



CONNECTING WASHINGTON TASK FORCE

Use of Performance Measures and Benchmarking in Transportation

September 9, 2011

The Blue Ribbon Commission

In 2000, the Governor appointed the Blue Ribbon Commission to create a balanced investment plan for the state's transportation system.

- The Blue Ribbon Commission discussed at length accountability and measuring performance
- Of the 18 primary recommendations, most have been fully or partially implemented.



The Blue Ribbon **Commission on Transportation**
Final Recommendations to the Governor and Legislature
adopted November 29, 2000

The Blue Ribbon Commission

Key Blue Ribbon Commission Recommendations Implemented:

- ☑ Establish a “single point of accountability at the state level strengthening the role of the state in ensuring accountability of the statewide transportation system.”
 - 2003 Legislature created the Transportation Performance Audit Board (TPAB) to evaluate benchmarks, investment criteria and performance measures.
 - WSDOT made a cabinet agency in 2005.
 - 2007 Legislature made OFM responsible for establishing performance measures for the transportation goals, and for preparing a biennial progress report (the “Attainment Report”).
 - TPAB was then placed under the Transportation Commission. Every four years, the Commission recommends to the Legislature a 20-year statewide transportation plan.

Blue Ribbon Commission Recommendations (cont)

Other Blue Ribbon Commission Recommendations Implemented:

- ☑ “A thorough and independent performance review of WSDOT administration practices and performance levels.”
 - Several independent reviews of WSDOT since the Blue Ribbon Commission report:
 - TPAB reviews in 2005 and 2006.
 - Ongoing legislative reviews of Washington State Ferries.
 - Since 2000, over 35 different performance audits were conducted of WSDOT programs by the State Auditor’s Office and the Joint Legislative Audit and Review Committee.

- ☑ Greater efficiency in construction and project delivery, including design-build contracting, more private sector contracting and management-labor partnerships.
 - 2001 enactment of design-build contracting for large WSDOT projects and creation of environmental permit streamlining process. Increased public and private sector collaboration to reduce project costs.

The Initial Transportation Benchmarks

- In 2002, Legislature directed the Transportation Commission to develop reports based on enacted benchmarks.
- Transportation Commission and WSDOT adopted specific measures to evaluate performance against benchmarks after a series of public meetings and conversations with cities, counties and transit.
- Benchmarks included:
 - Per capita vehicle miles traveled shall be maintained at 2000 levels
 - The non-auto share of commuter trips shall be increased in urban areas
- Benchmarks proved to be too specific and rigid; didn't allow for needed adjustments for changing priorities and policy directions and funding changes
- Repealed in 2007 and replaced with higher level, statewide policy goals.



Shifting from Benchmarks to State Transportation Policy Goals

- In 2005, TPAB reviewed state transportation statutes, benchmarks, and other investment criteria with goal of simplifying state investment instructions and reporting requirements.
- Study recommended that Washington adopt a model based on system of policy goals and objectives used by Maryland to evaluate system performance.
- 2007 Legislature implemented the study's recommendations and repealed the existing nine transportation benchmarks, establishing five overall policy goals.
- In 2010, the Legislature added a sixth policy goal – economic vitality.
- Legislature directed OFM to develop objectives and performance measures for each policy goal in alignment with gubernatorial and legislative priorities and transportation revenue scenarios, and report results in the **Biennial Attainment Report**.

Achieving Goals – Communicating Results

Communicating the performance of the transportation system and the results of transportation investments through various tools :

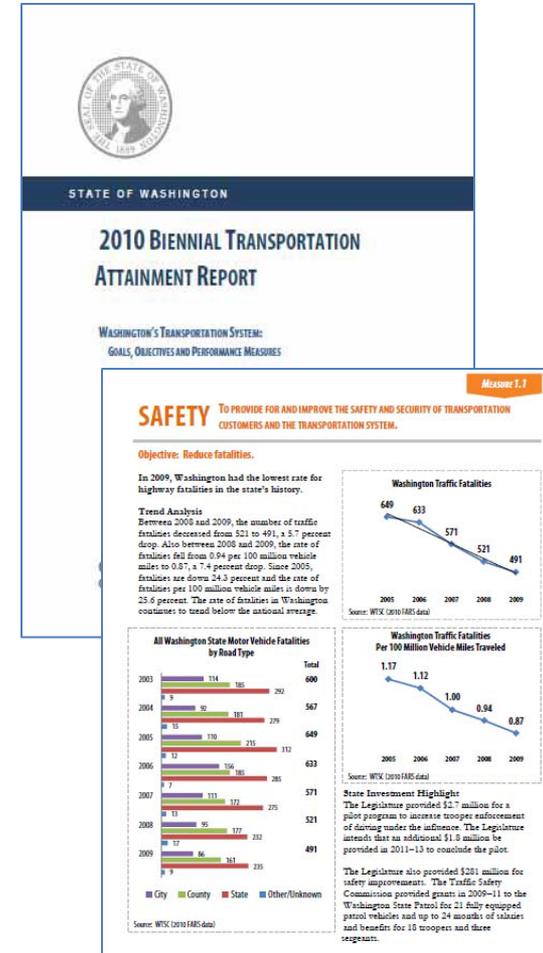
- The Attainment Report (roll-up report)
- GMAP forums
- Reports on the local level
- Report on public transportation
- Reports on the state level
- Federal reporting



Measuring the attainment of state transportation policy goals

NEW -

- The **Attainment Report** is the key venue for communicating statewide results; it provides a high-level assessment of state's progress in achieving its transportation goals using key performance measures and data.
- Focus is on overall system performance.
- Includes all modes, jurisdictions, and transportation partners.
- Developed and published by Office of Financial Management.
- Measures and data are used to make investment and management decisions.
- Some measures are still evolving.



Attainment Report (cont)

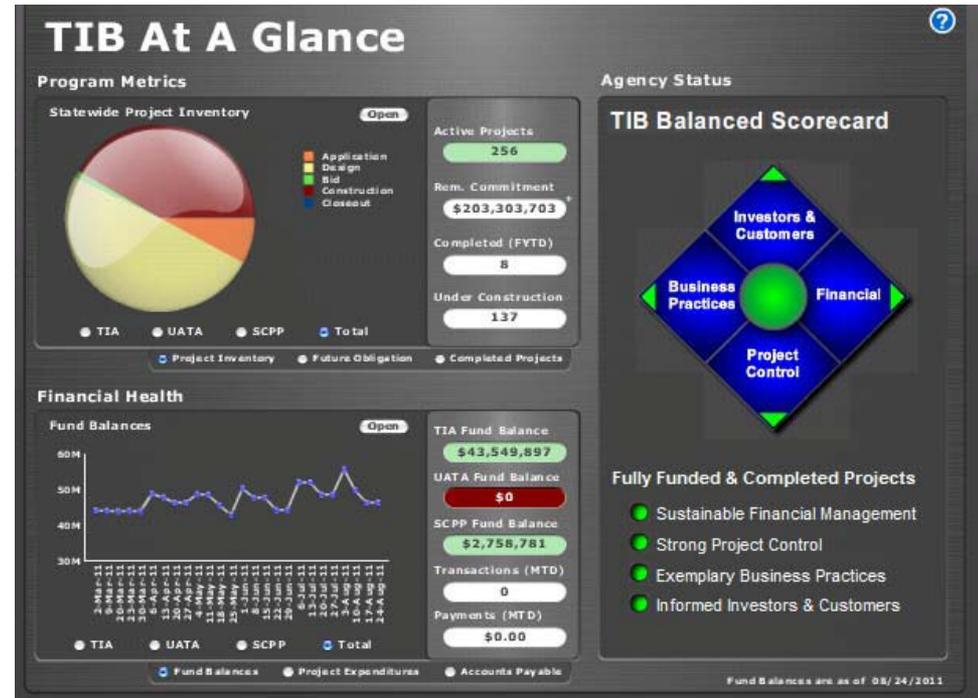
- Measures and objectives are developed by OFM and tied directly to the state transportation policy goals.
- Jurisdictions report this information to OFM.

SUMMARY OF PROGRESS — 2010 STATUS

GOAL 1. SAFETY				
To provide for and improve the safety and security of transportation customers and the transportation system.				
Measures	Objective	Status	Progress	Five-Year Trend
Measure 1.1 Traffic Fatalities Number and rate of traffic fatalities per 100 million vehicle miles traveled (VMT)	Reduce fatalities	491 traffic fatalities in 2009, lowest statewide since 1955	*	
	Reduce rate of traffic fatalities per 100m VMT	0.87 rate in 2009, a 25.6 percent decrease from 2005	*	
Measure 1.2 Collision Reduction Number of collisions and percentage resulting in serious or fatal injuries	Reduce number of collisions	6.9 percent reduction in collisions from 2008 to 2009	*	
	Reduce severity of collisions	Serious injuries increased 3.6 percent from 2008 to 2009, yet decreased 7.7 percent from 2005	*	

Reporting on the local level

- Many local jurisdictions use performance data to organize and develop strategic, business and capital investment plans.
- In 2010, Legislature directed OFM and the Washington State Association of Counties (WSAC) to develop and implement transportation performance measures. King County has already begun implementing performance measures.



Transportation Improvement Board (TIB) has a financial performance dashboard that provides a snapshot of project delivery status.

Reporting on the local level (cont')

- Ongoing performance measurement and assessment by counties contributed to a December 2010 Report by WSAC and Washington State Association of County Engineers that identified maintenance and preservation needs and funding gaps.
- The County Road Administration Board (CRAB) reviews compliance with Standards of Good Practice
- Cities must adopt comprehensive six-year transportation plans under the Growth Management Act.

Asset Management: Bridge Assessment Annual Report

Local Agency Bridges

WSDOT, through its Highways and Local Programs division, manages the Federal Aid Highway Bridge program for local agencies. The program follows policy guidance found in federal statute, Washington state legislation, and the Washington Transportation Plan.

Local agencies' bridges are inspected at least once every two years. WSDOT conducts field reviews and provides training and technical assistance for municipalities that must inspect bridges along city streets and county roads. WSDOT and local governments closely follow federal guidelines in their bridge inspection and maintenance procedures.

Local bridge conditions

The Federal Highway Administration (FHWA) requires all states to report annual state, city, and county data concerning the structural condition and adequacy of all bridges statewide. A structurally deficient (SD) bridge is safe as long as all restrictions are obeyed, but may be need of costly repairs or replacement in order to carry current legal loads.

Additionally, following a thorough review, bridges are assigned sufficiency rating number between 0 and 100. The rating takes into account some 75 factors reviewed during an inspection and

Structural condition summary of Washington's locally managed bridges (Spring 2011)

	County owned		City owned		Total	
	% of bridges	% of deck area	% of bridges	% of deck area	% of bridges	% of deck area
Good	53%	55%	75%	75%	62%	57%
Fair	12%	11%	17%	12%	13%	11%
Poor	4%	4%	7%	12%	5%	18%
Percentage of Good + Fair bridges					95%	82%

Data source: WSDOT Highways and Local Programs Office.

Detailed conditions of Washington's locally managed bridges (Spring 2011)

Condition	Number of bridges	Deck area (Sq. Ft.)	Number of bridges funded	Deck area funded (Sq. Ft.)	Percent of bridges funded	Percent of deck area funded
Sufficiency rating less than 50 and 50	75	580,360	43	304,650	57%	52%
Sufficiency rating less than 50 and 50	164	1,020,800	56	300,200	36%	32%
Sufficiency rating less than 50	375	1,216,750	81	341,600	22%	18%
Sufficiency rating less than 50 and weight restricted or load posted	112	670,000	27	96,000	24%	14%
Weight restricted or load posted	100	947,500	27	96,000	14%	10%
Total inventory	3,950	14,500,000	65	950,000	2%	2%

Data source: WSDOT Highways and Local Programs Office.

also considers a bridge's age, length, and width, and the average amount of traffic the bridge handles. Currently, 95% of Washington's locally owned bridges are considered in good or fair structural condition.

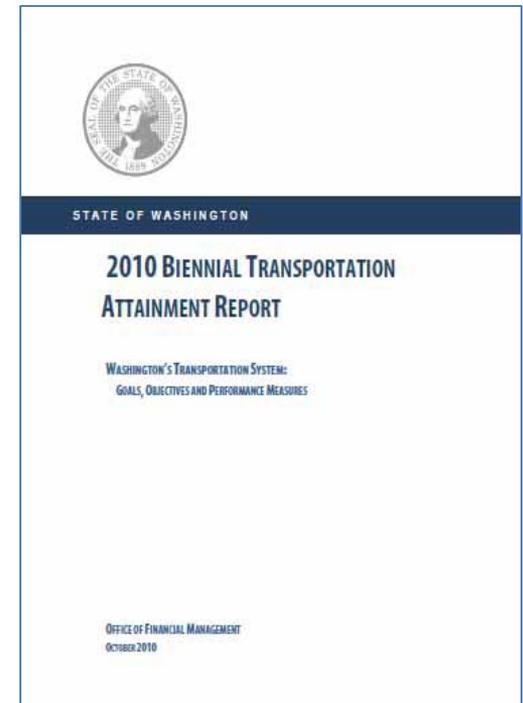
Top five challenges for locally managed bridges in Washington

- **Age and deterioration** - A number of bridges in the state, constructed before the 1950s and 1960s, need major repair or replacement. Usually built in last 75 years, about 30% of locally owned bridges are more than 50 years old.
- **Congestion** - Some of Washington's bridges have become bottlenecks for both freight and general traffic, particularly at interchanges and major river crossings.
- **Construction costs** - The dollars available for bridges are buying less in the marketplace, as construction costs have risen including the price of steel, asphalt, concrete, and earthwork. Replacing smaller bridges can mean construction of new larger bridges in order to repair impacts to streams and rivers and ensure today's environmental standards are met.
- **Maintaining bridge safety** - Cities and counties face funding shortages which limit their ability to conduct the kind of ongoing preventive maintenance, rehabilitation, seismic strengthening, and replacement that would keep bridges sound indefinitely.
- **Regionally significant bridge replacement needs** - The costs of new bridges and their related interconnections prevent many cities and counties from making larger bridge improvements that are needed to address congestion and serve economic growth. High costs for bridges often exceed the available resources.

GNB Edition 42, August 2011: Example of local bridge condition performance information

Reporting on public transportation

- WSDOT is required to prepare an annual summary of local public transportation data. Includes ten measures used to compare like-size transit system.
- Federal reporting standards and measures include vehicle standards of life and measures that determine funding allocation.
- The 2010 transportation budget requires OFM to study data on statewide transit, bicycle and pedestrian trips and recommend additional performance measures. The new measures will be reported in the Attainment Report.



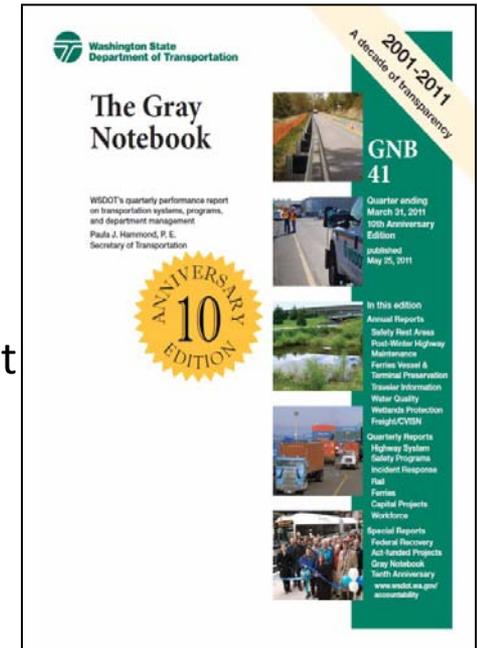
Reporting on the state level

WSDOT's Strategic Approach - *adopted in 2001*

1. Accountability and transparency
2. Comprehensive performance analysis and reporting for all programs
3. Adaptive and dynamic performance measurement to meet changing needs
4. WSDOT reports performance of the total system, the investment benefits and WSDOT's work in WSDOT's quarterly performance report – **The *Gray Notebook***

Moving Washington is WSDOT's approach to delivering projects and services and the framework for agency investment and business strategies.

WSDOT's Strategic Plan - Implements agency's actions. Commits to transparency and accountability and implements actions and strategies to reach desired goals and outcomes.



The Gray Notebook, WSDOT's quarterly performance report.

Results of Performance management and performance based investment decisions: Examples

On the state-owned system, WSDOT reports

1. Condition of our system
2. Investments state makes and the benefits that result
3. How agency performs in delivering those investments

Examples of this type of reporting

Safety

Crashes are down: Before and after studies of 25 safety improvement projects show **22% fewer fatal and serious injury crashes** annually.

Low cost safety enhancements with high returns

- **Cable median barrier** –180 miles of cable median barrier installed since 1995, **reducing crossover collisions by 58%**.
- **Rumble strips** – Evaluations of 518 miles in place for six months or longer indicate fatal and serious injuries are **down 43%**.

Collision rates after cable barrier installation

1995-2008

	Before	After	Percent change
Annual serious injury median collisions	16.8	7.0	-59%
Annual fatal median collisions	8.0	6.0	-25%
Serious injury median collision rate (per 100 million vehicle miles)	0.58	0.21	-64%
Fatal median collision rate (per 100 million vehicle miles)	0.27	0.15	-44%

Source: WSDOT Design Office.

Results of Performance management and performance based investment decisions: Examples (Cont')

Examples of this type of reporting (Cont')

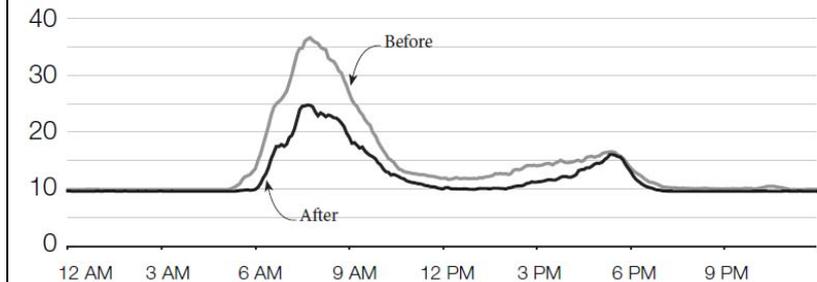
Mobility

- Statewide travel delay declined by **9%** (comparing 2008 to 2010).
- **Average peak travel time improved** on 18 of 40 high-demand commute routes (comparing 2008 to 2010) .
- 15 completed Nickel and TPA projects studied statewide showed morning and evening **average speeds increased 23%** and peak **travel times reduced 15%**.
- Since expansion in 2002, Incident Response has **responded to 582%** more incidents and **decreased overall clearance time by 272%** (average of 12.1 minutes).
- **On-time Ferry system performance** is at **96.2%** (90% being the goal).
- WSDOT's Growth and Transportation Efficiency Center (GTEC) program has **reduced drive alone commute rates** in 6 major urban areas by **22%** through targeted commute trip reduction strategies.

Before and After travel time profile on I-405 Northbound between I-5 and Coal Creek Parkway (10 miles)

Weekday data for March - April 2007 & 2011

Travel time in minutes



Data source: WSDOT Northwest Region Traffic Office.

I-405 – South Bellevue Widening project -

Northbound peak travel time between Tukwila and Bellevue was greatly reduced in January 2009 when the this project opened an auxiliary lane between 112th Ave SE and I-90. The morning peak travel time was reduced from 35 minutes to 25 minutes.

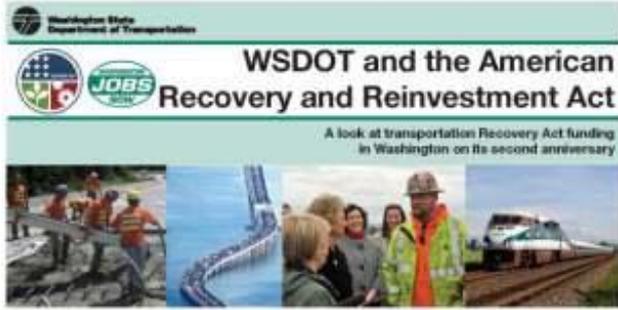
Reporting at the federal level

Stimulus Requirements: Washington's existing performance reporting gave the state a strong foundation for required reporting when the Recovery Act was passed in 2009:

- Emphasis on quality control of data and of data regarding project delivery and job creation
- Established relationships and processes, candor and transparency

To come: A Performance Based Federal Aid Program will require additional reporting

Washington is already well positioned if federal reauthorization requires expanded performance measures.



Washington State Department of Transportation

WSDOT and the American Recovery and Reinvestment Act

A look at transportation Recovery Act funding in Washington on its second anniversary

Recovery Act transparency and accountability
This report provides an analysis of how the Washington State Department of Transportation used the impact of federal funding to get people to work governing and building the state's transportation system.

In early 2010, with the economy stalled in the longest and deepest recession since the Great Depression, Congress passed the American Recovery and Reinvestment Act (Recovery Act) to stimulate the economy while improving the country's infrastructure. At WSDOT, the Recovery Act brought more than \$1.5 billion in Washington for transportation.

- \$510 million for state highway projects
- \$152 million for local highway projects
- Up to \$70 million for high speed rail projects
- \$179 million for transit projects
- \$30 million for aviation projects
- \$45 million for TIGER projects

The Recovery Act inspired speed. It mandated that more than half the funding be obligated to specific projects in less than six months. Washington officials and lawmakers sought high priority projects that were ready to be built, would improve the state's structure, and would stimulate the economy. They prioritized:

- Advancing projects that would have otherwise been delayed due to funding shortfalls
- Advancing projects that would address high priority highway preservation needs
- Projects that could be completed within three years
- Projects in communities most affected by the recession

Two years into the Recovery Act...
This report marks the two year anniversary – February 15, 2011 – of the Recovery Act, and serves as a status update on progress WSDOT has made in the two years since February 15, 2009.

Two years after the law's passage, construction crews have completed 385 highway projects, repairing 827 lane miles of state highways and installing or upgrading safety features on 878 miles of urban and rural roads. Transit services have opened new facilities and accepted dozens of new buses. Major mobility projects that would have been delayed for years, have opened to drivers, providing congestion relief on I-405 near Bothell and extending the 3.7 high occupancy vehicle lanes into Pierce County.

These projects have created or retained jobs. As of December 31, 2010, employees have earned more than \$103 million working more than 46 million labor hours on 210 highway projects.

While much has been done, the work is not finished. Crews are continuing to build major mobility projects in Spokane and Seattle that were \$65 million in competitive TIGER grants and the state is now preparing to begin up to \$782 million in projects that will improve Amtrak Cascades passenger rail service.

What's possible	Timeline and 2 year revenue track
• Expanding access to transit	• 2011-2012 revenue track
• Improving state roads	• 2011-2012 revenue track
• Improving local roads	• 2011-2012 revenue track
• Improving transit	• 2011-2012 revenue track
• Improving aviation	• 2011-2012 revenue track
• Improving TIGER projects	• 2011-2012 revenue track
• Improving safety	• 2011-2012 revenue track
• Improving infrastructure	• 2011-2012 revenue track
• Improving transit	• 2011-2012 revenue track
• Improving aviation	• 2011-2012 revenue track
• Improving TIGER projects	• 2011-2012 revenue track
• Improving safety	• 2011-2012 revenue track
• Improving infrastructure	• 2011-2012 revenue track

Special Report on Recovery Act Performance published February 2011, WSDOT.