Missouri Department of Transportation

Tracker

Measures of Departmental Performance

January 2009
Greetings from MoDOT

The Missouri Department of Transportation is committed to being open and transparent. We want you to know what we do well, what we don’t do so well and what we are doing to get better. That is why we created the Tracker.

This document is your window into MoDOT – warts and all. It invites you to hold us accountable for exceeding your expectations. You expect MoDOT to get the best value out of every dollar spent. You expect us to make highways smoother and safer, soon. You expect us to fix bad bridges, be responsive and to proactively give you the information you need. You expect us to provide a world-class transportation experience.

We share your expectations and have built 18 tangible results around them. These results guide us everyday as we go about the business of delighting our customers. In the Tracker, you will see that we have established measures to gauge our progress and we are comparing ourselves to the best organizations in the country.

You can use the Tracker to see how we are measuring up. We make it available in a printed format and on our website at www.modot.org. Missouri’s transportation system will not improve unless we all work together. The Tracker is one of the many ways you can help. Please look it over and let us know how we are doing.

Sincerely,

[Signature]

Mission

Our mission is to provide a world-class transportation experience that delights our customers and promotes a prosperous Missouri.
Tangible Results

- Uninterrupted Traffic Flow
- Smooth and Unrestricted Roads and Bridges
- Safe Transportation System
- Roadway Visibility
- Personal, Fast, Courteous and Understandable Response to Customer Requests (Inbound)
- Partner With Others to Deliver Transportation Services
- Leverage Transportation to Advance Economic Development
- Innovative Transportation Solutions
- Fast Projects That Are of Great Value
- Environmentally Responsible
- Efficient Movement of Goods
- Easily Accessible Modal Choices
- Customer Involvement in Transportation Decision-Making
- Convenient, Clean and Safe Roadside Accommodations
- Best Value for Every Dollar Spent
- Attractive Roadsides
- Advocate for Transportation Issues
- Accurate, Timely, Understandable and Proactive Transportation Information (Outbound)

Value Statements

MoDOT will -

- support and develop employees because we believe they are the key to our success.
- be flexible because we believe one size does not fit all.
- honor our commitments because we believe in integrity.
- encourage risk and accept failure because we believe in getting better.
- be responsive and courteous because we believe in delighting our customers.
- empower employees because we trust them to make timely and innovative decisions.
- not compromise safety because we believe in the well-being of employees and customers.
- provide the best value for every dollar spent because we’re taxpayers too.
- value diversity because we believe in the power of our differences.
- be one team because we all share the same mission.
- use teamwork because it produces the best results.
- foster an enjoyable workplace because we care about each other and our mission.
- be open and honest because we must be trustworthy.
- listen and seek to understand because we value everyone’s opinion.
- treat everyone with respect because we value their dignity.
- seek out and welcome any idea that increases our options because we don’t have all the answers.
- always strive to do our job better, faster, and cheaper because we want to meet more of Missouri’s needs.
## Uninterrupted Traffic Flow – Don Hillis (Page 1)

<table>
<thead>
<tr>
<th>Category</th>
<th>Author</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average travel indices and speeds on selected freeway sections</td>
<td>Troy Pinkerton</td>
<td>1a</td>
</tr>
<tr>
<td>Average rate of travel on selected signalized routes</td>
<td>Julie Stotlemeyer</td>
<td>1b</td>
</tr>
<tr>
<td>Average time to clear traffic incident</td>
<td>Rick Bennett</td>
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<tr>
<td>Average time to clear traffic backup from incident</td>
<td>Rick Bennett</td>
<td>1d</td>
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<tr>
<td>Number of customers assisted by the Motorist Assist program</td>
<td>Rick Bennett</td>
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<tr>
<td>Percent of Motorist Assist customers who are satisfied with the service</td>
<td>Rick Bennett</td>
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<tr>
<td>Percent of work zones meeting expectations for traffic flow</td>
<td>Dan Smith</td>
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<tr>
<td>Time to meet winter storm event performance objectives on major and minor highways</td>
<td>Tim Jackson</td>
<td>1h</td>
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## Smooth and Unrestricted Roads and Bridges – Kevin Keith (Page 2)

<table>
<thead>
<tr>
<th>Category</th>
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<tr>
<td>Projects that contribute to the Better Roads, Brighter Future program goal</td>
<td>Jay Bledsoe</td>
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<tr>
<td>Percent of major highways that are in good condition</td>
<td>Jay Bledsoe</td>
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<tr>
<td>Percent of minor highways that are in good condition</td>
<td>Jay Bledsoe</td>
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<tr>
<td>Percent of vehicle miles traveled on major highways in good condition</td>
<td>Jay Bledsoe</td>
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<tr>
<td>Percent of deficient bridges on major highways</td>
<td>Dennis Heckman</td>
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<tr>
<td>Percent of deficient bridges on minor highways</td>
<td>Dennis Heckman</td>
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<tr>
<td>Number of deficient bridges on the state system (major &amp; minor highways)</td>
<td>Dennis Heckman</td>
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## Safe Transportation System – Don Hillis (Page 3)

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<thead>
<tr>
<th>Category</th>
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<tbody>
<tr>
<td>Number of fatalities and disabling injuries</td>
<td>Leanna Depue</td>
<td>3a</td>
</tr>
<tr>
<td>Number of impaired driver-related fatalities and disabling injuries</td>
<td>Leanna Depue</td>
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</tr>
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<td>Rate of annual fatalities and disabling injuries</td>
<td>Leanna Depue</td>
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<tr>
<td>Percent of safety belt/passenger vehicle restraint use</td>
<td>Leanna Depue</td>
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<tr>
<td>Number of bicycle and pedestrian fatalities and disabling injuries</td>
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<tr>
<td>Number of motorcycle fatalities and disabling injuries</td>
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<tr>
<td>Number of commercial motor vehicle crashes resulting in fatalities</td>
<td>Charles Gohring</td>
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<tr>
<td>Number of commercial motor vehicle crashes resulting in injuries</td>
<td>Charles Gohring</td>
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<tr>
<td>Number of fatalities and injuries in work zones</td>
<td>Troy Pinkerton</td>
<td>3i</td>
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<tr>
<td>Number of highway-rail crossing fatalities and collisions</td>
<td>Rod Massman</td>
<td>3j</td>
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## Roadway Visibility – Don Hillis (Page 4)

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<thead>
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<th>Category</th>
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<tbody>
<tr>
<td>Rate of nighttime crashes</td>
<td>Mike Curtit</td>
<td>4a</td>
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<tr>
<td>Percent of signs that meet customers’ expectations</td>
<td>Mike Curtit</td>
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<tr>
<td>Percent of stripes that meet customers’ expectations</td>
<td>Jim Brocksmith</td>
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<tr>
<td>Percent of work zones meeting expectations for visibility</td>
<td>Dan Smith</td>
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## Personal, Fast, Courteous and Understandable Response to Customer Requests (Inbound) – Shane Peck (Page 5)

<table>
<thead>
<tr>
<th>Category</th>
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<tbody>
<tr>
<td>Percent of overall customer satisfaction</td>
<td>Sally Oxenhandler</td>
<td>5a</td>
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<tr>
<td>Percent of customers who contacted MoDOT that felt they were responded to quickly and courteously with an understandable response</td>
<td>Sally Oxenhandler</td>
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<tr>
<td>Percent of documented customer requests responded to within 24 hours</td>
<td>Sally Oxenhandler</td>
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<tr>
<td>Average completion time on requests requiring follow up</td>
<td>Sally Oxenhandler</td>
<td>5d</td>
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## Partner With Others to Deliver Transportation Services – Kevin Keith (Page 6)

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<thead>
<tr>
<th>Category</th>
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<tbody>
<tr>
<td>Number of dollars of discretionary funds allocated to Missouri</td>
<td>Todd Grosvenor</td>
<td>6a</td>
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<tr>
<td>Percent of earmarked dollars that represent MoDOT’s high priority highway projects</td>
<td>Todd Grosvenor</td>
<td>6b</td>
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<tr>
<td>Number of dollars generated through cost-sharing and other partnering agreements</td>
<td>Todd Grosvenor</td>
<td>6c</td>
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## Leverage Transportation to Advance Economic Development – Roberta Broeker (Page 7)

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<thead>
<tr>
<th>Category</th>
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<tr>
<td>Number of miles of new 4-lane corridors completed</td>
<td>Jay Bledsoe</td>
<td>7a</td>
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<td>Percent utilization of SIB &amp; STAR loan programs</td>
<td>Brenda Morris</td>
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<td>Economic return from transportation investment</td>
<td>Ben Reeser</td>
<td>7c</td>
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<th>Category</th>
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<tr>
<td>Number and percent of research recommendations implemented</td>
<td>Bill Stone</td>
<td>8a</td>
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<tr>
<td>Number of external awards received</td>
<td>Bill Stone</td>
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<td>Percent of best practices by implementation status</td>
<td>Bill Stone</td>
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<tr>
<td>Number of dollars saved by increasing MoDOT’s productivity</td>
<td>Jen Harper</td>
<td>8d</td>
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<tr>
<td><strong>Fast Projects That Are of Great Value – Dave Nichols (Page 9)</strong></td>
<td></td>
<td></td>
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<tr>
<td>---------------------------------------------------------------</td>
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<tr>
<td>Percent of estimated project cost as compared to final project cost</td>
<td>Renate Wilkinson</td>
<td>9a</td>
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<td>Average number of years it takes to go from the programmed commitment in the Statewide Transportation Improvement Program to construction completion</td>
<td>Machelle Watkins</td>
<td>9b</td>
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<tr>
<td>Percent of projects completed within programmed amount</td>
<td>Dave Ahlvers</td>
<td>9c</td>
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<tr>
<td>Percent of projects completed on time</td>
<td>Dave Ahlvers</td>
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<tr>
<td>Percent of change for finalized contracts</td>
<td>Dave Ahlvers</td>
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<td>Average construction cost per day by contract type</td>
<td>Dave Ahlvers</td>
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<tr>
<td>Unit cost of construction expenditures</td>
<td>Kenneth Voss</td>
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<tr>
<td>Annual dollar amount saved by implementing value engineering</td>
<td>Kathy Harvey</td>
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<tr>
<td>Percent of customers who feel completed projects are the right transportation solutions</td>
<td>Kathy Harvey</td>
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<th><strong>Environmentally Responsible – Dave Nichols (Page 10)</strong></th>
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<tr>
<td>Percent of projects completed without environmental violation</td>
</tr>
<tr>
<td>Number of projects MoDOT protects sensitive species or restores habitat</td>
</tr>
<tr>
<td>Ratio of acres of wetlands created compared to the number of acres of wetlands impacted</td>
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<td>Percent of Missouri’s clean air days</td>
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<tr>
<td>Number of gallons of fuel consumed</td>
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<tr>
<td>Number of historic resources avoided or protected as compared to those mitigated</td>
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<td>Number of tons of recycled/waste materials used in construction projects</td>
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<th><strong>Efficient Movement of Goods – Brian Weiler (Page 11)</strong></th>
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<td>Freight tonnage by mode</td>
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<tr>
<td>Percent of trucks using advanced technology at Missouri weigh stations</td>
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<td>Interstate motor carrier mileage</td>
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<td>Percent of satisfied motor carriers</td>
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<td>Customer satisfaction with timeliness of Motor Carrier Services’ response</td>
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<th><strong>Easily Accessible Modal Choices – Brian Weiler (Page 12)</strong></th>
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<td>Number of airline passengers</td>
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<tr>
<td>Number of daily scheduled airline flights</td>
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<tr>
<td>Number of business-capable airports</td>
</tr>
<tr>
<td>Number of transit passengers</td>
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<tr>
<td>Average number of days per week rural transit service is available</td>
</tr>
<tr>
<td>Number of intercity bus stops</td>
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<td>Number of rail passengers</td>
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<tr>
<td>Number of passengers and vehicles transported by ferryboat</td>
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<td>State funding for multimodal programs</td>
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<td>Percent of customers satisfied with transportation options</td>
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<tr>
<th><strong>Customer Involvement in Transportation Decision-Making – Dave Nichols (Page 13)</strong></th>
</tr>
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<tbody>
<tr>
<td>Number of customers who attend transportation-related meetings</td>
</tr>
<tr>
<td>Percent of customers who are satisfied with feedback they receive from MoDOT after offering comments</td>
</tr>
<tr>
<td>MoDOT takes into consideration customers’ needs and views in transportation decision-making</td>
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<tr>
<td>Percent of positive feedback responses received from planning partners regarding involvement in transportation decision-making</td>
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<tr>
<th><strong>Convenient, Clean &amp; Safe Roadside Accommodations – Don Hillis (Page 14)</strong></th>
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<tbody>
<tr>
<td>Percent of customers satisfied with rest areas’ convenience, cleanliness and safety</td>
</tr>
<tr>
<td>Percent of customers satisfied with commuter lots’ convenience, cleanliness and safety</td>
</tr>
<tr>
<td>Number of users of commuter parking lots</td>
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<tr>
<td>Number of users of rest areas</td>
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<tr>
<td>Number of truck customers that utilize rest areas</td>
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</table>
## Best Value for Every Dollar Spent – Roberta Broeker (Page 15)

<table>
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<tr>
<th>Indicator</th>
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<tbody>
<tr>
<td>Number of MoDOT employees (converted to full-time equivalencies)</td>
<td>Steve Meystrick</td>
<td>15a</td>
</tr>
<tr>
<td>Percent of work capacity based on average hours worked</td>
<td>Micki Knudsen</td>
<td>15b</td>
</tr>
<tr>
<td>Rate of employee turnover</td>
<td>Kim Hickey</td>
<td>15c</td>
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<tr>
<td>Level of job satisfaction</td>
<td>Paul Imhoff</td>
<td>15d</td>
</tr>
<tr>
<td>Number of lost workdays per year</td>
<td>Jeff Padgett</td>
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<tr>
<td>Rate and total of OSHA recordable incidents</td>
<td>Jeff Padgett</td>
<td>15f</td>
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<tr>
<td>Number of claims for general liability</td>
<td>Jeff Padgett</td>
<td>15g</td>
</tr>
<tr>
<td>Cost of utilities for facilities</td>
<td>Doug Record</td>
<td>15h</td>
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<tr>
<td>Fleet status</td>
<td>Jeannie Wilson</td>
<td>15i</td>
</tr>
<tr>
<td>Percent of vendor invoices paid on time</td>
<td>Debbie Rickard</td>
<td>15j</td>
</tr>
<tr>
<td>Distribution of expenditures</td>
<td>Debbie Rickard</td>
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<tr>
<td>Percent variance of state revenue projections</td>
<td>Ben Reeser</td>
<td>15l</td>
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<tr>
<td>MoDOT national ranking in revenue per mile</td>
<td>Ben Reeser</td>
<td>15m</td>
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<tr>
<td>Number of excess properties conveyed</td>
<td>Kelly Lucas</td>
<td>15n</td>
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<tr>
<td>Gross revenue generated from excess properties sold</td>
<td>Kelly Lucas</td>
<td>15o</td>
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## Attractive Roadsides – Don Hillis (Page 16)

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<tr>
<th>Indicator</th>
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<tbody>
<tr>
<td>Percent of roadsides that meet customers’ expectations</td>
<td>Jim Carney</td>
<td>16a</td>
</tr>
<tr>
<td>Number of miles in Adopt-A-Highway program</td>
<td>Stacy Armstrong</td>
<td>16b</td>
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## Advocate for Transportation Issues – Pete Rahn (Page 17)

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<tr>
<th>Indicator</th>
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<tbody>
<tr>
<td>Percent of minorities and females employed</td>
<td>Brenda Treadwell-Martin</td>
<td>17a</td>
</tr>
<tr>
<td>Separation rates for females and minorities</td>
<td>Brenda Treadwell-Martin</td>
<td>17b</td>
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<tr>
<td>Transportation-related legislation filed and passed by the General Assembly</td>
<td>Lisa Lemaster</td>
<td>17c</td>
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<tr>
<td>Percent of federal earmarked highway projects on the state highway system identified as needs</td>
<td>Jay Wunderlich</td>
<td>17d</td>
</tr>
<tr>
<td>Percent of customers who view MoDOT as Missouri’s transportation expert</td>
<td>Jay Wunderlich</td>
<td>17e</td>
</tr>
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## Accurate, Timely, Understandable and Proactive Transportation Information (Outbound) – Shane Peck (Page 18)

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<thead>
<tr>
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<tbody>
<tr>
<td>Number of public appearances</td>
<td>Sally Oxenhandler</td>
<td>18a</td>
</tr>
<tr>
<td>Percent of customers who feel MoDOT provides timely, accurate and understandable information</td>
<td>Sally Oxenhandler</td>
<td>18b</td>
</tr>
<tr>
<td>Number of contacts initiated by MoDOT to media</td>
<td>Kristi Jamison</td>
<td>18c</td>
</tr>
<tr>
<td>Percent of MoDOT information that meets the media’s expectations</td>
<td>Kristi Jamison</td>
<td>18d</td>
</tr>
<tr>
<td>Percent of positive newspaper editorials</td>
<td>Kristi Jamison</td>
<td>18e</td>
</tr>
<tr>
<td>Number of repeat visitors to MoDOT’s web site</td>
<td>Matt Hiebert</td>
<td>18f</td>
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**Please Note:** Tangible Results are listed in reverse alphabetical order, not by importance.
Uninterrupted Traffic Flow

Tangible Result Driver – Don Hillis, Director of System Management

Missouri drivers expect to get to their destinations on time, without delays. Traffic, changes in weather, work zones and highway incidents can all impact their travel. MoDOT works to ensure that motorists travel as efficiently as possible on the state system by better managing work zones, snow removal and highway incidents, and by using the latest technology to inform motorists of possible delays and available options. Better traffic flow means fewer crashes.
Average travel indices and speeds on selected freeway sections-1a

Result Driver:  Don Hillis, Director of System Management
Measurement Driver:  Troy Pinkerton, Traffic Liaison Engineer

Purpose of the Measure:
This measure tracks the average travel index values and average speeds on various freeway sections. The desired trend is for the travel index to remain at or near a value of 1.00. A value of 1.00 is representative of a free-flow condition. The travel index is directly related to the average speed and represents the level of congestion by taking into consideration not only average speed but also the traffic volumes. The travel index is calculated according to the following equation:

\[ \text{Travel Index} = \frac{\text{Average speed}}{\text{Free flow speed}} \]

Average speeds are taken from sensor data. The free-flow speed is constant and is equal to the highest hourly average speed for any hour in that data set.

Measurement and Data Collection:
Data from the St. Louis and Kansas City regions are provided by MoDOT’s traffic management centers. Information about the St. Louis traffic management center, Gateway Guide, can be found at [http://www.gatewayguide.com](http://www.gatewayguide.com) and information about the traffic management center in Kansas City, KC Scout, can be found at [http://www.kcscout.net/](http://www.kcscout.net/). Data for the St. Louis region is also provided through a partnership with Traffic.com. Data for each location is updated quarterly.

Improvement Status:
Kansas City metropolitan region:
As shown on the graph, the freeway systems in the Kansas City region are performing in the mid to upper 80 percentile range during the peak hours, as compared to the free-flow condition. The morning peak travel index remained constant at 0.88, a slight increase over the previous fiscal year average of 0.87. The evening peak travel index decreased in comparison to last quarter falling from 0.88 to 0.84. Most of the Kansas City region has been free from significant work zone impacts. However, bridge work and resurfacing jobs are being conducted at the Paseo Bridge causing some slow downs in the morning commute southbound into downtown. This area should see some dramatic slow downs over the next few years due to the KC ICON bridge replacement project. Additional information on the construction activities along I-29/35 can be found at [www.kcicon.org](http://www.kcicon.org).

St. Louis metropolitan region:
Data in the St. Louis region shows a significant decrease in the morning and evening peak travel indices. To maintain consistency statewide, specific high-incident locations were chosen in St. Louis for representation this quarter. Previously, the corridor data was averaged utilizing multiple points on the interstate. The morning peak travel index decreased from 0.96 to 0.87. The evening peak travel index decreased from 0.96 to 0.85 for the second quarter fiscal year 2009 when compared to the first quarter fiscal year 2009 peak indices. The decrease in travel index better represents the level of congestion during peak times. This is the fourth of four quarters impacted by the closure of the western portion of I-64. Additional information on the construction activities along I-64 can be found at [www.thenewi64.org](http://www.thenewi64.org).

Statewide:
The statewide average speed on rural routes for this quarter is 69.42 mph, which is a slight decrease from last quarter. Historically, we have seen an increase in average speeds in the first and fourth quarters of the fiscal year. Second quarter fiscal year 2008 average speed was 67.42 mph. Improvements continue to be made to the rural interstate corridors. CCTV cameras will be installed on I-70, I-44, I-55, I-29, I-34, I-55 and Route 60 by the fall of 2009.
Travel Index on Selected Freeway Sections

Kansas City Metropolitan Averages

<table>
<thead>
<tr>
<th>Hours</th>
<th>Travel Index</th>
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<tr>
<td>A.M. Peak</td>
<td>0.87, 0.88, 0.88</td>
</tr>
<tr>
<td>P.M. Peak</td>
<td>0.85, 0.88, 0.84</td>
</tr>
</tbody>
</table>

Desired Trend: 1.00

St. Louis Metro Averages

<table>
<thead>
<tr>
<th>Hours</th>
<th>Travel Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.M. Peak</td>
<td>0.95, 0.96, 0.87</td>
</tr>
<tr>
<td>P.M. Peak</td>
<td>0.94, 0.96, 0.85</td>
</tr>
</tbody>
</table>

Desired Trend: 1.00
Average Travel Speeds on Selected Roadway Sections Statewide Rural Routes

<table>
<thead>
<tr>
<th>Average FY 2008</th>
<th>1st Qtr. FY 2009</th>
<th>2nd Qtr. FY 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>68.04 mph</td>
<td>69.67 mph</td>
<td>69.42 mph</td>
</tr>
</tbody>
</table>

Average Speed Limit on Rural Routes: 70 mph
Average rate of travel on selected signalized routes-1b

Result Driver:  Don Hillis, Director of System Management
Measurement Driver:  Julie Stotlemeyer, Traffic Liaison Engineer

Purpose of the Measure:
This measure indicates how well selected arterials across the state are operating during peak traffic times. As improvements are made, such as signal timing or access management, this measure will show the effects of those efforts and decisions on the arterial system.

Measurement and Data Collection:
Travel times are measured on various arterials. Data is collected from driving each route twice during a.m. and p.m. peak times and timing how long it takes to traverse the route. The travel time is compared to the speed limit and the travel time factor determined. As the travel time factor approaches 1.00, traffic is moving at the speed limit. Data collection began in the second quarter of fiscal year 2007. Data for this measure is updated quarterly.

Improvement Status:
For second quarter fiscal year 2009, the average statewide travel time factor for a.m. peak is 0.762 and p.m. peak is 0.660. Overall performance is 0.711. The a.m. peak travel time factor is ten percent higher than p.m. peak travel time factor. Second quarter data shows the a.m. peak for arterials operating higher than the average for fiscal year 2007 and 2008 while the p.m. peak for arterials operates higher than the average for fiscal year 2007 but the same as the average for fiscal year 2008. For second quarter fiscal year 2009, the a.m. peak travel time factor is three percent higher and the p.m. peak travel time factor is the same as the second quarter fiscal year 2008 a.m. and p.m. peak travel time factors, respectively.

The average rate of travel on selected signalized routes has improved due to increased retiming of signals.

* The average FY 2007 data is from the last three quarters in FY 2007. The 1st quarter FY 2007 is unavailable.
Uninterrupted Traffic Flow

Average time to clear traffic incident-1c

**Result Driver:**  Don Hillis, Director of System Management  
**Measurement Driver:**  Rick Bennett, Traffic Liaison Engineer

**Purpose of the Measure:**  
This measure is used to determine the trends in incident clearance on the state highway system. A traffic incident is an unplanned event that creates a temporary reduction in the number of vehicles that can travel on the road. The sooner an incident is removed, the sooner the highway system returns to normal capacity. Therefore, responding to and quickly addressing the incidents (crashes, flat tires and stalled vehicles) improves system performance.

**Measurement and Data Collection:**  
Advanced Transportation Management Systems (ATMS) are used by both the Kansas City and St. Louis traffic management centers to record “incident start time” and the time for “all lanes cleared.” In October of 2008, St. Louis switched from using motorist assist arrival times as the “incident start time” to utilizing the time the incident was confirmed in the ATMS as the “incident start time.” Average time to clear traffic incidents is calculated from these times.

**Improvement Status:**  
St. Louis recorded 734, 702, and 806 incidents respectively for the months of October, November and December. St. Louis’ data includes considerably more incidents because St. Louis monitors more freeway miles than the Kansas City area. The drastic increase in clearance time is attributed to the response time, the time between when the incident was confirmed and motorist assist or another responder arrived on the scene, which is now included in the duration of the incident. In past Tracker reports, “incident start time” was the time that was recorded when motorist assist arrived on the scene. Starting in October, St. Louis’ ATMS system began measuring the “incident start time” as the time at which an incident was confirmed, usually via CCTV prior to any responder arriving on the scene. There were several incidents of longer duration during the evening hours including a tracker-trailer hazardous materials incident and a water main break. Typically during the overnight hours, the incident is often left in the lane longer than peak times.

Kansas City collected data on 192, 178, and 259 incidents respectively for the months of October, November and December. November experienced a higher average clearance time because 60 percent of the incidents were long-term incidents. However, this did not deter from the fact that incident clearance times continue to show a reduction as compared to those for the same time period last year.
Uninterrupted Traffic Flow

Average Time to Clear Traffic Incident
St. Louis

<table>
<thead>
<tr>
<th>Calendar Month</th>
<th>Minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan. 2008</td>
<td>16.6</td>
</tr>
<tr>
<td>Feb. 2008</td>
<td>16.4</td>
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<tr>
<td>Mar. 2008</td>
<td>22.0</td>
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<tr>
<td>Apr. 2008</td>
<td>20.0</td>
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<tr>
<td>May 2008</td>
<td>18.0</td>
</tr>
<tr>
<td>June 2008</td>
<td>15.0</td>
</tr>
<tr>
<td>July 2008</td>
<td>19.4</td>
</tr>
<tr>
<td>Aug. 2008</td>
<td>20.5</td>
</tr>
<tr>
<td>Sept. 2008</td>
<td>24.2</td>
</tr>
<tr>
<td>Oct. 2008</td>
<td>17.6</td>
</tr>
<tr>
<td>Nov. 2008</td>
<td>17.7</td>
</tr>
<tr>
<td>Dec. 2008</td>
<td>18.7</td>
</tr>
<tr>
<td>Jan. 2007</td>
<td>20.0</td>
</tr>
<tr>
<td>Feb. 2007</td>
<td>19.1</td>
</tr>
<tr>
<td>Mar. 2007</td>
<td>19.9</td>
</tr>
<tr>
<td>Apr. 2007</td>
<td>15.2</td>
</tr>
<tr>
<td>May 2007</td>
<td>19.9</td>
</tr>
<tr>
<td>June 2007</td>
<td>19.8</td>
</tr>
<tr>
<td>July 2007</td>
<td>24.8</td>
</tr>
<tr>
<td>Aug. 2007</td>
<td>19.6</td>
</tr>
<tr>
<td>Sept. 2007</td>
<td>15.6</td>
</tr>
<tr>
<td>Oct. 2007</td>
<td>15.7</td>
</tr>
<tr>
<td>Nov. 2007</td>
<td>39.2</td>
</tr>
<tr>
<td>Dec. 2007</td>
<td>37.7</td>
</tr>
<tr>
<td>Jan. 2006</td>
<td>16.3</td>
</tr>
<tr>
<td>Feb. 2006</td>
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</tr>
</tbody>
</table>

Desired Trend:

Average Time to Clear Traffic Incident
Kansas City

<table>
<thead>
<tr>
<th>Calendar Month</th>
<th>Minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan. 2008</td>
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</tr>
<tr>
<td>Feb. 2008</td>
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<td>Mar. 2008</td>
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<td>Apr. 2008</td>
<td>15.2</td>
</tr>
<tr>
<td>May 2008</td>
<td>19.9</td>
</tr>
<tr>
<td>June 2008</td>
<td>19.8</td>
</tr>
<tr>
<td>July 2008</td>
<td>24.8</td>
</tr>
<tr>
<td>Aug. 2008</td>
<td>19.6</td>
</tr>
<tr>
<td>Sept. 2008</td>
<td>15.6</td>
</tr>
<tr>
<td>Oct. 2008</td>
<td>17.4</td>
</tr>
<tr>
<td>Nov. 2008</td>
<td>21.4</td>
</tr>
<tr>
<td>Dec. 2008</td>
<td>16.5</td>
</tr>
<tr>
<td>Jan. 2007</td>
<td>39.1</td>
</tr>
<tr>
<td>Feb. 2007</td>
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</tr>
<tr>
<td>Mar. 2007</td>
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</tr>
<tr>
<td>May 2007</td>
<td>28.6</td>
</tr>
<tr>
<td>June 2007</td>
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</tr>
<tr>
<td>Aug. 2007</td>
<td>31.1</td>
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<tr>
<td>Sept. 2007</td>
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<tr>
<td>Oct. 2007</td>
<td>28.0</td>
</tr>
<tr>
<td>Nov. 2007</td>
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<td>Dec. 2007</td>
<td>26.9</td>
</tr>
<tr>
<td>Jan. 2006</td>
<td>25.0</td>
</tr>
</tbody>
</table>

Desired Trend:
Average time to clear traffic backup from incident-1d

Result Driver: Don Hillis, Director of System Management
Measurement Driver: Rick Bennett, Traffic Liaison Engineer

Purpose of the Measure:
This measure tracks the amount of time it takes to return traffic flow back to normal after a traffic incident. A traffic incident is any unplanned event that creates a temporary reduction in the number of vehicles that can travel on the road.

Measurement and Data Collection:
“All lanes cleared” and “clear backup” times are being recorded by MoDOT’s Traffic Management Centers in Kansas City and St. Louis. Average times to clear traffic backups are calculated from these recorded times. Kansas City reports capture when a backup is relieved as an automated process. The Kansas City area has devices to collect data along portions of interstates 435 and 70. In October 2008, St. Louis began using advanced transportation management system (ATMS) devices to collect data. The number of incidents that data is collected on in St. Louis has gone from approximately 50 to 500.

Improvement Status:
St. Louis area routes have larger traffic volumes that create more significant congestion problems than in Kansas City. St. Louis’ times to clear traffic backup show a marked decrease. This is due to the increase in the number of incidents for which data is being reported. In the past, the only incidents for which data was available were those incidents the TMC could monitor by camera. As a result of the increase in data collected, St. Louis shows a much lower average time to clear traffic backup.

The reduction in the average time to clear traffic backups in Kansas City is due to the increased coordination through Motorist Assist and Incident Management staff at the incident scene to keep critical lanes open so the congestion is minimized. In addition, most of the long-term incidents this quarter occurred overnight when the traffic volumes were lower which allowed traffic to be restored to normal conditions faster.

Renewed efforts in developing long-term partnerships with local agencies and law enforcement have increased the awareness of MoDOT’s expectations for quick clearance and open roadways.
Average Time to Clear Traffic Backup From Incident

St. Louis

<table>
<thead>
<tr>
<th>Calendar Month</th>
<th>2008</th>
<th>2007</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan.</td>
<td>16.1</td>
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<td>30.0</td>
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<tr>
<td>Feb.</td>
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</tr>
<tr>
<td>Mar.</td>
<td>16.5</td>
<td>15.5</td>
<td>20.5</td>
</tr>
<tr>
<td>Apr.</td>
<td>13.5</td>
<td>12.4</td>
<td>17.0</td>
</tr>
<tr>
<td>May</td>
<td>11.7</td>
<td>10.0</td>
<td>17.0</td>
</tr>
<tr>
<td>Jun.</td>
<td>11.0</td>
<td>11.0</td>
<td>14.7</td>
</tr>
<tr>
<td>Jul.</td>
<td>11.7</td>
<td>11.7</td>
<td>14.6</td>
</tr>
<tr>
<td>Aug.</td>
<td>10.0</td>
<td>9.0</td>
<td>11.0</td>
</tr>
<tr>
<td>Sep.</td>
<td>11.7</td>
<td>9.8</td>
<td>10.0</td>
</tr>
<tr>
<td>Oct.</td>
<td>13.0</td>
<td>13.0</td>
<td>12.6</td>
</tr>
<tr>
<td>Nov.</td>
<td>7.4</td>
<td>7.4</td>
<td>12.1</td>
</tr>
<tr>
<td>Dec.</td>
<td>5.3</td>
<td>5.3</td>
<td>12.1</td>
</tr>
</tbody>
</table>

Desired Trend:

Average Time to Clear Traffic Backup From Incident

Kansas City

<table>
<thead>
<tr>
<th>Calendar Month</th>
<th>2008</th>
<th>2007</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan.</td>
<td>20.5</td>
<td>12.4</td>
<td>11.0</td>
</tr>
<tr>
<td>Feb.</td>
<td>9.6</td>
<td>9.8</td>
<td>9.9</td>
</tr>
<tr>
<td>Mar.</td>
<td>9.8</td>
<td>9.8</td>
<td>9.8</td>
</tr>
<tr>
<td>Apr.</td>
<td>9.8</td>
<td>10.0</td>
<td>10.0</td>
</tr>
<tr>
<td>May</td>
<td>9.9</td>
<td>10.0</td>
<td>11.5</td>
</tr>
<tr>
<td>Jun.</td>
<td>9.9</td>
<td>9.0</td>
<td>9.0</td>
</tr>
<tr>
<td>Jul.</td>
<td>9.8</td>
<td>11.3</td>
<td>11.0</td>
</tr>
<tr>
<td>Aug.</td>
<td>9.9</td>
<td>9.8</td>
<td>11.0</td>
</tr>
<tr>
<td>Sep.</td>
<td>9.2</td>
<td>9.3</td>
<td>12.7</td>
</tr>
<tr>
<td>Oct.</td>
<td>9.2</td>
<td>9.3</td>
<td>11.1</td>
</tr>
<tr>
<td>Nov.</td>
<td>10.0</td>
<td>11.0</td>
<td>11.1</td>
</tr>
<tr>
<td>Dec.</td>
<td>10.0</td>
<td>11.0</td>
<td>11.1</td>
</tr>
</tbody>
</table>

Desired Trend:
Number of customers assisted by the Motorist Assist program-1e

Result Driver: Don Hillis, Director of System Management
Measurement Driver: Rick Bennett, Traffic Liaison Engineer

Purpose of the Measure:
This measure is used to gauge the use of the Motorist Assist programs on our state roadways, because traffic incidents impact Missouri’s transportation system capacity. An incident is any unplanned event that creates a temporary reduction in roadway capacity that impedes normal traffic flow. The sooner an incident is removed, the sooner the highway system returns to normal capacity. Therefore, responding to and quickly addressing the incidents (crashes, flat tires and stalled vehicles) improves system performance. MoDOT’s Motorist Assist operators are able to respond to nearly every incident, major or minor, in the areas they cover.

Measurement and Data Collection:
The Motorist Assist operators record each assist and then prepare a monthly summary. Kansas City operators patrol approximately 105 freeway miles. In October 2008, St. Louis added a 22-mile section of I-55 to their patrol route, which brings the total freeway miles St. Louis operators patrol to approximately 192.

In January 2008, MoDOT partnered with St. Louis County to develop the Interstate 64 Traffic Response Service Patrol to ease congestion created by the reconstruction on the I-64 corridor. The I-64 Traffic Response Service Patrol provides similar services to motorists as the MoDOT Motorist Assist program on the arterials impacted by the closure of I-64. The I-64 Traffic Response Service Patrol records each assist and prepares a monthly report.

Improvement Status:
This data demonstrates that the Motorist Assist program in both St. Louis and Kansas City continues to provide motorists assistance on the urban freeways in both metropolitan areas.
Number of Customers Assisted by the Motorist Assist Program
St. Louis

Calendar Month

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>2008</td>
<td>3,561</td>
<td>3,355</td>
<td>3,498</td>
<td>4,028</td>
<td>3,933</td>
<td>4,649</td>
<td>4,482</td>
<td>4,399</td>
<td>4,948</td>
<td>3,996</td>
<td>3,834</td>
<td>3,808</td>
</tr>
</tbody>
</table>


Number of Customers Assisted by the Motorist Assist Program
St. Louis

Year

<table>
<thead>
<tr>
<th>Number</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>4th Qtr</td>
<td>42,589</td>
<td>10,494</td>
<td>12,135</td>
<td>12,177</td>
</tr>
<tr>
<td>3rd Qtr</td>
<td>41,141</td>
<td>11,398</td>
<td>12,182</td>
<td>12,610</td>
</tr>
<tr>
<td>2nd Qtr</td>
<td>47,745</td>
<td>11,251</td>
<td>14,089</td>
<td>10,414</td>
</tr>
<tr>
<td>1st Qtr</td>
<td>49,594</td>
<td>12,481</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Year

Desired Trend:
N/A
### Number of Customers Assisted by I-64 Traffic Response Service Patrol

**St. Louis**

<table>
<thead>
<tr>
<th>Calendar Month</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan.</td>
<td>1,256</td>
</tr>
<tr>
<td>Feb.</td>
<td>1,046</td>
</tr>
<tr>
<td>March</td>
<td>1,435</td>
</tr>
<tr>
<td>April</td>
<td>1,415</td>
</tr>
<tr>
<td>May</td>
<td>1,357</td>
</tr>
<tr>
<td>June</td>
<td>1,371</td>
</tr>
<tr>
<td>July</td>
<td>1,403</td>
</tr>
<tr>
<td>Aug.</td>
<td>1,434</td>
</tr>
<tr>
<td>Sept.</td>
<td>1,317</td>
</tr>
<tr>
<td>Oct.</td>
<td>985</td>
</tr>
<tr>
<td>Nov.</td>
<td>1,134</td>
</tr>
<tr>
<td>Dec.</td>
<td></td>
</tr>
</tbody>
</table>

**Desired Trend:** N/A

---

**Graph Description:**

- **X-axis:** Calendar Month
- **Y-axis:** Number
- **Bars:** Represent the number of customers assisted by the I-64 Traffic Response Service Patrol for each month from January to December 2008.
- **Data Points:**
  - January: 1,256
  - February: 1,046
  - March: 1,435
  - April: 1,415
  - May: 1,357
  - June: 1,371
  - July: 1,403
  - August: 1,434
  - September: 1,317
  - October: 985
  - November: 1,134

---

**Title:** Number of Customers Assisted by I-64 Traffic Response Service Patrol

**Subtitle:** St. Louis

---

**Source:** JANUARY 2009
Percent of Motorist Assist customers who are satisfied with the service

Result Driver: Don Hillis, Director of System Management
Measurement Driver: Rick Bennett, Traffic Liaison Engineer

Purpose of the Measure:
This measure helps evaluate services provided through MoDOT’s Motorist Assist Program, specifically, whether the customers who use the program are satisfied with the service. Information received provides direction on how to better serve our customers and keep traffic moving safely and efficiently.

Measurement and Data Collection:
Motorist Assist operators distribute survey cards to customers. Data from the cards is compiled and tabulated by Heartland Market Research, LLC. Surveys with selections identifying that the service was “probably” or “definitely” valuable were tabulated as “satisfied” for this measure.

In January 2008, MoDOT partnered with St. Louis County to develop the Interstate 64 Traffic Response Service Patrol to ease congestion created by the reconstruction on the I-64 corridor. The I-64 Traffic Response Service Patrol provides similar services to motorists as the MoDOT Motorist Assist program, however, it patrols the arterials impacted by the closure of I-64. The I-64 Traffic Response Service Patrol distributes a separate but similar survey card to its customers.

Improvement Status:
This data agrees with information provided by customers on prior comment forms - almost all customers are satisfied.

- Fourth Quarter 2007, 688 surveys received
- First Quarter 2008,
  - 568 Motorist Assist surveys received
  - 119 I-64 Traffic Response surveys received
- Second Quarter 2008,
  - 1,117 Motorist Assist surveys received
  - 323 I-64 Traffic Response surveys received
- Third Quarter 2008,
  - 1,410 Motorist Assist surveys received
  - 228 I-64 Traffic Response surveys received
- Fourth Quarter 2008,
  - 1,366 Motorist Assist surveys received
  - 142 I-64 Traffic Response surveys received
Percent of Motorist Assist Customers Who Are Satisfied With the Service

<table>
<thead>
<tr>
<th>Calendar Quarter</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>4th Qtr. 2007</td>
<td>99.7</td>
</tr>
<tr>
<td>1st Qtr. 2008</td>
<td>99.8</td>
</tr>
<tr>
<td>2nd Qtr. 2008</td>
<td>99.7</td>
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<tr>
<td>3rd Qtr. 2008</td>
<td>99.7</td>
</tr>
<tr>
<td>4th Qtr. 2008</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Desired Trend:

Percent of I-64 Traffic Response Service Patrol Customers Who Are Satisfied With the Service

<table>
<thead>
<tr>
<th>Calendar Quarter</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Qtr. 2008</td>
<td>100.0</td>
</tr>
<tr>
<td>2nd Qtr. 2008</td>
<td>100.0</td>
</tr>
<tr>
<td>3rd Qtr. 2008</td>
<td>100.0</td>
</tr>
<tr>
<td>4th Qtr. 2008</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Desired Trend:
Percent of work zones meeting expectations for traffic flow-1g

Result Driver: Don Hillis, Director of System Management
Measurement Driver: Dan Smith, Traffic Management & Operations Engineer

Purpose of the Measure:
An important factor in evaluating the department’s performance in temporary traffic control design, deployment, operation and maintenance is the measurement of work zones’ effect on the mobility of highway users. This measure tracks how well the department meets customer expectations of traffic flow in, around and through work zones on state highways.

Measurement and Data Collection:
Using a formal inspection worksheet, Central Office and district employees evaluate mobility in work zones across the state. Each evaluation consists of a subjective assessment of engineered and operational factors affecting traffic flow. The evaluator assigns a pass, fail, or n/a rating to each of these individual factors and a pass or fail rating for their overall perception of traffic flow in, around and through the work zone. The overall perception ratings are compiled quarterly and reported via this measurement.

Improvement Status:
Compilation of the 4,581 evaluations performed by MoDOT staff between January and December of this calendar year resulted in a 99 percent satisfaction rating for work zone traffic flow (i.e., a negative perception of traffic flow was recorded in 1 percent of the evaluations). This rating is consistent with the previous calendar year’s rating. Such progress is attributable to MoDOT’s emphasis on creating exemplary work zones by minimizing work zone congestion and delays despite increased traffic demand and volume of work zones in Missouri.
Time to meet winter storm event performance objectives on major and minor highways-1h

Result Driver: Don Hillis, Director of System Management
Measurement Driver: Tim Jackson, Maintenance Liaison Engineer

Purpose of the Measure:
This measure tracks the amount of time needed to perform MoDOT’s snow and ice removal efforts.

Measurement and Data Collection:
This data is collected in the winter event database. This measurement tracks the actual time involved in this process so improvements can be made. After each winter event, such as a snow or ice storm, area maintenance personnel submit a report indicating how much time it took to clear snow from the major and minor highways. Data collection for this measure runs from November through March of each winter season. After a storm ends, the objectives are to restore the major highways to a clear condition as soon as possible and have the lower-volume minor highways open to two-way traffic and treated with salt and/or abrasives at all critical areas such as intersections, hills and curves as soon as possible. The end of the storm is defined as when freezing precipitation stops accumulating on the roadways, either from falling or drifting conditions. This data is updated in the January and April Tracker reports.

The time in hours is the statewide average for each month.

Improvement Status:
The average time to meet the performance objectives on the major highways varied from 2.9 to 3.7 hours over the reporting period. The average time to meet the performance objectives on the minor highways varied from 3.8 to 5.3 hours. There were two winter events in November and nine in December. The three northern districts and the Kansas City district have received, on average, between seven and ten inches of snow. The remaining districts have received less than three inches of snow. Localized areas have received more than these amounts. There were additional amounts of freezing rain and sleet received all across the state. The time to meet the performance objectives will vary based on the amount of snow received, the duration and the intensity of the storm. Strategies to improve these numbers include pursuing equipment enhancements, testing new materials and continued training of snow removal employees.

![Time to Meet Winter Storm Event Performance Objectives on Major and Minor Highways](image-url)
MoDOT’s customers have said they want smooth roads. Smoother roads mean less wear on vehicles, safer travel and greater opportunity for economic development. MoDOT will delight its customers by providing smooth and unrestricted roads and bridges. MoDOT recognizes that road projects built and maintained to a high standard of smoothness will be more efficient. MoDOT must provide customers with smooth roads – because everyone riding on a road can feel whether it is smooth or not!
Projects that contribute to the Better Roads, Brighter Future program goal-2a

Result Driver: Kevin Keith, Chief Engineer
Measurement Driver: Jay Bledsoe, Transportation System Analysis Engineer

Purpose of the Measure:
This measure tracks annually the miles of major highways in good condition compared to that required to reach the goal of 85 percent in good condition by the end of 2011 and the miles programmed in the Statewide Transportation Improvement Program (STIP) that contribute to this goal. In addition to the pavement goals, MoDOT has made improvements to the overall safety and appearance of these routes a priority. Therefore, in addition to pavement condition, this measure tracks miles of major highways that have a minimum 4-foot paved shoulder, an edge-line rumble stripe and a centerline rumble stripe where appropriate.

The Better Roads, Brighter Future (BRBF) program follows the 2005 completion of the Smooth Roads Initiative (SRI). BRBF will result in 85 percent of these major highways in good condition by the end of 2011.

Measurement and Data Collection:
The major highway system is defined as all routes functionally classified as principal arterials. By definition, the principal arterial system provides for statewide or interstate movement of traffic. Examples include the Interstate System and most U.S. routes such as 63, 54 or 36.

In urban areas, principal arterials carry traffic entering or leaving the urban area and serve movement of vehicles between central business districts and suburban residential areas. Examples include Business 50 (Missouri Blvd.) in Jefferson City, MO 740 (Stadium Blvd.) in Columbia and Route D (Page Ave.) in St. Louis.

The major roads in Missouri total approximately 5,573 centerline miles. This revised figure reflects additional mileage based on statewide review of the highway system. Good condition is defined using a combination of criteria. On high-speed routes (speed limits greater than 50 mph), the International Roughness Index (IRI) is used. For lower-speed routes (mostly urban areas) where smoothness is less critical, a Present Serviceability Rating (PSR) is used. While smoothness is a factor in PSR, physical condition is also a factor.

The overall progress and programmed work will be reported annually. Semi-annual updates of miles opened to traffic will be reported.

Improvement Status:
Completion of SRI resulted in a significant improvement in pavement condition. At the beginning of BRBF (January 2007), 74 percent of major highways were in good condition (as shown in 2b: Percent of major highways that are in good condition). By January 2009, more than 83 percent of major highways were in good condition.

Through the BRBF program, MoDOT will emphasize maintenance of the miles improved through SRI while making major improvements to the remainder of the 5,573 miles in the major highway system. By the end of 2011, a total of 85 percent of the major highways will have improved surfaces along with new or improved shoulders and rumble stripes. However, all 5,573 miles will benefit from safety features such as wider striping and brighter signing. There are currently more than 180 BRBF projects in the 2009-2013 STIP that will address more than 1,700 major highway miles.

Funding for the BRBF program will come from existing Taking Care of System funds in accordance with the current funding allocation directed by the Missouri Highways and Transportation Commission. More than $430 million per year is dedicated to taking care of the existing highway system.
Projects That Contribute to the Better Roads, Brighter Future Program Goal

Lane Miles Meeting Desired Condition

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lane Miles Remaining</td>
<td>13,468</td>
<td>14,407</td>
</tr>
<tr>
<td>Lane Miles Currently Good</td>
<td>2,198</td>
<td>1,259</td>
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Programmed Lane Miles

<table>
<thead>
<tr>
<th>STIP Year</th>
<th>Programmed</th>
<th>Desired Trend</th>
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</thead>
<tbody>
<tr>
<td>2009</td>
<td>1,486</td>
<td>N/A</td>
</tr>
<tr>
<td>2010</td>
<td>1,618</td>
<td>N/A</td>
</tr>
<tr>
<td>2011</td>
<td>957</td>
<td>N/A</td>
</tr>
<tr>
<td>2012</td>
<td>7</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Projects That Contribute to the Better Roads, Brighter Future Program Goal

Completed Miles with Safety Features

<table>
<thead>
<tr>
<th>Safety Features</th>
<th>Directional Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paved Shoulder</td>
<td>7,116</td>
</tr>
<tr>
<td>Edgeline Rumble Stripe</td>
<td>5,133</td>
</tr>
<tr>
<td>Centerline Rumble Stripe</td>
<td>2,294</td>
</tr>
<tr>
<td>Desired Trend:</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Trend:** N/A
Percent of major highways that are in good condition-2b

Result Driver:  Kevin Keith, Chief Engineer
Measurement Driver:  Jay Bledsoe, Transportation System Analysis Engineer

Purpose of the Measure:
This measure tracks the condition of Missouri’s major highway road surfaces. The public has indicated the condition of Missouri’s existing state roadway system should be one of the state’s highest priorities. MoDOT places a high priority on improving the condition of state highways.

Measurement and Data Collection:
The major highway system is defined as all routes functionally classified as principal arterials. By definition, the principal arterial system provides for statewide or interstate movement of traffic. Examples include the Interstate System and most U.S. routes such as 63, 54 or 36.

In urban areas, principal arterials carry traffic entering or leaving the urban area and serve movement of vehicles between central business districts and suburban residential areas. Examples include Business 50 (Missouri Blvd.) in Jefferson City, MO 740 (Stadium Blvd.) in Columbia and Route D (Page Ave.) in St. Louis.

The major roads in Missouri total approximately 5,573 centerline miles. This figure reflects mileage based on statewide review of the highway system. Good condition is defined using a combination of criteria. On high-speed routes (speed limits greater than 50 mph), the International Roughness Index (IRI) is used. For lower-speed routes (mostly urban areas) where smoothness is less critical, a Present Serviceability Rating (PSR) is used. While smoothness is a factor in PSR, physical condition is also a factor.

Direct comparison to other states is difficult because of differences in measurement methodologies. However, a general order-of-magnitude comparison is possible given certain assumptions. For example, there are five states that report mileage for major highways within 10 percent of that maintained by MoDOT. Of these five, Georgia, with 5,875 miles, currently has the highest percentage of these highways classified in good condition based on smoothness only. The Missouri definition of good uses smoothness as one factor; however, it also includes other condition factors such as physical distress to determine quality. While the comparison is not exact, it does indicate the level of performance possible on a system of Missouri’s size.

This is an annual measure. Missouri data is updated in January to reflect prior calendar-year ratings.

Improvement Status:
Progress continues toward improvement of the major highway system. Currently more than 83 percent of these roadways are in good or better condition, a 37 percent improvement in the last 4 years. With the completion of the Better Roads, Brighter Future program in 2011, a total of 85 percent of the major highways will have improved surfaces along with new or improved shoulders and rumble stripes. However, all 5,573 miles will benefit from safety features such as wider striping and brighter signing. There are currently more than 180 BRBF projects in the 2009-2013 Statewide Transportation Improvement Program that will address more than 1,700 major highway miles.

Funding for BRBF will come from existing Taking Care of System funds in accordance with the current funding allocation directed by the Missouri Highways and Transportation Commission.

The Interstate System is the backbone of the major highway network. While it includes only about 7 percent of the state highway mileage, it accounts for more than half the total state vehicles miles traveled. The increased emphasis on maintenance and operation of interstate highways that began in 2008 will continue into 2009. The Interstate Maintenance Plan sets specific goals, standards and responsibilities for the condition of these vital highways.

More than $430 million per year is dedicated to taking care of the existing highway system. Of this total, $125 million is reserved for work on the Interstate System and major bridges.
Smooth and Unrestricted Roads and Bridges

Percent of Major Highways That Are in Good Condition

Calendar Year

Percent

2004 2005 2006 2007 2008

Georgia *
Missouri

* Source data for Georgia is “Highway Statistics” published by FHWA. Data for 2007 not available at time of publication. Georgia data is based only on pavement smoothness (IRI) submitted as part of the Highway Performance Monitoring System.
Percent of minor highways that are in good condition-2c

Result Driver: Kevin Keith, Chief Engineer
Measurement Driver: Jay Bledsoe, Transportation System Analysis Engineer

Purpose of the Measure:
This measure tracks the condition of Missouri’s minor highway road surfaces. The public has indicated the condition of Missouri’s existing state roadway system should be one of the state’s highest priorities. MoDOT places a high priority on improving the condition of highways in the state system.

Measurement and Data Collection:
The minor highway system consists of all routes functionally classified as minor arterials or collectors. These routes mainly serve local transportation needs and include highways commonly referred to as lettered routes, such as Route A, Route C and Route DD. The public sometimes refers to these routes as farm-to-market roads. The minor roads in Missouri total approximately 27,000 centerline miles.

Good condition is defined using a combination of criteria. Smoothness is evaluated using the International Roughness Index (IRI). Pavements below the prescribed threshold are considered good. However, public surveys have shown that physical condition is more important than ride on lower speed, lower volume roadways. Condition index, a measure of visual distress, is also evaluated and if that criteria is met, the roadway is considered good, regardless of the smoothness component.

Direct comparison to other states is difficult because of differences in measurement methodologies. However, a general order-of-magnitude comparison is possible given certain assumptions. For example, there are six states that report mileage for minor highways within 10 percent of that maintained by MoDOT. Of these six, Georgia, with 24,707 miles, currently has the highest percentage of these highways classified in good condition. The ratings reported by states as part of the Highway Performance Monitoring System for roads classified as minor more closely relate to Missouri’s rating system.

Federal Highway Administration allows conditions on minor highways to be reported on either IRI or Present Serviceability Index (PSI). PSI includes an assessment of physical distress similar to Missouri’s definition. The Missouri definition of good uses smoothness as one factor. However, it also includes other condition factors such as physical distress to determine quality.

This is an annual measure. Missouri data is updated in January to reflect prior calendar-year ratings.

Improvement Status:
Through the Better Roads, Brighter Future program, MoDOT has identified the major highway system as a priority for the next five years. Efforts on the minor highways will emphasize maintenance of this system at or near the current levels. Work on minor highways will emphasize the use of MoDOT maintenance forces and will consist of treatments that include routine patching, crack sealing and chip seals.

The graph below shows a slight increase in minor highway conditions in 2008. This is a direct result of a change in the method of rating from previous years. Previously, the second component evaluated was Present Serviceability Rating, which also includes a smoothness component. Switching to condition index as discussed above provides the small increase shown. Had the change from PSR not been made, the 2008 percentage would have dropped to approximately 55.

MoDOT is positioned to react quickly to a Federal economic stimulus package should it become available. Plans have been developed assuming $60 million will be available for minor road improvements. These plans assume a mix of thin overlays and cold-in-place recycling to be done by contract. In addition, some funds will be used to upgrade select corridors with surface improvements, shoulders and other safety improvements. While the plan was developed using a specific funding amount, it can be easily scaled to take advantage of whatever amount is ultimately available.
Smooth and Unrestricted Roads and Bridges

Percent of Minor Highways That Are in Good Condition

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent</td>
<td>61.7</td>
<td>69.1</td>
<td>70.8</td>
<td>77.9</td>
<td>81.8</td>
</tr>
<tr>
<td>Desired Trend:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Source data for Georgia is “Highway Statistics” published by the Federal Highway Administration. Georgia data for 2008 was not available at time of publication. Data is based on a combination of pavement smoothness – IRI or PSR – as submitted as part of the Highway Performance Monitoring System.
Percent of vehicle miles traveled on major highways in good condition-2d

Result Driver: Kevin Keith, Chief Engineer
Measurement Driver: Jay Bledsoe, Transportation System Analysis Engineer

Purpose of the Measure:
This measure tracks the percent of vehicle miles traveled (VMT) on Missouri’s major highway system that take place on highways in good condition. The public has indicated the condition of Missouri’s existing state roadway system should be one of the state’s highest priorities. Emphasizing work on the major highway system insures that the majority of travel takes place on highways in good condition.

Measurement and Data Collection:
The major highway system is defined as all routes functionally classified as principal arterials. By definition, the principal arterial system provides for statewide or interstate movement of traffic. Examples include the interstate system and most U.S. routes such as 63, 54 or 36.

In urban areas, principal arterials carry traffic entering or leaving the urban area and serve movement of vehicles between central business districts and suburban residential areas. Examples include Business 50 (Missouri Blvd.) in Jefferson City, MO 740 (Stadium Blvd.) in Columbia and Route D (Page Ave.) in St. Louis.

The major roads in Missouri total approximately 5,573 centerline miles. Good condition is defined using a combination of criteria. On high-speed routes (speed limits greater than 50 mph) the International Roughness Index (IRI) is used. For lower-speed routes (mostly urban areas) where smoothness is less critical, a Present Serviceability Rating (PSR) is used. While smoothness is a factor in PSR, physical condition is also a factor.

VMT is determined by multiplying the traffic volume on a given route by the route length. For this measure, the VMT is calculated on those routes in good condition and then divided by the total VMT for major routes to determine the percentage shown below. While the system of major highways in Missouri comprise only about 17 percent of the total system mileage, it carries more than 75 percent of all traffic on the state highway system.

This is an annual measure that is updated each January.

Improvement Status:
Progress continues toward improvement of the major highway system. Currently more than 83 percent of these roadways are in good or better condition, a 37 percent improvement in the last 4 years. With the completion of the Better Roads, Brighter Future program in 2011, a total of 85 percent of the major highways will have improved surfaces along with new or improved shoulders and rumble stripes. However, all 5,573 miles will benefit from safety features such as wider striping and brighter signing. There are currently more than 180 BRBF projects in the 2009-2013 Statewide Transportation Improvement Program that will address more than 1,700 major highway miles.

Funding for BRBF will come from existing Taking Care of System funds in accordance with the current funding allocation directed by the Missouri Highways and Transportation Commission.

The Interstate System is the backbone of the major highway network. While it includes only about 7 percent of the state highway mileage, it accounts for more than half the total state vehicles miles traveled. The increased emphasis on maintenance and operation of interstate highways that began in 2008 will continue into 2009. The Interstate Maintenance Plan sets specific goals, standards and responsibilities for the condition of these vital highways.

More than $430 million per year is dedicated to taking care of the existing highway system. Funding for the Better Roads, Brighter Future program will come from existing Taking Care of System (TCOS) funds in accordance with the current funding allocation directed by the Missouri Highways and Transportation Commission.
Smooth and Unrestricted Roads and Bridges

Percent of Vehicle Miles Traveled on Major Highways in Good Condition

Calendar Year

Percent

Desired Trend:
Percent of deficient bridges on major highways-2e

**Result Driver:** Kevin Keith, Chief Engineer  
**Measurement Driver:** Dennis Heckman, State Bridge Engineer

**Purpose of the Measure:**  
This measure tracks progress toward improving the condition of Missouri’s bridges on major highways. The public has indicated the condition of Missouri’s existing roadway system should be one of the state’s highest priorities. MoDOT places a high priority on increasing the quality of bridges on the state system.

**Measurement and Data Collection:**  
The major highway system is defined as all routes functionally classified as principal arterials. By definition, the principal arterial system provides for statewide or interstate movement of traffic. Examples include the Interstate System or most U.S. routes such as 63, 54 or 36.

In urban areas, principal arterials carry traffic entering or leaving the urban area and serve movement of vehicles between central business districts and suburban residential areas. Examples include Business 50 (Missouri Blvd.) in Jefferson City, MO 740 (Stadium Blvd.) in Columbia and Route D (Page Ave.) in St. Louis.

A bridge is considered deficient if it is either structurally deficient (SD) or functionally obsolete (FO) as defined using Federal Highway Administration criteria. A SD bridge is in poor condition or has insufficient load capacity when compared to modern design standards. A FO bridge has poor roadway alignment or has clearance or width restrictions that no longer meet the usual criteria for the system it serves. MoDOT staff inspects all state-owned bridges. There are currently 3,364 bridges on major highways. This is an annual measure and data is updated each April based on the prior year’s inspections.

**Improvement Status:**  
Bridge conditions on major highways have shown a moderate improvement. The percentage of deficient bridges has been reduced from 19 percent to 17 percent over the last five years as a result of increased funds directed to care for the existing highway system.

The Safe & Sound Bridge Improvement Program will address more than 800 of the state’s most critical structures. This program will repair or replace these bridges over the next five years. While most of these bridges are located on the minor highway system, a small benefit to bridges on major highways is also anticipated (0.5 percent drop in this measure).
Percent of deficient bridges on minor highways-2f

Result Driver: Kevin Keith, Chief Engineer
Measurement Driver: Dennis Heckman, State Bridge Engineer

Purpose of the Measure:
This measure tracks progress toward improving the condition of Missouri’s minor highway bridges. The public has indicated the condition of Missouri’s existing roadway system should be one of the state’s highest priorities. MoDOT places a high priority on increasing the quality of bridges on the state system.

Measurement and Data Collection:
The minor highway system consists of all routes functionally classified as minor arterials or collectors. These routes serve more local transportation needs and include highways commonly referred to as lettered routes, such as Route A, Route C and Route DD. The public sometimes refers to these routes as farm-to-market roads.

A bridge is considered deficient if it is either structurally deficient (SD) or functionally obsolete (FO) as defined using Federal Highway Administration criteria. A SD bridge is in poor condition or has insufficient load capacity when compared to modern design standards. A FO bridge has poor roadway alignment or has clearance or width restrictions that no longer meet the usual criteria for the system it serves. MoDOT staff inspects all state-owned bridges. There are currently 6,912 bridges on minor highways. This is an annual measure and data is updated each April based on the prior year’s inspections.

Improvement Status:
Bridge conditions on minor highways have taken a small step backward. While the percentage of deficient bridges has been reduced from 33.9 percent to 32.9 percent over the last five years, this percentage actually increased slightly from 2006 to 2007.

The strategy to improve this measure is the Safe & Sound Bridge Improvement Program. This program will repair or replace over 800 bridges over the next five years. Most of these bridges are located on the minor highway system. A decrease in the number of deficient bridges is expected to occur with the completion of this program. However, due to the accelerating rate of bridges becoming deficient, there still will be a sizable number of deficient bridges on the system. It is projected that this measure will drop to 30.0 percent at Safe & Sound’s completion.
Number of deficient bridges on the state system (major and minor highways)-2g

Result Driver: Kevin Keith, Chief Engineer
Measurement Driver: Dennis Heckman, State Bridge Engineer

Purpose of the Measure:
This measure tracks progress toward improving the condition of Missouri’s bridges. The public has indicated the condition of Missouri’s existing roadway system should be one of the state’s highest priorities. MoDOT places a high priority on increasing the quality of bridges on the state system.

Measurement and Data Collection:
A bridge is considered deficient if it is either structurally deficient (SD) or functionally obsolete (FO) as defined using Federal Highway Administration criteria. A SD bridge is in poor condition or has insufficient load capacity when compared to modern design standards. A FO bridge has poor roadway alignment or has clearance or width restrictions that no longer meet the usual criteria for the system it serves. MoDOT staff inspects all state-owned bridges. There are currently a total of 10,276 bridges on the state highway system.

This is an annual measure and data is taken from the National Bridge Inventory. Missouri data is available in April of each calendar year and is updated in the April Tracker. The data for other states is not published until the following year.

Improvement Status:
Bridge conditions on Missouri highways have taken a small step backward. While the number of deficient bridges on the state system has been reduced from 2,959 to 2,844 over the last five years, this number actually increased slightly from 2006 to 2007. Of the 2,844 deficient bridges, 1,179 are functionally obsolete and 1,665 are structurally deficient.

The strategy to improve this measure is the Safe & Sound Bridge Improvement Program that will repair or replace more than 800 of the state’s most critical structures in five years. A decrease in the number of deficient bridges is expected with the completion of this program. However, due to the accelerating rate of bridges becoming deficient, there will still be a sizable number of deficient bridges on the system. It is projected that this measure will drop to 2,500 at the completion of the Safe & Sound Bridge Improvement Program.

(This page is intentionally left blank for duplexing purposes)
MoDOT works closely with other safety advocates to make our roads and work zones safer. The department supports educational programs that encourage safe driving practices and enforcement efforts that increase adherence to traffic laws. MoDOT will not compromise safety because it believes in the well-being of its employees and customers.
Safe Transportation System

Number of fatalities and disabling injuries-3a

Result Driver: Don Hillis, Director of System Management
Measurement Driver: Leanna Depue, Highway Safety Director

Purpose of the Measure:
This measure tracks annual trends in fatal and disabling injuries resulting from traffic crashes on all Missouri roadways. This data drives the development and focus of the Missouri Highway Safety Plan. This plan is required annually by the National Highway Traffic Safety Administration and outlines key strategies to reduce these losses. In addition, this data supports the Missouri Blueprint for Safer Roadways. This document identifies the statewide initiatives with a goal of reducing fatalities to 850 or fewer by 2012.

Measurement and Data Collection:
Crash data is collected by the Missouri State Highway Patrol and entered into a traffic accident record system. The record system automatically updates MoDOT’s traffic management system. Crash data reports are available to law enforcement and traffic safety advocates for crash analysis through both databases. Final data is collected on an annual basis and is updated in July of the following year.

Note: The 2008 fatalities are not final numbers.

Improvement Status:
Fatalities decreased 21 percent from 2005 to 2007 in a continued downward trend. Missouri has not been under 1,000 fatalities since 1993. The 992 fatalities in 2007 means the Missouri Coalition for Roadway Safety can celebrate accomplishing their goal of 1,000 or fewer fatalities by 2008. Disabling injuries continue to show a decreasing trend with a reduction of over 400 when compared to the 2006 number. The national data comparison shows that Missouri moved from 38th in 2006 to 35th in 2007 for total fatalities. The 2008 national comparison is not yet available. Fatalities and disabling injuries are decreasing due in part to engineering enhancements such as three-strand guard cable, rumble strips and enhanced delineation. Also contributing are strong safety belt public information campaigns combined with increased law enforcement participation in statewide campaigns.
For all graphs on this page, the following legend applies:
- States that have primary seat belt laws
- States that have secondary seat belt laws
- States that have neither a primary nor a secondary seat belt law (1 total)
- Missouri – secondary seat belt law in place  (Source: www.ghsa.org, July 2008)

Missouri’s National Ranking by Total Number of Fatalities

2007

Missouri’s National Ranking by Total Number of Fatalities

2006

Missouri’s National Ranking by Total Number of Fatalities

2005
Number of impaired driver-related fatalities and disabling injuries-3b

**Result Driver:** Don Hillis, Director of System Management  
**Measurement Driver:** Leanna Depue, Highway Safety Director

**Purpose of the Measure:**  
This measure tracks annual trends in fatalities and injuries resulting from traffic crashes on all Missouri roadways involving drivers who are impaired by alcohol and/or drugs. This data drives the development and focus of the Missouri Highway Safety Plan. This plan is required annually by the National Highway Traffic Safety Administration and outlines key strategies to reduce these losses. In addition, this data supports the Missouri Blueprint for Safer Roadways. This document identifies the statewide initiatives with a goal of reducing fatalities to 850 or fewer by 2012.

**Measurement and Data Collection:**  
Crash data is collected by the Missouri State Highway Patrol and entered into a traffic accident record system. The record system automatically updates MoDOT’s traffic management system. Crash data reports are available to law enforcement and traffic safety advocates for crash analysis through both databases. Final data is collected on an annual basis and is updated in July of the following year.

**Improvement Status:**  
Alcohol- and drug-related fatalities and disabling injuries decreased in both 2006 and 2007. The fatalities and disabling injuries for 2007 were the lowest reported in five years. In the national comparison, Missouri moved from 41st in 2006 to 35th in 2007. The 2008 comparison is not yet available. In addition to Missouri participating in the national “You Drink and Drive, You Lose” campaign, the Missouri Law Enforcement Traffic Safety Advisory Council selected specific days to increase law enforcement activity through December 2009. Public information and education has been directed at high-risk drivers ages 21 to 35. Law enforcement efforts have been concentrated on high-crash corridors and increasing the number of sobriety checkpoints. These efforts have helped reduce impaired driving crashes overall and have started a downward trend in fatalities and disabling injuries. An increasing number of people who work in liquor establishments are completing the online server training modules that were first developed in 2005.

---

**Number of Impaired Driver-Related Fatalities**  
Alcohol & Drug Involved

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
</tr>
</thead>
<tbody>
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<td>2003</td>
<td>289</td>
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<tr>
<td>2004</td>
<td>262</td>
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<tr>
<td>2005</td>
<td>289</td>
</tr>
<tr>
<td>2006</td>
<td>288</td>
</tr>
<tr>
<td>2007</td>
<td>255</td>
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</table>

**Number of Impaired Driver-Related Disabling Injuries**  
Alcohol & Drug Involved

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
</tr>
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</tr>
<tr>
<td>2004</td>
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<tr>
<td>2005</td>
<td>1,407</td>
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<tr>
<td>2006</td>
<td>1,360</td>
</tr>
<tr>
<td>2007</td>
<td>1,321</td>
</tr>
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</table>
Missouri's National Ranking by Percent Killed in Alcohol-Related Crashes

2007

Percent

State

Missouri's National Ranking by Percent Killed in Alcohol-Related Crashes

2006

Percent

State

Missouri's National Ranking by Percent Killed in Alcohol-Related Crashes

2005

Percent

State
Rate of annual fatalities and disabling injuries-3c

**Result Driver:** Don Hillis, Director of System Management  
**Measurement Driver:** Leanna Depue, Highway Safety Director

**Purpose of the Measure:**
This measure tracks annual trends in fatal and disabling injury rates per 100 million vehicle miles traveled (HMVM) in Missouri. This data drives the development and focus of the Missouri Highway Safety Plan. This plan is required annually by the National Highway Traffic Safety Administration and outlines key strategies to reduce these losses. In addition, this data supports the Missouri Blueprint for Safer Roadways. This document identifies the statewide initiatives with a goal of reducing fatalities to 850 or fewer by 2012.

**Measurement and Data Collection:**
Crash data is collected by the Missouri State Highway Patrol and entered into a traffic accident record system. The record system automatically updates MoDOT’s traffic management system. Crash data reports are available to law enforcement and traffic safety advocates for crash analysis through both databases. Data is collected on an annual basis and is updated in July of the following year.

**Improvement Status:**
Both the fatality and disabling injury rates in Missouri are at the lowest ever recorded. Based on the national comparison, Missouri has moved from 37th in 2005 to 34th in 2006. The 2007 and 2008 national comparisons are not yet available. Based on the national goal of a 1.0 fatality rate, Missouri is still moving in the right direction. Focused law enforcement efforts, engineering safety enhancements and increased public awareness all contribute to the decrease.

### Rate of Annual Fatalities

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Rate</th>
</tr>
</thead>
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<td>1.81</td>
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<tr>
<td>2004</td>
<td>1.70</td>
</tr>
<tr>
<td>2005</td>
<td>1.83</td>
</tr>
<tr>
<td>2006</td>
<td>1.59</td>
</tr>
<tr>
<td>2007</td>
<td>1.44</td>
</tr>
</tbody>
</table>

**Desired Trend:**

### Rate of Annual Disabling Injuries

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>12.85</td>
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<td>2004</td>
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<td>2005</td>
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<tr>
<td>2006</td>
<td>11.83</td>
</tr>
<tr>
<td>2007</td>
<td>11.23</td>
</tr>
</tbody>
</table>

**Desired Trend:**
Missouri’s National Ranking in State Fatality Rates

2006

State

Rate

0 1 2 3

MT MS LA SD SC WY AZ AR AL NV WV KY NM ID FL MO HI DE OK KS NC AK GA TX ND PA IA NE OR CA IN ME WI VA IL MD OH UT VT WA CO MI NY NJ RI CT NH MN MA

34th

2005

State

Rate

0 1 2 3

MT SD MS SC LA KY NV NM AR AZ AL WY ID MO WV TN FL OK ND GA NC PA TX IA KS AK NE DE HI OR WI CA IN CO IL NH OH VA WA ME UT MD MI RI NY NJ MN VT CT MA

37th

2004

State

Rate

0 1 2 3

MT MS LA SD SC WY AZ AR AL NV WV KY NM ID FL MO HI DE OK KS NC AK GA TX ND PA IA NE OR CA IN ME WI VA IL MD OH UT VT WA CO MI NY NJ RI CT NH MN MA

32nd
Percent of safety belt/passenger vehicle restraint use-3d

Result Driver: Don Hillis, Director of System Management
Measurement Driver: Leanna Depue, Highway Safety Director

Purpose of the Measure:
This measure tracks annual trends in safety belt usage by persons in passenger vehicles. This data drives the development and focus of the Missouri Highway Safety Plan. This plan is required annually by the National Highway Traffic Safety Administration and outlines key strategies to reduce these losses. In addition, this data supports the Missouri Blueprint for Safer Roadways. This document identifies the statewide initiatives with a goal of reducing fatalities to 850 or fewer by 2012.

Measurement and Data Collection:
Each June, a statewide survey is conducted at 460 pre-selected locations in 20 counties. The data collected at these sites is calculated into a safety belt usage rate by using a formula approved by the National Highway Traffic Safety Administration. The safety belt usage survey enables data collection from locations representative of 85 percent of the state’s population. The data collection plan is the same each year for consistency and compliance with the National Highway Traffic Safety Administration guidelines. Data is collected on an annual basis and is updated in August of the following year. Annual information for the national rankings is not available from all 50 states.

Improvement Status:
Safety belt use in Missouri has remained fairly constant for the past five years. In the 2007 national comparison, Missouri ranked 39th in safety belt usage. Missouri continues to focus efforts through public information and education and law enforcement participation in the national “Click It or Ticket” campaign. The Law Enforcement Traffic Safety Advisory Council (LETSAC) recently added additional quarterly enforcement dates through December 2009 to focus on safety belt use. A statewide program focusing on teen safety belt use has also proven to be successful in increasing use among teenagers. MoDOT continues to promote the need for a primary safety belt law in Missouri.

![Percent of Safety Belt/Passenger Vehicle Restraint Use](chart_image)

**Desired Trend:**
For all graphs on this page, the following legend applies:
- States that have primary seat belt laws
- States that have secondary seat belt laws
- States that have neither a primary nor a secondary seat belt law (1 total)

Missouri – secondary seat belt law in place  
(Source: www.ghsa.org, July 2008)
Number of bicycle and pedestrian fatalities and disabling injuries-3e

Result Driver: Don Hillis, Director of System Management
Measurement Driver: Leanna Depue, Highway Safety Director

Purpose of the Measure:
This measure tracks annual trends in fatalities and disabling injuries resulting from traffic crashes with bicycles and pedestrians on Missouri roadways. This data drives the development and focus of the Missouri Highway Safety Plan. This plan is required annually by the National Highway Traffic Safety Administration and outlines key strategies to reduce these losses. In addition, this data supports the Missouri Blueprint for Safer Roadways. This document identifies the statewide initiatives with a goal of reducing fatalities to 850 or fewer by 2012.

Measurement and Data Collection:
Crash data is collected by the Missouri State Highway Patrol and entered into a traffic accident record system. The record system automatically updates MoDOT’s traffic management system. Crash data reports are available to law enforcement and traffic safety advocates for crash analysis through both databases. Final data is collected on an annual basis and updated in July of the following year.

Improvement Status:
This data reflects the number of fatalities and disabling injuries occurring when a motor vehicle is involved in a crash with a bicycle or pedestrian. These bicycle numbers remain steady, although MoDOT has been increasing the miles of dedicated bike lanes. Pedestrian fatalities and disabling injuries show a slight decrease over the past five years due to signaling and dedicated crossing area improvements. Funds have been dedicated to support the Bicycle Pedestrian Advisory Committee.
Number of motorcycle fatalities and disabling injuries-3f

Result Driver: Don Hillis, Director of System Management  
Measurement Driver: Leanna Depue, Highway Safety Director

Purpose of the Measure:  
This measure tracks annual trends in fatal and disabling injuries resulting from motorcycle traffic crashes on all Missouri roadways. This data drives the development and focus of the Missouri Highway Safety Plan. This plan is required annually by the National Highway Traffic Safety Administration and outlines key strategies to reduce these losses. In addition, this data supports the Missouri Blueprint for Safer Roadways. This document identifies the statewide initiatives with a goal of reducing fatalities to 850 or fewer by 2012.

Measurement and Data Collection:  
Crash data is collected by the Missouri State Highway Patrol and entered into a traffic accident record system. The record system automatically updates MoDOT’s traffic management system. Crash data reports are available to law enforcement and traffic safety advocates for crash analysis through both databases. Final data is collected on an annual basis and updated in July of the following year.

Improvement Status:  
Motorcycle fatalities and disabling injuries have shown an upward trend over the past four years. Missouri continues to experience high numbers of motorcycle fatalities. The national data comparison shows Missouri moved from 33rd in 2006 to 32nd in 2007. The 2008 national comparison is not yet available. Longer riding seasons and a significant increase in the number of licensed motorcycles and riders has increased the exposure rate in recent years. Rider education classes are offered within one hour’s driving time throughout Missouri. More than 4,000 riders at 28 sites are trained each year. In 2006, a Motorcycle Safety Task Force was organized and charged with developing a strategic plan. The task force has completed the plan and continues to move forward with implementation.
For all graphs on this page, the following legend applies:
- States that have all rider helmet laws
- States that require use for a specific segment of riders (usually under age 18)
- States that do not require helmet use (3 total)
- Missouri – motorcycle helmet law in place  (Source: www.nhtsa.gov, January 2008)
Number of commercial motor vehicle crashes resulting in fatalities-3g

Result Driver: Don Hillis, Director of Systems Management
Measurement Driver: Charles Gohring, Motor Carrier Services Program Manager

Purpose of the Measure:
This measure tracks the number of commercial motor vehicles involved in fatal crashes each year. MoDOT uses the information to target educational and enforcement efforts.

Measurement and Data Collection:
The Missouri State Highway Patrol collects and records the crash statistics used in this measure. The data used in this measure reports the number of commercial motor vehicles involved in a crash where one or more people die within 30 days as a result of the crash. This is an annual measure and will be updated each April for the previous year.

Improvement Status:
The preliminary number of fatal crashes reported in 2008 is 104, which is 20 fewer than those reported in 2007. This is a 16.1 percent reduction in one year. Between 2004 and 2008, the number of Missouri commercial motor vehicle fatal crashes dropped from 153 to 104, a 32 percent decrease. MoDOT coordinates its efforts to reduce fatal CMV crashes with the Missouri State Highway Patrol, the Federal Motor Carrier Safety Administration Missouri Division and the Kansas City and St. Louis police departments. MoDOT efforts include the installation of larger highway signs, highly reflective pavement markings, cable guardrails, roundabout intersections, incident management alert signs, roadside rumble strips, and intelligent transportation systems at scales. MoDOT conducts carrier safety training, regulation compliance reviews, safety audits of new motor carrier firms and truck inspections at terminals and destinations. The MSHP, St. Louis and Kansas City Police Departments conduct commercial vehicle roadside inspections in order to remove unsafe drivers and vehicles from the road.

Missouri ranked 38th in the number of fatality crashes nationwide in 2007. Rankings of 2008 are not yet available.
Missouri's National Ranking in Number of Fatal Commercial Vehicle Crashes

2007

- 38th place

2006

- 38th place

2005

- 42nd place
Number of commercial motor vehicle crashes resulting in injuries—3h

**Result Driver:** Don Hillis, Director of Systems Management  
**Measurement Driver:** Charles Gohring, Motor Carrier Services Program Manager

**Purpose of the Measure:**  
This measure tracks number of commercial motor vehicles involved in injury crashes each year. MoDOT uses the information to target educational and enforcement efforts.

**Measurement and Data Collection:**  
The Missouri State Highway Patrol collects and records crash statistics. The data for this measure reflects the number of commercial motor vehicles involved in crashes where one or more people are injured. This is an annual measure and will be updated each April for the previous year.

**Improvement Status:**  
The preliminary number of injury crashes reported in 2008 is 2,063, which is 328 fewer than those reported in 2007. This is a 13.7 percent reduction in one year. Between 2004 and 2008, the number of commercial motor vehicle crashes resulting in injuries decreased by 23.1 percent. The overall downward trend is due to the coordinated safety efforts of MoDOT, the Missouri State Highway Patrol, the Federal Motor Carrier Safety Administration Missouri Division, and the Kansas City and St. Louis police departments. MoDOT efforts include the installation of larger highway signs, highly reflective pavement markings, cable guardrails, roundabout intersections, incident management alert signs, rumble stripes, and intelligent transportation systems at scales. MoDOT conducts carrier safety training, regulation compliance reviews, safety audits of new motor carrier firms and truck inspections at terminals and destinations. The MSHP, St. Louis and Kansas City police departments conduct commercial vehicle roadside inspections in order to remove unsafe drivers and vehicles from the road.

Missouri ranked 41st in the number of injury crashes nationwide in 2007. Rankings for 2008 are not yet available.

---

**Number of Commercial Motor Vehicle Crashes Resulting in Injuries**

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>2,684</td>
</tr>
<tr>
<td>2005</td>
<td>2,694</td>
</tr>
<tr>
<td>2006</td>
<td>2,363</td>
</tr>
<tr>
<td>2007</td>
<td>2,391</td>
</tr>
<tr>
<td>YTD 2008</td>
<td>2,063</td>
</tr>
</tbody>
</table>

**Calendar Year**

**Desired Trend:**
Missouri’s National Ranking in Number of Injury Commercial Vehicle Crashes

2007

Missouri is ranked 41st in terms of injury commercial vehicle crashes for 2007.

2006

Missouri is again ranked 41st in terms of injury commercial vehicle crashes for 2006.

2005

Missouri is ranked 43rd in terms of injury commercial vehicle crashes for 2005.
Number of fatalities and injuries in work zones-3i

Result Driver: Don Hillis, Director of System Management
Measurement Driver: Troy Pinkerton, Traffic Liaison Engineer

Purpose of the Measure:
An important factor in evaluating the safety of Missouri’s transportation system is determining the safety of work zones on the state’s roads. This measure tracks the number of traffic-related fatalities, injuries, and overall crashes occurring in work zones on any Missouri public road.

Measurement and Data Collection:
Missouri law enforcement agencies are required to report crashes by submitting a standardized vehicle accident report form to the Missouri State Highway Patrol. MSHP personnel enter these reports into a statewide traffic crash database. MoDOT staff query and analyze this data to identify work zone-related crash statistics quarterly and report the results via this measurement.

Improve Status:
The 2008 calendar year Work Zone fatality report shows 10 fatality accidents resulting in a total of 12 fatalities. While this is an increase from last years total of five fatalities, the trend for this measure remains downward. In order to continue to make our work zones safer, a new Work Zone Survey is available to the public that can be filled out and submitted online at: http://www.modot.mo.gov/workzones/Comments.htm

The total number of crashes reported in work zones as well as the number of disabling and minor injuries resulting from those crashes finished on the downward trend that we had experience throughout the year. These three reporting categories are the lowest in five years.
Number of Disabling Injuries in Work Zones

Calendar Year

- 2004: 142
- 2005: 108
- 2006: 104
- 2007: 94
- 2008: 72

Desired Trend: \( \Rightarrow \)

Number of Minor Injuries in Work Zones

Calendar Year

- 2004: 1,029
- 2005: 897
- 2006: 1,090
- 2007: 698
- 2008: 475

Desired Trend: \( \Rightarrow \)

Number of Crashes in Work Zones

Calendar Year

- 2004: 3,484
- 2005: 3,162
- 2006: 3,433
- 2007: 2,472
- 2008: 1,503

Desired Trend: \( \Rightarrow \)
Number of highway-rail crossing fatalities and collisions-3j

Results Driver: Don Hillis, Director of System Management
Measurement Driver: Rod Massman, Administrator of Railroads

Purpose of the Measure:
This measure tracks annual trends in fatalities and collisions resulting from train-vehicle crashes at public railroad crossings in Missouri. This data drives the development and focus of the Missouri Highway Safety Plan. This plan is required annually by the National Highway Traffic Safety Administration and outlines key strategies to reduce these losses. In addition, this data supports the Missouri Blueprint for Safer Roadways. This document identifies the statewide initiatives with a goal of reducing fatalities in all areas of highway safety, including highway-rail crossing safety.

Measurement and Data Collection:
MoDOT collects crash data and enters it in a railroad safety information system used to update MoDOT’s traffic management system. This does not include fatalities or collisions from those on railroad property at areas other than at public railroad crossings, which are tabulated separately. Missouri is then ranked with all other states using data from the Federal Railroad Administration that consists of the numbers of collisions and fatalities in each state. Data is updated quarterly.

Improvement Status:
MoDOT continues to coordinate its railroad crossing projects in the areas of greatest need using a safety exposure index in addition to focusing on crossings with a history of accidents or limited sight distance. By agreeing with the railroads to look at a defined area, called a corridor, and sharing financial responsibilities for improvements, limited funds can be spread over a wider area. This increases the number of overall projects completed in specific areas of the state.

Other improvements include an increased emphasis on and MoDOT employee participation in public outreach opportunities on rail safety in conjunction with Operation Lifesaver, Inc. MoDOT is exploring partnerships with other government agencies, cities and school districts to upgrade flasher-only crossings to crossings with both lights and gates, to install gates and lights at crossings, and to replace outdated lighting with LED systems. There is a renewed emphasis on closing unsafe, redundant or unnecessary crossings.

The year concluded with seven fatalities for 2008. This was the same as the previous year's ending total. The goal, however, is not to remain at the same level but to push the number of fatalities lower each year. In order to accomplish this, MoDOT has increased and implemented more public outreach efforts along with engineering improvements. This has included participating in safety fairs of various kinds at which rail issues are presented alongside other safety-related topics, renewing efforts to present rail crossing information at driver’s education and other high school and grade school classes, and certifying additional MoDOT employees in giving Operation Lifesaver presentations. MoDOT also co-sponsored with Operation Lifesaver in October 2008 the first ever Safety-Blitz in the Joplin area, which received extensive public and media attention and is currently involved in planning another Safety-Blitz in the Pacific area. During 2008, MoDOT co-sponsored positive enforcement efforts with the Missouri State Highway Patrol and Missouri Operation Lifesaver at crossings throughout the state. The continuing focus is the three Es: engineering, education and enforcement. This effort is designed to increase public awareness and discussion of the need for increased safety and heightened awareness at railroad crossings.
Number of Highway-Rail Crossing Fatalities

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>2005</td>
<td>17</td>
</tr>
<tr>
<td>2006</td>
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<tr>
<td>2007</td>
<td>7</td>
</tr>
<tr>
<td>2008</td>
<td>7</td>
</tr>
</tbody>
</table>

Missouri’s National Ranking in Number of Highway-Rail Crossing Fatalities

January-September 2008

Missouri’s National Ranking in Number of Highway-Rail Crossing Fatalities

January-December 2007

Desired Trend:
Number of Highway-Rail Crossing Collisions

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
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<tr>
<td>Number</td>
<td>44</td>
<td>62</td>
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<td>46</td>
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</table>

Desired Trend:

Missouri's National Ranking in Number of Highway-Rail Crossing Collisions
January-September 2008

Missouri's National Ranking in Number of Highway-Rail Crossing Collisions
January-December 2007
(This page is intentionally left blank for duplexing purposes)
Good roadway visibility in all weather and light conditions is critical to safe and efficient travel. MoDOT will delight its customers by using top-quality and highly visible stripes and signs.
Rate of nighttime crashes-4a

Result Driver: Don Hillis, Director of System Management
Measurement Driver: Mike Curtit, Assistant State Traffic Engineer

Purpose of the Measure:
This measure tracks the types of crashes where visibility of stripes and signs may be a contributing crash factor.

Measurement and Data Collection:
Data is collected from the statewide crash database to identify and measure the rate of nighttime crashes. Further filtering of the data divides these night crashes by major and minor roadways. Major roadways are generally used for statewide or interstate travel and minor roadways are generally used for local traffic needs. Crash rates are calculated using the average annual daily traffic counts and are expressed in the unit, per 100 million vehicle miles (HMVM), which is the national standard for expressing crash rates. This is an annual measure with the data updated each April.

Improvement Status:
The crash rate for run-off-road crashes increased 21 percent on major roads and three percent on minor roads. The crash rate for cross-median crashes on major roads decreased 10 percent. The crash rate for head-on and sideswipe crashes has been stable for major roads over the past three years, but increased 30 percent this last year on minor roads. The crash rate for wet pavement crashes increased 10 percent for major roads and nine percent for minor roads. Crashes during winter weather events increased significantly in 2007. Most of the increase was non-injury crashes.

The guidelines for the Better Roads, Brighter Future program include upgrading the signing, continuing to implement the new pavement marking system, adding edgeline rumble stripes, and including centerline rumble stripes on two lane roadways. The pavement tape that will be used as a part of Better Roads, Brighter Future program will be a “wet reflective” tape that has improved visibility during wet pavement conditions.
Rate of Nighttime Crashes
Cross Median on Major Roads

Rate of Nighttime Crashes
Head-On and Sideswipe

Rate of Nighttime Crashes
Wet Pavement Crashes

Desired Trend:
Percent of signs that meet customers’ expectations-4b

**Result Driver:**  Don Hillis, Director of System Management  
**Measurement Driver:**  Mike Curtit, Assistant State Traffic Engineer

**Purpose of the Measure:**  
This measure will track whether the department’s sign policy, design standards and sign replacement policy are resulting in visible signs that meet customers’ expectations.

**Measurement and Data Collection:**  
Sign-quality attributes that define user expectations have been developed based on an industry-wide literature review. The attributes selected for this measure are those that can be captured during a night sign log. A night sign log is conducted on randomly generated road segments. MoDOT employees drive a road at night, recording the location and condition of the signs, particularly how visible the signs are with headlights. MoDOT employees collect the data annually in the fall, and update it each October.

**Improvement Status:**  
Over 91 percent of signs on major highways are in good condition. Almost 81 percent of our signs on minor roads are in good condition. This represents a slight increase from last year for both major and minor roads.

In the last twelve months, MoDOT’s sign shop has produced over 101,000 new signs for the districts. In addition, six trainings in four different districts on proper sign installation and handling procedures were performed. MoDOT continues to perform annual inspections of every sign in Missouri and does random quality assurance reviews targeted at signing.
Percent of stripes that meet customers’ expectations-4c

**Result Driver:** Don Hillis, Director of System Management  
**Measurement Driver:** Jim Brocksmith, Traffic Liaison Engineer

**Purpose of the Measure:**  
This measure tracks whether MoDOT’s striping policy, processes and materials used are resulting in visible stripes that meet customers’ expectations.

**Measurement and Data Collection:**  
Striping quality attributes that define user expectations have been developed based on an industry-wide literature review. The attribute selected for this measure is the retroreflectivity of the striping or the visibility of the striping at night.  
Retroreflectivity is measured as the amount of light from vehicle headlights that is returned to the driver. We have established retroreflectivity benchmarks of 150 for white and 125 for yellow. These benchmarks were chosen because they are at the high end of what research and other states consider minimum acceptable levels. Data is collected by taking retroreflectivity readings on randomly selected road segments in the fall and spring of each year. This data is then compared to the benchmarks. Traffic volumes, winter weather and pavement condition all have an impact on the performance and durability of striping. The measurement unit for retroreflectivity is millicandellas per meter squared per lux (mcd/m²/lux). Fall readings are taken in October and November as the striping season is ending. Spring readings are taken in May to reflect the condition of the markings coming out of the winter when they are typically the poorest.

**Improvement Status:**  
The data was analyzed in respect to the above benchmarks MoDOT set as the minimum acceptable level of retroreflectivity. The summer of 2008 was challenging for striping activities because an abundance of rain. However, for the fall of 2008 both the major and minor roads have the highest percentage acceptance since we began collecting data in 2005. These improvements came even as we changed the materials used in pavement from durables to paint.

MoDOT has realized savings of approximately $4 million dollars with the change to primarily paint; however, the winter performance of the paint is expected to be less than the durables previously used. MoDOT has started using contrast markings on concrete to improve daytime visibility. We are also working on materials and methods to improve the visibility of markings on rainy nights.

![Percent of Stripes that Meet Customers' Expectations](image-url)
Roadway Visibility

Percent of work zones meeting expectations for visibility-4d

Result Driver: Don Hillis, Director of System Management
Measurement Driver: Dan Smith, Traffic Management & Operations Engineer

Purpose of the Measure:
An important factor in evaluating the department’s performance in temporary traffic control design, deployment, operation, and maintenance is the measurement of the effectiveness of the visual guidance provided to motorists in our work zones. This measure tracks how well the department meets customers’ expectations of visibility in work zones on state highways.

Measurement and Data Collection:
Using a formal inspection worksheet, Central Office and district employees evaluate visibility of construction, MoDOT and permit work zones across the state. Each evaluation consists of a subjective assessment of engineered and operational factors affecting visibility. The evaluator assigns a pass, fail or n/a rating to each of these individual factors and a pass or fail rating for their overall perception of the work zone visibility. The overall perception ratings are compiled quarterly and reported via this measurement.

Improvement Status:
Compilation of the 4,581 evaluations performed by MoDOT staff between January and December of this calendar year resulted in a 97 percent satisfaction rating for work zone visibility (a negative perception of visibility was recorded in three percent of the evaluations). This rating is two percent higher than last calendar year’s ratings. Such progress is attributable to the greater emphasis MoDOT has placed on providing quality temporary traffic control installations that effectively direct, guide and inform users through and around construction and maintenance work zones on the state highway system.

![Chart showing percent of work zones meeting expectations for visibility from 2006 to 2008.]

Desired Trend:
(This page is intentionally left blank for duplexing purposes)
Personal, Fast, Courteous and Understandable Response to Customer Requests (Inbound)

*Tangible Result Driver – Shane Peck, Community Relations Director*

Responding to customers in a courteous, personal and understandable way is important. MoDOT listens and seeks to understand, because it values everyone’s opinion. MoDOT’s goal is to delight them with its customer service.
Percent of overall customer satisfaction-5a

**Result Driver:** Shane Peck, Community Relations Director
**Measurement Driver:** Sally Oxenhandler, Community Relations Coordinator

**Purpose of the Measure:**
This measure tracks MoDOT’s progress toward the mission of delighting its customers.

**Measurement and Data Collection:**
This is an annual measure. Data is collected from telephone interviews with more than 3,500 randomly selected adult Missourians each May. MoDOT is using H.J. Heinz as the benchmark for this measure. Based on information compiled by the American Customer Satisfaction Index, Heinz has the highest customer satisfaction rate – 90 percent – out of the 200 companies and government agencies that the ACSI scores.

**Improvement Status:**
Customer satisfaction with MoDOT rose 1 percent from 77 percent in 2007 to 78 percent in 2008. Since the customer satisfaction survey was first taken in 1999, the percent of people who are satisfied with MoDOT has grown 14 percent, from 64 percent to 78 percent. The percentage of people who are very satisfied with MoDOT remained roughly the same: 21 percent in 2008 as compared to 22 percent in 2007. However, over the past five years, the percentage of people who are very satisfied with MoDOT has grown 16 percent. The percentage of those who reported being dissatisfied with MoDOT dropped from 23 percent to 22 percent in the past year. MoDOT’s efforts to improve road conditions, decrease highway fatalities and provide timely, accurate and understandable information likely contributed to overall customer satisfaction.

**Percent of Overall Customer Satisfaction**

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Very Satisfied</th>
<th>Satisfied</th>
<th>H.J Heinz</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>68</td>
<td>52</td>
<td>90</td>
</tr>
<tr>
<td>2005</td>
<td>69</td>
<td>56</td>
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<tr>
<td>2006</td>
<td>68</td>
<td>59</td>
<td>87</td>
</tr>
<tr>
<td>2007</td>
<td>75</td>
<td>77</td>
<td>90</td>
</tr>
<tr>
<td>2008</td>
<td>78</td>
<td>77</td>
<td>87</td>
</tr>
</tbody>
</table>

**Desired Trend:**

![Graph showing the trend in customer satisfaction from 2003 to 2008.](attachment:graph.png)
Percent of customers who contacted MoDOT that felt they were responded to quickly and courteously with an understandable response-5b

Result Driver: Shane Peck, Community Relations Director
Measurement Driver: Sally Oxenhandler, Community Relations Manager

Purpose of the Measure:
This measure indicates whether customers are comfortable with the speed, courtesy and clarity of MoDOT customer service.

Measurement and Data Collection:
Customers who contact MoDOT Customer Service Centers are asked to complete a short telephone survey when their business with the customer service representatives is complete. Callers who agree are forwarded to an automated survey that asks three “yes or no” questions on the timeliness, accuracy and courtesy of the call.

Improvement Status:
MoDOT customer service representatives continue to receive high marks in responding to customers quickly, courteously and clearly. There were 6,278 surveys taken in the fourth quarter, an increase of more than 2,200 surveys from the previous quarter. The increase is likely due to a calling service that has been retained to place random calls to the customer service centers as a way to encourage excellent customer service. The service ensures the “secret shopper” calls are conducted on an ongoing basis and the data collected can be used more effectively.

Percent of Customers Who Contacted MoDOT That Felt They Were Responded to Quickly

<table>
<thead>
<tr>
<th>Calendar Quarter</th>
<th>4th Qtr. 2007</th>
<th>1st Qtr. 2008</th>
<th>2nd Qtr. 2008</th>
<th>3rd Qtr. 2008</th>
<th>4th Qtr. 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent</td>
<td>98.1</td>
<td>98.6</td>
<td>98.4</td>
<td>97.6</td>
<td>98.1</td>
</tr>
</tbody>
</table>

Desired Trend:
Personal, Fast, Courteous and Understandable Response to Customer Requests (Inbound)

Percent of Customers Who Contacted MoDOT That Felt They Were Responded To In a Personal and Courteous Manner

<table>
<thead>
<tr>
<th>Calendar Quarter</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>4th Qtr. 2007</td>
<td>99.2</td>
</tr>
<tr>
<td>1st Qtr. 2008</td>
<td>99.4</td>
</tr>
<tr>
<td>2nd Qtr. 2008</td>
<td>99.5</td>
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<td>3rd Qtr. 2008</td>
<td>99.4</td>
</tr>
<tr>
<td>4th Qtr. 2008</td>
<td>99.4</td>
</tr>
</tbody>
</table>

Desired Trend: Upward

Percent of Customers Who Contacted MoDOT That Understood the Response Given

<table>
<thead>
<tr>
<th>Calendar Quarter</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>4th Qtr. 2007</td>
<td>98.2</td>
</tr>
<tr>
<td>1st Qtr. 2008</td>
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<tr>
<td>2nd Qtr. 2008</td>
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<tr>
<td>3rd Qtr. 2008</td>
<td>98.6</td>
</tr>
<tr>
<td>4th Qtr. 2008</td>
<td>98.4</td>
</tr>
</tbody>
</table>

Desired Trend: Upward
Personal, Fast, Courteous and Understandable Response to Customer Requests (Inbound)

Percent of documented customer requests responded to within 24 hours-5c

**Result Driver:** Shane Peck, Community Relations Director  
**Measurement Driver:** Sally Oxenhandler, Community Relations Manager

**Purpose of the Measure:**  
This measure tracks how quickly MoDOT responds to customer requests through the customer service centers.

**Measurement and Data Collection:**  
This information comes from the customer service database, where customer requests requiring follow-up are documented from the time the call comes in until the request is responded to. This may include requests for signs, traffic signal review, pothole patching or work zone congestion. Almost all customer requests are responded to immediately, including basic phone call transfers, questions, or requests for general information; these routine contacts are not documented here.

**Improvement Status:**  
The percentage of customer requests responded to within 24 hours remains extremely high. There were 6,955 documented customer requests in the quarter.

![Percent of Documented Customer Requests Responded to Within 24 Hours]

---

**Desired Trend:**
**Average completion time on requests requiring follow up-5d**

**Result Driver:** Shane Peck, Community Relations Director  
**Measurement Driver:** Sally Oxenhandler, Community Relations Manager

**Purpose of the Measure:**  
This measure tracks MoDOT’s responsiveness to customer inquiries that are received through the customer service centers and documented in the database.

**Measurement and Data Collection:**  
Customer requests in the customer service database are tracked for average completion time. Longer-term requests that require more than 30 days to complete are removed from the results because these longer-term requests would skew the overall results. Time is measured in working days; weekends and holidays are excluded.

**Improvement Status:**  
Average completion times are moving in the right direction, falling from 1.9 days in the third quarter of 2008 to 1.3 days in the fourth quarter. There were 6,955 documented customer requests in the quarter. Staff from Community Relations and Information Services met with customer service representatives by telephone on Nov. 5 to share best practices and ensure consistency in reporting data.

<table>
<thead>
<tr>
<th>Calendar Quarter</th>
<th>Desired Trend:</th>
</tr>
</thead>
<tbody>
<tr>
<td>4th Qtr. 2007</td>
<td>1.4</td>
</tr>
<tr>
<td>1st Qtr. 2008</td>
<td>1.6</td>
</tr>
<tr>
<td>2nd Qtr. 2008</td>
<td>1.7</td>
</tr>
<tr>
<td>3rd Qtr. 2008</td>
<td>1.9</td>
</tr>
<tr>
<td>4th Qtr. 2008</td>
<td>1.3</td>
</tr>
</tbody>
</table>
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PARTNER WITH OTHERS TO DELIVER TRANSPORTATION SERVICES

_Tangible Result Driver – Kevin Keith, Chief Engineer_

To be an effective leader in transportation, MoDOT must work with agencies and branches of government, including state, county, private industry and municipalities to deliver a quality transportation system that meets the needs of everyone. A coordinated transportation system requires partnerships to ensure compatible decisions are made. Partnering builds trust and ensures quality results.
Number of dollars of discretionary funds allocated to Missouri-6a

Result Driver: Kevin Keith, Chief Engineer
Measurement Driver: Todd Grosvenor, Financial Resource Administrator

Purpose of the Measure:
This measure shows the amount of discretionary funds allocated to Missouri.

Measurement and Data Collection:
This is an annual measure updated each January. The federal government allocates discretionary funds to states for specific highway and multimodal projects. Multimodal projects include waterway, aviation and transit activities. These funds are distributed administratively for programs that do not have statutory distribution formulas. States compete for these funds, which are above the formula apportionments. Resource Management collects this information from the Federal Highway Administration, Federal Transit Administration and Federal Aviation Administration. Missouri’s share of the total highway funds allocated nationwide over the last five years is 3.8 percent, which ranks fifth. The state of California received the largest share with 12.7 percent. Missouri’s share of the total multimodal funds allocated nationwide over the last five years is 1.6 percent, which ranks 22nd. The state of New York received the largest share with 14.1 percent.

Improvement Status:
Discretionary funds allocated to Missouri for highway projects increased in 2008. This was mainly due to an increase in the funds made available from the annual appropriations bill. The funds allocated to Missouri increased 18 percent from 2007 to 2008, while the funds allocated nationwide increased by only 16 percent.

Discretionary funds allocated to Missouri for multimodal projects decreased in 2008. This was mainly due to a decrease in airport funds. The funds allocated to Missouri decreased 19 percent, while the funds allocated nationwide increased by 8 percent.

MoDOT works closely with Missouri’s congressional delegates to identify specific transportation projects that are good candidates for discretionary funds.

Number of Dollars of Discretionary Funds Allocated to Missouri - Highways

5-Year Average for Missouri: $75 million, 3.8%
5-Year Average for California: $253 million, 12.7%

Desired Trend:
Partner with Others to Deliver Transportation Services

Number of Dollars of Discretionary Funds Allocated to Missouri - Multimodal

Federal Fiscal Year

<table>
<thead>
<tr>
<th>Year</th>
<th>Dollars (in millions)</th>
<th>Percent Share of Total Nationwide</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>114</td>
<td>2.3</td>
</tr>
<tr>
<td>2005</td>
<td>85</td>
<td>1.6</td>
</tr>
<tr>
<td>2006</td>
<td>95</td>
<td>1.7</td>
</tr>
<tr>
<td>2007</td>
<td>80</td>
<td>1.5</td>
</tr>
<tr>
<td>2008</td>
<td>65</td>
<td>1.1</td>
</tr>
</tbody>
</table>

5-Year Average for Missouri: $88 million, 1.6%

5-Year Average for New York: $752 million, 14.1%

Desired Trend:
Percent of earmarked dollars that represent MoDOT’s high priority highway projects-6b

Result Driver: Kevin Keith, Chief Engineer
Measurement Driver: Todd Grosvenor, Financial Resource Administrator

Purpose of the Measure:
This measure shows the percent of earmarked dollars that represent MoDOT’s high priority highway projects.

Measurement and Data Collection:
This is an annual measure updated each January. Earmarked dollars are federal funds allocated to states for specific highway projects. These funds are distributed administratively for programs that do not have statutory distribution formulas. States compete for these funds, which are above the formula apportionments. Resource Management collects this information from the Federal Highway Administration. MoDOT’s high priority highway projects are identified in the Federal Priorities list that is prepared by Governmental Relations. This list is provided to Missouri’s congressional delegates.

Improvement Status:
Missouri’s earmarked dollars for specific highway projects increased in 2008. This was mainly due to an increase in the funds made available from the annual appropriations bill. However, the percent of earmarked dollars that represent MoDOT’s high priority highway projects decreased slightly. Many of the earmarked dollars were for projects identified on our Federal Priorities list. Over the last five years, MoDOT’s high priority highway projects received 66 percent of the earmarked dollars.

MoDOT works closely with Missouri’s congressional delegates to identify MoDOT’s high priority highway projects that are good candidates for earmarked dollars.

![Percent of Earmarked Dollars That Represent MoDOT's High Priority Highway Projects](image)

**Desired Trend:**
5-Year Average: 66%
Number of Earmarked Dollars Representing MoDOT's High Priority Highway Projects

Federal Fiscal Year

Dollars (in millions)

- MoDOT High Priority Highway Projects
- Other Projects

5-Year Average: $48 million

Desired Trend:
Number of dollars generated through cost-sharing and other partnering agreements-6c

**Result Driver:** Kevin Keith, Chief Engineer  
**Measurement Driver:** Todd Grosvenor, Financial Resource Administrator

**Purpose of the Measure:**  
This measure shows the number of dollars invested by cities, counties, transportation corporations and transportation development districts for state highway system improvements. It monitors the effectiveness of MoDOT’s cost-sharing and partnering programs. MoDOT allocates $30 million per year for projects proposed by entities willing to assist in a project’s funding that will benefit the state highway system.

**Measurement and Data Collection:**  
This is an annual measure updated each October. Resource Management collects this data from the Statewide Transportation Improvement Program (STIP) database. The dollars are shown in the state fiscal year in which construction contracts are awarded.

**Improvement Status:**  
The number of dollars increased significantly in fiscal year 2008 due to the timing of the construction contract awards for some major cost-share projects. Examples include Route 36 in Macon, Marion, Monroe and Shelby counties, Route 100 in Franklin County and Route 67 in Madison and Wayne counties.

MoDOT markets the cost sharing and partnering programs throughout the state to build partnerships with entities to pool efforts and resources to accomplish what may have previously seemed unlikely.

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**Number of Dollars Generated Through Cost-sharing and Other Partnering Agreements**

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Dollars (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>16</td>
</tr>
<tr>
<td>2007</td>
<td>55</td>
</tr>
<tr>
<td>2008</td>
<td>197</td>
</tr>
</tbody>
</table>

**Desired Trend:**
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Leverage Transportation to Advance Economic Development

Tangible Result Driver – Roberta Broeker, Chief Financial Officer

Transportation is essential to Missouri’s economic well-being. It plays a critical role in creating jobs and stimulating lasting growth for Missouri. In addition, focusing on ways to advance economic development helps MoDOT achieve its mission of promoting a prosperous Missouri.
Leverage Transportation To Advance Economic Development

Number of miles of new four-lane corridors completed-7a

Result Driver: Roberta Broeker, Chief Financial Officer
Measurement Driver: Jay Bledsoe, Transportation System Analysis Engineer

Purpose of the Measure:
This measure tracks the miles of additional divided highways available to the public. Access to a divided highway system supports economic development in Missouri. One of MoDOT’s recent priorities has been completion of four-lane corridors in order to connect segments of highway where gaps exist.

Measurement and Data Collection:
Projects that create or complete sections of dual-divided highways are identified and tracked. Completion is defined as the date the project is opened to traffic.

This is an annual measure updated each January.

Improvement Status:
More than 60 miles of new four-lane corridors were completed during calendar year 2008, primarily on U.S. Routes 50, 61 and 65. Progress in 2008 was nearly double that of 2007 as projects funded by Amendment 3 bonds approved by Missouri voters in November 2004 are completed. More than 100 miles of work to complete four-lane highways are included in the current five-year Statewide Transportation Improvement Program.

A MoDOT study completed in 2007 looked at seven major economic indicators in non-urbanized counties. The indicators are county population, annual wages, household income, number of business firms, gross sales tax, real estate valuations and per capita income. Results showed that counties that have more than 15 miles of four-lane highway scored from 9 to 183 percent higher in these areas than counties with a lesser number of divided miles.

![Number of Miles of New Four-Lane Corridors Completed](chart.png)
Percent utilization of SIB & STAR loan programs-7b

**Result Driver:** Roberta Broeker, Chief Financial Officer  
**Measurement Driver:** Brenda Morris, Resource Management Director

**Purpose of the Measure:**
This measure shows the percent utilization of MoDOT’s revolving loan programs, the Missouri State Infrastructure Bank (SIB) and the State Transportation Assistance Revolving (STAR) program.

The SIB program, which is administered by the Missouri Transportation Finance Corporation (MTFC), was authorized by federal law in 1995 to finance both highway and non-highway projects. The STAR program finances non-highway projects such as air, water, rail or mass transit facility construction, mass transit vehicles and vehicles for elderly or handicapped people. STAR funding is appropriated by the General Assembly.

**Measurement and Data Collection:**
This is an annual measure updated each July. The percent utilization is the total assets less cash available for loans divided by total assets. Resource Management collects this data from financial reports and a SIB and STAR loans database.

**Improvement Status:**
The percent utilization of the SIB loan program decreased to 78.5 percent as of June 30, 2008. The amount available to loan increased because: two entities with approved loans totaling $4.5 million determined they did not need them; two entities reduced their loan amounts by $8.3 million due to award savings; and adjustments were made to the timing of disbursements and repayments.

The percent utilization of the STAR loan program increased to 98.7 percent. The increase is attributable to loan disbursements outpacing loan repayments and interest earnings. The STAR fund has approximately $40,000 available for loans.

Resource Management completed marketing workshops throughout the state. In fiscal year 2008, Resource Management exhibited or presented at seven events.
Leverage Transportation To Advance Economic Development

### Percent Utilization of STAR Loan Program

- **2006**: 66.5%
- **2007**: 59.7%
- **2008**: 98.7%

**Dollars (in millions)**
- **2006**: 3.2
- **2007**: 3.3
- **2008**: 3.5

**Fiscal Year**
- **2006**
- **2007**
- **2008**

**Total Assets**

**Available for Loans**

**Percent Utilization**

**Desired Trend**: 100%
Economic return from transportation investment-7c

**Result Driver:** Roberta Broeker, Chief Financial Officer  
**Measurement Driver:** Ben Reeser, Finance Manager

**Purpose of the Measure:**  
This measure tracks the economic impact resulting from the state’s transportation investments. Economists have found that transportation investments affect employment, personal income and economic output.

**Measurement and Data Collection:**  
MoDOT works with the Department of Economic Development to perform economic impact analyses for the state’s transportation investments. The analyses are performed using a model called the Regional Economic Modeling, Inc. (REMI). Through these efforts, the department can provide state and regional estimates to demonstrate employment, income and state benefits related to specific projects, corridors and program expenditures. This annual measure is updated each October.

**Improvement Status:**  
The REMI model results demonstrate the strong link between transportation investment and economic development. An analysis of the Statewide Transportation Improvement Program (STIP) provides a summary of economic benefits related to transportation investments over the next 20 years. The 2009-2013 STIP will invest over $4 billion into highway and bridge projects across the state. On average, these STIP investments will create approximately 8,434 new jobs with an average wage of $29,373 per job. As a result, average personal income is expected to increase by $319.4 million. The 2009-2013 STIP projects will contribute more than $993 million to economic output for the state per year totaling $19.9 billion over the next 20 years. This equates to a $4.63 return on every $1 invested in transportation. The downward trends shown on the first two annual charts are due to decreased STIP investments. The third chart, which shows the 20-year benefit ratio for every dollar invested, increased compared to the 2008-2012 STIP primarily due to adding the New Mississippi River Bridge project in St. Louis. MoDOT continues to work with DED to conduct economic impact analyses for the various transportation investments throughout the state. Additional studies can be found online at www.modot.mo.gov/newsandinfo/EconomicImpactAnalysis.htm.

---

**Economic Return from Transportation Investment**

**Annual Employment Benefit**

<table>
<thead>
<tr>
<th>Number of Jobs Created</th>
<th>2007-2011 STIP</th>
<th>2008-2012 STIP</th>
<th>2009-2013 STIP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10,605</td>
<td>9,285</td>
<td>8,434</td>
</tr>
</tbody>
</table>

**Desired Trend:**
Leverage Transportation To Advance Economic Development

**Economic Return from Transportation Investment**

**Annual Personal Income**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dollars (in millions)</td>
<td>399.2</td>
<td>332.5</td>
<td>319.4</td>
</tr>
</tbody>
</table>

**Desired Trend:**

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**Economic Return from Transportation Investment**

**20-Year Benefit Ratio for Every Dollar Invested**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dollars</td>
<td>3.61</td>
<td>3.56</td>
<td>4.63</td>
</tr>
</tbody>
</table>

**Desired Trend:**
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MoDOT values innovation. The department empowers employees and seeks input from stakeholders to generate innovative ideas. Collaboration with staff, academia and industry makes unique concepts come to life so MoDOT can serve its customers better, faster and at less expense to the taxpayer.
**Innovative Transportation Solutions**

**Number and percent of research recommendations implemented-8a**

**Result Driver:** Mara Campbell, Organizational Results Director  
**Measurement Driver:** Bill Stone, Organizational Performance Administrator

**Purpose of the Measure:**
This measure tracks the number of completed research projects, and the percentage of implemented research recommendations, whether ideas, methods, or tools that MoDOT implements as a result of research efforts. MoDOT realizes the importance of supporting innovation and research and is driven to provide the department with the latest ideas, technologies, and solutions needed to deliver the most efficient, safe, and economical transportation system.

**Measurement and Data Collection:**
Research projects implemented include any new ideas, methods, policies, processes, standards, equipment or tools introduced for the purpose of improving the department’s operation, services, or products. For this measure, research projects are categorized into two areas: 1) Information and policy guidance research, and 2) Technical, product-focused research. Both categories are reported as the number of completed activities and percent of recommendations implemented. Examples of information and policy guidance research products include determining the economic impact of highway construction or smoother pavements, or development of freight planning agendas. Technical, product-focused research projects examples include developing passing lane alternatives, or concrete curing specifications.

For these research products, the definition of implemented includes all solutions that have been or are being applied. “Percent of research recommendations implemented” is determined by dividing the number of research projects producing implementable results by the total number of research projects completed during the reporting period.

For both categories of research projects, the information and policy oriented, as well as the technical, MoDOT’s elevated emphasis on strategically focused research and its implementation should result in better and more economical transportation products and services delivered. Data for this measure is collected and analyzed annually with updates in the July Tracker edition.

**Improvement Status:**
During fiscal year 2008, MoDOT’s research program completed 28 total research projects. Sixteen projects were categorized as information and policy guidance reports and are considered implemented. Twelve projects were categorized as technical, product-focused reports. Of the twelve technical reports, eight projects produced implemented results within the department. This represents a 67 percent implementation rate for the technical report recommendations.

MoDOT’s implementation rate for technical projects is slightly ahead of the New York implementation rate of 64 percent. MoDOT’s Organizational Results continues to aggressively pursue research and innovations focused on addressing pertinent department needs that are closely tied to the 18 Tangible Results. This focus will lead to more usable solutions and better value. While not all research results or solutions can be implemented, MoDOT recognizes the importance and value of conducting a research program driven to make a difference.

Organizational Results worked with the Performance Advisory Teams (PAT), Division and District Leaders, Senior Management and outside researchers to identify research and performance needs for the department. The research projects were then prioritized and compared to budget constraints to outline the research program for the Department that will be administered through Organizational Results. The research program has outlined both the contract and in-house research projects for fiscal year 2009. The 2009 research program was approved on June 30, 2008.
Number and Percent of Research Recommendations Implemented

<table>
<thead>
<tr>
<th>(Fiscal Year)</th>
<th>Information Research</th>
<th>Technology Research</th>
<th>New York DOT Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>100 (4)</td>
<td>79 (15)</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>100 (7)</td>
<td>65 (8)</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>100 (16)</td>
<td>64 (8)</td>
<td></td>
</tr>
</tbody>
</table>

*Desired Trend:*

*(n*) Indicates the number of research recommendations implemented
Number of external awards received-8b

**Result Driver:** Mara Campbell, Organizational Results Director  
**Measurement Driver:** Bill Stone, Organizational Performance Administrator

**Purpose of the Measure:**
This measure tracks the number of external awards received by the department. These awards display the department’s dedication and efforts towards efficiency, innovation and quality throughout the organization. This information enables the department to measure progress and encourage further participation in award programs. It also provides opportunities for the department to increase public awareness of department activities.

**Measurement and Data Collection:**
Each district and division office tracks the awards presented to the department by external organizations. This includes all awards presented to individuals, teams, districts, divisions and MoDOT as a whole. Data for this measure is updated quarterly.

**Improvement Status:**
In the second quarter of fiscal year 2009, MoDOT received six awards. A highlight from this quarter, World Congress on Intelligent Transport Systems (ITS) presented MoDOT and NAVTEQ, a leading global provider of digital map data for location-based solutions and vehicle navigation, with the “Best of ITS” award. This recognizes achievements in providing real-time flow and volume updates to drivers. The NAVTEQ-MoDOT project in the St. Louis area is touted as a model for other public-private collaborations to effectively manage road closures and other congestion-causing events.

MoDOT continues to enter various competitions to have its work judged against the efforts of other organizations.
Percent of best practices by implementation status

**Result Driver:** Mara Campbell, Organizational Results Director  
**Measurement Driver:** Bill Stone, Organizational Performance Administrator  

**Purpose of the Measure:**
This measure tracks the percent of best practices implemented within MoDOT. Best practices show how MoDOT employees are applying innovation to improve daily operations.

**Measurement and Data Collection:**
MoDOT uses a simple five-question submission form for employees to share how they have improved the ways of accomplishing daily work. Submissions are evaluated and verified by managerial and technical staff. Those submissions approved as best practices are shared with MoDOT employees through online and printed publications. Every six months, division and district managers report best practice implementation status. This measure will have updates in the July and January Tracker editions.

**Improvement Status:**
During the first six months of fiscal year 2009, MoDOT’s Solutions at Work has verified and shared two best practices with department employees. However, another six best practices from the FY 2008 were too new to include in the previous survey cycle and will be reported at this time. Overall, 66 percent of the best practices have been fully implemented with 19 percent partially implemented and 15 percent still under review. With 85 percent of best practices partially or fully implemented, MoDOT is aggressively taking advantage of best practices. The 15 percent still under review is primarily due to limited staff time to fabricate several of the best practices. Staff availability during the winter months and a new statewide fabrication service will help with overall implementation numbers by the end of the fiscal year. While many of these eight best practices are tools and equipment modifications to make work faster and safer, some actual savings were realized. Most notably the department saved more than $2 million through a process to modify low-water crossings and bank the stream mitigation credits for other projects.
Number of dollars saved by increasing MoDOT’s productivity-8d

**Result Driver:** Mara Campbell, Organizational Results Director  
**Measurement Driver:** Jen Harper, Organizational Performance Engineer

**Purpose of the Measure:**  
This measure enables MoDOT to assess its productivity by tracking cost savings indicative of practical design, value engineering, Performance Plus and good engineering judgment.

**Measurement and Data Collection:**  
The cost-saving methods used by MoDOT are so broad that this measure focuses on savings measured through the Performance Plus program. The Construction Cost Savings and the Project Scoping and Estimating incentives are verified quarterly, while the Injury Reduction incentive is verified on a semi-annual basis. The number of dollars saved as well as the amount paid out to eligible employees is calculated for each of the incentives. Note that in the Construction Cost Savings incentive, the savings are calculated based only on those project offices that qualified for the incentive, while Project Scoping and Estimating and the Injury Reduction calculations are based on all of the districts whether or not they qualified. For each of the incentives, the amount paid out is then subtracted from the amount saved to get a final savings. These savings are reported in the quarter that the incentives are paid out to the employees. For the Construction and Project Scoping incentives, the measurement data reflects April through September 2009. For the Injury Reduction incentive, the data reflects January through June 2008. Data for this measure is updated quarterly.

**Improvement Status:**  
In the second quarter of fiscal year 2009, MoDOT saved an additional $8.9 million through the construction cost savings incentive. For the first two quarters in fiscal year 2009, $17.2 million was saved.

In the second quarter of fiscal year 2009, an additional $3.4 million was saved through the project scoping and estimating incentive. For the first two quarters in fiscal year 2009, $33.1 million was saved.

The Injury Reduction Incentive did not have a payout this quarter.

![Number of Dollars Saved by Increasing MoDOT’s Productivity](image)

**Number of Dollars Saved by Increasing MoDOT’s Productivity**  
**Construction Cost Savings Incentive**  
Based on Payout Period  
(in millions)

Note: In the Construction Cost Savings, the savings are calculated based only on those project offices that qualified for the incentive.
Innovative Transportation Solutions

Number of Dollars Saved by Increasing MoDOT's Productivity
Project Scoping & Estimating Incentive Based on Payout Period
(in thousands)

Fiscal Year

2008 1st & 2nd Qtr. 2008 1st & 2nd Qtr. 2009

Desired Trend:

Note: The desired trend in the Project Scoping and Estimating Incentive is to keep the variance between the STIP estimate and low bid amount to 0 percent.

Number of Dollars Saved by Increasing MoDOT’s Productivity
Injury Reduction Incentive Based on Payout Period
(in thousands)

Fiscal Year

2008 1st Half Year 2008 1st Half Year 2009

Desired Trend:
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Completed as Planned
Fast Projects That Are of Great Value

Tangible Result Driver – Dave Nichols, Director of Program Delivery

MoDOT customers expect that transportation projects be completed quickly and provide major improvements for travelers. MoDOT will honor project commitments because it believes in integrity.
Fast Projects That Are of Great Value

Percent of estimated project cost as compared to final project cost-9a

**Result Driver:** Dave Nichols, Director of Program Delivery

**Measurement Driver:** Renate Wilkinson, Planning and Programming Engineer

**Purpose of the Measure:**
This measure determines how close MoDOT’s total program completion costs are to the estimated costs.

**Measurement and Data Collection:**
MoDOT determines the completed project costs and compares them to the estimated costs. The completed project costs are reported during the fiscal year in which the project is completed.

Project costs include design, right of way purchases, utilities, construction, inspection and other miscellaneous costs. The estimated cost is based on the amount included in the most recently approved Statewide Transportation Improvement Program. Completed costs include actual expenditures. The costs do not include those that might result from any legal claims, which are rare occurrences, regarding the projects after they are completed. Positive numbers indicate the final (completed) cost was higher than the estimated cost.

This is an annual measure updated each quarter. In November of each year, this data is provided to the Missouri Legislature through the Report to the Joint Committee on Transportation Oversight.

**Improvement Status:**
As of December 31, 2008, for fiscal year 2009, a total of 192 projects were completed at a cost of $807.2 million. This represents a deviation of 0.75 percent or $6 million more than the estimated cost of $801.2 million.

For fiscal year 2008, the final value was 543 projects completed at a cost of $1.2463 billion. This represents a deviation of –2.27 percent or $29 million less than the estimated cost of $1.2753 billion. These numbers have been revised slightly since July based on projects that had pending adjustments.

District construction budgets are adjusted based on variation from estimated costs. The ideal status is no deviation in the estimated vs. final project cost, or 0 percent. For projects completed in the five-year period from 2004 to 2008, final costs have been within 0.7 percent of estimated costs.

While a number of states track construction costs, few provide data for total project costs. Fewer still compare estimated total project costs to final total project cost. The following graph shows how MoDOT performance compares with neighboring Nebraska. In 2004, the performance of both states was nearly the same. In 2007, both states were within 5 percent of each other. In other years, it varied close to 10 percent. Data for Nebraska is updated annually.
Positive numbers indicate the final (completed) cost was higher than the estimated cost.

Data from Nebraska Department of Roads, one-year schedule of highway improvement projects.
Fast Projects That Are of Great Value

Average number of years it takes to go from the programmed commitment in the Statewide Transportation Improvement Program to construction completion-9b

**Result Driver:** Dave Nichols, Director of Program Delivery  
**Measurement Driver:** Machelle Watkins, Transportation Planning Director

**Purpose of the Measure:**  
This measure monitors how quickly projects go from the programmed commitment to fiscal closure of a construction project.

**Measurement and Data Collection:**  
MoDOT compares how long it takes from when the project is added to the Statewide Transportation Improvement Program to when the project is completed. Project completion is defined as fiscal closure, which happens after the visible construction work has been completed. Data is categorized by the type of work, and distinguishes between design and construction stages.

This is an annual measure and data is updated in October.

**Improvement Status:**  
In general, resurfacing and safety projects take the least amount of time to develop and complete, around two to three years. New or improved bridge projects take more time, around five years. New or expanded highways take yet more time, from seven to 10 years.

Major bridge projects take the most time, from seven to 12 years to develop and complete.

From 2006 to 2007, design time for resurfacing projects decreased slightly to 0.7 years. Design time for safety projects increased slightly to 1.3 years. Design time for new or improved bridges also increased slightly to 2.9 years. The design time average for new or expanded highways increased slightly to 3.9 years. The design time for major bridges decreased from 4.3 years to 1.5 years. Data samples for major bridges are usually small, which allows for one to two projects to affect the averages that are reported.

Construction times from 2006 to 2007 increased for resurfacing, safety, new or improved bridge projects and major bridges to 1.7, 2.0, 1.9 and 5.1 years respectively. MoDOT makes an effort to fiscally close completed construction projects that are inactive. Therefore, an increase in the average construction time is expected. New or expanded highways saw a decrease to 3.7 years.
Fast Projects That are of Great Value

Average Number of Years it Takes to Go from the Programmed Commitment in the STIP to Construction Completion

Resurfacing Projects

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Award Date to Construction Completion</th>
<th>Programmed Commitment to Award</th>
<th>Desired Trend</th>
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Safety Projects

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<td>2007</td>
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<td>2.0</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Average Number of Years it Takes to Go from the Programmed Commitment in the STIP to Construction Completion

**New/Improved Bridge**

- **2003**: Award Date to Construction Completion = 3.8, Programmed Commitment to Award = 1.5
- **2004**: Award Date to Construction Completion = 2.1, Programmed Commitment to Award = 2.7
- **2005**: Award Date to Construction Completion = 4.0, Programmed Commitment to Award = 1.9
- **2006**: Award Date to Construction Completion = 4.6, Programmed Commitment to Award = 2.8
- **2007**: Award Date to Construction Completion = 4.8, Programmed Commitment to Award = 2.9

Desired Trend: N/A

**New/Expanded Highway**

- **2003**: Award Date to Construction Completion = 7.3, Programmed Commitment to Award = 2.9
- **2004**: Award Date to Construction Completion = 8.2, Programmed Commitment to Award = 3.1
- **2005**: Award Date to Construction Completion = 8.3, Programmed Commitment to Award = 3.2
- **2006**: Award Date to Construction Completion = 7.6, Programmed Commitment to Award = 3.9
- **2007**: Award Date to Construction Completion = 7.6, Programmed Commitment to Award = 3.7

Desired Trend: N/A
Average Number of Years it Takes to Go from the Programmed Commitment in the STIP to Construction Completion

Major Bridge

Calendar Year

Number of Years

Award Date to Construction Completion
Programmed Commitment to Award

Desired Trend: N/A
Fast Projects That Are of Great Value

Percent of projects completed within programmed amount-9c

**Results Driver:** Dave Nichols, Director of Program Delivery  
**Measurement Driver:** Dave Ahlvers, State Construction & Materials Engineer

**Purpose of the Measure:**  
The measure tracks the percentage of projects completed within the programmed amount. It includes separate categories for projects over and under one million dollars.

**Measurement and Data Collection:**  
The completed project cost is compared to the estimated cost for each project. The percentage of projects completed within the estimated cost is gathered from across the state.

Project costs include design, right-of-way purchases, utilities, construction payments, inspection and other miscellaneous costs.

This is an annual measure updated each quarter.

**Improvement Status:**  
MoDOT would like to see all projects completed within the programmed amount. The goal is to deliver projects at the programmed amount, allowing the greatest number of projects to be built with the funding available. MoDOT’s data indicates that there is a great deal of deviation among individual projects with half over and half under budget. In fiscal year 2009, 59 percent of projects programmed over $1 million were completed within the budgeted amount, while 54 percent of projects under $1 million came in at or below budget. Emphasis has been placed on scoping projects and developing estimates that represent the true cost of delivering the projects. MoDOT is striving to deliver quality projects cheaper by using practical design and by encouraging the use of value engineering.

![Percent of Projects Completed within Programmed Amount](chart.png)
Percent of projects completed on time-9d

**Results Driver:** Dave Nichols, Director of Program Delivery  
**Measurement Driver:** Dave Ahlvers, State Construction & Materials Engineer

**Purpose of the Measure:**
This measure tracks the percentage of projects completed by the commitment date established in the contract. Adjustments to the completion date are made when additional work is required or for unusual weather occurrences. It indicates MoDOT’s ability to complete projects by the agreed upon date.

**Measurement and Data Collection:**
The project manager will establish project completion dates for each project. They are documented in MoDOT’s SiteManager and STIP databases, and become part of the Plans, Specifications & Estimates submittal. The actual completion date will be documented by the resident engineer and placed in MoDOT’s project management system.

This is an annual measure updated each quarter.

**Improvement Status:**
The results indicate that 91 percent of projects completed in fiscal year 2009 have been on time. MoDOT has focused on reducing the number of days available for construction in order to reduce congestion and inconvenience to the traveling public, while stressing the importance of completing projects on time. To achieve timely completion of improvement projects, an emphasis has been placed on reviewing construction schedules and assessing liquidated damages.

![Percent of Projects Completed on Time](chart.png)
Percent of change for finalized contracts-9e

**Results Driver:** Dave Nichols, Director of Program Delivery  
**Measurement Driver:** Dave Ahlvers, State Construction & Materials Engineer

**Purpose of the Measure:**  
The measure tracks the percentage difference of total construction payouts to the original contract award amounts. This indicates how many changes are made on projects after they are awarded to the contractor.

**Measurement and Data Collection:**  
Contractor payments are generated through MoDOT’s SiteManager database and processed in the financial management system for payment. Change orders document the underrun/overrun of the original contract.

This is an annual measure updated each quarter.

**Improvements Status:**  
MoDOT’s performance of 1.8 percent in fiscal year 2009 is below the target of two percent. The overall improvement is a result of a strong emphasis placed on constructing projects within budget, the use of practical design and value engineering. By limiting overruns on contracts, MoDOT can deliver more projects, leading to an overall improvement of the entire highway system. The Performance Plus employee incentive program has placed additional emphasis on completion of projects within budget.
Average construction cost per day by contract type

**Results Driver:** Dave Nichols, Director of Program Delivery  
**Measurement Driver:** Dave Ahlvers, State Construction & Materials Engineer

**Purpose of the Measure:**  
This measure tracks the cost per day for project completion to determine the impact to the traveling public, enabling MoDOT to better manage project completion needs.

**Measurement and Data Collection:**  
This information is gathered by extracting the actual time used for construction from the summary of days used in the SiteManager database and dividing it by the total costs of the project.

The measurement groups construction contracts into three categories:

- WD working day contracts
- CD calendar day contracts
- A + B or innovative contracts that provide incentive/disincentives to the contractor for early completion.

This is an annual measure updated each quarter.

**Improvement Status:**  
The greater use of A+B and calendar-day contracts resulted in a larger amount paid per calendar day in the first half of fiscal year 2009. The addition of the I-64 and kcICON Design-Build projects are included in the A+B category. MoDOT’s strategy of utilizing innovative contracting techniques and Design-Build projects has resulted in faster contract completion and fewer delays to the traveling public. Contract types are reviewed to make a determination of the most effective use of resources for timely completion of projects.
Fast Projects That Are of Great Value

Average Construction Cost Per Day by Contract Type
All Contract Types

Fiscal Year

Dollars

2006 2007 2008 YTD 2009

Average Construction Cost Per Day by Contract Type
Number of Active Contracts

Fiscal Year

Number

Working Day
Calendar Day
A+B

Desired Trend:
N/A
Unit cost of construction expenditures-9g

Result Driver: Dave Nichols, Director of Program Delivery
Measurement Driver: Kenneth Voss, Bidding and Contract Services Engineer

Purpose of the Measure:
This measure tracks how MoDOT projects provide great value by comparing the cost of major items of work for MoDOT projects to other state DOTs. MoDOT customers should be able to gain an understanding of what it costs for a DOT to install an item of work. While value should not be defined as MoDOT prices per unit being the lowest as compared to other DOTs, prices can be compared keeping in mind that labor rates, material availability and general project conditions such as urban vs. rural will vary from state to state.

Measurement and Data Collection:
Value in this measure has simply been related back to dollars per unit of measure. MoDOT staff categorizes raw data from an outside vendor for the unit cost from other states. FHWA is the source for determining the “lowest in the U.S.” FHWA is currently retooling its method of determining state price indexes. This is a success for DOTs since FHWA’s old method produced numerous pieces of erroneous data. Due to the data discrepancies the lowest in the country was selected from the best of what was available and the overall index of some of the surrounding states is not reported. This is an annual measure updated each January.

Improvement Status:
Excellent competition in the past year has enabled MoDOT to realize almost a seven percent reduction in unit prices for bridge construction – the second largest percentage decrease in this area among Missouri’s surrounding states. MoDOT was also below the surrounding states average increase in unit prices for concrete and asphalt paving. The 21 percent increase in unit prices for asphalt paving is due to a spike in the cost of asphalt binder. In the past year, MoDOT had an average of more than 4.8 bidders per proposal as compared to fewer than 3.5 bidders per proposal just a couple of years ago. Projects over $20 million are receiving an average of more than six bids per proposal which can be attributed to smaller programs in surrounding states and MoDOT’s efforts to “balance” the bid openings by spreading out the big jobs in different months. MoDOT has also expanded the use of alternate technical concepts that give bidders and designers more flexibility to deliver the best value for every dollar spent.

![Unit Cost of Construction Expenditures - Concrete Pavement](chart)

* Lowest for surrounding states
Unit Cost of Construction Expenditures
Asphalt Price per Ton

- Illinois: 63.62
- Arkansas: 66.78
- Tennessee: 64.48
- Oklahoma: 54.15
- Kentucky: 54.92
- Kansas: 66.52
- Nebraska*: 49.92
- Iowa: 42.47
- Missouri: 57.71

Desired Trend: 

Unit Cost of Construction Expenditures
Soil Excavation per Cubic Yard

- Illinois: 10.07
- Arkansas: 6.36
- Kentucky: 5.61
- Tennessee: 4.23
- Oklahoma: 3.81
- Missouri*: 3.61
- Nebraska*: 4.05
- Kansas: 2.90
- Iowa: 2.57

Desired Trend: 

* Lowest for surrounding states

Footnote for the charts above:
Source data for states other than Missouri from Oman Systems Bid Tabs Professional latest data available as of January 2009. Items include common excavation items paid for by the cubic yard. Missouri data from MoDOT bid history.
*Lowest in U.S.  
Source data from FHWA memo “Bridge Construction Unit Cost” dated January 2009. FHWA does not publish an average U.S. cost per square foot for bridges.
Annual dollar amount saved by implementing value engineering-9h

Result Driver: Dave Nichols, Director of Program Delivery
Measurement Driver: Kathy Harvey, State Design Engineer

Purpose of the Measure:
This measure tracks the amount of money MoDOT saves by implementing value engineering proposals.

Measurement and Data Collection:
Value Engineering has saved MoDOT over $443 million since 1988. VE achieves savings at the design phase and at the construction phase of a project. VE utilizes a team approach to refine the purpose and need and then develop innovative and creative ideas, which result in project savings while optimizing project performance. The VE team is usually independent from the project core team and includes participants from various disciplines both from within and outside of MoDOT. VE studies are done on projects at all stages of development, from the concept stage to final design and during construction.

Traditionally, VE studies during the design phase of a project were a five-day formal event that required a tremendous amount of organization and facilitation. As a result, VE studies were only done on the significant few projects where large savings could be realized. In an effort to increase the number of VE studies being done and thus increase the potential for cost savings, the format of the study has been revised to be more flexible. VE studies now match the size and needs of the project, ranging from four hours to five days. This change has increased the number of VE studies being done during the design phase of the projects.

VE savings are reported annually to the Federal Highway Administration by each state and the national results are available for Federal Fiscal Year 2007. For design phase savings, New Jersey is the best in the nation showing $327 million implemented. For construction phase savings, Florida is the best in the nation showing $5.25 million implemented. When compared to states surrounding Missouri, Kentucky reported $77 million saved during design and Iowa reported $1.12 million saved during construction. Direct comparison to other states is challenging because of differences in construction program size and project development processes. Nationwide results from federal fiscal year 2008 are being compiled and are unavailable at the current time.

This is an annual measure using a federal fiscal year, running from Oct. 1 to Sept. 30. Annual updates are reported in the October Tracker edition, however the year-to-date total for the current fiscal year is included in each of the other editions.

Improvement Status:
In 2008, MoDOT design savings from VE studies were $96.1 million, a 94 percent increase from 2007. So far, for 2009, design savings are $18.2 million.

In 2008, MoDOT construction savings from VE Change Proposals were $6.06 million, a 45 percent increase over the previous year, and 73 out of 93 proposals submitted were approved. For the first quarter of federal fiscal year 2009, MoDOT construction savings from VECP are $0.45 million and 12 out of 16 proposals submitted were approved.
Fast Projects That Are of Great Value

Annual Dollar Amount Saved by Implementing Value Engineering Design Phase (in millions)

- Washington: 1,112
- Florida: 414
- New Jersey: 327
- Kentucky: 77
- Illinois: 14.5

Annual Dollar Amount Saved by Implementing Value Engineering Construction Phase (in millions)

- Georgia: 5.6
- Virginia: 6.71
- Florida: 5.25
- Michigan: 1.6
- Arkansas: 2.43
- Iowa: 1.12

Desired Trend:

- Missouri
- Best In The Nation
- Best of Surrounding States

Federal Fiscal Year:

- 2005
- 2006
- 2007
- 2008
- YTD 2009

Dollars:

- 0
- 10
- 20
- 30
- 40
- 50
- 60
- 70
- 80
- 90
- 100

Missouri Department of Transportation
Percent of customers who feel completed projects are the right transportation solutions-9i

**Result Driver:** Dave Nichols, Director of Program Delivery  
**Measurement Driver:** Kathy Harvey, State Design Engineer

**Purpose of the Measure:**  
This measure provides information regarding the public’s perception of MoDOT’s performance in providing the right transportation solutions.

**Measurement and Data Collection:**  
Data for this measure is collected through an annual survey that is sent to users of projects that were completed and opened to traffic within the previous year. The goal is for the MoDOT districts to identify 30 projects – three per district – in three different categories (large – major route listed as or funded through major project dollars; medium – district-wide importance; and small – only local significance).

A sample of residents is drawn from zip code areas adjoining the roadway where the project was recently completed. The samples have included 400 addresses per project areas for a total of 12,000 surveys in 2006 and 2008, and 11,600 in 2007 (29 projects). Nearly 2,900 surveys were returned in the initial survey, more than 2,300 were returned in 2007, and 2,697 were returned in the most recent survey.

This measure is reported annually in January. Districts will continue to identify one project in each of the three categories to be surveyed, although it is recognized that it might not be possible for every district to have three projects that meet the criteria each year.

**Improvement Status:**  
Project-specific questions were asked of MoDOT customers and each showed a high level of satisfaction with important goals such as safety, convenience, less congestion, handles traffic efficiently, easy to navigate, easy to understand and well marked.

The overall results show that most Missourians are very satisfied with both the local project and generally believe that MoDOT provides the right transportation solutions. 92.8 percent of the respondents were either “very” or “fairly” familiar with the project roadway. 69.2 percent of the respondents were regular users of the affected roadway. The majority of respondents thought that the project made the roadway safer (95.4 percent), more convenient (91.2 percent), less congested (82.7 percent), easier to drive (94.2 percent), better marked (92.3 percent) and was the right transportation solution (94.7 percent).
Fast Projects That Are of Great Value

Percent of Customers Who Feel Completed Projects Are The Right Transportation Solutions

- Not at all: 1.8% (2006), 2.7% (2007), 19.5% (2008)
- Not really: 2.9% (2006), 3.2% (2007), 3.7% (2008)
- Somewhat: 23.7% (2006), 18.6% (2007), 76.0% (2008)
- Very much: 70.2% (2007), 76.1% (2008)

Desired Trend: Increase
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MoDOT takes great pride in being a good steward of the environment, both in the construction and operation of Missouri’s transportation system and in the manner in which its employees complete their daily work. The department strives to protect, conserve, restore and enhance the environment while it plans, designs, builds, maintains and operates a complex transportation infrastructure.
Environmentally Responsible

Percent of projects completed without environmental violation-10a

Result Driver: Dave Nichols, Director of Program Delivery
Measurement Driver: Kathy Harvey, State Design Engineer

Purpose of the Measure:
This measure tracks environmental violations. MoDOT projects must comply with several environmental laws and regulations. To be in compliance, MoDOT makes commitments throughout the project development process that must be carried forward during construction and maintenance. In addition, the various permits obtained for projects also contain specific requirements for compliance. MoDOT must also comply with the environmental laws and regulations as it conducts its daily work in all areas of the organization.

If a violation is noted, it can result in either a Letter of Warning (LOW) or a Notice of Violation (NOV) to MoDOT. Letters of Warning can also be received as simply that, a warning to MoDOT of a special circumstance to be aware of, or for a situation that needs to be monitored so that a violation does not occur. For that reason, LOWs never will be eliminated but should be kept to a minimum. However, it is unacceptable to the department to have an NOV.

Measurement and Data Collection:
Both LOWs and NOVs are written correspondence to MoDOT or MoDOT’s contractors from regulatory agencies, which are tracked in a MoDOT database by location or project number, as appropriate. Where tracked by project, the project with violations received may span several years. The first chart is based on a calendar year of construction projects reported to be completed during that year and the number of violations received on those projects over the life of the project. The second chart is a report by calendar year of the LOWs and NOVs received by the department for any activity and the data is updated quarterly.

Improvement Status:
The percentage of projects completed without environmental violation shows a relatively level trend line for the past five years. In 2008, MoDOT received two NOVs and four LOWs, significantly reducing the number of both NOVs and LOWs from the previous two years. A summary of what was received in 2008 follows:

- First quarter 2008 – MoDOT received one NOV for failure to notify the Department of Natural Resources 10 days prior to demolition at three locations.
- Second quarter 2008 – MoDOT received two LOWs. One was for failure to submit a discharge monitoring report for a rest area, while the other was for storm water runoff deficiencies at a maintenance facility.
- Third quarter 2008 – MoDOT received two LOWs, both for inspection deficiencies noted at a rest area.
- Fourth quarter 2008 – MoDOT received one NOV for the contaminant level being exceeded in the water supply at a rest area.
- Two inspections of the Moniteau Route 50 project were performed in November by MoDNR, and both found the construction project to be in compliance with Missouri State Operating Permit MO-R100007 for erosion control.

MoDOT also works with cities, counties and other entities through its administration of various programs. In July the City of Branson received one NOV at the Branson West Airport. MoDOT provided assistance to the city to resolve the issues.
Note: There is no benchmark data presented with this measure. MoDOT has a zero-tolerance policy toward NOVs, but recognizes LOWs will never be eliminated due to their nature. Therefore, regardless of what other states are doing, MoDOT’s desired results are zero NOVs, because NOVs are usually violations of law and state statute.
**Number of projects MoDOT protects sensitive species or restores habitat-10b**

**Result Driver:** Dave Nichols, Director of Program Delivery  
**Measurement Driver:** Gayle Unruh, Environmental & Historic Preservation Manager

**Purpose of the Measure:**  
Missouri is home to many rare species of plants and animals, some of which are on the federal endangered species list. The Endangered Species Act of 1973 prohibits harm or harassment of these species. Avoiding or minimizing harm to these species and protecting or restoring their habitat is a fundamental obligation of this organization. Avoidance and/or protection are the first goals of MoDOT’s efforts, but under circumstances where avoidance cannot be achieved, restoration of habitat is a minimum acceptable result.

**Measurement and Data Collection:**  
On all MoDOT projects, the department investigates and informs the U.S. Fish and Wildlife Service (USFWS) of any activity in the vicinity of a known threatened or endangered species or critical habitat. Through consultation with USFWS MoDOT has the data to report on this measure. Because this measure focuses on projects that protect or restore sensitive habitats that could not initially be avoided, most MoDOT projects are not included in this data. This measure is tracked by calendar year with quarterly updates. Annual data are finalized and shown in the January Tracker. There is no desired trend with this measure. The number reported will fluctuate depending on the size of MoDOT’s construction program each year, type of projects being constructed, location and the ability to make adjustments to avoid impacts on sensitive species or their habitat.

**Improvement Status:**  
MoDOT has protected sensitive species or restored their habitat on eighteen projects in this calendar year. These species and habitats include the Indiana bat (seven projects), gray bats (one project), Niangua Darter (one project), Pallid Sturgeon (four projects), Ozark cavefish (four projects), mussels (two projects), eastern hellbender (one project) and the bald eagle (one project). MoDOT in consultation with the Missouri Department of Conservation Department had one bald eagle’s nest removed to protect the eagle pair from development disturbance and the impacts of highway construction. The nest was removed prior to the mating season to encourage the mated pair to build a new nest in a more suitable site. The hope is that they would not lose a mating season. The U.S. Fish and Wildlife Service issued a permit allowing the removal of the nest and to collect the feathers for further assessment of mated bald eagles along the Osage River near Lake Ozark.

![Number of Projects MoDOT Protects Sensitive Species or Restores Habitat](image)

<table>
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</tr>
<tr>
<td>2008</td>
<td>18</td>
</tr>
</tbody>
</table>

**Desired Trend:** N/A
Ratio of acres of wetlands created compared to the number of acres of wetlands impacted-10c

**Result Driver:** Dave Nichols, Director of Program Delivery  
**Measurement Driver:** Gayle Unruh, Environmental & Historic Preservation Manager

**Purpose of the Measure:**  
Wetlands are a valuable resource in Missouri, having beneficial functions such as wildlife habitat, flood storage and water quality improvement. In addition to these benefits, it is required in the Clean Water Act that impacts to wetlands are avoided, minimized or that wetlands are recreated when a wetland is destroyed during a transportation project.

**Measurement and Data Collection:**  
Data for this measure is calculated by comparing acres of project impacts taken from Clean Water Act permits to acres of wetland constructed, as shown in roadway design plans or by calculating the actual wetland areas recreated by MoDOT, or wetland mitigation purchased from a commercial wetland bank. Impacts may occur in a different year from the mitigation; so for the purposes of this measure, the timeframe for the reporting is when the mitigation construction is complete based on a calendar year. The national goal set by the FHWA for recreating wetland is to construct 1.5 acres of wetland for every 1.0 acre of wetland impacted. Recreating wetlands at this ratio helps to offset the lost beneficial functions during the time it takes for a wetland to develop. This measure helps ensure that MoDOT is doing its part to maintain wetlands in Missouri. Since this measure is also tracked by FHWA for the nation, MoDOT contacted state DOTs that are successful at meeting the 1.5-to-1 ratio. Most of the states queried said that the biggest factor in meeting the ratio is in the use of wetland mitigation banks. They had greater control over achieving their target ratios and more ecologically successful wetland mitigation. MoDOT has a statewide umbrella wetland mitigation banking agreement. This measure is tracked by calendar year with quarterly updates.

**Improvement Status:**  
MoDOT has not had any wetland mitigation constructed or debited from mitigation banks for impacts in 2008. However, there are wetland impacts that were incurred in 2008. As mitigation is constructed or debited from a bank the impacts will be recorded in the 2009 status. MoDOT’s Blue Springs Wetland Mitigation Bank for the Kansas City area is constructed. With construction of this bank, MoDOT will have three wetland mitigation banks, one each in the Kansas City, Central, and Southeast Districts.

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Ratio of Acres of Wetlands Created Compared to the Number of Acres of Wetlands Impacted</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>8.5</td>
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<tr>
<td>2005</td>
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<tr>
<td>2008</td>
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</table>

[Bar chart showing the ratio of acres of wetlands created compared to the number of acres of wetlands impacted from 2004 to 2008.]

**National Goal:** 1.5:1  
**Desired Trend:** N/A
Percent of Missouri’s clean air days-10d

**Result Driver:** Dave Nichols, Director of Program Delivery  
**Measurement Driver:** Eric Curtit, Long-Range Transportation Planning Coordinator

**Purpose of the Measure:**  
Vehicle emissions are a significant contributor to poor air quality. MoDOT makes every effort to build and operate roads in ways that improve air quality.

**Measurement and Data Collection:**  
The U.S. Environmental Protection Agency (EPA) establishes air quality standards for the United States. The ground level ozone standard is used in this measure as a threshold for determining if areas of the state have clean air. EPA collects ozone readings in Kansas City, St. Louis, Springfield and the out-state areas during the annual monitoring period – April through October. The data contained in the table below reflects the available percentage of days, by area, that Missourians experienced clean air. MoDOT compares Missouri’s ozone readings to Dallas, Texas, because of its similar pollutants and distance from other areas that affect its air quality.

**Improvement Status:**  
In 2008, a cooler summer contributed to cleaner air than previous years. A new, stricter standard has been established to better meet long-term air quality improvement goals. MoDOT is committed to improving the regions’ air quality by managing congestion to reduce emissions, modifying daily operations, modifying employee action, providing information to the public, being a leader in air quality improvement, providing alternative choices for commuters and promoting the use of environmentally friendly fuels and vehicles. MoDOT continues to serve on the air quality committees in Kansas City, St. Louis and Springfield.

MoDOT partnered with the Missouri Department of Natural Resources and was awarded more than $700,000 from EPA through a Diesel Emissions Reduction Act grant. The grant activities are focused on retrofitting MoDOT vehicles with new diesel emission reduction technologies and increasing fuel efficiency.

### Percent of Missouri’s Clean Air Days

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>St. Louis</th>
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<th>Springfield</th>
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<td>2008</td>
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<td>98</td>
<td>99</td>
</tr>
</tbody>
</table>

**Desired Trend:**
Number of gallons of fuel consumed-10e

**Result Driver:** Dave Nichols, Director of Program Delivery  
**Measurement Driver:** Jeannie Wilson, Central Office General Services Manager

**Purpose of the Measure:**
This measure tracks the use of fuel within MoDOT. It shows MoDOT’s contribution toward environmental responsibility and conservation of resources.

**Measurement and Data Collection:**
This measure is intended to focus on the total fuel consumed and how wise choices can impact fuel economy. Data is collected based on the number of gallons of fuel consumed by unit recorded in the statewide financial system.

MoDOT must meet the following state guidelines: 70 percent of the light duty vehicles (<=8,500 GVW) purchased must be alternative fuel capable; 30 percent of the fuel that our light duty alternative fuel fleet uses must be alternative fuel; 75 percent of all diesel fuel burned (off road and on road) must be a minimum of B20 blend (20 percent biodiesel and 80 percent diesel) or higher. MoDOT exceeds the guideline for purchasing alternative fuel capable equipment. Through the first quarter of 2009, 87.6 percent of the diesel fuel used was biodiesel (B20 blend).

**Improvement Status:**
The fuel consumed through the second quarter of fiscal year 2009 decreased by approximately 80,000 gallons or 1.9 percent compared to the amount of fuel consumed through the second quarter of 2008.

The amount of unleaded gasoline used through the second quarter of 2009 increased approximately 51,000 gallons or 4.6 percent compared to the amount of fuel consumed through second quarter of 2008. The amount of diesel fuel used decreased by 126,000 gallons or 4.2 percent. The amount of E85 fuel used decreased by 5,000 gallons or 7.6 percent.

Resources are available to support fuel conservation efforts. A “Stretch Your Power” link has been added to the MoDOT Web site. This site provides energy-saving tips and links to the energy Tracker measures. It also offers a blog where employees can share fuel conservation ideas or review the latest list of commuters wishing to carpool.
Number of Gallons of Fuel Consumed (in millions)

Fiscal Year

<table>
<thead>
<tr>
<th>Year</th>
<th>Gasoline &amp; E85</th>
<th>Diesel</th>
<th>Biodiesel</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>8.550</td>
<td>5.443</td>
<td>0.960</td>
</tr>
<tr>
<td>2006</td>
<td>8.254</td>
<td>3.140</td>
<td>2.827</td>
</tr>
<tr>
<td>2007</td>
<td>8.727</td>
<td>3.534</td>
<td>2.920</td>
</tr>
<tr>
<td>2008</td>
<td>8.866</td>
<td>4.103</td>
<td>2.364</td>
</tr>
<tr>
<td>2nd Qtr. 2008</td>
<td>4.207</td>
<td>1.187</td>
<td>1.899</td>
</tr>
<tr>
<td>2nd Qtr. 2009</td>
<td>4.127</td>
<td>1.233</td>
<td>1.823</td>
</tr>
</tbody>
</table>

Desired Trend:
Number of historic resources avoided or protected as compared to those mitigated-10f

Result Driver: Dave Nichols, Director of Program Delivery
Measurement Driver: Bob Reeder, Historic Preservation Coordinator

Purpose of the Measure:
Federal historic preservation laws relating to federally funded projects, gaining public and agency support for particular projects, and general environmental stewardship require MoDOT to avoid, minimize or mitigate project impacts to historic buildings, bridges, and marked cemeteries whenever feasible. Compiling information about project impacts to important cultural resources provides a measure of MoDOT’s success at avoiding, protecting or mitigating project impacts to important cultural resources.

Measurement and Data Collection:
Data collection begins at the approved conceptual plans stage for projects. As project design plans and right of way plans are prepared by the district, department staff track the number of historic resources in project footprints and the number of resources that can be avoided or protected by revising the design of a project versus the number of resources MoDOT can not avoid and must be mitigated. The data includes only historic resources identified as potentially affected by projects after the conceptual plan stage. The data does not include historic resources avoided during early project planning or those avoided during consideration of different alignments during National Environmental Policy Act studies. This measure has no overall desired trend. For any year, data for the measure will vary due to the number of projects in the MoDOT program and the specific nature of those projects. This measure is tracked by calendar year with quarterly updates.

Improvement Status:
MoDOT avoided impacts to all but one historic resource during the four quarters of 2008. The only significant historic resource that could not be avoided was Sedalia’s Wheel Inn Drive-In restaurant. Impacts to this property from improvements to the intersection of Routes 50 and 63 were mitigated through the preparation of detailed photographic and historical documentation. While there is no desired trend to this measure, the overall effectiveness of MoDOT’s historic preservation efforts is reflected by all of MoDOT’s activities during 2008 resulting in the required mitigation of project impacts to only one historic resource.
Number of tons of recycled/waste materials used in construction projects-10g

Result Driver: Dave Nichols, Director of Program Delivery
Measurement Driver: Dave Ahlvers, State Construction and Materials Engineer

Purpose of the Measure:
This measure tracks MoDOT’s efforts to be environmentally conscious through the use of recycled/waste material when applicable.

Measurement and Data Collection:
The number of tons of recycled/waste material used in construction projects is measured through MoDOT’s construction management database, which tracks material incorporated into projects. Data is collected on an annual basis due to the seasonal nature of the construction. The annual total is finalized in each April edition.

Improvement Status:
Reclaimed concrete and asphalt contributed to the overall increase in concrete recycled/waste material for 2008 as compared to 2007 even with a reduction in the MoDOT construction program. As part of the I-64 rebuild in St. Louis, all concrete is crushed and screened for use as rock fill and haul roads accounting for 188,000 tons of reclaimed concrete. Another 30,000 tons of concrete pavement removed from repair areas were crushed for use in Districts 2, 6 and 7. Five asphalt pavements were rehabilitated by recycling nearly 170,000 tons on the roadway. Specification changes for the use of reclaimed asphalt shingles implemented February 1, 2008 resulted in 24,000 tons being incorporated into state highways.

Number of Tons of Recycled/Waste Materials
Used in Construction Projects

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Hot Mix</th>
<th>Asphalt</th>
<th>Concrete</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>201,000</td>
<td>48,000</td>
<td>39,000</td>
</tr>
<tr>
<td>2005</td>
<td>511,000</td>
<td>48,000</td>
<td>61,000</td>
</tr>
<tr>
<td>2006</td>
<td>902,000</td>
<td>61,000</td>
<td>70,000</td>
</tr>
<tr>
<td>2007</td>
<td>732,000</td>
<td>61,000</td>
<td>70,000</td>
</tr>
<tr>
<td>2008</td>
<td>806,000</td>
<td>227,000</td>
<td>61,000</td>
</tr>
</tbody>
</table>

Desired Trend:
(This page is intentionally left blank for duplexing purposes)
Missouri’s location in the nation’s center makes it a major crossroads in the movement of goods. Transportation infrastructure must be up to the task so that as the flow of freight becomes more efficient, businesses and communities share the economic benefits.
Efficient Movement of Goods

Freight tonnage by mode-11a

Result Driver: Brian Weiler, Multimodal Operations Director
Measurement Driver: Ernie Perry, Administrator of Freight Development

Purpose of the Measure:
This measure tracks trends and indicates diversification of freight movement on Missouri’s transportation system.

Measurement and Data Collection:
This is an annual measure. However, individual charts are updated with new annual data as it is obtained from external sources. Port tonnage is reported to MoDOT from public ports and the Army Corps of Engineers. Air cargo data is collected via mail survey to commercial airports with known cargo activity. Rail tonnage is obtained from the Association of American Railroads. MoDOT calculates motor carrier freight movement using commercial vehicle miles traveled, trip length per shipment and average truck cargo weight.

Improvement Status:
Total freight tonnage for all modes exceeds 800 million tons. Port tonnage has remained relatively steady since 2003 despite low flows on the Missouri River. Long-term growth of river transportation is hampered by an inadequate lock and dam system on the Upper-Mississippi River above St. Louis. Motor carrier data may not directly reflect exact industry tonnage amounts and should only be used to indicate general industry trends.

Aviation tonnage continues to be impacted by a downturn in the aviation industry and the resulting financial impacts to airlines, which carry a significant portion of air cargo. Commercial airports are under the jurisdiction of the Federal Aviation Administration. However, MoDOT’s Aviation Advisory Committee helps identify ways to better support the commercial aviation industry. Rail freight tonnage increased 10 percent in 2006, likely due to increased coal shipments. Railroads continue to struggle with system capacity and labor shortage issues. MoDOT funded a capacity analysis through the University of Missouri that identified specific rail infrastructure projects that could improve both freight flow and passenger rail reliability on Union Pacific’s mainline between St. Louis and Kansas City. As a result of this study, the Missouri legislature and the Federal Railroad Administration have provided funding for railroad track siding construction and improvements near California and Knob Noster (see also Measure 12g). The new improvements should enhance freight movement along the corridor.

![Total Freight Tonnage Graph](chart.png)
Efficient Movement of Goods

Percent of trucks using advanced technology at Missouri weigh stations-11b

Result Driver: Brian Weiler, Multimodal Operations Director
Measurement Driver: Barbara Hague, Special Projects Coordinator

Purpose of the Measure:
This measure indicates motor carriers’ acceptance of tools designed to improve the flow of freight traffic on Missouri highways.

Measurement and Data Collection:
For this quarterly measure, data is collected by HELP, Inc.’s PrePass system computers which scan transponder-equipped vehicles as they approach 19 Missouri weigh stations. Pavement sensors check the vehicle’s weight while computers review MoDOT’s records to determine the carrier’s compliance with safety, insurance and other state and federal regulations. Drivers are notified to stop or are allowed to continue without delay. Carriers that comply with state and federal regulations save time and money. The Missouri State Highway Patrol provides a quarterly measure of the number of trucks that use Missouri’s weigh-in-motion scales located at Mayview and Foristell. These scales measure weight as trucks pass over them at 40 mph. Using ramp scales rather than verifying weight on fixed scales that require a full stop saves both time and money. The benchmark state of Kentucky uses Ramp Sorter weigh-in-motion scales as its primary weighing tool and participates in Norpass, a mainline verification system. Kentucky’s mainline verification numbers are much lower than Missouri’s because their use of fixed scales is limited.

Improvement Status:
The use of advanced technology shows only a slight increase for the year 2008. The number of vehicles enrolled in the PrePass system rebounded in November, close to the high enrollment number of July 2008 before decreasing to the level seen at the beginning of 2007. To help increase the enrollment in the PrePass system, a PrePass link was added to the Motor Carrier Service Web site along with an article in its “News On Wheels” publication. MoDOT received a federal grant to install a virtual weigh station on U.S. 67 in conjunction with the Barnhart weigh station relocation.

![Percent of Trucks Using Advanced Technology at Missouri Weigh Stations](chart)
Interstate motor carrier mileage-11c

**Result Driver:** Brian Weiler, Multimodal Operations Director  
**Measurement Driver:** Joy Prenger, Accounting Services Supervisor

**Purpose of the Measure:**  
This measure reports the fluctuations of motor carrier freight movement in Missouri. MoDOT uses the information to monitor freight movement trends.

**Measurement and Data Collection:**  
Data is collected quarterly. International Fuel Tax Agreement tax returns filed by member states and provinces and monthly reports of mileage data by the members are used to monitor the number of taxable miles traveled in Missouri by all motor carriers.

**Improvement Status:**  
Total interstate miles traveled in Missouri decreased 5.3 percent from last quarter.

During the fourth quarter of 2008, motor carriers traveled 12.9 percent fewer miles in Missouri than in the fourth quarter of 2007. Compared to the same time last year, out-of-state carriers traveled 16 percent fewer miles here and Missouri-based companies drove 3.6 percent fewer miles in their home state.

While prior quarters have shown increased year-to-year mileage, this quarter shows a decrease in the movement of goods and related industry news reports:

- Three bills are pending in Congress that would require motor carriers, brokers, and freight forwarders to pass through fuel-related charges to any third-party. Associated with the pass-through charges is the requirement to disclose owner-operators and others who paid for the fuel.
- The average price of diesel fuel declined 3.6 cents to an average of $2.291. This is reported as the lowest price in 2 ½ years.

### Interstate Motor Carrier Mileage (in millions)

<table>
<thead>
<tr>
<th>Calendar Quarter</th>
<th>Number of Taxable Miles</th>
<th>Number of Taxable Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>3rd Qtr. 2007</td>
<td>585</td>
<td>166</td>
</tr>
<tr>
<td>4th Qtr. 2007</td>
<td>693</td>
<td>228</td>
</tr>
<tr>
<td>1st Qtr. 2008</td>
<td>728</td>
<td>216</td>
</tr>
<tr>
<td>2nd Qtr. 2008</td>
<td>763</td>
<td>207</td>
</tr>
<tr>
<td>3rd Qtr. 2008</td>
<td>723</td>
<td>215</td>
</tr>
<tr>
<td>4th Qtr. 2008</td>
<td>582</td>
<td>802</td>
</tr>
</tbody>
</table>

**Desired Trend:**

- \[\text{Graph showing mileage trends for different quarters.}\]
Percent of satisfied motor carriers-11d

**Results Driver:** Brian Weiler, Multimodal Operations Director  
**Measurement Driver:** DeAnne Rickabaugh, Outreach Coordinator

**Purpose of the Measure:**  
This measure tracks MoDOT’s progress toward the goal of expeditiously meeting the needs of the motor carrier industry and facilitating freight movement. MoDOT’s Motor Carrier Services team uses the data to identify opportunities to improve customer satisfaction.

**Measurement and Data Collection:**  
MCS personnel, working with Heartland Market Research, LLC, revised a survey to collect customer satisfaction data. The survey, sent to 800 MCS clients each month, addresses all five MCS program divisions, International Registration Plan, International Fuel Tax Agreement, Oversize/Overweight Permitting, Safety and Compliance and Operating Authority. Survey respondents identified the services they use when doing business with MCS, then indicated their level of satisfaction with 12 customer service factors such as “timely response,” “friendly,” “respectful,” and “outcome.” They also gave an “overall satisfaction” score. Customers used a four-point scale: 4 = Very Satisfied, 3 = Satisfied, 2 = Dissatisfied and 1 = Very Dissatisfied. Survey results are reported quarterly.

H. J. Heinz Company is the benchmark for this measure that also mirrors measure 5a, Percent of Overall Customer Satisfaction. The American Customer Satisfaction Index reports that Heinz has the highest customer satisfaction rate of 200 companies and government agencies it scores – 89 percent – which is a decrease compared to last year’s score of 90 percent.

**Improvement Status:**  
The latest survey reports Motor Carrier Services’ high customer satisfaction ratings continue with 95.6 percent satisfaction in the third quarter of 2008. This is a 1.6 percent increase since the last quarter. The ratio of people who said they were “very satisfied” with the service they received from MCS is 57.7 percent, an 8.1 percent increase from the same time in 2007.

This quarter’s data stems from customers’ opinions of service received during July, August and September 2008.

To retain and improve customer satisfaction, MCS:
- Agents began a new training outreach. A team traveled to educate carriers on the intricacies of the credential programs MCS administers; and,
- Called carriers who opened, but did not complete, fuel tax returns online. Agents offered assistance and helped customers complete the online filing step-by-step.
Customer satisfaction with timeliness of Motor Carrier Services’ response-11e

Result Driver: Brian Weiler, Multimodal Operations Director  
Measurement Driver: DeAnne Rickabaugh, Outreach Coordinator

Purpose of the Measure:  
This measure tracks motor carriers’ satisfaction with MoDOT Motor Carrier Services’ speed of response.

Measurement and Data Collection:  
Each month, MoDOT’s contractor, Heartland Market Research, LLC, surveys a pool of 800 motor carriers who contacted MCS in the previous month. These customers are asked to evaluate their satisfaction with 12 customer service factors across the five MCS program divisions, International Registration Plan, International Fuel Tax Agreement, Safety and Compliance, Oversize/Overweight Permitting and Operating Authority. “Timely Response” is one factor carriers evaluate with a four-point scale: 4 = Very Satisfied, 3 = Satisfied, 2 = Dissatisfied and 1 = Very Dissatisfied. Survey results are reported quarterly.

Improvement Status:  
This quarter’s data stems from customers’ opinions of service received during July, August and September 2008.

Customers’ satisfaction with Motor Carrier Services’ timely response grew to 94.7 percent, one-half percentage point higher than the same time last year. The rate of “very satisfied” customers increased by 10.7 points compared to the same time last year and seven points higher than last quarter.

MCS worked to improve response time with the help of Transportation Planning. More routes were made available for auto-issuance of OS/OW permits, so more permits are delivered to customers within seconds of their request.
MoDOT has an active role in all modes of transportation, including rail, air, water, and transit. Transportation is more than highways and bridges. Every day millions of tons of goods move through the state by rail. Thousands of passengers use Missouri’s airport facilities. And hundreds of barges navigate state waterways. All of these modes combine to keep Missouri’s economy robust and vital.
Number of airline passengers-12a

Result Driver: Brian Weiler, Multimodal Operations Director
 Measurement Driver: Joe Pestka, Administrator of Aviation

Purpose of the Measure:
This measure tracks the number of passengers boarding airplanes at Missouri’s commercial airports. It helps determine the viability of Missouri’s commercial airline industry. This number is also used by the Federal Aviation Administration (FAA) to help determine airports’ capital improvement funding levels.

Measurement and Data Collection:
The data is collected annually from FAA. Comparison data has been collected from the same source for the states of Arizona and Washington. These two states were selected based on similar populations in 2004. The annual passenger boardings’ data provided by the FAA is normally published in October for the preceding year. An estimate of 2008 Missouri airport passenger boardings has been made based on discussions with individual airports in the state. Airline passengers are defined as passengers boarding airplanes.

Improvement Status:
Airline passengers have increased approximately 3.5 percent in Missouri from 2006 to 2007 and have grown at an average annual rate of 4.3 percent since 2004. A preliminary estimate was obtained from the commercial service airports in the state for 2008 and would indicate a decrease in activity from 2007 to 2008. Increases in airline operational costs, weak economic conditions and a decrease in flight schedules at Kansas City International Airport and Lambert St. Louis International Airport have attributed to a decrease in passenger boardings.

State legislation passed in 2008 includes up to $2 million annually for the study and promotion of expanded domestic or international scheduled commercial service or the study and promotion of intrastate scheduled commercial service. MoDOT is also conducting a study to review regulatory issues related to air service. MoDOT is participating with five commercial service airports in the state on an air service study. The city of Springfield is constructing a new terminal building and the city of Joplin recently completed the construction of a new terminal building in September 2008.
Number of daily scheduled airline flights-12b

Result Driver: Brian Weiler, Multimodal Operations Director
Measurement Driver: Joe Pestka, Administrator of Aviation

Purpose of the Measure:
This measure tracks the number of airline flights. The data assists in determining options available to the traveling public. It provides an indication of the airline industry’s economic stability in Missouri.

Measurement and Data Collection:
A direct scheduled airline flight is a take-off by a scheduled commercial air carrier. A direct flight has the same flight number and is flying to one or more destinations. Data is being collected from seven airports in the state that presently accommodate scheduled airline flights. These airports are: St. Louis Lambert International, Kansas City International, Springfield-Branson, Joplin, Columbia, Waynesville and Cape Girardeau. Comparison data has been collected for the commercial airports in Arizona and Washington. These two states were selected based on similar populations in 2004. The data is collected from the Official Airline Guide. The flights are tracked on a monthly basis with a daily snapshot collected for each month and are then averaged on a quarterly basis.

Improvement Status:
Daily scheduled airline flights in Missouri have decreased from 980 in the fourth quarter of 2007 to 881 in the fourth quarter of 2008. Airline flights have also decreased from 928 in the third quarter of 2008 to 881 in the fourth quarter of 2008. A number of airlines that operate at Missouri airports have decreased service due to seasonal travel, high fuel prices, airline restructuring and weak economic conditions.

State legislation passed in 2008 includes up to $2 million annually for the study and promotion of expanded domestic or international scheduled commercial service, and for the study and promotion of intrastate scheduled commercial service. MoDOT is participating with five commercial service airports in an air service study and also conducting a study to review regulatory issues related to air service.
Number of business-capable airports-12c

Result Driver: Brian Weiler, Multimodal Operations Director
Measurement Driver: Joe Pestka, Administrator of Aviation

Purpose of the Measure:
This measure tracks the number of airports capable of handling business aircraft. Local communities and economic development agencies can use airports to assist in increasing a community’s economic viability for business retention and development.

Measurement and Data Collection:
The graph shows the number of business-capable airports. A business-capable airport is defined as accommodating business- or corporate-type aircraft with a runway length of 5,000 feet or more. Comparison data starting in 2005 has been collected from Arizona and from Wisconsin starting in 2008. These states have a population similar to Missouri. Geographically, Wisconsin is similar to Missouri while Arizona is approximately 65 percent larger than Missouri. Data is collected annually by monitoring airport developments and Federal Aviation Administration records.

Improvement Status:
The State Airport System Plan Update and the annual development of MoDOT’s Statewide Transportation Improvement Plan identify airports that meet the demand criteria and would support the development of a 5,000-foot runway. In January 2008, the city of Marshall extended the runway at the Marshall Memorial Municipal Airport to 5,000 feet and in December 2008, the City of Moberly extended their runway to 5,000 feet. A new business-capable airport is under construction in Branson West and a privately owned commercial service airport is under construction in Branson. State legislation passed in 2008 increased the cap on the State Aviation Trust Fund from $6 million to $10 million annually, which will allow additional funding for airport improvements.
Number of transit passengers-12d

**Result Driver:** Brian Weiler, Multimodal Operations Director  
**Measurement Driver:** Steve Billings, Administrator of Transit

**Purpose of the Measure:**  
This measure gauges the use of public transit mobility services in Missouri. It also provides an historical perspective and trend of public transit service use in Missouri.

**Measurement and Data Collection:**  
The total number of transit passengers is measured by the annual total of one-way unlinked transit trips taken by passengers on public transit vehicles. Data is obtained from urban and rural providers of general public transit services. This measure is benchmarked to the State of New York, which has a historically high usage of public transit services. This is an annual fiscal year measure with Missouri data updated in October. New York State transit passenger data is currently only available through year 2004.

**Improvement Status:**  
In 2008, Missouri’s statewide metropolitan transit ridership increased by 4.2 million one-way unlinked passenger trips compared to the previous year. However, where passenger fare increases took place during that period, for each of those transit systems (Springfield, St. Joseph and Jefferson City), their ridership declined. Non-metro (rural) ridership decreased slightly from 2.8 million trips in 2007 to 2.7 million trips in 2008. Of the 27 rural transit systems in Missouri, 18 of the systems experienced ridership gains, and the remainder experienced reductions in ridership. More than all of the net loss in statewide rural transit use came as a result of curtailed services for work-related trips cut as a consequence of decreased funding to Missouri in the federal Job Access and Reverse Commute Program.

Missouri compared 13 percent below New York State’s rural transit ridership in 2004. New York State’s Metro ridership vastly exceeded Missouri’s Metro transit ridership with just over 2.5 Billion trips taken compared to 61 million Metro transit passenger trips in Missouri for 2004. MoDOT worked with transit providers in developing the second Missouri Rural Transit Marketing Campaign. Marketing materials were distributed to rural transit systems with radio and television spots first airing in January 2008.
Easily Accessible Modal Choices

Number of Transit Passengers
(in millions of annual one-way unlinked metro transit passenger trips)

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Missouri Metro</th>
<th>New York State Metro</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>61.4</td>
<td>2572.0</td>
</tr>
<tr>
<td>2005</td>
<td>62.7</td>
<td></td>
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<tr>
<td>2006</td>
<td>67.3</td>
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<tr>
<td>2007</td>
<td>65.4</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>69.6</td>
<td></td>
</tr>
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</table>

Desired Trend:

Number of Transit Passengers
(in millions of annual one-way unlinked non-metro transit passenger trips)

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Missouri Non-Metro</th>
<th>New York State Non-Metro</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>3.2</td>
<td>3.6</td>
</tr>
<tr>
<td>2005</td>
<td>3.3</td>
<td></td>
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<td>2006</td>
<td>3.1</td>
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<td>2007</td>
<td>2.8</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>2.7</td>
<td></td>
</tr>
</tbody>
</table>

Desired Trend:
Average number of days per week rural transit service is available-12e

**Result Driver:** Brian Weiler, Multimodal Operations Director  
**Measurement Driver:** Steve Billings, Administrator of Transit

**Purpose of the Measure:**
This measure identifies the average existing public transit service in rural Missouri by indicating the availability of rural mobility services for employment, medical appointments and necessary shopping.

**Measurement and Data Collection:**
To calculate the statewide average number of days per week rural transit service is available, MoDOT reviews published transit service schedules for each rural Missouri county and averages these daily frequencies within a week’s schedule for available county-wide transit service. Rural transit agencies operate on an annual budget and customarily make transit service changes with the start of a new budget year. This is an annual measure with updates occurring in April. The measure is benchmarked to Tennessee, which has a comparable statewide population and some amount of transit service in every rural county as does Missouri.

**Improvement Status:**
Rural transit service at a statewide average of two days per week is not sufficient to support full-time employment for its riders. For 2008, Tennessee deployed more days of rural transit service with five-day-a-week service, subject to available seating. Tennessee directs more state funding annually to rural public transportation ($7 million vs. $1.1 million in Missouri). Tennessee’s transit providers also use pure demand-response dispatching compared to designated daily routes used by OATS and other Missouri providers. However in 2005, Missouri’s rural transit providers together delivered 3.3 million trips compared to 1.4 million rural transit trips provided in Tennessee.

MoDOT worked with rural transit systems to produce a second rural transit marketing campaign. As part of this campaign, television and radio advertising began in January 2008. MoDOT also procured rural transit intelligent transportation system design services to begin projects to increase transit service through scheduling efficiencies.
Number of intercity bus stops-12f

Result Driver: Brian Weiler, Multimodal Operations Director
Measurement Driver: Steve Billings, Administrator of Transit

Purpose of the Measure:
This measure tracks the number of intercity bus stops. Intercity bus stops represent access points to intercity bus services provided in Missouri by Greyhound, Jefferson Lines, Burlington Trailways and Megabus. More stops among Missouri’s 114 counties means greater access. Fewer stops create a barrier to access by requiring greater traveling distances in order to board an intercity bus.

Measurement and Data Collection:
Data on the number and location of intercity bus stops is obtained annually from the national and regional intercity bus carriers. This is an annual measure with quarterly year-to-date updates of the most recent calendar year. The 2006 through 2008 measures are benchmarked to Wisconsin, which has a comparable total statewide population. An additional benchmark to California was added for 2008 data.

Improvement Status:
The number of Missouri’s intercity bus stops has stabilized after earlier reductions in Greyhound service. Most of the recent incremental growth in Missouri’s intercity bus service has increased the schedule frequency for cities already receiving service rather than creating new bus stops in unserved areas. Megabus came to Missouri last year with stops in Kansas City and St. Louis. Megabus began stopping at Columbia in early 2008. Since the last report, a new bus stop was added at Lowry City and the Jackson stop was moved to Cape Girardeau. The State of California bus stop data of 261 intercity bus stops is derived from a 2008 rural intercity bus study concluded last year.

A MoDOT-sponsored statewide intercity bus study has completed initial project meetings with corporate officers of Greyhound, Jefferson Lines and Burlington Trailways. These initial meetings explored the potential for increased intercity bus stops and increased intercity bus service in Missouri. A September 2008 meeting of the Intercity Bus Study Advisory Committee recommended additional new corridors and stops for consideration.
Number of rail passengers-12g

Result Driver: Brian Weiler, Multimodal Operations Director
Measurement Driver: Rod Massman, Administrator of Railroads

Purpose of the Measure:
This measure tracks the number of people using the Amtrak train service in Missouri. This includes those taking a train trip in Missouri at any point within the state, which counts those riding on the state-supported passenger rail trains between Kansas City and St. Louis, the national trains that run through the state and the St. Louis-to-Chicago trains, most of which are supported by the state of Illinois.

For comparison purposes, the state of Washington’s train data is shown based on the state’s similar size, population and the fact that Washington has both national- and state-supported trains. Washington’s “Cascades” train service is a model for the nation because the state invests millions of dollars in both infrastructure and operations every year.

Measurement and Data Collection:
Amtrak provides the number of passengers per train in Missouri on a monthly basis. MoDOT’s Multimodal Operations Division’s Railroad Section then tabulates the numbers. Data is updated quarterly.

Improvement Status:
The months of October through December 2008 showed an increase of 9 percent over the same months in September 2007. From an external viewpoint, gas prices were initially noted as a major factor in individuals’ decisions to now choose passenger rail. However, this trend is continuing even though gas prices decreased dramatically during this period. Internally, MoDOT increased publicity efforts through new roadside signs, news releases, a wide-ranging distribution of train schedules, a focus on college students and senior centers, and special mailings to school groups. These efforts, along with a variety of other new publicity efforts such as combining appearances at rail safety fairs with Amtrak information and ticket giveaways, and the use of MoDOT’s new dynamic message signs along the interstate system will continue to be implemented in efforts to increase passenger numbers.

The track Amtrak operates on is owned by the Union Pacific Railroad and is a heavily used freight line with more than 50 trains a day. This makes it difficult to easily “flow” the trains for on-time performance. In response to this continual problem, MoDOT commissioned a study for freight and passenger capacity improvements on the Union Pacific line between St. Louis and Kansas City. This study was completed in July 2007 and contained many options for infrastructure improvements along the line mostly between Jefferson City and Kansas City. The Missouri Highways and Transportation Commission approved the study. The Missouri Legislature provided $5 million of new funding for infrastructure improvements in the 2008 budget. MoDOT also received a $3.3 million match from the Federal Railroad Administration to complement these state funds in September 2008 for a total of $8.3 million. Union Pacific also signed a preliminary memorandum of understanding with MoDOT in September 2008 to begin work on one siding by March 31, 2009. The design work for one siding near California, MO has been completed.

This new funding will be used to improve passenger rail service in Missouri by targeting track infrastructure improvements that will increase fluidity and decrease delays. Further improvements in the works are the design of an extension of a siding near Knob Noster on Union Pacific’s track. The new improvements, along with Union Pacific’s completed infrastructure improvements at the Gasconade Bridge, in addition to the possible further projects that are currently being scoped to include within the federal “Stimulus II” package, should profoundly impact the reliability of the service’s performance.
### Number of Rail Passengers

**Number of Rail Passengers (in thousands)**

- **Missouri State-Sponsored Trains**
- **All Washington Trains**
- **Washington State-Sponsored Trains**

**Fiscal Year**

<table>
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<tr>
<th>Year</th>
<th>2004</th>
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<th>2006</th>
<th>2007</th>
<th>2008</th>
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<td>138</td>
<td>83</td>
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</table>

### Number of Rail Passengers on Missouri State-Sponsored Trains by Quarter

**Number of Rail Passengers on Missouri State-Sponsored Trains by Quarter (in thousands)**

- **FY08**
- **FY09**

**Fiscal Quarter**

<table>
<thead>
<tr>
<th>Quarter</th>
<th>FY08</th>
<th>FY09</th>
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<tbody>
<tr>
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<tr>
<td>2nd Qtr</td>
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<tr>
<td>4th Qtr</td>
<td>42</td>
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</tr>
</tbody>
</table>

**Desired Trend:**

- **Missouri Department of Transportation**

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12g (2)
Number of passengers and vehicles transported by ferryboat-12h

Result Driver: Brian Weiler, Multimodal Operations Director
Measurement Driver: Sherrie Turley, Waterways Program Manager

Purpose of the Measure:
This measure tracks information regarding use of ferryboat services in Missouri.

Measurement and Data Collection:
Missouri’s two ferry services submit a monthly report that includes information on the number of passengers and vehicles, the cost for providing the service and the reasons for any service disruption. This measure is updated on a quarterly basis.

Improvement Status:
The New Bourbon ferryboat was closed part of the first quarter for high water. In the first half of fiscal year 2009 the ferry operated 164 days compared to 182 days in fiscal year 2008. The ferry transported 7,546 vehicles compared to 10,215 in the first half of 2008 for a decrease of 26 percent. The number of passengers decreased from 26,461 for the same period in fiscal year 2008 to 18,666 in fiscal year 2009 for a decrease of 29 percent. Federal funds are being used to construct a high-water mooring for the ferry equipment and State of Missouri Port Capital funds are being used to upgrade the equipment.

The Mississippi County ferryboat closed due to high water March 12, 2008. When preparing to reopen for service April 22, an engine overheated and further inspection indicated that both engines need a complete overhaul. The subsidy for the fiscal year had been exhausted. MoDOT has worked with the port to have the boat repaired and hire a new captain. The boat is scheduled to resume service on March 1, 2009.

The temporary ferry service in Glasgow began operation August 4, 2008, when the bridge closed for rehabilitation. After twenty-one weeks of service, the ferry has transported 33,823 vehicles with 57,952 passengers.

Number of Passengers and Vehicles Transported by Ferryboat
New Bourbon Regional (in thousands)

<table>
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<tr>
<td>2nd Qtr. 2009</td>
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<td>7.5</td>
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</table>

Desired Trend: ↑
State funding for multimodal programs-12i

**Result Driver:** Brian Weiler, Multimodal Operations Director  
**Measurement Driver:** Lisa Hueste, Resource Management Specialist

**Purpose of the Measure:**
This measure provides the history of state funding appropriated by the Missouri state legislature for multimodal programs that include transit, rail, air and waterways.

**Measurement and Data Collection:**
State funding for multimodal programs is determined by the amount of revenue the state collects each year. MoDOT has several funds, including the General Revenue Fund, dedicated to multimodal programs for assisting Missouri citizens. The spending of funds throughout the fiscal year must be requested and authorized by MoDOT and the state legislature. The legislature may also authorize spending through bills filed by the General Assembly. This is an annual measure updated each July.

**Improvement Status:**
The 2008 legislative session resulted in funding increases for each of the multimodal programs. Overall, the programs received $39.3 million for fiscal year 2009, an increase of $16.7 million more than fiscal year 2008. Transit received a $500,000 increase for the Missouri Elderly and Handicapped Transportation Assistance Program; however, the 2008 one-time increase of $150,000 to the city of Springfield was removed from the fiscal year 2009 transit program. Rail increased $5.6 million over fiscal year 2008. The legislature approved $5 million for capital improvements to Union Pacific’s mainline to increase Amtrak’s on-time performance and an increase of $600,000 in state assistance for Amtrak to provide daily rail service. Waterways received $6.65 million in capital improvement funding for infrastructure development. These funds will be shared among seven port authorities. The aviation program will have an additional $4 million available for aviation projects due to passage of Senate Bill 930. This bill increases the cap amount received from aviation jet fuel tax from $6 million to $10 million. MoDOT continues to work with legislators to show the importance of how multimodal programs can effectively use state funds to improve economic development and provide needed services for Missouri’s citizens.
State Funding for Multimodal Programs


- Transit
- Rail
- Waterways
- Aviation

Total State Funding for Multimodal Programs


- Dollars (in millions)

Desired Trend:
Percent of customers satisfied with transportation options-12j

Result Driver: Brian Weiler, Multimodal Operations Director
Measurement Driver: Eric Curtit, Long-Range Transportation Planning Coordinator

Purpose of the Measure:
This measure provides information about the public’s perception of MoDOT’s performance in providing transportation options other than Missourians’ personal vehicle.

Measurement and Data Collection:
This is an annual measure. Data is collected each May from interviews of approximately 3,500 randomly selected adult Missourians with an overall margin of error of +/- 2 percent.

Improvement Status:
Fifty-seven percent of MoDOT’s customers are satisfied with transportation options in Missouri. This measure decreased by 10 percent from last year's results. There was also a six percent decrease in customers who strongly agree they are satisfied with transportation options. Much of this downward trend is attributed to rising fuel prices.

During the 2008 legislative session, alternative transportation modes received funding increases. Ports received a record $6.65 million to increase their effectiveness. The railroad used for Missouri Amtrak service received $5 million targeted at improving reliability. A transit program for the elderly and handicapped saw a $500,000 funding increase.

In 2007, regional planning commissions and metropolitan planning organizations outlined their highest transportation priorities. Subsequently, MoDOT developed a transportation investment package designed to meet Missourian’s expectations. This investment package includes transportation improvements in all modes including increased services to public transportation, more reliable passenger rail service and port enhancements.

Percent of Customers Satisfied with Transportation Options

<table>
<thead>
<tr>
<th>Year</th>
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<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
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<td>Strongly Agree</td>
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<td>34</td>
<td>56</td>
<td>54</td>
<td>39</td>
<td>34</td>
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</table>

Desired Trend:
High Impact
Low Cost

- Get contractor plans earlier
- Identify expectations for ATC
- Use contractor for carbon bubble
- Allow for dual scoped WAP projects
- Flexibility schedule
- LT contracts
- More innovative implementation
Customer Involvement in Transportation Decision-Making

Tangible Result Driver – Dave Nichols, Director of Program Delivery

MoDOT seeks out and welcomes any idea that increases its options, because the department doesn’t have all the answers. The department creates and preserves a transportation decision-making process that is collaborative and transparent, involving its customers in the determination of needs right through to the development, design and delivery of projects.
Number of customers who attend transportation-related meetings-13a

Result Driver: Dave Nichols, Director of Program Delivery
Measurement Driver: Bob Brendel, Outreach Coordinator

Purpose of the Measure:
This measure gauges MoDOT’s public involvement success – both in terms of public meetings and hearings that are held to make collaborative decisions with the general public, communities, elected officials, stakeholders, and in terms of public informational events scheduled by MoDOT to keep its customers advised of project status and potential impacts that could be experienced.

Measurement and Data Collection:
Attendance is determined by analyzing sign-in sheets used at public meetings or by head counts conducted by MoDOT staff. This measure is updated quarterly. Participation in recent online meetings was gauged by using “Web Trends” software.

Improvement Status:
Persons who attended outreach events associated with MoDOT’s three Design-Build projects pushed attendance at transportation-related meetings over 11,000 for the first time. In the fourth quarter, meetings for The New I-64, kcICON and the Safe & Sound bridge improvement program had a cumulative attendance of 2,126. In many instances, meetings held this quarter had a dual purpose as MoDOT personnel delivered the “Conversation for Moving Missouri Forward” presentation. As the Safe & Sound program was developed with the premise that bridge closures would be utilized to speed construction and reduce cost, coordination with the public and others was identified as key to the program’s success. Since the Commission authorized MoDOT to move forward with the program in September, the districts have held 41 meetings attended by 638 persons to coordinate projects with the public, elected officials and stakeholders. This effort has the districts well positioned for further outreach as Safe & Sound progresses with additional rehabilitation projects and the ultimate award of the design-build contract for 554 full replacements. For the year, 38,551 persons participated in meetings associated with project development – a 22 percent increase over 2007 (31,502).

Number of Customers Who Attend Transportation-Related Meetings

![Graph showing number of customers attending transportation meetings]
Percent of customers who are satisfied with feedback they receive from MoDOT after offering comments-13b

Result Driver: Dave Nichols, Director of Program Delivery
Measurement Driver: Bob Brendel, Outreach Coordinator

Purpose of the Measure:
This measure tracks MoDOT’s responses to its customers. MoDOT routinely asks people who attend public meetings/hearings to submit comments that will be examined by the project team and will become part of the project’s official record. It is important that people who avail themselves of this opportunity know that their comments are taken seriously.

Measurement and Data Collection:
MoDOT routinely coordinates a survey in cooperation with university partners for persons who attend project-specific meetings and hearings. The initial survey was sent to more than 4,500 persons who attended meetings in a five-year period. A survey process continues, with contacts made each time a project reaches the official public hearing milestone. This is an annual measure based upon a fiscal year, and data is analyzed twice each year.

Improvement Status:
Eleven projects were surveyed across five MoDOT districts (2-3-5-6-10) and all of the key measures continued the downward trend identified in FY2008. Overall satisfaction fell to 63.3 percent, while 76.3 percent felt that projects were explained clearly and 57.8 percent felt that the decision-making process was open, transparent and fair. Because MoDOT’s other customer satisfaction measures are performing well, the results of this measure could be as simple as the fact that some projects are more controversial than others, and the people most likely to attend public hearings are those who stand to be personally impacted by the project. Analysis of the survey data reveals that the most important factor for overall satisfaction is whether or not the respondent feels that the process is open, transparent and fair. If they feel that the decision has already been made, they are 24 percent more likely to be dissatisfied. The survey provider has recommended that the survey tool be revised to include a comment area to solicit comments from respondents that may help MoDOT better understand the concerns of the public. Best practices from the districts have also suggested that on controversial projects, early coordination with elected officials, stakeholders and other community leaders can be beneficial, as can consistent use of e-updates and regular updates of project information on the district Web site.

*As measured by the American Customer Satisfaction Index.
MoDOT takes into consideration customers’ needs and views in transportation decision-making-13c

Result Driver: Dave Nichols, Director of Program Delivery
Measurement Driver: Sue Cox, Transportation Planning Special Projects Coordinator

Purpose of the Measure:
This data helps determine the effectiveness of MoDOT’s project planning outreach efforts.

Measurement and Data Collection:
This is an annual measure, and this year’s data, gathered from a statewide random telephone survey of approximately 3,500 Missourians, was collected in May 2008. A comparison is made to the Tennessee Department of Transportation, which also measures customers’ perceptions regarding involvement in transportation decision-making. Tennessee’s 2006 performance data is the most recent available data.

Improvement Status:
MoDOT learned in the 2008 customer survey that 65 percent of the survey sample feels MoDOT considers customer concerns and needs when developing transportation decisions. This is an increase of 5 percent, moving up from 60 percent in 2007. A new benchmark has been identified. Northwest Missouri State University measures student satisfaction concerning student opportunities to provide input regarding student affairs by surveying NMSU freshmen and juniors using a scale from 1 to 7 with 7 being the best performance. Data from 2006 is the most current information available due to the university’s one-year lag time in gathering results.

To continuously improve in this area, MoDOT identifies additional opportunities to use techniques as outlined in the planning framework decision-making and public involvement process with local officials, planning partners, community leaders, elected officials and the general public. Media interviews, Web site publicity, news releases, newsletters, specific project surveys, public involvement surveys and community meetings continually provide new opportunities to interact with the public, share MoDOT’s direction and discuss transportation priorities.

MoDOT Takes into Consideration Customers' Needs and Views in Transportation Decision-Making

![Bar Chart]

MoDOT Takes into Consideration Customers’ Needs and Views in Transportation Decision-Making

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Tennessee DOT</th>
<th>NW MO State Univ.</th>
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<tr>
<td>2008</td>
<td>65</td>
<td>46</td>
<td>19</td>
<td></td>
</tr>
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</table>

Desired Trend:
**Customer Involvement in Transportation Decision-Making**

**Percent of positive feedback responses received from planning partners regarding involvement in transportation decision-making-13d**

**Result Driver:** Dave Nichols, Director of Program Delivery  
**Measurement Driver:** Sue Cox, Transportation Planning Special Projects Coordinator

**Purpose of the Measure:**  
This measures MoDOT’s efforts to include statewide planning partners (members of metropolitan planning organizations and regional planning commissions) in transportation-related decision-making.

**Measurement and Data Collection:**  
MoDOT Transportation Planning works with MoDOT’s Organizational Results Division to administer an annual survey that evaluates planning partners’ involvement in the transportation decision-making process. The survey answers are based on a scale that measures those who strongly agree, agree, disagree and strongly disagree.

**Improvement Status:**  
The 2007 survey received 72 responses from 146 distributed e-mails resulting in a 49.3 percent response rate. Although the 2007 results indicate a 90 percent satisfaction rate, a slight decrease from 91 percent satisfaction in 2006, the percent of strongly agree answers increased from 33 percent in 2006 to 46 percent in 2007. The annual survey focuses on feedback regarding the overall involvement of planning partners in the planning process rather than on individual MoDOT outreach activities. In 2006, which is the most recent data available, the Oregon DOT shows 65 percent of all respondents involved in transportation planning feel their involvement in decision-making was effective.

To continuously improve in this area, MoDOT implements effective communication, and public involvement tools and techniques based on the survey respondents’ written comments. MoDOT’s planning framework, which is a process used to ensure planning partners are able to influence transportation decisions regarding how transportation funds will be spent in their areas, is based on achieving informed consent. MoDOT is learning new ways to get better involvement, fine-tune communication and try out ideas that support positive improvements by listening to planning partners and by working with MoDOT internally to identify and improve opportunities and methods to enhance relationships with planning partners.

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**Percent of Positive Feedback Responses from Transportation Planning Partners Regarding Involvement in Transportation Decision-Making**

<table>
<thead>
<tr>
<th>Calendar Year</th>
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</tr>
<tr>
<td>2007</td>
<td>90</td>
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</table>

**Desired Trend:**
Convenient, Clean and Safe Roadside Accommodations

Tangible Result Driver – Don Hillis, Director of System Management

Many Missouri motorists depend on roadside parks and rest areas during their travels for the opportunity to rest and refresh themselves in a safe environment. Providing safe, clean and convenient accommodations allows motorists to travel more safely and comfortably.
Convenient, Clean and Safe Roadside Accommodations

Percent of customers satisfied with rest areas’ convenience, cleanliness and safety-14a

Result Driver: Don Hillis, Director of System Management
Measurement Driver: Jim Carney, State Maintenance Engineer

Purpose of the Measure:
This measure helps MoDOT understand customer expectations concerning the convenience, cleanliness and safety of its rest areas. This information will provide insight to rest area location, lighting and security as well as the overall cleanliness expectations.

Measurement and Data Collection:
MoDOT measures this attribute with both internal and external data collection. MoDOT receives information from a survey card offered at all rest areas. The survey card asks a variety of questions with three of the questions specifically asking if the rest area is convenient, clean and safe. This provides direct input from our customers and is considered the external source. All comments from the cards are sent to the districts and sheltered workshop contractor to ensure concerns are addressed in a timely manner.

To ensure customer satisfaction, all rest areas are inspected using an attribute list developed and based on an industry-wide literature review. The attribute list includes characteristics rest-area users identified as what they consider convenient, clean and safe. MoDOT maintenance employees inspect all rest areas and the work of the sheltered workshop contractor at least two times per month using this list and are considered the internal source.

MoDOT works with Extended Employment Sheltered Workshops to provide the cleaning at all 19 rest areas in the system. The sheltered workshop employees provide this service 365 days a year, many from early morning (6 a.m.) to late in the evening (10 p.m.). This measure is updated quarterly.

Improvement Status:
The rest area survey cards were made available in May 2005. A total of 9,774 cards were returned in fiscal year 2008 compared to 8,178 in fiscal year 2007 and 8,054 in 2006. In the second quarter of fiscal year 2009, 911 cards were returned, a significantly lower number of returned surveys than in the second quarter of fiscal year 2008. Conway being closed and the reduction of travel related to fuel cost may attribute to some of the reduction but cannot account for the overall lower numbers.

- Second Quarter fiscal year 2008, 1,945 surveys received
- Third Quarter fiscal year 2008, 1,195 surveys received
- Fourth Quarter fiscal year 2008, 1,981 surveys received
- First Quarter fiscal year 2009, 2,210 surveys received
- Second Quarter fiscal year 2009, 911 surveys received

Customer satisfaction for the three attributes is slightly lower in all three areas when compared to the previous quarter but not by a significant amount. A large percentage of the “not clean” comments (55 percent) were from two sites. MoDOT implements actions to improve the cleanliness at rest areas with lower satisfaction ratings by direct contact with the responsible contractor and district personnel. As a result of the survey cards, one district has implemented weekly internal inspections rather than the two per month as previously done. Cards were returned from 49 states, Canada, Ireland, the United Kingdom, Switzerland, Mongolia, China and Spain.

MoDOT is doing extremely well at meeting the customers’ expectations for convenient, clean and safe facilities; largely in part to these inspections conducted a minimum of two times per month. The inspection scores decreased from 95.1 to 94.2 percent for the second quarter of fiscal year 2009. Lower scores on internal inspections are a result of the increased December inspections at sites receiving customer concerns expressed in the survey cards. MoDOT takes care of maintenance concerns in a timely manner to keep the rest areas open for use.
Note: Rest area customer satisfaction benchmarks are limited. Florida’s 2004 rest area customer survey results found: 90 percent said the rest areas were clean, 83 percent said there were enough rest areas and 88 percent said the rest areas were safe.
Percent of customers satisfied with commuter lots’ convenience, cleanliness and safety-14b

Result Driver: Don Hillis, Director of System Management
Measurement Driver: Tim Chojnacki, Maintenance Liaison Engineer

Purpose of the Measure:
This measure will help the department understand customer expectations concerning commuter lot convenience, cleanliness and safety. This information will provide insight to location, lighting and security at commuter lots as well as their overall cleanliness.

Measurement and Data Collection:
MoDOT receives information in the form of survey cards distributed by MoDOT employees at 20 commuter lots. The survey contains a variety of questions, three of which specifically ask if the commuter lot is convenient, clean and safe. This is a baseline measure that provides direct input from the department’s customers and is considered an external source. This is an annual measure updated each January.

To further assess conditions and ensure customer satisfaction with the commuter lots, all lots are inspected based on attributes identified in an industry-wide literature review as to what commuter lot customers consider convenient, clean and safe. MoDOT maintenance employees inspect all commuter lots each quarter. This measure is updated quarterly.

Improvement Status:
Commuter lot survey cards were distributed to 1003 customers in December 2008 and the department received 257 responses. 95 percent of the customers thought the lots were convenient with 73 percent using them at least five days per week. 82 percent cited saving fuel costs as the most important reason to use the lot, with being good for the environment and the cost of parking at the destination being other considerations. 87 percent of the customers were satisfied with cleanliness of the lots compared to 79 percent in 2007. 96 percent of customers were satisfied with safety at the lots compared to 80 percent in 2007. Lighting was added at four lots this quarter. The St. Louis district has entered into an agreement with Goodwill Industries of St. Louis that allows Goodwill to collect donations at the I-70 and Cave Springs commuter lot and in return there is a Goodwill representative on-site who will pick up trash and mow and trim around the lot.

The quarterly inspections provide input to district maintenance supervisors on work needed at the commuter lot for condition of signs, parking lot surface, litter, and vegetation management. The November 2008 inspections indicated an improvement in the statewide average condition from 88 percent in August of 2008 to 91.1 percent.
Percent of Customers Satisfied with Commuter Lots' Convenience, Cleanliness and Safety

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
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</thead>
<tbody>
<tr>
<td>Convenient</td>
<td>98.1</td>
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<td>97.1</td>
<td>95.1</td>
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<td></td>
<td>78.2</td>
<td>83.2</td>
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<tr>
<td></td>
<td>90.3</td>
<td>82.0</td>
<td>80.3</td>
<td>94.3</td>
</tr>
</tbody>
</table>

Attribute: Convenient, Clean, Safe

Statewide Average Score of Commuter Lot Condition

<table>
<thead>
<tr>
<th></th>
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<tr>
<td>Percent</td>
<td>84.7</td>
<td>81.7</td>
<td>83.4</td>
<td>88.0</td>
<td>91.1</td>
</tr>
</tbody>
</table>
Number of users of commuter parking lots-14c

Result Driver: Don Hillis, Director of System Management
Measurement Driver: Tim Chojnacki, Maintenance Liaison Engineer

Purpose of the Measure:
This measure tracks the number of commuter parking lot users. It will help the department determine whether its commuter parking lots are adequate at current locations and whether lots are fulfilling the needs of the traveling public.

Measurement and Data Collection:
District maintenance personnel count the number of vehicles parked in each commuter lot in conjunction with the quarterly condition inspections. Data is collected from every district to create a statewide report. This measure is updated quarterly.

Improvement Status:
There was an increase in the number of available spaces and a decrease in the number of parked vehicles this quarter. The increase in number of spaces is due to the opening of one new commuter lot in Stone County at Route 13 at Reeds Spring and some other minor adjustments in the capacity of some lots. The number of available spaces statewide is up 44 to 6,426 at 108 lots. The number of parked vehicles dropped from 3,385 last quarter to 2,944 this quarter. As confirmed by the customer surveys, gas prices are the biggest reason people choose to use the commuter lots. District and Central Office staff continues to work on strategies that were developed by a statewide team to improve the condition and usage at the commuter lots. This quarter the commuter lot webpage was improved by adding an interactive map to help the public locate specific lots in their area.
Number of users of rest areas-14d

Result Driver:  Don Hillis, Director of System Management  
Measurement Driver:  Stacy Armstrong, Roadside Management Supervisor

Purpose of the Measure:
This measure tracks the number of vehicles visiting rest areas. This information helps MoDOT better understand the peak days and times visitors use rest areas, impacting staffing decisions. MoDOT estimates the rest areas have more than 20 million visitors each year.

Measurement and Data Collection:
Rest areas at Bloomsdale and Steele on Interstate 55, Concordia, Wright City and Boonville on Interstate 70, Eagleville and Lathrop on Interstate 35, Dearborn and Rock Port on Interstate 29, and St. Clair and Joplin on Interstate 44 have permanent counters providing data daily. Pavement sensors send data from a solar-powered wireless transfer station. All data is from permanent counters. The counts are for the average seven-day period between October 1 and December 31. This data is updated quarterly.

Improvement Status:
Permanent counters are transferring data from 11 different rest areas located throughout the state rest area system. This quarter the Dearborn counters malfunctioned and did not provide data so only 10 sites were used.

The counting period includes the entire quarter for all remaining 10 sites. The number of users in the first graph is the weekly average for each of the 10 sites. Some of the counters were installed less than a year ago; therefore no comparable data is available for the same period last year. The numbers are lower than last quarter and may be due to the higher fuel prices during the early part of this quarter. The weekly average is determined by adding the grand totals for each of the 10 sites for the quarter, dividing by the number of days in the quarter (92 for this quarter) and multiplying by seven for the weekly total.

The second graph provides the total number of visitors for the 10 sites for each individual day of the week of the quarter. Friday has typically been the busiest day at the rest areas, but this quarter Wednesday was the busiest. With Thanksgiving and Christmas Day, both being on Thursday, Wednesday was a big travel day resulting in the higher numbers.

The permanent counters provide data for 10 of the 18 rest areas currently operational. Conway, one of the busiest rest areas, is under construction and is scheduled to re-open the summer of 2009. A total of 978,263 vehicles were counted at 10 of 18 rest area sites. Using the average vehicles per rest area data from the 10 sites with active counters, it is estimated that 1,760,873 vehicles used Missouri rest areas this quarter, even with Conway being closed. Using a conservative estimate of 2.5 passengers per vehicle, the rest areas had approximately 4,402,183 visitors for the quarter. Based on this trend, Missouri rest areas will provide service to well over 17.6 million annual visitors.
Convenient, Clean and Safe Roadside Accommodations

Number of Users of Rest Areas*
Seven-day Average

<table>
<thead>
<tr>
<th>Location</th>
<th>2nd Qtr. FY 2008</th>
<th>2nd Qtr. FY 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dearborn I-29</td>
<td>8,552</td>
<td>9,928</td>
</tr>
<tr>
<td>Concordia I-70</td>
<td>9,928</td>
<td>11,026</td>
</tr>
<tr>
<td>Wright City I-70</td>
<td>9,248</td>
<td>11,070</td>
</tr>
<tr>
<td>Bloomsdale I-55</td>
<td>8,329</td>
<td>9,813</td>
</tr>
<tr>
<td>St. Clair I-44</td>
<td>7,500</td>
<td>12,088</td>
</tr>
<tr>
<td>Boonville I-70</td>
<td>13,341</td>
<td>12,693</td>
</tr>
<tr>
<td>Rock Port I-29</td>
<td>7,913</td>
<td>6,733</td>
</tr>
<tr>
<td>Eagleville I-35</td>
<td>2,783</td>
<td>3,446</td>
</tr>
<tr>
<td>Lathrop I-35</td>
<td>3,146</td>
<td>1,463</td>
</tr>
<tr>
<td>Steele I-55</td>
<td>8,021</td>
<td>6,849</td>
</tr>
<tr>
<td>Joplin I-44</td>
<td>5,861</td>
<td>5,966</td>
</tr>
</tbody>
</table>

Desired Trend: N/A

*Concordia, Wright City, Dearborn, Bloomsdale, Boonville, St. Clair, Lathrop and Steele are two directions and provide counts from both sides. Rock Port, Eagleville and Joplin are one direction only.

Number of Users of Rest Areas
By Day of Week
Second Quarter Fiscal Year 2009

<table>
<thead>
<tr>
<th>Day</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>127,623</td>
</tr>
<tr>
<td>Tuesday</td>
<td>134,687</td>
</tr>
<tr>
<td>Wednesday</td>
<td>149,958</td>
</tr>
<tr>
<td>Thursday</td>
<td>140,299</td>
</tr>
<tr>
<td>Friday</td>
<td>142,108</td>
</tr>
<tr>
<td>Saturday</td>
<td>139,377</td>
</tr>
<tr>
<td>Sunday</td>
<td>144,211</td>
</tr>
</tbody>
</table>

Desired Trend: N/A
Convenient, Clean & Safe Roadside Accommodations

Number of truck customers that utilize rest areas-14e

Result Driver: Don Hillis, Director of System Management
Measurement Driver: Tim Jackson, Maintenance Liaison Engineer

Purpose of the Measure:
This measure tracks the number of trucks at rest areas, welcome centers and truck parking facilities. The number of trucks using the rest areas and the nearby ramps could be used to help determine how many spaces are needed to provide convenient parking facilities at each rest area.

Measurement and Data Collection:
On a monthly basis, district maintenance personnel count the number of trucks parked at welcome centers, rest areas, on nearby ramps within 15 miles of the welcome centers/rest areas and at abandoned weigh stations that have been converted to truck parking facilities. The count is done between 4 and 6 a.m., which is typically the busiest time. Data is collected from every rest area and truck parking facility to create a statewide report and updated quarterly.

Improvement Status:
The fourth quarter of calendar year 2008 showed a decrease of 42 in the average number of trucks using the rest areas and other designated truck parking facilities from the previous quarter. The average number of trucks parked in these locations decreased 67 from the fourth quarter of 2007. The average number of truck parking spaces increased by 11 from the previous quarter. The new truck parking facility at Strafford accounts for the increase in available truck parking spaces. The Conway rest area remains closed for construction of a new welcome center. Constructing welcome centers with additional truck parking spaces and converting abandoned weigh stations into truck parking facilities continues to be a way to add parking spaces across the state to accommodate the need for additional truck parking.

Number of Truck Customers That Utilize Rest Areas

<table>
<thead>
<tr>
<th>Number of Truck Customers</th>
<th>4th Qtr. 2007</th>
<th>1st Qtr. 2008</th>
<th>2nd Qtr. 2008</th>
<th>3rd Qtr. 2008</th>
<th>4th Qtr. 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trucks (Ramps)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trucks (Rest Areas)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Available Truck Parking Spaces</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Desired Trend: N/A
Best Value For Every Dollar Spent

Tangible Result Driver – Roberta Broeker, Chief Financial Officer

Providing the best value for every dollar spent means MoDOT is running its business as efficiently and effectively as possible. A tightly managed budget means more roads and bridges can be fixed. That keeps Missouri moving. This is one of MoDOT’s values because every employee is a taxpayer too!
Best Value for Every Dollar Spent

Number of MoDOT employees (converted to full-time equivalencies)- 15a

Result Driver: Roberta Broeker, Chief Financial Officer
Measurement Driver: Steve Meystrik, Special Projects Coordinator

Purpose of the Measure:
This measure tracks the change in the number of employees within the department. This measure converts hours worked by temporary and salaried employees, as well as the amount paid for overtime worked, to full-time equivalencies (FTEs). In order to convert these numbers to FTEs, the total number of hours worked is divided by 2,080. Overtime includes both salaried and wage employees.

Measurement and Data Collection:
The data is collected and reported each quarter of the fiscal year. The data is a high-level view of overall staffing at MoDOT in relation to budgeted FTEs.

Improvement Status:
Since FY 2007, there has been a decline in the number of FTEs for all three categories measured (salaried, temporary, and overtime), and this trend has continued through the second quarter of FY 2009. The department has decreased salaried FTEs statewide by 22 compared to the same time frame in FY 2008. The number of temporary employees has decreased by 27 FTEs, and the number of FTEs resulting from overtime worked has decreased by 26 when comparing second quarter FY 2008 to second quarter FY 2009. Reductions in the actual number of employees and FTEs are reflective of the department’s continued emphasis on managing staffing levels and work schedules.

Number of MoDOT Employees (converted to full-time equivalencies)

* For FY 2009, the “Salaried Employees” data has had the FTEs used to date for salaried employees converted to an annual number for ease in comparison to previous years. This could not be reasonably accomplished for wage employees or for overtime.
Percent of work capacity based on average hours worked-15b

**Result Driver:** Roberta Broeker, Chief Financial Officer  
**Measurement Driver:** Micki Knudsen, Human Resources Director

**Purpose of the Measure:**  
The purpose of this measure is to track how many hours the average employee works on an annual basis. This measure can assist management in assessing staffing and productivity levels.

**Measurement and Data Collection:**  
MoDOT tracks the average regular hours worked and average overtime hours worked by employees. The average regular hours worked does not include seasonal or wage employees and the average overtime hours worked does not include exempt, seasonal, or wage employees. The work capacity measure is the percentage of regular hours worked out of the 2,080 hours available during a calendar year.

Within a 2,080-hour calendar year, an employee would work 1,984 hours (work capacity ratio of 95.4 percent) if he/she worked all available hours except the 12 state holidays provided to State of Missouri employees. If another holiday has been granted by Executive Order of the Governor, which is customary following the Thanksgiving holiday, then 1,976 hours would be worked at a ratio of 95.0 percent. The difference between MoDOT’s reported percent of work capacity and a work capacity of 95.0 percent will illustrate how many hours on average an employee is away from work due to paid or unpaid leave.

The United States Bureau of Labor Statistics publishes hours-worked to hours-paid ratios for 14 industry sectors. The individual ratio of the utility industry (87.9 percent in 2007) is displayed for comparison purposes due to the similarities in workforce and need for 24/7 operations. Like MoDOT, the utility industry generally employs few part-time workers, provides year-round employment, and requires employees to be available to work overtime to accommodate peak demands and repair system damages. The utility industry also provides an average of 10 paid holidays and generally has other leave policies comparable to those found in state government.

**Improvement Status:**  
MoDOT’s work capacity for calendar year 2008 was 87.6 percent, which was the same percentage reported for 2007. In 2008, MoDOT employees received an additional holiday - the day following Christmas - by Executive Order of the Governor. Due to this additional holiday, MoDOT’s work capacity would be 94.6 percent if no work time were missed with the exception of paid holidays. As a result of MoDOT employees receiving 14 paid holidays in 2008, employees would need to be away from work due to some other paid or unpaid leave event for an average of 18 additional days to achieve a work capacity of 87.6 percent. Sick leave usage increased from 438,273 hours in 2007 to 438,423 hours in 2008. This change of 150 hours indicates the department is continuing efforts to reduce sick leave use compared to previous years. As a continued result of department efforts to reduce overtime by sharing best practices in managing work schedules, average overtime hours worked for 2008 were at their lowest levels since 2004.

---

**Percent of Work Capacity***

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours</td>
<td>1,805</td>
<td>1,813</td>
<td>1,823</td>
<td>1,822</td>
</tr>
<tr>
<td>Working Hours</td>
<td>86.8%</td>
<td>87.2%</td>
<td>87.6%</td>
<td>87.6%</td>
</tr>
</tbody>
</table>

- Average Overtime Hours Worked
- Average Regular Hours Worked
- Bureau of Labor Statistics - Utility Industry

**Desired Trend:** N/A

*Based on 2,080 hours of work in the calendar year, not including overtime hours.
Rate of employee turnover-15c

Result Driver: Roberta Broeker, Chief Financial Officer
Measurement Driver: Kim Hickey, Employment Manager

Purpose of the Measure:
This measure tracks the percentage of employees who leave MoDOT annually and compares the department’s turnover rate to benchmarked data. Voluntary turnover includes most resignations and retirements. Involuntary turnover includes dismissals. Beginning with calendar year 2007, it also includes retirements and voluntary resignations of employees who had a disciplinary history and/or a final performance management rating of "Needs Improvement" or below. Turnover rates include voluntary separations, involuntary separations, and deceased employees.

Measurement and Data Collection:
The data is collected statewide to assess overall employee turnover. Comparison data is collected from various sources annually. For benchmarked data, Saratoga Institute surveyed more than 300 organizations representing a wide variety of industries.

Improvement Status:
During calendar year 2008, there were 517 separations from the department. This compares to 528 and 491 for 2007 and 2006, respectively. While the department’s overall separation rate was down slightly from 8.3 in 2007 to 8.2 in 2008, department emphasis on performance management has resulted in an increased number of involuntary separations. There were 96 releases in 2008, and an additional 58 resignations and retirements designated as involuntary separations. This compares with 73 releases and 43 resignations and retirements included in involuntary separations for 2007. Of the remaining 358 voluntary separations that occurred in 2008, 190 were retirements and 168 were resignations. The decrease in voluntary separations can be attributed to recent changes in the economy, as well as continued departmental emphasis on employee friendly programs such as the use of telecommuting and flexible work schedules. Separations of employees in civil engineering positions (58) remained similar to those in 2007 (55), which had been a decrease when compared with 2006 (74) and 2005 (75). In 2008, the department experienced a decrease in turnover of employees in the information technology field, with a total of 9 separations compared to the 22 separations in 2007.
Level of job satisfaction-15d

Result Driver:  Roberta Broeker, Chief Financial Officer
Measurement Driver:  Paul Imhoff, Employee Development Manager

Purpose of the Measure:
This measure tracks the level of employee satisfaction throughout the department at specific points in time. The first chart indicates the level of department employees’ job satisfaction and changes in their satisfaction over time. The second chart shows the percentage of MoDOT employees who are satisfied compared to the organizations that scored the best in employee satisfaction using the same survey instrument, and to top-level organizations using a similar survey questionnaire.

Measurement and Data Collection:
Employee satisfaction is measured using 18 items from an annual employee survey. The vendor contracted to conduct the employee satisfaction survey in 2003 and 2005 provided “Vendor Best Practice” data collected from an anonymous company. Society for Human Resources Management (SHRM) best practice data was gathered from an SHRM report of an annual job satisfaction survey of 55 Fortune 500 companies. This is an annual measure updated in July each year.

Improvement Status:
The 2008 Employee Satisfaction Survey was distributed on May 5, 2008, and preliminary data was analyzed beginning the week of June 16, 2008. An additional scale was added to the Employee Satisfaction Survey this year to measure employee perceptions about how supervisors and MoDOT overall live the MoDOT values. A final report was made available to all employees via intranet posting in October 2008.

Results indicate that 4,209 employees responded to the survey for a 64 percent return rate. That is a decrease from 76 percent in 2007 and is below the 2005 rate of 70 percent. For 2008, a smaller percentage of employees rated their overall satisfaction at the highest level; however, a higher percentage of employees rated their overall satisfaction above neutral - 66 percent compared to 64 percent in 2007. The average rating for job satisfaction increased for 2008. Of the 18 items comprising the job satisfaction scale, 14 items increased in average score and 2 remained unchanged. The two items related to “general satisfaction” and “feeling in control of life while at work” decreased. The two items related to “rewards at work” had the largest average increase; however, both are still among the bottom three ranked items in the job satisfaction scale. These results coincide with a significant number of comments and concerns related to pay issues including: (1) restriction on working overtime, (2) concerns about favoritism in performance-based pay increases, (3) lack of opportunities for promotion, and (4) pay increases not keeping up with rising costs of living. Additionally, concerns about employee morale comprise a significant portion of employee comments.

The 2007 Employee Satisfaction Survey report included 41 strategies to improve employee satisfaction. The district management teams and executive management at Central Office developed these strategies for implementation during fiscal year 2008. The districts and divisions have been contacted to determine the status of the strategies. The results of the survey seem to indicate these strategies have produced mixed results as both the job satisfaction and organizational justice scales increased on average, while the employee engagement scale has decreased.
**Level of Job Satisfaction**

(Average Rating)

**Percent of Satisfied Employees**

Desired Trend:

**Missouri Department of Transportation**
Number of lost workdays per year-15e

Result Driver: Roberta Broeker, Chief Financial Officer
Measurement Driver: Jeff Padgett, Risk and Benefits Management Director

Purpose of the Measure:
This measure tracks the actual number of days that employees cannot work due to work-related injuries sustained during the reporting period. Note that the results do not include lost workdays for injuries that occurred during previous reporting periods. (Example: an employee that is injured on Dec. 31, 2007 and is off during January of 2008 will not show up as lost time in 2008 because the incident occurred during the previous reporting period.)

Measurement and Data Collection:
The data is collected from Riskmaster, a claims administration software, and reported quarterly.

Improvement Status:
The number of lost workdays for 2008 is 13 percent higher than the total from 2007, increasing from 504 in 2007 to 567 lost workdays in 2008. Though not illustrated in the chart, the number of lost-time incidents reflected a 29 percent reduction from 2007 to 2008. MoDOT continues to develop and implement new safety-related initiatives to further reduce lost workdays, including the Performance Plus Injury Reduction Incentive, a work simulation physical exam and the Fit for Duty program. Risk management personnel now direct all medical care for work-related injuries. MoDOT continues to identify and provide light-duty assignments for injured workers with restrictions in an effort to get them back to work quickly.
Rate and total of OSHA recordable incidents-15f

Result Driver: Roberta Broeker, Chief Financial Officer
Measurement Driver: Jeff Padgett, Risk and Benefits Management Director

Purpose of the Measure:
This measure tracks the number of recordable injuries, as defined by OSHA, in total and as a rate of injuries per 100 workers. The calculation for incidence rate is the number of recordables times 200,000 divided by the number of hours worked. The 200,000 used in the calculation is the base for 100 full-time workers (working 40 hours per week, 50 weeks per year). OSHA defines a recordable incident as a work-related injury or illness that results in death, days away from work, restricted work or transfer to another job, medical treatment beyond first aid or loss of consciousness. MoDOT defines medical treatment beyond first aid as work-related injuries requiring two or more doctor visits.

Measurement and Data Collection:
MoDOT reports on the measure quarterly, one quarter in arrears, and collects the injury data from Riskmaster, a claims administration software. The number of hours worked is taken from MoDOT’s payroll data.

Improvement Status:
Both the number of OSHA recordables and the incidence rate for MoDOT have declined over the reporting periods noted. The incident rate declined by five percent for 2008 over 2007, dropping from 4.4 to 4.2. The number of OSHA recordables declined by six percent over the same period, with a reduction from 236 to 222. MoDOT suffered the loss of two employees during the first three quarters of 2008. The Springfield Area District had an employee who was fatally injured in March, and the Kansas City Area District had an employee who was fatally injured in June. The department has reduced its injury rate by successfully implementing numerous safety-related initiatives.

Rate of OSHA Recordable Incidents

(Information from Private Industry Construction was not yet available for 2007.)
Total of OSHA Recordable Incidents

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>543</td>
</tr>
<tr>
<td>2005</td>
<td>502</td>
</tr>
<tr>
<td>2006</td>
<td>379</td>
</tr>
<tr>
<td>2007</td>
<td>314</td>
</tr>
<tr>
<td>1st, 2nd &amp; 3rd Quarters 2007</td>
<td>236</td>
</tr>
<tr>
<td>1st, 2nd &amp; 3rd Quarters 2008</td>
<td>222</td>
</tr>
</tbody>
</table>
Number of claims for general liability-15g

Result Driver: Roberta Broeker, Chief Financial Officer
Measurement Driver: Jeff Padgett, Risk and Benefits Management Director

Purpose of the Measure:
General liability claims arise from allegations of injuries/damages caused by the dangerous condition of MoDOT property and the injury/damage directly resulted from the dangerous condition. In addition, an employee must be negligent and create the dangerous condition or MoDOT must have actual or constructive notice of the dangerous condition in sufficient time prior to the injury/damage to have taken measures to protect the public against the dangerous condition. This measure tracks the number of general liability claims filed.

Measurement and Data Collection:
Risk and Benefits Management reports on the measure quarterly and collects the claims data from Riskmaster, a claims administration software.

Improvement Status:
The number of claims for general liability has declined over the reporting periods noted.

Number of Claims for General Liability

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>1,332</td>
</tr>
<tr>
<td>2005</td>
<td>1,099</td>
</tr>
<tr>
<td>2006</td>
<td>1,261</td>
</tr>
<tr>
<td>2007</td>
<td>1,013</td>
</tr>
<tr>
<td>2008</td>
<td>934</td>
</tr>
</tbody>
</table>

Desired Trend: 
Decline
**Cost of utilities for facilities-15h**

**Result Driver:** Roberta Broeker, Chief Financial Officer  
**Measurement Driver:** Doug Record, General Services Manager - Facilities

**Purpose of the Measure:**  
This measure tracks the cost of utilities for department facilities, excluding roadways. It focuses on how these costs are affected by energy efficient improvements in buildings and operations.

**Measurement and Data Collection:**  
The data is collected based on utility expenditures recorded in the statewide financial accounting system. The following expenditures are included in the analysis: electricity (excluding roadways, lighting and signals), steam, water, sewer, natural gas, propane, fuel oil, other fuel and utilities. This is a quarterly measure with the per square foot chart being updated annually.

**Improvement Status:**  
The total costs reported for utilities for year-to-date FY 2009 was $2,446,692, an increase of 3.4 percent of the total utility costs reported in the same period of FY 2008. The increase showed up in natural gas and propane costs. The square foot chart has no changes because it is an annual measure.
Fleet status-15i

**Result Driver:** Roberta Broeker, Chief Financial Officer  
**Measurement Driver:** Jeannie Wilson, Central Office General Services Manager

**Purpose of the Measure:**  
This measure tracks the number of units in the MoDOT fleet as well as their condition. The chart provides an overall fleet condition status based on actual fleet age and meter compared to maximum life-cycle thresholds.

**Measurement and Data Collection:**  
Age and meter thresholds were established based on maximum useful life. Units are identified as either exceeding or not exceeding their primary life cycle for either age or meter.

Reports are generated from the Fleet Management System to obtain information regarding equipment age and usage.

**Improvement Status:**  
The overall fleet size has decreased from 6,063 to 5,985 units through the second quarter of fiscal year 2009.

MoDOT’s goal is to increase the percentage of fleet under the replacement threshold. According to the established thresholds, 79 percent of the MoDOT fleet is under the recommended replacement criteria. The criteria suggests that 21 percent of the fleet currently meets or exceeds the threshold. MoDOT has made a concerted effort to maintain the fleet at the appropriate level to ensure service needs are met.

![Fleet Status Chart](image)

**Fleet Status (in units)**

- **Exceeds Threshold:**
  - 2006: 6,222 (25%)
  - 2007: 6,182 (23%)
  - 2008: 6,063 (20%)
  - 2nd Qtr. 2009: 5,985 (21%)

- **Under Threshold:**
  - 2006: 75%
  - 2007: 77%
  - 2008: 80%
  - 2nd Qtr. 2009: 79%

**Desired Trend:**

Excludes those Under Threshold
Percent of vendor invoices paid on time-15j

Result Driver: Roberta Broeker, Chief Financial Officer
Measurement Driver: Debbie Rickard, Controller

Purpose of the Measure:
This measure tracks the department’s timeliness in processing vendor payments.

Measurement and Data Collection:
The check date determines if invoice payment is timely. Timely is defined as a check issued less than 31 days from the date of the invoice. The department’s measure is benchmarked to the New Mexico DOT. MoDOT uses the vendor invoice date for determining promptness of payment; New Mexico utilizes a combination of vendor invoice date and the date received by the approving division when the invoice has not been promptly delivered.

Improvement Status:
Vendors age their receivables based on the date of invoice. This measure indicates there has been consistent improvement. The steps to further improve are: (1) identify specific vendors experiencing delayed payment and work with those vendors to obtain timely, accurate invoices, (2) determine if delayed payments are common to a particular division within the Central Office or a district, (3) identify processes contributing to the delayed payment, and (4) identify innovative solutions to receive invoices from the customer. Analysis tools have been developed to assist in identifying areas where improvements can be made.
Best Value for Every Dollar Spent

Distribution of expenditures-15k

Result Driver: Roberta Broeker, Chief Financial Officer
Measurement Driver: Debbie Rickard, Controller

Purpose of the Measure:
The purpose of the measure is to demonstrate a responsible use of taxpayers’ money, with the emphasis of spending on construction and maintenance of our transportation system.

Measurement and Data Collection:
The data collection is based on cash expenditures by appropriation on a quarterly basis. Construction and maintenance expenditures are defined as expenditures from the construction and maintenance appropriations. Other expenditures include: administration, multimodal, fleet, facilities, information systems, and other services (FFIS & Other), Motor Carrier and Highway Safety appropriations. Debt service appropriations are not included.

Improvement Status:
MoDOT’s emphasis is on expenditures for routine maintenance of the system (maintenance appropriation) and rehabilitation and construction of the system (construction appropriation). Construction expenditures, percentage and dollars, have increased for the same period as a result of an increase in the construction program. Administration, FFIS, and Motor Carrier have decreased as a percent of total expenditures primarily due to the timing of FFIS expenditures. Highway Safety and Multimodal fluctuate depending on availability of federal grants.

### Distribution of Expenditure

**Construction and Maintenance**

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>2005</th>
<th>Through 2nd Qtr. 2008</th>
<th>Through 2nd Qtr. 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent</td>
<td>86.9</td>
<td>88.0</td>
<td>87.6</td>
</tr>
<tr>
<td></td>
<td>88.1</td>
<td>69.5</td>
<td>66.8</td>
</tr>
<tr>
<td></td>
<td>64.0</td>
<td>19.6</td>
<td>18.0</td>
</tr>
<tr>
<td></td>
<td>22.9</td>
<td>18.5</td>
<td>18.2</td>
</tr>
</tbody>
</table>

### Thousands of Dollars

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Construction</strong></td>
<td>1,085,840</td>
<td>1,373,699</td>
<td>1,539,217</td>
<td>1,373,682</td>
<td>830,999</td>
<td>927,465</td>
</tr>
<tr>
<td><strong>Maintenance</strong></td>
<td>386,399</td>
<td>391,817</td>
<td>408,904</td>
<td>428,461</td>
<td>209,478</td>
<td>233,625</td>
</tr>
</tbody>
</table>
Best Value for Every Dollar Spent

Distribution of Expenditure

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Administration</th>
<th>Multimodal</th>
<th>FIS &amp; Other</th>
<th>Motor Carrier</th>
<th>Highway Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>13.1</td>
<td>6.3</td>
<td>3.1</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>2006</td>
<td>11.9</td>
<td>5.0</td>
<td>3.1</td>
<td>1.4</td>
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<td>2007</td>
<td>12.0</td>
<td>4.9</td>
<td>3.2</td>
<td>1.6</td>
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<tr>
<td>2008</td>
<td>12.4</td>
<td>5.2</td>
<td>3.8</td>
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</tr>
<tr>
<td>Through 2nd Qtr. 2008</td>
<td>10.8</td>
<td>4.4</td>
<td>3.4</td>
<td>0.8</td>
<td>1.1</td>
</tr>
<tr>
<td>Through 2nd Qtr. 2009</td>
<td>9.6</td>
<td>3.0</td>
<td>3.4</td>
<td>1.1</td>
<td></td>
</tr>
</tbody>
</table>

Desired Trend:

Thousands of Dollars

<table>
<thead>
<tr>
<th></th>
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<td>Administration</td>
<td>41,288</td>
<td>43,076</td>
<td>45,086</td>
<td>46,808</td>
<td>22,783</td>
<td>23,161</td>
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<tr>
<td>Multimodal</td>
<td>52,681</td>
<td>61,431</td>
<td>71,839</td>
<td>77,265</td>
<td>39,284</td>
<td>43,493</td>
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<tr>
<td>FIS &amp; Other</td>
<td>106,822</td>
<td>99,418</td>
<td>108,023</td>
<td>106,343</td>
<td>51,039</td>
<td>39,015</td>
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<tr>
<td>Motor Carrier</td>
<td>5,811</td>
<td>6,741</td>
<td>6,899</td>
<td>6,930</td>
<td>3,474</td>
<td>3,441</td>
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<td>Highway Safety</td>
<td>17,702</td>
<td>27,657</td>
<td>35,730</td>
<td>17,064</td>
<td>9,475</td>
<td>14,111</td>
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</table>
Percent variance of state revenue projections

**Result Driver:** Roberta Broeker, Chief Financial Officer  
**Measurement Driver:** Ben Reeser, Financial Resource Administrator

**Purpose of the Measure:**  
The measure shows the precision of state revenue projections. Projections are used to prepare the budget that funds MoDOT’s operations and capital program.

**Measurement and Data Collection:**  
State revenue includes three major components of taxes and fees paid by highway users: motor fuel taxes, motor vehicle and driver licensing fees, and motor vehicle sales and use taxes. This measure does not include interest earnings and miscellaneous revenue, which are also considered state revenues. The measure provides the cumulative, year-to-date percent variance of actual state revenue versus projected state revenue. Fiscal year 2009 projections are based on the financial forecast prepared in August 2008. This measure is updated quarterly.

**Improvement Status:**  
The actual state revenue was less than projected through the second quarter of FY 2009. The projected revenue was $518.6 million. However, the actual receipts were $506.5 million, a difference of $12.1 million and a negative variance of 2.33 percent. The desired trend is for the actual revenue to match projections with no variance. MoDOT staff adjusts future operating and capital budgets to account for these variances, if needed.

![Percent Variance of State Revenue Projections](image)
MoDOT national ranking in revenue per mile-15m

**Result Driver:** Roberta Broeker, Chief Financial Officer
**Measurement Driver:** Ben Reeser, Financial Resource Administrator

**Purpose of the Measure:**
This measure shows Missouri’s national ranking in the amount of revenue per mile that is available to spend on the state highway system.

**Measurement and Data Collection:**
This is an annual measure updated each April. Revenue is the total receipts less bonds as reported in the Federal Highway Administration’s 2006 annual highway statistics report entitled “Revenues Used By States For State-Administered Highways.” The mileage is the state highway agency miles as reported in the Federal Highway Administration’s 2006 annual highway statistics report entitled “State Highway Agency-Owned Public Roads.” Resource Management collects this information from the Federal Highway Administration.

**Improvement Status:**
Missouri’s revenue per mile of $49,977 currently ranks 44th in the nation. Missouri has a very large state highway system, consisting of 33,681 miles, which is the seventh largest system in the nation. New Jersey’s revenue per mile of $1,010,172 ranks first. However, its state highway system contains only 2,326 miles. MoDOT staff continues to communicate the need for additional transportation funding to the public. Missouri’s transportation needs greatly exceed current available funding.
Number of excess properties conveyed-15n

Result Driver: Roberta Broeker, Chief Financial Officer  
Measurement Driver: Kelly Lucas, Right of Way Director

Purpose of the Measure:  
The purpose of this measure is to track the number of excess parcels conveyed from MHTC ownership. In order to fulfill its stewardship role of asset management while observing practical business decisions, the department is proactively identifying and disposing of property that is no longer needed for the maintenance of the transportation system, will not be used for future expansion projects and is no longer needed for its operations.

Measurement and Data Collection:  
Data collection for this measure is reported on a quarterly basis from the Realty Asset Inventory system.

Improvement Status:  
MoDOT conveyed 60 parcels in the first two quarters. Thirty-seven excess parcels were conveyed in the second quarter compared to 23 in the previous quarter.

Each district has submitted a work plan that includes a minimum of 24 parcels to be conveyed within the fiscal year. Two consultants are under contract to provide real estate marketing and consulting services. Thirty excess parcels with an estimated value of $6.5 million are included in the contract. The contract provides the flexibility to revise or add properties until July 2010. The MoDOT Internet “Realty for Sale” web page received 6,016 hits in the first two quarters.
Gross revenue generated from excess properties sold-15o

**Result Driver:** Roberta Broeker, Chief Financial Officer
**Measurement Driver:** Kelly Lucas, Right of Way Director

**Purpose of the Measure:**
The purpose of this measure is to track the amount of revenue generated from the sale of excess property. In order to fulfill its stewardship role of asset management while observing practical business decisions, the department is proactively identifying and disposing of property that is no longer needed for the maintenance of the transportation system, will not be used for future expansion projects and is no longer needed for its operations. Funds received from the sale of excess properties are used to improve the condition of the state highway system. The districts use these funds to apply toward the costs associated with various maintenance activities and construction projects.

**Measurement and Data Collection:**
This data represents the gross revenue from all properties sold. Incidental costs incurred in the conveyance of excess properties are not considered in this measure. Data collection for this measure is reported on a quarterly basis from the Realty Asset Inventory system.

**Improvement Status:**
Revenue through the end of the second quarter of FY09 from excess sales totals $1,632,029.

Each district has submitted a work plan that includes a minimum of 24 parcels to be conveyed within the fiscal year. Two consultants are under contract to provide real estate marketing and consulting services. Thirty excess parcels with an estimated value of $6.5 million are included in the contract. The contract provides the flexibility to revise or add properties until July 2010. The MoDOT Internet “Realty for Sale” web page received 6,016 hits in the first two quarters.
Attractive Roadsides
Tangible Result Driver – Don Hillis, Director of System Management

An enjoyable transportation experience includes more than a smooth surface – motorists expect to see roadsides free of litter and debris, well-managed and maintained grass and other vegetation and other attractive enhancements. MoDOT works to meet and exceed expectations for roadsides. Beautiful roadsides are visible proof that MoDOT takes pride in everything it does.
Percent of roadsides that meet customers’ expectations-16a

Result Driver: Don Hillis, Director of System Management
Measurement Driver: Jim Carney, State Maintenance Engineer

Purpose of the Measure:
This measure tracks the percent of MoDOT’s roadway system that meets customers’ expectations for attractiveness.

Measurement and Data Collection:
A list of roadside quality indicators was developed and approved based on an industry-wide literature review. The activities selected for this measure were used to develop a quality assurance checklist for roadside attractiveness. Data collection for this measure is based on a yearly inspection of a number of randomly selected sample sites located throughout the state. The random sites are inspected yearly for each activity.

This is an annual measure updated each January.

Improvement Status:
Over the past five reporting years, the five roadside activities referenced below have shown varying trend lines. MoDOT shifts resources to improve in all categories. In an effort to conserve fuel and meet department guidelines on vegetation management, there has been a shift in resources over the past 2 years from mowing to maintaining the other roadside attributes. Over the last year, litter debris and slope erosion improved. MoDOT staff will continue to shift resources to improve efforts in weed control.

<table>
<thead>
<tr>
<th>Roadside Attributes</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mowing</td>
<td>93</td>
<td>93</td>
<td>92</td>
<td>91</td>
<td>85</td>
</tr>
<tr>
<td>Litter/Debris</td>
<td>70</td>
<td>59</td>
<td>66</td>
<td>69</td>
<td>78</td>
</tr>
<tr>
<td>Brush/Trees</td>
<td>78</td>
<td>88</td>
<td>89</td>
<td>91</td>
<td>90</td>
</tr>
<tr>
<td>Slope Erosion</td>
<td>85</td>
<td>91</td>
<td>92</td>
<td>92</td>
<td>94</td>
</tr>
<tr>
<td>Weed Control</td>
<td>53</td>
<td>53</td>
<td>53</td>
<td>66</td>
<td>60</td>
</tr>
</tbody>
</table>

Desired Trend:
Number of miles in Adopt-A-Highway program-16b

Result Driver: Don Hillis, Director of System Management
Measurement Driver: Stacy Armstrong, Roadside Management Supervisor

Purpose of the Measure:
This measure tracks public involvement in taking care of Missouri’s roadsides through the Adopt-A-Highway program. Missouri has one of the largest and oldest Adopt-A-Highway programs in the nation. The volunteers learn about litter awareness and some of the challenges MoDOT faces, while allowing maintenance crews to do more critical activities.

Measurement and Data Collection:
Adopters agree to pick up litter on a designated roadway section for a minimum of four times a year and report their results. Adopters commit to a three-year agreement when they join the program. Urban adoptions are for a minimum of one-half mile and rural adoptions are for at least two miles. Miles are measured by the centerline, however, volunteers are responsible for both sides of the roadway. Adopter-related information is maintained in an Adopt-A-Highway database using the Transportation Management System. This is an annual measure updated quarterly.

Improvement Status:
In recent years, the number of miles adopted has increased. Recent growth may be due to increased public awareness through No MOre Trash!, a litter-prevention campaign coordinated by MoDOT and the Department of Conservation. Total miles increased in 2008 with 415 new adoptions. Simplified Adopt-A-Highway rules and regulations became effective August 30, 2006. Adopt-A-Highway information is now easier to find on the MoDOT Web site. The program will continue to be promoted at Earth Day, state and county fairs, and other events. A reception and press conference was held October 19, 2007 to celebrate the 20th anniversary of Adopt-A-Highway and to honor the four charter Adopt-A-Highway groups. Sponsor-A-Highway, a complementary program to Adopt-A-Highway, was launched on September 17, 2008.
Advocate for Transportation Issues

Tangible Result Driver – Pete Rahn, Director of MoDOT

Transportation issues can be extremely diverse and complex. An efficient transportation system requires leadership and, most importantly, a champion to ensure the resources support projects that will help the department fulfill its responsibilities to the taxpayers. MoDOT will be an advocate for transportation.
Percent of minorities and females employed-17a

**Result Driver:** Pete Rahn, Director of MoDOT  
**Measurement Driver:** Brenda Treadwell-Martin, Equal Opportunity and Diversity Director

**Purpose of the Measure:**
This quarterly measure tracks minority and female employment in MoDOT’s workforce and compares it with availability data from the Missouri 2000 Census report. Efficient use of people resources provides opportunities for the department to leverage transportation resources with available human capital. By placing the right people in the right place, the department can better serve its customers and help fulfill its responsibilities to taxpayers.

**Measurement and Data Collection:**
MoDOT’s Affirmative Action software database and Missouri 2000 Census Report are used to collect data. Private sector, departments of transportation, Missouri state agencies, and Missouri 2000 Census Data were researched to determine a benchmark for this measurement. Due to the significant variations for some of these entities (such as pay incentives, number of employees, geographic locations), it was determined Missouri 2000 Census Data, based on jobs used by the department, would be the benchmark for this measurement.

**Improvement Status:**
The total number of minority employees increased by 10.88 percent (533 to 591) from second quarter 2008 compared to second quarter 2009, while female employment decreased by 0.51 percent (1,363 to 1,356). Female employment (21.33 percent) continues to exceed female availability (19.02 percent). Steps taken to improve this measurement included: conducting supervisory training to address hiring and retention issues, utilizing telephone interviews to hire maintenance workers, and surveying the MoDOT workforce to update race and ethnic classifications.
Separation rates for females and minorities-17b

**Result Driver:** Pete Rahn, Director of MoDOT  
**Measurement Driver:** Brenda Treadwell-Martin, Equal Opportunity and Diversity Director

**Purpose of the Measure:**  
The purpose of this measure is to track female and minority separation rates compared to the overall MoDOT separation rate.

**Measurement and Data Collection:**  
Data is collected quarterly through SAM II Advantage HR, ReportNet and Peopleclick AAPlanner reports. These separations include both voluntary and involuntary separations from the department. The numbers for the reports were pulled from 6/16/07 to 12/15/07 and 6/16/08 to 12/15/08 to be consistent with Human Resource Turnover Report.

**Improvement Status:**  
The overall separation rate for MoDOT decreased by 19 percent (264 to 214) from YTD 2008 compared to YTD 2009. Of this number, female separation decreased by 20 percent (60 to 48) and minority separation decreased by 29 percent (51 to 36).

Steps taken to improve this measurement included: utilizing alternate work schedules to balance work and personal life, counseling females and minorities through the “Work Life Center,” and recruiting at churches and through local outreach groups to attract Hispanics.

### Separation Rates for Females and Minorities

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>MoDOT</th>
<th>Females</th>
<th>Minorities</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>7.0</td>
<td>12.7</td>
<td>8.8</td>
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<tr>
<td>2008</td>
<td>8.9</td>
<td>15.3</td>
<td>4.4</td>
</tr>
<tr>
<td>YTD 2008</td>
<td>9.6</td>
<td>4.2</td>
<td>3.5</td>
</tr>
<tr>
<td>YTD 2009</td>
<td>3.4</td>
<td>6.1</td>
<td>3.4</td>
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</table>

**Desired Trend:** N/A
Transportation-related legislation filed and passed by the General Assembly-17c

Result Driver: Pete Rahn, Director of MoDOT
Measurement Driver: Lisa LeMaster, Senior Governmental Relations Specialist

Purpose of Measure:
This measure tracks significant transportation-related legislation filed and passed by the General Assembly. Significant transportation-related legislation is legislation that is either favorable or unfavorable with regard to providing transportation resources, supporting transportation projects, creating efficiency within the department, or promoting roadway safety. This measure also tracks the department’s progress on its own legislative agenda.

Measurement and Data Collection:
During session, data is obtained by reviewing both the Senate and House Web sites for legislation in the transportation subject categories. Each bill is then reviewed to determine whether it contains an initiative that is favorable or unfavorable to transportation. The total favorable initiatives filed are compared to the total favorable initiatives that pass and the total unfavorable initiatives filed are compared to the total unfavorable initiatives that pass. The number of favorable and unfavorable transportation-related initiatives filed and number passed are noted on the first chart as an annual measure.

Also, each fall potential legislative proposals are submitted to the Missouri Highways and Transportation Commission for review and approval. The second chart tracks each approved legislative proposal through the legislative process.

Improvement Status:
MoDOT’s desired goal is to see all MHTC proposed legislation pass. For the 2009 legislative session, the MHTC proposed three separate legislative initiatives, “Primary Safety Belt,” “Incident Management,” and a “Missouri Waterways Resolution.” Two of the three MHTC proposals have been filed: “Incident Management” and “Missouri Waterways Resolution.”

MoDOT’s desired trend as an advocate for transportation is also to see a larger number of favorable transportation initiatives pass when compared to unfavorable initiatives that pass. During the 2008 session, of the total 2,032 bills filed, 11 percent were transportation-related which equates to 231 transportation bills. Of the 231 transportation bills, there were 44 significant transportation initiatives contained in those bills. Of the 44 significant initiatives, 21 were favorable and 23 were unfavorable. Of the 21 favorable initiatives, nine passed and 12 failed. Of the 23 unfavorable initiatives, six passed and 17 failed. All other initiatives filed in transportation bills were neutral with regard to their impacts on transportation.
Number of transportation-related legislation filed and passed by the General Assembly

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Favorable</th>
<th>Favorable-Passed</th>
<th>Total Unfavorable</th>
<th>Unfavorable-Passed</th>
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</thead>
<tbody>
<tr>
<td>2005</td>
<td>18</td>
<td>6</td>
<td>8</td>
<td>1</td>
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<tr>
<td>2006</td>
<td>18</td>
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<td>2007</td>
<td>23</td>
<td>4</td>
<td>17</td>
<td>3</td>
</tr>
<tr>
<td>2008</td>
<td>21</td>
<td>9</td>
<td>23</td>
<td>6</td>
</tr>
</tbody>
</table>

Desired Trend:

Progress on MoDOT Legislative Initiatives

- Primary Safety Belt (proposal)
- SB 88 Incident Management
- SCR 5 Waterways Resolution

Desired Trend:
Percent of federal earmarked highway projects on the state highway system identified as needs-17d

**Result Driver:** Pete Rahn, Director of MoDOT  
**Measurement Driver:** Jay Wunderlich, Governmental Relations Director

**Purpose of the Measure:**  
Missouri’s support for transportation on the national level is demonstrated by the impact of federal legislation on Missouri’s ability to address transportation needs. The percent of federal earmarks on the state highway system, that are also identified as Missouri needs, is representative of the department’s success as an advocate of the state’s transportation needs.

**Measurement and Data Collection:**  
This is an annual measure. The data represents the percent of federal earmarked highway projects on the state highway system that are identified as needs. The percent of federal earmarked individual projects on the state highway system represents the department’s success in working with Missouri’s Congressional delegation and have been identified as needs, demonstrates MoDOT has provided adequate information to the Missouri Congressional members that these needs are the same needs recognized by their constituents. The identified needs for this measure are projects on the state highway system that are included in the STIP or projects ready to be added to the STIP as soon as funding becomes available.

**Improvement Status:**  
The chart shows Missouri was very successful in fiscal year 2004, FY2005 and in SAFETEA-LU. In FY 2006, Congress chose to not designate any transportation earmarks in the FY 2007 Transportation Appropriations Act.

MoDOT staff continued to support transportation needs by providing information to all of Missouri’s Congressional offices in anticipation of future opportunities. The FY 2008 appropriations process was, once again, successful for Missouri, as 93.75 percent of the earmarked projects were identified needs.

Missouri continues to be successful in receiving transportation earmarks that are identified needs and funds MoDOT can put to work immediately to improve Missouri’s transportation system. As recently as March of this year, an Omaha newspaper recognized MoDOT as one of the state agencies that is able to move forward with projects that received Congressional earmarks.

Interaction with Congress is very important in receiving earmarks for projects that are identified needs. Therefore, MoDOT continues to meet with the staff of each member of Missouri’s U. S. Congressional delegation on a regular basis and continues to provide information on transportation issues, urging them to support programs, and projects that address Missouri’s transportation needs. In calendar year 2008, MoDOT staff has continued to meet with all of our Congressional offices and provide them with details on highway, transit and aviation projects for federal FY 2009 appropriations. MoDOT staff has also begun the process to keep the Missouri Congressional Delegation informed of issues related to the any economic stimulus package, the FY 2010 appropriations legislation and the department’s position on authorization issues.

MoDOT is striving for more than 85 percent of the state highway system earmarked projects to be identified needs. The department will continue to communicate directly with Congressional staff members to increase the number of earmarked projects that are identified needs on the state transportation system.
Percent of Federal Earmarked Highway Projects on the State Highway System Identified as Needs

<table>
<thead>
<tr>
<th>Year</th>
<th>Percent</th>
</tr>
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<tr>
<td>2004</td>
<td>100</td>
</tr>
<tr>
<td>2005</td>
<td>100</td>
</tr>
<tr>
<td>SAFETEA-LU</td>
<td>89</td>
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<td>2006</td>
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<td>2007</td>
<td>0</td>
</tr>
<tr>
<td>2008</td>
<td>93.5</td>
</tr>
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</table>

Desired Trend:

Federal Fiscal Year
Percent of customers who view MoDOT as Missouri's transportation expert-17e

**Result Driver:** Pete Rahn, Director of MoDOT  
**Measurement Driver:** Jay Wunderlich, Governmental Relations Director

**Purpose of the Measure:**  
This measure tracks whether our customers feel the department is a leader and expert in transportation issues. The measure shows the department how effectively MoDOT conveys its expertise to the traveling public.

**Measurement and Data Collection:**  
This is an annual measure updated each July. Data is collected from interviews with over 3,500 randomly selected adult Missourians each May. Each year, MoDOT surveys public opinion to collect information that will tell the department whether or not the public views MoDOT as the primary transportation expert in Missouri.

**Improvement Status:**  
The current information shows that 85 percent of respondents indicate MoDOT is the transportation expert they rely upon. This represents a slight decrease of 1.7 percent since last surveyed in 2007. Through a questioning approach identical to the 2007 survey, the 2008 numbers remained basically flat in the strongly agree responses thus reflecting a higher percent of individuals that disagreed with this statement than previously (15 percent in 2008 vs. 13.3 percent in the last year). MoDOT must continue to work on improving partnerships with citizens, legislators and special interest groups promoting MoDOT as a transportation expert. Ways to accomplish this include increasing awareness of MoDOT's responsibilities to and services for the traveling public.
Accurate, Timely, Understandable and Proactive Transportation Information (Outbound)

*Tangible Result Driver – Shane Peck, Community Relations Director*

Accurate, consistent and timely information is critical to accomplishing MoDOT’s mission. By providing this information to its customers, MoDOT becomes the first and best source for transportation information in Missouri. Openness and honesty build trust with our customers.
Number of public appearances-18a

Result Driver: Shane Peck, Community Relations Director
Measurement Driver: Sally Oxenhandler, Community Relations Coordinator

Purpose of the Measure:
This measure tracks and encourages regular, personal contact with MoDOT customers. A public appearance is defined as any single, public event attended by one or more MoDOT representatives to provide transportation related information. Examples include speeches, presentations, conferences, exhibits, fairs and ribbon cuttings.

Measurement and Data Collection:
This is a quarterly measure. District Community Relations managers collect appearance information from their administrators on a quarterly basis and send it to Central Office Community Relations where it is combined with data from divisions and business offices to create a statewide report. The numbers change from quarter to quarter because certain events and other public appearance opportunities are seasonal, such as school visits and fairs.

Improvement Status:
The number of public appearances for the fourth quarter of 2008 continued to be very high. Initiatives such as the Safe & Sound Bridge Program, A Conversation for Moving Missouri Forward and the I-64 project, along with safety-related presentations, contributed to the overall results. MoDOT staff reached more than 65,000 Missourians through public appearances this quarter.
Percent of customers who feel MoDOT provides timely, accurate and understandable information-18b

Result Driver: Shane Peck, Community Relations Director
Measurement Driver: Sally Oxenhandler, Community Relations Coordinator

Purpose of the Measure:
This measure tracks whether customers feel MoDOT provides timely, accurate and understandable information they need and use.

Measurement and Data Collection:
This is an annual measure. Data is collected from telephone interviews with more than 3,500 randomly selected adult Missourians each May. As a comparison, the Tennessee Department of Transportation reported in September 2006 that 49 percent of residents surveyed said they were satisfied or very satisfied with the agency’s efforts to keep them informed about transportation-related issues.

Improvement Status:
The number of customers who agree or strongly agree that MoDOT provides timely, accurate and understandable information remains strong and continues to grow. There were increases in the strongly agree section in all three areas, with the percentage of those who strongly agree MoDOT provides timely information rising 11 percent. Efforts to focus on transparency and outreach activities have contributed to the increase, as have communications tools such as the Traveler Information Map, the electronic message boards, MoDOT’s blog and YouTube presence and the MoDOT Minute. Providing information on major projects including the Better Roads, Brighter Future program, the Safe & Sound Bridge Improvement Plan, the New I-64 and kcICON, in addition to achieving fewer highway fatalities and receiving the Missouri Quality Award, contributed to the positive responses.

![Percent of Customers Who Feel MoDOT Provides Timely Information](chart.png)
Accurate, timely, Understandable and Proactive transportation Information (Outbound)

Percent of Customers Who Feel MoDOT Provides Accurate Information

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Tennessee DOT</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>21</td>
<td>54</td>
<td>49</td>
</tr>
<tr>
<td>2006</td>
<td>24</td>
<td>53</td>
<td>49</td>
</tr>
<tr>
<td>2007</td>
<td>34</td>
<td>50</td>
<td>44</td>
</tr>
<tr>
<td>2008</td>
<td>41</td>
<td>44</td>
<td>41</td>
</tr>
</tbody>
</table>

Desired Trend:

Percent of Customers Who Feel MoDOT Provides Understandable Information

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Tennessee DOT</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>21</td>
<td>52</td>
<td>49</td>
</tr>
<tr>
<td>2006</td>
<td>24</td>
<td>52</td>
<td>49</td>
</tr>
<tr>
<td>2007</td>
<td>34</td>
<td>51</td>
<td>45</td>
</tr>
<tr>
<td>2008</td>
<td>41</td>
<td>45</td>
<td>41</td>
</tr>
</tbody>
</table>

Desired Trend:
**Number of contacts initiated by MoDOT to media-18c**

**Result Driver:** Shane Peck, Community Relations Director  
**Measurement Driver:** Kristi Jamison, Community Relations Coordinator

**Purpose of the Measure:**  
This measure tracks how well MoDOT staff is “reaching out” to reporters to tell them about the good work MoDOT does.

**Measurement and Data Collection:**  
All contacts (news releases, e-mail, phone and correspondence) initiated by MoDOT staff are included. Central Office Community Relations collects quarterly results, including submissions from districts.

**Improvement Status:**  
Media contacts leveled off slightly between the third and fourth quarters of 2008. According to the trend established in collecting this data over time, a decrease in the fourth quarter is normal, most likely due to the holidays. Nevertheless, media contacts were up 47 percent in comparison to contacts made in the fourth quarter of 2007. Subjects most commonly being provided to the media include every-day roadwork updates, Safe & Sound program information and weather-related road conditions.

<table>
<thead>
<tr>
<th>Calendar Quarter</th>
<th>Number of Contacts Initiated by MoDOT to Media</th>
</tr>
</thead>
<tbody>
<tr>
<td>4th Qtr. 2007</td>
<td>64,602</td>
</tr>
<tr>
<td>1st Qtr. 2008</td>
<td>77,931</td>
</tr>
<tr>
<td>2nd Qtr. 2008</td>
<td>90,317</td>
</tr>
<tr>
<td>3rd Qtr. 2008</td>
<td>100,800</td>
</tr>
<tr>
<td>4th Qtr. 2008</td>
<td>95,149</td>
</tr>
</tbody>
</table>
Accurate, Timely, Understandable and Proactive transportation Information (Outbound)

Percent of MoDOT information that meets the media’s expectations-18d

Result Driver: Shane Peck, Community Relations Director
Measurement Driver: Kristi Jamison, Community Relations Coordinator

Purpose of the Measure:
This measure tracks how MoDOT is meeting the media’s needs by providing appropriate information.

Measurement and Data Collection:
MoDOT sends out an annual survey asking statewide media if MoDOT’s outreach efforts meet their expectations. They are asked to rate their level of satisfaction in the areas of press releases, public meetings and events. Each area is further rated in newsworthiness, timeliness, and how understandable it is.

Improvement Status:
The annual survey is conducted each July. Fifty-nine media participated in our 2008 survey, a 39 percent decline in response from a year ago. The respondents indicated our press releases, public meetings and events have generally declined in their newsworthiness, timeliness and in being understandable. The timely attribute tended to decline the most in each of the three categories, with several weekly newspapers commenting that they are not receiving information in time to print it prior to their publishing deadline.

Percent of MoDOT Information That Meets the Media's Expectations (Press Releases)

<table>
<thead>
<tr>
<th>Attributes</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newsworthy</td>
<td>77.9</td>
<td>73.1</td>
<td>69.5</td>
</tr>
<tr>
<td>Timely</td>
<td>85.4</td>
<td>89.1</td>
<td>91.3</td>
</tr>
<tr>
<td>Understandable</td>
<td>97.9</td>
<td>98.3</td>
<td></td>
</tr>
</tbody>
</table>

Desired Trend:
Accurate, Timely, Understandable and Proactive Transportation Information (Outbound)

Percent of MoDOT Information That Meets the Media’s Expectations
(Public Meetings)

<table>
<thead>
<tr>
<th>Attributes</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newsworthy</td>
<td>81.4</td>
<td>76.7</td>
<td>75.6</td>
</tr>
<tr>
<td>Timely</td>
<td>87.0</td>
<td>91.8</td>
<td>88.9</td>
</tr>
<tr>
<td>Understandable</td>
<td>87.0</td>
<td>98.6</td>
<td>91.1</td>
</tr>
</tbody>
</table>

Desired Trend:

Percent of MoDOT Information That Meets the Media’s Expectations
(Events)

<table>
<thead>
<tr>
<th>Attributes</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newsworthy</td>
<td>83.8</td>
<td>82.0</td>
<td>76.7</td>
</tr>
<tr>
<td>Timely</td>
<td>86.5</td>
<td>92.1</td>
<td>84.1</td>
</tr>
<tr>
<td>Understandable</td>
<td>89.4</td>
<td>95.2</td>
<td>88.1</td>
</tr>
</tbody>
</table>

Desired Trend:
Percent of positive newspaper editorials-18e

**Result Driver:** Shane Peck, Community Relations Director  
**Measurement Driver:** Kristi Jamison, Community Relations Coordinator

**Purpose of the Measure:**  
This measure tracks how MoDOT is perceived by the media, and by extension the public.

**Measurement and Data Collection:**  
Using a newspaper clips database, MoDOT staff reviews statewide newspaper editorials and determines whether they’re positive or negative toward MoDOT and/or the issues it advocates. Only editorials written by newspaper staff are included; guest editorials and letters to the editor are not. Results are charted quarterly.

**Improvement Status:**  
There were 20 editorials regarding MoDOT or state transportation in the fourth quarter. Eighteen, or 90 percent, were positive. The strongest editorial support, for the fourth straight quarter, was for the need for increased transportation funding at the state level or through the proposed federal stimulus package – six editorials, all were positive. Four editorials focused on issues MoDOT also views as safety concerns: distracted driving and curbing drunk driving.

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**Percent of Positive Newspaper Editorials**

<table>
<thead>
<tr>
<th>Calendar Quarter</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>4th Qtr. 2007</td>
<td>73</td>
</tr>
<tr>
<td>1st Qtr. 2008</td>
<td>80</td>
</tr>
<tr>
<td>2nd Qtr. 2008</td>
<td>87</td>
</tr>
<tr>
<td>3rd Qtr. 2008</td>
<td>92</td>
</tr>
<tr>
<td>4th Qtr. 2008</td>
<td>90</td>
</tr>
</tbody>
</table>

**Desired Trend:**
Number of repeat visitors to MoDOT’s web site-18f

**Result Driver:** Shane Peck, Community Relations Director  
**Measurement Driver:** Matt Hiebert, Community Relations Coordinator

**Purpose of the Measure:**  
This measure tracks the number of customers who have used MoDOT’s Web site on a repeat basis. The data helps demonstrate whether the public views the site as a valuable information resource. If they are returning to the site for multiple visits, they probably view it as a worthwhile use of their time online.

**Measurement and Data Collection:**  
Data is gathered using Web Trends software. Web Trends measures site activity and produces reports in graphic and tabular formats.

**Improvement Status:**  
The MoDOT web site has again broken the fourth quarter record for repeat visitors. More visitors have discovered the Traveler Information Map and return to it regularly for road condition info, shooting numbers up during bad weather. The majority of these visitors go directly to the map, suggesting that they have the application bookmarked.

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**Number of Repeat Visitors to MoDOT’s Web Site by Month**

<table>
<thead>
<tr>
<th>Calendar Month</th>
<th>Number of Visitors</th>
</tr>
</thead>
<tbody>
<tr>
<td>October</td>
<td>51,996</td>
</tr>
<tr>
<td>November</td>
<td>53,045</td>
</tr>
<tr>
<td>December</td>
<td>149,488</td>
</tr>
</tbody>
</table>

**Number of Repeat Visitors to MoDOT’s Web Site by Quarter**

<table>
<thead>
<tr>
<th>Calendar Quarter</th>
<th>Number of Visitors</th>
</tr>
</thead>
<tbody>
<tr>
<td>4th Qtr. 2007</td>
<td>248,816</td>
</tr>
<tr>
<td>1st Qtr. 2008</td>
<td>449,542</td>
</tr>
<tr>
<td>2nd Qtr. 2008</td>
<td>261,416</td>
</tr>
<tr>
<td>3rd Qtr. 2008</td>
<td>183,409</td>
</tr>
<tr>
<td>4th Qtr. 2008</td>
<td>319,487</td>
</tr>
</tbody>
</table>