

Travel Delay: Hours of travel delay per capita per year in urban areas

Our strategy

We have a three part strategy for attaining our goal. First, we **optimize the use of infrastructure** by using new technology and construction techniques to improve performance, which reduces delay caused by construction and maintenance activities. We invest in safety projects to decrease crash-induced delay and projects relieving bottlenecks. Second, through **traffic network management** we employ new technology to provide timely information to travelers and optimize traffic flow. These systems help travelers choose alternative

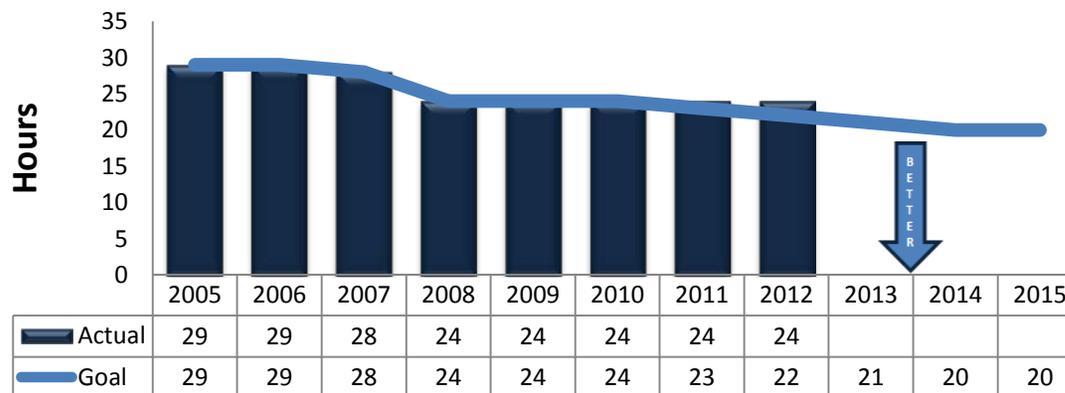
routes to avoid delay caused by crashes and other disruptions. Finally, through **sustainable transportation initiatives** we promote the use of energy efficient transportation alternatives which contribute towards reduction of single-occupancy vehicles, preserves air and water quality and moves us toward sustainable economic growth.

About the target

Congestion delay is measured as the difference in the total time people spend on the road compared to the time they would

have spent if traveling at posted speeds. Congestion delay is strongly associated with population size, a product of economic activity. Delay has two primary components, delay caused by the number of vehicles exceeding roadway capacity and delay caused by incidents affecting traffic flow, such as crashes and disabled vehicles. Congestion delay may be reduced a variety of ways, such as adding road capacity (new lanes), increasing vehicle occupancy rates (carpools, mass transit), reducing vehicle travel demand (online shopping,

Travel Delay - Hours of travel delay per capita per year in urban areas



Fact

Per capita delay in the Portland metropolitan area is about 10% higher than areas of like size; due to higher density land use patterns, which are more consistent with larger metropolitan areas than areas of like size to Portland.

Travel Delay, cont.

telecommuting), roadway operations (ramp meters) and incident response programs (reduces the amount of time for clearing incidents).

How we are doing and how we compare

Traffic congestion rose steadily until 2008. The Oregon economy and population grew faster than road capacity. With greater economic activity comes more travel and freight movement on the highway system. When the economy slowed in 2008 and fuel prices rose, the level of delay dropped about 14 percent. Recently the average hours of travel delay per capita per year remained steady at about 24 hours in the Portland, Salem and Eugene metropolitan areas combined. This travel delay measure is based on the Texas Transportation Institute's most recent Urban Mobility Report and includes statistics through year 2011. Delay per capita in the Portland metropolitan area is about 10 percent above average for urban areas of its size. Per capita delay in Eugene is lower than the small urban area average, while Salem is higher.

Factors affecting results and what needs to be done

Aside from economic and demographic factors triggering travel demand, the major

factor affecting delay is the balance between traffic volume and road capacity. The ability to add capacity is severely limited by revenue and costs of construction. Operational improvements can increase efficiency and capacity utilization; for example, ramp metering, signal synchronization, incident response vehicles, variable message signs, and capacity enhancing projects. The demand side of the equation is affected by user costs, land use patterns, alternative travel modes and travel demand management programs. Establishing real-time information services for system users helps travelers avoid congested conditions. Investment in safety projects decreases crash-induced delay. Investment in bottleneck relief reduces delay and improves system reliability. There is no single solution to eliminate delay, rather many different approaches to manage the rate of increase in delay. As long as the economy grows we can expect total delay to increase, but we have a variety of methods and techniques to manage delay in urban areas.



About the data

An annual national survey is conducted annually using methods producing statistically valid and reliable results. The Texas Transportation Institute revised the methodology for estimating delay in the 2010 report. It now uses archived travel speed data collected for each metropolitan area using GPS-enabled vehicles by the Inrix Corporation. Delay estimates are now reflective of actual conditions in each metropolitan area. One consequence of the change is that the estimates published after the 2010 report cannot be compared with numbers published in previous reports; however, the 2012 report includes estimates of previous year values using the new methodology to produce a data series that is comparable over time. Due to a problem with a new input data format, TTI has not released the Urban Mobility Report since 2012. They expect to publish a 2015 report and will provide estimates for years 2012 and 2013. There is no substitute for this data source.

Contact information

Becky Knudson
ODOT Transportation Development
503-986-4113

Data source

Texas Transportation Institute, 2012 Urban Mobility Report