Making Rural Highways Safer

Innovations and Solutions

MoDOT

7 Year Fatality Trend

2002 = 1,208

2003 = 1,232

2004 = 1,130

2005 = 1,257

2006 = 1,096

2007 = 992

2008 = 960

Fatal Crash Locations are Random
Fatal Crash Types are Not

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

2005	2006	2007	2008
No Seat Belt	No Seat Belt	No Seat Belt	No Seat Belt
Run Off Road	Run Off Road	Run Off Road	Run Off Road
Aggressive	Aggressive	Aggressive	Aggressive
Curves	Curves	Curves	Curves
Impaired	Impaired	Impaired	Impaired

Fatality Locations

	2005 Fatalities					
	Total		Rural		Urban	
State System	967	77%	686	71%	281	29%
Non-State	290	23%	110	38%	180	62%
Total	1,257		796	63%	461	37%

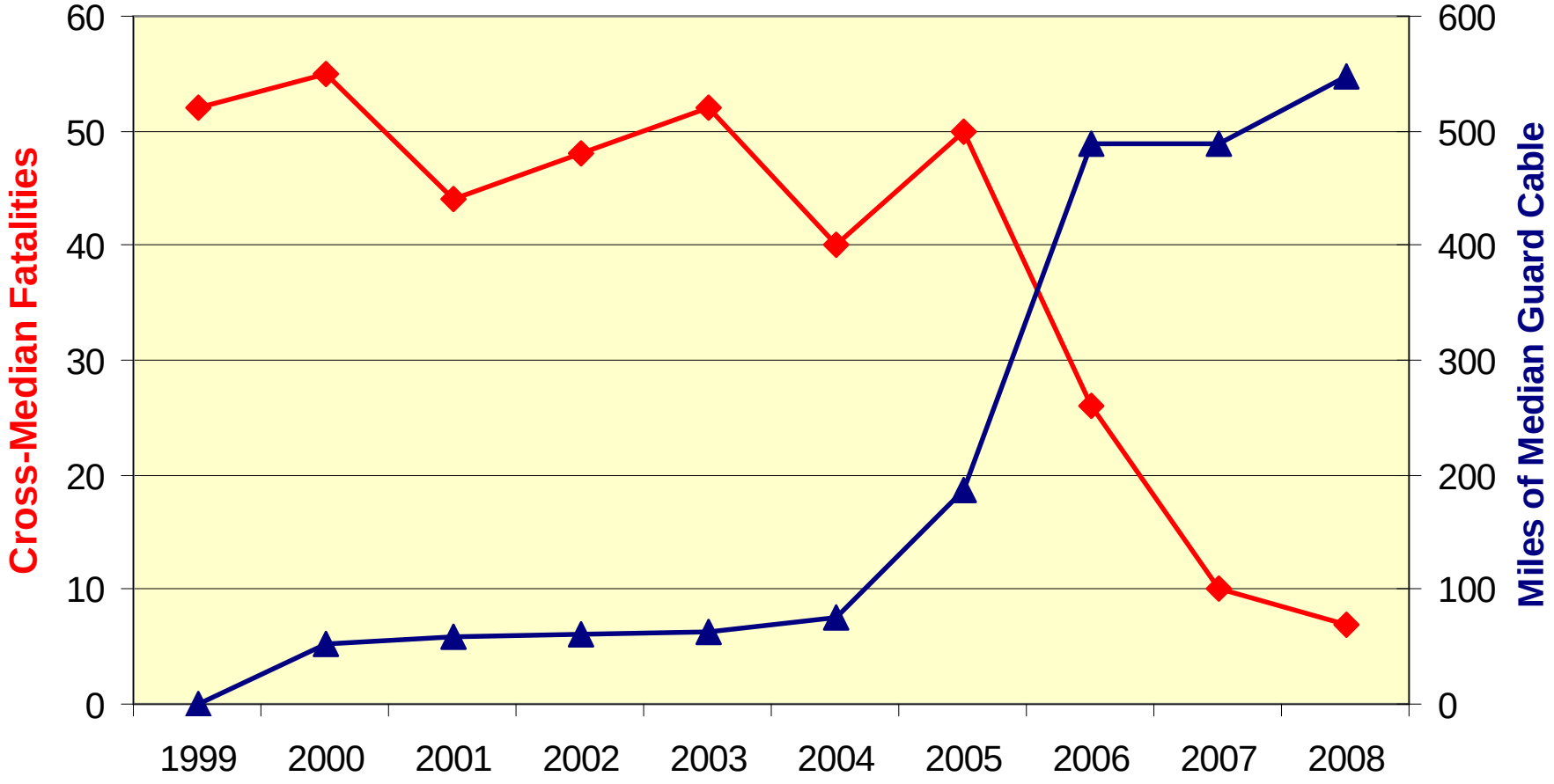
	2008 Fatalities					
	Total		Rural		Urban	
State System	704	73%	509	72%	195	28%
Non-State	256	27%	90	35%	166	65%
Total	960		599	62%	361	38%

Rural Solutions

- System-wide Applications
- Roadway Design
- Intelligent Transportation System
- Rural Emergency Response

Install Median Guard Cable
MoDOT

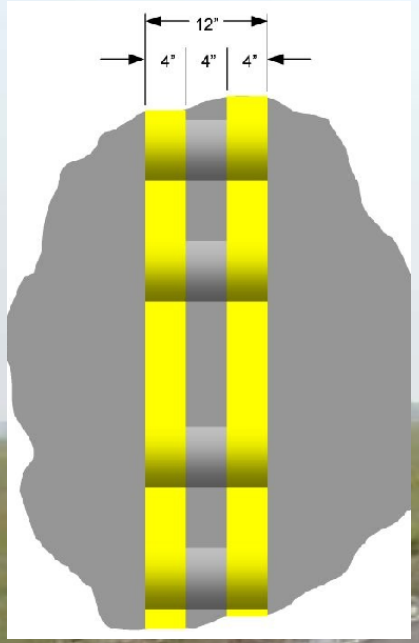
Interstate Cross-Median Fatalities and Median Guard Cable Installation



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

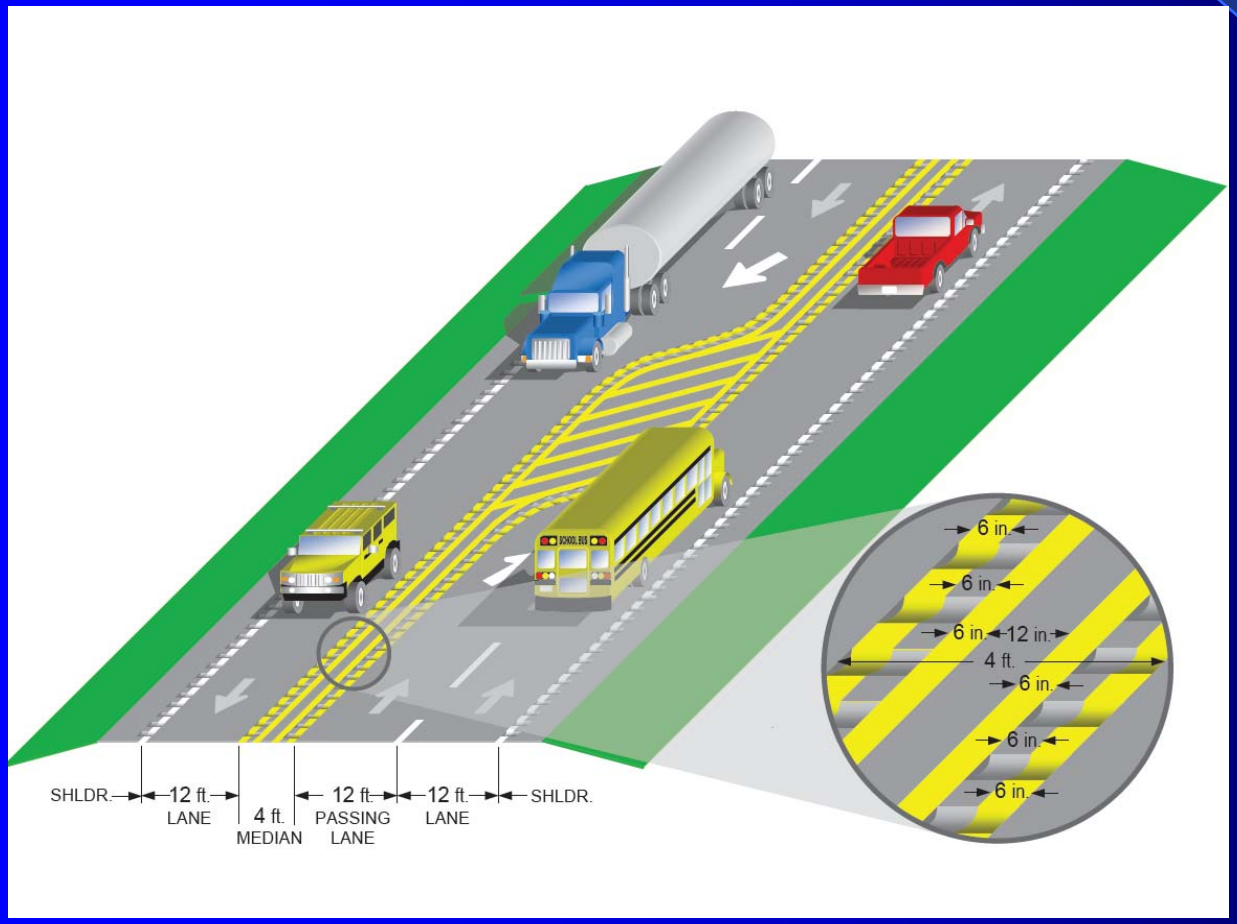
- Remove Objects

Results of Safety Solutions

- Reduced lane departure fatalities by 25%
- Significant reduction in nighttime fatal and disabling injury crashes on rural roads (25 to 77 percent)
- 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

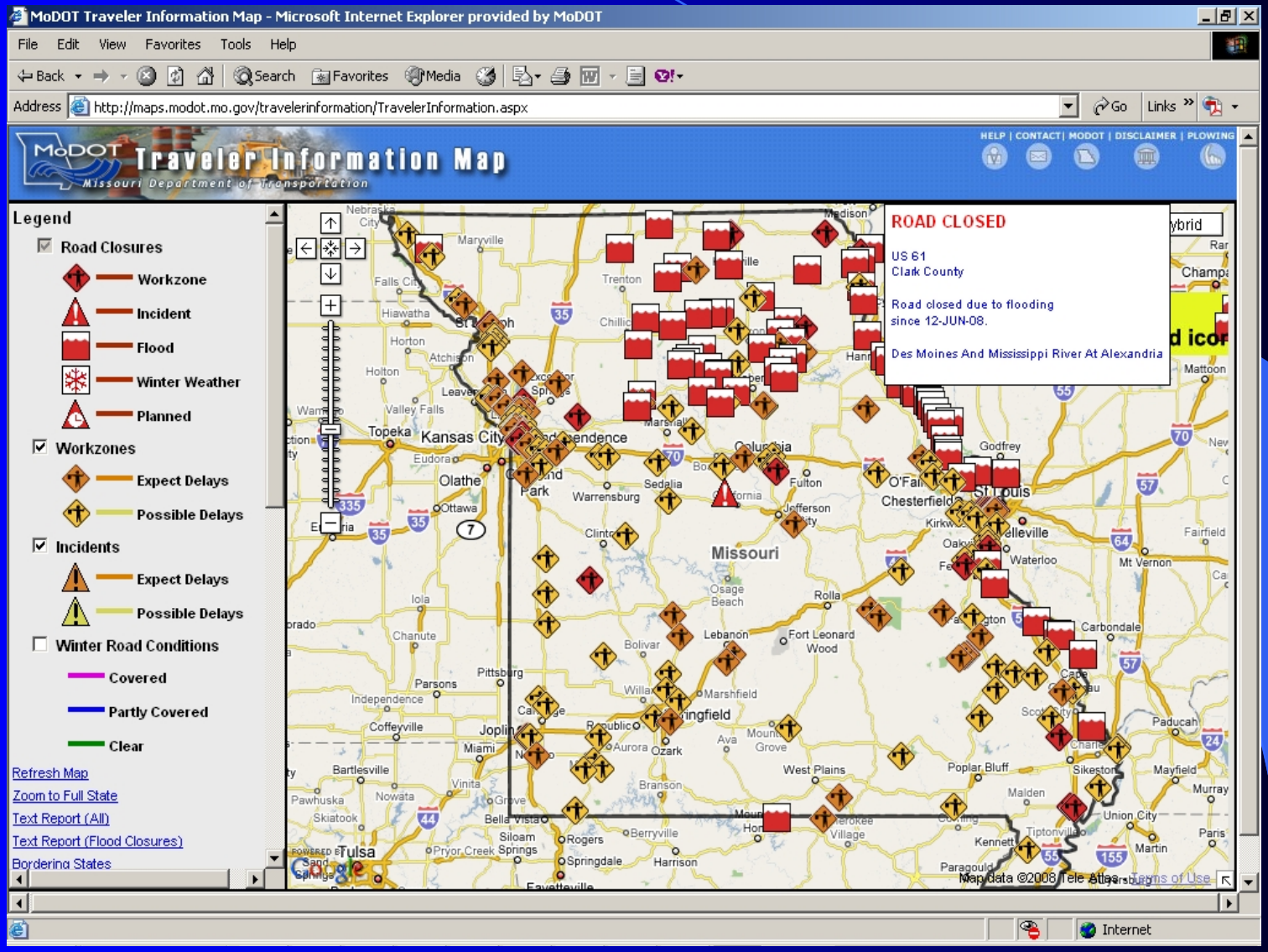
- 66 Electronic Message Boards
- 68 Closed Circuit TV Cameras
- 13 Road Weather Information Sensors

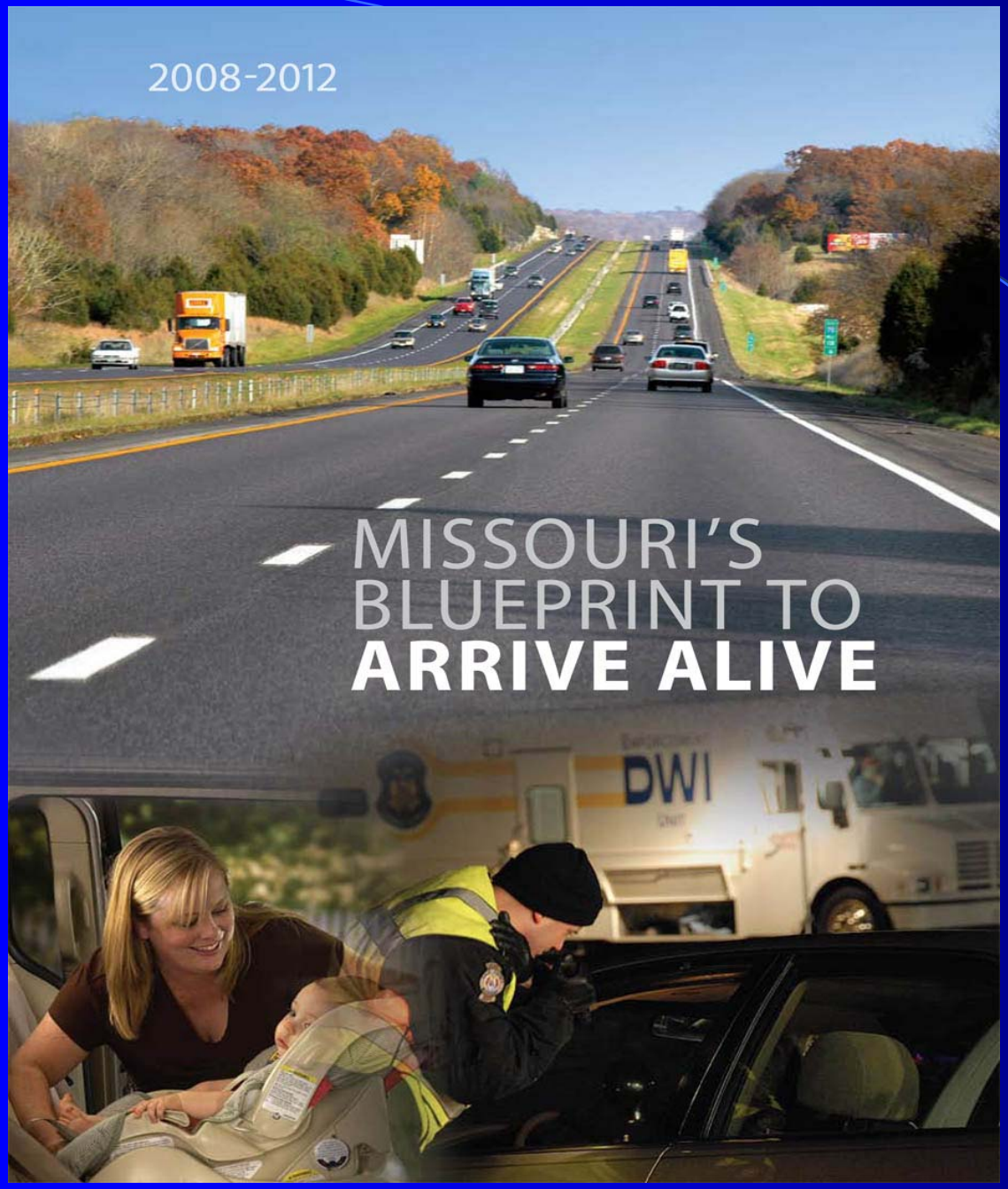
Rural Emergency Response

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





GOAL

850 or Fewer Fatalities By 2012