# Does Travel Time Reliability Matter?

**Travelers depend on the U.S. transportation system every day** to meet commitments for work and friends and family, acquire/deliver goods and services, and respond to emergencies. If the system operates as expected and enables travel within a predictable amount of time, we can rely on it. When it doesn't, we can't. This lack of reliability affects our health, jobs, families, relationships, cost of consumer goods, and the amount of time we have for other things.

## An unreliable transportation system is costly...

**50-250% increase** in costs

### TO BUSINESSES:

Businesses rely heavily on the transportation system. If the system is unreliable, it affects **profitability**, **labor costs**, **fuel consumption and emissions**, and the **wear and tear and depreciation** of vehicles.

**6.9 billion hours** extra annually

### TO THE TRAVELING PUBLIC:

Road travelers have extra fuel consumption, emissions, and additional wear and tear and depreciation of vehicles due to unreliable travel time too. Unpredictable travel times also **adversely affect work productivity, stress, and sleep quality and take time away from family and friends**.

**7-10% survival rate decrease** per minute of delay to cardiac arrest

### TO LOCAL GOVERNMENTS:

The transportation system provides a critical service to the traveling public. When the system doesn't deliver on a reasonable expectation of travel time, travelers **lose confidence in the Government**'s ability to perform a basic service, which includes delays in response time of first responders.

[ Annual estimated cost of unreliability on U.S. roads in 2014 = **$19,000,000,000** ]

**So, how do we create a reliable transportation system?**

# Implement proven **Transportation Systems Management and Operations (TSMO)** strategies

TSMO is a whole system approach to get the most out of your transportation system. With the right mix of strategies to manage traffic and demand and respond to disruptions, road users can better predict travel time and reach destinations on time.

IMPROVE PLANNING AND RESPONSE TO INCIDENTS, ROADWORK, AND SPECIAL EVENTS: Work zones, special events, crashes, and weather are major sources of unreliability. Incident-related congestion and delays can be reduced with incident management strategies that increase incident detection rates and reduce incident clearance time to quickly restore traffic back to normal conditions.

ACTIVELY MANAGE TRANSPORTATION AND DEMAND: Active Transportation and Demand Management (ATDM) is the dynamic and real-time management of transportation demand and supply by influencing traveler behavior. ATDM has three components: (1) active traffic management, (2) active demand management, and (3) active parking management.

INCREASE CAPACITY: Capacity addition refers to improvements in the road capacity so that more traffic is accommodated by the facility. Capacity addition is a treatment that is focused on a corridor level and can range from simple repainting of pavement markings to more extensive lane additions. Facilities where capacity has been added exhibit less sensitivity to reliability problems. Although this is not a TSMO strategy, TSMO can be used to fully leverage investments to increase capacity, when needed.

CHANGE ORGANIZATIONAL, INSTITUTIONAL, AND BUSINESS PROCESSES: A supportive institutional architecture with the following **six key elements** are required to improve transportation system management and operations and enhance travel time reliability: **(1) business processes, (2) systems and technology, (3) performance measurement, (4) culture, (5) organization and workforce, and (6) collaboration**.

## Improve Reliability!

Prioritize TSMO to improve reliability of the transportation system

**Visit the TSMO website for more information:**

**https://ops.fhwa.dot.gov/tsmo/**

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