



STATE POLICY PACKAGE: TRANSPORTATION PERFORMANCE OBJECTIVES

Restoring Prosperity is a new approach to helping older industrial areas transition to the 21st century: by investing and encouraging development in already-existing towns and cities, planning for communities where people want to live and work, and creating better transportation, housing, and job choices for the new economy.

Transportation policy at the state level has significant implications for a myriad of issues, from land use patterns, to environmental issues, to the health and quality of life for households and individuals, to the community economic competitiveness. However, most state transportation programs and investment decisions tend to focus only on the physical condition of facilities and congestion alleviation, examining transportation as an end, rather than a means to more sustainable and prosperous communities. Most state Departments of Transportation (DOTs) have some kind of performance-based system in place, but these systems typically refer to internal management and delivery processes or more technical outcomes, such as the number of lane-miles of a certain pavement rating.

This policy paper discusses how this narrow lens can be broadened, ensuring that state transportation investments are helping to further critical goals and objectives, like improving mobility and access, reducing oil use, and improving safety and affordability. In a time of constrained budgets, it is even more critical that we are getting the very most out of our transportation investments. Several states are moving to broaden and improve their transportation performance objectives, which strengthens outcomes, increases accountability and transparency, boosts efficiency, and helps the public engage more readily in transportation policy.

State Example in Action: Maryland

Maryland DOT has an explicit goal of providing a transportation system that expands economic opportunities and increases the state's economic vitality. The state has several performance indicators for measuring the success of its transportation system, including goals for improving bike and pedestrian access on its roadways. The state also tracks residents' transportation costs and the level of transit service available to and in use by the public, among other measures.

IMPORTANT COMPONENTS OF A GOOD POLICY

- Clearly-defined transportation performance objectives that address agency goals and are tied to key smart growth outcomes, such as reduction in vehicle miles traveled, reduced energy consumption and increased economic health.
- Well-researched indicators or measures of progress.
- Reliable data as a key input into performance-based evaluation
- Performance objective results should influence future planning efforts to ensure that agencies are making the investments associated with the greatest positive impact.
- Performance objectives, indicators, and data made available to the general public to foster transparency.
- Although multiple indicators may be needed to measure complex outcomes such as economic health, performance objectives should be associated with simple and clear measurements.



THE GROUNDWORK FOR A GOOD POLICY

- Determine how performance objectives may already be used in your state DOT's decision-making and evaluation.
- Decide how progress toward new, smart growth-oriented performance objectives will be measured and conduct research to understand how existing data may be used.
- Strengthen performance objectives by making them consistent with criteria used in resource allocation, such as economic benefits (the number of jobs created), or mobility benefits (number of households with improved travel options).
- Design performance objectives to maximize usefulness across agencies. Many of the indicators, such as vehicle miles traveled, are difficult to isolate within a given political boundary. Consider each relevant agency's ability to collect and use the necessary data.
- Anticipate the need for new data to measure smart growth outcomes and take the necessary steps to guide the agency through the process of amending or adding to data collection programs.

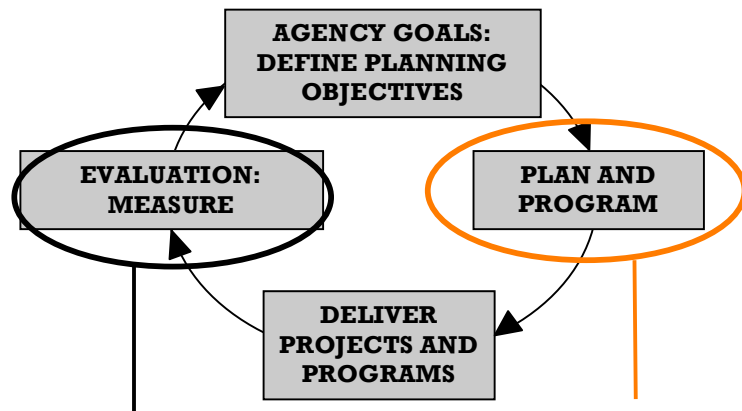
How to Use Transportation Performance Objectives

Transportation performance objectives may be applied in a number of ways. First, they may be used as an agency evaluation tool to measure various outcomes as a result of transportation investments over the course of a fiscal year or planning cycle. The results should inform planning objectives for the following cycle, as shown in the figure below.

They may also be used to screen or predict the outcomes related to a specific project or program. Ideally, the results of applying performance objectives will affect decision-making and resource allocation.

Performance objectives may be phased in over time, first being used to evaluate agency performance and then moving towards performance-based planning and forecasting the achievement of agency goals. In either case, performance objectives are typically one of a few tools used to evaluate or prioritize investments. They can also be used to bring attention to potential issues early if objectives are not being met. Performance monitoring is of limited use unless it changes the way agencies make decisions and spend money.

When to Use Performance Objectives and Measures in a Typical Agency Process



Typically, performance objectives are introduced during the evaluation phase of agency operations.

Ideally, performance objectives are used to screen and prioritize candidate projects and programs to ENSURE progress toward stated goals.



Building Political Support

Performance measures are attractive politically because: they are easy to communicate; they can increase the effectiveness and efficiency of an agency; and they make transportation policy accessible to the general public. Statewide performance measures can build off state and MPO transportation planning requirements, as defined in Articles 135 and 136 of the Federal Highway Legislation. This legislation requires that state DOTs and Metropolitan Planning Organizations (MPOs) plan for transportation that provides mobility for people and freight across all modes and fosters economic growth while reducing energy consumption and air pollution. Building political support should include the following strategies:

- Build support within your state DOT at all levels by making clear the connections between major policy goals and the technical application of performance objectives.
- Involve decision makers and stakeholders early. Experience has demonstrated that those involved in developing the performance measures are more likely to support them.
- When seeking legislative action to mandate the use of performance objectives, target state elected officials who serve on committees that will benefit from new performance objectives such as: transportation or transit; accountability; energy; economic development; environment; smart growth, planning; housing; public health; and/or community affairs.
- Highlight the transparency and accountability that transportation performance objectives offer. As transportation spending comes under more scrutiny, this will help promote the program.
- Build support among the governor's staff; maximize this important public connection. Many governors have a Smart Growth office that can help publicize the important outcomes of transportation performance objectives.

MEASURING ACROSS MODES

Ideally, performance objectives will be used to evaluate the impacts of transportation investments. This would allow DOTs and other transportation agencies to prioritize projects that make the most progress toward key agency goals, such as improving mobility by expanding transportation options.

Comparing performance across modes is a topic of great interest in today's transportation research community. There are a number of challenges resulting from jurisdictional, program funding, and informational differences.

Some agencies, such as Virginia DOT, are exploring ways to score projects based on the achievement of performance objectives. This is a possible solution to the problem of comparing the impact of investments across modes, which is considered an important step forward.

PERFORMANCE TARGETS OR BENCHMARKING

Performance targets are specific, quantitative goals set for each performance objective. There is some debate as to the effectiveness of performance targets. They are costly and time-consuming to set; they have been found to be limiting in that once a target is achieved, progress slows or stops; they can conflict internally, with the achievement of one target negatively affecting another target; and if the achievement or non-achievement of a target is not associated with change, they can become irrelevant.

Benchmarking is emerging as a preferred alternative to setting performance targets. Benchmarking tracks performance measures over time, emphasizing the desired trend, and then uses the best practice to set a benchmark or standard. For example, if an agency has the goal of reducing vehicle miles traveled, progress would be tracked and compared to another agency that has demonstrated marked success. In this simpler and less-expensive way, agencies can track and compare their progress toward desired outcomes.



LEGISLATIVE STRATEGIES

The need for legislative action in order to implement transportation performance objectives varies by state. In most states, DOTs are able to amend evaluation tools and decision-making processes without legislative involvement. However, legislation can have a profound affect on an agency's motivation to employ better performance measures.

- Washington State passed House Bill 2815 in early 2008, which requires an 18 percent reduction in per capita vehicle miles traveled by 2020, 35 percent by 2035 and 50 percent by 2050. WSDOT has implemented performance measures to track progress toward these goals.
- California passed Assembly Bill 32 in 2006, which aims to reduce greenhouse gas emissions to 1990 levels by 2020. Senate Bill 375 was passed in 2007 and builds on AB 32 by regulating land use and transportation planning to curb sprawl and promote compact development that will reduce driving.

Many state DOTs are in the process of adopting or expanding the use of performance objectives that will help the agency maximize the impact of transportation investments. Some examples are discussed below.

Washington State

The Gray Notebook is the basis for Washington State DOT performance reporting, and it links performance measures for the strategic plan, legislative and executive policy directions, and federal reporting requirements. In 2007, the governor and legislature enacted a new law establishing five policy goals for transportation agencies in Washington State - safety, preservation, mobility, environment and stewardship. Under the new law, the Washington State Office of Financial Management (OFM) is responsible for setting objectives and establishing performance measures for each goal. OFM must report on the attainment of the goals and objectives to the governor and legislature every two years.

Expanding the definition of mobility

Mobility has long been measured by DOTs. The standard performance measures have been roadway travel times and delay, which implicitly favor projects that make motorized travel faster and easier. Washington State DOT has expanded the idea of mobility to include transit ridership and percent drive-alone commute trips. In this way, WSDOT is monitoring its impact on travel behavior and considering transit ridership an increase in mobility.

Reducing Vehicle Miles Traveled

As a result of recent legislation, WSDOT has introduced performance objectives aimed at reducing vehicle miles traveled. WSDOT uses traffic counts taken on state, county and city roadways. Traffic counts are collected at 160 permanent data collection sites and 2,000 sampling sites.





Maryland

Bicycle and pedestrian mobility

Maryland's 2020 performance target is for at least 80 percent of state-owned roadway center-line miles to have a bicycle level of comfort of "D" or better (on a scale from "A" to "F"). The state also has a 2020 performance target that at least 30 percent of state-owned roadway center-line miles within Priority Funding Areas should have sidewalks.

Tracking the cost of transportation

Maryland DOT has an explicit goal of providing a transportation system that expands economic opportunities and increases the state's economic vitality. This goal is to be achieved by targeting transportation investments to serve existing development and new development/redevelopment consistent with smart growth principles.

Maryland uses data from the Consumer Expenditure Survey (conducted every two years by the federal government) to track the percentage of household income spent on transportation.

MTA tracks operating cost per passenger and per passenger mile for Core Bus, Light Rail, MARC, Commuter Bus, Metro, Paratransit and Taxi Access. The state's goal is that the cost per passenger and cost per passenger mile for Bus, Metro and Light Rail should increase at a rate no higher than the Consumer Price Index. MTA also tracks annual vehicle revenue miles of service provided, which indicates the level of transit service available to and in use by the public.

BUILDING A COALITION

Transportation performance objectives will be better and stronger with a diverse coalition of supporters and collaborators. Important groups to reach out to include:

- Transportation professionals
- Elected officials seeking to improve government performance and accountability
- Economic development groups
- Businesses/developers
- Transit providers
- Affordable housing groups
- Environmental groups
- Public health and safety groups
- Land preservation groups
- Architects, planners, and engineers
- Government watchdog groups



NEW JERSEY

Fix-it-first

Many state DOTs, including New Jersey have developed performance objectives that prioritize the maintenance and preservation of existing infrastructure. Of the total capital program in New Jersey, projects associated with major capacity increases are capped at 10 percent. This has the effect of protecting the state's existing investment in roads, bridges and other infrastructure and also refocuses development and improvements to existing areas and neighborhoods. New Jersey measures the number of bridges and lane-miles of roadways improved to monitor progress.



RESOURCES

Well Measured: Developing Indicators for Comprehensive and Sustainable Transport Planning

This paper, by Todd Litman of the Victoria Transport Policy Institute, examines current examples of sustainable transportation policy and how agencies around the world are attempting to measure this complex issue.

The Washington State Performance Measurement Library

Washington State Department of Transportation has assembled an online library of publications and projects that study the use of performance measures.
<http://www.wsdot.wa.gov/Accountability/Publications/Library.htm>

NCHRP Report 551: Performance Measures and Targets for Transportation Asset Management

This paper, published by the Transportation Research Board in 2006, details the use of performance measures at state DOTs and the growing need for more comprehensive outcome-oriented indicators of transportation impacts.

A Primer on Performance-Based Highway Program Management

Published by AASHTO's Task Force on Performance Management in 2008, this primer details performance management programs and results from a selection of state DOTs.
http://www.transportation.org/sites/quality/docs/PerformanceBasedHighwayProgram_Jan2008.pdf

ECONOMIC PERFORMANCE

Economic development is a key component of smart growth policy and an important topic within transportation planning and investment. Performance objectives that measure economic growth require knowledge of complex issues, particularly when trying to explain economic improvements *as a result* of transportation investment. We do know that transportation investments have the ability to create jobs, attract private investment, reduce household transportation costs and improve the efficiency of commerce. Transportation investments also impact property values, public health and safety, and environmental health. These impacts can be translated into important economic indicators.

Measuring the Economic Impact of Transportation Investments

- **Create well-paid, long-term, green jobs:** A number of state DOTs track the number of jobs created from highway construction, but other transportation investments, such as transit development or highway maintenance, create jobs as well.
- **Reduce household transportation costs:** Currently, Americans spend about 20 percent of their income on transportation; this figure is higher for many low-income families. Transportation investments can increase the access of Americans to economic opportunity by providing more affordable travel choices.
- **Reduce energy consumption:** Vehicle miles traveled are associated with an increase in pollution, greenhouse gas emissions and congestion. Reduction in the number of vehicle miles traveled increases economic health by reducing operating costs as well as the long-term costs of mitigation and infrastructure maintenance. At the same time, states can ensure increased mobility and affordability for residents by providing more viable public transportation, walking, and biking options.
- **Encourage private sector investment:** Transportation infrastructure has the potential to create economic value. Complete streets, highly-functioning transit, and walkable and bicycle-friendly thoroughfares create desirable places to live and work, as well as attract private sector investment. Measuring this impact of transportation investment is a topic at the forefront of performance measure research.



Making the Case: Research and Data

It is critical for performance objectives to be implemented with a carefully-planned data program to actually measure the indicators over time. Data must be reliable, frequent and relatively affordable to collect. The use of data that is already regularly collected can greatly reduce the time and expense associated with the implementation of new performance measures. Any assumptions or biases of the data need to be explicitly stated to maintain the credibility of the program. When selecting new data sources or collecting new data, do the necessary research to ensure that it is reliable. How is data collected and with what frequency? Are there times of the day, week, month or year when adjustments must be made? What are the costs associated with data collection? Ideally, data is collected by a public entity; it is collected with an appropriate frequency and methods of collection are consistent across time. The frequency of appropriate data collection will vary with the issue being studied and for many issues the time of day, week, month or year can be important considerations. Data should be publicly available to guarantee a degree of transparency. The reliability and quality of the data used is essential to successful implementation and development.

Messages that Work

- In a time of constrained budgets, we need to get the most from our transportation investments. Right now, though, our state doesn't outline or measure the outcomes we want from our transportation system, which means we're spending money without any sense of what we want to accomplish or if we're making any progress towards accomplishing it.
- We need to do a better job of ensuring our transportation investments deliver real benefits to our communities—that they help people get places more conveniently and affordably and foster economic growth and great places.
- Performance objectives help measure our progress on important issues, such as safety, mobility, economic development, reduced energy consumption, and environmental health.
- Measuring our progress on these goals instills accountability in our transportation system and helps ensure we're spending taxpayer dollars more wisely.
- It also provides better transparency in our transportation system by showing citizens the impacts our transportation investments are having on important issues.

POLLING

National Association of Realtors & Smart Growth America

Two polls conducted in 2007 and 2009 reveal that a majority of Americans support fixing our existing infrastructure and investing in public transportation options over building new roads. They also reveal strong support for more walkable, transit friendly communities. Performance measures provide an important means of helping accomplish these types of publicly supported goals. When asked in the 2009 poll about what the federal government's top priority should be for transportation funding, half of all respondents recommended maintaining and repairing roads and bridges, while nearly one third said "expanding and improving bus, rail, and other public transportation."

2007 poll:
http://www.smartgrowthamerica.org/nar_scareport2007.html

2009 poll:
<http://t4america.org/news/archives/696>

Building America's Future

A poll conducted in January 2009 found that accountability is Americans' single highest priority (61%) in rebuilding the country's infrastructure, when asked to rate their top two priorities among eight choices. The poll also found that only 22% of Americans think the federal government has been "effective" in improving their state's infrastructure. A somewhat larger 51% gave their governor a positive evaluation.

2009 poll:
<http://www.investininfrastructure.org/>



SAMPLE INDICATORS & OBJECTIVES

Here are a few performance objectives (O) and indicators (I) that can help a state achieve better transportation outcomes:

O: Reduce vehicle miles traveled (VMT)

I: Vehicle miles collected from odometers or other means

Note: A meaningful reduction in VMT typically requires land use plans that support compact development, redevelopment of urbanized areas, and a planned transportation network for each mode, including transit, bicycles, pedestrians, and motor vehicles.

O: Reduce fuel consumption by transportation sector

I: Gallons of fuel sold at transportation fueling stations for a given state during a given year.

O: Fix-it-first

I: The number of roads, bridges, and transit facilities brought to a “state of good repair.”

Note: A key component of good transportation policy is maintaining our existing infrastructure. Many argue that such projects should receive priority funding. Fix-it-first policies: protect investments; improve safety; and prioritize projects in areas where people already live and work.

O: Expand travel options

I: Number of trips made on transit, bicycles, and on-foot, as a percentage of total trips

I: Number of households with direct access to transit (1/4 mile) and safe bicycle and pedestrian facilities

Accountability

The current federal framework for accountability is weak. Although the last three transportation bills have included language aimed at increasing accountability, they haven’t effectively implemented incentives or consequences. Ideally, federal transportation funding would be tied to the achievement of clear outcomes including safe, affordable, and healthy travel options for all Americans that foster environmental health and quality of life. Projects that demonstrate progress toward these goals, measured by anticipated performance, should receive priority attention and funding.

In most cases, it is up to state DOTs to identify performance objectives and hold themselves accountable for their achievement. Doing so and can be to a state’s advantage. By creating and holding to a system of accountability, states are better positioned to compete for funding opportunities, such as the Economic Recovery Act and are more likely to have public support in place. In states such as California and Washington, where the state assemblies have passed legislation aimed at attaining smart growth outcomes, project eligibility and funding depends on compliance with smart growth goals and is monitored by the state legislature periodically.

Selected Examples from Current Practice

Many agencies are already using performance objectives to measure important smart growth outcomes. Here are some examples of performance measures currently in use and ways to improve them.

Bicycle and pedestrian measures in use

- Pedestrian customer satisfaction rating (based on a survey)
- Bike customer satisfaction rating (based on a survey)
- Percent miles of bike paths
- Percent miles of pedestrian paths

How to make these stronger: Satisfaction and mileage are valuable indicators but the usefulness of bicycle and pedestrian facilities is more complex. The quality of these facilities needs to be measured. Do they connect destinations? Are they safe and in good condition? For these modes to be viable travel options, a carefully-planned, comprehensive network must be created. DOTs should work towards implementing **bicycle and pedestrian plans**, with the help of local governments, and measure the degree to which these plans have been implemented.

Current transit measures in use

- Percent of counties that have adequate access to transit
- Percent of transit trips (of total trips) within transit-served areas
- Number of intermodal facilities, rail facilities
- Percent of urbanized population living within ¼ mile of transit service

How to make these stronger: Transit performance should not only measure ridership but again, the quality of the transit service. How successfully is transit capturing new trips? The transit sector is a job-creator and can play an important role in economic development. Comprehensive and fair performance objectives should reflect these aspects of transit as well.



FOR MORE INFORMATION

Many states are currently developing or expanding performance objectives systems to reflect smart growth goals. Stay tuned for developments.

Links to Selected Performance Objectives Programs and Information

- **Caltrans Transportation System Performance Measures (TSPM)**
<http://www.dot.ca.gov/hq/tsip/tsip/>
- **Florida Department of Transportation: Transportation Systems Performance**
<http://www.dot.state.fl.us/planning/policy/performance/>
- **Maryland Department of Transportation**
<http://www.e-mdot.com/Planning/Plans%20Programs%20Reports/Index.html>
- **New Jersey Department of Transportation: 2030 Statewide Long-range Transportation Plan; Potential 2030 Goals, Objectives and Performance Indicators**
<http://www.state.nj.us/transportation/works/njchoices/pdf/GoalsObjectivesIndicators.pdf>
- **New York City Department of Transportation Citywide Accountability Program**
<http://www.nyc.gov/html/dot/html/about/capdotmove.shtml>
- **Virginia Department of Transportation Dashboard**
<http://dashboard.virginiadot.org/default.aspx>
- **Washington State Department of Transportation**
<http://www.wsdot.wa.gov/accountability/default.htm>

Links to Legislation Associated with Smart Growth Performance-based Programs

State of California Senate Bill 375

http://info.sen.ca.gov/pub/07-08/bill/sen/sb_0351-0400/sb_375_cfa_20070724_102219_asm_comm.html

State of California Assembly Bill 32

www.arb.ca.gov/cc/docs/ab32text.pdf

State of Washington House Bill 2815-2007-08

<http://apps.leg.wa.gov/billinfo/summary.aspx?bill=2815&year=2008>