highway improvements.

PARTNERS

Partners include the U.S. Environmental Protection Agency (EPA), U.S. Department of Commerce, State and local Departments of Transportation, metropolitan planning organizations, urban jurisdictions, retail and trade associations, and shipper and carrier associations. Industry associations, the private sector, and academic researchers are partners in developing the performance measurement methodology. International partners include organizations such as the World Road Association and transportation agencies in the Netherlands, Brazil, Australia, China, Sweden, and Russia.

MAXIMIZE ECONOMIC RETURNS (FRA)

High-performance passenger and freight rail play an essential role in maintaining and improving the economic vitality of America's cities and metropolitan regions, where population and economic growth require mobility options. High-performance rail is a key element of America's multimodal transportation system by offering faster travel times, better reliability, more frequent trains, and seamless connections to other modes of transportation. As a result, the Department selected this goal as one of its FY 2012 – FY 2013 Agency Priority Goals.

The expanded and improved transportation network achieved through this effort will help provide the additional capacity and travel options necessary to serve America's growing population and economic activity. In addition, investment in intercity passenger rail will revitalize domestic rail manufacturing and supply industries, and create highly skilled, well-paying American jobs. Prior year appropriations funded these projects, and FRA uses current year appropriations to monitor project progress, ensuring they are completed on schedule, within budget, and with their specified scopes and purposes.

PUBLIC BENEFIT STATEMENT

Promote transportation policies and investments that bring lasting and equitable economic benefits to the Nation and its citizens.

MEASURE #1:

Increase the number of corridor programs that achieve initial construction. (FRA)

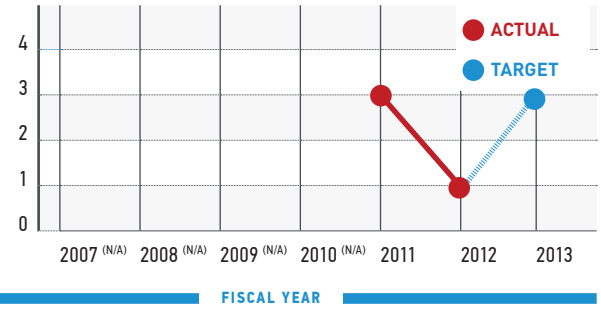
WHAT ARE WE MEASURING?

Number of intercity passenger rail corridor programs that achieve initial construction.

2012 RESULTS: TARGET MET

Target: One intercity passenger rail corridor program achieves initial construction.
Actual: One intercity passenger rail corridor program achieved initial construction.

2.1 Number of Corridor Programs that Achieve Initial Construction



N/A - FRA did not set targets or track this measure prior to 2011.

MEASURE #2

Increase the number of individual construction projects that achieve initial construction. (FRA)

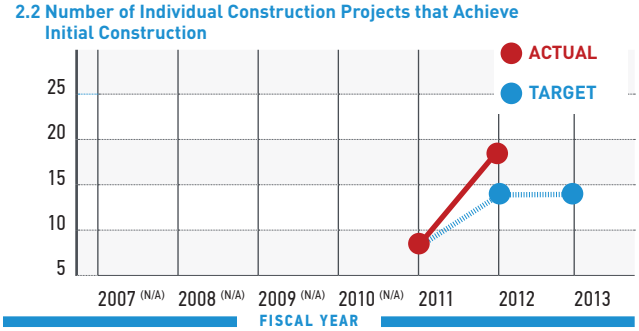
WHAT ARE WE MEASURING?

Number of individual intercity passenger rail construction projects that achieve initial construction.

2012 RESULTS: TARGET MET

Target: 14 intercity passenger rail individual projects achieve initial construction.
Actual: 19 intercity passenger rail individual projects achieved initial construction.

2.2 Number of Individual Construction Projects that Achieve Initial Construction



N/A - FRA did not set targets or track this measure prior to 2011.

DESCRIPTION OF RESULTS

FRA has obligated well over $9 billion for high performance and intercity passenger rail projects. By the end of FY 2012, four corridor programs had achieved initial construction. As projects move from planning into construction, FRA's interactions with grantees increase. FRA is providing technical assistance to create deliverables and conducting the final review of these deliverables, such as environmental assessments, statements of work, project management and financial plans, and preliminary engineering and final design documentation. With FRA's active participation and concurrence, grantees are able to initiate construction.

To ensure that grantees deliver these construction projects on schedule, within budget, and with their specified scopes and purposes, FRA has established a monitoring program. Project monitoring is a comprehensive review of a grantee's compliance with the grant conditions, as well as an assessment of the grantee's performance in meeting key milestones. Monitoring is also intended to proactively identify issues and work with the grantee to correct them through technical assistance.

FUTURE OUTLOOK

FRA is on track to meet its corridor and individual project initial construction targets for FY 2013. Ongoing national planning efforts will result in further guidance for rail planners, project sponsors, and regional stakeholders. FRA is advancing network development principles driven by analysis of the market conditions, transportation needs of affected communities, and international experience. These principles recognize that a "one size fits all" approach is not appropriate—for example, the highest speed services do not make economic or transportation sense in every market.

With a three-tiered passenger rail service strategy, FRA uses a market-based approach that reflects the differing needs and characteristics of corridors throughout the nation and funds projects that make sense for the corridors:

- Core express service—frequent trains at 125 to 250+ miles per hour in the nation's densest and most populous regions;
- Regional services—90 to 125 miles per hour service between mid-sized and large cities; and,
- Emerging services—up to 90 miles per hour service connecting communities to the passenger rail network and providing a foundation for future corridor development.

EXTERNAL FACTORS

While FRA monitors and performs oversight on grantees, the grantees are responsible for the construction of a project. A variety of factors with the grantee or natural causes, such as adverse weather, can delay construction.

PARTNERS

Partners include States, Amtrak and other railroad operators, freight railroads, and rail manufacturing and supply entities.

MAXIMIZING ECONOMIC RETURNS (FAA)

Minimizing delays in the air traffic control system can result in better economic returns for aviation. Air traffic delays can be impacted by the availability of the equipment necessary to provide service and this equipment directly affects the performance of the NAS. Loss of radar or communications equipment will affect the speed and number of aircraft that can be handled in the air traffic control system.

Release 3 of the En Route Automation Modernization (ERAM) includes interfaces to NextGen transformational programs: Automatic Dependent Surveillance-Broadcast (ADS-B) and System Wide Information Management (SWIM). ERAM will facilitate the evolution of the National Airspace System to trajectory based operations and will incorporate future NextGen capabilities including en route automation processing necessary for DataComm in future releases beyond the current program baseline. Collectively, investments in technology enable FAA to move people and goods more efficiently, leading to a more competitive air transportation system.

PUBLIC BENEFIT STATEMENT

Increasing National Airspace System capacity and assuring better reliability and availability of the current system helps the flying public by decreasing delays and increasing on-time arrivals.

MEASURE #1:

Maintain average daily airport arrival and departure capacity at Core Airports. (FAA)

WHAT ARE WE MEASURING?

This metric measures the average daily arrival and departure rates. Each airport facility determines the number of arrivals and departures it can handle for each hour of each day, depending on conditions, including weather. These numbers are the called arrival and departure rates of the airport for that hour. Average Daily Airport Capacity is the sum of the daily hourly-called arrival and departure rates at the relevant airports per month, divided by the number of days in the month. The annual capacity level is the weighted sum of the monthly capacity levels.

In FY 2011, FAA revised the Average Daily Airport Capacity measure to include a new set of airports, replacing the original 35 Operational Evolution Partnership airports. The revised list of airports is referred to as the Core Airports and it includes the current most congested airports in the country. Only the Core Airports are included in this metric.

2012 RESULTS: TARGET MET

Target: Maintain an average daily airport capacity for Core Airports of at least 86,835 arrivals and departures.
Actual: Accomplished an average daily airport capacity for Core Airports of 88,590 arrivals and departures.

3.1 Average Daily Airport Arrival and Departure Capacity at Core Airports

[1] This metric was revised in FY 2011 to include a new set of airports, replacing the original 35 Operational Evolution Partnership airports. New targets were set.

DESCRIPTION OF RESULTS

The FY 2012 year-end result for daily airport capacity for Core Airports exceeds the goal. Positive outcomes in FY 2012 are due in part to the completion of runway construction projects ahead of schedule, as well as to more accurate rate-calling on the part of some air traffic facilities.

MEASURE #2

Maintain percent of operational availability for the reportable facilities that support Core Airports. (FAA)

WHAT ARE WE MEASURING?

This metric measures the ratio of total available hours minus outage time to total available hours. The National Airspace Performance Reporting System (NAPRS) facilities necessary to maintain the provision of service in the overall NAS have been identified and are being monitored. For this metric, those NAPRS reportable facilities necessary for the provision of service at the Core Airports have been separately measured. Time out of service is adjusted to exclude hours when equipment is unavailable due to scheduled improvement down time.

2012 RESULTS: TARGET MET

Target: Maintain an adjusted operational availability of the NAS at 99.70 percent.
Actual: Maintained an adjusted operational availability of the NAS at 99.75 percent in FY 2012.

3.2 Percent of Operational Availability for the Reportable Facilities that Support Core Airports

DESCRIPTION OF RESULTS

The FY 2012 results exceed the adjusted operational availability target. FAA has implemented policies and procedures for maintaining and restoring navigation and communication equipment in order to minimize downtime. The goal for Adjusted Operational Availability is expected to remain at 99.7 percent.

MEASURE #3

Achieve Initial Operating Capability (IOC) on the En Route Automation Modernization (ERAM) system at continental U.S. En Route centers. (FAA)

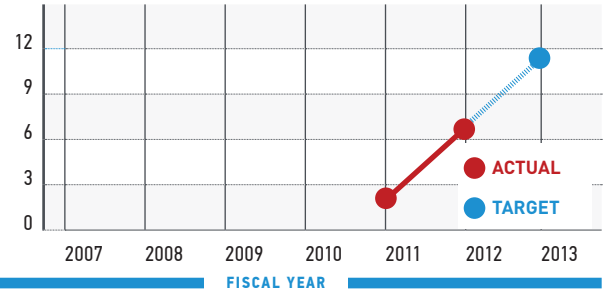
WHAT ARE WE MEASURING?

This measure is an Agency Priority Goal for the Department of Transportation. This metric measures the number of Air Route Traffic Control Centers (ARTCCs) that achieve initial operating capability (IOC) on ERAM. ERAM provides real-time displays of aircraft target information to air traffic controllers in the ARTCCs. ERAM enables FAA to maximize its use of airspace by substantially increasing the number of flights that can be tracked and displayed simultaneously, as well as providing an enhanced backup capability. ERAM replaces the 40-year-old En Route HOST Computer System and backup system used at ARTCCs around the country to help guide airplanes flying at high altitudes. While ERAM is needed to replace the aging legacy automation system infrastructure, it will also serve as a platform for NextGen capabilities.

2012 RESULTS: TARGET MET

Target: Achieve IOC on seven ERAM ARTCCs.
Actual: Achieved IOC on seven ERAM ARTCCs.

3.3 Initial Operating Capability on ERAM at Continental U.S. En Route Centers



DESCRIPTION OF RESULTS

FAA met the FY 2012 target by achieving IOC at seven new sites. Prior to FY 2012, FAA achieved IOC at two sites. By the end of FY 2012, ERAM was operational in some capacity at nine centers (IOC date):

- Salt Lake City, UT (October 2012)
- Seattle, WA (November 2010)
- Denver, CO (December 2011)
- Albuquerque, NM (December 2011)
- Minneapolis, MN (December 2011)
- Chicago, IL (January 2012)
- Oakland, CA (January 2012)
- Los Angeles, CA (January 2012)
- Houston, TX (April 2012)

Site IOC preparation begins months in advance of the planned IOC date, and runs in parallel with national-level planning activities. As the process advances, the sites listed above completed the following activities prior to achieving IOC:

- Testing—Identify issues and provide sufficient lead time for the resolution of problems.
- Training—Orient (initially and through refresher) the workforce to the new software.
- Procedures—Review and finalize locally maintained procedures in sufficient time to allow for development of supplemental training and as a means to understand adaptation requirements.
- Adaptation—Make final, pre-IOC adjustments to locally adapted software parameters.

FUTURE OUTLOOK

FAA plans to achieve IOC at the remaining 11 sites by the end of FY 2013. The following is the FY 2013 ERAM IOC schedule for centers:

- First quarter FY 2013—Kansas City, MO; New York, NY; and Boston, MA
- Second quarter FY 2013—Indianapolis, IN; Washington, DC; Cleveland, OH; and Memphis, TN
- Third quarter FY 2013—Fort Worth, TX; and Atlanta, GA
- Fourth quarter FY 2013—Jacksonville, FL; and Miami, FL

EXTERNAL FACTORS

Called rates at airports, which are adjusted in real time throughout the day, are primarily impacted by weather, construction/maintenance impacts, procedural changes, and equipment outages. Cyclical and long-term changes in economic activity have a strong impact on discretionary personal travel, driving demand for transportation infrastructure and services. ERAM does not expect external factors to impact the remaining IOC targets.

PARTNERS

Maximizing economic returns in air transportation is accomplished through a coordinated effort among many offices within FAA and through the collaboration with external partners. These partners include:

- The FAA Air Traffic Organization's (ATO) Safety and Technical Training organization supports the work necessary to ensure the safe introduction of ERAM capabilities to the NAS, and to support development of the necessary material to train the ARTCC workforce on ERAM operations;
- FAA's ATO service units support the successful deployment (En-Route ARTCC sites), integration (Terminal sites), and maintenance (Technical Operations personnel within each facility) of ERAM;
- The FAA Office of Aviation Safety responsible for supporting the work necessary to ensure the safe introduction of ERAM capabilities to the NAS, including development and approval of safety documents; and,
- The National Air Traffic Controllers Association (NATCA), which supports the collaborative design, testing, and deployment activities of ERAM to the NAS. NATCA also provides national-level input on program direction, training materials, and implementation strategies.

Other partners include the Air Line Pilots Association, Airlines for America, Aircraft Owners and Pilots Association, National Business Aviation Association, DOD, NASA, academic institutions, and corporate entities.

MAXIMIZING ECONOMIC RETURNS (SLSDC)

MEASURE: Maintain the percent of time the U.S. portion of the Saint Lawrence Seaway system and locks are available. (SLSDC)

The Saint Lawrence Seaway is co-managed by the United States and Canada. It is the international shipping gateway to the Great Lakes, connecting the heartland of North America with the world. Commercial transportation on the Great Lakes Saint Lawrence Seaway System serves as competition to other maritime trade routes as well as other transportation modes, which benefits the nation in lower consumer prices of finished goods and raw materials and helps to reduce roadway and railway congestion. Each Seaway-size vessel carries roughly 25,000 metric tons of goods, which is the equivalent of 870 tractor trailers or 225 rail cars.

PUBLIC BENEFIT STATEMENT

According to a 2011 economic impact study, maritime commerce on the Great Lakes Seaway System annually sustains more than 225,000 U.S. and Canadian jobs, $14.1 billion in personal income, $33.6 billion in transportation-related business revenue, $6.4 billion in local purchases, and $4.6 billion in Federal, State, provincial, and local taxes. The binational waterway also provides approximately $3.6 billion in annual transportation cost savings compared to competing rail and highway routes.

WHAT ARE WE MEASURING?

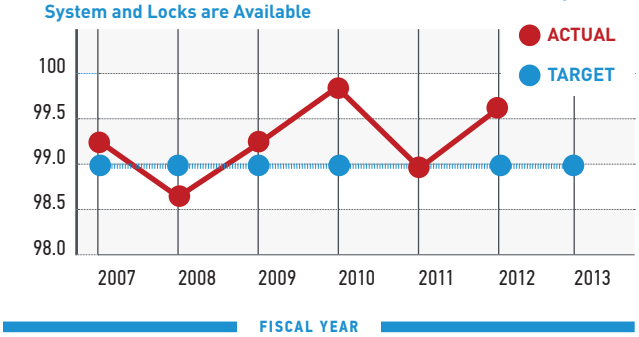
Lock operations and vessel traffic control on the Saint Lawrence Seaway[2] are conducted on a 24-hour day, 7-day week basis throughout the shipping season, which typically lasts from late March through December. SLSDC works to attain a system availability rate of 99.0 percent or better throughout the operating period, thereby providing an efficient and reliable commercial waterborne transportation route for global users.

2 The Economic Impacts of the Great Lakes Saint Lawrence Seaway System, Martin Associates, October 2011.

2012 RESULTS: TARGET MET

Target: Maintain Seaway system availability at 99.0 percent.
Actual: Maintained Seaway system availability at 99.7 percent.

4.1 Percent of Time the U.S. Portion of the Saint Lawrence Seaway System and Locks are Available



DESCRIPTION OF RESULTS

In FY 2012, SLSDC successfully met this goal by achieving a system availability rate of 99.7 percent. Delays for the fiscal year totaling 20 hours, 12 minutes were due to minor vessel incidents/accidents (52 percent), lock equipment malfunction (30 percent), weather/visibility (12 percent), and other minor delays (6 percent). SLSDC continues to refine and improve its operations and maintenance programs to ensure continued success in providing near-perfect system availability to its global commercial users. In FY 2009, SLSDC began its multi-year Asset Renewal Program to address the Saint Lawrence Seaway's long-term asset renewal needs, which include the two U.S. Seaway locks (Eisenhower and Snell), connecting channels, operational systems, and other infrastructure assets.

These improvements are expected to help reduce the delay hours associated with lock equipment malfunctions. SLSDC will continue to strive for improvement, building upon its current policies and practices.

FUTURE OUTLOOK

SLSDC will work to improve its system availability performance by providing safer and more efficient vessel traffic control and passage through the U.S. locks and waters. These efforts include maintaining and rehabilitating U.S. Seaway infrastructure, performing safety inspections and ballast water examinations of all foreign-flag vessels, continuing close coordination and involvement with the Canadian Saint Lawrence Seaway Management Corporation (Canadian SLSMC) in all aspects of Seaway operations, and utilizing and enhancing technology to more efficiently manage vessel traffic control and lock transits. For example, in July 2012, SLSDC and Canadian SLSMC jointly introduced the availability of a new technology to enhance safety and increase cargo-carrying efficiency on the Saint Lawrence Seaway by providing mariners with real-time information on current and projected distances between a vessel's keel and river bottoms. Known as the Draft Information System (DIS), the new onboard technology will reduce the potential for groundings and allow ships to carry more cargo by better taking advantage of the

available water levels. The Seaway is the first inland waterway in the world to implement this technology.

EXTERNAL FACTORS

Weather conditions and vessel incidents have historically been the two most common recorded causes of system unavailability on the Saint Lawrence Seaway, both of which are external to SLSDC operations. Weather delays are caused by poor visibility, high winds, fog, and other winter weather conditions that are significant enough to deem waterborne transportation unsafe. Vessel incidents involve ship operations, and are usually caused by human error on the part of a vessel's crew. Incidents also include vessel breakdowns, which are caused by mechanical problems with a vessel.

PARTNERS

SLSDC operates the Saint Lawrence Seaway with its Canadian counterpart, the Saint Lawrence Seaway Management Corporation. In addition, SLSDC coordinates closely with the U.S. Coast Guard on safety, security, and environmental programs.

MAXIMIZING ECONOMIC RETURNS (MARAD)

The purpose of the Maritime Security Program (MSP) is to have a U.S.-flag commercial merchant fleet that is actively trading in U.S. foreign commerce while also being available to meet both national defense and other security requirements. In order to meet these requirements, MARAD provides an annual stipend for every ship in the MSP. As a condition for receiving these payments, each operator commits to making its ships available if needed by the Department of Defense (DOD). The operator also has to ensure that its vessel is operating in U.S. foreign commerce during the fiscal year. MARAD monitors MSP ship operating days to ensure that the MSP ships are complying with statutory requirements.

PUBLIC BENEFIT STATEMENT

The emphasis of the MSP program is to provide sealift capacity to the military in time of war or national emergency. MSP ships are carrying the bulk of military supplies and equipment in support of U.S. troops in and out of Afghanistan. Presently 90 percent of the cargo carried to and from Afghanistan is carried by MSP carriers. The 60 U.S.-flag vessels sail internationally during peacetime and ensure a job base for U.S.-citizen merchant mariners on government owned/controlled and commercial fleets. During time of war or national emergency, MSP vessels provide the necessary sealift and mariners to meet security requirements across the globe, while also supporting a U.S. presence in foreign commerce.

MEASURE #1

Maintain the number of ships available to meet DOD's requirements for commercial sealift capacity (as measured by the number of ships contractually enrolled in the Maritime Security Program). (MARAD)

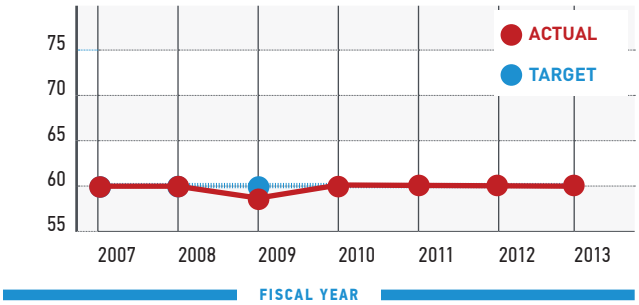
WHAT ARE WE MEASURING?

MARAD monitors MSP ship availability to ensure that ships are available to meet the economic and national security requirements of DOD. In 2003, Congress passed the Maritime Security Act, which provides funding for each of the 60 ships enrolled in the program. The 60 U.S.-flag ships will ensure that the military has assured access to a sufficient number of commercial vessels and mariners to meet national security requirements.

2012 RESULTS: TARGET MET

Target: Maintain 60 ships in the MSP fleet.
Actual: Maintained 60 ships in the MSP fleet.

5.1 Ships Available to Meet DOD's Requirements for Commercial Sealift Capacity



DESCRIPTION OF RESULTS

The Maritime Security Act of 2003 authorized operation of 60 ships for the MSP. For FY 2012, MARAD reported 60 vessels enrolled in the MSP program. This was accomplished through activities to monitor the agreements with the ship owners to maintain the 60 ships enrolled in the program. In addition, MARAD approves changes in MSP contracts that improve the quality of the MSP fleet to ensure the retention of modern and efficient ships and U.S.-citizen crews. Any ship offered as a replacement for an existing MSP vessel must be less than 15 years old and must be approved by the Maritime Administration and the U.S. Transportation Command as the most militarily useful and commercially viable vessels available.

MEASURE #2

Maintain the number of operating days in U.S. foreign commerce and available to meet DOD's requirements (as measured by the number of ship operating days that ships enrolled in the MSP were actually operating in U.S. foreign commerce). (MARAD)

WHAT ARE WE MEASURING?

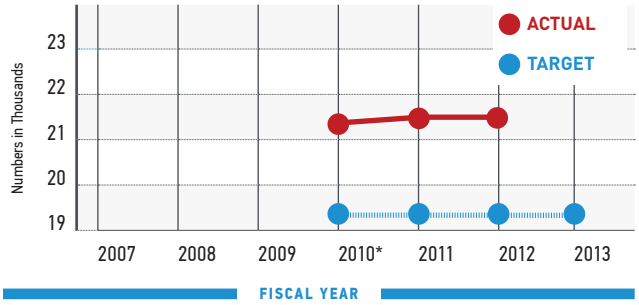
In order to ensure that the MSP fleet is available to meet the economic needs of the U.S. while also providing DOD with assured access to vessels and mariners, the Maritime Security Act

of 2003 stipulates that MSP ships are required to operate in U.S. foreign commerce for a minimum of 320 days each fiscal year for full MSP payments. This measure monitors 60 ships enrolled in MSP and the minimum required operating days of at least 320 days a ship per year, which equates to 19,200 operating days per year. MARAD monitors operating days on a monthly basis to verify that MSP ships are operating as required. Days when ships are in drydock for repairs beyond 30 days a year must be approved by MARAD or they are not considered operating days. The other major non-operating days are days when vessels are under charter to the U.S. Government and therefore not operating in international trade.

2012 RESULTS: TARGET MET

Target: Maintain an annual requirement of at least 19,200 operating days in U.S. foreign commerce.
Actual: MSP ships operated a cumulative total of 21,593 days in FY 2012.

5.2 Operating Days in U.S. Foreign Commerce and Available to Meet DOD's Requirements



*Performance measure was first initiated in FY 2010.

DESCRIPTION OF RESULTS

Meeting the target for maintaining 60 ships enrolled in the MSP, as well as number of ship operating days for ships enrolled in the MSP, is critical to ensuring that MSP vessels are operating in international commerce and supporting DOD in the transportation of supplies and equipment to U.S. troops. All 60 vessels are required to meet the operating days target in order to ensure their availability to support DOD requirements.

FUTURE OUTLOOK

MARAD anticipates being able to maintain enrollment of 60 vessels in MSP and meeting its target of 19,200 operating days in FY 2013.

EXTERNAL FACTORS

Ships severely damaged or in need of major repairs could result in MSP ships missing the operating day target. MSP operators could offer a substitute ship, which would be subject to a delay while MARAD and U.S. Transportation Command approve and examine the ship capabilities and supporting documentation. If an MSP operator cannot provide a substitute ship, MARAD may choose to advertise the vacant MSP slot, which would require a lengthy evaluation process.

PARTNERS

MARAD partners in this effort include the Department of Defense, U.S. Transportation Command, U.S.-flag ship operators, and Maritime Labor Organizations (e.g., Marine Engineers' Beneficial Association, American Maritime Officers, and Seafarers International Union).

MAXIMIZING ECONOMIC RETURNS (MARAD)

MEASURE: Increase the number of Twenty-Foot Equivalent containers transported across America's Marine Highway corridors. (MARAD)

The America's Marine Highways (AMH) program was created to develop new and expand existing marine services to transport freight (in containers and trailers) and passengers.

The America's Marine Highways Program is focused on:

- Designating and supporting additional Marine Highway Corridors and Projects;
- Establishing new Marine Highway Services by facilitating partnerships between private vessel operators, shippers, and public entities such as Port Authorities;
- Partnering with State DOTs to integrate maritime infrastructure projects in State freight plans, making those projects eligible for surface transportation funding; and,
- Encouraging construction of Marine Highway vessels at U.S. shipyards.

PUBLIC BENEFIT STATEMENT

The AMH program transports heavy weight exports, such as containerized agricultural products. By transporting freight using TEU containers, ships are able to transport a higher volume of products than trucks are able to carry. This will reduce the per unit transportation cost and help U.S. exports compete in the global market. In addition, by reducing landside congestion and increasing the resiliency of the National transportation system, these fuel-efficient services reduce the Nation's dependence on petroleum, contribute to transportation safety, and help to diminish the carbon footprint of freight.

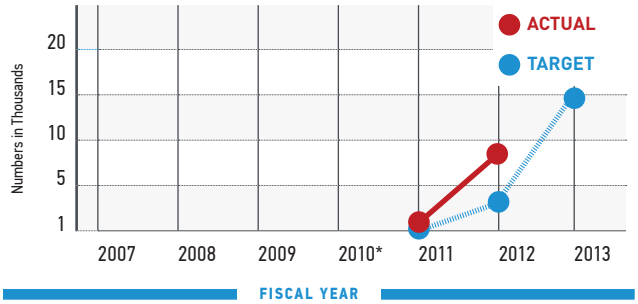
WHAT ARE WE MEASURING?

MARAD's baseline measure of performance for the AMH program is volume of containers, or twenty-foot equivalent units (TEUs), moved by grant-program-assisted services. The container TEU metric is an indicator of direct, grant-related program performance and permits further downstream calculation of program benefits.

2012 RESULTS: TARGET MET

Target: 3,500 TEU containers transported across AMH corridors.
Actual: 8,221 TEU containers transported across AMH corridors.

6.1 Number of TEU Containers Transported Across America's Marine Highway Corridors



*The performance measure was initiated in 2011.

DESCRIPTION OF RESULTS

For FY 2012, MARAD reported 8,221 TEUs transported across America's Marine Highway corridors, exceeding the annual operating goal of 3,500 TEUs. This achievement can be attributed to MARAD's efforts to work with both public sponsors and private partners to gauge business development activities, identifying best operating practices and reaching innovative solutions to overcome impediments to expand services. The AMH program was authorized to relieve congested landside corridors through designation of waterway transportation routes as extensions of the surface transportation system.

FUTURE OUTLOOK

During FY 2013 – FY 2014, new services are expected to begin due to funding received for infrastructure and equipment purchases through the Marine Highway and TIGER Discretionary Grants programs. These services are expected to increase the number of TEUs transported in 2013 and 2014. MARAD has established formal engagement programs to facilitate multijurisdictional public/private partnerships. State maritime coordinators are being identified in State DOTs that have commercially navigable waterways within their jurisdictions to advocate for the inclusion of maritime infrastructure in the national and State freight plans required by MAP-21.

EXTERNAL FACTORS

Marine Highway services must be performed by U.S.-flag, Jones Act compliant vessels. There is a lack of right-sized vessels available to comply with the Environmental Protection Agency's Emissions Control Area engine and fuel requirements. The current economic climate and tightening credit restrictions are an impediment to construction of new purpose-built ships by industry. Additionally, vessels eligible to provide such services are subject to tax rules that provide an impediment to coastal service development. Federal freight policies lack modal parity, thereby inhibiting development of infrastructure necessary to support expanded utilization of Marine Highways.

PARTNERS

MARAD partners in this effort include FHWA, FRA, FTA, PHMSA, SLSDC, Federal Maritime Commission, National Oceanic and Atmospheric Administration, the Environmental Protection Agency, Department of Agriculture, Department of Energy, Department of Commerce, Army Corps of Engineers, State DOTs, metropolitan planning organizations, and maritime transportation industry partners.

MAXIMIZING ECONOMIC RETURNS (MARAD)

MEASURE: Maintain the number of U.S. Merchant Marine Academy graduates. (MARAD)

Federal support of mariner education helps ensure that highly qualified personnel are trained annually to maintain the nation's pool of skilled merchant mariners who are available for service during national emergencies, to support strategic sealift, and to serve the nation's commercial maritime transportation needs. This program supports the competitiveness of a viable and robust merchant marine and contributes to national defense and homeland security.

The U.S. Merchant Marine Academy (USMMA or Academy) is an accredited Federal institution of higher education operated by DOT and MARAD. The USMMA educates highly qualified merchant marine officers to crew U.S.-flag cargo vessels and work throughout the maritime industry and military and reserve communities. The USMMA offers a four-year program that centers on a rigorous academic and practical maritime-based training program leading to a Bachelor of Science degree in either Marine Transportation or Marine Engineering, a U.S. Coast Guard (USCG) Merchant Marine Officer's License as 3rd Mate (deck officer) or 3rd Assistant Engineer (engineering officer), and an officer's commission in the U.S. Navy Reserve or other uniformed service.

All USMMA graduates are required by law to fulfill a mandatory service obligation, which includes the provisions to serve in the maritime industry afloat or ashore for at least five years, to maintain their USCG license for at least six years, and to serve in a reserve branch of the Armed Forces for at least six years. The service obligation requires USMMA graduates to be available to crew merchant marine vessels during a national emergency.

PUBLIC BENEFIT STATEMENT

USMMA graduates are leaders who are prepared for a career of service to the Nation in the maritime industry or in the armed forces and who have the potential for future development in mind and character to assume the highest responsibilities of command, citizenship, and government.

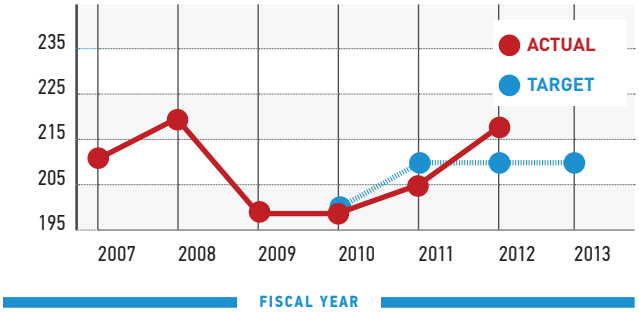
WHAT ARE WE MEASURING?

This measure tracks whether the Academy is graduating the target number of U.S. Coast Guard credentialed mariners, which are also commissioned in either the Strategic Sealift Officer program or active duty in the U.S. Armed Forces (required to fulfill their service obligation). The Academy also seeks to increase the overall percentage of students who graduate within four years of entering the program. The target number of graduates each year is the numerical goal that corresponds to the incremental increase in percentage of graduates that the Academy seeks to achieve over time.

2012 RESULTS: TARGET MET

Target: Graduate 210 U.S. Coast Guard credentialed mariners in 2012.
Actual: Graduated 219 U.S. Coast Guard credentialed mariners in 2012.

7.1 Number of USMMA Graduates



DESCRIPTION OF RESULTS

The results show an overall increase in the number of graduates. There are many factors that will impact the number of graduates per year; these factors include the number of students admitted to the Academy, the number of Midshipmen that resign, and the number of Midshipmen that are disenrolled for academic, disciplinary, or medical reasons.

FUTURE OUTLOOK

The activities planned/undertaken to increase the number of graduates include:

- Hire a Director of the Academic Center of Excellence;
- Raise the minimum SAT score for admission;
- Increase Mentor involvement in tracking academic performance and Regimental performance of Midshipmen; and,
- Change to Coast Guard licensing preparatory classes with the addition of more electronics and automation and an increased emphasis on the new test format instituted in 2011.

EXTERNAL FACTORS

None.

PARTNERS

MARAD partners in this effort include DOD, U.S. Navy, U.S. Coast Guard, other institutions of higher education, and industry partners across the broad maritime and intermodal transportation enterprise.

MAXIMIZING ECONOMIC RETURNS

MEASURE: Number of State Maritime Academy graduates. (MARAD)

Federal support of mariner education helps ensure that highly qualified personnel are trained annually to maintain the nation's pool of skilled merchant mariners. MARAD's State Maritime Academy (SMA) program provides more than two-thirds of the newly credentialed U.S. merchant marine officers needed annually to serve the nation's commercial maritime transportation needs. This program supports the competitiveness of a viable and robust merchant marine, and contributes to economic competitiveness, national defense, and homeland security.

The SMA program provides funding and training vessels to the six SMAs: California Maritime Academy, Great Lakes Maritime Academy, Maine Maritime Academy, Massachusetts Maritime Academy, State University of New York Maritime College, and Texas Maritime Academy. Federal funding supplements SMA State government funding. The SMA program comprises three major program components: (1) annual assistance to each of the six State maritime academies for maintenance and support; (2) the Student Incentive Payment (SIP) program providing financial assistance to full-time SMA students in the merchant marine officer program; and (3) training ship maintenance and repair for six federally owned training ships used by the SMAs.

PUBLIC BENEFIT STATEMENT

The program effectively uses Federal resources in a well-defined, cost-shared partnership with the SMAs to produce highly qualified merchant marine officers. Additionally, the program ensures commissioning of graduates as an officer in the uniformed service of the United States or as an officer in a reserve unit of an armed force of the United States. The majority of graduates are commissioned into the U.S. Navy Reserve Strategic Sealift Officer Program and are available to crew MARAD Ready Reserve Force vessels during an activation should normal crewing processes fail.

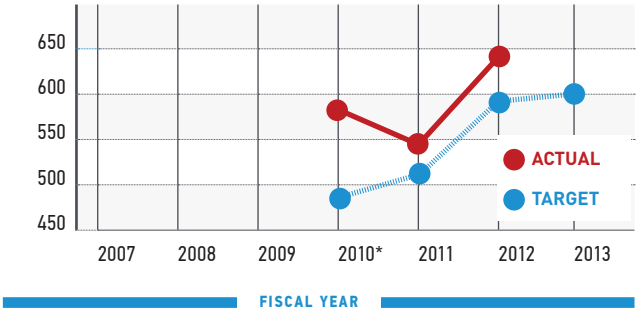
WHAT ARE WE MEASURING?

This measure tracks the annual number of U.S. Coast Guard credentialed mariners graduating from the six SMAs. The target number of graduates each year is the numerical goal set by the academies to maintain or incrementally increase the number of graduates.

2012 RESULTS: TARGET MET

Target: Graduate 592 merchant marine officers from the SMAs.
Actual: Graduated 642 merchant marine officers from the SMAs.

8.1 Number of State Maritime Academy Graduates



*The measure was initiated in 2010.

DESCRIPTION OF RESULTS

This measure indicates incremental increases of the number of graduates at the SMAs. Graduating qualified merchant mariners supports the maritime economic and national security needs of the nation.

FUTURE OUTLOOK

The SMAs are planning new academic training initiatives using the training ships as academic and seagoing laboratories for license coursework and practical hands-on training for the merchant mariner licensed officer training programs at each academy. These new initiatives will improve the officer training program in order to continue to provide highly qualified officers for the U.S. merchant marine.

EXTERNAL FACTORS

The SMAs incur significant fuel costs during their training cruises to operate the training vessels. These training cruises play a critical role in training mariners at the SMA to ensure that cadets obtain the necessary sea time to qualify for a U.S. Coast Guard Merchant Marine Credential (MMC) with a license endorsement and a Standards of Training, Certification, and Watchkeeping (STCW) endorsement. The cost of fuel places a significant but necessary burden on the academies.

The maritime academies are in the process of implementing new domestic and international training standards for mariners. Curriculum development and implementation of these new training requirements places a financial burden on the academies and increases the total training required for mariners entering training after January 1, 2013.

PARTNERS

MARAD partners in this effort include the cadets receiving Student Incentive Payments (SIP), Presidents and Superintendents of the six SMAs, SIP Coordinators, SMA Officers in Charge (OICs), DOD, U.S. Navy, U.S. Coast Guard, American Bureau of Shipping, other branches of the U.S. armed forces, other institutions of higher education, and industry partners.

A COMPETITIVE AIR TRANSPORTATION SYSTEM RESPONSIVE TO CUSTOMER NEEDS (FAA)

MEASURE: Maintain the percent of National Aviation System (NAS) on-time arrivals at Core Airports. (FAA)

On-time performance is a measure of the ability of the FAA to deliver services. Reducing delays is one of the biggest challenges facing FAA. Commercial airline passenger delays in the U.S. amount to approximately $10 billion in delay costs each year. The problem is exacerbated by increased traffic and congestion concentrated at several major airports. Along with increased congestion, adverse weather conditions are a major contributing factor to airport delays. Approximately 70 percent of flight delays are caused by weather. While weather cannot be controlled, FAA can employ new technologies that contribute to more efficient arrival and departure performance, which helps decrease congestion and improve on-time arrival rates. For example, the Traffic Management Advisor contributed to more efficient arrival and departure performance at several large airports, including Atlanta, Charlotte, and Newark.

PUBLIC BENEFIT STATEMENT

This metric helps the flying public reach their intended destinations on time. On-time performance is a measure of the ability of FAA to deliver services.

WHAT ARE WE MEASURING?

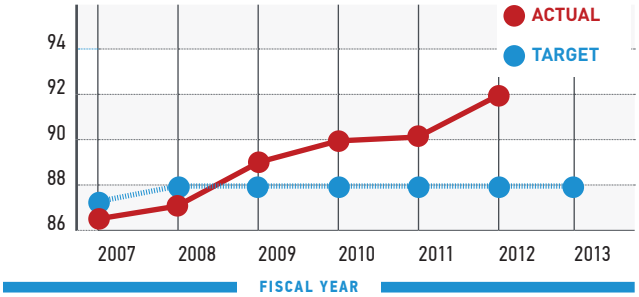
This metric measures the percentage of flights arriving no more than 15 minutes late. A flight is considered on time if it arrives no later than 15 minutes after its published, scheduled arrival time. This definition is used in the DOT Airline Service Quality Performance (ASQP) and Aviation System Performance Metrics (ASPM) reporting systems. Air carriers file up-to-date flight plans for their services with 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 Core 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 late, it is counted as a delayed flight attributed to the NAS and FAA.

2012 RESULTS: TARGET MET

Target: A minimum of 88 percent of NAS on-time arrivals at Core Airports in FY 2012.
Actual: 92.36 percent of NAS on-time arrivals at Core Airports were achieved in FY 2012.

9.1 Percent of NAS On-Time Arrivals at Core Airports



DESCRIPTION OF RESULTS

FAA met the NAS on-time performance level for this metric in FY 2011 and again in FY 2012. Relatively good weather, efficient airline scheduling practices, runway construction and maintenance scheduling, as well as low ramp and airport congestion all contributed to FAA's ability to meet this target. Improved performance is most likely due to the drop in scheduled and unscheduled operations in many major markets in addition to the impact of various FAA initiatives. This has led to less congestion in the NAS, less pressure on the air traffic control system, and improved on-time performance.

FUTURE OUTLOOK

To continue meeting NAS on-time targets in the future, FAA plans to begin implementing multi-center Q-routes to create efficient routing structures where needed; continue to support the commissioning of nine new runway/taxiway projects; continue implementing the New York Area Program Integration Office delay reduction plan milestones; and continue implementing the roadmap for performance-based navigation. Q-routes are published area navigation (RNAV) routes based on a series of waypoints, not constrained by the location of ground-based navigational aid systems (NAVAIDs). They provide routing structure where conventional routes were not practical and also allow for parallel routes where only single routes existed. Q-routes have also increased the capacity to connect major cities more efficiently. Implementation of these routes shortens flight time and reduces operating costs.

EXTERNAL FACTORS

A major weakness of using air carrier scheduled on-time performance as a metric is that it contains flight delays caused by incidents and factors outside FAA's control. External factors include weather, airline scheduling practices, runway construction/maintenance, and ramp/airport congestion.

PARTNERS

FAA partners in this effort include the Air Line Pilots Association, Airlines for America, Aircraft Owners and Pilots Association, National Business Aviation Association, DOD, NASA, academic institutions, and corporate entities.

A COMPETITIVE AIR TRANSPORTATION SYSTEM RESPONSIVE TO CUSTOMER NEEDS (OST)

MEASURE: Increase the number of air carriers reviewed to ensure that they meet the requisite standards for obtaining or retaining economic authority to operate. (OST)

DOT is authorized to review airlines' economic authority to ensure that newly formed airlines and existing airlines do not place American consumers at risk. DOT uses a three-part test to determine whether airlines are "fit, willing, and able" to operate. Specifically, DOT analyzes whether an airline: (1) will have (or has) the managerial skills and technical ability to conduct the proposed (or existing) operations; (2) will have (or has) sufficient financial resources to commence the operations proposed (or continue its current operations) without posing an undue risk to consumers or their funds; and (3) will comply (or complies) with the U.S Code and regulations imposed by Federal and State agencies. For FY 2012, DOT completed 27 reviews of airlines' economic authority, exceeding its target by nine reviews.

PUBLIC BENEFIT STATEMENT

DOT's authority to permit new airlines to operate and to ensure that existing airlines remain economically "fit" to operate protects American consumers from risk. Particularly, DOT's review of airlines, financial resources identifies whether airlines have the financial wherewithal to operate without posing an undue threat to consumers or their funds. In addition, DOT's efforts to issue economic authority to new airlines and to liberalize aviation relationships can result in increased air service opportunities and lower fares for consumers. Moreover, DOT's action to redress unfair or discriminatory practices by foreign governments or carriers against U.S. airlines ensures that the traveling and shipping public enjoy the benefits of a free and fair marketplace.

WHAT ARE WE MEASURING?

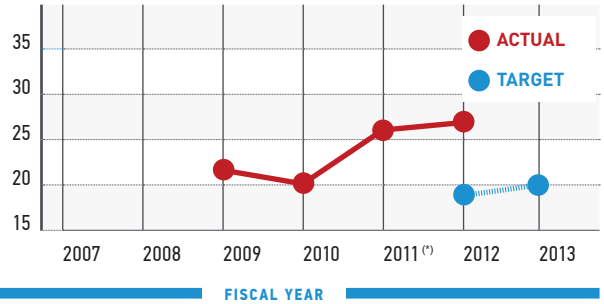
DOT measures the number of completed reviews on new airlines requesting initial economic authority and on existing airlines holding economic authority. In order to calculate the total number of reviews completed in a given fiscal year, DOT adds the number of issued final decisions for new airlines to the number of issued letters finding existing airlines remaining "fit."

2012 RESULTS: TARGET MET

Target: Review 18 air carriers to ensure they meet the requisite standards for obtaining or retaining economic authority to operate.

Actual: Reviewed 27 air carriers to ensure they met the requisite standards for obtaining or retaining economic authority to operate in FY 2012.

10.1 Number of Air Carriers Reviewed to Ensure They Meet the Requisite Standards for Obtaining or Retaining Economic Authority to Operate



*New performance measure. Future milestones will be based on 2011 and 2012 actual data.

DESCRIPTION OF RESULTS

At the beginning of FY 2012, DOT had 18 pending reviews for new economic authority and continuing fitness. During the course of the fiscal year, DOT received seven new applications for initial economic authority and initiated 25 continuing fitness reviews on existing airlines. In FY 2012, DOT issued eight airlines new economic authority and issued 19 airlines "continuing fitness approval" letters, for a total of 27 completed reviews.

FUTURE OUTLOOK

DOT expects to continue reviewing and issuing decisions on airline requests for initial economic authority, reviewing operating airlines to ensure that they continue to meet requisite economic standards, and exercising regulatory powers to redress unfair or discriminatory practices by foreign governments or carriers against U.S. airlines.

EXTERNAL FACTORS

DOT's ability to review airlines to ensure that they meet the requisite standards for obtaining or retaining economic authority to operate is dependent upon the airlines submitting information that complies with the U.S. Code and Department regulations in a timely manner.

PARTNERS

The Office of Aviation and International Affairs partners in this effort include the Federal Aviation Administration, the Department of Justice, the Securities and Exchange Commission, the National Transportation Safety Board, the Department of State, the Department of Treasury, and law enforcement agencies.

ADVANCE U.S. TRANSPORTATION INTERESTS IN TARGETED MARKETS AROUND THE WORLD (OST)

MEASURE: Reach new or expanded bilateral and multilateral agreements to remove market-distorting barriers to trade in transportation. (OST)

A key mission of the Office of the Secretary is to negotiate new or expanded bilateral and multilateral aviation agreements aimed at removing market-distorting barriers to trade and transportation.

PUBLIC BENEFIT STATEMENT

Open Skies and other liberalized aviation agreements benefit an array of air consumers, including travelers and shippers, airlines and airports, and affiliated businesses. Open and expanded air service agreements have made it possible for the U.S. airline industry to provide better quality, lower priced, and more competitive air service around the world.

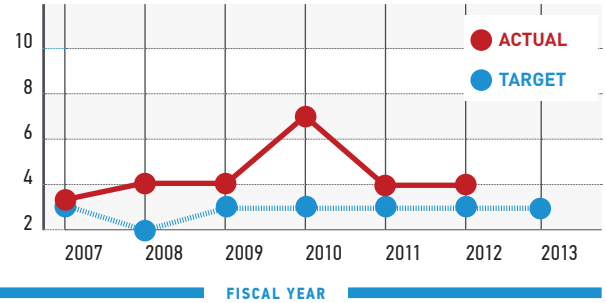
WHAT ARE WE MEASURING?

DOT is measuring the number of aviation-related agreements concluded on a yearly basis that remove barriers to greater trade and transportation.

2012 RESULTS: TARGET MET

Target: Reach/expand three bilateral or multilateral agreements.
Actual: Reached/expanded four bilateral or multilateral agreements.

11.1 Reach New or Expanded Bilateral and Multilateral Agreements to Remove Market-Distorting Barriers to Trade in Transportation



DESCRIPTION OF RESULTS

DOT reached four new Open Skies agreements in FY 2012 with Sierra Leone, Suriname, Montenegro, and St. Kitts and Nevis. The agreements provide for open routes and unlimited frequency and capacity in the marketplace.

FUTURE OUTLOOK

The Department of Transportation expects to continue making progress on liberalizing markets in the coming years with a focus on the Western Hemisphere, Africa, and Asia.

EXTERNAL FACTORS

These agreements are only achievable with the cooperation of foreign government partners and the support of the aviation industry. Global economic conditions often play a role in these negotiations.

PARTNERS

These agreements require DOT to work closely with the Department of State, the Department of Commerce, an assortment of aviation industry stakeholders, and the Office of the U.S. Trade Representative (USTR) on the aviation aspects of trade agreements.

EXPAND OPPORTUNITIES FOR SMALL BUSINESSES IN THE TRANSPORTATION SECTOR (OST)

The mission of the Office of Small and Disadvantaged Business Utilization (OSDBU) is to ensure that small and disadvantaged businesses are provided maximum practicable opportunities to participate in DOT's contracting process pursuant to the Small Business Act. OSDBU advocates small business interests in the DOT acquisition contracting process. OSDBU provides training and counseling to small businesses on doing business with the Department, and the office provides training and counseling to its internal stakeholders about contracting with small businesses and assists them in identifying resources that can provide opportunities for small and disadvantaged businesses. The mission of OSDBU is accomplished through outreach, counseling, and communicating with small business stakeholders.

PUBLIC BENEFIT STATEMENT

DOT's Office of Small and Disadvantaged Business Utilization (OSDBU) is authorized to ensure that Federal small business policies and goals are implemented in a fair, efficient, and effective manner to serve small businesses. The primary responsibility of the DOT/OSDBU is to ensure that small businesses have an opportunity to compete for DOT contracting dollars and to provide technical assistance and financial services to the small business community.

MEASURE #1

Percent of total dollar value of DOT direct contracts awarded to small, disadvantaged businesses. (OST)

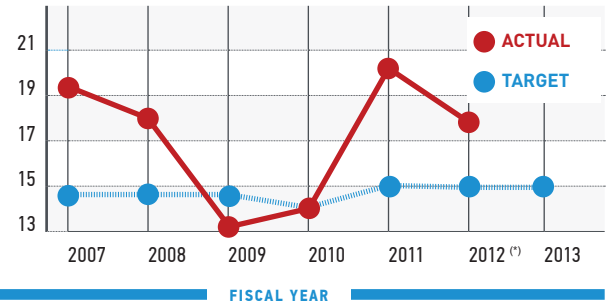
WHAT ARE WE MEASURING?

This measure tracks the percentage of total dollar value of DOT direct contracts awarded to small, disadvantaged businesses. The purpose of this goal is to expand economic opportunities for small, disadvantaged businesses in the transportation sector.

2012 RESULTS: TARGET MET

Target: Award at least 15 percent of total dollar value of DOT direct contracts to small, disadvantaged businesses in FY 2012.
Actual: Awarded 18.08 percent of total dollar value of DOT direct contracts to small, disadvantaged businesses in FY 2012.

12.1 Percent of Total Dollar Value of DOT Direct Contracts Awarded to Small, Disadvantaged Businesses



*Preliminary. SBA has not verified as of the publication date.

MEASURE #2

Percent of total dollar value of DOT direct contracts awarded to women-owned businesses. (OST)

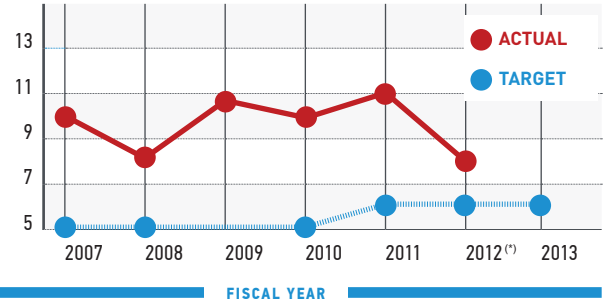
WHAT ARE WE MEASURING?

This measure tracks the percentage of total dollar value of DOT direct contracts awarded to women-owned businesses. The purpose of this goal is to expand economic opportunities for women-owned businesses in the transportation sector.

2012 RESULTS: TARGET MET

Target: Award at least 6 percent of total dollar value of DOT direct contracts to women-owned businesses in FY 2012.
Actual: Awarded 8.81 percent of total dollar value of DOT direct contracts to women-owned businesses in FY 2012.

12.2 Percent of Total Dollar Value of DOT Direct Contracts Awarded to Women-Owned Businesses



*Preliminary. SBA has not verified as of the publication date.

DESCRIPTION OF RESULTS

The Procurement Assistance Division negotiates fair and reasonable small business goals for the Department of Transportation. The division also works closely with DOT program and procurement officials to assist DOT in meeting those goals. In FY 2011 (the latest official data from SBA), DOT received an A rating under the SBA's scorecard criteria. The Department continues to work with each Operating Administration toward small business goal achievement.

The Financial Assistance Division, which administers the Short Term Lending Program (STLP), supports the DOT Economic Competitiveness strategic goal by partnering with participating lenders across the country to provide certified small businesses, including disadvantaged business enterprises (DBEs) and women-owned businesses, the opportunity to obtain short-term working capital at a reasonable interest rate in order to increase the number of small and disadvantaged businesses able to compete for and provide goods and services for DOT and DOT-funded transportation-related contracts across the country.

FUTURE OUTLOOK

OSDBU expects to continue providing contractual opportunities, technical assistance, and financial services to the small business community.

EXTERNAL FACTORS

The success of DOT meeting its goals relies on our external and internal DOT partners.

PARTNERS

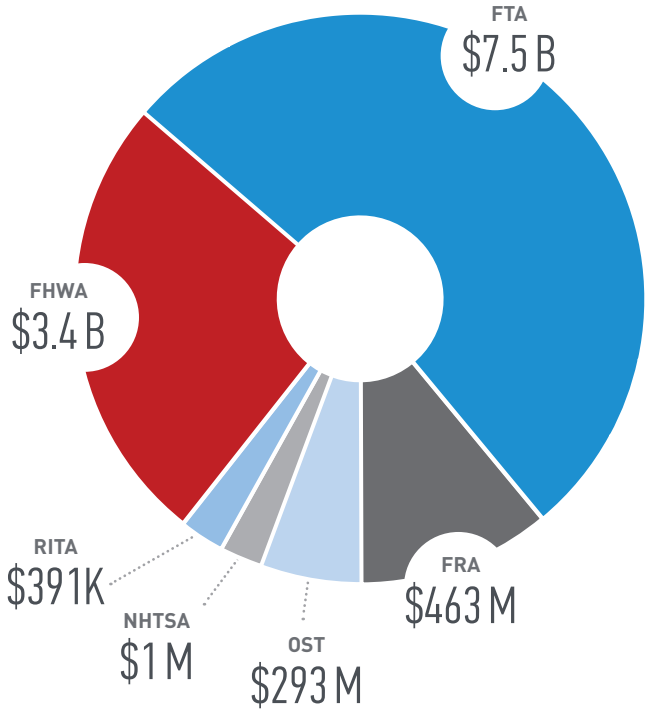
OSDBU partners with DOT Operating Administrations, DOT procurement officials, OSDBU Short Term Lending Program participating lenders, and OSDBU's Small Business Resource Transportation Centers.

LIVABLE COMMUNITIES

LIVABLE COMMUNITIES

Fostering livable communities—places where people have access to adequate, affordable, and environmentally sustainable travel options—is a transformational policy shift for DOT. In order to effectively coordinate transportation planning and community development policies in an environmentally sustainable manner, DOT is collaborating with the Department of Housing and Urban Development (HUD) and the Environmental Protection Agency (EPA) to create the Partnership for Sustainable Communities to make the best use of limited resources.

NET BUDGETARY RESOURCES BY STRATEGIC GOALS: FY 2012 ENACTED



TOTAL $11,764,497,000

IMPROVED NETWORKS AND IMPROVED ACCESS (FHWA)

DOT issued a policy statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations in 2010. This statement signaled an increased commitment to support safe and convenient transportation choices, including walking and bicycling. More than half of the States currently have policies and plans that support improved transportation choices. FHWA provides funding support for reports, technical assistance, and training related to walking, wheeling, and bicycling.

State and local governments with 50 or more employees are required to perform a self-evaluation, or inventory, of their current services, practices, and facilities such as curb ramps and sidewalks that do not, or may not, meet *Americans with Disabilities Act of 1990* (ADA) requirements. Each State must develop a transition plan describing in detail the methods that will be used to ensure that the public entity's facilities are accessible. The plan also specifies the schedule for taking the steps necessary to achieve compliance. A milestone for the implementation of the ADA is for approximately one-third of the States to have current transition plans that include the public rights-of-way by FY 2016.

PUBLIC BENEFIT STATEMENT

By providing more choice and greater access to transportation facilities, Americans will have the opportunity to enjoy more livable, family-friendly communities, improve their health as a result of more physical activity, and make travel choices that reduce vehicle emissions and fuel use.

MEASURE #1

Increase the number of States with policies that improve transportation choices for walking and bicycling. (FHWA)

WHAT ARE WE MEASURING?

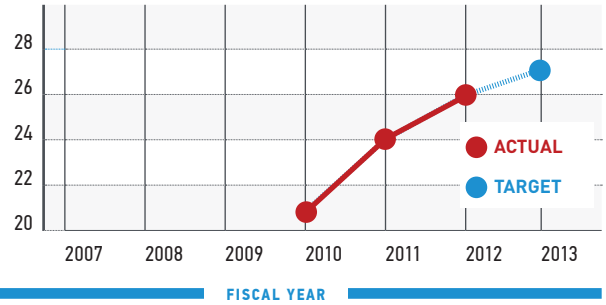
This measure evaluates the number of States with policies that improve transportation choices for walking, wheeling, and bicycling.

2012 RESULTS: TARGET MET

Target: Increase the number of States with policies that improve transportation choices for walking and bicycling to 26 in FY 2012.

Actual: By the end of FY 2012, 26 States have adopted policies that improve transportation choices for walking and bicycling.

1.1 States with Policies that Improve Transportation Choices for Walking and Bicycling



DESCRIPTION OF RESULTS

During FY 2012, Rhode Island and Georgia adopted policies that improve transportation choices for users, increasing the total number of States with similar policies from 24 to 26. FHWA continued to share information about the importance of considering transportation choices. The agency led livability workshops across the country to provide resources to practitioners and the general public to better consider the transportation needs of communities within the transportation planning process. FHWA also conducted exchanges with Sweden and China as part of its effort to improve knowledge of best practices related to the planning of livable communities.

FHWA released a series of documents that demonstrate how transportation projects can foster livability in communities of varying sizes including in rural areas. FHWA submitted a report to Congress on the results of the *Non-motorized Transportation Pilot Program*, which demonstrates how communities benefit from policies and investments that support walking and bicycling. In September 2012, FHWA released a guide to assist communities that are considering establishing bike share programs. FHWA launched a newsletter called *Fostering Livable Communities* and released a series of livability fact sheets, including several that pertain to the benefits of improving walking and bicycling facilities. Finally, the agency released a revised version of FHWA Order 6640.23a on *Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*.

MEASURE #2

Increase the number of States that have developed an ADA transition plan that is current and includes the public rights-of-way. (FHWA)

WHAT ARE WE MEASURING?

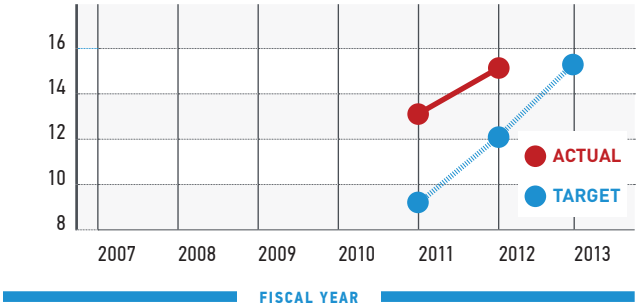
Number of States that have developed an ADA transition plan that is current and includes the public rights-of-way.

2012 RESULTS: TARGET MET

Target: Increase the number of States that have developed current ADA transition plans that include public rights-of-way to 12 in FY 2012.

Actual: As of the end of FY 2012, 15 States have developed current ADA transition plans that include public rights-of-way.

1.2 States That Have Developed an Americans with Disabilities Act (ADA), Transition Plan That is Current and Includes the Public Rights-of-way



DESCRIPTION OF RESULTS

FHWA conducted workshops and national webinars on the ADA and on designing pedestrian facilities for accessibility, as well as similar training in the area of best practices for ADA transition plans. A national webinar on Context Sensitive Solutions and the ADA was delivered in January and a best practice national webinar was delivered in April. To date, 15 States have current ADA transition plans that include the public rights-of-way. FHWA continued to provide technical assistance to States in developing and implementing their transition plans. The agency began developing training webinars focused on effective practices with regard to the development and implementation of ADA self-evaluation and transition plans. An analysis of the results from the civil rights program assessments that were conducted in FY 2010 and FY 2011 enabled FHWA to identify those elements within a State's ADA program that require targeted technical assistance and/or training.

FUTURE OUTLOOK

FHWA is developing interim guidance for the Transportation Alternatives Program authorized by MAP-21. This new program incorporates funding eligibilities from Transportation Enhancements, Safe Routes to School, and the Recreational Trails Program. Projects eligible to receive funding through the Transportation Alternatives Program include those able to achieve compliance with the ADA.

An additional 29 States are actively developing ADA transition plans, with the majority of those States projecting a completion date within the next two to three years. FHWA will use the analysis of the assessments' results in its provision of technical assistance to States and in developing training webinars. In addition, FHWA began to track queries from States requiring a technical assistance response concerning the ADA, as well as Section 504 of the *Rehabilitation Act of 1973*. This approach will help FHWA identify specific challenges that create obstacles for the States in developing and/or implementing an ADA transition plan and in meeting regulatory requirements for both the ADA and Section 504.

EXTERNAL FACTORS

The development of ADA transition plan that includes the public rights-of-way must be preceded by the completion of an ADA self-evaluation plan, which is an inventory of all public right-of-way facilities including sidewalks and curb ramps within a State. A transition plan includes a schedule of corrections to sidewalks and curb ramps that are in a deficiency status. The costs are high and considerable time is needed to complete both an inventory of this kind and to update the transition plan. In addition, the level of proficiency among individuals at the State level charged with ADA-related responsibilities needs to be improved.

PARTNERS

FHWA works closely with the State Bicycle and Pedestrian Coordinators and Safe Routes to School Coordinators. The Pedestrian and Bicycle Information Center, a national clearinghouse on non-motorized transportation issues, helps share information with FHWA stakeholders, including State DOTs, metropolitan planning organizations, and the public.

To achieve compliance with ADA, FHWA works closely with State DOTs, State and Federal agencies, tribal governments, interested parties, and the public.

INCREASED ACCESS TO CONVENIENT AND AFFORDABLE TRANSPORTATION CHOICES (FTA)

Every day, tens of millions of Americans benefit from having transit as a transportation option for getting to work, health care, education, shopping, and recreation destinations. FTA's goal is to increase transit ridership by making public transportation increasingly available and convenient for transit-dependent populations, and by making transit a "mode of choice" to populations with multiple transportation options.

PUBLIC BENEFIT STATEMENT

Increased transit ridership represents a met demand for alternative transportation options. Additionally, transit ridership carries a number of external benefits for all Americans, including reduced highway congestion, reduced air emissions, and increased safety. Transit produces less congestion and fewer emissions than the same trip taken by personal vehicle, and transit passengers are statistically less likely to suffer a serious or fatal injury compared to persons making the same trip by personal vehicle.

MEASURE #1

Increase the number of transit boardings reported by urbanized area transit providers. (FTA)

WHAT ARE WE MEASURING?

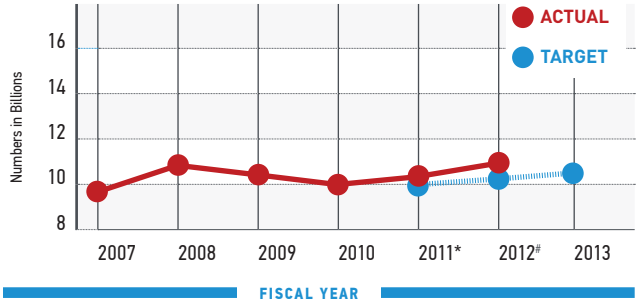
This measure evaluates annual ridership on transit systems in urbanized areas. Each transit system operating in an urbanized area reports total boardings on all transit modes they operate to FTA's National Transit Database each month. Reports are due 30 days after the end of the month, and ridership totals are finalized over the course of the following year as each transit system conducts internal audits. Ridership is reported on the basis of unlinked passenger trips, which is the technical term in the transit industry for total boardings.

2012 RESULTS: TARGET MET, BASED ON PROJECTED DATA THROUGH AUGUST 2012

Target: Achieve 10.1 billion transit boardings by urbanized area transit providers in FY 2012, an increase of 100 million riders over FY 2011.

Actual: Projecting 10.3 billion transit boardings by urbanized area transit providers (preliminary) in FY 2012. This is an increase of 200 million riders over FY 2011 and is 200 million riders over the target.

2.1 Number of Transit Boardings Reported by Urbanized Area Transit Providers



*This livable communities target was developed in 2011.
#Projection based on data through August 2012.

DESCRIPTION OF RESULTS

Federal funding played a key role in sustaining urbanized area transit service during the recent economic downturn. As of September 2012, urbanized area transit ridership nearly matched the12-month peak level set in December 2008.

MEASURE #2

Increase the number of transit boardings reported by rural area transit providers to 144 million in FY 2012. (FTA)

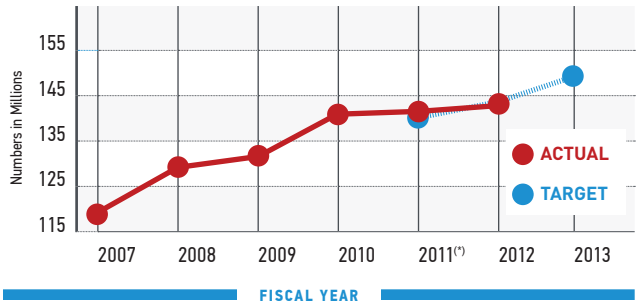
WHAT ARE WE MEASURING?

State DOTs report ridership on rural transit systems through the Rural Module of FTA's National Transit Database. Annual reports are also filed by tribal DOTs operating their own rural transit services. Rural ridership reporting is based on the number of unlinked passenger trips, which is the same basis used for urbanized area transit systems. Reports are due four months after the end of the fiscal year, and are validated by FTA. FY 2012 data will not be available until September 2013. As fiscal year end dates for transit agencies vary, data are not entirely concurrent across agencies.

2012 RESULTS: TBD

Target: Achieve 144 million transit boardings reported by rural area transit providers in FY 2012.
Actual: FY 2012 data are currently unavailable, but rural transit systems achieved 142 million transit boardings in FY 2011 based on data reported in October 2012.

2.2 Number of Transit Boardings Reported by Rural Area Transit Providers



*This new livable communities target was developed in 2011.

DESCRIPTION OF RESULTS

Demand for rural public transportation is growing faster than projected. The 2005 SAFETEA-LU authorization increased funding for this program by more than 50 percent from $251 million to $384 million in 2006, and increased funding by an additional 21 percent (not adjusted for inflation) to $465 million just three years later in 2009. The impacts of these investments are shown in the increased ridership on rural transit systems. The MAP-21 authorization increases rural funding by a further 29 percent, to nearly $600 million in FY 2013.

MEASURE #3

Increase the transit "market share" among commuters to work in the 50 most populous urbanized areas compared to the 2010 baseline. (FTA)

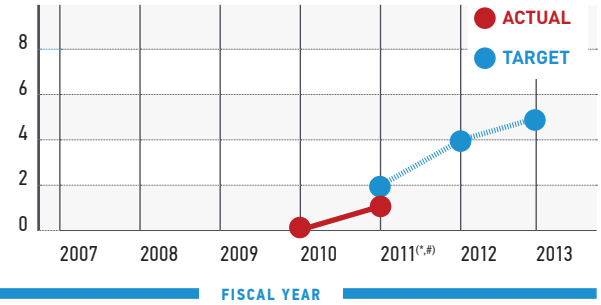
WHAT ARE WE MEASURING?

The U.S. Census Bureau annually conducts the American Community Survey (ACS) to collect a number of demographic characteristics about the U.S. population. Among the topics surveyed by the ACS is the mode of transportation used for commuting to work. By comparing the number of persons that used public transportation to commute to work in an urbanized area to the total number of workers in an urbanized area, the transit "market share" for that urbanized area can be calculated. Since the ACS is based on a random sample survey, each measurement contains a certain margin of error. This measure assesses the transit "market share" in the 50 most populous urbanized areas showing statistically significant increases in transit market share compared to a 2010 baseline.

2012 RESULTS TBD

Target: Four urbanized areas that experienced an increase in transit "market share" among commuters to work in the 50 most populous urbanized areas, as compared to 2010.
Actual: 2012 data are not available. The U.S. Census Bureau will publish 2012 data in late 2013. In 2011, only one urbanized area had a statistically significant increase in transit "market share."

2.3 Areas with Increased Transit "Market Share" Among Commuters to Work in the 50 Most Populous Urbanized Areas



*This target was developed in 2011, and 2010 represents the baseline.
Preliminary results.

DESCRIPTION OF RESULTS

National transit ridership grew more slowly than anticipated in 2011 due to overall weak economic conditions. With only one of the Top 50 urbanized areas reporting a statistically significant increase in transit market share in 2011, results for this goal are running behind target. This measure relies on three-year averages from the ACS. As a result, the 2011 number shares two years of data with the 2010 baseline.

FUTURE OUTLOOK

National transit ridership grew much more strongly in 2012 compared with 2011, which may translate into increased transit market share in other urbanized areas. FTA expects to meet the 2012 target.

EXTERNAL FACTORS

A number of factors impact transit ridership. These include:

- Gasoline prices—Higher retail gasoline prices increase the cost of driving and lead to more consumers choosing transit, which boosts transit ridership.
- Economic growth/Employment—Approximately 50 percent of transit trips are taken to or from work, thus transit ridership is positively correlated with employment.
- State and local funding—Federal funding accounts for approximately 18 percent of total funding for public transportation and about 8 percent of operating expenditures. State and local government sources account for more than half of transit operating expenses, so cutbacks in State and local funding for transit will reduce overall transit availability.

PARTNERS

FTA's partners in this effort include transit agencies, State DOTs, local governments, metropolitan planning organizations, and research entities. In addition, FTA will continue to work with Federal partners, including the Department of Housing and Urban Development and the Environmental Protection Agency through the Partnership for Sustainable Communities to improve the connectivity of transit to other community resources.

IMPROVED ACCESS TO TRANSPORTATION FOR PEOPLE WITH DISABILITIES AND OLDER ADULTS (FTA)

MEASURE: Increase the number of key rail transit stations verified as accessible and fully compliant. (FTA)

According to the U.S. Census Bureau's report *Americans with Disabilities: 2010*, there are 56.7 million persons with disabilities in the United States, and this number is expected to increase as the population ages. The *Americans with Disabilities Act of 1990* (ADA) requires that public transportation be accessible to and usable by persons with disabilities. This is vital to maintaining independence and mobility for people with disabilities and linking them to employment, health care, and other important services in their community.

PUBLIC BENEFIT STATEMENT

Accessible public transportation is vital to maintaining independence and mobility for individuals with disabilities, linking them to employment, health care, and other important services in their community.

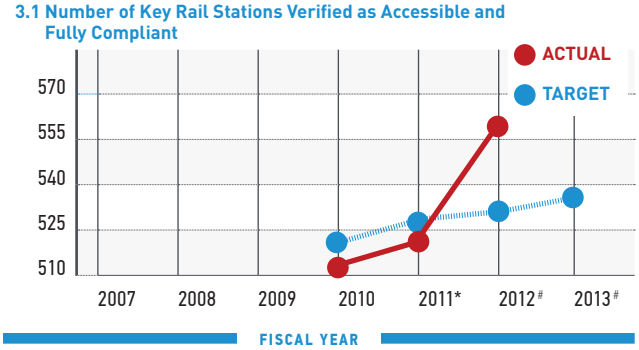
WHAT ARE WE MEASURING?

A key rail transit station is designated by public entities that operate existing commuter, light, or rapid rail systems. Each public entity determines which stations on its system are designated key rail transit stations through its planning and public participation process using criteria established by DOT regulations. The ADA requires all new key rail transit stations to be accessible, and requires public entities to provide an extended timetable for legacy key rail transit stations to be upgraded for accessibility and full compliance with the ADA. FTA periodically conducts inspections of legacy key rail transit stations to verify that they are accessible and fully compliant to individuals with disabilities. New key rail transit stations are presumed to have been constructed to be accessible and fully compliant with the ADA unless they are found to be otherwise through an inspection conducted by FTA. The number of new key rail transit stations and the number of inspected legacy key rail transit stations found to be accessible and fully compliant are added together to produce this measure.

2012 RESULTS: TARGET MET

Target: 531 key rail transit stations verified as accessible and fully compliant.
Actual: 567 key rail transit stations verified as accessible and fully compliant.

3.1 Number of Key Rail Stations Verified as Accessible and Fully Compliant



*This target was developed in 2010.
#Multiple key rail transit stations with open findings were made accessible and fully compliant in FY 2012. The FY 2013 target is undergoing revision to reflect the accomplishments in FY 2012.

DESCRIPTION OF RESULTS

FTA's ongoing investment in new rail transit stations continues to increase the number of key rail transit stations that are accessible and fully compliant with the ADA. Most of this increase can be attributed to the construction of new rail transit stations.

FUTURE OUTLOOK

FTA will continue to invest in additional rail transit stations and pursue solutions to cases where existing facilities are not accessible due to the high cost of making them compliant.

EXTERNAL FACTORS

Approximately six out of the 33 legacy rail transit systems affected by ADA compliance requirements continue to have key rail transit stations that are not yet accessible or fully compliant. These stations will need expensive structural changes or replacement of existing facilities to bring them into compliance.

FTA does not directly operate these transit systems and cannot prioritize these investments relative to other funding needs.

PARTNERS

FTA's partners in this effort include transit agency grant recipients, State DOTs, local governments, metropolitan transit organizations, research entities, transit industry trade organizations, members of the disability community, and the U.S. Architectural and Transportation Barriers Compliance Board (Access Board).

IMPROVED ACCESS TO TRANSPORTATION FOR PEOPLE WITH DISABILITIES AND OLDER ADULTS (FRA)

MEASURE: Increase the percentage of intercity passenger rail stations that comply with the requirements of the Americans with Disabilities Act (ADA). (FRA)

The Americans with Disabilities Act of 1990 (ADA) requires that all stations in the intercity rail transportation system be readily accessible to and usable by individuals with disabilities, including those who use wheelchairs, as soon as practicable, but no later than July 26, 2010. Limited funding prevented Amtrak from meeting this deadline.

PUBLIC BENEFIT STATEMENT

Foster livable communities through place-based policies and investments that increase transportation choices and access to transportation services.

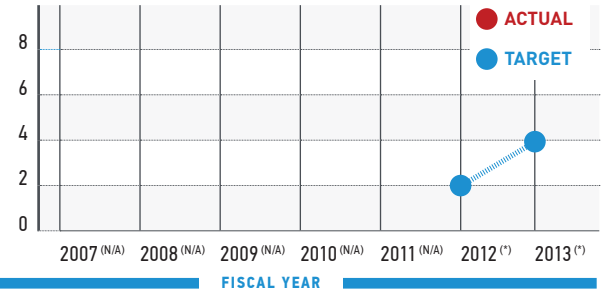
WHAT ARE WE MEASURING?

This is a measure of the cumulative percentage of intercity passenger-rail stations that are compliant with the ADA, from the established baseline.

2012 RESULTS: TARGET NOT MET

Target: 2 percent increase in the number of intercity passenger rail stations that are ADA compliant.
Actual: 0 percent increase in the number of intercity passenger rail stations that are ADA compliant, due to a reevaluation of the definition of ADA compliance.

4.1 Percent of Intercity Passenger Rail Stations That Comply with the Requirements of the ADA



N/A FRA established targets for this measure prior to 2012.

* Tracking will begin in FY2012 after Amtrak completes its reassessment of station designs & construction plans.

DESCRIPTION OF RESULTS

As of January 2013, construction work was nearing completion at eight stations of almost 400 for which Amtrak has ADA responsibility (2 percent). Construction delays to accommodate recent rulemakings and guidance regarding ADA requirements prevented Amtrak from meeting the FY 2012 target. After Amtrak reassesses designs and develops changes for each station to comply with recent rules and guidance, Amtrak will establish a revised baseline and plan.

FUTURE OUTLOOK

Availability of funding to support station modifications will determine the pace at which Amtrak can achieve compliance.

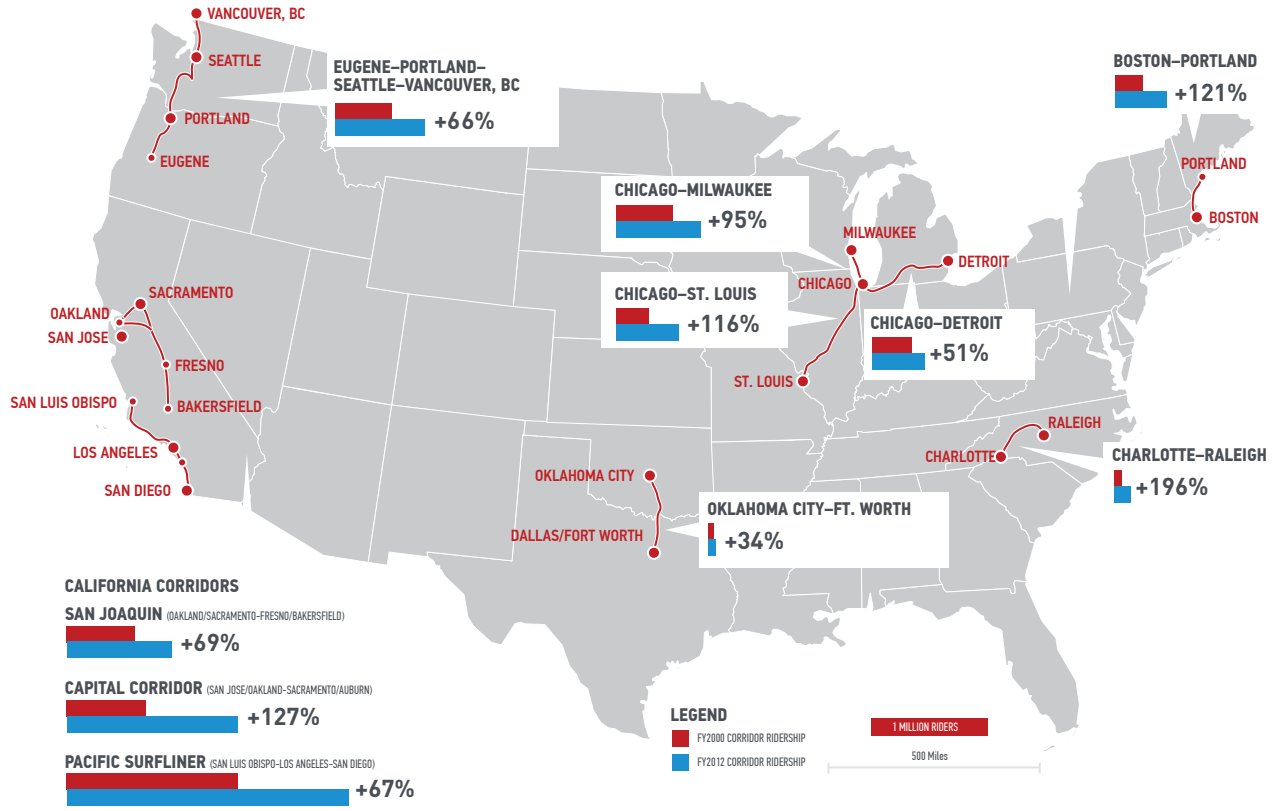
EXTERNAL FACTORS

Intercity rail stations are owned by a variety of public and private entities. Many stations have separate owners for different station components, such as track, platforms, parking areas, and buildings. Amtrak will need to develop agreements with these owners to implement modifications and upgrades.

PARTNERS

Partners include States, Amtrak and other railroad operators, freight railroads, metropolitan planning organizations, transit agencies, station owners, passenger rail advocates, and the disability community.

Ridership Growth on Selected Passenger Rail Corridors, 2000 to 2012



Source: Amtrak

INCREASED ACCESS TO CONVENIENT AND AFFORDABLE TRANSPORTATION CHOICES (FRA)

MEASURE: Increase the number of intercity rail passenger-miles traveled. (FRA)

Rail is well suited to complement America's aviation and highway networks and help meet the mobility needs of the growing and aging U.S. population and the goods produced and consumed by that population. The U.S. Census Bureau projects that an additional 100 million people will reside in the United States by 2050, most in concentrated geographic areas called megaregions, resulting in the movement of an additional 4 billion tons of freight each year. As highway and aviation congestion rise, coupled with increasing energy costs, Americans and shippers seek new transportation options.

PUBLIC BENEFIT STATEMENT

Foster livable communities through place-based policies and investments that increase transportation choices and access to transportation services.

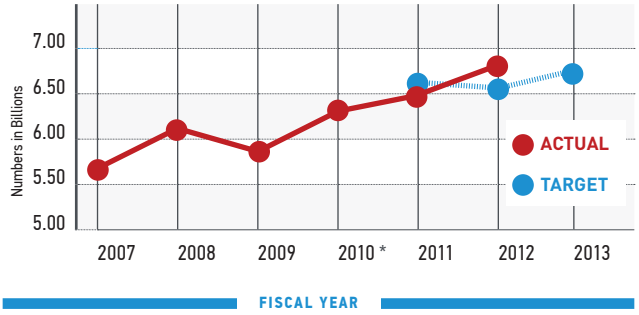
WHAT ARE WE MEASURING?

This measure represents the annual passenger-miles traveled via rail. This measure is an indication of FRA's success in promoting rail as a viable alternative to other methods of intercity travel.

2012 RESULTS: TARGET MET

Target: 6.60 billion passenger-miles traveled in FY 2012.
Actual: 6.80 billion passenger-miles traveled in FY 2012.

5.1 Number of Intercity Rail Passenger-Miles Traveled



* FRA did not establish targets for this measure prior to 2011.

DESCRIPTION OF RESULTS

Amtrak's ridership continues to grow year over year as intercity passenger rail increases its reputation as a practical, reliable, and environmentally friendly mode of transportation. The map accompanying this section displays the growth in ridership on selected passenger rail corridors between 2000 and 2012.

In addition, Amtrak's Northeast Corridor services have shown that intercity rail can free up airport capacity by shifting travelers from short-haul flights (under 500 miles) to rail. The Northeast Corridor carries 65 percent of the air-rail market between Washington, D.C., and New York, and it serves as a vital transportation backbone to the regional $2.4-trillion economy.

FUTURE OUTLOOK

- By 2050, the U.S. Census Bureau projects that an additional 100 million people will reside in the United States. The vast majority of this growth will be concentrated in a small number of "megaregions." Intercity passenger rail is especially suited for addressing the transportation challenges that will arise in this increasingly urban environment.
- Highway and aviation congestion continues to rise, with an estimated economic impact growing from $24 billion in 1982 to $125 billion in 2010 in lost time, productivity, and fuel.[1] In many places with the worst congestion, expanding airports and highways is difficult, as land is limited and environmental and community impacts are significant.
- In addition to increasing congestion, air travel is becoming less accessible and convenient for many communities. Changes in airline economics have led to small and midsize cities losing 15 percent or more of their nonstop domestic flights, and fares in some of these markets increased 16 to 18 percent from 2010 to 2011, compared to the average nationwide increase of 6 percent.[2]

EXTERNAL FACTORS

- **External operators**—FRA does not operate passenger railroads. As a result, FRA is unable to directly control factors that affect the desirability to travel by rail compared to other modes.
- **Energy costs**—The inflation-adjusted cost of oil increased 129 percent from 1990 to 2010, and the Energy Information Administration expects crude oil prices to rise an additional 50 percent between 2011 and 2035.[3]

PARTNERS

FRA's partners in this effort include States, Amtrak and other railroad operators, freight railroads, metropolitan planning organizations, transit agencies, passenger rail advocates, and the disability community.

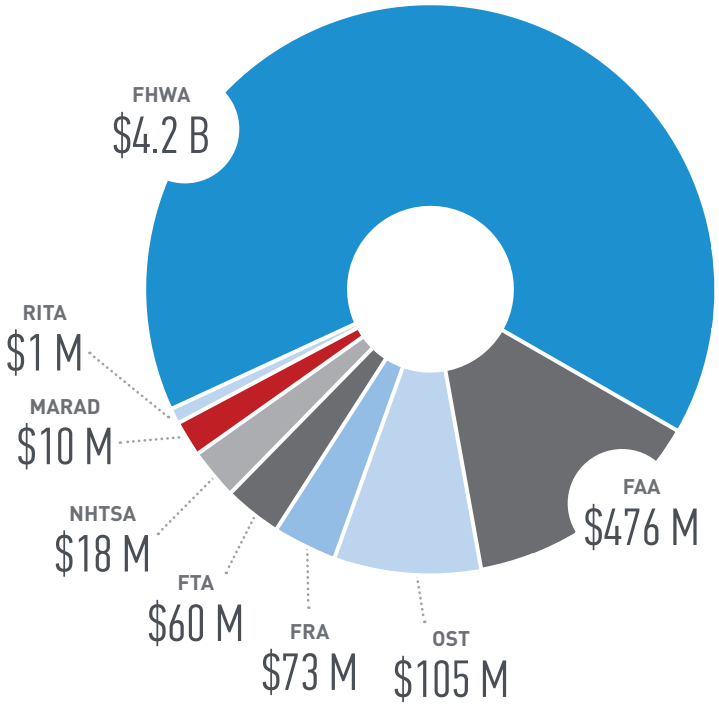
1. Texas Transportation Institute, 2011 Urban Mobility Report, Sept 27, 2011.
2. Mouawad, Jad, *When Flying 720 Miles Takes 12 Hours*, The New York Times, May 2, 2012.
3. U.S. Energy Information Administration, AEO2012 Early Release Overview, January 23, 2012.

ENVIRONMENTAL SUSTAINABILITY

ENVIRONMENTAL SUSTAINABILITY

At the current rate of growth, transportation's share of the human-produced greenhouse gas emissions in the U.S. is projected to increase from 28 percent to 36 percent by 2020. DOT is working to achieve a balance between environmental challenges and the need for a safe and efficient transportation network. In 2012, DOT dedicated $5 billion to the protection of the natural and built assets of the Nation's communities.

NET BUDGETARY RESOURCES BY STRATEGIC GOALS: FY 2012 ENACTED



TOTAL $5,019,477,000

REDUCED CARBON EMISSIONS, IMPROVED ENERGY EFFICIENCY, AND REDUCED DEPENDENCE ON OIL (FAA)

MEASURE: Improve NAS energy efficiency (measured by fuel burned per miles flown). (FAA)

The improvements in aircraft energy efficiency over the last 20 years has outpaced other forms of transportation in the United States. Notwithstanding this success, there is renewed emphasis on improving the fuel efficiency of the National Aviation System (NAS). Fuel currently represents the largest operating cost for U.S. airlines, and this cost category has grown dramatically in recent years. Annually measuring and tracking NAS-wide fuel efficiency from aircraft operations allows FAA to monitor improvements in aircraft/engine.

PUBLIC BENEFIT STATEMENT

This metric supports the effort to reduce aviation's impact on the environment and thereby improve public health and welfare. In addition, more fuel-efficient aircraft should contribute to improving the financial well-being of commercial airlines and a growing economy.

WHAT ARE WE MEASURING?

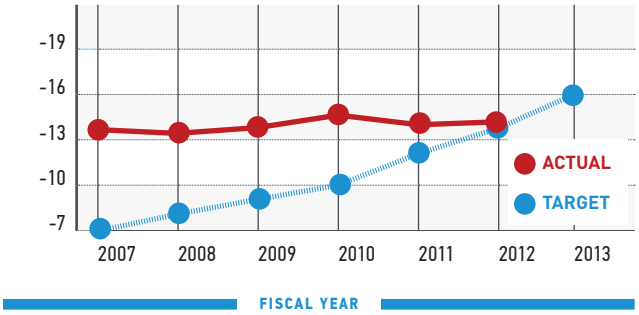
This metric measures fuel burned per mile flown and focuses on all U.S. commercial operations. Measuring and tracking fuel efficiency from commercial aircraft operations allows FAA to monitor improvements in aircraft/engine technology and operational procedures, as well as enhancements in the airspace transportation system. FAA measures performance against this target using the Aviation Environmental Design Tool (AEDT). AEDT is a FAA computer model that estimates aircraft fuel burn and emissions for variable year emissions inventories and

for operational, policy, and technology-related scenarios. For this target, AEDT is used to generate annual fuel burn and total distance flown data for all U.S. commercial operations.

2012 RESULTS: TARGET MET

Target: Improve NAS energy efficiency by reducing fuel burned per mile flown by 14.00 percent from CY 2000 baseline.
Actual: Improved NAS energy efficiency by reducing fuel burned per mile flown by 14.76 percent from CY 2000 baseline.

1.1 NAS Energy Efficiency (Measured by Fuel Burned Per Miles Flown)



DESCRIPTION OF RESULTS

With a result of -14.76 percent, FAA exceeded the FY 2012 energy efficiency target as measured by the calendar year 2011 rate of fuel burned per revenue mile flown, relative to the calendar year 2000 baseline. FY 2012 performance demonstrates continued progress in maintaining efficiency of commercial aircraft operations within the airspace system, thereby minimizing environmental impact.

A combination of factors is responsible for meeting the FY 2012 target, including better aircraft fleet performance, low air traffic growth, and improved air traffic management of the airspace system. Aircraft fleet performance is still improving due to efforts by airlines to minimize use of aircraft that are less efficient. In addition, more fuel-efficient procedures are offered through FAA's Next Generation Air Transportation System (NextGen) modernization. Air traffic growth has not yet returned to the levels previously seen. Therefore, from a system standpoint, there is less likelihood of delays and congestion, which would influence this performance measure in a negative manner.

FUTURE OUTLOOK

The continued implementation of NextGen air traffic modernization should further improve efficiency by reducing delays and enabling more direct routings. Sustainable practices by airport operators can conserve energy, make use of renewable resources (solar, wind, and geothermal), and deploy low-emission vehicles and ground support equipment. Moreover, advances in the development of sustainable alternative fuels offer great promise for emissions reduction. Nearly 100 percent of the jet fuel used in aviation operations is petroleum based—raising issues of energy supply, energy security, and fossil fuel emissions affecting air quality and climate. In response to these concerns, the Federal Government and the aviation industry have a strong interest in "drop in" alternative aviation fuels that can be blended with or replace petroleum jet fuel with no changes to existing engines, aircraft, ground infrastructure, and supply equipment. Sustainable alternative fuel options that use plant oils, sugars, or cellulose from plants have the potential to reduce the net carbon dioxide emissions from commercial aviation. Generally, all alternative aviation fuel options appear to reduce particulate matter emissions in engine exhausts—a cause of respiratory ailments, although not unique to aviation as a source.

In FY 2009, FAA partnered with NASA to develop the Continuous Lower Energy, Emissions, and Noise (CLEEN) program. The goal of this five-year program is to introduce CLEEN technologies into production aircraft in the 2015–2017 timeframe. The partnership will help achieve NextGen goals to increase airspace system capacity by reducing significant community noise and air quality emissions impacts in absolute terms and limiting or reducing aviation greenhouse gas emissions impacts on the global climate.

EXTERNAL FACTORS

NAS Energy Efficiency is heavily dependent on commercial airline operating procedures and day-to-day operational conditions. This includes operating fleet and route assignments, air traffic conditions, weather, airport operating status, congestion in the system, and any disruptions that introduce delay in scheduled flights. For example, a major sustained disruption or enhancement in air traffic and/or a significant shift in commercial operations among airlines, including changes in fleet composition and missions, could have a profound impact upon achieving the performance target.

PARTNERS

FAA partners in this effort include the National Aeronautics and Space Administration (NASA), the Department of Energy (DOE), the United States Department of Agriculture (USDA), the Aerospace Industries Association, and Airlines for America.

REDUCE TRANSPORTATION-RELATED AIR, WATER, AND NOISE POLLUTION IMPACTS ON ECOSYSTEMS (FAA)

MEASURE: Reduce the number of people exposed to significant aircraft noise around airports. (FAA)

A critical component to ensure that the economic and social benefits of future air transportation demand are met will be to improve mobility (i.e., increasing efficiency and capacity); however, these enhancements have the potential to be constrained by aviation's environmental effects. The environmental vision for NextGen is to provide environmental protection that allows sustained aviation growth. Noise, air quality, climate, and energy are the most significant potential environmental constraints to increasing aviation capacity, efficiency, and flexibility. FAA has established several programs and activities

aimed at addressing these constraints. For noise, that involves limiting the number of people exposed to significant noise levels. Significant noise is defined as a Day-Night Average Sound Level of 65 decibels. The number of people exposed to significant noise levels was reduced by approximately 90 percent between 1975 and 2000. This is due primarily to the legislatively mandated transition of airplane fleets to newer generation aircraft that produce less noise. Most of the gains from quieter aircraft were achieved by FY 2000. There have been incremental improvements since that time. Absent further advances in noise reduction technologies and procedures and fleet evolution, the remaining problem must be addressed primarily through airport-specific noise compatibility programs.

FAA pursues a program of aircraft noise control in cooperation with the aviation community. Noise control measures include noise reduction at the source, i.e., development and adoption of quieter aircraft, soundproofing and buyouts of buildings near airports, operational flight control measures, and land use planning strategies.

PUBLIC BENEFIT STATEMENT

The public will have reduced exposure to unwanted aircraft noise and increased capacity, reducing airport congestion and delays.

WHAT ARE WE MEASURING?

The metric tracks the residential population exposed to significant aircraft noise around U.S. airports. Significant aircraft noise is defined as aircraft noise above a Day-Night Average Sound Level (DNL) of 65 decibels. The target is determined by reducing the number of people exposed to significant aircraft noise by at least 2 percent per year from FY 2011 through FY 2016, compared to the baseline population exposed to significant aircraft noise in 2005.

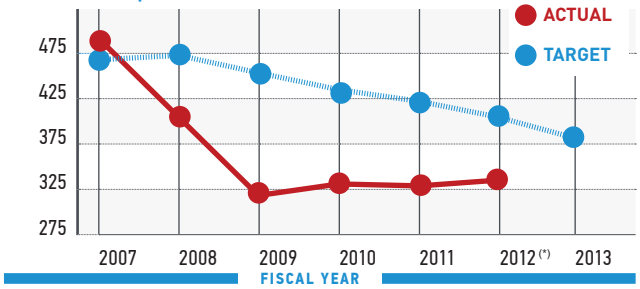
Beginning in FY 2012, the estimates of the number of people exposed to significant noise are calculated from the Aviation Environmental Design Tool (AEDT). Prior to the use of AEDT, estimates were calculated using the Model for Assessing Global Exposure to the Noise of Transport Aircraft (MAGENTA). The computational core of AEDT is FAA's Integrated Noise Model (INM) with methodological improvements, the most widely used computer program for the calculation of aircraft noise around airports. Major assumptions on local traffic utilization come from obtaining INM datasets that were developed for an airport. The FAA is in the process of transitioning from INM to AEDT. In FY 2014, INM will be replaced by AEDT as the regulatory tool to calculate airport noise around airports. Major assumptions on local traffic utilization come from obtaining INM datasets that were developed for an airport.

2012 RESULTS: TARGET MET

Target: Limit the number of people exposed to significant aircraft noise around airports to no more than 386,000 in FY 2012.

Actual: Limited the number of people exposed to significant aircraft noise around airports to 319,901 in FY 2012.

2.1 Number of People Exposed to Significant Aircraft Noise Around Airports



* When reporting, the previous calendar year exposure is reported for the fiscal year, i.e., for FY 2012, the number of people exposed to significant noise in calendar year 2011.

DESCRIPTION OF RESULTS

In FY 2012, FAA met its target to reduce noise exposure. Air carrier fleet and operational changes have driven the significant reduction in noise exposure since the base year of 2005. Carriers continue to retire older, less fuel-efficient aircraft that tend to produce more noise. In addition, passenger demand continues to be below 2005 levels, resulting in decreased air traffic. The persistence of significant levels of aircraft noise in communities around airports is the major impact, but not the only impact. There are increasing concerns in areas of moderate noise exposure and public complaints from suburban and rural areas where ambient noise is lower.

At noise exposure levels below those involving health and welfare concerns, there are also sensitivities with respect to national resources such as national parks. While techniques and tools for measuring and modeling noise exposure provide a reliable means of assessing the levels of aircraft noise to which people are exposed, focused research could improve our scientific knowledge base of the extent of impacts and appropriate mitigation below historically defined significant noise levels.

FUTURE OUTLOOK

NextGen technologies and FAA's many noise mitigation approaches allow the agency to make significant improvements to aviation noise exposure. FAA continues to pursue a program of aircraft noise control, in cooperation with the aviation community and local governments, through source noise reduction, soundproofing, buyouts of homes and other noise-sensitive buildings near airports, operational flight control measures, and land use planning strategies.

EXTERNAL FACTORS

The primary external factors affecting performance are market forces that drive changes in commercial aircraft fleets and operations. Although FAA is authorized to provide funds for soundproofing and residential relocation, each project must be locally sponsored and part of a noise compatibility program prepared by the airport sponsor and approved by FAA. Other external factors include providing FAA with the authority and funding to accelerate the implementation of new aircraft emissions and noise technology. These programs help foster the type of fleet and performance change required to meet our current target.

PARTNERS

Partners include government agencies worldwide and the aviation industry through the International Civil Aviation Organization (ICAO), which periodically update noise standards and methodologies. FAA continues to partner with NASA in the development of CLEEN technologies for civil subsonic jet airplanes.

REDUCE TRANSPORTATION-RELATED AIR, WATER, AND NOISE POLLUTION AND IMPACTS ON ECOSYSTEMS (PHMSA)

MEASURE: Reduce the number of hazardous liquid pipeline spills with environmental consequences. (PHMSA)

The Pipeline and Hazardous Materials Safety Administration (PHMSA) establishes safe land use standards for existing pipelines and new pipeline construction in proximity to populated areas using an enterprise approach working with local governments, real estate and development interests, insurers, pipeline operators, other Federal and State agencies, the Pipeline and Informed Planning Alliance (PIPA), and others. PIPA helps communities understand where pipelines are located, who owns and operates them, and what other information is available for community planning. As pipelines expand into communities, it is vital to locate them where they pose the least potential hazard to people and the environment while also protecting pipelines from potential excavation damage, a leading cause of pipeline failures.

PUBLIC BENEFIT STATEMENT

Reducing spills with environmental consequences helps to protect the natural environment directly.

WHAT ARE WE MEASURING?

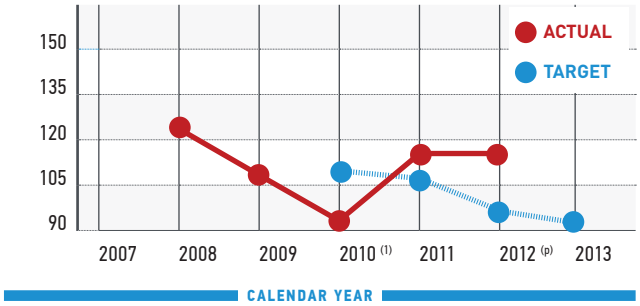
DOT measures the risk pipelines pose to the environment by tracking hazardous liquid spills with reported impacts on water, soil, fish, birds, or other wildlife.

2012 RESULTS: TARGET NOT MET, BASED ON PROJECTED RESULTS

Target: 80-99 hazardous liquid pipeline spills with environmental consequences.

Actual: 114 hazardous liquid pipeline spills with environmental consequences (projected).

3.1 Hazardous Liquid Pipeline Spills with Environmental Consequences



[1] This was a new measure beginning in 2010. No targets existed for CY 2007 – 2009

(p) Projected

DESCRIPTION OF RESULTS

Pipeline operators reported 114 hazardous liquid spills with environmental consequences. Most of the reported releases (95) impacted the soil; 19 impacted the water; 1 impacted birds; and 2 impacted fish. The spills resulted in the release of 38,000 barrels of crude oil, refined petroleum products, or highly volatile liquids which are a gas at ambient temperature.

FUTURE OUTLOOK

PHMSA is dedicated to improving oversight of pipeline safety, including oil spill response plan reviews and expansion of its participation in oil spill drills; and will continue to advance the "811 - Call Before You Dig" public awareness campaign, expand geospatial data collection and analysis to help identify high-risk areas, and gradually expand the risk-based inspection program.

EXTERNAL FACTORS

Excavation damage, damage from natural forces (e.g., storms and flooding), and other outside force damage are all significant causes of pipeline failure. Operating error by individuals is another significant cause of failure.

PARTNERS

Some State pipeline safety agencies act as interstate agents for PHMSA, inspecting hazardous liquid pipelines on its behalf.

INCREASED USE OF ENVIRONMENTALLY SUSTAINABLE PRACTICES (OST)

Building, operating, and maintaining transportation systems have environmental consequences, and DOT has many opportunities for increasing sustainability, reducing carbon and other harmful greenhouse gas emissions, promoting energy independence, and addressing global climate change for the Department's buildings and fleet. Under Executive Order (E.O.) 13514, the Department of Transportation is required to increase efficiency; measure, report, and reduce greenhouse gas emissions; conserve and protect water resources; eliminate waste, increase recycling, and prevent pollution; acquire environmentally preferable materials, products, and services; design, construct, maintain, and operate high performance sustainable buildings; and strengthen the vitality and livability of local communities.

The Department of Transportation has prepared and is implementing a 10-year strategic sustainability plan, which requires annual progress in each of these areas. Additionally, the DOT Strategic Sustainability Performance Plan identifies the far reaching programs and activities that must be instituted to meet the 2010–2020 energy, environmental, and sustainability requirements of E.O. 13514. These energy, environmental, and sustainability efforts are incorporated in the Department's overall 2012–2016 Strategic Plan.

PUBLIC BENEFIT STATEMENT

Policy implementation and program development will support the realization of environmental sustainability requirements and goals. Progress on these goals will not only help the Department reduce its environmental footprint and resource consumption, but also help ensure that its buildings and fleet are performing efficiently with the best return on investment for the American people. In addition, action towards these sustainability goals allows the Department to innovate and test new technologies, creating greater demand in the marketplace and helping to mainstream these new technologies.

MEASURE #1

Percent reduction of vehicle fleet petroleum use compared to 2005 baseline. (OST)

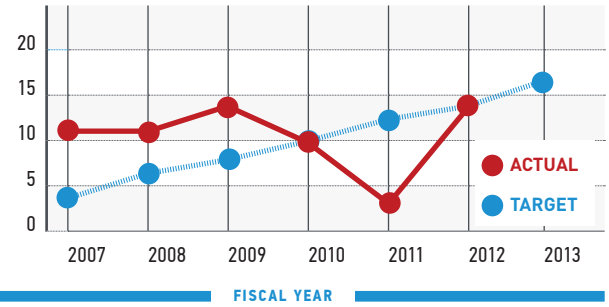
WHAT ARE WE MEASURING?

E.O. 13514 requires a reduction of petroleum consumption in agency fleets of 20 or more vehicles by 2 percent each year through FY 2020 compared to a FY 2005 baseline.

2012 RESULTS: TARGET MET

Target: 14 percent reduction of petroleum consumption in agency fleets compared to FY 2005 levels.
Actual: DOT reduced its petroleum consumption by 14.5 percent, meeting its FY 2012 target.

4.1 Percent Reduction of Vehicle Fleet Petroleum Use



DESCRIPTION OF RESULTS

In FY 2012, the Department was able to reduce its overall fleet petroleum use by 14.5 percent from a FY 2005 baseline by completing the following:

- In FY 2012, DOT consumed 3,173,473 gallons of petroleum fuel. DOT also consumed 273,455 gasoline gallon equivalents of alternative fuel.
- DOT conducted its first fleet "Right Sizing" exercise in FY 2009. As a result, the Department returned approximately 60 underutilized vehicles to the General Services Administration (GSA).
- At the DOT HQ Motor Pool, DOT replaced its executive fleet vehicles (Ford Grand Marquises) with Ford Fusions and Chevrolet Malibu Hybrids. DOT Headquarters' entire motor pool consists of alternative fuel vehicles (AFVs).
- DOT organizations have increased their alternative fuel usage by manually capturing alternative fuel usage resulting in a 300-percent increase from FY 2005.
- A directive has been issued to the Heads of Operating Administrations regarding DOT's Fleet Management Performance, which outlined the fleet requirements mentioned in the Energy Policy Act of 2005 (EPAct) and E.O. 13514 and provided strategies to meet those requirements.
- DOT has met Section 303 of the Energy Policy Act of 1992 (EPACT), which requires that 75 percent of all covered light-duty vehicles acquired by Federal fleets in FY 1999, and each year thereafter, be AFVs. DOT met this requirement the past four years by acquiring more than 3,585 alternative fuel vehicles to date.
- DOT is looking at other innovative ways to reduce petroleum consumption by: Piloting 8 Chevrolet Volts in three locations in the United States [Sterling, VA (2); San Diego, CA (3); and Van Nuys, CA (3)]; and beta-testing an extended-range electric truck made by VIA Motors for one year.
- DOT is working with the Department of Energy (DOE) to introduce alternative refueling locations for Alternative Fuels.
- DOE also has provided a new data tool to assist DOT in reducing petroleum use. The fleet Sustainability Dashboard (Fleet-DASH) will enable the Department to track fuel consumption in GSA-leased vehicles and identify "missed opportunities" to use alternative fuel in dual-fuel vehicles when the alternative fuel is available nearby.

MEASURE #2

Percent improvement in water efficiency compared to FY 2007 baseline. (OST)

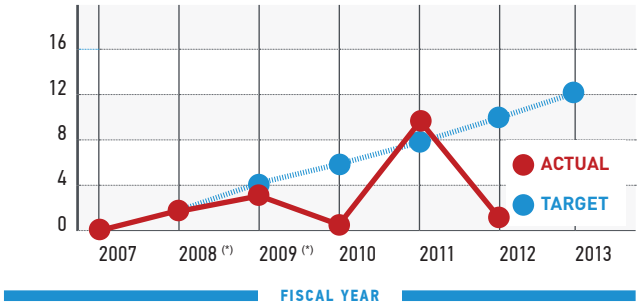
WHAT ARE WE MEASURING?

E.O. 13423 requires Federal agencies to reduce water consumption intensity (gallons per square foot) 2 percent annually through the end of FY 2015, or cumulatively by 16 percent by the end of FY 2015 from a FY 2007 baseline.

2012 RESULTS: TARGET NOT MET

Target: Reduce water consumption intensity by 10 percent compared to the FY 2007 baseline.
Actual: DOT reduced its water consumption intensity by 0.9 percent from a FY 2007 baseline.

4.2 Percent Improvement in Water Efficiency



*Data not verified.

DESCRIPTION OF RESULTS

In FY 2012, the Department was able to reduce its water consumption intensity by 0.9 percent from a FY 2007 baseline by completing the following:

- FAA's Northern California TRACON (NCT) facility reduced total water usage by approximately 40 percent annually, with an estimated annual savings of more than 3,200,000 gallons of water by installing a xeriscaping project, which replaced more than 75 percent of the grassy areas at the facility with colored rubber mulch made from 100-percent recycled California tires rubber and decomposed granite walkways.
- SLSDC has reduced its water intensity by more than 30 percent by utilizing EPA's WaterSense® devices.
- RITA's VOLPE Center has reduced its water consumption by 26 percent through the use of water savings devices and reducing irrigation.
- FHWA has reduced its water consumption by 31 percent through the installation of high-efficiency devices and the implementation of a hydronic maintenance service.
- This represents a 10 percent improvement over the previous fiscal year.

MEASURE #3

Increase the percent of recycling and waste diversion compared to FY 2010 baseline. (OST)

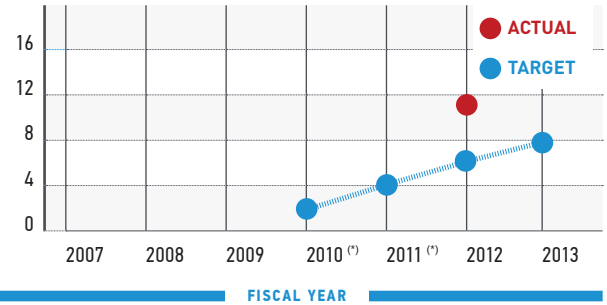
WHAT ARE WE MEASURING?

E.O. 13514 requires the Department to divert at least 50 percent of non-hazardous solid waste from landfills, excluding construction and demolition waste, by the end of fiscal year 2015.

2012 RESULTS: TARGET MET

Target: Increase recycling and waste diversion by 6 percent compared to FY 2010 baseline.
Actual: DOT increased its recycling and waste diversion by 11 percent.

4.3 Percent Recycling and Waste Diversion



*Actual data are not available for FY 2010 or FY 2011.

DESCRIPTION OF RESULTS

In FY 2012, the Department was able to recycle or divert approximately 11 percent of waste from a FY 2010 baseline.

MEASURE #4

Maintain the percent of all applicable contracts that meet sustainability requirements. (OST)

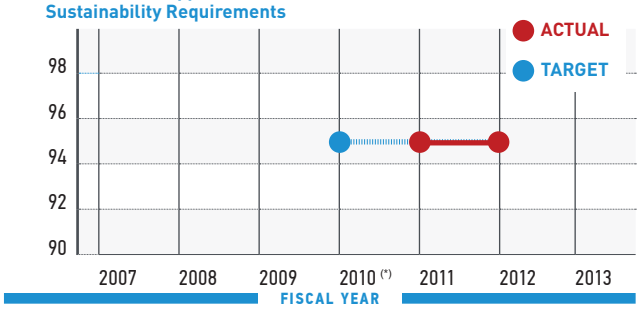
WHAT ARE WE MEASURING?

E.O. 13514 requires the Department to advance sustainable acquisition to ensure that 95 percent of new contract actions including task and delivery orders meet sustainable acquisition requirements annually.

2012 RESULTS: TARGET MET

Target: 95 percent of applicable contracts meet sustainability requirements in FY 2012.
Actual: 95 percent of applicable contracts met sustainability requirements in FY 2012.

4.4 Percent of All Applicable Contracts That Meet Sustainability Requirements



*Actual data are not available for FY 2010.

DESCRIPTION OF RESULTS

In FY 2012, the Department was able to meet the goal of 95 percent of all applicable contracts meeting sustainability requirements by completing the following:

- Quarterly tracking of contract actions;
- Training for the acquisition workforce;
- Issuing guidance about required clauses and other requirements; and,
- Providing sample language to be included in statements of work.

MEASURE #5

Percent reduction in greenhouse gas emissions from facilities and fleets compared to 2008 baseline. (OST)

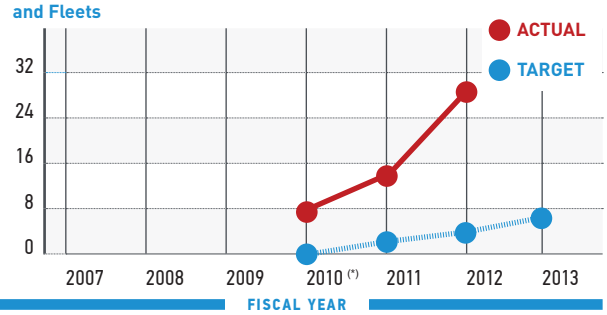
WHAT ARE WE MEASURING?

E.O. 13514 requires the Department to reduce overall scope 1 and 2 GHG emissions by 12.3 percent by 2020 relative to a FY 2008 baseline.

2012 RESULTS: TARGET MET

Target: Reduce overall scope 1 and 2 GHG emissions by 4 percent relative to a FY 2008 baseline.
Actual: DOT Reduced overall scope 1 and 2 GHG emissions by 29 percent compared to a FY 2008 baseline.

4.5 Percent Reduction in Greenhouse Gas Emissions From Facilities and Fleets



*Actual data are not available for FY 2010

DESCRIPTION OF RESULTS

In FY 2012, the Department was able to reduce its scope 1 and 2 greenhouse gas emissions by 29 percent from a FY 2008 baseline by completing the following:

- DOT reduced its GHG emissions from electricity consumption by 14 percent
- DOT reduced its GHG emissions from petroleum consumption by 34 percent
- DOT increased its use of renewable energy, which helped to reduce GHG emissions by 12 percent

MEASURE #6

Percent reduction in greenhouse gas emissions from employee business travel and commuting compared to 2008 baseline. (OST)

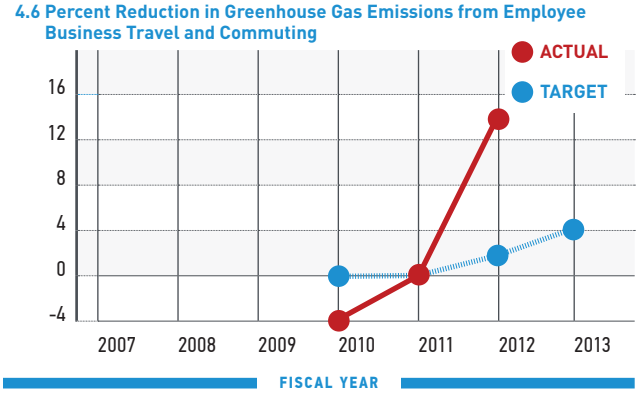
WHAT ARE WE MEASURING?

E.O. 13514 requires the Department to reduce overall departmental scope 3 GHG emissions by 10.9 percent by 2020 relative to a FY 2008 baseline.

2012 RESULTS: TARGET MET

Target: Reduce overall Departmental scope 3 GHG emissions by 2 percent relative to a FY 2008 baseline.
Actual: DOT reduced overall scope 3 GHG emissions by 14 percent compared to a FY 2008 baseline.

4.6 Percent Reduction in Greenhouse Gas Emissions from Employee Business Travel and Commuting



DESCRIPTION OF RESULTS

In FY 2012, the Department was able to reduce its scope 3 greenhouse gas emissions by 14 percent from a FY 2008 baseline by completing the following:

- DOT reduced its GHG emissions from employee commuting by 12 percent
- DOT reduced its GHG emissions from business air travel by 13 percent
- DOT reduced its GHG emissions from business ground travel by 2 percent
- DOT reduced its GHG emissions from solid waste by 10 percent

FUTURE OUTLOOK

In FY 2013, the Department is expecting to achieve the following:

- A 16-percent reduction in petroleum consumption from a FY 2005 baseline
- A 12-percent reduction in water consumption intensity from a FY 2007 baseline
- An 8-percent recycling and waste diversion rate from a FY 2010 baseline
- Attainment of sustainability requirements by 95 percent of all applicable contracts by 2020
- A 6-percent reduction in greenhouse gas emissions from facilities and fleets from a FY 2008 baseline
- A 4-percent reduction in greenhouse gas emissions from employee business travel from a FY 2008 baseline
- Award of approximately $36 million in estimated project value savings through performance-based contracts

EXTERNAL FACTORS

The Department is committed to achieving the above sustainability initiatives, however the following factors may impact the effectiveness of these efforts:

- Increase of core mission responsibilities
- Alteration of existing and future appropriation of funds
- New or revised sustainability requirements
- Other unforeseen circumstances outside the control of the Department

PARTNERS

The Department has formed a strategic partnership with DOE's Federal Energy Management Program to implement energy, environmental, and sustainability activities. This partnership will identify opportunities to enhance Energy Independence and Security Act (EISA) evaluations and water conservation measures at DOT buildings. It will also help to increase the number of High Performance Sustainable Buildings (HPSBs) within DOT. Finally, the partnership will identify opportunities to improve fleet performance by reducing petroleum consumption and increasing alternative fuel use in DOT vehicles.

Other key partners are FAA Real Estate Management System (REMS) managers, the Environmental Protection Agency, the Office of the Federal Environmental Executive (OFEE), the Council on Environmental Quality (CEQ), the Office of Management and Budget (OMB), the General Services Administration (GSA), and Department of Housing and Urban Development (HUD). Through community outreach programs and the DOT-EPA-HUD Partnership for Sustainable Communities, DOT works with local community, academic, and social organizations to carry out the Department's commitment to sustainability.

As a key member of interagency workgroups, DOT has worked closely with GSA and DOE to provide comments and recommendations on government-wide issues related to HPSBs, the greenhouse gas emissions inventory, and the employee commuter choice survey. Conversely, DOE, CEQ, and OMB serve as oversight agencies, which issue guidance and review DOT's annual sustainability and energy-related reports.

REDUCE POLLUTION OR OTHER ADVERSE ENVIRONMENTAL EFFECTS FROM DOT-OWNED OR –CONTROLLED SERVICES OR FACILITIES (MARAD)

MEASURE: Increase the cumulative number of ships safely removed from National Defense Reserve Fleet sites in an environmentally sound manner. (MARAD)

MARAD is the U.S. Government's disposal agent for federally owned merchant type vessels that are 1,500 gross tons or more. The Ship Disposal Program provides resources to safely remove and dispose of obsolete government-owned merchant ships moored in National Defense Reserve Fleet (NDRF) sites in an environmentally sound manner.

In October 2010, the Deputy Secretary announced that the Department was taking action to resolve the long-standing environmental challenges that have adversely affected the Suisun Bay Reserve Fleet (SBRF) and the surrounding community over the last several years. The SBRF is one of three NDRF sites operated by MARAD. The settlement agreement was filed with the Circuit Court of California against MARAD in 2007 for Clean Water Act violations, which resulted in a consent decree that specifies the number of ships to be permanently removed annually from the SBRF through FY 2017.

PUBLIC BENEFIT STATEMENT

The removal of each non-retention vessel from the SBRF mitigates the current threat to the local environment presented by loose exterior paint falling into the waters of Suisun Bay. The reduction in the size of the non-retention fleet also reduces the threat to the environment in the future.

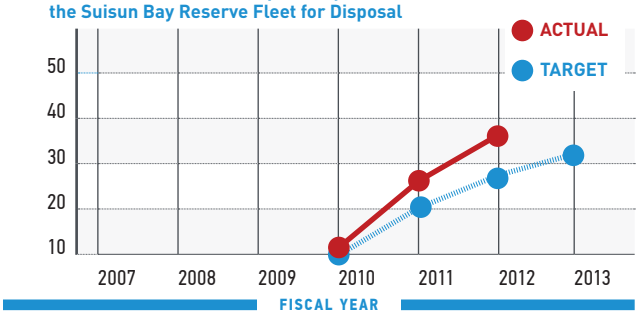
WHAT ARE WE MEASURING?

This measure concerns the settlement agreement resulting from a lawsuit filed with the Circuit Court of California against MARAD in 2007 for Clean Water Act violations, which resulted in a court ordered consent decree. The consent decree specifies a cumulative number of SBRF non-retention vessels required to be removed annually for fiscal years 2010 through 2017, until the 57 ships specified in the consent decree are permanently removed from the SBRF. The measure is indicative of a level of progress that directly mitigates the further discharge of loose exterior paint into the waters of Suisun Bay.

2012 RESULTS: TARGET MET

Target: Remove 28 total vessels by the end of FY 2012.
Actual: Removed 36 total vessels by the end of FY 2012.

5.1 Cumulative Number of Ships Safely Removed from the Suisun Bay Reserve Fleet for Disposal



*Program performance measure was initiated in 2010

DESCRIPTION OF RESULTS

MARAD reports a total of 10 vessels removed for disposal from SBRF in FY 2012, resulting in a cumulative total of 36 ships removed since FY 2010. Achieving the FY 2012 goal was possible due to MARAD's aggressive and timely competitive solicitation and award of contracts for ship recycling and drydocking services. MARAD also attributes the success to favorable economic, industry, and market factors since 2010. Expedited disposal of the obsolete ships lessens environmental risk, avoids negative environmental impacts, and reduces costs. Due to the presence of onboard hazardous materials such as residual fuel, asbestos, solid polychlorinated biphenyls (PCBs), and exfoliating paint/coatings, environmental cleanup costs are often higher than the cost of proper and timely disposal.

FUTURE OUTLOOK

MARAD's actual cumulative removals for FY 2012 exceeds the cumulative target for FY 2013. Despite exceeding the cumulative removal targets for the past three years, MARAD will continue to aggressively contract for drydocking and recycling services to remove SBRF vessels ahead of annual consent decree requirements. The cumulative consent decree target for FY 2014 is 38 vessels. MARAD expects to exceed this target in FY 2013.

EXTERNAL FACTORS

Continuation of this level of progress is dependent on no significant increase in the cost of drydocking, ship disposal, and towing, which are affected by economic, industry, and market factors. Sufficient local drydock availability is also necessary in order to avoid impeding or delaying the removal of vessels from the SBRF. Additionally, sufficient appropriations are necessary to purchase drydocking services and recycling services if vessels cannot be sold.

PARTNERS

MARAD's partners in this effort include the Department of Defense, State of California, Occupational Safety and Health Administration, and Environmental Protection Agency.

REDUCE CARBON EMISSIONS, IMPROVE ENERGY EFFICIENCY, AND REDUCE DEPENDENCE ON OIL (FTA)

MEASURE: Increase the percent of alternative-fuel and hybrid vehicles in the transit revenue service fleet. (FTA)

Responsible economic development minimizes impacts on non-renewable environmental resources. Public transportation inherently supports this goal by maximizing efficiency in the transportation sector through shared rides and trips. For example, harmful emissions per transit passenger-mile are around half those per personal vehicle passenger-mile because transit combines multiple passengers into single vehicle trips. Thus, emissions can be reduced by providing the public with additional transit options that encourage them to rely less on transportation by personal vehicles, as envisioned by the DOT Livable Communities strategic goal. FTA is committed to further reducing energy consumption and harmful emissions from public transportation vehicles. This commitment also includes taking prudent steps to prepare public transportation infrastructure to withstand the impacts of a changing climate.

PUBLIC BENEFIT STATEMENT

Although transit inherently promotes energy efficiency and reduces emissions in the transportation sector through shared trips, these benefits can be further enhanced by reducing transit's own energy and emissions footprint.

WHAT ARE WE MEASURING?

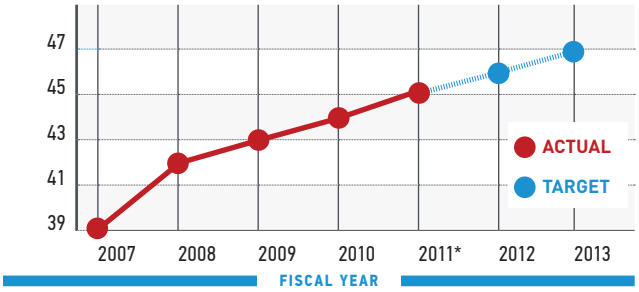
FTA's National Transit Database includes a revenue vehicle inventory that records the primary fuel type of each vehicle used for carrying passengers in public transportation. The revenue vehicle inventory includes all modes of public transportation, rail and non-rail. This measure is a count of all such vehicles that are recorded as not being powered directly by traditional fossil fuels, divided by the total number of revenue service vehicles.

2012 RESULTS: TBD

Target: 46 percent of the transit service revenue fleet is represented by alternative-fuel and hybrid vehicles

Actual: 2012 data not available. FTA's National Transit Database will report 2012 data in October 2013. In FY 2011, the baseline year for this measure, FTA met the goal of 45 percent of alternative-fuel vehicles in the transit fleet. This includes rail vehicles, which are almost all electric and so are counted here as alternative-fuel vehicles.

6.1 Percent of Alternative-Fuel and Hybrid Vehicles in the Transit Revenue Service Fleet



*This measure was developed in 2011.

DESCRIPTION OF RESULTS

The number of alternative-fuel and hybrid vehicles in revenue service continues to grow by approximately 1 percent each year. This reflects increasing investment in heavy rail and light rail transit, as well as increasing investment in hybrid and compressed natural gas buses.

FUTURE OUTLOOK

MAP-21 did not extend the Clean Fuels Bus Program as a separate, stand-alone grant program. However, FTA will continue to fund a significant number of transit vehicles through other grant programs. The ongoing decline in prices for natural gas continues to make compressed natural gas an attractive alternative for many transit systems.

EXTERNAL FACTORS

FTA does not directly purchase vehicles used for operating public transportation service. Vehicle purchase decisions, including the decision on fuel type, are made at the local level by transit agencies.

PARTNERS

FTA's partners in this effort include transit agencies, State DOTs, local governments, and metropolitan planning organizations.

REDUCE CARBON EMISSIONS, IMPROVE ENERGY EFFICIENCY, AND REDUCE DEPENDENCE ON OIL (FHWA)

The transportation sector accounts for 28 percent of total energy use in the U.S. Almost all of the energy consumed for transportation is in the form of petroleum. In addition, the transportation sector is a significant source of greenhouse gas (GHG) emissions, accounting for 28 percent of total U.S. GHG emissions in 2010. Transportation is also a major contributor to criteria pollutants, and as of 2010, some 123.8 million Americans lived in counties or regions that exceeded health-based National Ambient Air Quality Standards (NAAQS) for at least one regulated air pollutant. On-road emissions of criteria pollutants have declined substantially during the past decade; additional efforts are necessary to reduce criteria pollutants.

PUBLIC BENEFIT STATEMENT

Benefits to the public are derived from resources and tools developed by FHWA aimed at helping States reduce GHG emissions and lessen impacts on public health from transportation sources.

2012 RESULTS

FHWA developed a greenhouse gas and energy emissions policy analysis tool that can be used by States to analyze and evaluate numerous strategy alternatives and scenarios for reducing transportation-related greenhouse gas emissions and fuel consumption. As a screening tool, it provides the capability to compare, contrast, and analyze the effects of various GHG reduction policy scenarios on GHG emissions from the surface transportation sector at a statewide level. The FHWA tool estimates the amount of travel in terms of vehicle miles traveled (VMT) and the resulting GHG emissions, including fuel use and electricity use for battery charging by autos, light trucks, transit vehicles, and heavy trucks. FHWA conducted three climate change mitigation and adaptation peer exchanges for metropolitan planning organizations that focused on minimizing the impacts of climate variability and change on transportation systems, and integrating climate change adaptation into agency programs, projects, and operations. The reports generated from the peer exchanges offered metropolitan planning organizations best practices and strategies for overcoming common challenges. The reports also identified future technical needs of the agencies such as tools to identify and prioritize vulnerable assets, and tools to help agencies communicate impacts and adaptation options. Several additional resources were released during FY 2012, including the Climate Change Adaptation Peer Exchanges: Comprehensive Report and the Reference Sourcebook for Reducing Greenhouse Gas Emissions from Transportation Sources.

FUTURE OUTLOOK

Key initiatives in 2013 will include:

- Funding transportation control measures to help attain *National Ambient Air Quality Standards;*
- Providing capital and operating funding for traffic management and traveler information systems including truck-stop electrification systems;
- Evaluating the fuel savings and emissions reduction potential of mitigation strategies including highway operations;
- Examining the suitability of travel activity and other emissions model input data in coordination with source leads;
- Funding projects that reduce emissions in nonattainment and maintenance areas;
- Developing procedures for implementing Congestion, Mitigation, and Air Quality Improvement (CMAQ) Program performance plans required under MAP-21 and overseeing implementation;
- Implementing changes to the CMAQ Program under MAP-21 focusing on the priority set-aside for fine particles, under 2.5 microns in diameter, that result from fuel combustion by motor vehicles and other sources and the programming of projects, such as diesel retrofits;
- Identifying eligible projects and evaluating emissions benefits and cost-effectiveness;
- Conducting research to develop climate change mitigation, adaptation, and livability strategies;
- Analyzing emissions and transportation models to project air quality impacts from surface transportation; and,
- Exploring the role of State DOTs and metropolitan planning organizations in the deployment of electric vehicles and infrastructure.

EXTERNAL FACTORS

State DOTs and metropolitan planning organizations are beginning to develop plans and undertake actions to both minimize impacts on transportation infrastructure and systems and reduce greenhouse gas emissions from transportation sources. FHWA provides information and tools to assist the States in addressing this issue. However, further progress depends on the competing needs and actions in each State.

PARTNERS

Partners in this effort include State DOTs, metropolitan planning organizations, EPA, and FTA.

REDUCE TRANSPORTATION-RELATED AIR, WATER, AND NOISE POLLUTION AND IMPACTS ON ECOSYSTEMS (FHWA)

The continuing emphasis by FHWA on ecosystem approaches has promoted broader mitigation and ecosystem conservation strategies, and wetland acreage has been mitigated at a rate exceeding impacts. However, Federal investments in transportation systems and infrastructure will be made more sustainable by broadly considering the secondary effects of construction and land use consequences. Although transportation projects comply with requirements for management of stormwater runoff, more must be done to meet the challenge of reducing transportation's contribution to water quality problems.

PUBLIC BENEFIT STATEMENT

By lessening the impacts on ecosystems (e.g., decline in water quality due to stormwater runoff) from the design, construction, and use of highways, the long-term quality and viability of environmental resources will be better ensured.

DESCRIPTION OF RESULTS

In FY 2012, FHWA launched the Infrastructure Voluntary Evaluation Sustainability Tool (INVEST) to help State DOTs, metropolitan planning organizations, and others consider sustainability through every phase of the transportation infrastructure lifecycle, including system planning, project management, maintenance, and operation. The tool helps transportation agencies make informed decisions with limited resources to balance economic, social, and environmental factors.

FHWA continued to promote an expanded use of mitigation banking and in-lieu-fee programs through its Every Day Counts Initiative. The agency hosted a national ecological webinar on mitigation and conservation banking, delivered training on mitigation banking and in-lieu-fee programs, encouraged cooperative activities for pooling resources to balance wetland gains and losses, and provided educational outreach at national meetings and conferences.

FHWA hosted two national dialogues on Context Sensitive Solutions, developed case studies, and delivered webinars to improve the linkages between planning and environment, as well as strengthen community collaboration in the transportation planning and project development processes. In collaboration with Federal land management agencies, FHWA designed and

constructed two context sensitive transportation facilities that provide access to national parks, forests, and refuges.

FHWA continued research to better identify tools to help manage stormwater issues associated with transportation projects. In cooperation with the U.S. Geological Survey, the Department developed the Stochastic Empirical Loading Dilution Model, which provides planning-level estimates of runoff quality for storm events from individual transportation projects.

FUTURE OUTLOOK

FHWA will continue its efforts to reduce ecosystem impacts through the following efforts:

- Mitigating the impacts on the human and natural environment resulting from road and bridge construction, reconstruction, replacement, restoration, rehabilitation, and system preservation projects, including eligible wetland banking and in-lieu-fee projects;
- Developing and/or supporting accurate models and tools for evaluating transportation measures and developing indicators of economic, social, and environmental performance of transportation systems to facilitate alternative analysis;
- Marketing and promoting the use of the INVEST self-evaluation tool by States, metropolitan planning organizations, and Federal land management agencies through webinars and other outreach efforts; and,
- Conducting research to explore the viability of electric vehicle travel and identifying infrastructure barriers to electric vehicle use.

PARTNERS

Partners in this effort include State DOTs, metropolitan planning organizations, EPA, FTA, and Federal land management agencies.

OTHER ACCOMPANYING INFORMATION

OFFICE OF INSPECTOR GENERAL'S FY 2012 TOP MANAGEMENT CHALLENGES

OFFICE OF INSPECTOR GENERAL'S FY 2012 TOP MANAGEMENT CHALLENGES

DEPARTMENT OF TRANSPORTATION OFFICE OF INSPECTOR GENERAL APPROACH

The Office of Inspector General (OIG) issues an annual report on the Department of Transportation's top management challenges to provide a forward-looking assessment for the coming fiscal year. The purpose of the report is to aid DOT Operating Administrations in focusing attention on and mapping work strategies for the most significant management and performance issues facing the Department.

In selecting the challenges for each year's list, the OIG continually focuses on the Department's key goals to improve transportation safety, capacity, and efficiency. In addition to the OIG's vigilant oversight of DOT programs, budgetary issues, and progress milestones, it also draws from several dynamic factors to identify key challenges. These include new initiatives, cooperative goals with other Federal agencies, recent changes in the Nation's transportation environment and industry, as well as global issues that could have implications for the United States' traveling public. As such, the challenges included on the OIG's list vary each year to reflect the most relevant issues and provide the most useful and effective oversight to DOT agencies.

As required by OMB Circular A-136, the OIG's report briefly assesses DOT's progress in addressing the challenges identified. To track management challenges identified from year to year, the OIG provides an exhibit to the report that compares the current list of management challenges with the list published the previous fiscal year. In addition, the OIG may refine the scope of the management challenge from year to year based on program developments, external factors, or other information that becomes available.

MANAGEMENT CHALLENGE 1: ENHANCING THE DEPARTMENT'S OVERSIGHT OF HIGHWAY, BRIDGE, AND TRANSIT SAFETY

ISSUE 1A: STRENGTHENING THE FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION'S (FMCSA) OVERSIGHT OF THE MOTOR CARRIER INDUSTRY TO REMOVE UNSAFE OPERATORS

WHY IS THIS ISSUE SIGNIFICANT?

The Department has seen a historic downward trend in traffic fatalities and injuries. To maintain this momentum, FMCSA must continue to work with its State partners and stakeholders, including the oversight organizations, in fulfilling its core safety principles of raising the safety bar to enter the industry, requiring operators to maintain high safety and ethical standards to remain in the industry, and removing high-risk operators from the Nation's roads and highways. In OIG's Top Management Challenges report for FY 2012, OIG urges FMCSA to focus its efforts to remove unsafe operators on strengthening the Commercial Driver's License (CDL) program, enhancing passenger carrier safety initiatives, and developing a risk-based approach for identifying reincarnated carriers.

ACTIONS TAKEN IN FY 2012

In FY 2012, FMCSA closed 18 OIG recommendations, with five of the 18 recommendations pertaining to this Top Management Challenge. In the past year, FMCSA has continued to strengthen the CDL program through the recent issuance of regulations to tighten controls over State CDL testing. Because countering CDL fraud remains a challenge, tough counter-fraud action is imperative, and the agency is working aggressively with State and international partners to strengthen the CDL program and regulations. In FY 2012, FMCSA strengthened the CDL program by requiring all CDL holders to provide information to their State driver licensing agencies (SDLA) regarding the type of commercial motor vehicle they drive or expect to drive. Drivers operating in certain types of commerce (*Interstate excepted and non-excepted, and intrastate excepted and non-except*ed) are required to submit a current medical examiner's certificate to their SDLA to obtain a "certified" medical status as part of their driving record. CDL holders required to have a "certified" medical status who fail to provide and maintain an up-to-date medical examiner's certificate with their SDLA will become "not-certified" and may lose their CDL. SDLAs are now required to include the medical certification status and the information on the medical examiner's

certificate in the Commercial Driver's License Information System (CDLIS).

As part of the Department's effort to increase motorcoach safety, FMCSA has cracked down on unsafe passenger carriers through surprise passenger carrier inspections, full compliance reviews, and enforcement actions. In the past two years alone, FMCSA has issued as many imminent hazard orders placing unsafe bus and truck companies out of service as in the previous 10 years combined. The agency has also doubled the number of bus inspections and comprehensive safety reviews on passenger bus companies. Roadside inspections of motorcoaches have jumped nearly 100 percent, while compliance reviews are up 128 percent. In addition, FMCSA has initiated a greater number of enforcement cases against unsafe passenger carriers. The agency is shutting down unsafe carriers as quickly as its authority permits, and Congress has provided FMCSA with greater authority to pursue unsafe "reincarnated" passenger carriers by establishing a uniform federal standard to help determine whether a new carrier is a reincarnation of an old, unsafe carrier. Congress has also approved a new procedure that would allow FMCSA to conduct bus safety inspections at en route locations such as rest stops. To ensure passenger carriers operating in violation of the motor carrier regulations are punished, Congress has also raised the penalty for operating illegally or without authority from $2,000 a day to $25,000 per violation.

In FY 2012, the agency unveiled a "Think Safety: Every Trip, Every Time" pre-trip safety checklist that helps consumers review a bus company's safety record, safety rating, and U.S. DOT operating authority before buying a ticket or hiring a bus company for group travel. The agency also issued a free smart phone application that provides a quick and easy way to look up the safety record of any motorcoach company before booking a trip. Through the wide-ranging Motorcoach Safety Action Plan, the agency plans to address the root causes of crashes, which will enhance passenger carrier safety.

The practice of motor carriers "reincarnating" to avoid negative safety performance history or enforcement actions causes a risk of harm to the public, because it hinders the agency's ability to enforce Federal safety regulations and carry out its safety mission. As part of its core safety program, FMCSA has implemented a number of programs and initiatives to crack down on motor carriers that reincarnate and has additional authority to remove from service motor carriers deemed to be unfit or declared imminent hazards.

In FY 2012, an amendment to FMCSA's Rules of Practice provided procedures for the agency to issue out-of-service orders and/or record consolidation orders when carriers are deemed to be "reincarnated" or "affiliated" companies have been created. This amendment responds to an OIG recommendation, which was subsequently closed. Similarly, FMCSA conducts a rigorous screening and vetting process of all household goods and passenger carriers applying for authority to operate. The agency is thoroughly reviewing and enhancing the vetting process to prevent "reincarnated" or "affiliated" carrier manifestations and is also considering the development of a risk-based tool to identify potential reincarnated carriers, as recommended by OIG. Deployed in December 2010, FMCSA's safety enforcement and compliance model, Compliance, Safety, Accountability (CSA), enables the agency to identify high-risk motor carriers and achieve improved levels of compliance with Federal commercial motor vehicle safety and hazardous materials regulations. The agency continuously improved the model throughout FY 2012. CSA improves large truck and bus safety and ultimately reduces crashes, injuries, and fatalities involving commercial motor vehicles (CMVs). The tool allows FMCSA and its State partners to contact a larger number of carriers earlier in order to address safety problems before crashes occur.

ACTIONS REMAINING

FMCSA continues to use all of the tools at its disposal to get unsafe carriers off the road, and the agency is working aggressively to address OIG's recommendations and implement the additional authorities granted in MAP-21. To further strengthen motorcoach safety, the agency is committed to publishing a final rule on passenger carrier leasing in the near future, as recommended by the National Transportation Safety Board and reiterated by OIG. FMCSA will also collaborate with its sister agency, the National Highway Traffic Safety Administration (NHTSA) to implement other new MAP-21 provisions for motorcoach safety, such as those related to safety belts, passenger evacuation, and crash avoidance measures. MAP-21 also provides FMCSA with important new enforcement tools to take unsafe operators off the Nation's roads by allowing the agency to revoke the registration of reincarnated carriers. FMCSA revised its vetting process to identify reincarnated carriers applying for authority to transport passengers and household goods. In FY 2013, FMCSA plans to develop a risk-based model to best target its limited vetting resources, as recommended by OIG and the Government Accountability Office. Once completed, FMCSA will expand the vetting process to all new motor carrier applicants. Similarly, the agency will continue to work with the States by strengthening the CDL program through regulations that tighten controls over State CDL testing.

RESULTS OR EXPECTED RESULTS

In FY 2012, FMCSA made significant progress in fulfilling its core mission of safety and has a number of initiatives and programs under way to continue to build upon its recent successes. The agency recognizes the important safety work that remains to be accomplished, which is detailed in its new 2012–2016 Strategic Plan. The plan presents a new comprehensive direction to focus the agency's efforts on outreach, oversight, and enforcement resources directed at the entire CMV transportation lifecycle. It establishes a framework that places safety as the highest priority and employs FMCSA's three core principles:

- Raising the safety bar to entry;
- Requiring operators to maintain high safety and ethical standards to remain in the industry; and,
- Removing high-risk carriers and drivers.

FMCSA has adopted a vision for the future to "Save lives by striving towards a crash-free and fully accountable CMV transportation lifecycle." The agency will continue to strengthen its Federal, State, local, and stakeholder partnerships to achieve its mission, vision, and performance goals.

ISSUE 1B: IMPROVING NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION (NHTSA) PROCESSES FOR IDENTIFYING AND ADDRESSING VEHICLE SAFETY DEFECTS

WHY IS THIS ISSUE SIGNIFICANT?

In 2010, NHTSA's defects investigation program came under increased scrutiny due to complaints of sudden unintended acceleration and crashes involving Toyota vehicles. A 2010 OIG review of NHTSA's Office of Defect Investigations (ODI) found that ODI needs to improve its processes for identifying and addressing potential safety defects, reassess staffing needs and skill-sets needed, and seek out more international collaboration to better identify and address vehicle safety challenges in an increasingly global automobile industry.

This issue goes to the core of NHTSA's mission to reduce vehicle crashes, fatalities, and injuries. Addressing this issue will strengthen the vehicle safety assurance process in the U.S., and it will build consumer trust and confidence in the vehicle defect identification and recall process.

ACTIONS TAKEN IN FY 2012

In FY 2012, NHTSA developed an action plan to address this management challenge. Key efforts include:

- Upgrading the computer tracking system to make it more fully automated to better review and respond to the 40,000+ consumer complaints received every year;
- Developing a new computer program to increase the analytic power to synthesize safety complaints and information from the manufacturers to better identify emerging trends or concerns;
- Strengthening internal controls to ensure that all personal information of consumers who submit complaints is totally protected; and,
- Convening the first meeting of vehicle safety enforcement agencies from other countries to support the development of an international network and working group on enforcement issues to better identity safety defects and exchange information on recalls.

ACTIONS REMAINING

Elements of the plan that will be implemented in FY 2013 include:

- Better coordination and linkage of pre-investigation information from disparate sources, including tips and information from outside organizations;
- Development of a formal training program for ODI staff to ensure that investigators stay up-to-date with the latest automotive technology and office procedures; and,
- Revision of the investigation process to develop a standard documentation and filing procedure to ensure more consistent and complete records.

RESULTS OR EXPECTED RESULTS

These changes to the vehicle defect and recall system will improve the standardization of pre-investigation and investigation documentation procedures, and the consistency of the investigation and recall processes. Coupled with additional staff training, this will result in a more efficient and effective system that will allow NHTSA to better identify, document, and address vehicle safety defect issues in the future.

ISSUE 1C: FOLLOWING THROUGH ON NEW FEDERAL HIGHWAY ADMINISTRATION (FHWA) INITIATIVES TO ENHANCE BRIDGE INSPECTIONS AND MAINTENANCE

WHY IS THIS ISSUE SIGNIFICANT?

One-fourth of the Nation's more than 600,000 bridges are considered deficient, which means that they are experiencing significant deterioration or have substandard geometric characteristics. Maintaining and monitoring the safety of these bridges while they serve the traveling public is vitally important. FHWA and the States are firmly committed to improving the existing National Bridge Inspection Program (NBIP) as well as the level of compliance with the National Bridge Inspection Standards (NBIS). The improvements being made to FHWA's oversight of the program will enable the States to achieve a consistent level of safety and more efficiently manage their bridges, keep them safe for the traveling public, maximize their service life and functionality, and position themselves appropriately for future advancements in data collection, technology innovation, bridge management, and health monitoring opportunities.

ACTIONS TAKEN IN FY 2012

FHWA worked expeditiously in response to the OIG's 2009 and 2010 reports by identifying ways for the agency to move toward more risk-based, data-driven oversight. In March 2011, FHWA implemented its new bridge inspection program oversight process that enables the agency to more objectively identify potential safety challenges related to bridges and to more clearly monitor bridge issues in each State. As a result of the agency's actions since this time, OIG has closed 10 of its total 14 recommendations. Among many other actions taken to improve its oversight of the bridge inspection program, FHWA initiated efforts to better track Federal-aid projects on structurally deficient bridges.

ACTIONS REMAINING

FHWA is implementing a plan to collect element-level data in accordance with MAP-21 requirements for NHS bridges only. FHWA is updating the coding guidance that defines the data to be reported to the National Bridge Inventory database. Updating the NBIS regulation and seeking OMB approval of the data collection under the Paperwork Reduction Act are also part of the plan. The agency is working with OIG to close the remaining four recommendations from the 2009 and 2012 reports.

RESULTS OR EXPECTED RESULTS

During the initial year of its new oversight initiatives, FHWA assessed 1,196 bridge inspection program metrics or 23 bridge metrics in each of 50 States, the District of Columbia, and Puerto Rico. A total of 71 percent of the metrics were assessed at the satisfactory performance level. Improvements are under way to elevate the remaining metrics to this level over the next several years. While the 2011 assessment results revealed a need for specific improvements in certain facets of State inspection programs, the establishment of the NBIP and NBIS resulted in a robust inspection program within the U.S. Bridge owners are aware of the importance of inspecting bridges in accordance with the NBIS and are committed to accomplishing the actions needed to ensure that bridges remain safe. The newly established oversight process has also enabled the States and FHWA to understand more strategically the national inspection program and to articulate its importance, status, and needs. From this baseline, the States and FHWA together can engage in discussions about the successes, challenges, and program improvement opportunities in operating our Nation's bridges.

The FHWA has increased its oversight efforts, primarily through the new metrics process and improvements in its NBIP oversight organization. This effort was initiated in a desire to improve the current program, even though the NBIP has a proven history of providing safe bridges for our Nation's highway transportation network. Measuring performance is a key ingredient to assessing quality and improving processes and procedures. The level of assessment undertaken produced a comprehensive view of the entire program. Extensive reliance on data, along with on-site verification and consideration and prioritization of risk, were critical components contributing to the success of this effort. Each program area in every State was evaluated against objective standards, and the Plan of Corrective Actions was tailored to achieve compliance with the NBIS.

ISSUE 1D: ENHANCING THE FEDERAL TRANSIT ADMINISTRATION'S (FTA) OVERSIGHT OF RAIL TRANSIT SAFETY

WHY IS THIS ISSUE SIGNIFICANT?

FTA has proactively established regulations for a State-managed safety oversight program for transit rail systems, established a program of voluntary oversight and recommendations for transit bus systems, including on-site reviews for selected systems, and established a required drug and alcohol testing program for transit operators. Lastly, new statutory authority in MAP-21 directs FTA to regulate transit safety through the creation of safety standards and oversight protocols.

ACTIONS TAKEN IN FY 2012

OIG recommended that FTA use a Federal Advisory Committee to address transit safety issues. The Transit Rail Advisory Committee for Safety (TRACS) consists of up to 25 voting members, and it provides recommendations to the Secretary of Transportation through the Administrator of FTA regarding transit safety and other issues. The TRACS committee met on four occasions in FY 2012.

In addition, FTA began laying the groundwork for the new Safety and Oversight Office, following the signing of MAP-21 in July 2012. Accordingly, a senior executive was assigned to take the lead for establishing this new office, developing the programs and processes called for by MAP-21, and working with the public transportation sector to "right-size" the new safety program. FTA also moved proactively to bring in key personnel from other FTA offices and from other DOT agencies with safety experience to assist in these efforts. FTA is currently developing the safety rulemakings required by MAP-21, which will form the framework of FTA's safety efforts for years to come.

ACTIONS REMAINING

Under MAP-21, FTA obtained statutory authority to address specific transit safety issues such as hours of service and vehicle and track safety standards. MAP-21 also provides additional enforcement authority and resources for safety oversight programs. FTA's new Office of Safety will carry out statutory requirements and develop guidance.

RESULTS OR EXPECTED RESULTS

Under MAP-21, FTA will develop an Office of Safety that will enable FTA to create consistent safety standards and oversight protocols for transit systems. Expected results include safer

transit operations for passengers and workers, a smaller proportion of transit assets that are past their useful life, and more effective administration of transit funding programs.

MANAGEMENT CHALLENGE 2: ENSURING EFFECTIVE OVERSIGHT ON KEY INITIATIVES THAT CAN IMPROVE AVIATION SAFETY

ISSUE 2A: IDENTIFYING AND ADDRESSING THE CAUSES OF RECENT INCREASES IN OPERATIONAL ERRORS

WHY IS THIS ISSUE SIGNIFICANT?

It is unclear whether the increase of operational errors from FY 2009 to FY 2010 is due to an increased error rate or to improved FAA reporting. Through continued auditing, the OIG believes that other factors are contributing to the increase in operational errors, rather than the Air Traffic Safety Action Program.

ACTIONS TAKEN IN FY 2012

On January 30, 2012, FAA implemented new orders and tools that support a proactive approach to safety management. These orders addressed the reporting of safety occurrences, quality assurance, quality control, voluntary safety reporting, and individual performance management.

Concurrent with these orders, FAA implemented Comprehensive Electronic Data Analysis and Reporting (CEDAR), Falcon 3, and Traffic Analysis and Review Program (TARP). CEDAR provides a transparent data repository, and Falcon 3 provides replay capabilities linked in CEDAR. TARP electronically collects airborne RADAR loss of separation alerts in terminal airspace.

Potential safety occurrences are reported by operational personnel through a user interface into CEDAR. In addition, TARP alerts are collected automatically in CEDAR. These data are reviewed and validated by ATO Safety and Technical Training staff in FAA service area offices daily. From January 29 to September 1, 2012, 103,585 occurrences were entered/collected in CEDAR and 99,792 of those records were reviewed/processed. This resulted in the validation of 2,692 losses of separation during this same time frame.

The Risk Analysis Process (RAP) is a defined method of assessing severity and repeatability along with multiple sub-factors associated with individual occurrences to determine the level of risk. 730 of the 2,692 validated losses of separation from January 30 to September 1, 2012, were identified as Risk Analysis Events. Of these, 22 were classified by the Risk Analysis Process as high risk. Aggregate data from risk events are used to identify the "Top 5 Hazards" each fiscal year.

On September 17, 2012, Quality Control Checks and Validations were implemented in CEDAR to support Quality Control Programs at each service delivery point. These processes and associated CEDAR modules use available data to identify issues and ensure compliance with established quality control processes.

Implementation of the TARP waterfall at all terminal facilities was completed on September 1, 2012. TARP alerts are now collected and processed in CEDAR for all eligible terminal radar facilities.

Seventeen of 19 interventions associated with the mitigations to the Top 5 Hazards have been implemented.

ACTIONS REMAINING

Three additional interventions associated with the FY 2012 Top 5 Hazards have projected due dates during FY 2013:

- Determine feasibility of voice recognition software used to detect incomplete/incorrect read backs;
- Develop and provide annual refresher training on coordination requirements contained in facility standard operating procedures (SOPs) and letters of agreements (LOAs); and,
- Validate and/or improve the parameters for airport surface detection equipment issuing false alerts. This will be a collaborative effort including representatives from Terminal Services (AJT), ATO Safety and Technical Training (AJI), and Technical Operations (AJW).

On October 1, 2012, ATO issued the Top 5 Hazards in the NAS for FY 2013. ATO will work collaboratively to identify corrective actions for those Top 5 Hazards and will continue efforts to complete the remaining interventions from FY 2012. Interventions implemented in FY 2012 will be monitored to assess effectiveness.

RESULTS OR EXPECTED RESULTS

FAA expects the ongoing collection and analysis of these new, larger data streams to continue to foster the development of interventions designed to mitigate those hazards associated with the highest risk events in the NAS. These interventions will impact those specific factors associated with areas of high risk. Continued monitoring of these interventions will ensure that the interventions have the desired impact within the overall framework of the Safety Management System.

ISSUE 2B: MAINTAINING MOMENTUM IN ADDRESSING PILOT TRAINING AND FATIGUE

WHY IS THIS ISSUE SIGNIFICANT?

The February 2009 crash of Colgan Air flight 3407 underscored the importance of addressing long-standing concerns about pilot training and fatigue. In April 2010, FAA issued a supplemental notice of proposed rulemaking (SNPRM) to revise crewmember training requirements. FAA also published a notice of proposed rulemaking (NPRM) to revise flight, duty, and rest requirements for commercial carriers. The OIG believes FAA still faces challenges in terms of tracking pilots with poor performance and training deficiencies, overseeing air carrier programs aimed at improving pilot skills, and improving its awareness of the extent of pilot commuting and fatigue within the air carrier industry.

ACTIONS TAKEN IN FY 2012

FAA continues to work on its final rule to revise crewmember training requirements. Additionally, FAA issued an NPRM that proposed to revise the requirements to obtain an airline transport pilot (ATP) certificate and to require all pilots operating in part 121 to have an ATP. FAA has also done work in the area of stall warning and stick pusher activations training by issuing an advisory circular (AC) on Stall and Stick Pusher Training and by revising the Practical Test Standards for the ATP. Additionally, FAA has initiated a rulemaking project to revise qualification standards for flight simulators to support stall training in a simulator.

In January 2012, FAA issued its final rule on flight, duty, and rest requirements for commercial air carriers. Additionally, FAA has drafted four ACs to support the rule. The ACs address Fatigue Education and Awareness Training, On-Board Rest Facilities, Fitness for Duty, and Fatigue Risk Management Systems (FRMS). Additionally, as a result of the FAA Modernization and Reform Act of 2012, FAA initiated rulemaking to include part 91 operations into a flight duty period for part 121. Finally, FAA approved all fatigue risk management plans for part 121 air carriers and continues to review and approve revisions as proposed by the air carriers.

ACTIONS REMAINING

FAA anticipates issuing its final rule on crewmember training by October 2013. Additionally, FAA anticipates issuing its final rule on pilot qualification in the near future. FAA is waiting for final recommendations of an Aviation Rulemaking Committee on upset recovery. FAA will use these recommendations to update guidance on addressing and training for upset recovery.

The final rule for flight and duty time limitations becomes effective in January 2014. Furthermore, the FAA will finish its review of literature on the effects of commuting on fatigue by October 2013.

RESULTS OR EXPECTED RESULTS

FAA anticipates that new regulations for pilot qualification and pilot training will better prepare pilots for part 121 operations. The agency believes the new flight and duty time regulations, as well as the requirements for a Fatigue Risk Management Plan (FRMP), will address commuting concerns through the requirements for fitness for duty and fatigue education and training.

ISSUE 2C: ADVANCING RISK-BASED OVERSIGHT OF REPAIR STATIONS AND AIRCRAFT MANUFACTURERS

WHY IS THIS ISSUE SIGNIFICANT?

Weaknesses are present in the FAA Organization Designation Authorization (ODA) program, which is FAA's program for authorizing organizations to issue approvals and certificates on the agency's behalf. FAA has not adequately trained engineers on enforcement responsibilities, and some offices have not effectively tracked or addressed poorly performing ODA personnel. In addition, ODA significantly reduced the agency's role in approving individuals who perform work on FAA's behalf.

The Risk-Based Resource Targeting (RBRT) process is used by engineers and manufacturing inspectors within the Aircraft Certification Service. RBRT is an IT solution that assesses risk associated with certification projects and policy development. RBRT is a subjective analysis of risk and does not include detailed data, such as accidents, to assess the risk of non-compliances to regulations. RBRT has not been effective in measuring risk and directing oversight efforts to higher-risk projects. Additionally, there has been a shortcoming in the training and preparing of the engineers in the organization to use RBRT.

ACTIONS TAKEN IN FY 2012

FAA mandated that agency personnel review each ODA unit selection decision made by an ODA holder for at least two years after an ODA holder is appointed. After two years, the ODA holder may select unit members without FAA review if they have demonstrated satisfactory performance. Improvements to the FAA Academy's Delegation Management course were incorporated to address the mandatory review of selection decisions and the appropriate role of the agency in reviewing selection decisions.

FAA conducted additional training of the Boeing and Gulfstream Aviation Safety Oversight Offices (BASOO and GASOO) personnel to clarify the organizational roles and responsibilities of those personnel as well as the FAA organizations in which they interface.

FAA Headquarters has developed a compilation of best practices associated with ODA oversight that will be used as a baseline to assess the effectiveness of the GASOO and BASOO offices. A plan to assess those offices and identify any needed policy

changes is a part of the 2013 Aircraft Certification Service (AIR) Business Plan.

Additional emphasis on ODA regulatory violations, including participation by headquarters personnel, has been added to FAA's Compliance and Enforcement training to ensure that field personnel responsible for overseeing ODA organizations are familiar with the compliance and enforcement process and tools. Although engineers from FAA field offices have not historically been involved in compliance and enforcement, all engineers with compliance and enforcement responsibilities will now attend the course.

FAA has created oversight procedures and tools that will be used by the agency to track ODA unit members who are removed for misconduct. These procedures will be incorporated into a future revision to Order 8100.15B, Organization Designation Authorization Procedures, FAA's policy for oversight of ODA organizations.

Notice (IR 8110.115) was published January 20, 2012, with an effective date of March 31, 2012, requiring all offices to use RBRT for type certification and supplemental type certification projects. Since that time, FAA has issued deviation memorandum allowing for continued voluntary use until the agency issues new certification process policy for Order 8110.4D. FAA expects to issue the new certification procedures policy in late 2013, which will include the use of RBRT in a more structured environment. A new learning module was deployed in August 2011 and designed to provide more training to the engineers and inspectors who are required to use RBRT. All required users were identified and the training was added to their learning plans for completion by March 31, 2012. Additionally, AIR conducted a series of demonstrations to show engineers and inspectors how the RBRT process works. The demonstrations include both a presentation on the purpose of the process and a live demo of the actual IT tool.

In March 2012, AIR developed and deployed a new version of the IT solution that incorporates a number of items identified by the community of users to make the tool more user-friendly and categorize risk more appropriately. A continuous improvement team was identified in April 2012. This team reviews feedback and explores the effectiveness of the process as well as recommends necessary changes for the tool. The team will continue to work on a long-term basis to make the process use more objective data in risk assessments. This will require other AIR programs to come on-line to develop those data sources.

ACTIONS REMAINING

FAA plans to issue changes to the policy in Order 8100.15 by August 2013. The revision will mandate review of ODA unit selection decisions (as currently required by policy memo), require procedures for removal of ODA unit members when mandated by FAA, and allow for tracking of unit members removed for misconduct in agency databases. Additional changes will include modification of the order to identify the specific procedural steps and tools necessary for tracking unit members who have been removed for misconduct.

Headquarters personnel from FAA will assess the Boeing and Gulfstream Aviation Safety offices in 2013 to determine whether they are compliant with Order 8100.15 and meet ODA oversight best practices. This assessment will ensure that those organizations are performing satisfactorily before adopting any similar management structures for other ODA organizations. The assessment and any associated policy changes that have been deemed necessary are expected by the end of FY 2013.

RESULTS OR EXPECTED RESULTS

Increased FAA participation in the selection of ODA unit members will help ensure that appropriate performance feedback is provided to ODA holders. This performance feedback will improve the selection processes for unit members and ultimately allow authorization to select unit members without FAA review. This will relieve workload on the agency and allow for increased systems-based oversight of the organization.

FAA tracking of ODA unit members removed for misconduct will ensure that these individuals are not appointed as FAA designees or perform functions for other ODA organizations.

MANAGEMENT CHALLENGE 3: ENSURING EFFECTIVE OVERSIGHT OF HAZARDOUS LIQUID AND NATURAL GAS PIPELINE SAFETY

ISSUE 3A: STRENGTHENING PIPELINE OPERATORS' INTEGRITY MANAGEMENT PROGRAMS

WHY IS THIS ISSUE SIGNIFICANT?

Federal regulations require that pipeline operators develop Integrity Management (IM) programs, which include conducting inspections, identifying and repairing defects, and continually evaluating risks to pipeline integrity. Over the last decade, effective IM programs have become a key component of PHMSA's national strategy to improve pipeline safety and reduce pipeline accidents—especially in densely populated or environmentally sensitive areas. According to PHMSA, this program has resulted in the discovery and repair of almost 40,000 anomalies that later could have resulted in accidents. PHMSA and its State partners regulate and inspect these IM programs. Despite PHMSA's efforts to oversee and strengthen operator IM programs, there has not been an appreciable reduction in significant IM-detectable hazardous liquid pipeline accidents in high-consequence areas.

The National Transportation Safety Board's (NTSB) recent investigation of the San Bruno accident raises a number of concerns regarding Federal and State oversight of gas pipeline operators' IM programs. Specifically, the NTSB recommended that PHMSA expand the use of meaningful IM metrics; revamp its inspection protocols to validate operator IM data; ensure that pipeline operators' leak, failure, and incident data are incorporated into their risk models; and establish performance goals for operators.

ACTIONS TAKEN IN FY 2012

PHMSA advanced the goals of the NTSB recommendation to develop and use meaningful metrics in pipeline operator IM programs in the spring 2012 Pipeline Safety Data Workshop, and the agency continued to work with stakeholders and the NTSB to evaluate ways to improve those metrics.

Additionally, PHMSA initiated changes to the IM inspection format to include some meaningful metrics and to encourage inspectors to focus on the verification of performance measures, record adequacy, data integration, and risk analysis.

ACTIONS REMAINING

In FY 2013, an Advisory Bulletin will be published in the Federal Register that reminds operators of gas transmission and hazardous liquid pipeline facilities of their responsibilities, under Federal integrity management regulations, to perform evaluations of their integrity management programs using meaningful performance metrics.

A data workshop and an IM workshop will be held in 2013 regarding these metrics. PHMSA will continue issuing guidance and communicating with stakeholders to implement these actions.

RESULTS OR EXPECTED RESULTS

While PHMSA has several additional efforts under way to enhance its IM inspection program, such as focusing on the quality and number of field visits, the agency faces challenges in accomplishing these improvements while meeting its other inspection activities. The other activities include inspecting pipeline construction, control room management, gas IM, and managing other programs.

ISSUE 3B: ENSURING THAT STATE PIPELINE SAFETY PARTNERS EFFECTIVELY EXECUTE THEIR PIPELINE SAFETY RESPONSIBILITIES

WHY IS THIS ISSUE SIGNIFICANT?

PHMSA distributes Federal grant funds to encourage States to take on more responsibility for overseeing pipeline safety and to improve States' program performance. These grants increased from $37.9 million in 2010 to $42.5 million in 2011. Despite these investments, the San Bruno explosion and other high-profile accidents call into question the effectiveness of States' oversight of pipeline operators as well as PHMSA's monitoring of State oversight programs. The National Transportation Safety Board (NTSB), in recommendation P-11-18 issued September 26, 2011, noted weakness in how PHMSA monitors State oversight programs due to a lack of meaningful metrics to assess whether States fully execute their responsibilities.

ACTIONS TAKEN IN FY 2012

PHMSA initiated discussions with both the National Association of Regulatory Utility Commissioners (NARUC) and the National Association of Pipeline Safety Representatives (NAPSR) to evaluate ways to improve the oversight of State programs and correct identified deficiencies. Task teams were established to help develop meaningful metrics for State program oversight and to make data more widely available to the public.

In March 2012, PHMSA undertook efforts to revise the integrity management inspection protocol to incorporate a review of meaningful metrics and focus on the verification of performance measures, record adequacy, data integration, and risk analysis. These goals were further advanced during a spring 2012 Pipeline Safety Data Workshop with applicable stakeholder groups.

ACTIONS REMAINING

A data workshop and an integrity management workshop will be hosted in 2013. The agenda includes focusing on the topic of developing meaningful metrics.

An Advisory Bulletin is scheduled to be published in FY 2013 to remind operators of gas transmission and hazardous liquid pipeline facilities of their responsibilities, under Federal integrity management regulations, to perform evaluations of their integrity management programs using meaningful performance metrics.

RESULTS OR EXPECTED RESULTS

Improved State inspection and documentation of operators they oversee, resulting in better overall safety.

ISSUE 3C: ADDRESSING HUMAN FACTORS IN PIPELINE CONTROL ROOMS

WHY IS THIS ISSUE SIGNIFICANT?

A 2005 National Transportation Safety Board (NTSB) study found that some aspects of an operator's pipeline control system influenced the severity of 10 of 13 hazardous liquid pipeline accidents. In many cases, the problems were aggravated when controllers monitoring the systems failed to quickly recognize and respond to leaks. For example, controllers in Michigan misdiagnosed Supervisory Control and Data Acquisition (SCADA) alarms and chose to ignore them, continuing the flow

of product into the Kalamazoo River. Pacific Gas and Electric's SCADA systems were not sufficient to quickly identify the location of the failure. In each of these incidents, the consequences of the accidents were exacerbated because controllers failed to implement procedures to quickly shut down the flow of product in the pipelines.

ACTIONS TAKEN IN FY 2012

In December 2009, PHMSA issued a rule requiring operators that use SCADA systems to develop and implement control room management procedures by February 2013. However, the agency moved the implementation time frame up by 16 months, to October 2011, for most of the required procedures due to growing concerns about operator control room management. This was also done in response to NTSB recommendation P-11-10 issued September 26, 2011, requiring all operators using SCADA systems to equip their systems with tools to assist in recognizing and pinpointing the location of leaks.

A public workshop on control room management (CRM) issues was held in March 2012, and PHMSA's Leak Detection study mandated by the Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011 included CRM issues in the statement of work.

ACTIONS REMAINING

The Leak Detection study, performed by Battelle Memorial Institute, was completed in late 2012. PHMSA plans to update the NTSB with a copy of the study as it relates to gas pipeline systems and plans to update Congress about the liquid aspects of the study by no later than January 3, 2013.

PHMSA also plans to create a Leak Detection webpage on PHMSA's external website to provide background information about the issues, focus on the drivers of necessary changes, and explain the actions taken by PHMSA.

RESULTS OR EXPECTED RESULTS

As with operator IM programs, the challenge for PHMSA will be ensuring that operators develop and implement effective control room management procedures while also meeting current oversight priorities.

ISSUE 3D: FACILITATING THE SUCCESSFUL IMPLEMENTATION OF THE SECRETARY'S CALL TO ACTION

WHY IS THIS ISSUE SIGNIFICANT?

Nearly 450,000 miles of natural gas and hazardous liquid pipelines (about 17 percent of the total pipeline mileage) are more than 50 years old or of unknown vintage and were built with bare steel, iron, copper, or "other" materials. These materials are more vulnerable to deterioration and failure than most of the plastic or protected steel materials commonly used today. Moreover, the condition of distribution pipeline is often unknown. Virtually all of the gas distribution pipelines are buried underground, and most are inaccessible by internal inspection devices. States widely acknowledge the need to replace bare steel and cast iron pipeline, but replacement programs extend up to 100 years in some cases, with high replacement costs.

ACTIONS TAKEN IN FY 2012

PHMSA used several public meetings to promote the need for the repair, rehabilitation, and replacement of high-risk pipelines with consideration to rate recovery issues. Additionally, letters that urged a commitment to action were sent to Governors, other high-ranking State and Federal officials, and stakeholders.

A publicly transparent national cast iron inventory system was created to show the national and State mileage of cast iron, high-risk pipeline infrastructure for each year since 2004. This system was created one year earlier than the Congressionally mandated date of completion. Additionally, PHMSA created the Pipeline Safety Awareness website (http://opsweb.phmsa.dot.gov/pipelineforum/index.html) to document and communicate the efforts that PHMSA, stakeholders, and pipeline operators have accomplished and are undertaking in implementing the Secretary's Call to Action.

ACTIONS REMAINING

Work will continue indefinitely with State pipeline safety programs and pipeline operators to assure the continued identification, repair, rehabilitation, requalification, or replacement of high-risk pipelines, including the investigation of new technologies to mitigate pipeline risks. PHMSA continues to issue guidance regarding pipeline safety and high-risk infrastructure.

The pipeline Integrity Management program will also be extended to gas distribution pipeline systems, as 80 percent of the most serious safety incidents occur on these systems. PHMSA has published rules for this action, but implementation will take several years.

RESULTS OR EXPECTED RESULTS

Achieving the Secretary's Call to Action will not be easy. First, PHMSA lacks the authority to require operators to accelerate the repair or replacement of high-risk pipelines. Second, PHMSA relies heavily on its State pipeline safety partners to oversee much of this work. Third, PHMSA must rely on key Federal and State regulatory agencies that play important roles in achieving the Secretary's program. Given this limited authority and the sizable resources needed to achieve the Call to Action, PHMSA will be challenged to ensure that corrective steps are taken to limit the threat of high-risk pipelines.

MANAGEMENT CHALLENGE 4: ENSURING EFFECTIVE OVERSIGHT OF ARRA PROJECTS AND APPLYING RELATED LESSONS LEARNED TO IMPROVE DOT'S INFRASTRUCTURE PROGRAM

ISSUE 4A: MAXIMIZING THE RETURN ON HIGHWAY AND TRANSIT INVESTMENTS BY IMPROVING USE OF OVERSIGHT MECHANISMS

WHY IS THIS ISSUE SIGNIFICANT?

The *American Recovery and Reinvestment Act of 2009* (ARRA) provided $8 billion in highway funds for projects administered by local public agencies (LPAs). The Federal Highway Administration's (FHWA) corporate risk assessments had previously identified sub-recipients as one of the agency's top risk areas, and FHWA recognized from the outset that ARRA projects administered by LPAs presented a uniquely challenging set of risks. Using a multifaceted approach to risk management, including information from single audits and results from FHWA's programmatic reviews and its Financial Integrity Review and Evaluation Program, FHWA continues to address inherent challenges with LPA oversight on projects funded through ARRA and the regular Federal-Aid Highway Program.

ACTIONS TAKEN IN FY 2012

- For ARRA projects between June 8, 2009, and July 18, 2011, the National Review Team (NRT) conducted more than 1,400 reviews, resulting in approximately 1,800 total NRT recommendations for FHWA Division Offices' appropriate action. The NRT reviews included a focus regarding LPA oversight on ARRA projects. GAO considers the NRT a FHWA success, and FHWA has since added independent headquarters-based reviews to the Program Management Improvement Team (PMIT) efforts modeled after the NRT.

- In order to strengthen oversight of projects administered by LPAs, FHWA issued new guidance in February 2012 to divisions offices on LPA project activities determined to have high incidences of noncompliance.

- In September 2012, FHWA launched a new information-sharing initiative, *Federal-Aid Essentials for Local Public Agencies*, designed to help LPAs and State DOTs manage their Federal-Aid Highway Program projects. *Federal-aid Essentials for Local Public Agencies* offers a central online library of informational videos and resources. Each video addresses a single topic—condensing complex regulations and requirements of the Federal-Aid Highway Program into easy-to-understand concepts and illustrated examples. (http://www.fhwa.dot.gov/federal-aidessentials/index.cfm.)

ACTIONS REMAINING

FHWA is developing new policy to establish uniform procedures and criteria for Division Offices to use when assessing the ability of the State DOTs to assure that Federal-Aid requirements are met on LPA-administered projects. This new policy will help formalize FHWA Headquarters' procedures to assess and monitor the effectiveness of LPA corrective action plans to ensure expedited resolution of identified deficiencies. Issuance of the new policy is targeted for completion by April 2013.

RESULTS OR EXPECTED RESULTS

In direct response to FHWA's corporate risk assessments, the agency's efforts provide useful tools and guidance to address known compliance issues with Federal requirements for locally administered projects, thereby reducing the risks related to LPA projects.

ISSUE 4B: STRENGTHENING FINANCIAL OVERSIGHT OF GRANTEES THROUGH SINGLE AUDITS AND DETECTING IMPROPER PAYMENTS

WHY IS THIS ISSUE SIGNIFICANT?

FAA's Airport Improvement Program (AIP) grant oversight has been reported as inadequate by the Office of Inspector General despite corrective actions previously taken. Management must ensure accuracy regarding single audit findings and have mechanisms in place that effectively prevent or detect improper payments.

ACTIONS TAKEN IN FY 2012

In FY 2012, FAA's Office of Airports (ARP) continued to track OIG findings through the OIG's Transportation Inspector General Reporting system (TIGR). TIGR is a report disseminated by DOT that provides recommendations for all Operating Administrations. This report includes all closed, resolved, and unresolved findings. Once the report is received, ARP works closely with OIG to resolve single audit findings. A status report is prepared for the Office of the Associate Administrator for Airports, which discloses the status and actions taken to resolve open audit findings under the responsibility of the regional offices.

As recommended by OIG, ARP updated its guidance to field offices and airport sponsors regarding the completion of a cost analysis for AIP procurements. This guidance clarifies the elements of a price or cost analysis and becomes part of the basis for future project payments.

Although the FY 2012 Action Plan stated that reminder letters were specific steps to be taken in FY 2012, ARP opted to satisfy that need with teleconference meetings. ARP held weekly guidance teleconferences with field office managers to discuss current issues.

On October 31, 2011, a sample was sent out to the regional offices of those sponsors that expended $500,000 or more per year in Federal awards. The regions were required to respond to ARP with a status report complete with comments. The report included documentation that showed whether a sponsor had filed with the Federal Audit Clearinghouse. ARP required a copy of the letter that was sent to the sponsor by the regions, as well as documentation from the Clearinghouse.

ARP advised the regions that the annual Internal Regional Audit will now include the single audit review. Each regional office is subject to an annual review by an analyst from a different region. Samples are pulled for the internal audit as well as the single audit. Each grant selected is compared against a checklist that includes all required information deemed necessary by ARP's guidance. At the end of each regional review, the manager is provided with a status report which serves as an alert for inadequate findings.

ARP worked with Deloitte contractors and completed a system for providing a more robust method of evaluating airport sponsor risks for managing AIP grants and funding. The system allows greater grant oversight on those sponsors that pose the highest risk for potential improper payments.

The development of a draft AIP handbook is under way, and it includes updates to the grant oversight risk model and policy. This rewrite gives ARP and FAA field personnel the steps that are required to properly administer the AIP-funded projects. Internal FAA procedural requirements are being removed from the handbook. These procedures will be maintained in an operations manual. FAA anticipates making the handbook available for public comment in early 2013.

ACTIONS REMAINING

ARP will continue using the methods and tools described above to consistently improve oversight throughout its programs.

RESULTS OR EXPECTED RESULTS

ARP has taken great strides to improve previously used techniques. The office will continue to manage the regions to obtain greater grant oversight to effectively prevent or detect improper payments.

ISSUE 4C: PROVIDING VIGILANT OVERSIGHT OF THE TRANSPORTATION INVESTMENT GENERATING ECONOMIC RECOVERY (TIGER) PROGRAM TO ENSURE EFFECTIVE EXECUTION OF GRANTS

WHY IS THIS ISSUE SIGNIFICANT?

In February 2010, the Office of the Secretary (OST) awarded $1.5 billion (TIGER I) in ARRA funding for TIGER discretionary grants to 51 recipients across the Nation. These multimodal surface transportation projects are expected to support economic recovery. The anticipated year-end result will be that many TIGER projects will be substantially complete, and the impact of these and a few additional projects will begin to be realized. Congress provided an additional $528 million in FY 2010 (TIGER II), $527 million in FY 2011 (TIGER III), and $500 million in FY 2012 (TIGER IV) in non-ARRA funds for the TIGER Discretionary Grant Program. The continued funding of discretionary grants underscores the need for strong oversight controls.

OST has used the terms and conditions in the TIGER grant agreements to ensure effective execution of the grants. Additionally, OST has negotiated performance measures with each grantee and has conducted limited on-site monitoring using a risk-based approach.

OST relies heavily on four Operating Administrations—FHWA, FTA, FRA, and MARAD—to carry out the program and ensure that recipients meet ARRA requirements. OST and the Operating Administrations coordinate to oversee TIGER program performance and ensure efficient use of ARRA funds. Each relevant agency has procedures in place to administer the grants in addition to mechanisms to track and monitor individual projects. Such mechanisms include consistent and accurate reports from grantees, current program risk assessments, and performance measures to assess whether projects are meeting program goals. Additionally, OST has fostered communication among the agencies by establishing multimodal programmatic working groups. OST will continue to work to strengthen communication and collaboration between the relevant agencies to ensure effective oversight and management of ARRA-funded TIGER projects.

The TIGER program is a high-profile, multimodal program that serves a unique role in demonstrating the feasibility of competitive cross-modal discretionary grant making. The Office of the Assistant Secretary for Transportation Policy, in collaboration with the agencies, has taken the lead in ensuring these grants are managed effectively.

ACTIONS TAKEN IN FY 2012

OST used the terms and conditions in the TIGER grant agreements to ensure effective execution of the grants. OST also negotiated performance measures with each grantee. By the end of FY 2012, all TIGER I and TIGER II projects have been obligated, and limited on-site monitoring of project progress of 11 projects occurred in the fall of 2012.

ACTIONS REMAINING

- OST will continue working with the agencies and grantees to bring the remaining FY 2011 and FY 2012 TIGER grants to obligation. OST expects to fully obligate FY 2011 and FY 2012 TIGER grants by September 30, 2013; and

- The Department will continue monitoring progress on TIGER I grants.

RESULTS OR EXPECTED RESULTS

The anticipated year-end result will be that many TIGER projects will be substantially complete, and the impact of these and a few additional projects will begin to be realized. Accordingly, OST will be able to implement lessons learned to improve the administration and oversight of the TIGER program. Moreover, the Department will be able to analyze data collected from performance measures. These data will be a useful tool as the department looks for ways to improve current formula programs.

ISSUE 4D: PREVENTING AND DETECTING TRANSPORTATION FRAUD THROUGH PROACTIVE MEASURES

WHY IS THIS ISSUE SIGNIFICANT?

To avoid potential risks throughout its programs, management must ensure that adequate oversight is performed and accountability is taken in order to meet its goals.

ACTIONS TAKEN IN FY 2012

In FY 2012, the Office of Airports (ARP) worked with Deloitte contractors and completed a system for providing a more robust method of evaluating airport sponsor risks for managing Airport Improvement Program (AIP) grants and funding. The system allows greater grant oversight on those sponsors that pose the highest risk for potential improper payments. A policy has been issued and implemented for FY 2013 that addresses these concerns.

As recommended by OIG, ARP updated its guidance to field offices and airport sponsors regarding the completion of a price cost analysis for AIP procurements. The guidance clarifies the elements of a price or cost analysis and becomes part of the basis for future project payments.

The draft AIP handbook is well under way and includes updates to the grant oversight risk model and policy. FAA anticipates making the handbook available in draft form for training purposes in FY 2013.

As an outreach and educational effort at the annual Recurrent Financial Conference, ARP discussed the importance of becoming more proactive in protecting the agency against fraud, waste, and abuse. The discussions during the conference included the types of indicators to be aware of for common fraud schemes and how to report suspected fraud.

ACTIONS REMAINING

ARP is on track and will continue using the methods and tools described above to consistently improve oversight throughout its programs.

RESULTS OR EXPECTED RESULTS

ARP has taken great strides to improve previously used techniques. It will continue to manage the regions to obtain greater oversight and accountability.

MANAGEMENT CHALLENGE 5: MANAGING THE NEXT GENERATION AIR TRANSPORTATION SYSTEM ADVANCEMENT WHILE CONTROLLING COSTS

ISSUE 5A: SETTING REALISTIC PLANS, BUDGETS, AND EXPECTATIONS FOR NEXTGEN IN A FISCALLY CONSTRAINED ENVIRONMENT

WHY IS THIS ISSUE SIGNIFICANT?

The Department of Transportation and FAA have struggled with defining NextGen and setting realistic expectations for what can be accomplished in the near, mid, and long term. The current constrained budget and problems with existing projects are forcing FAA to rethink its capital investments and NextGen priorities. Therefore, FAA will face challenges in sustaining existing projects and facilities while introducing new NextGen-related capabilities. FAA has yet to make critical decisions regarding (1) what new capabilities will reside in aircraft or in FAA's ground-based automation systems; (2) the level of automation for controllers that can realistically and safely be achieved; and (3) the number and locations of air traffic facilities needed to support NextGen. Finally, FAA has not identified clear goals for performance capabilities or metrics for the NextGen initiative.

ACTIONS TAKEN IN FY 2012

Ground Based Automation System (GBAS)—FAA has determined that the GBAS did not provide a strong enough benefits case to proceed with further deployment and acquisition, though FAA support and approval for production of non-Federal systems will continue to be available. Despite FAA decisions, the agency assisted two U.S. airports, Newark Liberty International (EWR) and George Bush Intercontinental Airport (IAH), that pursued non-Federal GBAS installations based on airline requests. Additionally, Moses Lake, Washington; and Charleston, South Carolina, have installed or are installing GBAS as private systems. Other airport locations currently investigating installation of GBAS include Chicago, Illinois; Jackson Hole, Wyoming; and Seattle, Washington. FAA continues to support early implementers of GBAS within the U.S. in order to gain much needed operational experience with the system.

Human Factors—The level of automation for controllers is being addressed through ongoing human factors research and through development work being supported by external research communities. FAA completed a strategic training needs analysis

(STNA), and a preliminary analysis was published in June 2012. The final STNA is scheduled to be published in the near future.

FAA continues to work closely with the safety organization by performing analyses of potential hazards associated with human performance in the NextGen mid-term. The agency completed a Human Performance Hazard Assessment in February 2012 and the NextGen Human Error/Safety Database for Off-Nominal NextGen Conditions in June 2012—an analysis of errors and other human performance issues in the National Airspace System (NAS) in off-nominal conditions in the NextGen time frame.

FAA conducted low-fidelity simulations to determine how to best integrate the environed level of automation and reduce risk by exploring the level of service that can be achieved given the introduction of automation. The agency completed these in September 2012 and the project has since been terminated due to budget constraints.

Additionally, the Human Factors Branch at the William J. Hughes Technical Center is supporting program offices in En Route and Traffic Flow Management to study automation in air traffic control and to offer guidance for implementation. This fiscal year, FAA conducted high-fidelity Human-in-the-Loop (HITL) experiments that involved National Air Traffic Controllers Association (NATCA) controllers, delivered technical reports, developed a thin-specification, participated in the Future ERAM Computer-Human Interface (CHI) Team, and conducted cognitive walkthroughs. In support of Traffic Flow Management, FAA conducted analyses of where automation should be implemented and designed, and the agency developed new automation for traffic managers.

Future Facilities—FAA has been working with stakeholders on developing a plan for future facilities.

NextGen Metrics—FAA published the NextGen Performance Snapshots (NPS) website in March 2012. The NPS is designed to provide reports on operational performance as a result of the implementation of NextGen capabilities. The NPS shows both metrics data, developed in consultation with the aviation community through the NextGen Advisory Committee, as well as anecdotal information about changes in select locations. The NPS is expected to evolve to reflect ongoing progress on implementation and continuing collaboration with industry. The NPS is publicly available at http://www.faa.gov/nextgen/snapshots/.

A summary of FAA's NextGen implementation efforts during 2011 is available in the 2012 update to the NextGen Implementation Plan, which also provides an overview of planned implementation activities over the next several years. Activities documented in the Implementation Plan include work on NextGen's six core transformational programs: Automatic Dependent Surveillance–Broadcast, Data Communications, System Wide Information Management, Common Support Services-Weather, NAS Voice System, and Collaborative Air Traffic Management Technologies. The NextGen Implementation Plan is published annually, and is available at http://www.faa.gov/nextgen.

ACTIONS REMAINING

FAA NextGen GBAS work is focused on requirements validation, and it supports a long-standing need for an alternative to the Instrument Landing System (ILS) (i.e., demonstrating the feasibility of GBAS), with planned completion of FAA contracts by July 2014. The technical team will be funded through 2016 to support design approval, as required. FAA is cooperating with early GBAS implementers at Newark and Houston. The goal is to gain operational experience with GBAS to support future business case decisions. There is no current FAA GBAS acquisition, and future plans have been delayed indefinitely. Current operational needs are being met by the ILS.

For FY 2013, the Human Factors Branch is planning high-fidelity HITL studies for Separation Management (SepMan) and Integrated Arrival and Departure Control Services (IADCS). The Branch will continue its involvement with the Future ERAM Computer-Human Interface (CHI) Team and the design and development of new automation for traffic managers.

FAA plans to continue working with the appropriate stakeholders on the future facilities issues. It is expected that the reports will follow when this work is complete.

RESULTS OR EXPECTED RESULTS

Results of work conducted by the Human Factors Branch have provided FAA with valuable data that have helped refine its future research needs and develop various user interfaces and functions.

Based on post-publication feedback from key industry stakeholders, the NextGen Implementation Plan has helped the aviation community understand the activities under way that lead to the implementation of NextGen operational improvements. The NPS has been highlighted to members of the NextGen Advisory Committee, and FAA expects the NextGen Advisory Committee to provide further recommendations and continued dialogue on performance measurement. The agency will continue to update both sets of information over time.

ISSUE 5B: ADVANCING NEXTGEN'S NEAR-TERM GOALS AND REALIZING BENEFITS AT ALREADY CONGESTED AIRPORTS

WHY IS THIS ISSUE SIGNIFICANT?

The NextGen Mid-Term Implementation Task Force Report emphasized the importance of focusing on near-term operational benefits, and it encouraged FAA to use existing technologies and equipment to generate real user benefits. The Task Force

recommended the development of optimized Performance-Based Navigation (PBN) procedures and airspace at major metropolitan area airports. The Optimization of Airspace and Procedures in the Metroplex (OAPM) program was specifically developed in response to the Task Force recommendations. While the OIG identified concerns with establishing detailed milestones and providing beneficial Required Navigation Performance (RNP) procedures, these issues were resolved early in FY 2012.

ACTIONS TAKEN IN FY 2012

In FY 2012, FAA continued to evolve the OAPM program. Tasks completed during this fiscal year include supplementing existing staff with experienced program management staff and contract support in the program office, developing a new schedule that reflects other ongoing efforts and more effective utilization of program resources, and developing a detailed Operations Plan. A systematic, metrics-based process reflecting input from FAA and industry was used to initially prioritize projects, and in FY 2012, the office developed detailed project milestones, which are being tracked by several Federal organizations. Internally, OAPM management is well informed about progress, and updates are provided on a monthly basis to track progress and to ensure milestones are met.

In FY 2012, the following OAPM program actions were undertaken:

- Completion of the Design Phase for three metroplexes (Washington, D.C., North Texas, and Houston);
- Completion of the Study Phase for one additional metroplex (Central/South Florida);
- Completion of studies at eight metroplexes (Washington, D.C., North Texas, Charlotte, Atlanta, Houston, Northern California, Southern California, and Central/Southern Florida); and,
- Initiation of the Evaluation Phase for three metroplexes (Washington, D.C., North Texas, and Houston).

ACTIONS REMAINING

FAA has no remaining actions to address the concerns raised by the OIG, but work will continue to advance the OAPM program and meet future milestones. Early in FY 2013, FAA expects to initiate the Design Phase at one metroplex (Southern California) and begin the Study Phase at another (Phoenix).

RESULTS OR EXPECTED RESULTS

Going forward, FAA expects to deliver benefits to all first-round OAPM sites by 2017.

ISSUE 5C: RESOLVING PROBLEMS WITH THE EN ROUTE AUTOMATION MODERNIZATION (ERAM) PROGRAM THAT HAVE COST AND SCHEDULE IMPLICATIONS FOR CRITICAL NEXTGEN INITIATIVES

WHY IS THIS ISSUE SIGNIFICANT?

Originally planned for completion in 2010, the En Route Automation Modernization (ERAM) program has experienced delays due to software-related problems. These problems have had a significant impact on the overall schedule and program budget. The ERAM program is working to resolve these issues as cost and schedule challenges have an impact on maintenance of legacy systems and associated resources, workforce-training requirements, and other NextGen program schedules.

ACTIONS TAKEN IN FY 2012

- The ERAM program office has renegotiated the ERAM contract with the prime vendor for FY 2012 and FY 2013 to deploy ERAM at FAA Air Route Traffic Control Centers. This includes new contractor incentive structure(s), relationships between software milestones and the triggering of those incentive(s), and agency controls to strengthen processes around software acceptance.

- The ERAM program continues to utilize the National User Team (NUT) to develop operational requirements for new software functions, thus improving the operational suitability and maturity of software before it is delivered to the field.

- The ERAM program has developed a standing work group within the construct of the contract between FAA, the National Air Traffic Controller Association (NATCA), and the Professional Aviation Safety Specialists (PASS) to collaborate on program strategy, software content, site implementation needs, and a range of other activities.

- The Automated Issues Management System (AIMS) is used by all Air Route Traffic Control Centers (ARTCC) facilities to capture operational issues observed with ERAM. The current process for intake, analysis, and disposition of issues has been streamlined. This includes system enhancements for end-user tracking and query of issue status.

- The ERAM program has improved processes and standards for packaging builds using a newly formed National Packaging Team (NPT) to provide more transparent and timely communication to facilities about build content and to enhance collaboration across program stakeholders as part of the packaging process.

- The ERAM program has initiated a series of deep-dive architecture reviews of the system. Lockheed Martin, the prime contractor, is conducting some of the reviews, and others involve an independent review, which is being led by the John A. Volpe National Transportation Systems Center. This work focuses on areas of system stability, reliability, and interoperability with other NextGen systems.

- As a means of proactively managing cost and schedule performance, the ERAM program has expanded its existing earned value management (EVM) approach to serve as a program-wide performance reporting tool rather than solely focusing on the prime vendor activities. This will improve the ability of the program to comprehensively assess cost and schedule performance.

- ERAM's safety risk management (SRM) process has been reviewed and improvements were implemented. The focus of the improvements strengthen upstream safety analysis by Air Traffic subject matter experts, increase sharing of build content early in the process to facilitate SRM planning activities, and standardize safety documentation signature processes for efficiency gains.

- A new governance planning board was implemented to establish a mechanism that allows ERAM leadership to monitor the overall health of the program from shorter-term operational and long-term strategic perspectives. The governance planning board will also assist ERAM leadership in implementing practices that increase efficiencies in managing change, coordinating schedules, and reporting progress.

ACTIONS REMAINING

In the near future, FAA expects to receive:

- Recommendations on the ERAM Architecture review;

- Initial recommendations on the ERAM IV&V project; and,

- Recommendations from the ERAM software planning and issues analysis board review.

RESULTS OR EXPECTED RESULTS

Based on the approach outlined above, the ERAM program is expecting to see improvements in schedule and cost performance, thus addressing the issues raised in the report. The program expects to see a decline in software and technology related issues given the strengthened controls and end-user involvement throughout the system development lifecycle.

ISSUE 5D: COMPLETING AN INTEGRATED MASTER SCHEDULE FOR NEXTGEN'S TRANSFORMATIONAL PROGRAMS

WHY IS THIS ISSUE SIGNIFICANT?

FAA has not yet developed an integrated master schedule (IMS) for implementing NextGen Transformational Programs or established total program costs, schedules, or performance baselines. Decision makers in Congress, the Department, and the agency lack sufficient information to assess NextGen progress as requirements evolve. Without a master schedule, FAA will continue to be challenged to assess progress with NextGen efforts, establish priorities, and make necessary trade-offs between programs.

ACTIONS TAKEN IN FY 2012

FAA has made significant progress this year implementing the new Idea-to-In Service Process (i2i process). The i2i process provides the necessary structure and governance to better manage changes to programs, systems, NAS policy, and procedures, while complementing FAA's Acquisition Management System (AMS). Additionally, both the NextGen and Air Traffic Organization (ATO) organizations have completed organizational changes that improve the strategic direction of NextGen and enhance ATO program management. Both actions support the development of the NextGen IMS.

The next release of the NextGen Segment Implementation Plan (NSIP 5.0) has been drafted. NSIP 5.0 includes updates to Segment Alpha capabilities through 2015 as well as integrated planning data for Segment Bravo Operational Improvements and associated increments scheduled for implementation between 2016 and 2020. NSIP Alpha updates reflect programmatic changes resulting from recent budget constraints and technical challenges.

Initial NSIP Alpha 4.0 Operational Improvement schedules have been developed within the NextGen IMS for 10 NSIP Portfolios, as well as for NextGen Solution Set pre-implementation activities funded with FY 2010, FY 2011, and FY 2012 monies.

Portfolio Management Review teams, led by recently appointed Investment Portfolio Managers (IPMs), have continued NSIP portfolio execution quarterly reviews. These reviews provide a cross-agency forum to review portfolio accomplishments, identify challenges to implementation and develop mitigation strategies, and provide updates to the IMS. Summary progress reports were provided to the NextGen Management Board (NMB) following the quarterly Portfolio Reviews.

Finally, the 2012 NextGen Implementation Plan was published in March. The plan included schedule and programmatic information for NSIP 4.0 Portfolios and NextGen Solution Set pre-implementation activities.

ACTIONS REMAINING

- Complete the NextGen Segment Implementation Plan version 5.0 with ratification by the NextGen Management Board by December 2012. NSIP 5.0 will include Operation Improvements, capability increments, and schedule planning information for implementation activities through 2020.

- Validate and baseline all NSIP Portfolio and NextGen Solution Set IMS schedules by the end of October 2012 and identify key dependencies within and across NSIP Portfolios and Solution Sets by the end of CY 2012.

- Complete NSIP Portfolio Reviews for the remaining CY 2012 quarter and report progress and issues to the NextGen Management Board.

RESULTS OR EXPECTED RESULTS

The NSIP Portfolio Management Framework will allow for development of an Integrated NextGen Program Plan that is baselined and progressed in the NextGen IMS. The NSIP and IMS will provide key Enterprise Management Tools for the integration and sequencing of NextGen initiatives.

ISSUE 5E: CONTROLLING OPERATING COSTS THAT COULD CROWD OUT NEXTGEN CAPITAL INVESTMENTS

WHY IS THIS ISSUE SIGNIFICANT?

In 2009, FAA entered into a three-year collective bargaining agreement with the National Air Traffic Controllers Association (NATCA). FAA estimated that the agreement with NATCA would cost the agency $669 million more than it would have cost to extend the 2006 contract for three more years. The 2009 contract also allows FAA and NATCA to negotiate local and regional memorandums of understanding (MOUs). Given past issues with unexpected cost overruns related to collective bargaining agreements, it is essential that FAA monitor and control costs associated with the current and successor NATCA agreements.

ACTIONS TAKEN IN FY 2012

Through the first two years of the NATCA contract (FY 2010 and FY 2011), FAA's labor cost estimates were 99.6 percent accurate compared to actual payroll costs. Through July 2012, FY 2012 payroll costs are also consistent with FAA's original forecast.

In addition to developing and maintaining accurate pay modeling tools, FAA has been able to keep costs in line with expectations through successful workforce planning. The agency has utilized multiple resources to develop accurate attrition forecasts and estimates on training times for new controllers. This, in turn, has allowed FAA to develop and execute new hire plans to ensure that new controllers are employed in the right place at the right time.

FAA has also shown considerable improvement in compliance with established MOU processes. Briefings and supplemental training for the labor relations staff as well as outlining and emphasizing the proper procedures to follow when negotiating an MOU (and the subsequent updating of the MOU database [LERIS]) occur on a periodic basis. In addition, the standard operating procedures (SOPs) for the MOU database were recently reissued with a reinforced section on the requirement for including MOUs and supporting documentation.

Finally, FAA recently signed an extension to the 2009 NATCA contract that will run into 2016. As part of the extension, FAA and NATCA agreed to future pay provisions that will ensure that controller pay increases will be generally the same as those

granted to other FAA and Federal employees. This extension not only helps maintain the collaborative labor-management relationship, but it also ensures FAA costs are maintained at expected levels in the coming years.

ACTIONS REMAINING

In the near future, FAA will conduct an internal review to compare actual FY 2012 costs with its original estimates to identify variances. In the future, FAA will use this information to adjust and improve the models, as needed.

RESULTS OR EXPECTED RESULTS

As a result of FAA's increased focus on labor costs, workforce planning, and controls related to the MOU process, FAA expects that near-term payroll costs for the controller workforce will grow at a slower rate over the next few years than in the years immediately following the implementation of the 2009 contract.

MANAGEMENT CHALLENGE 6: MANAGING DOT ACQUISITIONS IN A MORE STRATEGIC MANNER TO MAXIMIZE LIMITED RESOURCES AND ACHIEVE BETTER MISSION RESULTS

ISSUE 6A: STRENGTHENING DOT'S ACQUISITION FUNCTIONS AND PLANNING PROCESSES TO MANAGE ACQUISITIONS MORE STRATEGICALLY

WHY IS THIS ISSUE SIGNIFICANT?

OST and the Operating Administrations (OAs) have not implemented an effective acquisition and planning framework. A key concern is that DOT's acquisition leaders and contracting officers do not have enough input into program planning and decision making to ensure that the billions of dollars DOT spends on contracting each year are cost effective and tied to mission success.

Improved OA and OST strategic management of acquisition and acquisition planning have the potential to improve the efficiency and effectiveness of the Department's acquisition program. A more effective acquisition planning program will support the cost effective use of resources.

ACTIONS TAKEN IN FY 2012

In FY 2012, the Department:

- Established the Strategic Sourcing Executive Steering Committee (SSESC); and,
- Leveraged the Strategic Acquisition Council (SAC) to help support strategic communication across all operating administrations.

ACTIONS REMAINING

Over the next two years, the Department plans to:

- Finish Phase Two of Strategic Sourcing, which focuses on broader, more complex commodities, such as management support services and software and maintenance; and,
- Begin Phase Three of Strategic Sourcing, which addresses more complex categories, such as engineering services and program management support services.

RESULTS OR EXPECTED RESULTS

Both the SSESC and SAC are playing major roles in the strategic management of acquisitions. The completion of five strategic sourcing decisions resulted in approximately $201 million in savings in FY 2012.

ISSUE 6B: EQUIPPING DOT TO PERFORM EFFECTIVE MANAGEMENT OVERSIGHT OF ITS ACQUISITIONS

WHY IS THIS ISSUE SIGNIFICANT?

Weaknesses in DOT's contract oversight and surveillance limits its ability to achieve desired contract results and save taxpayer dollars. DOT has not developed adequate training for performance monitors. A sustained focus on developing reliable information and data management systems will position DOT to conduct more strategic acquisitions.

Improved contract oversight and surveillance will support the Department's ability to ensure successful contract performance, and it will result in the more efficient use of contract dollars.

ACTIONS TAKEN IN FY 2012

In FY 2012, DOT initiated a comprehensive update to the Transportation Acquisition Regulation (TAR) and Transportation Acquisition Manual (TAM). This project is still under way.

ACTIONS REMAINING

- Complete update of TAR and TAM within the next fiscal year; and,
- Develop and initiate a system of Program Management Reviews (PMRs) in cooperation with the operating administrations.

RESULTS OR EXPECTED RESULTS

The update of the TAR and TAM will provide the foundational procedures and guidance to operating administrations. The foundational procedures will help produce more reliable contract oversight strategies and procedures used across the operating administrations.

Conducting PMRs will help identify specific acquisition areas that require greater attention or guidance; the reviews will also identify organizational best practices that can be shared across the Department.

ISSUE 6C: STRENGTHENING THE ACQUISITION WORKFORCE TO MANAGE DOT'S CONTRACTS FOR GOODS AND SERVICES

WHY IS THIS ISSUE SIGNIFICANT?

DOT relies on its acquisition workforce to negotiate and administer thousands of complex contracts valued at more than $5-billion annually. However, DOT has not made sufficient progress in implementing the strategies and goals in its acquisition workforce strategic Human Capital Plan to increase the capability of the workforce.

A skilled and knowledgeable acquisition workforce is central to the effective management of the Department's $5-billion acquisition program. Through a more capable acquisition workforce, the Department will be able to leverage best practices, innovative acquisition strategies, and oversight techniques to improve the overall management of the Department's acquisition programs.

ACTIONS TAKEN IN FY 2012

In FY 2012, the Department:

- Leveraged the Strategic Acquisition Council (SAC) to highlight the importance of acquisition workforce training and Federal Acquisition Certificate (FAC) certification rates;
- Sponsored contracting officer's representative (COR) training at DOT headquarters, in cooperation with the Federal Acquisition Institute;
- Identified and promoted the use of other free training opportunities offered by other Federal agencies; and,
- Leveraged government-wide contracts to help support the development of an OA-specific COR training course that meets FAC-COR certification requirements.

ACTIONS REMAINING

In FY 2013, the Department plans to:

- Continue focusing on increasing FAC certification rates (FAC-C/FAC-COR); and,
- Increase training opportunities through both internal and external sources.

RESULTS OR EXPECTED RESULTS

Resulting from these efforts, the Department expects:

- Increased career development opportunities that strengthen the skills and capabilities of the acquisition workforce and improve retention rates; and,
- Improved acquisition strategies, contract oversight, and compliance.

ISSUE 6D: MAINTAINING PROGRAMS TO HELP ENSURE HIGH ETHICAL STANDARDS AMONG DOT'S CONTRACTORS, EMPLOYEES, AND GRANT RECIPIENTS

WHY IS THIS ISSUE SIGNIFICANT?

Various audits have concluded that there is a need for more vigilant oversight to detect and prevent both procurement and grant fraud, waste, and abuse within DOT and among its contractors and grant recipients.

Ensuring high ethical standards and preventing fraud, waste, and abuse are central pillars to managing a credible acquisition program.

ACTIONS TAKEN IN FY 2012

- As part of the Department's FAC certification programs, all applicants are required to complete training, which includes specific coverage of ethics for acquisition personnel; and,
- The Department provided training to Agency Program Coordinators for the purchase card program, which included identifying purchase card fraud.

ACTIONS REMAINING

Over the next two fiscal years, the Department plans to:

- Continue its focus on ethics training as part of all FAC certification programs;
- Initiate Program Management Reviews (PMRs) of operating administrations;
- Enhance the Suspension and Debarment System to safeguard against making awards to improper parties;
- Mandate use of the "Do Not Pay" list;
- Include sessions that concentrate on ethics and fraud prevention during its annual procurement conference; and,
- Continue focusing on COR training, including procurement oversight.

RESULTS OR EXPECTED RESULTS

- Training will result in a greater understanding of procurement ethics and standards;
- Use of the "Do Not Pay" list will assist the Department in reducing improper payments; and,
- Improved oversight will help to prevent fraud, waste, and abuse of Federal resources.

CHALLENGE 7: IMPROVING THE DEPARTMENT'S CYBERSECURITY

ISSUE 7A: ESTABLISHING A ROBUST INFORMATION SECURITY PROGRAM

WHY IS THIS ISSUE SIGNIFICANT?

Various audits and assessments have recommended enhancements to the Department's cybersecurity and information assurance program.

ACTIONS TAKEN IN FY 2012

The Department has moved up the capability maturity scale for programs that comply with the *Federal Information Security Management Act of 2002* (FISMA), focusing on implementation of policy and guidance by Departmental components and sub-components, and improving testing and integration with the Department's IT governance. In FY 2012, the Department:

- Deployed an enterprise continuous monitoring solution across nine components and increased visibility to 66 percent of known assets;
- Increased Personal Identity Verification (PIV) card enablement to 67 percent of personnel among non-FAA components;
- Issued significant guidance on the management and reporting of security weaknesses;
- Deployed technology to protect Departmental mobile devices;
- Initiated deployment of a secure telework solution; and,
- Deployed workflow applications to improve oversight and auditing capabilities.

ACTIONS REMAINING

In the next two fiscal years, the Department plans to:

- Establish regular perimeter vulnerability assessments of DOT networks;
- Establish risk and compliance reviews feeding the agency IT governance program;
- Establish a penetration-testing capability and begin testing DOT systems;
- Enhance network boundary protections to achieve 100 percent use of authorized Internet access points, and at least 90 percent compliance with Federal standards;
- Expand coverage of enterprise continuous monitoring to 95 percent of assets;
- Increase the required use of PIV smart cards to 85 percent of agency personnel; and,
- Integrate cybersecurity risk management into the agency enterprise architecture.

RESULTS OR EXPECTED RESULTS

The Department's cybersecurity program will begin to produce results derived from new policies. However, current plans for deployment of technology and services extend into 2014. Following full deployment, the Department expects:

- Performance for cybersecurity goals to exceed minimum Federal targets, and approach desired targets established by the Office of Management and Budget (OMB) and Department of Homeland Security (DHS);
- Maturation of capabilities that support more timely corrective action;
- Security incidents associated with unauthorized access to be reduced through increased use of PIV cards for network login; and,
- Comprehensive cybersecurity risk information to facilitate improved resource prioritization and decision making.

ISSUE 7B: STRENGTHENING AIR TRAFFIC CONTROL SYSTEM PROTECTIONS

WHY IS THIS ISSUE SIGNIFICANT?

FAA's planned Next Generation Air Transportation System (NextGen) relies on a number of new technologies to achieve its goals. NextGen relies on the use of Internet Protocol (IP)-based commercial products and web applications, which are inherently more vulnerable to security risks than proprietary software. FAA is also outsourcing more of its operations to contractors. Because FAA owns only the data, not the system, it may have little control over security challenges that could arise.

ACTIONS TAKEN IN FY 2012

The Air Traffic Organization (ATO) established a formal security policy for NextGen-outsourced NAS systems and services through release of FAA Order 1370.114, "Implementation of FAA Telecommunications Infrastructure Services and Information Security Requirements in the NAS," which defines security control requirements for both FAA-owned NAS data and systems and contractor-owned NAS systems and services.

ATO has implemented a layered NAS security architecture to provide protection, detection, and response for NAS IP-based services and systems. This defense-in-depth approach comprises the following layers:

- Enterprise secure boundary protection services via the NAS Enterprise Security Gateway (NESG) that have been integrated into NextGen system development;
- Enterprise NAS network cyber detection and monitoring capabilities via the FAA Telecommunications Infrastructure NAS Intrusion Detection System (IDS) that has been integrated with NAS Cyber Operations (NCO). This cyber monitoring capability provides complete cyber situational awareness for the interconnected NAS; and,
- The foundation layer is anchored through governance that established an anomaly-based approach to NAS real-time cyber event detection and response (1370.101A draft).

ACTIONS REMAINING

FAA has no actions remaining to address this concern.

RESULTS OR EXPECTED RESULTS

FAA now has a set of enforceable security requirements for non-FAA-owned NAS services and systems that allow FAA to control the security of both FAA-owned NAS data and systems and contractor-owned NAS systems and services. FAA also has a layered security architecture that provides defense-in-depth protection against IP and web-based security threats.

ISSUE 7C: INCREASING PROTECTION OF PERSONALLY IDENTIFIABLE INFORMATION (PII)

WHY IS THIS ISSUE SIGNIFICANT?

Increasing dependency on information systems, dramatic advances in information technologies, and significant growth in new applications of those technologies in such areas as cloud computing, Smart Grid, and mobile computing, information security and privacy are taking on new levels of importance in the public and private sectors. Protecting the privacy of individuals whose personally identifiable information (PII) is collected, used, maintained, shared, and disposed of by programs and information systems is a fundamental responsibility of the Department.

ACTION TAKEN IN FY 2012

In FY 2012, the Department focused on the following efforts:

- Compliance—Initiated biennial review of all DOT system of records notices (SORN) as required by the Privacy Act with particular emphasis on identifying scheduled records which should be disposed;
- Integration—Drafted new processes requiring privacy and records management review of all information collection requests to ensure limited PII collection and appropriate notice to subjects of collection;
- Data Loss Prevention—Engaged DOT's Chief Information Security Officer (CISO) to establish policy and standards for "allowable" externally connected devices and identified implementation costs and other resource constraints. Engaged with the CISO to identify capabilities within already deployed technologies that may be leveraged to support automated detection;
- Risk Management—Drafted new DOT Privacy Risk Management policy establishing roles and responsibilities for DOT and OA privacy programs; and,
- Transparency and Outreach—Participated in internal discussions and public forums regarding the Department's high-profile activities with privacy risk implications such as the vehicle-to-vehicle, unmanned aerial vehicle, and electronic on-board recorder programs.

ACTIONS REMAINING

Developing a robust culture of privacy within the Department will require a sustained effort over a number of years. Once the base culture is established, the Department will be required to apply resources on an ongoing basis to ensure that the process, policy, and technologies deployed protect PII and maintain currency with emerging threats. Over the next two fiscal years, the Department plans to:

- Develop an integrated data risk management approach encompassing privacy, records management, and information collection activities;
- Automate identification and subsequent protection of unprotected sensitive PII;
- Implement metrics-based management of privacy program based on NIST 800-53 Appendix J Privacy Controls; and,
- Enhance outreach to internal and external stakeholders regarding the use of automated data collection activities.

RESULTS OR EXPECTED RESULTS

The Department currently faces significant risk of unauthorized collection, use and exposure of PII. Implementing a robust privacy program allows for privacy controls to be injected into the business and system development lifecycles early in the process, and it increases staff awareness of their responsibility to protect PII and report unauthorized activity.

ISSUE 7D: CREATING AN EFFECTIVE DEPARTMENT-WIDE ENTERPRISE ARCHITECTURE (EA) PROGRAM

WHY IS THIS ISSUE SIGNIFICANT?

The Clinger-Cohen Act requires DOT to develop, maintain, and facilitate the implementation of a sound, secure, and integrated information technology architecture. The Office of Management and Budget (OMB) Common Approach to Federal Enterprise Architecture identifies Enterprise Architecture (EA) as the way to accelerate agency business transformation and new technology enablement. This is made possible by providing standardization, design principles, scalability, and a repeatable architecture project method that is more agile and useful and will produce more authoritative information for intra- and inter-agency planning, decision-making, and management. The OIG Findings on the DOT EA indicate that DOT is not currently meeting the requirement to have an effective enterprise architecture program.

ACTIONS TAKEN IN FY 2012

DOT is reinvigorating its EA program to support Departmental management planning and decision-making processes with quantitative information that ensures IT investments are delivering their desired outcomes. During FY 2012, the Department:

- Developed an Enterprise Roadmap that aligned with updated OMB guidance including Common Approach to Federal Enterprise Architecture (FEA), Collaborative Planning Methodology, Federal Shared Services Strategy, and PortfolioStat;
- Developed a draft Enterprise Architecture policy;
- Created a draft IT Software Standards Profile for Web Services to support interoperable services reuse across all segments;
- Conducted segment architecture reviews for grants and human resources systems in support of the PortfolioStat; and,
- Worked to close audit finding #6 from OIG Report FI-2012-086 based on the submission of a PortfolioStat Plan for reduction of commodity IT. The audit findings #3 and #4 were closed based on the FY 2014 budget submission for additional EA resources and contract services.

ACTIONS REMAINING

In FY 2013, the Department plans to:

- Create an EA Board Charter and process for integration of EA into the major IT governance processes including strategic planning, acquisitions, investment management, and program control;
- Establish a process to synchronize the EA and Capital Planning Investment Control (CPIC) to support a performance-based FY 2015 budget cycle, including the submission of the annual EA Roadmap to OMB; and,
- Propose and architect one reusable service for the grants management segment based on identifying common processes.

RESULTS OR EXPECTED RESULTS

The Department will be able to save money by leveraging EA and partnering with other management disciplines to architect shared services in support of common business processes. Additional savings will result from IT infrastructure consolidation.

MANAGEMENT CHALLENGE 8: DEFINING CLEAR GOALS TO GUIDE THE FEDERAL RAILROAD ADMINISTRATION IN ITS TRANSFORMATION

ISSUE 8A: COMPLETING A NATIONAL RAIL PLAN WITH CLEARLY DEFINED NATIONAL GOALS AND ROLES FOR STAKEHOLDERS IN THE VISION FOR INTERCITY PASSENGER RAIL

WHY IS THIS ISSUE SIGNIFICANT?

The 2008 *Rail Safety Improvement Act* (RSIA) and *Passenger Rail Investment and Improvement Act* (PRIIA) dramatically realigned and expanded FRA's roles and responsibilities. In addition, the *American Recovery and Reinvestment Act* (ARRA) infused an unprecedented amount of new capital into new passenger rail programs and drastically accelerated time frames for implementation. However, three years later, FRA has yet to establish specific goals to guide its transformation and measure progress.

ACTIONS TAKEN IN FY 2012

FRA has a comprehensive, long-range planning strategy that recognizes different stakeholders' needs and priorities and the need to address some planning issues at the regional and state levels. This strategy entails the release of materials that cumulatively fulfill the goals of the National Rail Plan. Between June 2009 and August 2012, FRA released several related documents, including:

- National Rail Plan Progress Report;
- High-Speed Rail Safety Strategy;
- Seven pieces of interim program guidance;
- FY 2012 and FY 2013 budget requests;
- Business and Public Investment Cases for corridors funded with FY 2010 appropriations; and,
- State Rail Plan Guidance.

FRA will release additional materials and continue efforts to provide baseline data and best practices, such as the National Cooperative Rail Research Program and Northeast Corridor planning. Additionally, FRA is working with the Transportation Research Board to develop national rail planning data and methodologies through nine research efforts. FRA is extending its national planning strategy to include additional policy materials, technical guidance, and regional and State planning toolkits.

Additionally, in FY 2012, FRA managed three ongoing efforts that are establishing the technical foundation for future analyses: (1) creation of a multi-State rail network plan in the Southwestern United States; (2) development of a network planning toolkit; and (3) initiation of the Northeast Corridor FUTURE study. Furthermore, FRA developed a Senior Executive Service position to lead FRA's rail planning and policy analysis initiatives.

ACTIONS REMAINING

By the end of FY 2013, FRA expects to:

- Develop its internal organizational model focused on rail policy and planning needs and activities;
- Finalize its strategy for completing and releasing national rail planning products;
- Initiate the process for additional regional rail development plans, pending availability of funds;
- Continue engagement with stakeholders in development of the Nation's passenger rail system; and,
- Continue using its budget request materials to articulate the Federal passenger rail vision, direction, and stakeholder roles in achieving this vision.

RESULTS OR EXPECTED RESULTS

FRA will have the organizational structure and processes in place to provide for efficient and effective national and regional rail planning approaches. States, Amtrak, and other stakeholders will have additional clarity on their roles in developing the Nation's passenger rail system.

ISSUE 8B: BALANCING AND PRIORITIZING RESOURCES TO ADDRESS RESPONSIBILITIES BY USING ESTABLISHED GOALS FOR MEASURING PROGRAM PERFORMANCE

WHY IS THIS ISSUE SIGNIFICANT?

Without quantitative metrics and specific grant-related regulations, FRA cannot be sure that its award decisions are based on sound ridership and revenue forecasts, public benefits valuations, and operating cost estimates. Moreover, the agency cannot ensure that its investments are based on competing projects' relative value. Developing a schedule for achieving specific, measurable performance goals that include estimated funds and staff resources needed to accomplish each goal could provide the basis for FRA to prioritize its ongoing and outstanding responsibilities.

ACTIONS TAKEN IN FY 2012

In FY 2012, the Department of Transportation established, "advancing development of passenger rail in the United States by achieving initial construction on Federally-funded corridor programs and individual construction projects," as one of its GPRA Modernization Act Agency Priority Goals. Moreover, FRA created (and is continuing to develop) its project management tool (PMT) that enables FRA to manage its workload associated with reviewing 3,000 project deliverables and other project administration tasks. In addition, FRA is using a risk assessment methodology to help prioritize oversight activities and identify resource needs to secure successful project delivery. Furthermore, FRA developed a Senior Executive Service position to lead FRA's rail planning and policy analysis initiatives in addition to performance evaluation and management. Finally, to improve the consistency of project development materials and enhance DOT's ability to evaluate competing applications, FRA published draft State Rail Plan Guidance and developed a schedule for additional project planning and analysis tools, including cost-benefit analysis guidance and a network planning toolkit.

ACTIONS REMAINING

Technical guidance refinement and performance evaluation will be ongoing activities throughout FRA's passenger and freight rail programs. By the end of FY 2013, FRA will:

- Develop internal resources to focus on program performance and evaluation;
- Develop additional technical guidance on State rail planning and cost-benefit analysis; and,
- Develop planning-level toolkits and models to evaluate potential rail demand levels in corridors throughout the U.S.

RESULTS OR EXPECTED RESULTS

FRA will have additional technical guidance to ensure that investments are based on sound quantitative measures and to prioritize internal resources and activities.

MANAGEMENT CHALLENGE 9: UTILIZING DEPARTMENT CREDIT PROGRAMS TO LEVERAGE LIMITED FEDERAL TRANSPORTATION INFRASTRUCTURE RESOURCES

ISSUE 9A: INCREASING PARTICIPATION IN CREDIT PROGRAMS WITH SIGNIFICANT EXCESS CAPACITY

WHY IS THIS ISSUE SIGNIFICANT?

In recent years, Highway Trust Fund receipts have fallen significantly short of outlays, further straining the Nation's ability to meet its increasing surface transportation infrastructure needs. Given the current fiscal environment, it is critical that the Department maximize the effectiveness of its credit programs and expand the use of innovative financing techniques to ensure the viability of our surface transportation infrastructure. Reducing the application timeline for the Railroad Rehabilitation and Infrastructure Financing program (RRIF) could expand use of the program and further leverage Federal support of surface transportation infrastructure projects.

ACTIONS TAKEN IN FY 2012

FRA is already implementing an action plan. FRA holds pre-application meetings with entities that express interest in applying for financing. During FY 2011 and FY 2012, FRA held 25 pre-application meetings—up from 15 in FY 2010. FRA works with each potential borrower to reduce the overall credit risk through risk mitigation, such as collateral and financial protections. FRA developed a business process guide to ensure that staff members understand their roles, identify opportunities

to streamline execution, and improve coordination with supporting organizations where possible. As a result, FRA's increased focus on pre-application activity and coordination ensures that the applications are complete before submission to FRA.

ACTIONS REMAINING

By the end of FY 2013, FRA will:

- Increase stakeholder outreach to a more diverse audience, e.g., state economic development offices;
- Enhance pre-application technical assistance, including face-to-face meetings and pre-application screening; and,
- Better coordinate activities such as environmental documentation review.

RESULTS OR EXPECTED RESULTS

FRA will be able to increase the number of complete applications and reduce review time through a streamlined application process and more extensive pre-application technical assistance.

ISSUE 9B: EXPANDING THE CAPACITY OF CREDIT PROGRAMS THAT ARE OVERSUBSCRIBED

WHY IS THIS ISSUE SIGNIFICANT?

The Transportation Infrastructure Finance and Innovation Act (TIFIA) credit program has been oversubscribed by a factor of 10 over the last three years.

The National Surface Transportation Infrastructure Financing Commission estimates that nearly $100 billion in Federal investment is needed annually to preserve and enhance the Nation's surface transportation infrastructure. Given the current fiscal environment, it is critical that the Department maximize the effectiveness of its credit programs and expand the use of innovative financing techniques such as public-private partnerships, where appropriate, to ensure the viability of the Nation's surface transportation infrastructure. Beginning in FY 2008, the total TIFIA credit requests have exceeded the program's available appropriation, which limited the amount of infrastructure projects the program could help finance.

ACTIONS TAKEN IN FY 2012

The Department requested additional funding for the credit program in the FY 2013 budget request.

ACTIONS REMAINING

No further actions anticipated.

RESULTS OR EXPECTED RESULTS

Congress provided additional funding for the TIFIA program. MAP-21 increased TIFIA's annual authorization to $750 million in FY 2013 and $1 billion in FY 2014 from the $122 million authorized in FY 2012. The TIFIA program office published a Notice of Funding Availability requesting project sponsors to submit a letter of interest for the increased lending capacity.

PROGRAM EVALUATIONS

Performance measures are used to assess progress in accomplishing Departmental goals, and the measures help to determine if agency efforts are having their intended outcomes. Program evaluation uses analytic techniques to assess the extent to which programs contribute to those outcomes and trends.

INTRODUCTION

TYPES OF PROGRAM EVALUATIONS

Program evaluation is an assessment, through objective measurement and systematic analysis, of the manner and extent to which programs achieve intended outcomes. Evaluations are of the following types:

- **Impact Evaluations** use empirical data to compare measurable program outcomes with what would have happened in the absence of the program. These represent the highest standard of program evaluations and are often the most difficult and expensive to construct and interpret.
- **Outcome Evaluations** assess the extent to which programs achieve outcome-oriented objectives. These use quantitative methods to assess program effectiveness, but fall short of the rigorous causal analysis of impact evaluations.
- **Process Evaluations** assess the extent to which a program operates as intended. While a true process evaluation will use objective measurement and analysis, it falls short of assessing the causal links between intervention and outcome.
- **Cost-Benefit and Cost-Effectiveness Analyses** compare a program's outputs or outcomes with the costs to produce them. These analyses conform to program evaluation when applied systematically to existing programs and when measurable outputs and outcomes are monetized.

PROGRAM EVALUATION MANAGEMENT

The programs selected for scheduled evaluations are vetted through the Department's strategic planning process. Each OA nominates programs that are then reviewed by a strategic planning executive committee to ensure: (1) adequate breadth of program evaluations across OAs; and (2) alignment to the strategic objectives. The Office of Inspector General and the Government Accountability Office pursue program evaluations independent of this schedule.

FHWA: STRATEGIC HIGHWAY SAFETY PLAN (SHSP)

PURPOSE

FHWA's Office of Highway Safety initiated a program evaluation to assess the agency's support of the States' development, implementation, and evaluation of Strategic Highway Safety Plans (SHSPs). The evaluation included a review of statutory, regulatory, and agency materials that define SHSP requirements, an assessment of the consistency of program activities, and a determination of the strengths and weaknesses of the SHSP program.

CONTRIBUTION TO GOAL PERFORMANCE

An SHSP is a statewide safety plan, developed through coordination across agencies, that provides a comprehensive framework for reducing highway fatalities and serious injuries on all public roads. An SHSP is required to receive full funding from the Highway Safety Improvement Program (HSIP). The purpose of the HSIP is to reduce fatalities and serious injuries.

METHODOLOGY

A working group was established to evaluate the SHSP activities in three parts:

- Clarification of program theory and design—This part of the evaluation provided a baseline description of the Office of Safety's internal processes that served as the foundation for evaluating how effectively the Office of Safety has supported the development and implementation of SHSPs.
- Evaluation of program processes—Based on the understanding of the program developed in the previous part, this part evaluated how the Office of Safety support works in practice including how user needs are identified and how products and services are developed, delivered, and marketed to meet those needs.
- Evaluation of program outputs and outcomes—This part assessed the extent to which user needs were met and the effect of the Office of Safety's program on the capabilities of users through surveys, focus groups, and document review.

STATUS

Complete with actions initiated.

PARTNERS

The John A. Volpe National Transportation Systems Center (Volpe) conducted the evaluation study.

LISTED IN DOT PLAN

This evaluation was listed in the FY 2012 – 2016 DOT Strategic Plan.

TYPE

Process.

SOURCE

External, completed by Volpe.

FINDINGS

Since the establishment of the SHSP requirement in SAFETEA-LU in 2005, FHWA has made significant progress and achieved notable success in meeting legislative and programmatic goals. All States now have an SHSP in place and most States are actively implementing and updating their SHSP. Today, a majority of States are on their second or third generation SHSP. Many States now consider the SHSP a living document that they update regularly with new safety information, emphasis areas, and strategies.

FHWA support of the SHSP process was a critical factor in the establishment of a more data-driven, coordinated statewide approach to safety investments as envisioned in SAFETEA-LU. The study confirmed that many aspects of agency support of SHSP processes are considered effective by State SHSP representatives and FHWA Safety Specialists. FHWA has developed resources that address many of the support needs of State SHSP-Leads. Most FHWA Safety Specialists are actively engaged in supporting their State's SHSP process, and 90 percent actively participate in State SHSP meetings. Many are considered valued partners by their State SHSP-Lead counterparts. As State SHSP processes have matured and their needs have evolved, FHWA has developed new resources to meet those needs.

RECOMMENDATIONS

The advancement of the SHSP program at the State level has led to an evolution and diversification of States' support needs. While new staff and stakeholders may still require basic information about SHSP requirements, most States no longer need support developing an SHSP that meets basic Federal requirements. State support needs span a range of topics from updating and implementing the SHSP to evaluating, integrating, and marketing the SHSP. This diverse set of needs takes advantage of FHWA's strengths and makes the most of limited resources.

A proposed approach for future SHSP support would consist of the following elements for FHWA:

- Continue to proactively market flexible products and respond to State requests with timely, customized technical assistance;
- Develop modular content or modify existing content so that it may be delivered in a variety of formats and continue to provide easy access for customers with specific needs;
- Sponsor more forums for peer-based learning and exchange, as a tool for identifying and disseminating best practices and assessing State needs; and,
- Leverage its support of SHSP through existing and enhanced strategic partnerships with public and nonprofit agencies that share similar goals.

LINKS

N/A.

PLANNED ACTIONS

FHWA has already adopted elements of this approach by supporting more peer exchanges, more closely monitoring the status of State SHSPs, promoting the evaluation of SHSP processes, and developing an online Community of Practice for sharing practices. The agency developed a strategic plan for the SHSP that identifies priority projects and incorporates findings from this study. In the near term, FHWA intends to enhance its SHSP monitoring and assessment processes and review and revise support materials. FHWA is also reviewing the structure of its website and working through the National Highway Institute to develop additional support resources.

FMCSA: NEW ENTRANT SAFETY ASSURANCE PROGRAM

PURPOSE

Perform a program evaluation to assess the current effectiveness of the New Entrant Safety Assurance Program (NESAP).

CONTRIBUTION TO GOAL PERFORMANCE

The Secretary of Transportation is required by Title 49 U.S.C. Section 31144(a)(1) to "determine whether an owner or operator is fit to operate safely commercial motor vehicles." In Section 31144(g), safety reviews of new commercial motor vehicle (CMV) carriers requires each carrier and operator granted new operating authority to undergo a safety review within the first 18 months (9 months for passenger carriers) after they begin operations. Additionally, the Secretary shall establish the elements of the safety review, including basic safety management controls. In response, FMCSA initiated the New Entrant Safety Assurance Program (NESAP), which is driven by a Federal grant program—the Motor Carrier Safety and Assistance Program (MCSAP)—that provides financial assistance to partner States that participate in performing these audits. The goal of the NESAP is to reduce CMV-involved crashes, fatalities, and injuries through consistent, uniform, and effective CMV safety programs. The MCSAP New Entrant (NE) grant funds will be awarded, at the discretion of FMCSA, to States and local governments to fund salaries and related expenses of NE auditors, including training and equipment. Title 49 U.S.C. Section 31148 requires the Secretary to certify and oversee motor carrier safety auditors, including private contractors.

METHODOLOGY

The program evaluation will assess whether FMCSA is in compliance with all applicable statutes and regulations related to the safety management of NE carriers, the status of certified motor carrier safety auditors, ascertain their relative performance before and after FMCSA safety-related treatments are applied, identify gaps in current policies and procedures, and identify alternatives that may improve efficiency and effectiveness and enhance safety. The evaluation team will employ a classic systematic approach to evaluate the NE program that includes collecting, analyzing, and using information to answer questions established under the "Objectives" section of the NE Program Evaluation Plan. The overarching goal of the evaluation is to analyze the effectiveness of the collective body of current FMCSA rules, regulations, and program initiatives designed to improve the safety performance, safety behavior, and compliance of NE carriers. The evaluation will provide FMCSA leadership with reasonable assurance that the agency's collective enforcement, educational, partner-related support, and outreach efforts optimally support the intended goal of raising the safety bar to entry for new carriers.

STATUS

The evaluation is near completion and the final report is scheduled for concurrence in the near future.

PARTNERS

National Highway Transportation Safety Administration and Federal Highways Administration.

DOT PLAN

This evaluation was listed in the FY 2012 – 2016 DOT Strategic Plan.

TYPE

Effectiveness analysis.

SOURCE

Contractor and staff support.

FINDINGS

To be determined (TBD).

RECOMMENDATIONS

TBD.

LINK

Not currently finalized for release.

PLANNED ACTIONS

TBD following authority to release.

FRA RESEARCH AND DEVELOPMENT (R&D) PROGRAM

PURPOSE

The purpose of the Transportation Research Board (TRB) review of FRA's research, development, and demonstration program is to assess annually such topics as program management, structure and approach, allocation of resources among program areas, and project selection criteria.

CONTRIBUTION TO GOAL PERFORMANCE

The TRB review helps ensure that the major directions and content of FRA's research and development program serve the needs of customers and stakeholders, internal and external to FRA. FRA has three research and development (R&D) program goals: supporting FRA's safety regulatory mandate; technology development and demonstration; and implementation of high-speed rail transportation. The TRB review helps FRA achieve these goals by reviewing and assessing the effectiveness of FRA's processes for setting program priorities, selecting projects, directing projects, and maximizing and measuring the impact of its programs. The committee provides recommendations to FRA on how to improve its processes for selecting, executing, and delivering value from its research, development, and demonstration program.

METHODOLOGY
FRA contracts with TRB to conduct an annual review and evaluation of FRA's research, development, and demonstration program. TRB selects industry experts to form the review committee. The committee receives presentations from FRA on program achievements and strategy. The committee publishes its findings in a letter report posted on the TRB website and made available to the public.

STATUS
TRB delivered its most recent report to FRA on May 31, 2012. Meetings occurred in February 2012 and March 2012. FRA is acting on the recommendations and preparing for the next review.

PARTNERS
TRB of the National Academies of Science is responsible for setting up the review committee, conducting the review, and publishing the results.

DOT PLAN
This evaluation was listed in the FY 2012 – 2016 DOT Strategic Plan.

TYPE
Process.

SOURCE
External, TRB.

FINDINGS
The committee recognizes a strong institutional commitment to continuous improvement in the management of the FRA R&D program. The R&D office's alignment of projects to address the five major risk categories is an important step in rationalizing the R&D program. The committee recognizes the advances made by R&D management in developing disciplined and transparent program management practices. FRA research grants are a significant source of support for academic programs that can produce qualified workers for the industry. The committee endorses the R&D office's efforts, described at the meeting, to provide input to DOT workforce development planning and to expand its involvement with schools and universities.

RECOMMENDATIONS
The committee believes that additional improvements could be made through:

- Further focusing future resources on projects addressing the highest-risk categories with the largest potential safety benefit
- Development and reporting of program performance indicators
- More complete evaluations and reporting of project outcomes.

Future directions to consider for R&D include continuing work on performance-based standards; research to aid the deployment, in-use evaluation, and refinement of new signaling and train control technologies; and research on operation of shared-use corridors for intercity passenger and freight service.

LINK
http://www.trb.org/Railroads/Blurbs/167226.aspx.

PLANNED ACTIONS
TRB's next review is planned for February 2013. FRA is acting on the above recommendations and intends to report on progress at the next review.

PHMSA OFFICE OF HAZARDOUS MATERIALS SAFETY

PURPOSE
To examine the hazardous materials transportation regulatory system, identifying potential safety risks within the Hazardous Materials Regulations (HMR) that are under-regulated or unregulated due to omissions, assumptions, definitions, and exceptions in the HMR.

CONTRIBUTION TO GOAL PERFORMANCE
The evaluation contributes to the goal of lowering the number of deaths and injuries due to hazardous materials. It was intended to assist the Associate Administrator for Hazardous Materials Safety by illuminating areas that might present safety risk. It might also be useful as a foundation to better understand and systematically reduce the frequency of deaths and serious injuries.

METHODOLOGY
The evaluation relied on document analysis of Title 49 of the Code of Federal Regulations (CFR) and pertinent rulemaking documents in the *Federal Register*, as well as 25 interviews with Office of Hazardous Materials Safety (OHMS) staff, agency partners, and the first responder community. The evaluation utilized an iterative approach using in-house and intermodal subject matter experts to confirm the validity of the information and findings. The document focused exclusively on identifying and illuminating potential safety risks, but it did not quantify the extent of the safety risk.

STATUS
Complete without recommendations.

PARTNERS
PHMSA was the sole sponsor of the initiative, but FRA, FMCSA, and the U.S. Coast Guard contributed via qualitative interviews.

DOT PLAN
This evaluation was not listed in the DOT Strategic Plan. It was conducted to assist the Associate Administrator in managing the program.

TYPE
Process.

SOURCE
Internal—PHMSA's Office of the Administrator.

FINDINGS
- Definitions create boundaries, and definitions in the HMR's regulatory system nearly always omit some things in order to simplify and clarify the applicability of safety requirements;
- Thresholds are used to help distinguish different levels of requirements for different levels of risk, but these can create artificial breakpoints where risk is often a continuous or scalable variable;
- The use of external standards, including international recommendations, rules from non-governmental organizations, and regulations from other government agencies, creates the potential for disconnects that could emerge later and grow over time;
- Exceptions in the HMR provide lesser requirements for many groups and products, often based on factors (such as economics or prevalence of the activity) other than safety;
- Jurisdiction overlap and shared responsibilities among government entities, especially Federal agencies, creates opportunity for marginal disconnects, inconsistencies, and gaps; and,
- The normal lifecycle of hazardous materials means that they go into and out of transportation in commerce, and the areas outside of transportation of commerce can sometimes influence the level of safety risk in transportation.

RECOMMENDATIONS
No recommendations.

LINK
Not available online.

PLANNED ACTIONS
The findings of this evaluation will be integrated into OHMS's development of its Risk Management Framework.

PERFORMANCE DATA COMPLETENESS AND RELIABILITY DETAILS

DETAILS ON DOT SAFETY MEASURES

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 discusses how the performance data are used in program management decision making inside DOT.

ROADWAY FATALITY RATE PER 100 MILLION VEHICLE-MILES TRAVELED (VMT) (NHTSA / FHWA / FMCSA)

MEASURE

Roadway fatalities per 100 million vehicle-miles traveled (VMT) are calculated for each calendar year (CY). A roadway fatality is the fatality of any vehicle occupant (driver, passenger, all persons riding on the exterior of a motor vehicle), including motorcycle (two- or three-wheeled motor vehicle) rider or passenger, and any non-occupants (any person not an occupant of a motor vehicle in transport, such as a pedestrian or cyclist).

VMT includes all vehicle-miles traveled by all types of vehicles including:

- Passenger cars;
- Motorcycles;
- Buses;
- All 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 deaths which occur within 30 days of a crash involving a motor vehicle traveling on a traffic-way customarily open to the public within the 50 States and the District of Columbia.

SOURCES

Roadway fatality data are obtained from the National Highway Traffic Safety Administration's (NHTSA) Fatality Analysis Reporting System (FARS). The FARS database is based on police crash reports and other State data, containing data derived from a census of fatal traffic crashes within the 50 States and the District of Columbia.

Vehicle-miles traveled is estimated from the Federal Highway Administration's (FHWA) Traffic Volume Trends (TVT) report. TVT is a monthly report based on hourly traffic count data and annual data in the Highway Performance Monitoring System (HPMS), which is analyzed by the FHWA Traffic Monitoring and Analysis System (TMAS). Passenger vehicle VMT (PVVMT) is derived from the HPMS.

Roadway fatality rates for 2011 and 2012 were projected using recent fatality rate trend data.

STATISTICAL ISSUES

While based on historical data, the 2011 and 2012 fatality rate projections depend on the continuation of individual and market behavior regarding roadway safety policies, vehicle-miles traveled, seat belt use, and alcohol-related fatalities. The 2011 and 2012 fatality rate projections do not reflect recent vehicle improvements. The assumptions inherent in these projections, together with the normal levels of uncertainty inherent in statistical evaluations, may influence the accuracy of the projection.

For HPMS, States provide annual average daily traffic (AADT) on all Federal-aid highway sections. These data are based on traffic counts taken at least once every three years on the National Highway System, Interstate, and Principal Arterials and at least once every six years on Minor Arterials and Collectors. Traffic counts are adjusted by the States to reflect day-of-week and seasonal variations, current year conditions, and axle corrections, as necessary. States provide summary data on the local and rural minor collector roads. The AADTs from HPMS are used as a baseline for the TVT report, which compiles data from about 4,000 automated traffic recorders (ATRFs) provided by the States on a monthly basis. Because both HPMS and TVT are based on samples of the traffic, there are associated sampling errors.

DETAILS ON DOT SAFETY MEASURES

COMPLETENESS

FARS has been in use since 1975 and is accepted as a complete measure for describing safety on the Nation's roadways. Annual traffic fatalities are currently available through CY 2010.

VMT is complete through 2010. For 2011 and 2012, it is projected as a percentage of the total VMT projections. The final 2011 VMT number will be available in August 2013. The 2012 VMT estimate will be available by December 2013.

RELIABILITY

This measure informs and guides the following programs for NHTSA, FHWA, and FMCSA:

- Roadway safety policy;
- Safety program planning;
- Regulatory development;
- Resource allocation; and,
- Operational mission performance.

Early indications show that fatalities have decreased while VMT have increased. However, it is too early to tell what the final result on the fatality rate will be, depending on the following factors, among others:

- High price of fuel;
- Economic downturn;
- Increased walking, bicycling, and motorcycle riding; and,
- 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 CY 2011 and beyond.

PASSENGER VEHICLE OCCUPANT FATALITY RATE (NHTSA / FHWA / FMCSA)

MEASURE

Passenger Vehicle Occupant fatalities per 100 million passenger vehicle VMT (vehicle-miles traveled) are calculated for each calendar year (CY).

An occupant is any person inside or on top of a moving motor vehicle. This includes the driver, passengers, and all persons riding on the exterior of a motor vehicle. Passenger vehicle VMT (PVVMT) includes vehicle-miles traveled by all types of passenger vehicles (i.e., passenger cars, vans, pickup trucks, and sport/utility vehicles) on public roads within the 50 States and the District of Columbia.

SCOPE

The number of fatalities is a count of passenger vehicle occupant deaths which occur within 30 days of a crash involving a motor vehicle traveling on a traffic-way customarily open to the public within the 50 States and the District of Columbia.

SOURCES

Roadway fatality data are obtained from the National Highway Traffic Safety Administration's (NHTSA) Fatality Analysis Reporting System (FARS). The FARS database is based on police crash reports and other State data, containing data derived from a census of fatal roadway crashes within the 50 States and the District of Columbia.

Vehicle-miles traveled is estimated from the Federal Highway Administration's (FHWA) Traffic Volume Trends (TVT) report. TVT is a monthly report based on hourly traffic count data and annual data in the Highway Performance Monitoring System (HPMS), which is analyzed by the FHWA Traffic Monitoring and Analysis System (TMAS). Passenger vehicle VMT (PVVMT) is derived from the HPMS.

Fatality rates for CY 2011 and 2012 were projected using recent passenger vehicle occupant fatality rate trend data.

STATISTICAL ISSUES

While based on historical data, the 2011 and 2012 fatality rate projections depend on the continuation of individual and market behavior regarding roadway safety policies, vehicle-miles traveled, seat belt use, and alcohol-related fatalities. The 2011 and 2012 fatality rate projections do not reflect recent vehicle improvements. The assumptions inherent in these projections, together with the normal levels of uncertainty inherent in statistical evaluations, may influence the accuracy of the projection.

For HPMS, States provide annual average daily traffic (AADT) on all Federal-aid highway sections. These data are based on traffic counts taken at least once every three years on the National Highway System, Interstate, and Principal Arterials and at least once every six years on Minor Arterials and Collectors. Traffic counts are adjusted by the States to reflect day-of-week and seasonal variations, current year conditions, and axle corrections, as necessary. States provide summary data on the local and rural minor collector roads. The AADTs from HPMS are used as a baseline for the TVT report, which compiles data from about 4,000 automated traffic recorders (ATRFs) provided by the States on a monthly basis. Because both HPMS and TVT are based on samples of the traffic, there are associated sampling errors.

COMPLETENESS

FARS has been in use since 1975 and is accepted as a complete measure for describing safety on the Nation's roadways. Total annual roadway fatalities are currently available through CY 2010.

VMT is complete through 2010. For 2011 and 2012, it is projected as a percentage of the total VMT projections. The final 2011 VMT number will be available in August 2013. The 2012 VMT estimate will be available by December 2013.

RELIABILITY

This measure informs and guides the following programs for NHTSA, FHWA, and FMCSA:

- Roadway safety policy;
- Safety program planning;
- Regulatory development;
- Resource allocation; and,
- Operational mission performance.

Early indications show that fatalities have decreased while VMT have increased. However, it is too early to tell what the final result on the roadway fatality rate will be, depending on the following factors, among others:

- High price of fuel;
- Economic downturn;
- Increased walking, bicycling, and motorcycle riding; and,
- 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 2012 and beyond.

MOTORCYCLIST FATALITY RATE (NHTSA / FHWA / FMCSA)

MEASURE

Motorcyclist fatalities per 100,000 motorcycle registrations are calculated for each calendar year (CY).

A motorcycle is a two- or three-wheeled motor vehicle designed to transport one or two people, including motorscooters, minibikes, and mopeds.

SCOPE

The number of motorcyclist fatalities is a count of motorcyclist (rider, operator, and passenger) deaths which occur within 30 days of a crash in which the motorcycle was traveling on a traffic-way customarily open to the public within the 50 States and the District of Columbia.

SOURCES

Roadway fatality data are obtained from the National Highway Traffic Safety Administration's (NHTSA) Fatality Analysis Reporting System (FARS). The FARS database is based on police crash reports and other State data, containing data derived from a census of fatal roadway crashes within the 50 States and the District of Columbia.

The States collect motorcycle registration data and provide the data to the Federal Highway Administration (FHWA), which then provides the data to the public.

Fatality rates for CY 2011 and 2012 were projected using recent motorcycle fatality rate trend data.

STATISTICAL ISSUES

While based on historical data, the 2011 and 2012 fatality rate projections are dependent on the continuation of both individual and market behavior regarding roadway safety policies, vehicle and equipment design, motorcycle registration, 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 be an underestimate of the true 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: October 3, 2007).

COMPLETENESS

FARS has been in use since 1975 and is accepted as a complete measure for describing safety on the Nation's roadways. Annual motorcyclist fatalities are currently available through CY 2010.

The motorcycle 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 of the vehicle counts. Motor vehicle registrations are reported by major vehicle classes: automobiles, buses, trucks, and motorcycles.

RELIABILITY

This measure informs and guides the following programs for NHTSA, FHWA and FMCSA:

- Roadway safety policy;
- Safety program planning;
- Regulatory development;
- Resource allocation; and,
- Operational mission performance.

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 are 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 motorcycle registration data includes all vehicles that have been registered at any time during 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 include 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:

- Increased motorcycle riding;
- The effect of the high price of fuel on increased motorcycle riding;
- The economic downturn;
- Increased walking and bicycling; and,
- 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 motorcycle registration projections for 2011 and beyond.

NON-OCCUPANT FATALITY RATE (NHTSA / FHWA / FMCSA)

MEASURE

Non-occupant fatality rate per 100 million vehicle-miles traveled (VMT) is calculated for each calendar year (CY).

A non-occupant is any person who is not an occupant of a motor vehicle in transport and includes:

- Pedestrians;
- Bicyclists and other pedalcyclists;
- Occupants of parked motor vehicles;
- Joggers and skateboard riders; and,
- People riding on animals and in animal-drawn conveyances.

VMT includes all vehicle-miles traveled by all types of vehicles including:

- Passenger cars;
- Motorcycles;
- Buses;
- All 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 non-occupant deaths which occur within 30 days of a crash involving motor vehicle traffic traveling on a roadway customarily open to the public within the 50 States and the District of Columbia.

SOURCES

Roadway 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, containing data derived from a census of fatal roadway crashes within the 50 States and the District of Columbia.

Vehicle-miles traveled is estimated from the Federal Highway Administration's (FHWA) Traffic Volume Trends (TVT) report. TVT is a monthly report based on hourly traffic count data and annual data in the Highway Performance Monitoring System (HPMS), which is analyzed by FHWA's Traffic Monitoring and Analysis System (TMAS).

Fatality rates for CY 2011 and 2012 were projected using recent non-occupant fatality rate data.

STATISTICAL ISSUES

While based on historical data, the 2011 and 2012 fatality rate projections are dependent on the continuation of both individual and market behavior regarding vehicle-miles traveled, infrastructure, vehicle design, 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.

For HPMS, States provide annual average daily traffic (AADT) on all Federal-aid highway sections. These data are based on traffic counts taken at least once every three years on the National Highway System, Interstate, and Principal Arterials and at least once every six years on Minor Arterials and Collectors. Traffic counts are adjusted by the States to reflect day-of-week and seasonal variations, current year conditions, and axle corrections, as necessary. States provide summary data on the local and rural minor collector roads. The AADTs from HPMS are used as a baseline for the TVT report, which compiles data from about 4,000 automated traffic recorders (ATRs) provided by the States on a monthly basis. Because both HPMS and TVT are based on samples of the traffic, there are associated sampling errors.

COMPLETENESS

FARS has been in use since 1975 and is accepted as a complete measure for describing safety on the Nation's roadways. Annual non-occupant fatalities are available through CY 2010.

VMT is complete through 2010. For 2011 and 2012, it is projected as a percentage of the total VMT projections. The final 2011 VMT number will be available in August 2013. The 2012 VMT estimate will be available by December 2013.

RELIABILITY

This measure informs and guides the following programs for NHTSA, FHWA and FMCSA:

- Roadway safety policy;
- Safety program planning;
- Regulatory development;
- Resource allocation; and,
- Operational mission performance.

Early indications show that fatalities have decreased while VMT have increased. However, it is too early to tell what the final result on the fatality rate will be, depending on the following factors, among others:

- High price of fuel;
- Economic downturn;
- Increased walking, bicycling, and motorcycle riding; and,
- 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 2011 and beyond.

LARGE TRUCK AND BUS FATALITY RATE (FMCSA/NHTSA/FHWA)

MEASURE

Large truck and bus fatalities per 100 million vehicle-miles traveled (VMT).

The number of large truck and bus fatalities includes all large truck/bus occupants, occupants of other vehicles, and non-occupants who died in roadway crashes involving a large truck or bus. A large truck is defined as being 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 10 passengers, including school buses, inter-city buses, and transit buses. VMT for this measure includes all vehicle-miles traveled by all types of vehicles including:

- Passenger cars;
- Motorcycles;
- Buses;
- All 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 deaths which occur within 30 days of roadway crashes involving large trucks or buses traveling on a traffic-way customarily open to the public within the 50 States and the District of Columbia.

SOURCES

Roadway fatality data are obtained from the National Highway Traffic Safety Administration's (NHTSA) Fatality Analysis Reporting System (FARS). The FARS database is based on police crash reports and other State data, containing data derived from a census of fatal traffic crashes within the 50 States and the District of Columbia.

Vehicle-miles traveled is estimated from the Federal Highway Administration's (FHWA) Traffic Volume Trends (TVT) report. TVT is a monthly report based on hourly traffic count data and annual data in the Highway Performance Monitoring System

(HPMS), which is analyzed by the FHWA Traffic Monitoring and Analysis System (TMAS).

Fatality rates for CY 2012 were projected as a range of fatalities based on fatal crash data from CY 2007 – 2010, and partial data from CY 2011 – 2012. FMCSA extrapolated the CY 2012 Motor Carrier Management Information System (MCMIS) fatalities into a projection for the entire year based on reports from CY 2007 – 2011. FMCSA analyzed the historical relationship between MCMIS and FARS fatality reporting to adjust the MCMIS number into a FARS projection for CY 2012.

STATISTICAL ISSUES

The CY 2012 fatality rate projection depends on the continuation of individual and market behavior regarding highway safety policies, vehicle-miles traveled, seat belt use, and alcohol-related fatalities for large trucks and buses. The assumptions inherent in these projections, together with the normal levels of uncertainty inherent in statistical evaluations, may influence the accuracy of the projection. A major source of error is an inconsistent use of the definition of a large truck.

For HPMS, States provide annual average daily traffic (AADT) on all Federal-aid highway sections. The data are based on traffic counts taken at least once every three years on the National Highway System, Interstate, and Principal Arterials and at least once every six years on Minor Arterials and Collectors. Traffic counts are adjusted by the States to reflect day-of-week and seasonal variations, current year conditions, and axle corrections, as necessary. States provide summary data on the local and rural minor collector roads. The AADTs from HPMS are used as a baseline for the TVT report, which compiles data from about 4,000 automated traffic recorders (ATRs) provided by the States on a monthly basis. Because both HPMS and TVT are based on samples of the traffic, there are associated sampling errors.

COMPLETENESS

FARS has been in use since 1975 and is accepted as a complete measure for describing safety on the Nation's roadways. Total annual fatalities are available through CY 2010 (CY 2011 projected estimates are available now). The MCMIS fatal crash data used in the calculation of Large Trucks are reported based on a subset of the Model Minimum Uniform Crash Criteria (MMUCC) used by FARS. Total annual fatalities are available from MCMIS through CY 2011 and partial data are available through December 2012.

VMT is complete through 2010. For 2011 and 2012, it is projected as a percentage of the total VMT projections. The final 2011 VMT number will be available in August 2013. The 2012 VMT estimate will be available by December 2013.

RELIABILITY

This measure informs and guides the following programs for FMCSA, NHTSA, and FHWA:

- Roadway safety policy;
- Safety program planning;
- Regulatory development;
- Resource allocation; and,
- Operational mission performance.

It also tracks progress toward the goal of saving lives and reducing injuries by preventing large truck and bus crashes.

Early indications show that fatalities have decreased while VMT have increased. The final result on the fatality rate will depend on several external factors which may include:

- The high price of fuel;
- The economic downturn;
- Changes in vehicle design;
- Guidelines for large truck/bus drivers;
- Increased walking, bicycling, and motorcycle riding; and,
- 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 2011 and beyond.

DETAILS ON DOT SAFETY MEASURES

COMMERCIAL AIR CARRIER FATALITY 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 U.S. passenger and cargo air carriers (14 CFR Part 121) and scheduled flights of commuter 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.

Note: Part 121 and Part 135 define how airlines can operate. Part 121 allows companies to act as scheduled airlines where they are allowed to run and publish a scheduled service. Part 135 allows airlines to run as charter companies.

SOURCES

The data on commercial fatalities come from the National Transportation Safety Board's (NTSB) Aviation Accident Database. The data for passengers on board are provided by air carriers, who submit information to the Office of Airline Information (OAI) within the Bureau of Transportation Statistics (BTS). FAA estimates 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. Crew on board is an estimate with a small range variation for any given make and model of aircraft. Departure data and enplanements for Part 121 are from the 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 7 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 come from BTS and Air Claims databases, but is not as complete. Staffers in the Office of Policy, International Affairs & Environment (APL) contact airline 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

NTSB and FAA's Office of Accident Investigation meet regularly to validate the accident and fatality count. Accident data are considered preliminary. NTSB usually completes investigations and issues reports on accidents that occur during any fiscal year by the end of the next fiscal year. Results are considered final when all those accidents have been reported in the NTSB press release (published by March 2013). FY 2011 results will therefore be final after the March 2013 NTSB press release. In general, however, fatal and serious injury accident numbers are not likely to change significantly between the end of the fiscal year and the date they are finalized.

The number of actual persons on board for any given period of time is considered preliminary for up to 18 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 APL. However, changes to the number of persons on board should rarely affect the annual fatality rate.

The FAA does comparison checking of the departure data collected by BTS. These data are 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).

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. The final result for the air carrier fatal accident rate is not considered reliable until BTS provides preliminary numbers. Due to reporting procedures in place, it is unlikely that calculation of future fiscal year departure data will be improved substantially. The lack of complete monthly historical data and independent sources of verification increases the risk of error in the activity data.

RELIABILITY

Results are considered preliminary since they are 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 legal 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.

GENERAL AVIATION FATAL ACCIDENT RATE (FAA)

MEASURE

Number of general aviation fatal accidents per 100,000 flight hours (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 including:

- Single-seat homebuilt aircraft;
- Helicopters;
- Balloons; and,
- All other aircraft, from single and multiple engine land and seaplanes to highly sophisticated extended range turbojets.

SOURCES

The data for general aviation accidents come from the National Transportation Safety Board's (NTSB) Aviation Accident Database. Aviation accident investigators with the assistance of the NTSB develop the data.

Annual flight hours are derived from the FAA's annual *General Aviation and Part 135 Activity Survey*. Current year estimates are provided by FAA's Forecast and Performance Analysis Division, APO-100.

STATISTICAL ISSUES

The NTSB determines the actual number of general aviation fatal accidents. Since this is a simple count of accidents, there are no statistical issues relevant to this data.

The survey data for activity are highly accurate with a percent-standard error of less than 1 percent. The general aviation community and the General Aviation Joint Steering Committee (GAJSC) of the Safer Skies initiative recommended 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, FAA, working with the General Aviation Manufacturers Association, the NTSB, and other aviation industry associations, has made many improvements to the survey. First, the sample size has significantly increased. Second, a reporting form 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, an improved survey was completed in FY 2004. This survey created, for the first time, a statistically valid report of activity on which the general aviation community could agree. Each year since 2004, significant improvements have been made which, in turn, substantially improved the accuracy of the data.

The GAJSC General Aviation Data Improvement Team has worked closely with the general aviation community and industry to develop this performance measure and target. There is unanimous support and consensus for the measure and target.

COMPLETENESS

The number of general aviation fatal accidents, even when reported as preliminary, is very accurate. NTSB and FAA's Office of Accident Investigation meet regularly to validate the accident count. NTSB usually completes investigations and issues reports on accidents that occur during any fiscal year by the end of the next fiscal year. Results are considered final when all those accidents have been reported in the NTSB press release, published by March 2014 at the latest for FY 2012. FY 2011 results will therefore be final after the March 2013 NTSB press release.

GA Survey calendar hours are finalized by October 31 of the following year.

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's direct involvement. FAA's own accident investigators and other FAA employees participate in all accident investigations led by NTSB investigators.

As mentioned above, the large sample for FAA's activity survey, along with the ease of data collection, produce highly accurate flight hour data. The low standard error which results ensures the reliability of these data.

DETAILS ON DOT SAFETY MEASURES

SERIOUS RUNWAY INCURSIONS RATE (FAA)

MEASURE

Rate of Category A and B runway incursions (most serious) per million operations

SCOPE

A runway incursion is any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle, or person on the protected area of a surface designated for the landing and takeoff of aircraft. They are grouped in three general categories: air traffic, pilot, or vehicle/pedestrian events. Runway incursions are reported and tracked at airports that have an operational air traffic control tower. Operations are defined as total takeoffs and landings.

The FAA tracks four categories of runway incursions—A, B, C, D—but includes only those with the highest risk of collision, Category A and B incursions, in the measure.

- Category A—Separation decreases to the point that participants take extreme action to narrowly avoid a collision.
- Category B—Separation decreases, and there is a significant potential for a collision.
- Category C—Separation decreases, but there is ample time and distance to avoid a collision.
- Category D—There is little or no chance of collision, but the definition of a runway incursion is met.

In FY 2002, FAA changed the focus of measurement for runway incursions from all incursions to those incursions with measurable risk of collision, Categories A and B. Since Category C and D incursions were not likely to lead to an accident or a significant risk of an accident, their inclusion in the previous total tended to mask true safety risk. The new metric reflects the focus of FAA's runway safety effort to reduce the rate of the incursions with demonstrable risk.

SOURCES

Air traffic controllers and pilots are the primary source of runway incursion reports. The data are recorded in the FAA Air Traffic Quality Assurance (ATQA) database, which has replaced the FAA National Incident Monitoring System. Preliminary incident reports are evaluated when received and evaluation can take up to 90 days.

STATISTICAL ISSUES

None.

COMPLETENESS

The data are typically not finalized for 90 days following the close of the fiscal year. Surface event reports are reviewed on a daily basis to determine if the incident meets the definition of a runway incursion. Runway incursions are a subset of the incident data collected and the completeness of the data are based on the reporting requirements and completeness for each of the incident types.

If the operations data are not up to date, these calculations must be revised. The rate may also need to be recalculated if runway incursions are reported late. Historical volume data have been changed over the last three years, resulting in adjustments to current baselines.

RELIABILITY

FAA uses performance data extensively for program management, personnel evaluation, and accountability in prioritizing its facility evaluations and audits. The data are also used to track daily progress on performance goals. Annual runway incursion incident data are used to provide a statistical basis for research and analysis and outreach initiatives. FAA verifies and validates the accuracy of the data through reviews of preliminary and final reports. Reconciliation of the databases is conducted monthly and anomalies are explored and resolved. In cases where major problems are identified, a request to resubmit is issued. The FAA conducts annual reviews of reported data and compares them with data reported from previous years.

NATURAL GAS AND HAZARDOUS LIQUID PIPELINE INCIDENTS (PHMSA)

MEASURE

The number of pipeline incidents involving death or major injury (CY).

SCOPE

Natural gas pipeline incidents are reportable under 49 CFR 191.15, and hazardous liquid pipeline incidents are reportable under 49 CFR 195.50. Both interstate and intrastate pipelines are subject to incident reporting requirements.

An injury is reportable if it requires inpatient hospitalization resulting from a failure in a pipeline system in which there is a release of a hazardous liquid, CO_2, or natural gas being transported. This includes operator employees, contractors working for the operator, other workers in the right of way, emergency responders, and the general public. If the person dies within 30 days of the incident date it is counted as a death, not as an injury. Inpatient hospitalization means hospital admission and at least

one overnight stay (detailed guidance is on the PHMSA website at www.phmsa.dot.gov).

SOURCES

DOT/Pipeline and Hazardous Materials Safety Administration (PHMSA) incident data are used. These data are derived from pipeline operator reports submitted on PHMSA Form F-7100.1 and F-7000.1. Most incidents are reported online through the PHMSA website.

STATISTICAL ISSUES

Results in any single year should be interpreted with caution. There is some normal annual variation in the number of reported incidents each year, particularly given the small number of these incidents, and this variation might not reflect real changes in the underlying risk.

Targets are presented as ranges to account for this variation. The target each year is set at one standard deviation from the trendline to account for normal variation year-to-year (which shows a decline of about 10 percent on average every three years over the past 24 years (1988–2010)). This provides about 80 percent probability of achieving the target if the risk continues to follow the trendline. An exponential trendline is used to reflect the concept of diminishing returns as the numbers decline.

The performance measure is not normalized for changes in exposure—external factors such as changes in pipeline mileage, energy consumption, or U.S. population—that could affect the number of incidents with death or major injury.

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 noncompliance. There may be a 30-to-60-day lag in reporting and compiling information in the database for analysis.

Projections from partial-year data include all months for which we have reliable data plus an estimated number for the missing months based on the historical fraction those months represent in the final totals over the past five years.

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 inspectors also regularly discuss incidents with operator personnel during routine inspections. PHMSA continues to work to improve Best Management Practices to ensure quality of the incident data.

HAZARDOUS MATERIALS TRANSPORTATION INCIDENTS (PHMSA)

MEASURE

The number of hazardous materials transportation incidents involving death or major injury (CY).

SCOPE

Hazardous materials transportation incidents are reportable under 49 CFR Parts 171.15 and 171.16. All modes of transportation (air, water, rail, and highway) except pipelines are covered. In maritime transportation, tank vessels (where the vessel itself is the container) are exempt from reporting. This measure is limited to transportation-related releases of hazardous materials that are in commerce.

An injury is reportable if a person receives an injury requiring admittance to a hospital as a direct result of a hazardous material—during the course of transportation in commerce (including loading, unloading, and temporary storage). This includes employees, emergency responders, and the general public. Hospitalization means admittance to a medical facility, not treatment and release from a facility such as a hospital emergency room where the person was never admitted to the hospital (detailed guidance is on the PHMSA website at www.phmsa.dot.gov).

SOURCES

DOT/Pipeline and Hazardous Materials Safety Administration (PHMSA) incident data are used. These data are derived from reports submitted on Form DOT F 5800.1 and maintained in the Hazardous Materials Information System (HMIS).

STATISTICAL ISSUES

Results in any single year should be interpreted with caution. There is some normal annual variation in the number of reported incidents each year, particularly given the small number of these incidents, and this variation might not reflect real changes in the underlying risk.

Targets are presented as ranges to account for this variation. The target each year is set at one standard deviation from the trendline to account for normal variation year-to-year (which shows a decline of about 10 percent on average every eight years over the past 24 years (1988–2011)). This provides about 80 percent probability of achieving the target if the risk continues to follow the trendline. An exponential trendline is used to reflect the concept of diminishing returns as the numbers decline.

The performance measure is not normalized for changes in exposure—external factors such as changes in the amount of hazmat shipped, number of shipments, or U.S. population—that could affect the number of incidents with death or major injury.

COMPLETENESS

Compliance in reporting is very high and most incidents that resulted in death or major injury are reported. Each person in physical possession of a hazardous material at the time an incident 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. There may be a 30-to-60-day lag in reporting, verifying, validating, and compiling information in the database for analysis.

Projections from partial-year data include all months for which we have reliable data plus an estimated number for the missing months based on the historical fraction those months represent in the final totals over the past five years.

RELIABILITY

PHMSA routinely cross-checks incident data against other sources of data, including matching incident reports with reports made to the National Response Center (NRC) and the use of a news clipping service to provide information on significant hazmat incidents that might not be reported. If sufficient information exists, PHMSA follows up with carriers and other responsible parties who may need to file an incident report.

Incidents with death or major injury are considered to be the most reliable of the incident data. These incidents have additional verification and validation procedures to include follow-up contact with the company or individual who made the report, contact with state and local law enforcement and/or emergency response officials, and matching data with initial reports made to the NRC.

TRANSIT FATALITY RATE (FTA)

MEASURE

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

SCOPE

Transit fatality data include passengers, revenue facility occupants, trespassers, employees, other transit workers (e.g., contractors), pedestrians, and others. A transit fatality is a death within 30 days of an incident related to transit revenue service. Excluded are deaths due to medical conditions or natural causes occurring on public transportation systems. Excluded are fatalities on commuter rail, the Alaska Railroad, and the Port Authority Trans-Hudson (PATH) trains, all of which are regulated by the Federal Railroad Administration.

Previous to 2002, safety data was collected on a fiscal year, as opposed to calendar year, basis.

SOURCES

These data are reported annually by operators of urbanized area transit systems to the FTA National Transit Database (NTD).

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 typically derived from reported passenger trips and average trip length. Passenger-miles are the cumulative sum of the distances ridden on passenger trips.

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 approximate 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 an FTA-approved sampling technique. To obtain passenger-mile data on rail systems, ferry boats, and paratransit, transit authorities often use computerized tracking systems, such as the Smart Card. In some cases, such as small fare-free systems or large free-transfer systems (e.g., the New York City subway), passenger-miles are sampled directly since a 100 percent count of unlinked passenger trips is not available. Validation based on annual trend analysis is performed on the passenger-mile inputs from the transit industry. The validation is performed by analysts at the NTD program.

COMPLETENESS

The NTD collects a census of transit fatalities from its reporters. A small number of urbanized area transit operators do not report to the NTD because they are neither a recipient nor a beneficiary of urbanized area formula program (Section 5307) funds, and also choose to not report to the NTD on a voluntary basis. These operators likely have few, if any, fatalities each year.

RELIABILITY

The transit agency's CEO certifies that data reported to the NTD are accurate. Submitted data are reviewed by analysts and compared to trend data for the transit system and to National benchmarks. Validation analysts also monitor published media reports of transit fatalities to ensure that all such incidents are ultimately reported to the NTD.

DETAILS ON DOT SAFETY MEASURES

RAIL-RELATED ACCIDENT AND INCIDENT RATE (FRA)

MEASURE

Number of rail-related accidents and incidents per million train-miles (FY).

SCOPE

The Railroad Safety Information System (RSIS) is FRA's principal repository for data relating to:

- Railroad accidents and incidents;
- Railroad inspections;
- Highway-rail grade crossings; and,
- Other rail safety-related information.

The Railroad Accident/Incident Reporting Subsystem (RAIRS) compiles rail-related accidents and incident data that railroads submit as required under 49 CFR Part 225. This subsystem contains approximately 35 years of data on railroad casualties, train accidents, highway-rail grade crossing collisions, and operating statistics.

A rail equipment (including train) accident is any collision, derailment, fire, explosion, act of God, or other event involving the operation of railroad on-track equipment (standing or moving) that results in damages greater than the current reporting threshold to railroad on-track equipment, signals, track, track structures, or roadbed. The reporting threshold for CY 2012 was $9,500. Reporting threshold for FY 2013 is $9,900. Train accidents are reported on form FRA F6180.54, "Rail Equipment Accident/Incident Report."

Operational data, including train-miles, are reported on form FRA F6180.55, "Railroad Injury and Illness Summary."

SOURCES

FRA's Railroad Accident/Incident Reporting Subsystem.

STATISTICAL ISSUES

None.

COMPLETENESS

Although railroads are generally required to report accidents and incidents within 30 days to FRA, FRA keeps its data files open for amendment for five years to capture late reports, audit findings, and other updates. As a result, FRA measures are subject to change and might differ from previous reports. A more detailed explanation of this process is available in FRA's Guide for Preparing Accident/Incident Reports found at http://safety-data.fra.dot.gov.

Federal regulation (49 CFR Part 225) requires railroads to file monthly reports to FRA of all train accidents that meet or exceed the specified calendar year dollar threshold ($9,500 in CY 2012). The railroads are also required to file monthly operations reports of train-miles, employee-hours, and passenger train-miles.

Accident/incident reports must be filed within 30 days after the end of the month in which the event occurred. Data must be updated if the costs of a particular accident are more than 10 percent higher or lower than the initially reported cost.

Data processing requires up to 30 days to prepare the information for merging into the database.

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);
- Track existing inside an industrial compound; and,
- Insular rail (e.G., Rail that is not connected to the general system and does not intersect with a public highway-rail grade crossing or go over a navigable waterway).

RELIABILITY

FRA uses the data in prioritizing its inspections and safety reviews and for strategic management of its rail safety program.

FRA inspectors review the railroads' reporting records and have authority to write violations if railroads are not reporting accurately and completely. Violations can result in monetary fines.

DETAILS ON DOT SAFETY MEASURES

COMPLETE STREETS (OST)

MEASURE

Number of States and localities that adopt roadway designs that accommodate all road users (Complete Streets).

SCOPE

A Complete Streets approach redefines what a street is intended to do, what goals transportation agencies are striving to meet, and how a community will spend its transportation money. It breaks down the traditional separation of "highways," "transit," and "biking/walking" and instead focuses on the desired outcome of a transportation system that supports safe and universally inclusive roadway use. The National Complete Streets Coalition has developed ten elements that define an "ideal" Complete Streets policy.

SOURCES

The data for this metric were taken from the report "Complete Streets Policy Analysis 2011," administered by Smart Growth America and the National Complete Streets Coalition (http://smartgrowthamerica.org/documents/cs/cs-policyanalysis.pdf). The report examines the approximately 350 existing written policies that have been adopted by States, regions, counties, and communities before January 1, 2012.

STATISTICAL ISSUES

Data are obtained from a source external from DOT.

While Smart Growth America and the National Complete Streets Coalition are deemed reliable, the methodologies used in their calculations have not been verified by DOT.

In the report "Complete Streets Policy Analysis 2011," the Complete Streets Coalition evaluates the extent to which a community is in compliance with their definition of a Complete Streets Policy. Points per policy element and weighted points are described on page 15. The methodology used by the Coalition to determine the weighting given to each element is described on page 29. The assignment of points is determined by staff evaluation rather than by a direct measurement.

COMPLETENESS

Data are assumed to be complete.

RELIABILITY

Data are assumed to be reliable.

DETAILS ON DOT STATE OF GOOD REPAIR MEASURES

HIGHWAY INFRASTRUCTURE CONDITION (FHWA)

MEASURE

The percent of travel on National Highway Systems (NHS) that meets pavement performance standards for a "good" rated ride (CY).

SCOPE

Data include Vehicle-Miles Traveled (VMT) 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 pavement. An IRI of 95 inches per mile or less is necessary for a good rated ride. VMT represents the total number of vehicle-miles traveled by motor vehicles on public roadways within the 50 States and the District of Columbia.

SOURCES

Data for this measure are collected by the State Highway Agencies using 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 from data collection equipment error and differences in data collection methodologies between the States.

States provide annual average daily traffic (AADT) on all Federal-aid highway sections. These data are based on traffic counts taken at least once every three years on the National Highway System, Interstate, and Principal Arterials and at least once every six years on Minor Arterials and Collectors. Traffic counts are adjusted by the States to reflect day-of-week and seasonal variations, current year conditions, and axle corrections, as necessary. States provide summary data on the local and rural minor collector roads. VMT is calculated from this traffic data.

COMPLETENESS

The 2011 actual results for this measure are based on 2011 data available as of November 2012. The projection for 2012 was made using the most recent trend data.

RELIABILITY

The HPMS data are collected by the 50 States and the District of Columbia 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 are 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 resubmittal is requested in cases where major problems are identified.

HIGHWAY BRIDGE CONDITION (FHWA)

MEASURE

The percent of deck area on expanded National Highway System Bridges rated structurally deficient (CY).

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's 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.

DETAILS ON DOT STATE OF GOOD REPAIR MEASURES

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 aresues 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 2012 actual results for this measure are reported based on 2011 data, which may not be complete until October of 2012.

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, the accuracy and reliability of the submitted NBI information is evaluated through data checks and field reviews by both Headquarters and field office personnel.

TRANSIT CAPITAL ASSETS BACKLOG (FTA)

MEASURE

Backlog of transit capital assets in need of replacement or refurbishment (as defined by an estimated condition rating of 2.5 or lower).

SCOPE

This measure includes all capital assets of the U.S. transit industry and, as such, incorporates all transit systems in the country both urban and rural. The replacement value of all U.S. transit assets is estimated at $663 billion, of which some $79 billion are currently in need of replacement or refurbishment (2010 Conditions and Performance Report to Congress). It is FTA's goal to try to reduce this backlog over time.

SOURCES

The size of the national state of good repair backlog is estimated by the Transit Economic Requirements Model (TERM) based on capital asset data from the National Transit Database (NTD) and other ad hoc capital asset surveys. Data on transit vehicles are reported annually to the NTD, but that represents only about one-quarter of the total value of transit assets. FTA updates other capital asset information included in the model on a periodic basis.

STATISTICAL ISSUES

This metric relies on a comprehensive database of transit assets most of which is reported by transit agencies, with some (at small agencies) being inferred from other data. The backlog is the sum of the replacement values of all assets that are determined to be past their average useful life expectancy. Calculation of average useful life is based on surveys of a limited number of assets that provide only a moderate level accuracy in the estimates and that are subject to obsolescence in an undetermined time frame.

COMPLETENESS

Most of the large, and many medium-sized, agencies have provided asset inventory data to the database that is used for this calculation. This has occurred over the last five years but may not include recent changes to the assets and may not have included consistent replacement cost data as there are several different ways to estimate replacement costs. Estimates for non-replaceable items, such as tunnels, are somewhat speculative.

RELIABILITY

The transit agency's CEO certifies that the vehicle data reported to the NTD are accurate. These data are reviewed by analysts and compared to trend data for the transit system and to National benchmarks. The other three-quarters of transit assets are not updated annually so are not as reliable.

RUNWAY PAVEMENT CONDITION (FAA)

MEASURE

Percent of runway pavement in excellent, good, or fair condition for paved runways in the National Plan of Integrated Airport Systems (NPIAS).

SCOPE

This metric covers all paved runways at federally funded NPIAS airports. Maintaining runway pavement conditions requires careful coordination, often years in advance, of a runway rehabilitation project. Projects must be timed precisely, regardless of whether they involve the phased reconstruction of a single-runway airport or the sequential resurfacing of multiple runways over a period of several years. Some of the nation's largest airports resurface one runway every year on a revolving basis. As a result, FAA is able at times to exceed the goal. However, this does not necessarily represent a sustainable trend. For major reconstruction, runways must typically be taken out of service for a full construction season or longer. It can be particularly challenging to rehabilitate one runway while keeping intersecting runways operational. FAA works with airports to ensure that the system never has too many runways out of service at any given time.

DETAILS ON DOT STATE OF GOOD REPAIR MEASURES

SOURCES

Results of the inspections are entered into FAA's National Airspace System Resource. FAA's Regional Airports Divisions and Airports District Offices partner with individual airports to identify poor or failed pavement. FAA's airport inspectors along with inspectors from state aeronautical agencies conduct visual inspections of the runways.

STATISTICAL ISSUES

As the measure is a census, statistical issues would be minimal and only exist in the case of misreporting or underreporting.

COMPLETENESS

The inspection and reporting of conditions are conducted in accordance with existing FAA guidance. The data are publicly available and therefore can be examined and evaluated by any federal auditor.

RELIABILITY

Data are considered to be reliable.

DETAILS ON DOT ECONOMIC COMPETITIVENESS MEASURES

TRAVEL TIME INDEX IN URBAN AREAS (FHWA)

MEASURE

Travel time reliability in urban areas as measured by the Travel Time Index (FY).

SCOPE

Data are from 19 urban areas in the U.S. The data reflect travel conditions on freeway networks that are outfitted with traffic sensors. Plans are under way to expand scope to include all 51 urban areas with populations over 1,000,000 during FY 2013. The TTI measures peak hour travel times versus average travel times to gauge the extent of peak hour congestion.

SOURCES

Data are collected and provided by the State DOT from existing databases, or through the Transportation Technology Innovation and Demonstration (TTID) public- private partnership. FHWA's Highway Performance Monitoring System (HPMS) provides related volume data. The Texas Transportation Institute utilizes these data sources under contract to FHWA to derive the above measure.

STATISTICAL ISSUES

The methodology used to calculate performance measures has been developed by the Texas Transportation Institute and used by FHWA in its Urban Congestion Report (UCR) program since 2007.

COMPLETENESS

The latest available volume data from HPMS was used to calculate the results. Typically, there is a lag in data availability of 12 to 18 months. For example, 2012 actual numbers will not be available from HPMS until October 2013.

RELIABILITY

The urban area traffic data are collected and maintained by the State DOT or local government. It is provided to the FHWA contractor, Texas Transportation Institute, on a monthly basis. Reliability has been an issue in the past. The UCR program had as many as 23 urban areas providing data, but due to local archive issues (e.g., loss of archiving equipment, poor maintenance), the number of urban areas providing reliable data was reduced to 19 the past few years.

The HPMS volume data are collected by the States in cooperation with local governments. 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 are conducted by the FHWA, both at the headquarters level and in the Division Offices in each State. All reported data are subjected to intense editing, 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 resubmittal is requested in cases where major problems are identified.

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. 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 onboard mobile commercial vehicles. A Global Positioning System (GPS) or other communication 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 2009, FHWA made progress in addressing the issues of sample size and the 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's location, direction, and speed.

DETAILS ON DOT ECONOMIC COMPETITIVENESS MEASURES

COMPLETENESS

FHWA is partnering with vendors that collect automatic vehicle information from a customer base, primarily with interstate long-haul carriers. The data provides nationwide coverage from approximately 500,000 vehicles (trucks and trailers) in the United States, Canada, and Mexico. The majority of the data are from fleets that have signals sent to vehicles with readings taken as often as every 15 minutes. The interval between probe readings depends on the subscription and which services the individual carriers have authorized. The intervals vary and may range from every two minutes to every two hours.

The following data are transmitted:

- Truck id;
- Latitude;
- Longitude;
- Date and time; and,
- Interstate route.

In FY 2009, FHWA enhanced the completeness of the data set by adding two additional vendors. This increases the percentage of local 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 gather the information for this measure. On average, the data set produces more than 340,000,000 truck positions monthly and more than 4,000,000,000 positions annually.

RELIABILITY

Probe vehicle performance systems are designed to provide travel time and speed/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.

IMPROVED INTERCITY PASSENGER RAIL SERVICE (FRA)

MEASURE

Construction initiated on seven high-speed rail corridors and 36 high-speed rail projects (FY).

SCOPE

Through the High-Speed Intercity Passenger Rail (HSIPR) Program, FRA provided funding for construction projects to improve passenger rail services around the country. These projects are categorized as follows:

- Corridor programs—A corridor program is defined as a set of interrelated capital projects that will result in the introduction of new or substantially improved high-speed or intercity passenger rail services.
- Individual projects—For the purposes of this goal, an individual project is defined as (1) a discrete project not connected to a larger corridor program that will result in service benefits or other tangible improvements and (2) a corridor program with a total cost below $100 million.

This measure has a completion date of September 30, 2013.

SOURCES

Quarterly HSIPR Project Status Tracker and quarterly progress reports.

STATISTICAL ISSUES

There are no statistical issues identified at this time. As data continue to be collected and updated, this metric will be reexamined and statistical issues identified as necessary.

COMPLETENESS

The HSIPR Project Status Tracker is an internal tool updated quarterly by FRA staff based on project status information provided by project sponsors and FRA's contractors supporting the agency in monitoring projects. The Tracker categorizes construction projects into one of the four following statuses:

- Construction Complete—all major construction objectives are complete;
- Construction Underway—grantee reports that construction has begun;
- Construction Starts Within Six Months—estimate by project sponsors and FRA staff based on project schedule and progress; or,
- No Construction Planned in Six Months—estimate by project sponsors and FRA staff based on project schedule and progress.

RELIABILITY

These data are assumed to be reliable.

AVERAGE DAILY AIRPORT CAPACITY (CORE AIRPORTS) (FAA)

MEASURE

Average daily airport arrival and departure rates at the Core Airports.

SCOPE

Only the Core Airports are included in this metric. Each airport facility determines the number of arrivals and departures it can handle for each hour of each day, depending on conditions, including weather. These numbers are the called arrival and departure rates of the airport for that hour. Data are summed for daily, monthly, and annual totals. (Note: In FY 2011, FAA revised the Average Daily Airport Capacity measure to include a new set of airports, renamed "Core Airports," which replace the original 35 Operational Evolution Partnership airports. The revised list of airports includes the current most congested airports in the country.)

SOURCES

The Aviation System Performance Metrics (ASPM) database, maintained by the FAA's Office of Aviation Policy and Plans, provides the data for this metric. The individual air traffic facilities for the Core Airports provide arrival and departure rates. Staffers in the Office of Policy, International Affairs and Environment (APL) feed this information into the ASPM database.

STATISTICAL ISSUES

None.

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 more than 1,500 registered users.

ADJUSTED OPERATIONAL AVAILABILITY (FAA)

MEASURE

Percentage of hours operational availability for the reportable facilities that support the Core Airports during the maximum facility/service hours at those airports.

SCOPE

The National Airspace Performance Reporting System (NAPRS) facilities necessary to maintain the provision of service in the NAS overall have been determined and are monitored. For this metric, those NAPRS reportable facilities necessary for the provision of service at the Core Airports have been separately measured. Time out of service is adjusted to exclude hours when equipment is unavailable due to scheduled improvement (cause code 62) downtime.

SOURCES

The National Airspace System Performance Analysis System (NASPAS). NASPAS was developed to analyze outages of the air traffic control facilities in the NAS maintained by the FAA. NASPAS receives monthly updates of outage data from the National Outage Database (NODB). The Remote Monitoring and Logging System contains individual equipment outage data as recorded by the system specialist.

STATISTICAL ISSUES

None.

COMPLETENESS

The FAA's Quality Assurance and Performance Team, under ATO-W, conducts a monthly review of all Log Interrupt Reports that are entered into the Remote Monitoring and Logging System to ensure the data, which resides in the NODB, are as complete and accurate as possible.

RELIABILITY

NASPAS is the official source of equipment and service performance data for the FAA.

DETAILS ON DOT ECONOMIC COMPETITIVENESS MEASURES

EN ROUTE AUTOMATION MODERNIZATION (ERAM) (FAA)

MEASURE

Number of continental U.S. Air Route Traffic Control Centers that achieve initial operating capability (IOC) on En Route Automation Modernization (ERAM).

SCOPE

This metric measures the ATO success in achieving IOC on ERAM at ARTCCs (Air Route Traffic Control Centers). The ERAM System replaces the 40-year-old En Route HOST Computer System used to manage high-altitude air traffic.

SOURCES

Declaration of IOC is an event that is closely coordinated across ATO lines of business. It is communicated to the ERAM program office and other ATO lines of business by facility managers and members of the ERAM facility team. Close coordination and communication is maintained across these stakeholder groups in the period leading up to, resulting in, and following the declaration of IOC.

STATISTICAL ISSUES

This metric has no statistical issues.

COMPLETENESS

The decision to declare IOC at a site includes the following, as articulated as part of the Benchmarking Standard Operating Procedure (SOP) for ERAM:

- Entrance Criteria—An IOC event is collaboratively endorsed by the ERAM Article 48/11 Work Group (consisting of FAA management and bargaining unit representatives).
- Site personnel identified in the IOC Readiness Checklist (air traffic manager, technical operations manager, district manager, program operations field manager, and the NATCA FAC representative) assess software viability via the exit briefing, planning the purpose, strategy, and length of the operational run, and coordination of the operational run strategy with the appropriate local and national stakeholders.
- Approval to proceed with an operational run is shared by the ATM and NATCA facility representative after input from site technical operations and field automation support team and external affected parties including but not limited to terminal, military, and air carriers.
- IOC is achieved when the site begins the first operational run.

RELIABILITY

This metric has no reliability issue. The ARTCC either achieves IOC on ERAM, or it does not.

DETAILS ON DOT GLOBAL CONNECTIVITY MEASURES

SAINT LAWRENCE SEAWAY SYSTEM AVAILABILITY (SLSDC)

MEASURE

The percent of days in the shipping season that the U.S. portion of the Saint Lawrence Seaway is available (FY).

SCOPE

The availability and reliability of the U.S. sectors of the Saint Lawrence Seaway (including the two U.S. Seaway locks in Massena, NY) 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 by:

- 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

SLSDC is the agency responsible for the operation and maintenance of the U.S. portion of the Saint Lawrence Seaway. Furthermore, 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 are 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 to late December). Unfortunately, due to reporting timelines, system availability data are 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 ECONOMIC COMPETITIVENESS MEASURES

COMMERCIAL SEALIFT CAPACITY (MARAD)

MEASURE

Ships available to meet DOD's requirements for commercial sealift capacity (as measured by the number of ships contractually enrolled in the maritime security program).

SCOPE

The Maritime Security Program (MSP) was established to ensure that a core fleet of U.S.-flag commercial vessels operating in U.S. international trade with U.S. citizen mariner crews would be available to meet the economic needs of the United States while also providing the Department of Defense (DOD) with assured access to vessels and mariners. The Maritime Security Act of 2003 establishes the MSP fleet for fiscal years 2006 through 2015. The program authorizes payments and MSP operating agreements for 60 ships. MARAD monitors MSP ships on a monthly basis to ensure that ships are available to meet the economic and national security requirements of DOD.

SOURCES

Ships enrolled in the MSP have signed MSP Operating Agreements which require MSP participants to have ships enrolled in an Emergency Preparedness Agreement to support DOD requirements. MSP operators also have signed Voluntary Intermodal Sealift Agreements (VISA) for dry cargo vessels and Voluntary Tanker Agreements with MARAD. Any requests to leave the MSP must be approved by MARAD in consultation with the U.S. Transportation Command.

STATISTICAL ISSUES

None.

COMPLETENESS

The number of ships enrolled and available is tracked and managed on a regular basis, and considered final by the end of the fiscal year.

RELIABILITY

The data are reasonably reliable and useful in managing the MSP.

COMMERCIAL SEALIFT CAPACITY (MARAD)

MEASURE

Operating days in the U.S. foreign commerce and available to meet DOD's requirements (as measured by the number of ship operating days that ships enrolled in the Maritime Security Program (MSP) were actually operating in U.S. foreign commerce).

SCOPE

As a requirement for full MSP payments, ships must operate a minimum of 320 days each fiscal year. This equates to 19,200 operating days each fiscal year for the 60-ship MSP fleet.

SOURCES

MSP operators provide MARAD with monthly vouchers detailing the days of operation for each MSP vessel. Days of non-operation are also reported.

STATISTICAL ISSUES

None.

COMPLETENESS

Data are complete. Final fiscal year results were made available in October.

RELIABILITY

Because of the monthly vouchers and independent verification by MARAD using available vessel operating databases, these data are reliable.

DETAILS ON DOT ECONOMIC COMPETITIVENESS MEASURES

AMERICA'S MARINE HIGHWAY (MARAD)

MEASURE

Number of Twenty Foot Equivalent (TEU) containers transported across America's Marine Highway corridors.

SCOPE

MARAD's baseline measure of performance for the AMH program is volume of containers, or TEUs, moved by grant-program-assisted services. The container TEU metric is an indicator of direct grant-related program performance and permits further downstream calculation of program benefits. In addition, all program grant agreements contain "volume of containers or TEUs transported" as the primary performance measurement criterion, which they are required to report to MARAD on a regular basis. As a note, TEU activity includes the shipment of empty containers and loaded containers. The benefits of moving a container over Marine Highway as opposed to truck or rail are similar regardless of whether the container is loaded or empty.

SOURCES

The Maritime Administration's data are derived from quarterly reports submitted by the Marine Highway grantees.

STATISTICAL ISSUES

None.

COMPLETENESS

Final fiscal year results were made available in November.

RELIABILITY

The data are reasonably reliable and are submitted quarterly by Marine Highway grant recipients to MARAD. Data received are tracked and a trend analysis for the data are maintained, seeking to identify seasonality slumps and anomalies in reporting. Unusual or erratic reports are returned to the grantee and questioned for correctness.

UNITED STATES MERCHANT MARINE ACADEMY (MARAD)

MEASURE

Number of U.S. Merchant Marine Academy (USMMA) graduates.

SCOPE

This measure identifies the number of highly qualified mariners who graduate on an annual basis to contribute to maintaining the nation's pool of skilled merchant mariners, and available for service during national emergencies, to support strategic sealift, and serve the Nation's commercial maritime transportation needs.

SOURCES

Registrar; verified/cross checked with Midshipmen Personnel Office.

STATISTICAL ISSUES

None.

COMPLETENESS

Data are complete by the end of the fiscal year.

RELIABILITY

The data are reliable according to the Registrar and Midshipmen Personnel Office. Data are verified by the Acting Deputy Superintendent.

DETAILS ON DOT ECONOMIC COMPETITIVENESS MEASURES

STATE MARITIME ACADEMY PROGRAM (MARAD)

MEASURE

Number of State Maritime Academy graduates with merchant mariner credentials graduating annually.

SCOPE

This measure is based upon the number of U.S. Coast Guard (USCG) credentialed graduates annually from the six State Maritime Academies (SMA's). These young men and women graduate after receiving essential on-the-job training and a maritime education with the necessary qualifications to crew merchant vessels.

This measure identifies the number of highly qualified U.S. Coast Guard (USCG) credentialed mariners who graduate on an annual basis from the six State Maritime Academies (SMAs) to contribute to maintaining the nation's pool of skilled merchant mariners, and to be available for service during national emergencies, to support strategic sealift, and to serve the Nation's commercial maritime transportation needs. This program supports the competitiveness of a viable and robust merchant marine, and contributes to national defense, homeland security, and economic competitiveness.

SOURCES

The total number of graduates per academy is provided by the registrars from the six State Maritime Academies.

STATISTICAL ISSUES

None.

COMPLETENESS

Data are complete. The State Maritime Academies have up to three graduations a year, sometimes as late as November. Therefore, final results on the number of graduates by fiscal year are not final until the end of December.

RELIABILITY

The data are reasonably reliable according to the information received from the SMAs.

NAS ON-TIME ARRIVALS (FAA)

MEASURE

Percent of all flights arriving no more than 15 minutes late.

SCOPE

A flight is considered on time if it arrives no later than 15 minutes after the 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 a carrier's filed flight plan rather than the published schedule, which may be dated.

The time of arrival of completed passenger flights to and from the Core Airports is compared to their flight plan scheduled time of arrival. For delayed flights, delay minutes are subtracted from the total minutes of delay to determine lateness. Such delay minutes include:

- Delay minutes attributable to extreme weather;
- Carrier-caused delay;
- Security delay; and,
- Share of delay minutes due to a late-arriving flight at the departure airport.

If the flight is still late, it is counted as a delayed flight attributed to the National Aviation System (NAS) and the FAA.

SOURCES

The ASPM database, maintained by the FAA's Office of Aviation Policy and Plans, and the DOT's ASQP causation database, provide the data for this metric. By agreement with the DOT, certain major air carriers file ASQP flight data for all flights to and from most large and medium hubs. Flight records contained in the Traffic Flow Management System (TFMS) and flight movement times provided by Aeronautical Radio, Inc. (ARINC) supplement the flight data.

STATISTICAL ISSUES

Data are not reported for all carriers; only 20 carriers report monthly into the ASQP reporting system.

COMPLETENESS

Fiscal year data are finalized approximately 90 days after the close of the fiscal year.

DETAILS ON DOT ECONOMIC COMPETITIVENESS MEASURES

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 more than 1500 registered users. ASQP data are 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.

ECONOMIC AUTHORITY FOR AIR CARRIERS TO OPERATE (OST)

MEASURE

Review air carriers to ensure they meet the requisite standards for obtaining or retaining economic authority to operate.

SCOPE

DOT is authorized to review airlines' economic authority to ensure that newly formed airlines and existing airlines do not place American consumers at risk. DOT uses a three-party test to determine whether airlines are "fit, willing and able" to operate. Specifically, DOT analyzes whether an airline:

- Will have (or has) the managerial skills and technical ability to conduct the proposed (or existing) operations;
- Will have (or has) sufficient financial resources to commence the operations proposed (or continue its current operations) without posing an undue risk to consumers or their funds; and,
- Will comply (or complies) with the Transportation Code and regulations imposed by Federal and State agencies.

SOURCES

Applicants requesting new economic authority from the Department submit their applications to the Department of Transportation Dockets (Dockets) through www.regulations.gov. Dockets routes the appropriate applications to the Office of Aviation Analysis in OST for processing. For continuing fitness reviews, certificated and commuter air carriers submit the necessary information regarding their ownership, citizenship, financial condition, management, and compliance disposition directly to the Office of Aviation for a redetermination of fitness. The Office of Aviation Analysis then sums the number of applicants that have received economic authority from the Department in a given year with the number of completed continuing fitness reviews during that same year to generate the actual completed strategic action items.

STATISTICAL ISSUES

As DOT measures the number of completed reviews on new airlines requesting initial economic authority and on existing airlines holding economic authority, there are no current statistical issues as it is a raw count. In order to calculate the total number of reviews completed in a given fiscal year, DOT adds the number of issued final decisions for new airlines to the number of issued letters finding existing airlines remaining "fit." For FY 2012, DOT issued eight airlines new economic authority and issued 19 airlines "continuing fitness approval" letters, for a total of 27 completed reviews.

COMPLETENESS

In FY 2012, DOT completed 27 reviews of airlines' economic authority, exceeding its target by nine reviews.

RELIABILITY

Data are reliable.

INTERNATIONAL AVIATION (OST)

MEASURE

Reach three or more bilateral or multilateral agreements to remove market distorting barriers to trade in transportation.

SCOPE

One of DOT's key missions is to negotiate liberalized, bilateral aviation agreements that result in increased air service opportunities and lower fares for consumers.

SOURCES

These negotiations require DOT, in cooperation with the Department of State, to conduct formal international meetings with foreign government counterparts with the goal of achieving less restrictive agreements and, ultimately, "Open Skies" agreements.

STATISTICAL ISSUES

Data collection is a manual process involving regular updating of OST's internal tracking device (spreadsheet) and updating OST's external website.

COMPLETENESS

The data are as complete as possible and under the supervision of OST.

RELIABILITY

The data are reliable.

DETAILS ON DOT ECONOMIC COMPETITIVENESS 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

New data reports will come directly from the Federal Procurement Data System (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 into the FPDS database. The FPDS website can be queried to compute all needed statistics.

All USDOT contracts are itemized.

STATISTICAL ISSUES

DOT is currently required to examine FPDS/NG data and resubmit it for validation. After re-verifying these data against internal sources, all known major errors in the data are eliminated. Business types are 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 (SBA), and others. Performance goals follow actual data, as finalized by the SBA, and are the only reliable basis for program evaluations as mandated by the Small Business Act, Section 644(g).

DETAILS ON DOT LIVABLE COMMUNITIES MEASURES

STATES WITH POLICIES TO IMPROVE TRANSPORTATION CHOICES (FHWA)

MEASURE

Number of States with policies that improve transportation choices for walking, wheeling, and bicycling (FY).

SCOPE

This measure is assessed by monitoring the States to determine if any have enacted new policies related to transportation choices. A list of States with such policies is maintained by FHWA and the list is adjusted when new policies are enacted by a State legislature or adopted by a State DOT. The policies typically require that agencies design transportation facilities that support safe travel by all road users regardless of age or ability, including pedestrians, bicyclists, transit riders, drivers, and freight. State policies that improve transportation choices for walking, wheeling (a term that refers to individuals who use or must use wheelchairs, scooters, or other assistive wheeled devices), and bicycling are also referred to as Complete Streets policies. The basic concept is that the policies ensure that the safety and transportation needs of all road users are considered in transportation projects. These policies place particular emphasis on non-motorists such as walkers and bicyclists.

SOURCES

FHWA monitors State policies and maintains a list of States that have enacted or adopted such policies that is updated when any change occurs.

STATISTICAL ISSUES

Not applicable.

COMPLETENESS

There are no issues related to completeness. The list, which is maintained by FHWA, is updated as soon as a State enacts a new policy.

RELIABILITY

FHWA uses the results for this measure as one way of determining whether State DOTs are working to support the key principles of the Partnership for Sustainable Communities, which include: (1) Providing more transportation choices and (2) valuing communities and neighborhoods.

STATES WITH ADA TRANSITION PLANS (FHWA)

MEASURE

Number of States that have developed an Americans with Disabilities Act (ADA) transition plan that is current and includes the public rights-of-way (FY).

SCOPE

ADA transition plans are required by law and regulation. State and local governments with 50 or more employees are required to perform a self-evaluation, or inventory, of their current services, practices, and facilities such as curb ramps and sidewalks that do not or may not meet ADA requirements. The transition plan, which follows this self-evaluation, describes in detail the methods that will be used to make the public entity's facilities accessible. The plan also specifies the schedule for taking the steps necessary to achieve compliance, which are prescribed in 28 CFR 35.150(d).

SOURCES

Division Offices responses are based on the triennial Civil Rights Program Assessment (CRPA) and the first set of progress reports (i.e., how States are addressing deficiencies identified by the CRPA). A total of 29 states and the District of Columbia were required to complete the CRPA in FY 2010; the remaining 20 States and Puerto Rico were required to complete the CRPA in FY 2011.

STATISTICAL ISSUES

Not applicable.

COMPLETENESS

Transportation agencies from all 50 States, the District of Columbia, and Puerto Rico reported.

RELIABILITY

Although the CRPAs conducted in FY 2010-11 were self-reported, the reliability of the CRPA is high with respect to the ADA transition plan measure. Transition plans are easily obtained for FHWA internal review, and must be made available to the public, e.g., posted at a State Transportation Agency's website. The criteria for determining whether or not a State is in compliance with the ADA transition plan regulations are among the more clearly defined ones, and are not subject to significant interpretation.

DETAILS ON DOT LIVABLE COMMUNITIES MEASURES

TRANSIT BOARDINGS IN URBANIZED AREAS (FTA)

MEASURE

The number of transit boardings reported by urbanized area transit providers.

SCOPE

This metric includes all passenger boardings from the approximately 750 urbanized area transit systems in the U.S. that report annually to the National Transit Database (NTD).

SOURCES

Each transit system reports total boardings on all the transit modes they operate to the annual module of the NTD.

STATISTICAL ISSUES

Data are reported by the individual transit systems at the end of their fiscal years. All transit systems that receive or benefit from FTA's Urbanized Area Formula Grants are required to report to the NTD. Although FTA requires a 100 percent count of boardings to be reported whenever possible, not every system has a 100 percent count available. In particular, several large subway systems with free transfers still rely on statistical sampling data to estimate the number of boardings each year.

Since transit agencies operate on different fiscal years, the data do not represent a concurrent period of time. With year-end reporting from June 30 through December 31, the metric represents an 18-month period; so events may not impact ridership equally at all agencies.

COMPLETENESS

This measure includes almost all U.S. urban transit systems. However, there are a few that neither receive nor benefit from FTA Urbanized Area Formula Grant funds and choose not to report on a voluntary basis. These systems are estimated to be very small, and do not have a significant impact on the total number of boardings.

RELIABILITY

The transit agency's CEO certifies that data reported to the NTD are accurate. Submitted data are reviewed by analysts and compared to trend data for the transit system and to National benchmarks. Since these data are used to apportion grant funds, FTA carefully validates the submitted data. Occasional reporting errors may remain undetected.

TRANSIT BOARDINGS IN RURAL AREAS (FTA)

MEASURE

Number of transit boardings reported by rural area transit providers.

SCOPE

This metric includes passenger boardings from rural transit systems in every state and territory, as well as in many tribal areas. More than 1,000 U.S. rural transit systems report to the National Transit Database (NTD).

SOURCES

Each transit system reports total boardings on all the transit modes they operate to the rural module of the NTD.

STATISTICAL ISSUES

Data are reported by the individual transit systems at the end of their fiscal years. All transit systems that receive or benefit from FTA's Rural Area Formula (5311) Grants are required to report to the NTD. The quality of this metric is largely reliant upon the quality of the data collected and submitted by the individual transit systems.

Although FTA requires a 100 percent count of boardings to be reported whenever possible, not every system has a 100 percent count available. In particular, some smaller bus systems still rely on statistical sampling data to estimate the number of boardings each year.

Since transit agencies operate on different fiscal years, the data do not represent a concurrent period of time. With year-end reporting from June 30 through December 31, the metric represents an 18-month period; events may not impact ridership equally at all agencies.

COMPLETENESS

This measure includes most U.S. rural transit systems. However, there are a few that neither receive nor benefit from FTA Rural Area Formula Grant funds and thus are not required to report to the NTD.

RELIABILITY

The transit agency's CEO certifies that data reported to the NTD are accurate. Submitted data are reviewed by analysts and compared to trend data for the transit system and to National benchmarks. Since these data are used to apportion grant funds, FTA carefully validates the submitted data. Reporters often lack technical resources and sophistication. Occasional reporting errors may remain undetected.

DETAILS ON DOT LIVABLE COMMUNITIES MEASURES

TRANSIT "MARKET SHARE" (FTA)

MEASURE

Transit "market share" among commuters to work in the 50 most populous urbanized areas compared to the 2010 baseline.

SCOPE

This metric indicates the relative share of transit as the transportation choice of commuters in the 50 largest U.S. Urbanized Areas (defined by population in the 2010 Census). It reports the number of these cities that show a statistically significant increase in transit mode share minus the number of cities that show a statistically significant decrease relative to the 2011 baseline. These 50 systems account for more than 90 percent of all transit boardings in the U.S.

SOURCES

This metric relies on American Community Survey three-year data for workers over the age of 16, at the 90 percent confidence level. The Census Bureau collects annual data on mode of transportation to work for workers over the age of 16 as part of its ongoing American Community Survey. Survey numbers are aggregated into three-year rolling averages to increase sample size and thus statistical accuracy.

STATISTICAL ISSUES

The American Community Survey (ACS) is a continuous monthly survey that collects the data historically collected by the decennial Census long-form sample. ACS samples approximately three million housing unit addresses, in all counties and county equivalents in the 50 states, the District of Columbia, and Puerto Rico.

To improve accuracy, several years of ACS sample are pooled together to create "period" estimates. The first estimates based on three years of pooled ACS data were published in 2008 for all areas with a population of at least 20,000 using data from 2005 through 2007.

Small changes in transit market share from one survey release to the next often fall within the survey's statistical margin of error. This metric counts the number of cities for which the change in transit market share from the 2010 survey release to the current survey release falls outside the statistical margin of error.

COMPLETENESS

This measure only includes the 50 largest urbanized areas. The urbanized areas studied contain approximately 46 percent of the Nation's population.

RELIABILITY

Census Bureau data are highly reliable but represent a relatively small sample of commuters and questions used may not fully capture the extent of transit use. For example, the survey is only filled out for workers over the age of 16.

AMERICANS WITH DISABILITIES ACT (ADA)-COMPLIANT RAIL TRANSIT STATIONS (FTA)

MEASURE

Number of key rail transit stations verified as accessible and fully compliant.

SCOPE

This measure includes all key stations at U.S. transit agencies that operate rail systems. FTA monitors the progress transit agencies have made toward ensuring that all their key rail stations are compliant with the ADA. Of the 3,175 rail transit stations, a subset are considered to be key stations based on their location at main transfer points or at the end of a line. In 2010 these stations were 95 percent compliant.

SOURCES

Data are reported annually by rail transit operators to the FTA Office of Civil Rights.

STATISTICAL ISSUES

This measure is a census of a finite number of stations of which all characteristics are known; at this time there are no known statistical issues.

COMPLETENESS

This is a comprehensive annual review of key rail transit stations. This is a subset of all rail stations established by law.

RELIABILITY

Each transit agency's CEO certifies, in an annual letter to the FTA, which stations are accessible.

DETAILS ON DOT LIVABLE COMMUNITIES MEASURES

INTERCITY RAIL PASSENGER-MILES TRAVELED (FRA)

MEASURE

Number of intercity rail passenger-miles traveled (FY).

SCOPE

This measure reports passenger-miles traveled on intercity passenger rail services. Amtrak currently operates all intercity passenger rail services in the United States, including the Northeast Corridor, State Corridor, and Long-Distance services, as well as Special Trains. This measure does not report passenger-miles traveled on contract commuter services or commuter services operating over infrastructure owned by Amtrak. Should other intercity passenger rail operators initiate service in the United States, this measure will also include passenger-miles traveled on those services.

SOURCES

Amtrak's fiscal year-end *Train Earnings Report*.

Note: Sources for additional operators will be determined as needed.

STATISTICAL ISSUES

There are no statistical issues identified at this time. As data continue to be collected and updated, this metric will be reexamined and statistical issues identified as necessary.

COMPLETENESS

Amtrak's *Train Earnings Report* provides summary ridership, revenue, and operations data by route. The report is produced monthly by Amtrak's finance department.

RELIABILITY

Data are assumed to be reliable.

AMERICANS WITH DISABILITIES ACT (ADA)-COMPLIANT RAIL STATIONS (FRA)

MEASURE

Increase the percentage of rail stations (where Amtrak is responsible for compliance) that are compliant with the ADA and Sec. 504 of the Rehabilitation Act of 1973 (FY).

SCOPE

Amtrak is responsible for compliance with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973 at approximately 390 of the more than 500 stations it serves. Amtrak is managing this requirement through the Accessible Stations Development Program (ASDP).

Compliance efforts at a station are determined to be complete when either:

- Amtrak's station reassessment process (currently under way) determines that no further work is necessary, or,
- Major work elements defined as being necessary for achieving ADA compliance in the ASDP are complete and Amtrak signs off on substantial completion.

SOURCES

Amtrak's Accessible Stations Development Program updates FRA oversight reports.

STATISTICAL ISSUES

There are no statistical issues identified at this time. As data continue to be collected and updated, this metric will be reexamined and statistical issues identified as necessary.

COMPLETENESS

As a result of limited oversight funding, FRA conducts limited reviews of Amtrak's progress.

As described in Amtrak's August 2012 letter providing a status update on the ASDP to the Secretary of Transportation and House and Senate authorizing committee chairmen and ranking members, insufficient appropriations and recent Department of Transportation regulations and guidance have resulted in delays in Amtrak's implementation of its ASDP plan. Progress reports are provided periodically; however, completing comprehensive plan updates will not be possible until a reassessment of current station compliance is complete. A comprehensive compliance report is therefore not available at this time.

RELIABILITY

The number of stations included within the ASDP is subject to fluctuation as a result of modifications to ownership and leasing arrangements, as well as variations in the ability and willingness of station owners to support work to establish compliance.

DETAILS ON DOT ENVIRONMENTAL SUSTAINABILITY MEASURES

NAS ENERGY EFFICIENCY (FAA)

MEASURE

NAS energy efficiency (measured by fuel burned per miles flown).

SCOPE

Measuring and tracking fuel efficiency from aircraft operations allows FAA to monitor improvements in aircraft/engine technology and operational procedures, and enhancements in the airspace transportation system.

SOURCES

FAA measures performance against this target using the Aviation Environmental Design Tool (AEDT). AEDT is an FAA-developed computer model that estimates aircraft fuel burn and emissions for variable year emissions inventories and for operational, policy, and technology-related scenarios. The model uses radar-based data from the Enhanced Traffic Management System (ETMS) and Official Airline Guide (OAG) schedule information to generate annual inventories of fuel burn and total distance flown data for all U.S. commercial operations.

STATISTICAL ISSUES

Potential seasonal variability and variability from year to year can be expected when analyzing air traffic data and commercial operations.

The extent to which enhancements are incorporated to improve model accuracy—for example, via more robust aerodynamic performance modeling algorithms and database of aircraft/engine fuel burn information—will impact the overall results and thus the performance target. This could create some statistical variability from year to year if not properly taken into account. In cases where such enhancements have the potential to create a significant shift in baseline, annual inventories may need to be reprocessed and/or adjusted to ensure consistency and accuracy of results.

The extent to which aircraft fleet improvements cannot be sufficiently modeled because of a lack of manufacturer proprietary data may also influence the performance target results. In this case, attempts will be made to characterize such aircraft with the best publicly available information, recognizing that newer aircraft types in the fleet will likely exist in significantly lesser numbers, thus minimizing the influence upon the results.

COMPLETENESS

Data used to measure performance against the target are assessed for quality control purposes. Input data for the AEDT model are validated before proceeding with model runs. Radar data from the ETMS are assessed to remove any anomalies and check for completeness, and pre-processed for input to the AEDT model. ETMS data are verified against the OAG information in order to avoid any duplication of flights in the annual inventory.

In some cases, ETMS data lack appropriate fields to conduct quality control and in these cases the data are removed. Data from the AEDT model are verified by comparing output from previous years and analyzing trends to ensure that they are consistent with expectations. In other cases, monthly inventories may be analyzed to validate the results. Model output is subsequently post-processed through spreadsheets to perform the calculations for the performance target. Formulae and calculations are checked in order to ensure accuracy.

Full documentation of this target is determined when the annual inventories have been accomplished and the post-processing calculations have been completed, resulting in a percentage reduction in fuel consumption per miles flown (or increase in fuel efficiency) relative to the baseline. The standard for this documentation is set by FAA's Office of Environment and Energy, which is separate from the organization (DOT Volpe National Transportation Systems Center) responsible for input and output associated with the AEDT model runs and annual inventories.

RELIABILITY

The measuring procedure used for this performance target is highly reliable. That is to say that the processing of data through the AEDT model including the performance of algorithms is not subject to random factors that could influence the results. However, as mentioned above, this performance target is potentially influenced by factors outside the control of FAA.

We do not expect increases in fuel burn or decreases in distance traveled or both to degrade the fleet fuel efficiency significantly. Further, we do not expect this to prevent us from meeting the FY 2012 target. However, we do expect that in the future, aircraft and engine technology improvements or air traffic management improvements or both may not be enough to offset traffic growth, congestion, and delays. In addition, the current metric for measuring and tracking fuel efficiency may not adequately capture performance to the degree that would allow future decisions on technological and operational considerations. As we continue to review the impact of improvements on air traffic management and changes in operational trends, we will also assess the need for revised performance metrics for future targets.

DETAILS ON DOT ENVIRONMENTAL SUSTAINABILITY MEASURES

AIRCRAFT NOISE (FAA)

MEASURE

Number of persons exposed to significant aircraft noise around airports.

SCOPE

The metric tracks the residential population exposed to significant aircraft noise around U.S. airports. Significant aircraft noise is currently defined as values greater than or equal to 65 decibels (dB) Day Night Sound Level (DNL). The target is determined by reducing the 2005 population exposed to significant aircraft noise by 1 percent in 2006, and by 4 percent compounded rate from 2007 through 2018.

SOURCES

FAA uses a noise exposure model, the Aviation Environmental Design Tool (AEDT), to develop noise exposure maps for U.S. airports with at least one daily jet operation. Prior to FY 2012, this metric was computed using the Model for Assessing Global Exposure to the Noise of Transport Aircraft (MAGENTA). Though AEDT provides enhancements, its core noise and performance methodologies remain fundamentally the same as those used in the MAGENTA model. Any airport with, on average, at least one daily jet operation is modeled for this analysis. Two methodologies are used for the analysis. For airports where FAA has access to the data, AEDT uses flight tracks that extend straight in and straight out from the runway ends. FAA has the detailed information for airports where more than 90 percent of the population exposed resides.

AEDT also uses Geographic Imaging Software (GIS) to lay population data from the 2000 U.S. Census over the INM's contour maps. The 2000 Census population is projected to the current year, and the AEDT and GIS outputs are used to determine the number of people living within the DNL 65 dB contour. The number of people relocated through noise compatibility efforts funded under FAA's Airport Improvement Program is subtracted from the data. The number of relocations each year is provided by FAA's Office of Airports. To generate noise exposure contour maps, airport operations and aircraft type data are collected from FAA's Enhanced Traffic Management System (ETMS). These data are used to populate the AEDT model. However, ETMS does not contain all the current-year data. The latest ETMS data available are entered into AEDT to start the modeling process, and FAA's Terminal Area Forecast (TAF) is used to project current-year flight operations. The results are classified as preliminary until the following year, when projected data are finalized. Military aircraft inventory data are used to verify specific aircraft operations at individual airports.

STATISTICAL ISSUES

This metric is derived from model estimates that are subject to errors in model specification. Trends of U.S. noise exposure may change due to annual improvements to the noise exposure model. A major change to AEDT may result in a significant change in the estimate of the number of people exposed to noise levels around U.S. airports.

COMPLETENESS

No actual count is made of the number of people exposed to aircraft noise. Aircraft type and event level are current. However, some of the databases used to establish route and runway utilization were developed from 1990 to 1997. Changes in airport layout including expansions may not be reflected. The FAA continues to update these databases as they become available. The benefits of federally funded mitigation, such as buyout, are accounted for.

The noise studies obtained from U.S. airports have gone through a thorough public review process, either under the National Environmental Policy Act (NEPA) requirements or as part of a land use compatibility program.

RELIABILITY

The data collection and reporting methodology for this measure provides significant management oversight. To ensure accuracy and reliability of the performance measure results, senior management from the Office of Policy, International Affairs and Environment thoroughly reviews noise exposure data before they are entered into FAA's performance reporting system.

HAZARDOUS LIQUID PIPELINE SPILLS (PHMSA)

MEASURE

The number of hazardous liquid pipeline spills with environmental consequences (CY).

SCOPE

Hazardous liquid pipeline incidents are reportable under 49 CFR 195.50. This measure tracks the number of spills of five barrels or more from hazardous liquid pipelines in the U.S. where the accident report noted any environmental consequences (fish, birds, terrestrial wildlife, soil, or water).

SOURCES

DOT/Pipeline and Hazardous Materials Safety Administration (PHMSA) incident data are used. These data are derived from pipeline operator reports submitted on PHMSA Form F-7000.1. Most incidents are reported online through the PHMSA website.

DETAILS ON DOT ENVIRONMENTAL SUSTAINABILITY MEASURES

STATISTICAL ISSUES

Results in any single year should be interpreted with caution. There is some normal annual variation in the number of reported incidents, particularly given the small number of these incidents, and this variation might not reflect real changes in the underlying risk.

Targets are presented as ranges to account for this variation. The target each year is set at one standard deviation from the trendline to account for normal variation year-to-year (which shows a decline of about 5 percent on average each year over the 10-year period 2002–2011). This provides about 80 percent probability of achieving the target if the risk continues to follow the trendline. An exponential trendline is used to reflect the concept of diminishing returns as the numbers decline.

The performance measure is not normalized for changes in exposure—external factors such as changes in pipeline mileage, petroleum consumption, or ton-miles moved through pipelines—that could affect the number of incidents with environmental consequences.

COMPLETENESS

Compliance in reporting is very high and most or all incidents that meet reporting requirements are submitted. Operators must submit reports within 30 days of an incident or face penalties for noncompliance. There may be a 30-to-60-day lag in reporting and compiling information in the database for analysis.

Projections from partial-year data include all months for which there are reliable data plus an estimated number for the missing months based on the historical fraction those months represent in the final totals over the past five years.

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 inspectors also regularly discuss incidents with operator personnel during routine inspections. PHMSA continues to work to improve Best Management Practices to ensure quality of the incident data.

VEHICLE FLEET PETROLEUM USE (OST M-93)

MEASURE

Percent reduction of vehicle fleet petroleum use compared to the 2005 baseline (FY).

SCOPE

This measure includes petroleum fuel consumed by all owned and leased vehicles in the fleets of the Department and its Operating Administrations.

SOURCES

Executive Order 13514 requires a reduction of petroleum consumption in agency fleets of 20 or more by 2 percent each year through FY 2020. Leased vehicle fuel consumption data are provided by GSA to the Department. Owned vehicle fuel consumption data are provided by the individual Operating Administrations. The Office of the Secretary is responsible for compiling these data into the Integrated Logistics Management System (ILMS). ILMS is owned and operated by the Department. Vehicle consumption data are formatted and uploaded into the Federal Automotive Statistical Tool (FAST), which is maintained by the Department of Energy.

STATISTICAL ISSUES

DOT and its Operating Administrations are responsible for examining vehicle data and validating for accuracy. After validating these data against internal sources, all known major errors in the data are eliminated. However, inaccurate coding of alternative fuel may occur within the GSA system, which is beyond the scope of DOT.

COMPLETENESS

The FAST data system is prescribed by regulations as the official comprehensive data collection mechanism for DOT vehicle fleet information. A 2005 baseline for these data has been established. Data for FY 2012 were finalized in January 2013.

RELIABILITY

There is extensive review of petroleum fuel consumption that occurs at the field, Operating Administration, and OST levels prior to entry into the DOE FAST data system. The DOE FAST system is used to prepare many reports to Congress and other regulatory agencies. Performance goals follow data as reported in ILMS and FAST, and are the reliable basis for petroleum reduction as required under Executive Order 13514.

WATER EFFICIENCY IMPROVEMENT (OST M-93)

MEASURE

Percent improvement in water efficiency compared to 2007 baseline (FY).

DETAILS ON DOT ENVIRONMENTAL SUSTAINABILITY MEASURES

SCOPE

This measure includes water consumed by all owned, direct-leased (non-GSA), and GSA-leased buildings (where utilities are paid separately) by the Department and its Operating Administrations.

SOURCES

Executive Order 13423 requires Federal agencies to reduce water consumption intensity (gallons per square foot) 2 percent annually through the end of FY 2012, or by 16 percent at the end of FY 2015. DOT utilizes multiple data sources for water information, some of which are actual and some of which are estimated from expense data. For those OAs (four of the five) that own 10 or fewer buildings, the Department has actual water consumption information stemming from monthly invoices. However, FAA—which owns more than 10 buildings—generally does not have actual water consumption for the majority of its facilities since its utility bills are centralized for payment processing. To calculate annual water consumption where actual water use data are not readily available, the Department uses water expense data from the DELPHI accounting system and a conversion factor (average $/gal rate per State per year). The Office of the Secretary is responsible for compiling these data from each Operating Administration as part of the Department's annual greenhouse gas inventory.

STATISTICAL ISSUES

DOT and its Operating Administrations are responsible for examining water consumption data and validating for accuracy. However, where actual water use data are not readily available, the Department uses water expense data from the DELPHI accounting system and a conversion factor (average $/gal rate per State per year) to calculate annual water consumption. Therefore, some of the data are actual and some are estimated.

COMPLETENESS

Approximately 30 to 40 percent of the Department's total water consumption is based on actual data from monthly invoices. Approximately 60 to 70 percent of the Department's total water consumption is estimated from expense data within the DELPHI accounting system. A 2007 baseline for these data has been established. Data for FY 2012 were finalized in January 2013.

RELIABILITY

There is extensive review of water consumption, when actual utility bills are available, that occurs at the field, Operating Administration, and OST levels prior to entry into the Department's greenhouse gas inventory. When water consumption is estimated from expenses within the DELPHI accounting system, the conversion factor used (average $/gal rate per State per year) may be a source of variability.

RECYCLING AND WASTE DIVERSION (OST M-93)

MEASURE

Percent recycling and waste diversion compared to 2010 baseline (FY).

SCOPE

This measure includes all waste recycled or diverted from landfills by the Department and its Operating Administrations.

SOURCES

Executive Order 13514 requires the Department to divert at least 50 percent of non-hazardous solid waste, excluding construction and demolition waste, by FY 2015. Data regarding recycling and waste diversion efforts is currently being measured and collected from only a few DOT facilities. The methods of data collection and estimation also vary from site to site. The Department is in the process of developing a comprehensive methodology for measuring recycling and waste diversion efforts at all DOT facilities.

STATISTICAL ISSUES

DOT and its Operating Administrations are responsible for measuring and reporting recycling and waste diverted from landfills. However, few DOT facilities have implemented a system for tracking this performance measure. These data are not complete and should not be considered a statistically significant sample.

COMPLETENESS

The recycling and waste diversion data currently collected by the Department represent the actions of a few facilities. As such, the recycling and waste diversion data provided to external sources are likely to be accurate but underreported. A 2010 baseline for these data has been developed. Data are not available for FY 2010 or FY 2011. Data for FY 2012 were finalized in January 2013.

RELIABILITY

The recycling and waste diversion data currently collected by the Department represent the actions of a few facilities. The Department must build a comprehensive system for collecting this information from all applicable DOT facilities. Once a system is in place, a reliable basis for recycling and waste diversion as required under Executive Order 13514 is anticipated to increase dramatically.

DETAILS ON DOT ENVIRONMENTAL SUSTAINABILITY MEASURES

CONTRACTS MEETING SUSTAINABILITY REQUIREMENTS (OST M-93)

MEASURE

Percent of all applicable contracts that meet sustainability requirements (FY).

SCOPE

This measure includes all applicable contracts issued by the Department and its Operating Administrations.

SOURCES

Executive Order 13514 requires the Department to advance sustainable acquisition to ensure that 95 percent of new contract actions including task and delivery orders meet sustainable acquisition requirements annually. Sustainable acquisition data are provided quarterly by individual Operating Administrations to OST via the sustainable acquisition compliance template. A secondary source for acquisition data are the Federal Procurement Data System (FPDS). The Office of the Secretary, Office of Procurement (M-60) is responsible for compiling these data. Sustainable acquisition data are formatted and uploaded into the OMB MAX Collect system annually as part of the Department's Strategic Sustainability Performance Plan. The White House Office of Management and Budget has prescribed that a determination can be made by the Department sampling 5 percent of applicable contract actions quarterly to determine whether 95 percent of the sampled contracts meet the sustainability requirements. This is the methodology used by the Department.

STATISTICAL ISSUES

DOT and its Operating Administrations sample 5 percent of applicable contract actions quarterly to determine whether 95 percent of the sampled contracts meet the sustainability requirements. These samples are not always randomly selected. DOT and its Operating Administrations are responsible for examining applicable contracts and validating for accuracy. After validating these data against internal sources, all known major errors in the data are eliminated.

COMPLETENESS

Each Operating Administration is responsible for reviewing its applicable contracts and reporting quarterly performance to OST using the sampling methodology described under sources. Data are not available for FY 2010. Data for FY 2012 were finalized in January 2013.

RELIABILITY

The quarterly data received from the Operating Administrations are considered a reliable source of sustainable acquisition information as required under Executive Order 13514. All applicable contract actions are not required to be reviewed; therefore, there may be errors or omissions if the sample is not representative of all contracts.

REDUCTION IN GREENHOUSE GAS EMISSIONS—FLEET AND FACILITIES (OST M-93)

MEASURE

Percent reduction in greenhouse gas emissions (GHG) from facilities and fleets compared to 2008 baseline (FY).

SCOPE

This measure includes all scope 1 and 2 greenhouse gas emissions, including those from facilities and fleet vehicles owned and operated by the Department and its Operating Administrations.

SOURCES

Executive Order 13514 requires the Department to reduce overall scope 1 and 2 GHG emissions by 12.3 percent by 2020 relative to a FY 2008 baseline. Greenhouse gas emissions from fleet vehicles are provided by the Federal Automotive Statistical Tool (FAST), which is maintained by the Department of Energy. Facility-related greenhouse gas emissions are collected at the field level and reviewed by the Operating Administrations. The Office of the Secretary is responsible for compiling all greenhouse gas emission data from each of the Operating Administrations' facilities and fleet vehicles into the Sustainability and Greenhouse Gas Inventory workbook maintained by the Department of Energy.

STATISTICAL ISSUES

DOT and its Operating Administrations are responsible for examining greenhouse gas emission data and validating for accuracy. After validating these data against internal sources, all known major errors in the data are eliminated.

COMPLETENESS

The Sustainability and Greenhouse Gas Inventory workbook is prescribed by regulations as the official data collection mechanism for DOT greenhouse gas emissions. The annual submission from DOT to DOE is considered the most complete data set available. A 2008 baseline for these data has been established. Data for FY 2012 were finalized in January 2013.

DETAILS ON DOT ENVIRONMENTAL SUSTAINABILITY MEASURES

RELIABILITY

There is extensive review of greenhouse gas emission data that occurs at the field, Operating Administration, and OST levels prior to entry into the DOE workbook. The DOE workbook is used to prepare many reports to Congress and others regulatory agencies. Performance goals follow data as reported in the DOE workbook, and are the reliable basis for greenhouse gas emission data as required under Executive Order 13514.

REDUCTION IN GREENHOUSE GAS EMISSIONS—EMPLOYEE TRAVEL AND COMMUTING (OST M-93)

MEASURE

Percent reduction in greenhouse gas emissions (GHG) from employee business travel and commuting compared to 2008 baseline (FY).

SCOPE

Includes all scope 3 greenhouse gas emissions, including those from employee business travel and commuting by the Department and its Operating Administrations.

SOURCES

Executive Order 13514 requires the Department to reduce overall departmental scope 3 GHG emissions by 10.9 percent by 2020 relative to a FY 2008 baseline. Greenhouse gas emissions from employee commuting are calculated using the results of the Department's annual Commuter Choice Survey. Greenhouse gas emissions from employee business travel are provided by the TravelTRAX Travel Management Information System and GovTrip Travel Voucher System, which are maintained by the General Services Administration. The Office of the Secretary is responsible for compiling all greenhouse gas emission data from employee business travel and commuting into the Sustainability and Greenhouse Gas Inventory workbook maintained by the Department of Energy.

STATISTICAL ISSUES

DOT and its Operating Administrations are responsible for examining greenhouse gas emission data and validating for accuracy. After validating these data against internal sources, all known major errors in the data are eliminated.

COMPLETENESS

The Sustainability and Greenhouse Gas Inventory workbook is prescribed by regulations as the official data collection mechanism for DOT greenhouse gas emissions. The annual submission from DOT to DOE is considered the most complete data set available. A 2008 baseline for these data has been established. Data for FY 2012 were finalized in January 2013.

RELIABILITY

The quarterly data received from the Operating Administrations are considered a reliable source of sustainable acquisition information as required under Executive Order 13514. All applicable contract actions are not required to be reviewed, therefore there may be errors or omissions if the sample is not representative of all contracts.

SHIP DISPOSAL PROGRAM (MARAD)

MEASURE

Compliance with the April 2010 court-ordered consent decree for removal of Suisun Bay Reserve Fleet (SBRF) non-retention ships on an annual basis.

SCOPE

This measure concerns the settlement agreement resulting from a lawsuit filed with the Circuit Court of California against MARAD in 2007 for Clean Water Act violations, which resulted in a court ordered consent decree. The consent decree specifies a cumulative number of SBRF vessels required to be removed annually for fiscal years 2010 through 2017 until the 57 ships specified in the consent decree are permanently removed from the SBRF.

SOURCES

The Maritime Administration's Office of Ship Disposal Program records and tracks the data.

STATISTICAL ISSUES

None.

COMPLETENESS

The recycling facility provides MARAD with the vessel's certificate of destruction. Once MARAD receives the certificate and verifies the proper removal and destruction of the non-retention vessel, the vessel is counted toward the cumulative total for the metric.

RELIABILITY

The data are from the program source and are considered reliable.

DETAILS ON DOT ENVIRONMENTAL SUSTAINABILITY MEASURES

TRANSIT REVENUE SERVICE FLEET (FTA)

MEASURE

Percent of alternative-fuel and hybrid vehicles in the transit revenue service fleet.

SCOPE

This measure includes all transit vehicles not operating on diesel or gasoline. This includes compressed natural gas, liquefied natural gas, all-electric vehicles, and hybrid buses, which use conventional fuel but with greater efficiency. This measure includes all buses in rural and urban service, small, medium, and large. Articulated buses, commuter buses, and bus rapid transit buses are all part of this measure. All rail vehicles are also included as they are almost entirely electric.

SOURCES

These data are reported annually by operators to the FTA National Transit Database (NTD). The data are then aggregated across all U.S. transit systems. This metric is the total percentage of alternative-fuel and hybrid-propulsion vehicles in the fleet.

STATISTICAL ISSUES

Data are reported by the individual transit systems at the end of their fiscal years. All transit systems that receive or benefit from FTA's Rural or Urbanized Area Formula Grants are required to report to the NTD. The quality of this metric is largely reliant upon the quality of the data collected and submitted by the individual transit systems.

FTA requires a full inventory of revenue vehicles from each agency. This metric counts all revenue vehicles regardless of size. This size range is extensive, from 10-seat vans to 65-seat articulated buses.

COMPLETENESS

This measure includes almost all U.S. rural and urban transit systems. There are a few that do not receive FTA Formula Grant funds and choose not to participate.

RELIABILITY

The transit agency's CEO certifies that data reported to the NTD are accurate. Submitted data are reviewed by analysts and compared to trend data for the transit system and to National benchmarks.