



# Renewing Texas Infrastructure

## 2012 Texas Infrastructure Report Card

### Texas Section – American Society of Civil Engineers



## Highways and Roads Fact Sheet

### Key Infrastructure Facts: Existing Condition and Performance

- There are approximately 306,403 total centerline miles of roadway facilities in Texas. Of these, 79,994 miles (24 percent) are on-system, or part of the designated state highway system. The remaining 282,677 miles are off-system, or under the direct jurisdiction of local governments.
- Rural highways in Texas have exceeded their design life and most do not meet current design standards according to the Texas Department of Transportation (TxDOT).
- The overall condition of Texas pavements started to decrease in 2006 from its highest level in 2005.
- The 2011 statewide pavement conditions rated “good” or better was at 86.7 percent. With the current budget set aside for maintenance, by 2019 only 80% of the roadways would be rated “good.”
- Both the state population and annual vehicle miles traveled on state highways increased by 30 percent over the last 15 years. For a similar period, the number of lane miles only increased by about four percent.
- The average pavement routine maintenance expenditure for 2006-2008 was \$325.13 million. The Committee calculated the total pavement routine maintenance needs for the existing pavement system from 2008 to 2030 by multiplying the average of \$325.13 million by 22 years to get the \$7.2 billion.
- The 2011 Urban Mobility Report, published annually by the Texas Transportation Institute (TTI), reports traffic congestion data for major Texas cities, including: annual delay per auto commuter in hours, national ranking for annual delay per auto commuter, and annual costs of congestion in millions of dollars:

City	National Ranking for Annual Delay per Auto Commuter	National Ranking for Travel Delay	Annual Delay per Auto Commuter (Hours)	Annual Costs of Congestion (\$ millions)
Dallas/Ft. Worth	10	5	45	3,365
Houston	4	6	57	3,203
Austin	15	28	38	617
San Antonio	34	30	30	593
El Paso	60	59	21	214
Beaumont	57	91	22	77
Laredo	93	99	12	46
Corpus Christi	96	96	10	50
Brownsville	83	96	15	50

- Due to congestion issues, an average of 34 hours/year per is spent in traffic for an urban driver. This equates to excess fuel usage and travel delays or \$713/year per driver.
- In FY 2011, TxDOT designated \$2.71 billion (31%) of the organization's budget on maintenance operations for on-system facilities; this figure has decreased by 4% since 2009 and will continue to decrease due to current funding allocations.

## Anticipated Growth and Other Future Needs

- The population of Texas, according to the U.S. Census Bureau, grew to 25.1 million people in 2010 and is expected to increase 35.8 million by 2040. Highway capacity must be increased significantly to match the increase in population.
- The *2011 Urban Mobility Report* points out that prior to the economy slowing just four years ago, congestion levels were much higher than a decade ago; these conditions will return with a strengthening economy. In cases from the 80's and 90's, congestion problems returned when the economy rebounded.
- Current funding levels are not keeping up with maintenance needs of the aging infrastructure, and it is anticipated that pavement conditions on rural and metropolitan highways will continue to decrease as the system becomes older and traffic levels increase.

## Adequacy of Current Funding and Need for Expanded Funding

- Currently, Texas ranks 43rd in highway spending per capita.
- The 2030 Committee Texas Transportation Needs Report states that between 2009 and 2030, the state would need to invest \$315 billion (2008 dollars) into the roadway system to account for population growth and freight traffic movement.
- Highway funding is not meeting the highway infrastructure needs in Texas.
- Texas' mobility needs are identified regionally by 25 Metropolitan Planning Organizations (MPO) throughout the State, statewide generally every three years in a *Metropolitan Transportation Plan* (MTP). By mandate, the MTP is fiscally constrained, meaning that not all cost effective projects can be funded.
- Cambridge Systematics, Inc. studied the increase of fuel efficiency in the State of Texas and determined that "long-term growth in driving will be overtaken by the increases in fuel-efficiency, resulting from lower fuel usage and therefore lower state fuel tax revenues". The increase of fuel-efficient vehicles will decrease the amount of fuel tax generated and returned to the state.
- Texas remains a "Donor" state when receiving funding for the Federal Gas Tax. In 2008, Texas received federal funds at a ratio of 0.81 from the Federal Highway program. This amount cost the state \$728 million in underpayments.
- Since the inception of the federal highway program in 1956, Texas has given more to the fund than has received with an average return ratio of 0.801.
- Funding for repairs and improvements of off-system roads (74 percent of Texas roads) is left entirely up to local governments.
- According to the Highway Cost Index, recent trends are bringing the index closer to 2008 levels; highway costs increased by approximately 12% from 2010-2012.

## Sources

- U.S. Census Bureau ([www.census.gov](http://www.census.gov))

- *The 2011 Annual Urban Mobility Study*, Texas Transportation Institute, September 2011 ([mobility.tamu.edu](http://mobility.tamu.edu))
- Input provided by TxDOT staff, June 2012
- TxDOT Pocket Fact Sheets, 2012 ([www.txdot.gov](http://www.txdot.gov))
- TxDOT Highway Cost Index Report, June 2012
- 2011 - 2015 TxDOT Strategic Plan
- “Higher Gas Efficiency Equals Lower Fuel Revenues”, Public Roads, November 2008, Cambridge Systematics, Inc.
- “Finding the Future; A Forecast of Transportation Finance”, July 28, 2009, Texas Transportation Institute, Center for Transportation Research, Texas Association of Metropolitan Planning Organizations, and Texas Department of Transportation, [ftp://ftp.dot.state.tx.us/pub/txdot-info/gpa/072809\\_tempo\\_report.pdf](ftp://ftp.dot.state.tx.us/pub/txdot-info/gpa/072809_tempo_report.pdf)
- <http://www.heritage.org/Research/Reports/2010/04/Federal-Highway-Program-Shortchanges-Half-of-the-States>