Making Highways Safer

Innovations and Solutions

MoDOT
8 Year Fatality Trend

- 2002 = 1,208
- 2003 = 1,232
- 2004 = 1,130
- 2005 = 1,257
- 2006 = 1,096
- 2007 = 992
- 2008 = 960
- 2009 = 880
Fatal Crash Locations are Random
Fatal Crash Types are Not

People continue to die on our roadways making the same mistakes year after year

<table>
<thead>
<tr>
<th>Year</th>
<th>No Seat Belt</th>
<th>Run Off Road</th>
<th>Aggressive</th>
<th>Curves</th>
<th>Impaired</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>No Seat Belt</td>
<td>Run Off Road</td>
<td>Aggressive</td>
<td>Curves</td>
<td>Impaired</td>
</tr>
<tr>
<td>2007</td>
<td>No Seat Belt</td>
<td>Run Off Road</td>
<td>Aggressive</td>
<td>Curves</td>
<td>Impaired</td>
</tr>
<tr>
<td>2008</td>
<td>No Seat Belt</td>
<td>Run Off Road</td>
<td>Aggressive</td>
<td>Curves</td>
<td>Impaired</td>
</tr>
<tr>
<td>2009</td>
<td>No Seat Belt</td>
<td>Run Off Road</td>
<td>Aggressive</td>
<td>Curves</td>
<td>Impaired</td>
</tr>
</tbody>
</table>
## Fatality Locations

<table>
<thead>
<tr>
<th></th>
<th>2005 Fatalities</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Rural</td>
<td>Urban</td>
</tr>
<tr>
<td><strong>State System</strong></td>
<td>967</td>
<td>686</td>
<td>281</td>
</tr>
<tr>
<td></td>
<td>77%</td>
<td>71%</td>
<td>29%</td>
</tr>
<tr>
<td><strong>Non-State</strong></td>
<td>290</td>
<td>110</td>
<td>180</td>
</tr>
<tr>
<td></td>
<td>23%</td>
<td>38%</td>
<td>62%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,257</td>
<td>796</td>
<td>461</td>
</tr>
<tr>
<td></td>
<td>79%</td>
<td>63%</td>
<td>37%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>2009 Fatalities</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Rural</td>
<td>Urban</td>
</tr>
<tr>
<td><strong>State System</strong></td>
<td>654</td>
<td>473</td>
<td>181</td>
</tr>
<tr>
<td></td>
<td>74%</td>
<td>72%</td>
<td>28%</td>
</tr>
<tr>
<td><strong>Non-State</strong></td>
<td>226</td>
<td>87</td>
<td>139</td>
</tr>
<tr>
<td></td>
<td>26%</td>
<td>38%</td>
<td>62%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>880</td>
<td>560</td>
<td>320</td>
</tr>
<tr>
<td></td>
<td>100%</td>
<td>64%</td>
<td>36%</td>
</tr>
</tbody>
</table>
Rural Solutions

- System-wide Applications
- Roadway Design
- Intelligent Transportation System
- Rural Emergency Response
Install Median Guard Cable
Interstate Cross-Median Fatalities and Median Guard Cable Installation

Cross-Median Fatalities

Miles of Median Guard Cable

1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009
Implement System-wide Safety

- Improved Driving Surface
- 6-inch Stripes for Major Roads
- Improved Paved Shoulder
Implement System-wide Safety

- Install Rumblestripes
  - Edgeline & Centerline
Implement System-wide Safety

- Curve Speed Plaques
  - Every Curve/Turn sign

- Improved Signs
  - Larger & more visible
Implement System-wide Safety

- Better Delineation
- Emergency Reference Markers
Implement System-wide Safety

- Install More Chevrons
- Paint More Edgelines
Implement System-wide Safety

- Remove Objects
Results of Safety Solutions

- Reduced lane departure fatalities by 41% on state system major routes.
- Reduced nighttime fatal and disabling injury crashes on rural roads 25% to 77%.
- Received an estimated $9.70 in benefits for every dollar spent.
- 79 percent of Missouri motorists surveyed believe the improvements have been a good investment.
Roadway Design

Shared Four-Lane Roadway
Benefits

Shared Four-Lane

Faster
Less time spent behind slow-moving vehicles.

Safer
Reduces crashes & their severity, as much as 55% compared to 2-lane roads.

• Cheaper
Up to 75% less right-of-way, construction.

• Flexible
Design can fit location.
Rural ITS

- 66 Electronic Message Boards
- 69 Closed Circuit TV Cameras
- 14 Road Weather Information Sensors
Rural Emergency Response

Primary Responsibility: Get the road open and traffic flowing again as soon as possible

• Designated staff and equipment for traffic control on rural corridors
  – 24/7 Response Trucks equipped with traffic control and other basics
  – Trailers positioned at key locations along rural corridors
Traveler Information Map

MoDOT Traveler Information Map - Microsoft Internet Explorer provided by MoDOT

Address: https://maps.dot.missouri.gov/travel/information/TravelerInformation.aspx

Legend:
- Road Closures
- Workzone
- Incident
- Flood
- Winter Weather
- Planned

- Workzones
- Expect Delays
- Possible Delays

- Incidents
- Expect Delays
- Possible Delays

- Winter Road Conditions
- Covered
- Partly Covered
- Clear

Refresh Map
Zoom to Full State
Text Report (All)
Text Report (Road Closures)

Road Closed
US 61
Clark County
Road closed due to flooding since 12 Jun 2008.

Des Moines And Mississippi River At Alexandria
GOAL

850 or Fewer Fatalities

By

2012