



## KEEP CUSTOMERS AND OURSELVES SAFE

*Eileen Rackers, State Traffic and Highway Safety Engineer*



# Tracker

MEASURES OF DEPARTMENTAL PERFORMANCE



Safety is a daily commitment for all MoDOT employees. From design and construction to operations and maintenance of the state transportation system, the safety of our customers, partners, and employees is our top priority. We work with our safety partners to promote safe behavior for all users and modes of transportation so everyone goes home safe every day.

**RESULT DRIVER:**  
Eileen Rackers,  
State Traffic and Highway  
Safety Engineer

**MEASUREMENT  
DRIVER:**  
Leanna Depue,  
Highway Safety Director

**PURPOSE OF  
THE MEASURE:**  
The fatal and serious injury  
number measures track  
quarterly, annual and five-  
year average trends result-  
ing from traffic crashes on all  
Missouri roadways. The rate  
of fatal and serious injury  
charts display annual and  
fiveyear average fatality  
and injury rates per 100  
million vehicle miles traveled  
for these same crashes.

**MEASUREMENT  
AND DATA  
COLLECTION:**  
Missouri law enforcement  
agencies submit a vehicle  
accident report form to the  
Missouri State Highway  
Patrol who enters these re-  
ports into a statewide traffic  
crash database. The data-  
base automatically updates  
MoDOT's crash database  
system which is called the  
Transportation Management  
System.

## KEEP CUSTOMERS AND OURSELVES SAFE

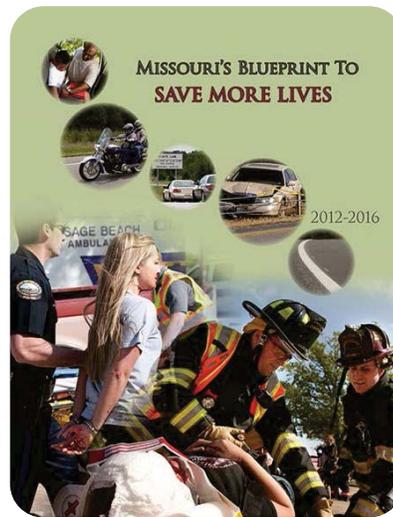
MAP-21

### *Number and rate of fatalities and serious injuries-1a*

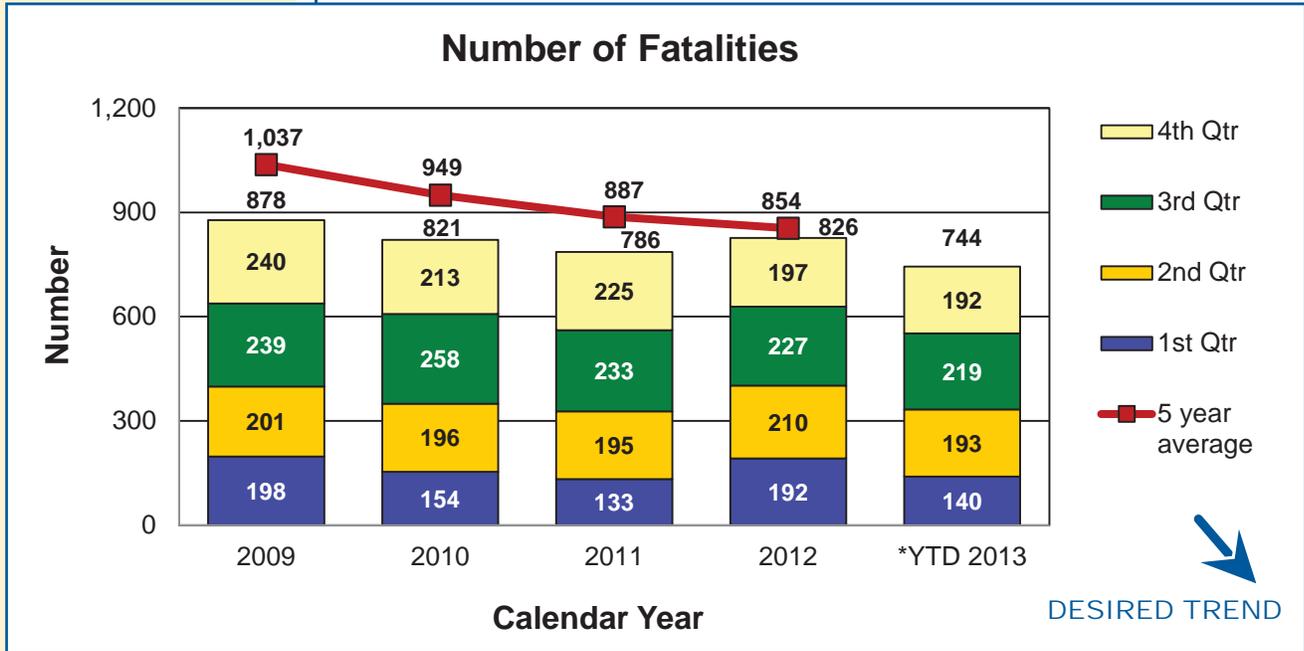
Keeping travelers safe is one of MoDOT's highest priorities. Over the last few years, fatalities and serious injuries have experienced a significant decline, largely due to safety improvements on Missouri roadways, focused enforcement efforts and educational campaigns that have kept these issues in front of motorists. When compared to the previous year, the 2012 traffic fatality count rose by 5 percent to a total of 826. However, the fiveyear average continued on a downward trend.

Both the number and fiveyear average of serious injuries decreased for the seventh straight year. The fatality rate increased slightly but the serious injury rate decreased in 2012. Preliminary fourth quarter 2013 data show a 10 percent decrease in fatalities when compared to 2012.

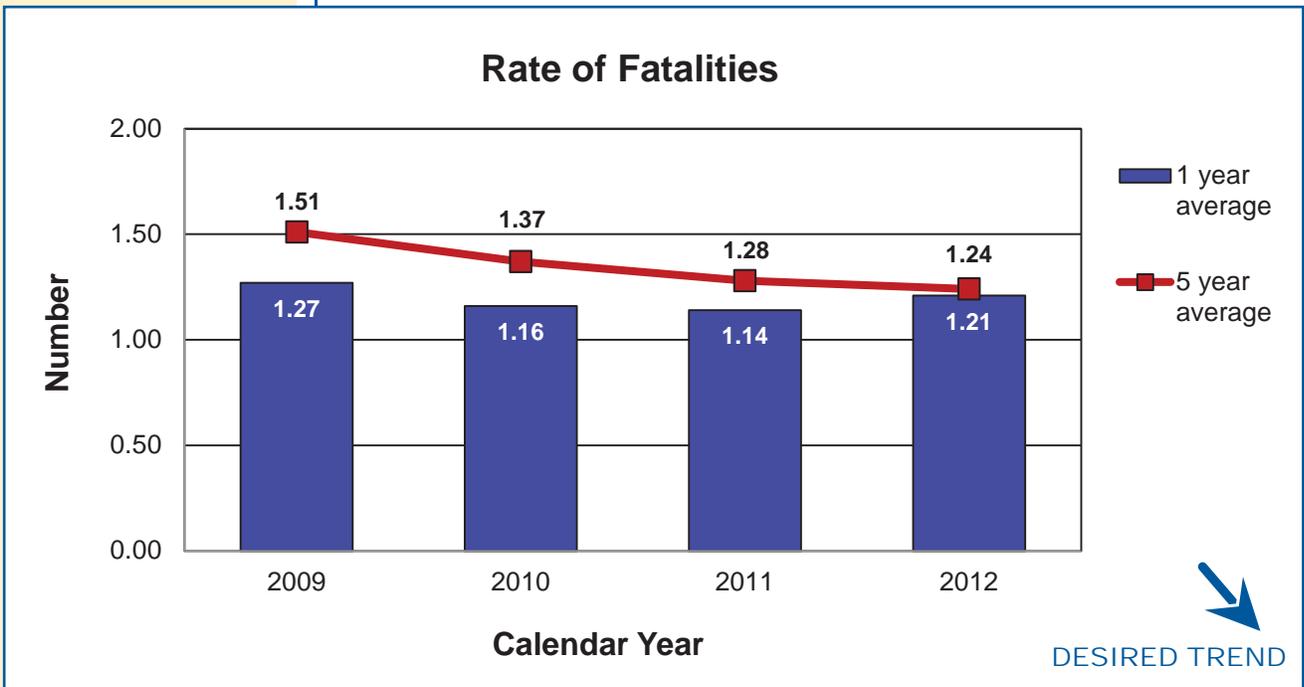
As funding levels decline, additional fatality reductions may be hampered as these funding restrictions delay or deter safety countermeasure implementation.



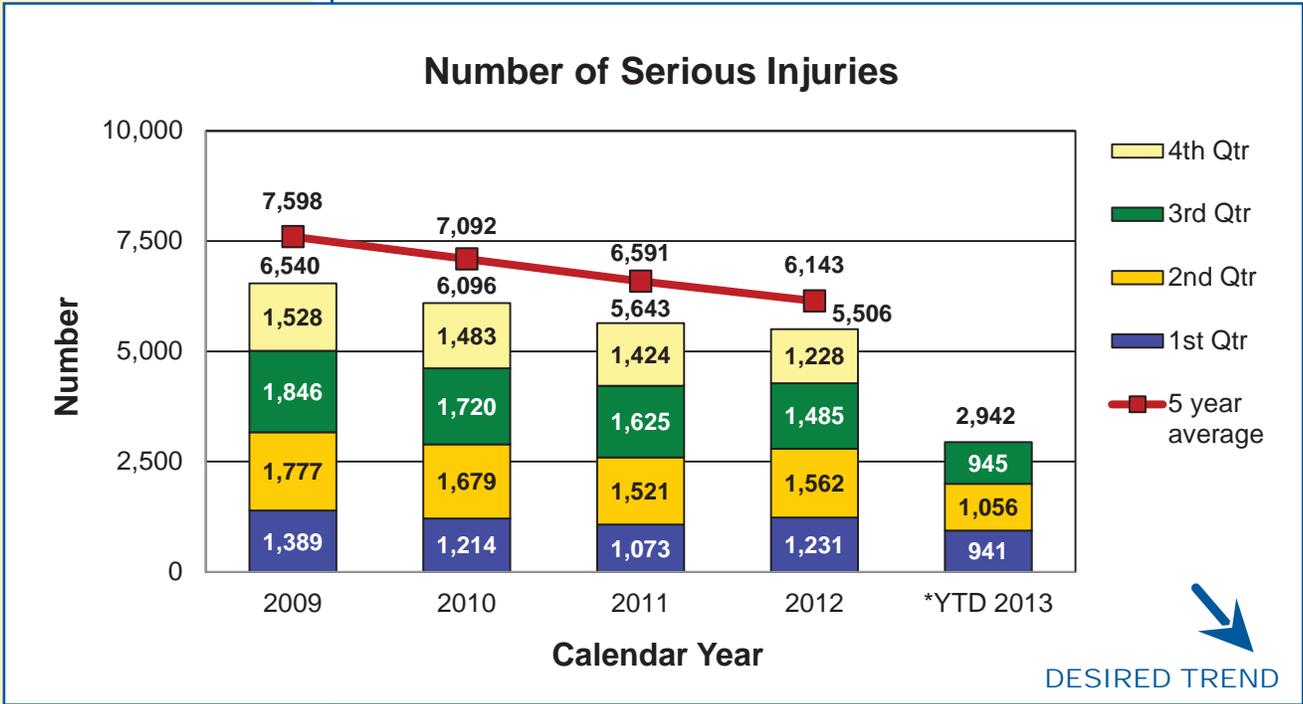
# KEEP CUSTOMERS AND OURSELVES SAFE



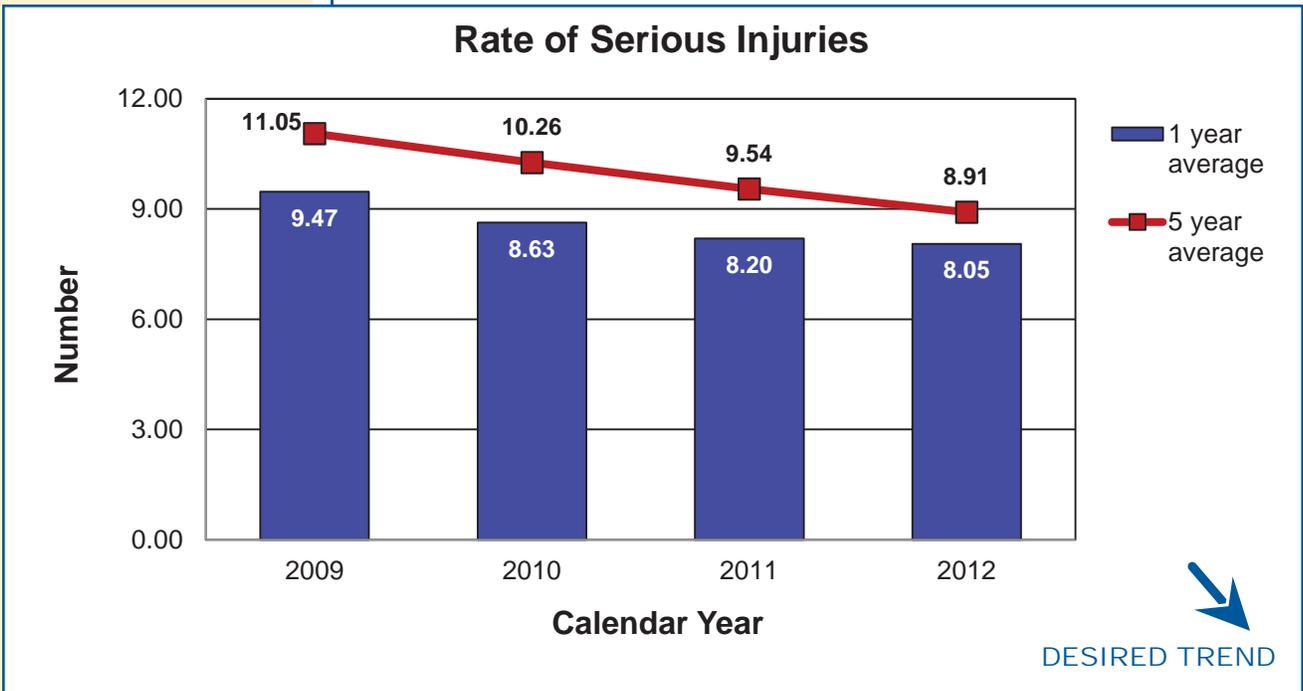
\*YTD 2013 – First, second and third quarter fatalities were derived from TMS with fourth quarter fatalities gathered using MSHP radio reports.



# KEEP CUSTOMERS AND OURSELVES SAFE



\*2013 - Due to a backlog of crash reports into STARS, the serious injury measure will only illustrate data derived from TMS. Fourth quarter 2013 data is unavailable through the MSHP radio reports.



**RESULT DRIVER:**  
Eileen Rackers,  
State Traffic and Highway  
Safety Engineer

## KEEP CUSTOMERS AND OURSELVES SAFE

**MEASUREMENT  
DRIVER:**  
Leanna Depue,  
Highway Safety Director

**PURPOSE OF  
THE MEASURE:**  
The vulnerable roadway  
user measures tracks an-  
nual trends in fatalities and  
serious injuries of motor-  
cyclist, pedestrians and  
bicyclists. These roadway  
users are most at risk for  
death or serious injury when  
involved in a motor-vehicle-  
related crash.

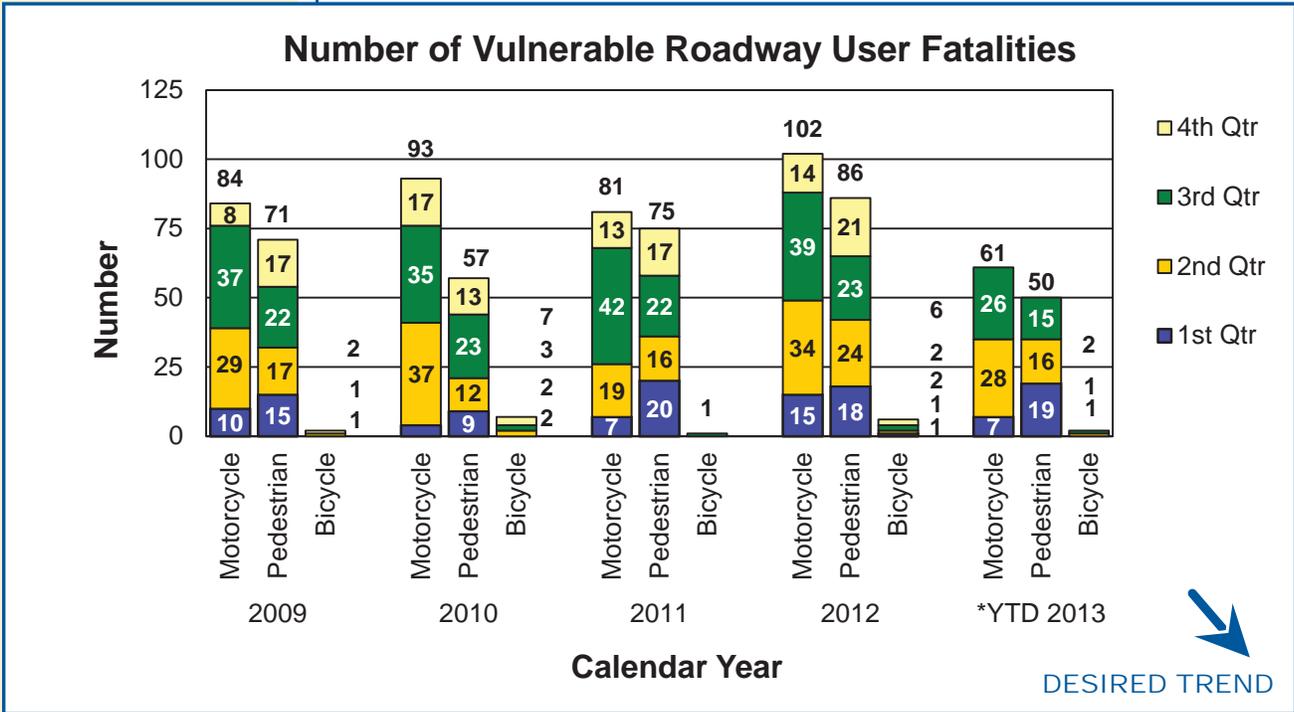
**MEASUREMENT  
AND DATA  
COLLECTION:**  
Data is collected by law  
enforcement and entered  
into the State Traffic Ac-  
cident Record System  
managed by the Missouri  
State Highway Patrol. The  
record system automatically  
updates MoDOT's Traffic  
Management System.

### *Number of vulnerable roadway user fatalities and serious injuries-1b*

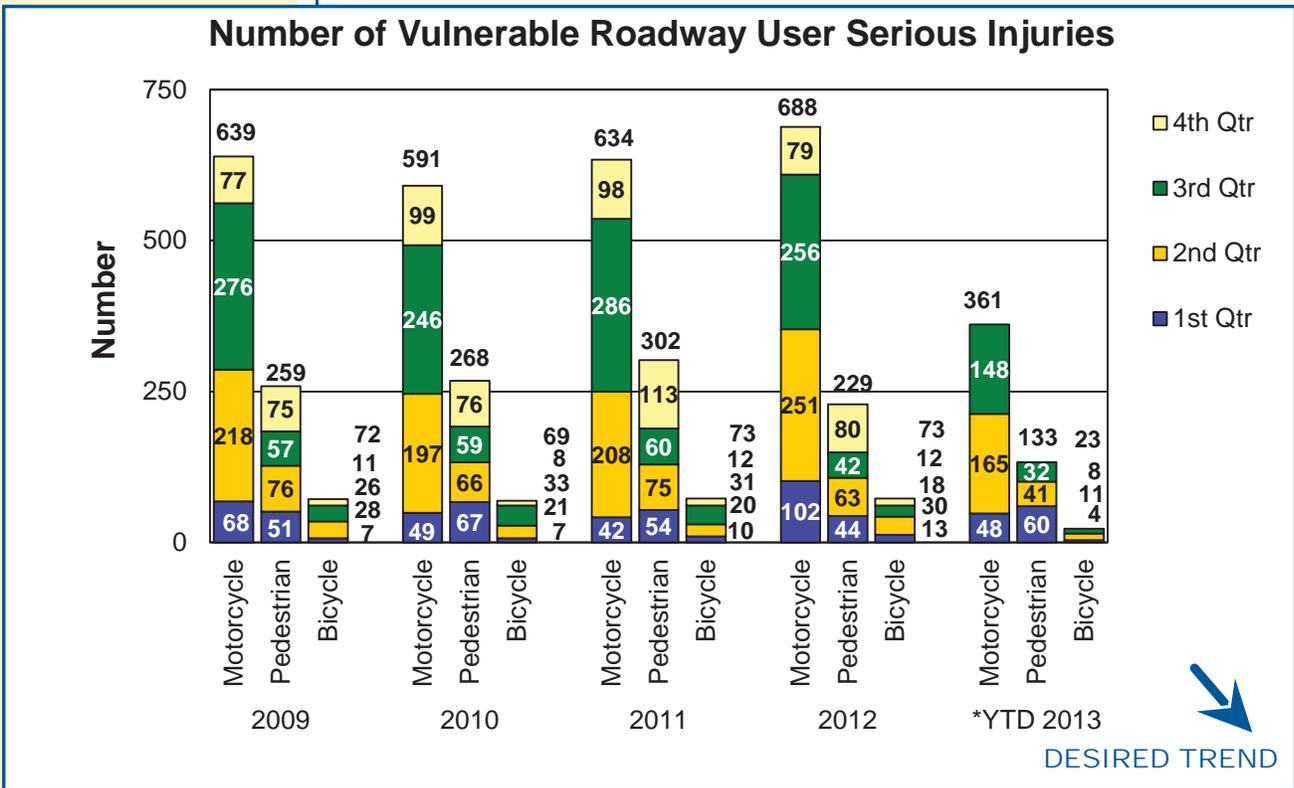
In 2012, vulnerable roadway users were 23 percent of the total number of fatalities. Pedestrian fatalities increased steadily since 2010 resulting in a 34 percent increase. Motorcycle fatalities represent 12 percent of the overall number, and the 102 fatalities in 2012 was the largest number of deaths since 2008 when 107 were recorded. Preliminary 2013 data for the first three quarters show a more positive trend with a 31 percent decrease in motorcycle and 23 percent decrease in pedestrian fatalities when compared to the same time period in 2012. Early indications also reflect a decline in serious injuries for both motorcyclists and pedestrians. However, as future funding levels diminish, significant improvements to increase safety will not be possible.



# KEEP CUSTOMERS AND OURSELVES SAFE



\*YTD 2013 – Due to a backlog of crash reports into STARS, the fatality measures will only illustrate the first, second and third quarter data derived from TMS.



\*YTD 2013 – Due to a backlog of crash reports into STARS, the serious injury measures will only illustrate the first, second and third quarter data derived from TMS.

**RESULT DRIVER:**  
Eileen Rackers,  
State Traffic and Highway  
Safety Engineer

**MEASUREMENT  
DRIVER:**  
Mike Curtit,  
Traffic Liaison Engineer

**PURPOSE OF  
THE MEASURE:**  
This measure tracks annual trends in motor vehicle related fatal and serious injuries resulting from some of the most common contributing factors or highway features. This data represents six of the top focus areas presented in Missouri's Blueprint to Save More Lives.

**MEASUREMENT  
AND DATA  
COLLECTION:**  
Missouri law enforcement agencies submit a vehicle crash report form to the Missouri State Highway Patrol and enter these reports into a statewide traffic crash database. MoDOT staff query and analyze this data to determine the number of unrestrained occupants in crashes, how often aggressive driving, alcohol and other drugs contribute to crashes, and whether or not the vehicles ran off the road, or the crash occurred at an intersection or within a curve.

## KEEP CUSTOMERS AND OURSELVES SAFE

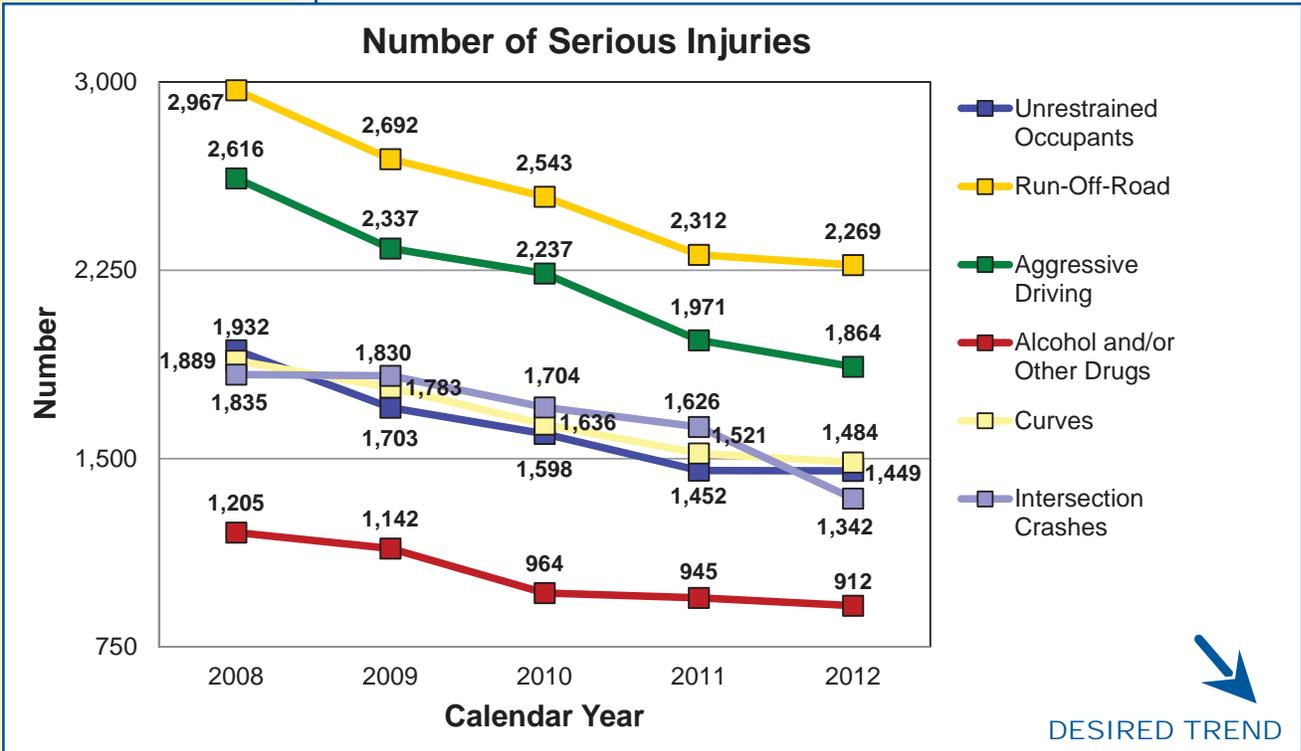
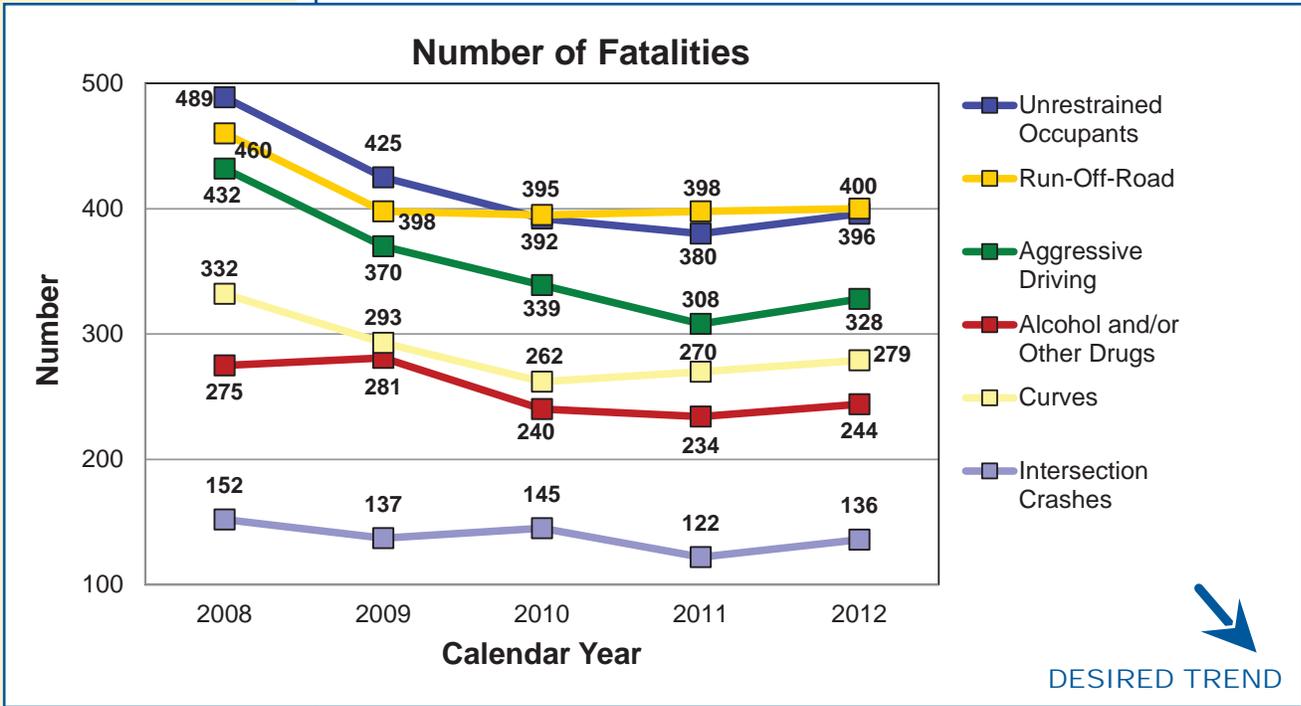
### *Number of fatalities and serious injuries resulting from the most frequent crash causes-1c*

Recording and monitoring crash data is an important part of improving safety for Missouri drivers. But without looking at the causes of these incidents, the data is nothing but numbers. Looking for the reasons why an incident occurs is MoDOT's best approach to address the problem. With that approach, the department finds the most frequent causes continue to be a mix of engineering and behavioral issues.

The general trend for both fatalities and serious injuries has declined for the last five years. Since 2010, the fatalities trend has been virtually flat for all measures. The safety improvements that were included in the Smooth Roads Initiative and Better Roads, Brighter Future programs began the downward trends in fatalities and serious injuries. With both of these programs complete and without additional resources to invest in additional system-wide safety measures, the downward trends for each of these causes will be difficult to maintain. Significant improvements to increase safety will not be possible with diminishing funding levels predicted in the next few years. The primary current initiatives include adding shoulders and rumble strips to minor roads and striping all major roads prior to Memorial Day. While driver behavior is difficult to correct, MoDOT continues to focus on using funds to target locations and behaviors based on crash data analysis.



# KEEP CUSTOMERS AND OURSELVES SAFE



**RESULT DRIVER:**  
Eileen Rackers,  
State Traffic and Highway  
Safety Engineer

## KEEP CUSTOMERS AND OURSELVES SAFE

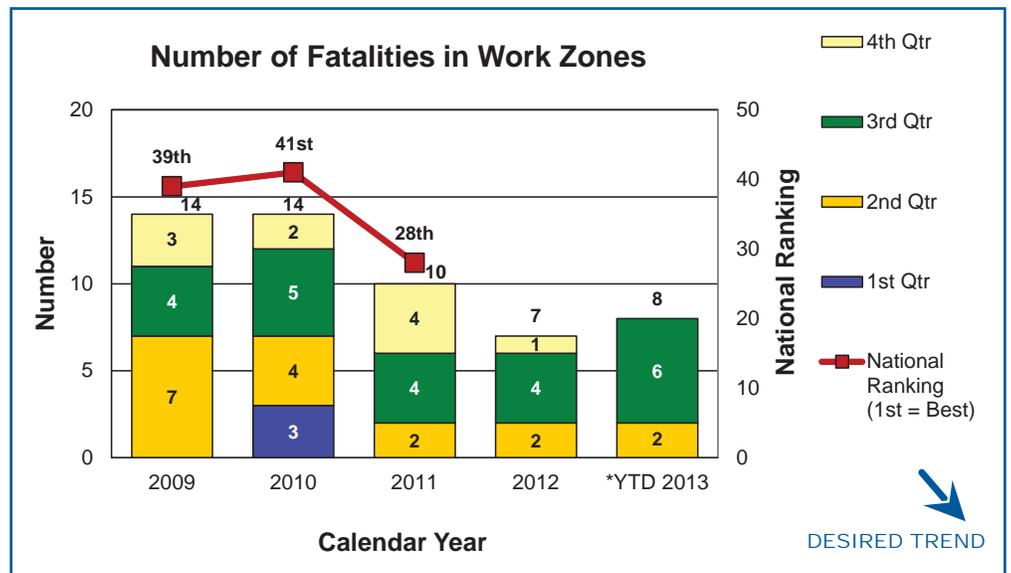
**MEASUREMENT  
DRIVER:**  
Julie Stotlemeyer,  
Traffic Liaison Engineer

**PURPOSE OF  
THE MEASURE:**  
An important factor in  
evaluating the safety of  
Missouri's transportation  
system includes the safety  
of work zones on the state's  
roadway system. This  
measure tracks the num-  
ber of traffic-related and  
non-traffic related fatalities,  
injuries and overall crashes  
occurring in work zones on  
state-owned roadways.

**MEASUREMENT  
AND DATA  
COLLECTION:**  
Missouri law enforcement  
agencies submit a vehicle  
accident report form to the  
Missouri State Highway Pa-  
trol and enter these reports  
into a statewide traffic crash  
database. MoDOT staff  
query and analyze this data  
to identify work zone related  
crash statistics.

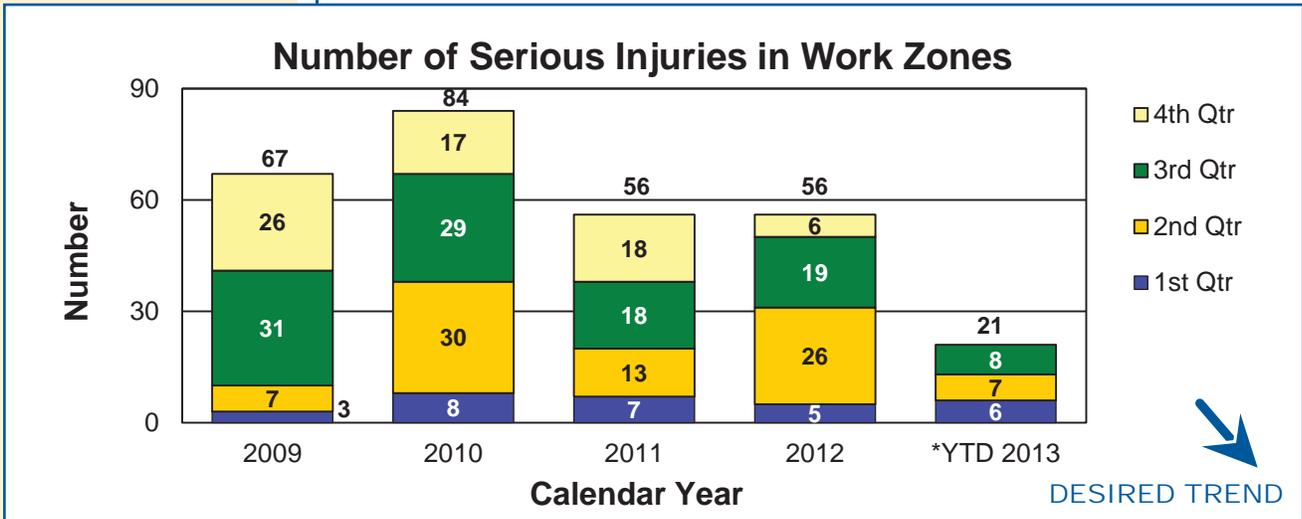
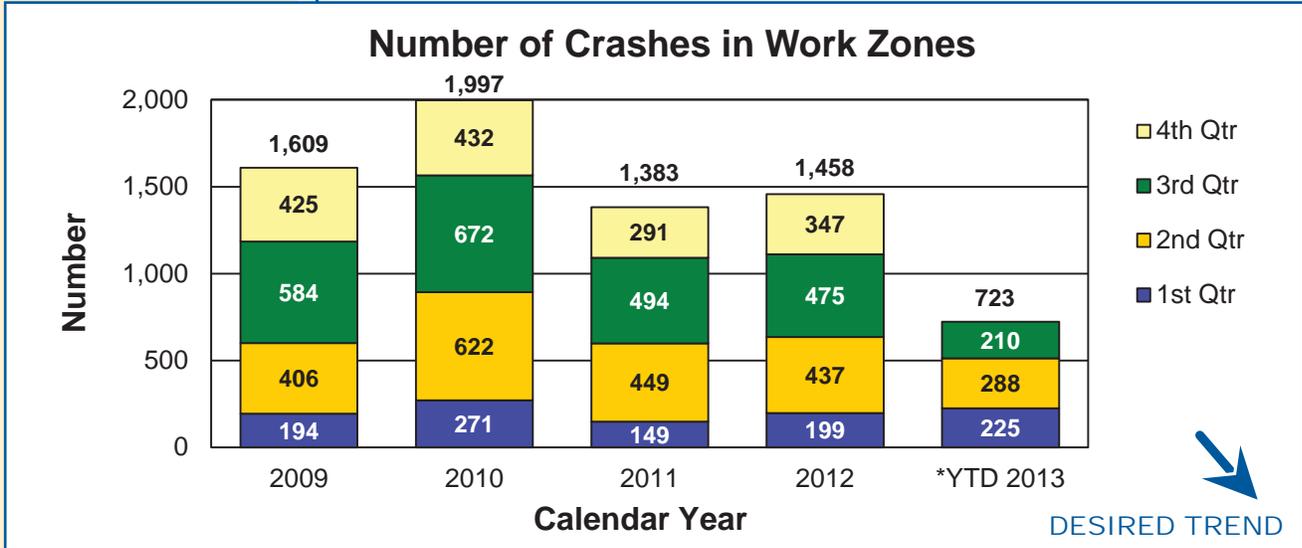
### Number of fatalities and serious injuries in work zones-1d

Work zone safety is at the center of MoDOT's safety culture. For calendar year 2013, work zone crashes are down 35 percent and injuries by about 50 percent. However, fatalities have increased from the previous year. Eight people have died in Missouri work zones. Fifty percent of those deaths were not wearing safety belts.



**\*2013 – Due to a backlog of crash reports into STARS, the fatality, serious, minor injury and work zone crash measures for the first, second and third quarters of 2013 will only illustrate data derived from TMS. Fourth quarter 2013 data is unavailable through the MSHP radio reports.**

# KEEP CUSTOMERS AND OURSELVES SAFE



\*2013 – Due to a backlog of crash reports into STARS, the fatality, serious, minor injury and work zone crash measures for the first, second and third quarters of 2013 will only illustrate data derived from TMS. Fourth quarter 2013 data is unavailable through the MSHP radio reports.

**RESULT DRIVER:**  
Eileen Rackers,  
State Traffic and Highway  
Safety Engineer

## KEEP CUSTOMERS AND OURSELVES SAFE

**MEASUREMENT  
DRIVER:**  
Bill Whitfield,  
Highway Safety Program  
Administrator

**PURPOSE OF  
THE MEASURE:**  
This measure tracks annual  
trends in safety belt use in  
passenger vehicles. This  
data drives the develop-  
ment and focus of the Mis-  
souri Highway Safety Plan,  
which is required annually  
by the National Highway  
Traffic Safety Administra-  
tion. In addition, this data  
supports Missouri's Blue-  
print to Save More Lives  
that identifies the state-  
wide initiatives with a goal  
of reducing fatalities to 700  
or fewer by 2016.

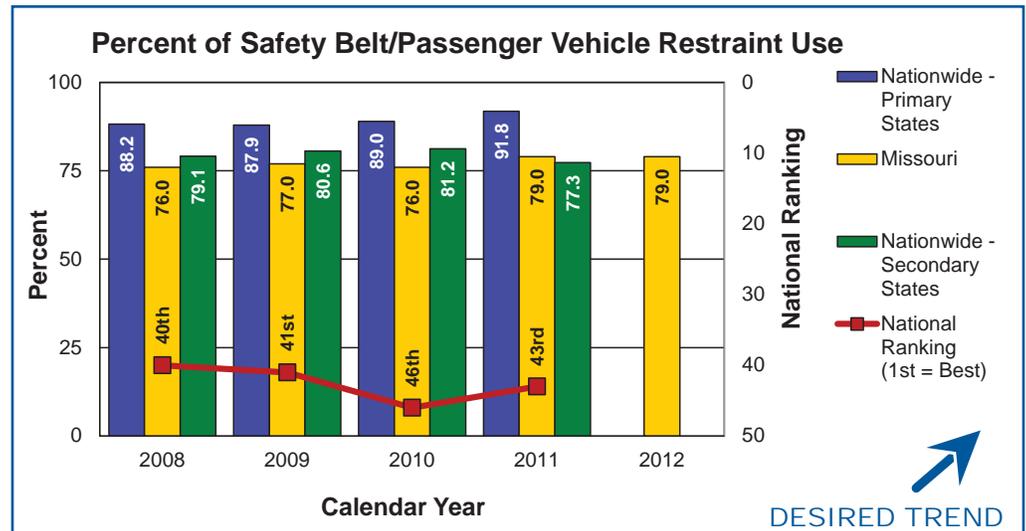
**MEASUREMENT  
AND DATA  
COLLECTION:**  
Each June, a statewide  
survey is conducted at 460  
pre-selected locations in  
20 counties. The data col-  
lected is calculated into a  
safety belt usage rate using  
a formula approved by the  
National Highway Traffic  
Safety Administration. The  
safety belt usage survey  
collects data from locations  
representing 85 percent  
of the state's population.  
The data collection plan  
is the same each year for  
consistency and compli-  
ance with National Highway  
Traffic Safety Administration  
guidelines.

### Percent of safety belt/passenger vehicle restraint use-1e

Safety belts save lives. But getting people to use them – even to protect their own lives – is a challenge. Public education is one way to keep the issue in front of motorists. Legislation is another. MoDOT supports both approaches, attacking the problem with focused marketing campaigns and reinforcing it with hard facts to back legislative efforts. Several municipalities across the state are taking matters into their own hands by supporting grass-roots efforts that enact primary ordinances within city limits.

Safety belt use in Missouri remained at 79 percent in 2012. The national average for safety belt use in 2012 was 86 percent. Missouri's national ranking rose to 43.

Despite Missouri's consistent safety belt use, the number of states that have a primary seat belt law continues to increase, resulting in a higher rate of use for those states with a primary law. States that have a secondary law continue to fall down the list in the national rankings, overtaken by those with a primary law. As future funding levels diminish, the safety belt education campaigns will be limited, which will affect the ability to increase safety belt usage.



**RESULT DRIVER:**  
Eileen Rackers,  
State Traffic and Highway  
Safety Engineer

**MEASUREMENT  
DRIVER:**  
Mark Biesemeyer,  
Motor Carrier Services  
Program Manager

**PURPOSE OF  
THE MEASURE:**  
This measure tracks the  
number of Commercial Mo-  
tor Vehicles involved in fatal  
and serious injury crashes  
each year. MoDOT uses  
the information to target  
educational, enforcement  
and improvement of safety  
feature efforts.

**MEASUREMENT  
AND DATA  
COLLECTION:**  
Missouri law enforcement  
agencies submit a vehicle  
accident report form to the  
Missouri State Highway Pa-  
trol and enter these reports  
into a statewide traffic crash  
database. The measure re-  
ports the number of CMVs  
involved in crashes in which  
one or more people are se-  
riously injured and those in  
which one or more people  
die as a result of the crash.  
Preliminary results for the  
current year are reported  
quarterly.

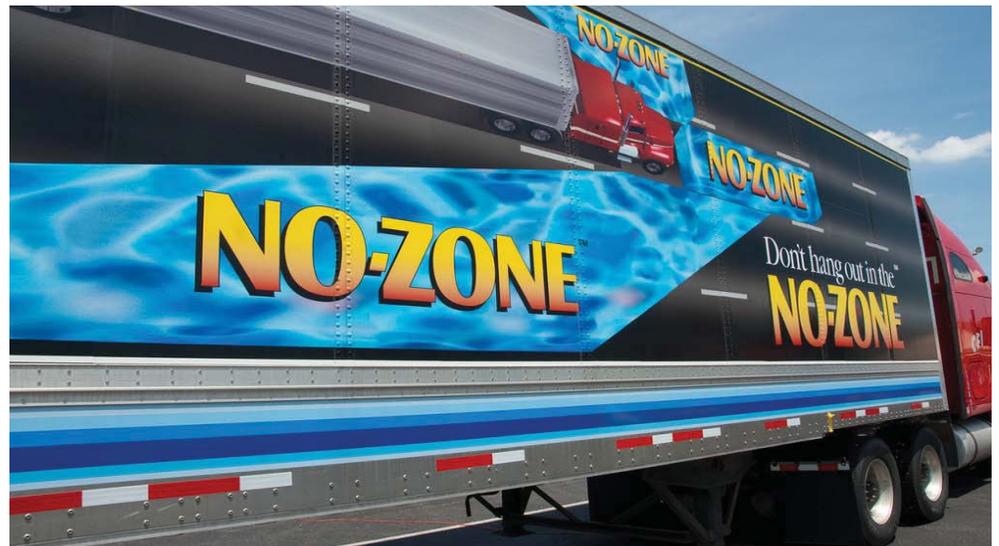
## KEEP CUSTOMERS AND OURSELVES SAFE

### *Number of commercial motor vehicle crashes resulting in fatalities and serious injuries-1f*

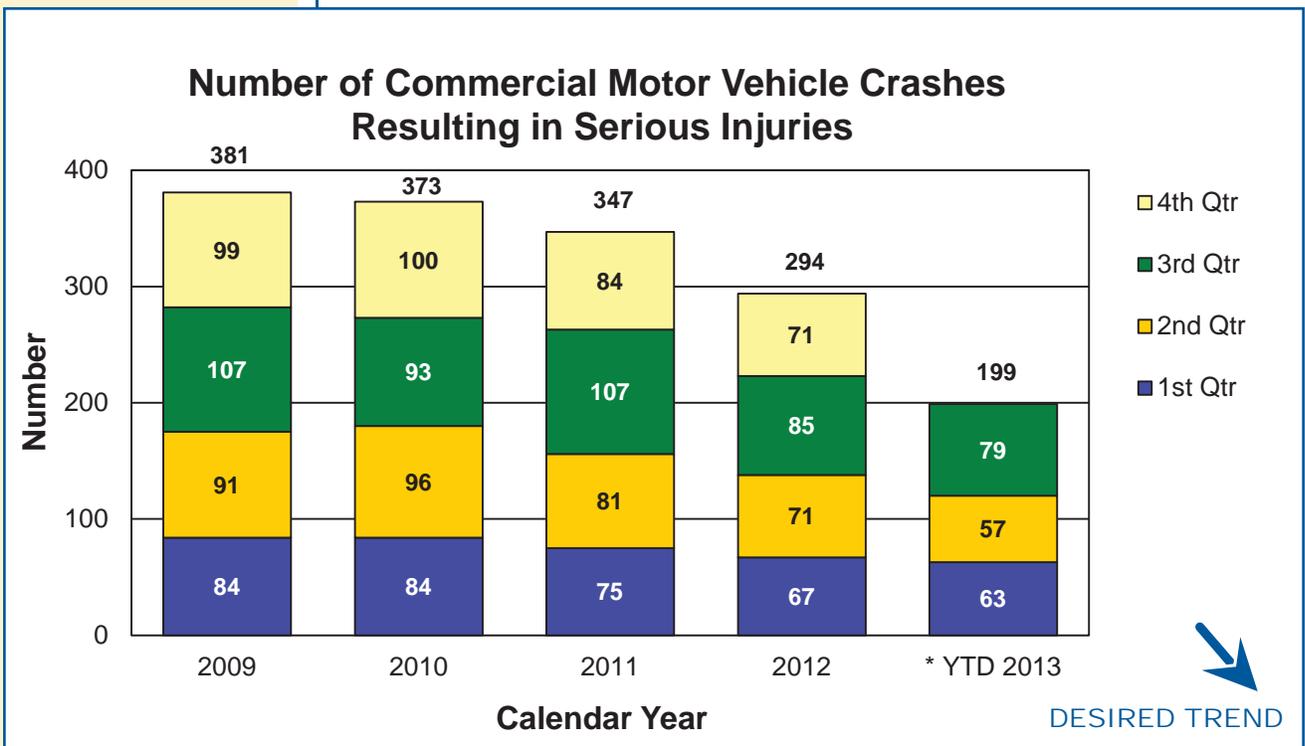
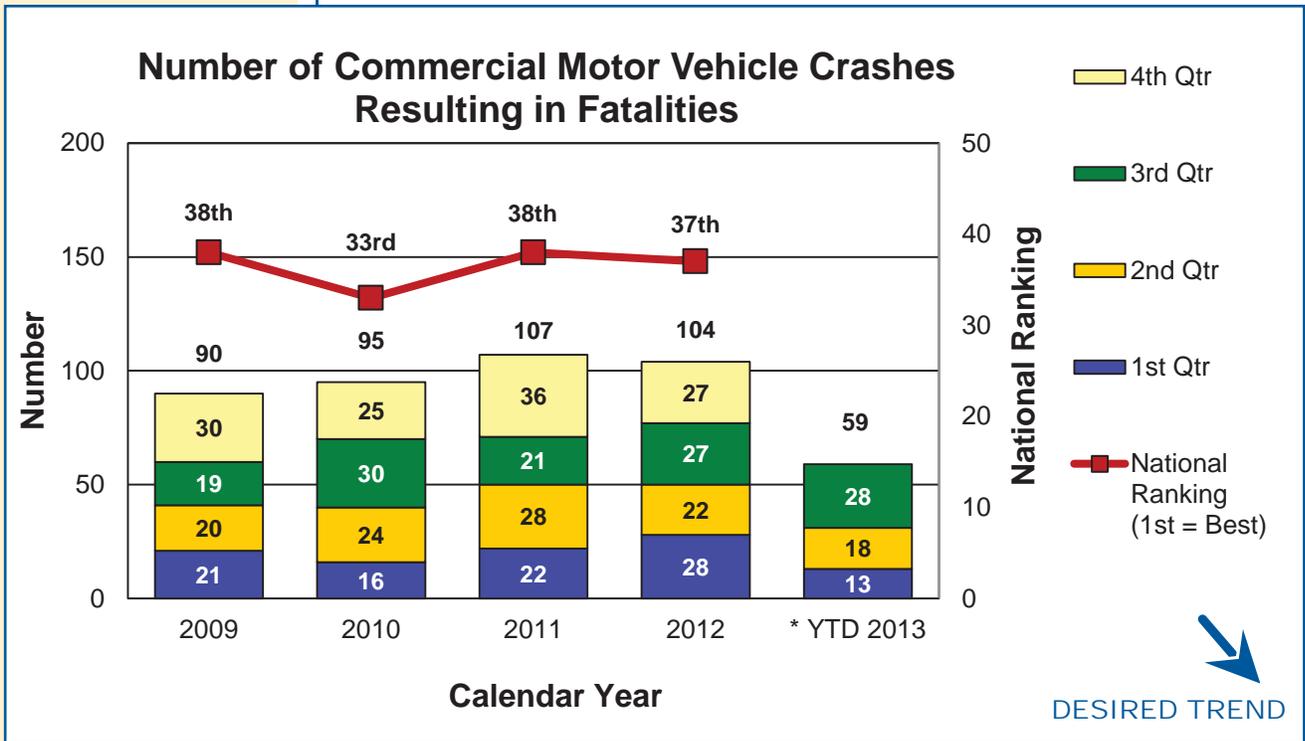
Commercial Motor Vehicles are the lifeblood of our economy. They transport the goods and materials that keep the nation moving. Partnering with the Missouri State Highway Patrol, MoDOT does everything in its power with reduced resources to keep CMV drivers safe and their vehicles on the road. By tracking the number of CMV crashes resulting in fatalities and serious injuries, the department can not only target educational and enforcement efforts, but also improve safety features such as highway signs, reflective pavement markings, guard cables, rumble strips and incident management alert signs.

These efforts are making a difference. The number of fatal crashes reported through the third quarter of 2013 is 59. Even with reduced resources, this is 18 fewer than reported for this same period in 2012, a 23.4 percent decrease. Between 2009 and 2012, fatal crashes involving a CMV increased by 15.6 percent.

The number of serious injury crashes reported through the third quarter of 2013 is 199. This number is 24 fewer than reported for this same period in 2012, a decrease of 10.8 percent. Between 2009 and 2012, CMV serious injury crashes decreased by 22.8 percent. However, as we move forward with diminished funding, our ability to make significant improvements to increase safety may not be possible.



# KEEP CUSTOMERS AND OURSELVES SAFE



\*YTD 2013 - Due to a backlog of crash reports into STARS, the fatality and serious injury measures for the third quarter of 2013 will only illustrate data derived from TMS.

**RESULT DRIVER:**  
Eileen Rackers,  
State Traffic and Highway  
Safety Engineer

# KEEP CUSTOMERS AND OURSELVES SAFE

**MEASUREMENT  
DRIVER:**  
Roberta Jacobson,  
Claims Administration  
Manager

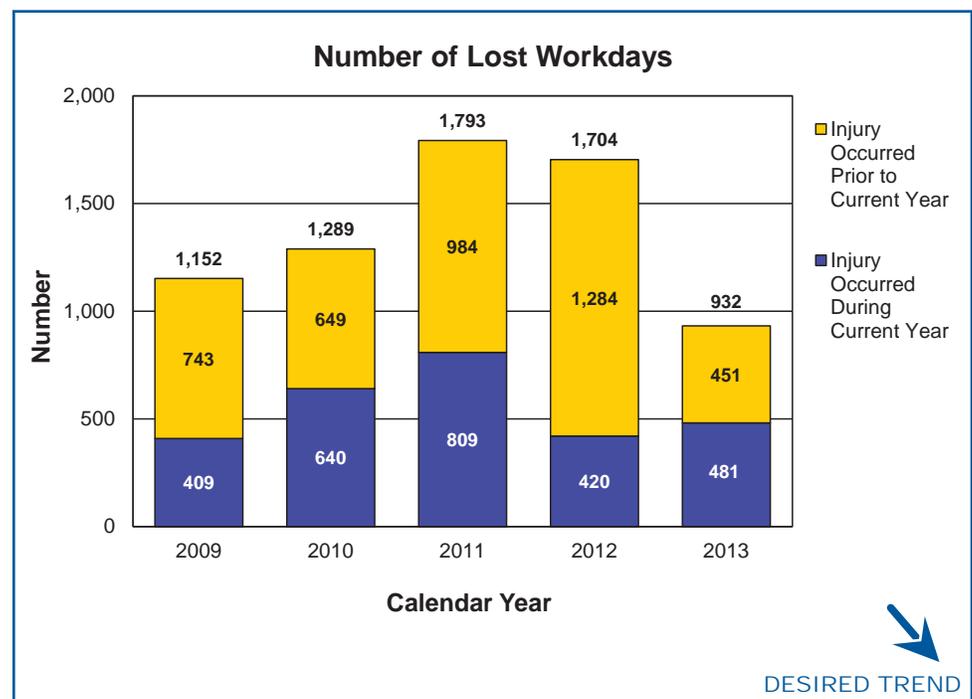
**PURPOSE OF  
THE MEASURE:**  
This measure tracks the  
actual number of days em-  
ployees cannot work due to  
work-related injuries.

**MEASUREMENT  
AND DATA  
COLLECTION:**  
The data is collected  
from Riskmaster, the  
department's risk manage-  
ment claims administration  
software.

## Number of lost workdays-1g

The impact of work-related injuries cannot be underestimated. Employees injured at work not only affect the department but can disrupt the personal lives of MoDOT employees and their families. Measuring lost workdays shows more than a number on a chart. These are people whose lives can be changed by a split second of inattention or poor preparation. Watching this number fall over the years shows us that something is going right. Through 2013, the total number of lost workdays has dropped nearly 45 percent from 2012. Two motor vehicle incidents caused by a third party accounted for 31 percent of the lost workdays. These occurred in the Southeast district. The Kansas City, St. Louis and Southeast districts each incurred an injury in which the employee was struck by MoDOT equipment or materials. These accounted for 17 percent of the lost workdays. There were three incidents involving the movement of MoDOT equipment or materials in the Central and Southeast districts. They accounted for 16 percent of the lost workdays. Another nine percent of the lost workdays were attributable to two incidents involving an employee exiting MoDOT equipment. These occurred in the Northeast and Southeast districts.

Employees are paying attention. They are wearing proper safety gear and taking proper precautions before engaging in a safety-sensitive task. The drop in this number is more than a statistic. It means more people are going home safe.



**RESULT DRIVER:**  
Eileen Rackers,  
State Traffic and Highway  
Safety Engineer

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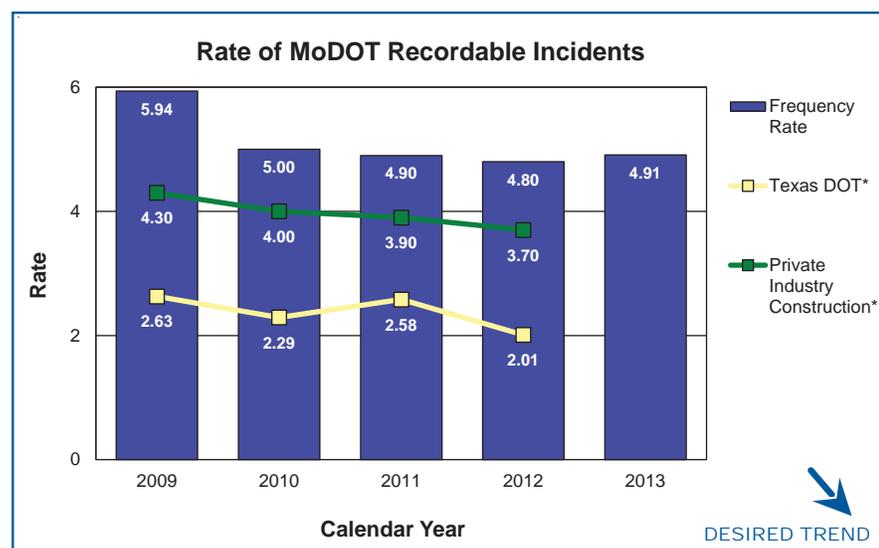
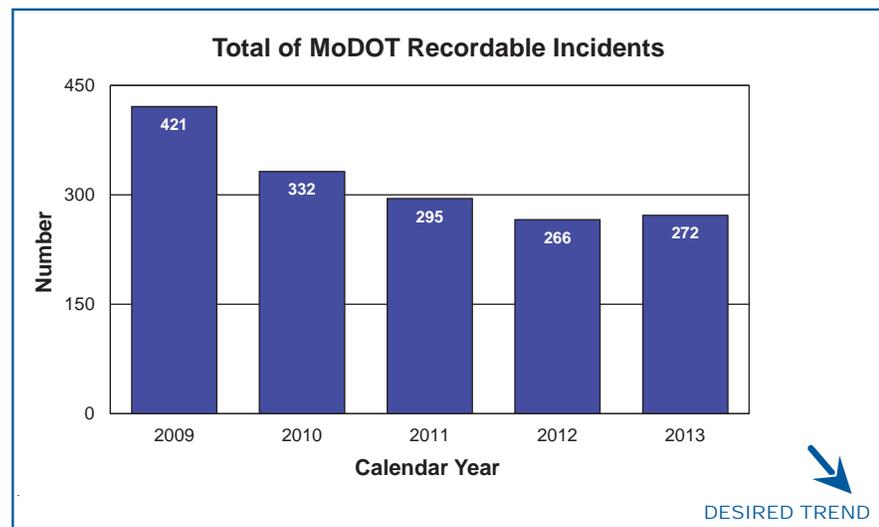
**MEASUREMENT  
DRIVER:**  
Jeff Padgett,  
Risk and Benefits  
Management Director

**PURPOSE OF  
THE MEASURE:**  
This measure tracks the  
number of recordable inju-  
ries, in total and as a rate of  
injuries per 100 workers.

**MEASUREMENT  
AND DATA  
COLLECTION:**  
The calculation for inci-  
dence rate is the number of  
recordable 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). MoDOT defines a re-  
cordable incident as a work-  
related injury or illness that  
results in death, days away  
from work or medical treat-  
ment resulting in cost to the  
department. The injury data  
is collected from Riskmas-  
ter, the department's risk  
management claims ad-  
ministration software. The  
number of hours worked is  
taken from MoDOT's payroll  
data.

## Total and rate of MoDOT recordable incidents-1h

No priority stands higher than safety. Getting home safe is a responsibility every individual employee shares. MoDOT's dedication to employee safety is evident in the continued decline of recordable incidents. To reinforce this value, the "Safety Begins with Me" program was launched in 2013 to remind all employees that safety is a personal responsibility. The number and rate of recordable incidents showed a slight increase over last year's totals. Leading causes of incidents during this calendar year-to-date are: strains (lifting or twisting) at 21 percent; slips, trips and falls at 19 percent; and struck or injured at 10 percent.



\*Texas DOT and Private Industry Construction category data, from the OSHA website, is not yet available for 2013.

**RESULT DRIVER:**  
Eileen Rackers,  
State Traffic and Highway  
Safety Engineer

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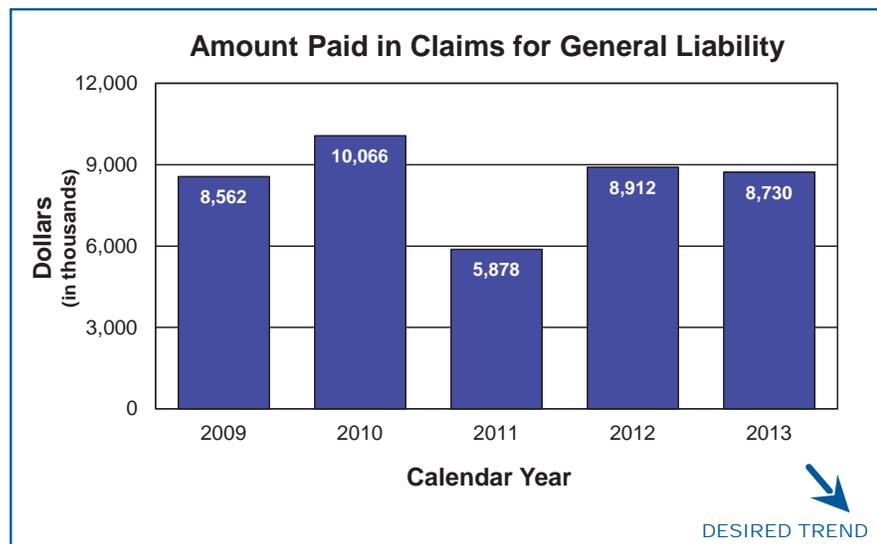
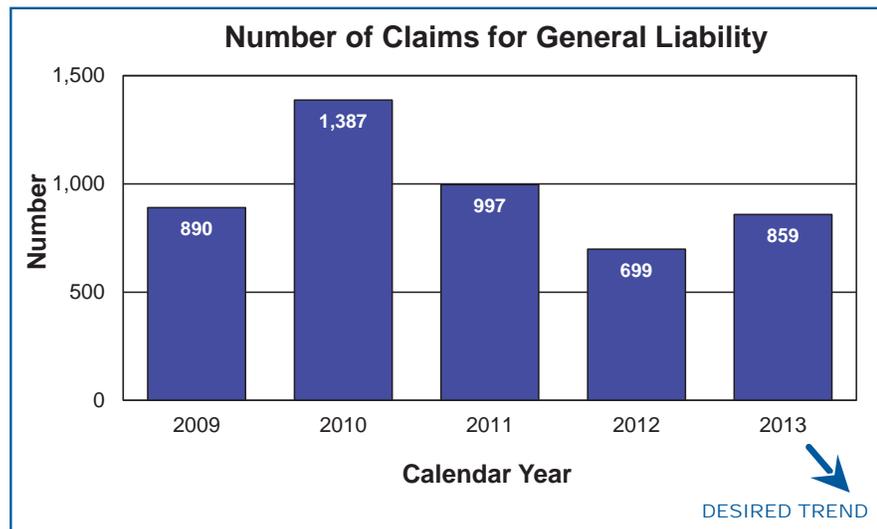
**MEASUREMENT  
DRIVER:**  
Ashley Halford,  
Claims Administration  
Manager

**PURPOSE OF  
THE MEASURE:**  
This measure tracks the  
number of general liability  
claims filed and amount  
paid.

**MEASUREMENT  
AND DATA  
COLLECTION:**  
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 condi-  
tion. Claims data is col-  
lected from Riskmaster, the  
department's risk manage-  
ment claims administration  
software.

## General liability claims and costs-1i

Keeping ourselves and the public safe is MoDOT's top priority. Controlling damage to vehicles and reducing personal injury in work zones, right of way and other areas under department control helps MoDOT accomplish this goal. Compared to 2012, there was an increase of 22 percent in the number of claims, which was attributed to payments made for damage caused by chip seal operations, paint claims from striping operations and pavement defects (pot holes). During the same time frame, there was a decrease of 2 percent in the amount paid. This quarter, payment was made on 113 claims against the department totaling \$2,293,728. Five claims account for 86 percent, or \$1,966,548 of the payments.



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