



# OHIO STRATEGIC HIGHWAY SAFETY PLAN

**A Comprehensive Plan to Reduce Fatalities  
and g Serious Injuries | 2014-2019**



# TABLE OF CONTENTS

<b>1</b>	Partner Pledge
<b>2</b>	Thank You to Our Sponsors
<b>4</b>	What is the Strategic Highway Safety Plan?
<b>5</b>	Roadmap to Zero Deaths
<b>6</b>	Goals
<b>8</b>	Local Road Safety
<b>13</b>	Emphasis Areas
<b>14</b>	Serious Crash Types
<b>14</b>	Roadway Departure
<b>16</b>	Intersections
<b>18</b>	Rear End Crashes
<b>20</b>	Highway Railroad Crossings
<b>22</b>	High Risk Drivers and Behaviors
<b>22</b>	Impaired Drivers
<b>24</b>	Seat Belt
<b>26</b>	Speed
<b>28</b>	Young Drivers
<b>30</b>	Older Drivers
<b>32</b>	Distracted Drivers
<b>34</b>	Special Vehicles and Roadway Users
<b>34</b>	Bicycle Riders
<b>36</b>	Pedestrians
<b>38</b>	Commercial Vehicles
<b>40</b>	Motorcycles
<b>42</b>	Data
<b>43</b>	Ohio's SHSP Organizational Structure
<b>45</b>	Next Steps – Implementation and Evaluation
<b>46</b>	Appendix
<b>46</b>	Update Process
<b>49</b>	Fact Sheets
<b>107</b>	Actions Plans

# PARTNER PLEDGE

## FEWER TRAFFIC DEATHS ARE A POSITIVE SIGN OF PROGRESS IN OHIO, BUT EVEN ONE DEATH IS TOO MANY.

As a partner in Ohio's Strategic Highway Safety Plan, my agency pledges to support Ohio's journey Toward Zero Deaths by:

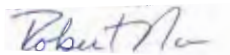
- Providing staff and resources to support the SHSP process;
- Committing resources across jurisdictional boundaries;
- Pursuing innovative technologies and ideas that could help save lives;
- Breaking down institutional barriers and acting with a sense of urgency to implement and evaluate strategies and investments;
- Communicating the SHSP vision, goals and objectives to agency staff and partners; and
- Championing the cause of safety by educating the public on the critical role they play in preventing crashes.



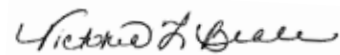
**Jerry Wray**  
Ohio Department of Transportation



**John Born**  
Ohio Department of Public Safety



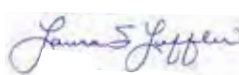
**Robert Nau**  
Ohio Association of Regional Councils



**Victoria F. Beale**  
Local Technical Assistance Program



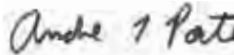
**Linda Gilliam**  
Federal Motor Carrier Safety Administration



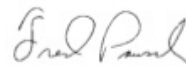
**Laura S. Leffler**  
Federal Highway Administration




**Darin Jones**  
National Highway Traffic Safety Administration



**Andre T. Porter**  
Public Utilities Commission of Ohio



**Fredrick Pausch**  
County Engineers Association



**Matthew R. Dietrich**  
Ohio Rail Development Commission



# – – THANK YOU TO ALL OUR – – SAFETY PARTNERS – –

Ohio is fortunate to have a wide range of organizations and advocates working to reduce traffic fatalities and injuries. This network of supporters provided critical input throughout the development of Ohio's Strategic Highway Safety Plan. Their insight and experience helped Ohio develop an updated plan that identifies a broad range of strategies encompassing engineering, education, enforcement and emergency response.

The agencies and organizations listed below deserve to be recognized for their contributions to this plan and continued commitment to improving traffic safety across Ohio.

- American Automobile Association (AAA)
- American Bikers Aimed Toward Education of Ohio (ABATE)
- County Engineering Offices
- County Engineers Association of Ohio (CEAO)
- County Health Departments
- County Sheriff's Offices
- Federal Highway Administration (FHWA)
- Federal Motor Carrier Safety Administration (FMCSA)
- Hospitals throughout Ohio
- Local Government Officials
- Metropolitan Planning Organizations (MPOs) and other Regional Planning Agencies throughout Ohio
- Motorcycle Ohio
- Municipal Engineering Departments
- Municipal Fire Departments
- Municipal Police Departments
- National Highway Traffic Safety Administration (NHTSA)
- Ohio Association of Regional Councils (OARC)
- Ohio Department of Education (ODE)
- Ohio Department of Health (ODH)
- Ohio Department of Public Safety (ODPS)
- Ohio Department of Transportation (ODOT)
- Ohio Local Technical Assistance Program (LTAP)
- Ohio Operation Lifesaver
- Ohio Rail Development Commission (ORDC)
- Ohio Students Against Destructive Decisions (SADD)
- Ohio State Highway Patrol (OSHP)
- Ohio Trucking Association (OTA)
- Public Utilities Commission of Ohio (PUCO)
- Safe Communities Programs
- Universities and Colleges throughout Ohio

## EXECUTIVE COMMITTEE MEMBERS

- Laurie Leffler, Division Administrator, Federal Highway Administration
  - Michael Witter, Regional Administrator, National Highway Traffic Safety Administration
  - Linda Gilliam, Division Administrator, Federal Motor Carrier Safety Administration
  - John Born, Director, Ohio Department of Public Safety
  - Colonel Paul A. Pride, Ohio State Highway Patrol
  - Jerry Wray, Director, Ohio Department of Transportation
  - Matt Dietrich, Executive Director, Ohio Rail Development Commission
  - Andre T. Porter, Chairman, Public Utilities Commission of Ohio
  - Steve Poggiali, Chairman, Ohio Association of Regional Councils
- 

## STEERING COMMITTEE MEMBERS

- David Brand, County Engineers Association
- Ron Garczewski, Federal Highway Administration
- Linda Gilliam, Federal Motor Carrier Safety Administration
- Keith Willoughby, Federal Motor Carrier Safety Administration
- Victoria Beale, Local Technical Assistance Program
- Chuck Stiteler, Motorcycle Ohio, Ohio Department of Public Safety
- Mike Witter, National Highway Traffic Safety Administration
- Jordan Whisler, Ohio Association of Regional Councils
- Michelle May, Highway Safety Program, Ohio Department of Transportation
- Dave Holstein, Roadway Engineering, Ohio Department of Transportation
- Mike McNeill, Highway Safety Program, Ohio Department of Transportation
- Cory Hopwood, Highway Safety Program, Ohio Department of Transportation
- Julie Walcoff, Bike and Pedestrian Program, Ohio Department of Transportation
- Sue Morris, Emergency Medical Services, Ohio Department of Public Safety
- Felice Moretti, Ohio Traffic Safety Office, Ohio Department of Public Safety
- Lt. Steven Rine, Ohio Traffic Safety Office, Ohio Department of Public Safety
- Cathy Stout, Ohio Rail Development Commission
- Capt. Art Combest, Office of Planning and Analysis, Ohio State Highway Patrol
- Eram Kennedy, Office of Planning and Analysis, Ohio State Highway Patrol
- Alan Martin, Transportation Department, Public Utilities Commission of Ohio
- Jill Henry, Transportation/Rail Division, Public Utilities Commission of Ohio

# WHAT IS THE STRATEGIC HIGHWAY SAFETY PLAN?

The SHSP is a comprehensive statewide plan that identifies the greatest causes of serious injuries and deaths on Ohio roads. It establishes common goals, priorities and strategies using data; identifies and tracks investments across organizations; and helps Ohio leverage and maximize its resources to prevent injuries and save lives. The plan was developed in collaboration with local, state, federal and private sector organizations from a variety of traffic safety disciplines, including engineering, education, enforcement and emergency response.

These stakeholders developed a comprehensive plan that focuses on existing and emerging crash trends, and safety for all road users, including cars, trucks, trains, motorcyclists, pedestrians and bicyclists.

Based on this stakeholder input, Ohio identified four emphasis areas and 15 subareas where multi-agency coordination and collaboration is critical to saving lives. Over the next several years, Ohio organizations are committed to making investments that:

- 1 Improve the quality, accuracy, timeliness and availability of crash, roadway and emergency care data;**
- 2 Reduce the occurrence and severity of roadway departure, intersection, rear end collisions and highway/railroad crossing crashes;**
- 3 Address high-risk drivers and behaviors such as young and older drivers, impaired driving, low seat belt use, distracted driving and excessive speed; and**
- 4 Address motorcycle and bicycle riders, pedestrians and commercial vehicles, which are more likely to be involved in serious crashes.**

These emphasis areas represent the greatest threat to safety and are the cause of most serious injuries and deaths on Ohio roads.

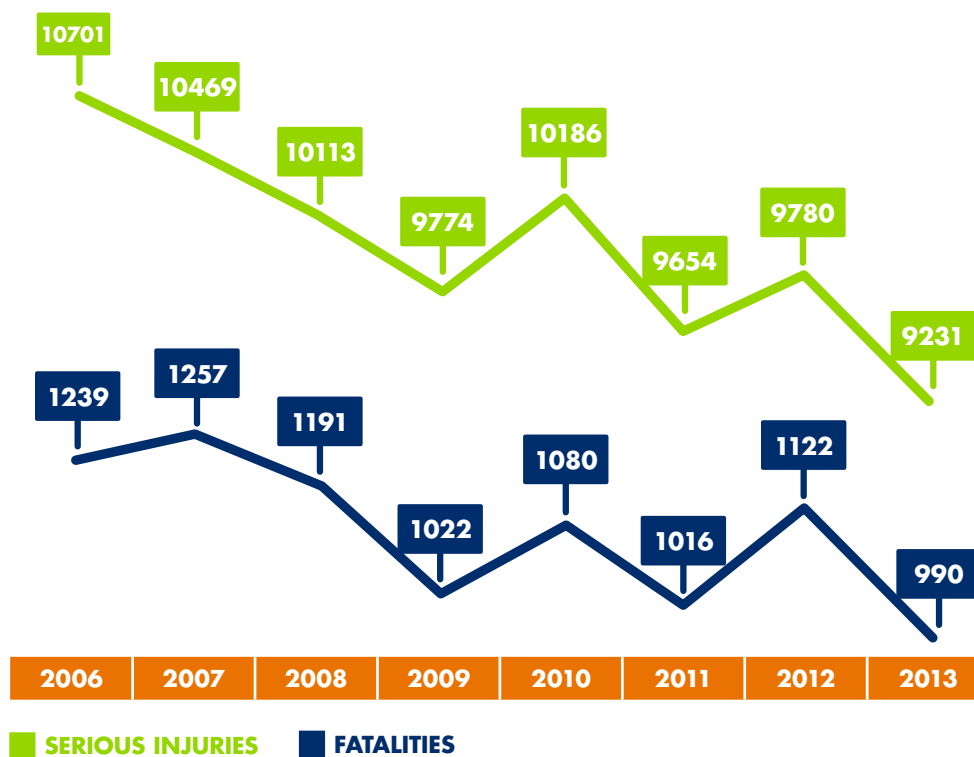
# ROADMAP TO ZERO DEATHS

This plan is Ohio's roadmap. It defines traffic safety problems, identifies life-saving strategies and investments, and sets measurable goals to further drive down crashes across our state.

Ohio has already achieved a lot. Crashes have been decreasing for decades despite the state's large transportation network which includes the nation's fourth largest interstate system, the eighth largest roadway network and the fifth highest volume of traffic. Since 2003, Ohio has seen a 22 percent reduction in fatalities, a 20 percent reduction in serious injuries and a 31 percent reduction in total crashes statewide. In fact, 2013 was the safest year in Ohio history, with a record low 990 traffic deaths compared to 1,278 in 2003.

Today, Ohioans are far less likely to die in a crash thanks to safer vehicles, safer roads, faster emergency response, stronger laws and traffic enforcement that encourages greater seat belt use and discourages impaired driving.

## OHIO FATALITIES AND SERIOUS INJURIES 2006-2012



Yet despite these gains, most people would agree that one death is too many. Ohio recently adopted a statewide goal: "Toward Zero Deaths." This goal recognizes that everyone has the right to be safe on Ohio roads – whether behind the wheel, behind the handlebars or on foot. This plan outlines Ohio's roadmap for reaching this goal.

# GOALS

Moving Ahead for Progress (MAP-21) requires states to establish four performance measures and set targets for those measures to demonstrate fatal and serious injury reductions on all public roads.

## MAP-21 REQUIRED PERFORMANCE MEASURES

- Number of fatalities
- Number of serious injuries
- Fatality rate
- Serious injury rate

In accordance with federal legislation, Ohio used five-year rolling averages for 2007 to 2013 to calculate historical crash trends and set new targets. **A rolling average is used to better predict long-term crash trends by smoothing out short-term, year-to-year fluctuations.**

The SHSP Steering Committee recommended that Ohio adopt a 2 percent reduction target across all four categories, as shown in the following graphics. Reductions more than 2 percent may not be sustainable over the long term without passage of major legislation, such as a primary seat belt or universal motorcycle helmet law.



## GOALS

**Reduce the number of fatalities from 1,046 to 965 between 2013 and 2017.**

**Reduce the fatality rate by 2 percent annually.**

**Reduce the number of serious injuries from 9,725 to 8,970 between 2013 and 2017.**

**Reduce the serious injury rate by 2 percent annually.**

The 2 percent reduction targets listed in this SHSP represent the target for the five-year period that this plan covers. The annual reduction targets required in the Highway Safety Improvement Program annual reports may deviate slightly from the long-term reduction targets due to recent trends or other factors.



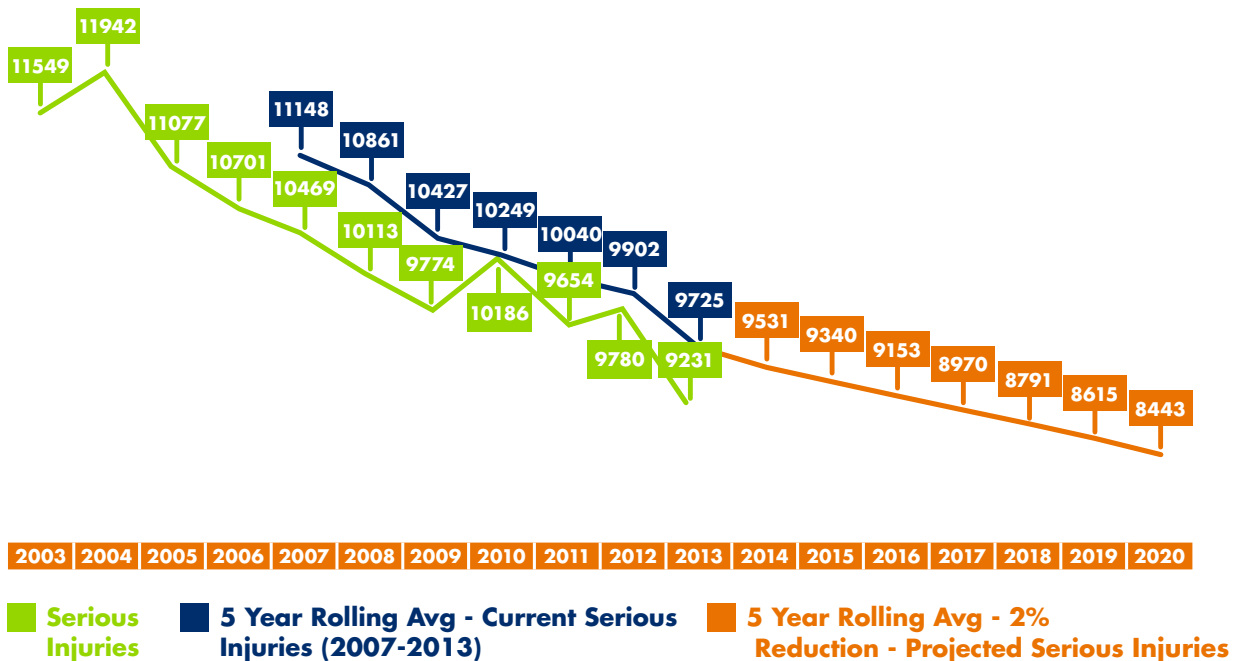
# PERFORMANCE MEASURE TARGETS

The following figures show the goals and performance measure targets for fatalities and serious injuries.

## OHIO – FATALITY REDUCTION



## OHIO – SERIOUS INJURY REDUCTION



# -- LOCAL ROAD SAFETY --

Moving forward, Ohio will be placing greater emphasis on providing funding and resources to local governments, which are responsible for improving safety on the majority of Ohio roads.

Ohio has 121,000 miles of road – one of the largest roadway networks in the nation. Eighty-four percent of these roads are considered local roads maintained by more than 900 cities and villages, 1,300 townships and 88 counties. The remaining 16 percent are considered state roads, which are maintained by the Ohio Department of Transportation.

In addition, the majority of all Ohio crashes each year occur on local roads. During the five-year analysis outlined in this document, 62 percent of all serious injuries and 55 percent of all traffic deaths occurred on local roads built and maintained by local governments.

**Local roads also have the highest numbers of traffic deaths and serious injuries involving:**

■ **Bicycles – 87%**

■ **Pedestrians – 83%**

■ **Intersections – 70%**

■ **Alcohol – 66%**

■ **Speed – 63%**

■ **Motorcycles – 63%**

■ **Young drivers between the ages of 15 and 25 – 63%**

This complex network of responsibility makes it difficult to effectively deliver training, technical assistance and funding to all the jurisdictions that need it.

However, Ohio safety organizations are committed to overcoming these challenges. These commitments are embedded in the strategies and action plans for each emphasis area, which describe how we can better deliver a variety of engineering, education, enforcement and emergency response resources to local agencies.

The tables on pages 9-11 show the distribution of crashes for the local and state systems by roadway jurisdiction and emphasis area. Action plans for each emphasis area start on page 107.

## LOCAL ROAD CRASH DETAILS

These charts rank by Emphasis Area the number of deaths and serious injuries that occurred on Ohio's different road types and locations. Warm colors indicate more crashes relative to cool colors.

## SERIOUS INJURY AND FATALITY ROAD LOCATIONS (2008-2012)

Emphasis Area	Types of Local Roads			Local vs. State Roads		Total Fatalities and Serious Injuries
	County	City	Township	Local	State	
Young Driver	18%	38%	7%	63%	37%	21,005
Roadway Departure	24%	22%	9%	55%	45%	20,900
Intersection	11%	56%	3%	70%	30%	19,985
Speed	19%	35%	9%	63%	37%	13,139
Seat Belt	21%	30%	9%	60%	40%	10,512
Alcohol Related	21%	36%	9%	66%	34%	10,046
Older Driver Involvement	14%	42%	3%	59%	41%	8,618
Motorcycle Operator/Passenger	19%	37%	7%	63%	37%	6,740
Rear End	8%	45%	1%	54%	46%	6,504
CMV	9%	28%	2%	39%	61%	4,410
Pedestrian Involvement	7%	72%	4%	83%	17%	3,139
Distracted	15%	33%	5%	53%	47%	2,447
Bicycle Involvement	9%	72%	6%	87%	13%	1,193

### FATALITIES AND SERIOUS INJURIES

■ 71%-87%   ■ 18%-35%  
■ 54%-70%   ■ 1%-17%  
■ 36%-53%

Emphasis Area	Urban* vs. Rural Roads		Total Fatalities and Serious Injuries
	Urban	Rural	
Young Driver	45%	55%	21,005
Roadway Departure	39%	61%	20,900
Intersection	71%	29%	19,985
Speed	49%	51%	13,139
Seat Belt	47%	53%	10,512
Alcohol Related	53%	47%	10,046
Older Driver Involvement	62%	38%	8,618
Motorcycle Operator/Passenger	44%	56%	6,740
Rear End	75%	25%	6,504
CMV	49%	51%	4,410
Pedestrian Involvement	86%	14%	3,139
Distracted	40%	60%	2,447
Bicycle Involvement	80%	20%	1,193

\*Urban areas include all roadways inside municipal corporation limits regardless of maintenance authority. Rural areas are all areas outside these corporation limits.

## FATALITY ROAD LOCATIONS (2008-2012)

Emphasis Area	Types of Local Roads			Local vs. State Roads		Total Fatalities
	County	City	Township	Local	State	
Roadway Departure	25%	19%	9%	53%	47%	2,852
Alcohol Related	21%	32%	10%	63%	37%	2,108
Seat Belt	23%	24%	9%	56%	44%	2,008
Young Driver	22%	26%	9%	57%	43%	1,746
Speed	22%	31%	9%	62%	38%	1,694
Intersection	13%	45%	4%	62%	38%	1,388
Older Driver Involvement	14%	29%	4%	48%	52%	1,045
Motorcycle Operator/Passenger	20%	31%	7%	58%	42%	871
CMV	8%	20%	1%	29%	71%	759
Pedestrian Involvement	10%	54%	4%	68%	32%	505
Rear End	10%	24%	2%	36%	64%	221
Distracted	13%	38%	2%	53%	47%	156
Bicycle Involvement	16%	53%	2%	71%	29%	83

### FATALITIES

■ 71%-87%   ■ 18%-35%  
■ 54%-70%   ■ 1%-17%  
■ 36%-53%

Emphasis Area	Urban* vs. Rural Roads		Total Fatalities
	Urban	Rural	
Roadway Departure	36%	64%	2,852
Alcohol Related	52%	48%	2,108
Seat Belt	41%	59%	2,008
Young Driver	32%	68%	1,746
Speed	47%	53%	1,694
Intersection	59%	41%	1,388
Older Driver Involvement	48%	52%	1,045
Motorcycle Operator/Passenger	38%	62%	871
CMV	41%	59%	759
Pedestrian Involvement	77%	23%	505
Rear End	55%	45%	221
Distracted	44%	56%	156
Bicycle Involvement	60%	40%	83

\*Urban areas include all roadways inside municipal corporation limits regardless of maintenance authority. Rural areas are all areas outside these corporation limits.

## SERIOUS INJURY ROAD LOCATIONS (2008-2012)

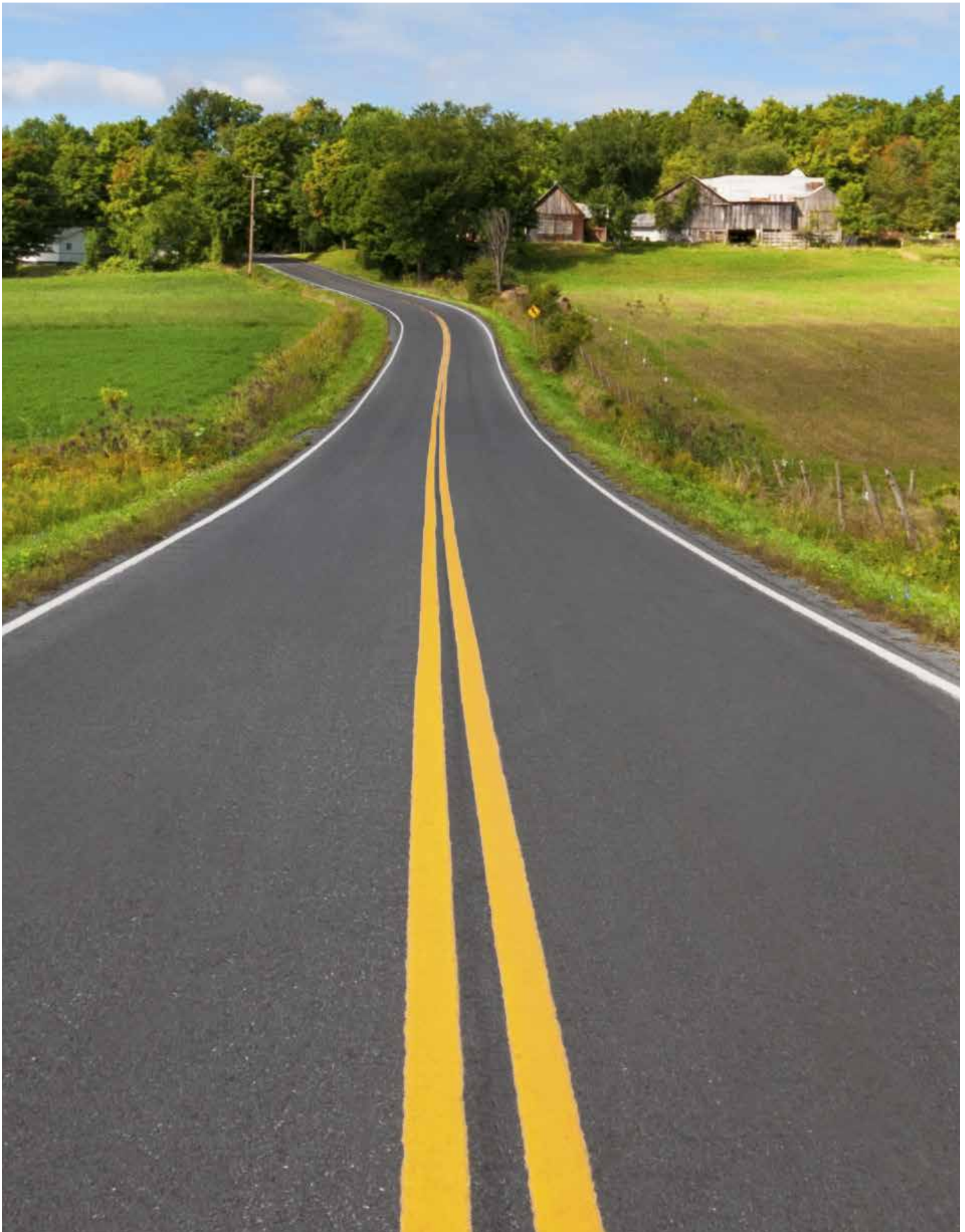
Emphasis Area	Types of Local Roads			Local vs. State Roads		Total Serious Injuries
	County	City	Township	Local	State	
Young Driver	17%	40%	7%	63%	37%	19,259
Intersection	11%	57%	3%	71%	29%	18,597
Roadway Departure	24%	22%	9%	55%	45%	18,048
Speed	19%	36%	8%	63%	37%	11,445
Seat Belt	21%	32%	8%	61%	39%	8,504
Alcohol Related	21%	37%	9%	67%	33%	7,938
Older Driver Involvement	13%	44%	3%	60%	40%	7,573
Rear End	8%	45%	1%	54%	46%	6,283
Motorcycle Operator/Passenger	19%	38%	7%	64%	36%	5,869
CMV	9%	30%	1%	40%	60%	3,651
Pedestrian Involvement	7%	75%	4%	86%	14%	2,634
Distracted	15%	33%	5%	53%	47%	2,291
Bicycle Involvement	9%	73%	6%	88%	12%	1,110

### SERIOUS INJURIES

■ 71%-87%   ■ 18%-35%  
■ 54%-70%   ■ 1%-17%  
■ 36%-53%

Emphasis Area	Urban* vs. Rural Roads		Total Serious Injuries
	Urban	Rural	
Young Driver	47%	53%	19,259
Intersection	72%	28%	18,597
Roadway Departure	39%	61%	18,048
Speed	49%	51%	11,445
Seat Belt	48%	52%	8,504
Alcohol Related	54%	46%	7,938
Older Driver Involvement	64%	36%	7,573
Rear End	75%	25%	6,283
Motorcycle Operator/Passenger	44%	56%	5,869
CMV	51%	49%	3,651
Pedestrian Involvement	88%	12%	2,634
Distracted	39%	61%	2,291
Bicycle Involvement	81%	19%	1,110

\*Urban areas include all roadways inside municipal corporation limits regardless of maintenance authority. Rural areas are all areas outside these corporation limits.



# EMPHASIS AREAS

Ohio organized its strategies and investments into emphasis areas. These emphasis areas are a required component of any SHSP and help direct resources, focus implementation efforts and organize stakeholder teams. FHWA guidance suggests that emphasis areas should reflect “the greatest potential for reducing fatalities and injuries.”

To select emphasis areas for the state’s updated SHSP, Ohio conducted a detailed analysis using 2006 – 2012 crash data for all roadway networks regardless of jurisdiction. ODOT created data fact sheets showing where, how many and why crashes were occurring.

Based on this extensive data analysis and input gathered from Ohio’s SHSP Steering Committee, and from stakeholders consulted throughout the state, Ohio selected the following four broad emphasis areas, which include 15 subcategories, for continued monitoring and investment.



## SERIOUS CRASH TYPES

- Roadway Departure
- Intersection
- Rear End Collisions
- Highway/Railroad Crossings



## HIGH RISK DRIVERS AND BEHAVIORS

- Impaired Drivers
- Seat Belts
- Speed
- Young and Older Drivers
- Distracted Drivers



## SPECIAL VEHICLES AND ROADWAY USERS

- Motorcycle and Bicycle Riders
- Pedestrians
- Commercial Vehicles



## DATA

The following sections provide an overview of each emphasis area, along with its specific goal, strategies for accomplishing the goal and performance measures. Additional information on each of the emphasis areas, including how they were selected, data fact sheets and action plans can be found in the Appendix.





## EMPHASIS AREA SERIOUS CRASH TYPES

# ROADWAY DEPARTURES



### GOALS

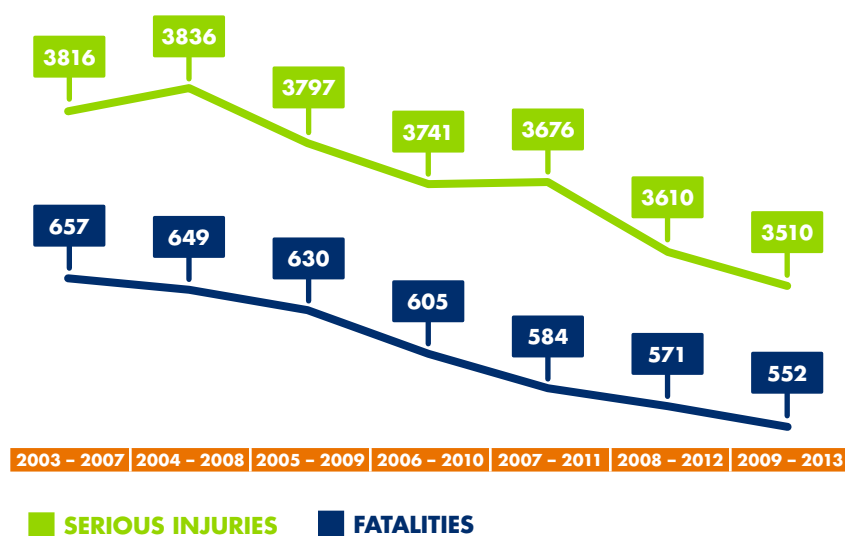
**Reduce the number of roadway departure fatalities from 552 to 509 between 2013-2017.**

**Reduce the number of serious injuries related to roadway departures from 3510 to 3238 between 2013-2017.**

Roadway departure crashes account for about 52 percent of deaths and 37 percent of serious injuries in Ohio each year. These types of crashes occur when a vehicle leaves the travel lane and hits another vehicle head-on or strikes an object. In Ohio, ditches, trees and utility poles were struck most often when drivers left the travel lane. Many of these crashes involved alcohol, speed, young drivers and unbelted drivers and passengers. The five-year rolling average historical trend for the years 2003-2013 shows a steady reduction of 16 percent in roadway departure fatalities and 8 percent for serious injuries.



## AVERAGE FATALITY & SERIOUS INJURY TRENDS



Crash Trend for  
Roadway Departure  
Fatalities

↓ 16%

5-year rolling average  
from 2003 - 2013

## PERFORMANCE MEASURES

■ Number of roadway departure fatalities

■ Number of roadway departure serious injuries

## STRATEGIES

- Advance the use of new technology and roadway designs that make roadways safer.
- Implement proven and low-cost systematic and systemic safety countermeasures to reduce roadway departure crashes. Examples include improved signage on curves, friction treatments in spot locations and center line and edge line rumble stripes.

- Design the roadside to include appropriate hardware (such as cable median, crash cushions and guardrail end treatments) or manage trees and other objects along the roadway to minimize the severity of crashes.
- Conduct high visibility enforcement, media campaigns and public outreach on selected corridors with a significant number of severe roadway departure crashes.



## EMPHASIS AREA SERIOUS CRASH TYPES

# INTERSECTIONS



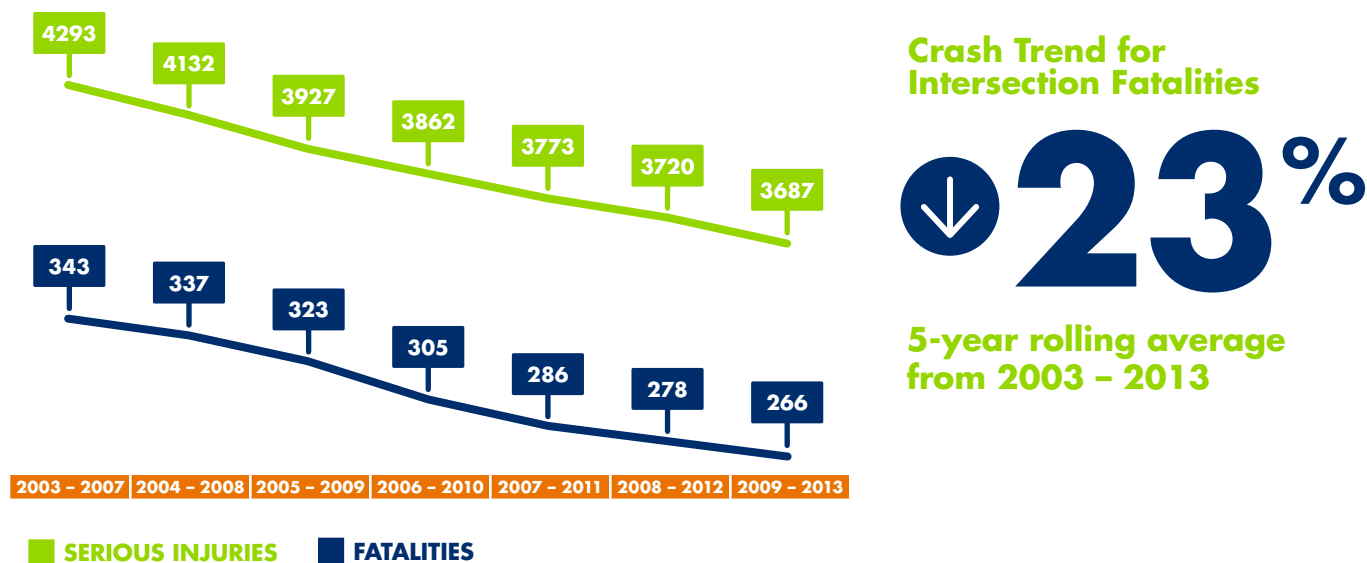
### GOALS

**Reduce the number of intersection fatalities from 266 to 245 between 2013-2017.**

**Reduce the number of serious injuries related to intersection crashes from 3687 to 3401 between 2013-2017.**

Intersection crashes represent about 26 percent of all traffic deaths and 37 percent of all serious injuries in Ohio each year. Intersections pose a risk to all road users – vehicle occupants, pedestrians, bicyclists and motorcycle riders. The risks increase based on the size, complexity and speed of the intersecting roadways. The number of deaths and serious injuries at urban intersections is nearly double the amount on rural roads. Young drivers were, on average, disproportionately more involved in serious injuries and deaths at Ohio intersections. The five-year rolling average historical trend for the years 2003-2013 shows a steady reduction of 23 percent in intersection fatalities and 14 percent for serious injuries.

## AVERAGE FATALITY & SERIOUS INJURY TRENDS



## PERFORMANCE MEASURES

■ Number of intersection fatalities

■ Number of intersection serious injuries

## STRATEGIES

- Advance the use of new technology and roadway designs that make intersections safer.
- Implement proven and low-cost systematic and systemic safety improvements to reduce intersection crashes. Examples include enhancing signs and pavement markings, modifying signals and signal timing, adding turn lanes and controlling access through medians.
- Educate roadway users on the types of crashes that occur at intersections, new intersection types, signals and laws.
- Conduct high visibility enforcement, media campaigns and public outreach at selected locations with a significant number of intersection crashes.



## EMPHASIS AREA SERIOUS CRASH TYPES

# REAR END CRASHES



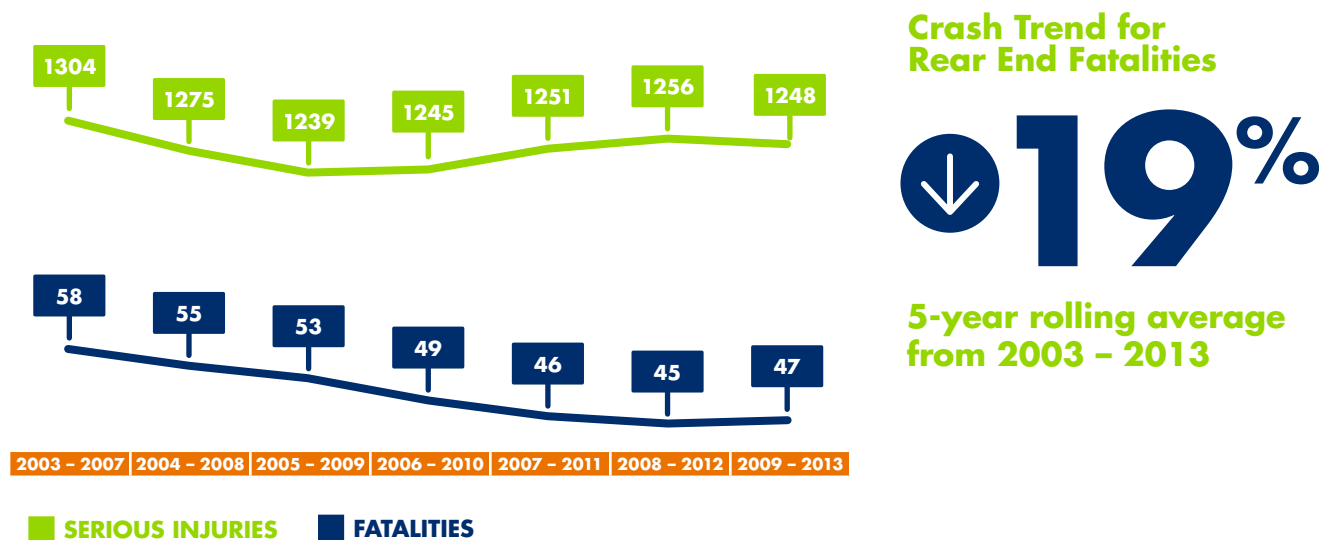
### GOALS

**Reduce the number of fatalities related to rear end crashes from 47 to 43 between 2013-2017.**

**Reduce the number of serious injuries related to rear end crashes from 1248 to 1151 between 2013-2017.**

Rear end crashes account for about 4 percent of Ohio's fatalities and 13 percent of serious injuries each year. Three-quarters of rear end crashes involving serious injuries or deaths occur in urban areas. Urban areas are more congested and prone to frequent stops and starts that can lead to rear end crashes. The five-year rolling average historical trend for the years 2003-2013 shows a reduction of 19 percent in rear end fatalities and 4 percent for serious injuries.

## AVERAGE FATALITY & SERIOUS INJURY TRENDS



## PERFORMANCE MEASURES

■ Number of rear end related fatalities

■ Number of rear end related serious injuries

## STRATEGIES

- Advance the use of new technologies and roadway designs that reduce rear end crashes.
- Apply proven and low-cost safety countermeasures to reduce rear end crashes and their severity. Examples include improving the visibility and timing of signals, removing unwarranted signals, installing turn lanes and building medians to control access.
- Provide real-time travel information to motorists so they can make informed decisions about travel routes.
- Remove minor incidents, crashes and debris from the roadway quickly to avoid congestion and secondary crashes.





## EMPHASIS AREA SERIOUS CRASH TYPES

# HIGHWAY RAILROAD CROSSINGS



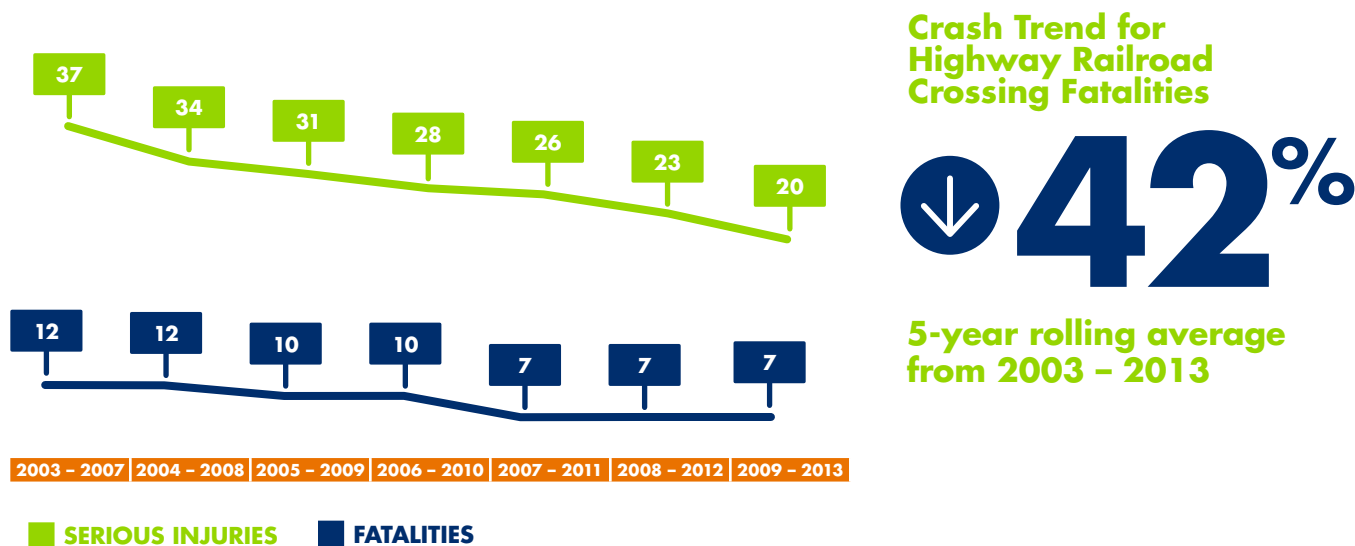
### GOALS

**Maintain the number of highway railroad crossing fatalities at 7 between 2013-2017.**

**Reduce the number of serious injuries related to highway railroad crossing crashes from 20 to 18 between 2013-2017.**

Highway railroad-related crashes account for less than 1 percent of Ohio's traffic deaths and serious injuries each year. But when they do occur, the consequences are tragic and severe. Over half of these crashes involved motorists who failed to stop for an oncoming train or drove around gates and lights. About 18 percent involved motorists stopped on the crossing. The five-year rolling average historical trend for the years 2003-2013 shows a steady reduction of 42 percent in highway railroad crossing fatalities and 46 percent for serious injuries.

## AVERAGE FATALITY & SERIOUS INJURY TRENDS



## PERFORMANCE MEASURES

■ Number of fatalities at highway railroad crossings

■ Number of serious injuries at highway railroad crossings

## STRATEGIES

- Expand the use of new and proven crash prevention methods at grade crossings.
- Establish or expand multi-disciplinary teams to examine railroad corridors for improvements and fatal crash locations for quick corrective action.
- Expand the marketing and adoption of Ohio's Grade Crossing Upgrade Programs, e.g., Federal and State Light and Gate projects, Supplemental Enhancements and Crossing Consolidation Programs.
- Expand railroad crossing safety educational opportunities through continued involvement and financial support of highway safety education and enforcement programs, e.g., Operation Lifesaver.
- Develop or expand the County Task Force Program to encourage grassroots interest in railroad safety and to identify problem locations.
- Encourage accurate and timely data reporting for database updates by all stakeholders.



EMPHASIS AREA

## HIGH RISK DRIVERS & BEHAVIORS

# IMPAIRED DRIVERS



### GOALS

**Reduce the number of alcohol-related fatalities from 392 to 362 between 2013-2017.**

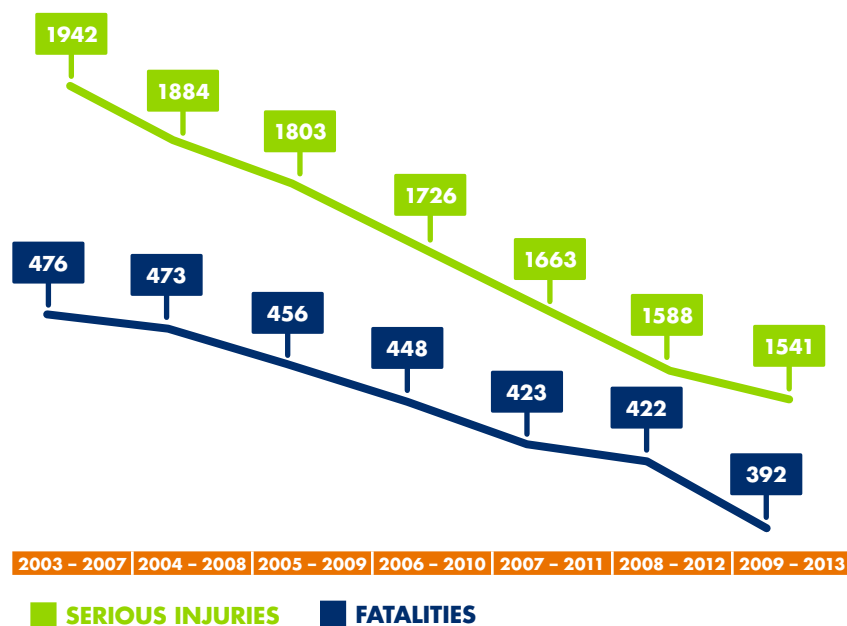
**Reduce the number of alcohol-related serious injuries from 1541 to 1421 between 2013-2017.**

Alcohol was involved in about 40 percent of Ohio's deaths and 17 percent of serious injuries each year. An average of 50 percent of alcohol-related serious injuries and deaths involved an individual running off the road and striking a fixed object. Alcohol was also a factor in approximately one-third of speed-related crashes, crashes involving young drivers and those crashes where the vehicle occupants were unrestrained. The five-year rolling average historical trend for the years 2003-2013 shows a steady reduction of 18 percent in alcohol-related fatalities and 21 percent for serious injuries.

While most Ohioans understand the risks of driving under the influence of alcohol, the public is less aware of the role of prescription and illegal drugs in traffic crashes. On January 1, 2013 Ohio began collecting additional drug data on crash reports and has developed strategies to better assess, quantify and prevent these risks on Ohio roads. The increasing prevalence of drugged driving is why this emphasis area has been changed to Impaired Driving.



## AVERAGE FATALITY & SERIOUS INJURY TRENDS



### Crash Trend for Alcohol Fatalities

↓ **18%**

5-year rolling average from 2003 - 2013

## PERFORMANCE MEASURES

■ Number of alcohol-related fatalities

■ Number of alcohol-related serious injuries

## STRATEGIES

- Expand earned media and outreach of impaired driving beyond the traditional mass media campaign by using innovative and unique delivery methods that reach specific segments of the targeted audience.
- Sustain a data-driven and high visibility impaired driving enforcement program.
- Increase publicity on “trace back” investigations so sellers, servers, providers and the public understand the consequences of over serving or illegally serving alcohol.
- Coordinate impaired driving safety messages developed by multi-agency communication committee.
- Improve enforcement and prosecution of drugged driving.



EMPHASIS AREA

## HIGH RISK DRIVERS & BEHAVIORS

# SEAT BELTS



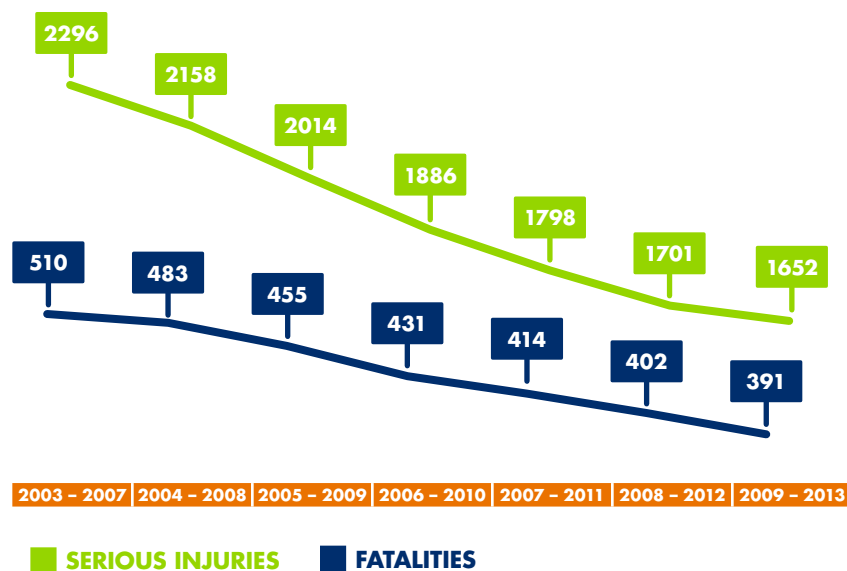
### GOALS

**Reduce the number of seat belt related fatalities from 391 to 361 between 2013-2017.**

**Reduce the number of seat belt related serious injuries from 1652 to 1524 between 2013-2017.**

About 37 percent of all deaths and 18 percent of serious injuries are related to not wearing a seat belt each year. Sixty-one percent of unbelted occupants were killed or seriously injured when the vehicle ran off the road and struck another object. The likelihood of being killed or seriously injured in a roadway departure crash increases if the occupants are unbelted. Approximately one-third of unbelted crashes also involved speed, alcohol and young drivers. The five-year rolling average historical trend for the years 2003-2013 shows a steady reduction of 24 percent in unbelted fatalities and 28 percent for serious injuries.

## AVERAGE FATALITY & SERIOUS INJURY TRENDS



### Crash Trend for Seat Belt Fatalities

↓ 24%

5-year rolling average from 2003 - 2013

## PERFORMANCE MEASURES

■ Number of unrestrained passenger vehicle occupant fatalities, all seat positions

■ Number of unrestrained passenger vehicle occupant serious injuries, all seat positions

## STRATEGIES

- Expand earned media and outreach of seat belt use beyond the traditional mass media campaign by using innovative and unique delivery methods that reach specific segments of the targeted audience.
- Expand reach of seat belt use messages to high risk populations e.g., teens, rural and 18-34 year old males.

- Expand employer programs to promote seat belt use.
- Coordinate seat belt safety messages developed by multi-agency communication committee.



EMPHASIS AREA

## HIGH RISK DRIVERS & BEHAVIORS

# SPEED



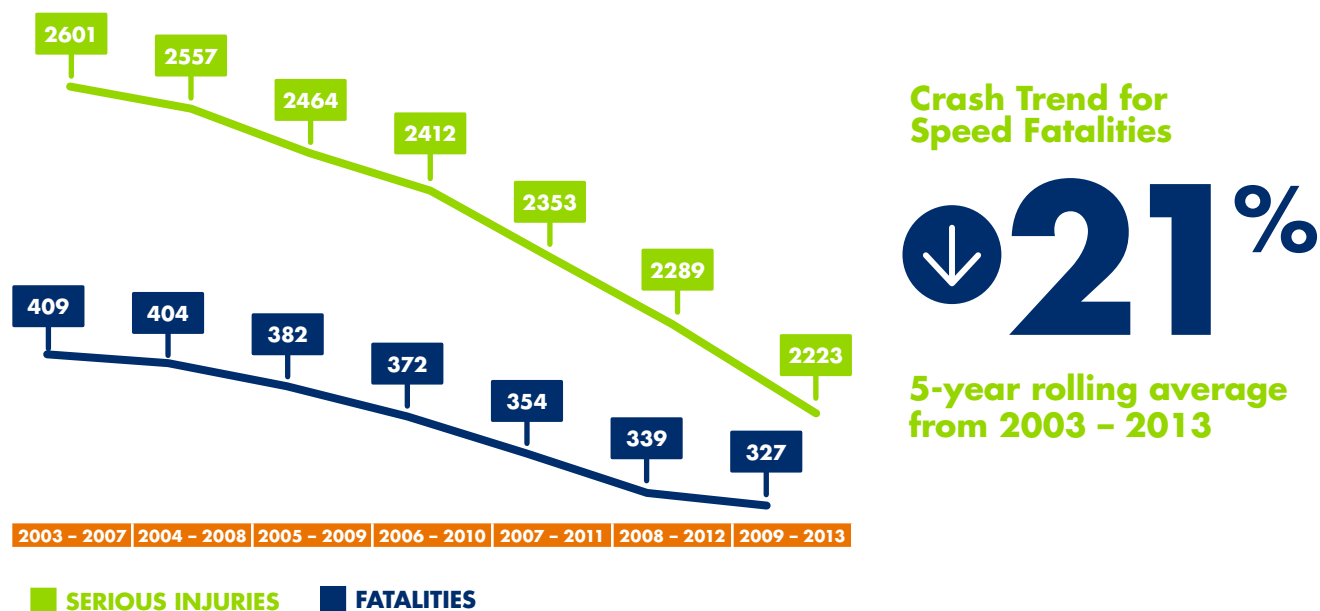
### GOALS

**Reduce the number of speed-related fatalities from 327 to 302 between 2013-2017.**

**Reduce the number of speed-related serious injuries from 2223 to 2050 between 2013-2017.**

Speed-related crashes account for about 32 percent of Ohio's deaths and 24 percent of its serious injuries each year. More than 60 percent of speed-related deaths and serious injuries occur when the driver leaves the travel lane and hits another object. About 40 percent of these crashes also involve unbelted drivers and passengers, and young drivers who are less experienced behind the wheel. The five-year rolling average historical trend for the years 2003-2013 shows a steady reduction of 21 percent in speed-related fatalities and 15 percent for serious injuries.

## AVERAGE FATALITY & SERIOUS INJURY TRENDS



## PERFORMANCE MEASURES

■ Number of speed-related fatalities

■ Number of speed-related serious injuries

## STRATEGIES

- Encourage high visibility, speed-related enforcement in jurisdictions with a disproportionate number of speed-related fatalities and serious injuries.
- Use peer-to-peer programs to reduce speeding and other risky behaviors that contribute to injuries and fatalities among young drivers.
- Coordinate speed safety messages developed by multi-agency communication committee.
- Set appropriate speed limits and deploy other speed management techniques.



EMPHASIS AREA

## HIGH RISK DRIVERS & BEHAVIORS

# YOUNG DRIVERS



### GOALS

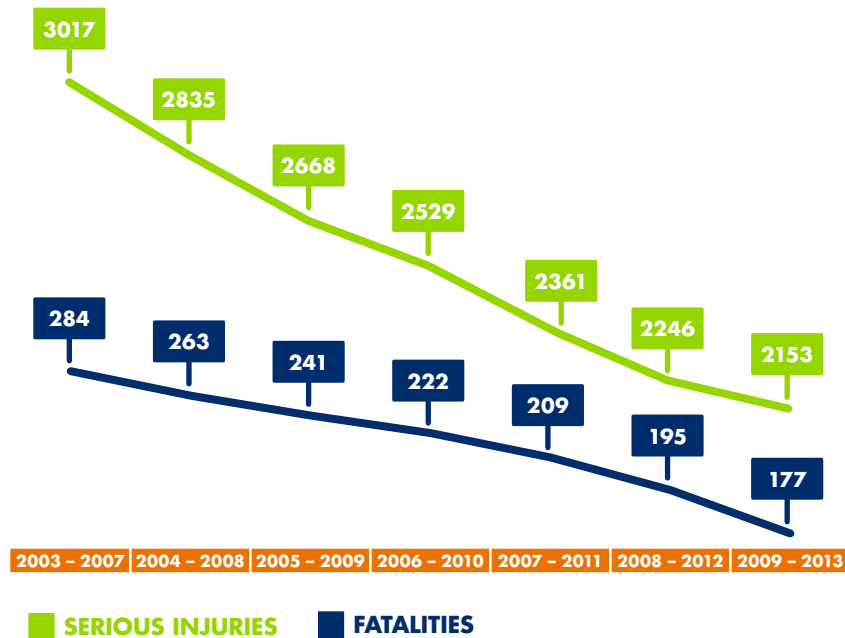
**Reduce the number of young driver fatalities from 177 to 163 between 2013-2017.**

**Reduce the number of young driver serious injuries from 2153 to 1986 between 2013-2017.**

Young drivers (ages 15-25) are significantly over-represented in Ohio's fatal and serious injury crashes. Research indicates immaturity, risk taking and inexperience are primary factors. Young driver-related crashes account for 32 percent of Ohio's deaths and 39 percent of serious injuries each year. More than 50 percent are angle crashes at intersections and driveways. The highest number of serious injury crashes occur between 3-4 p.m. when traffic is heaviest, and the highest number of deaths happened at 2 a.m. Speeding, not wearing a seatbelt and impaired driving also contribute significantly to the problem. The five-year rolling average historical trend for the years 2003-2013 shows a steady reduction of 38 percent in young driver fatalities and 29 percent for serious injuries.

To be consistent with national performance measures, Ohio has chosen to base its young driver goals on the 15 to 20 year old age group. However, Ohio will continue to track crashes and implement strategies associated with the broader young driver age group of 15-25.

## AVERAGE FATALITY & SERIOUS INJURY TRENDS



Crash Trend for  
Young Driver Fatalities

↓ **38%**

5-year rolling average  
from 2003 - 2013

## PERFORMANCE MEASURES

■ Number of drivers age 20 or younger involved in fatal crashes

■ Number of drivers age 20 or younger involved in serious injury crashes

## STRATEGIES

- Use a statewide peer-to-peer program to increase seat belt use and reduce speeding, impaired driving, distracted driving, underage drinking and other risky behaviors that contribute to injuries and fatalities among teens.
- Implement enforcement programs to reduce risky teen driving behavior.

- Implement community outreach programs to reduce risky teen driving behavior.
- Strengthen the Graduating Driver Licensing (GDL) law.





## EMPHASIS AREA HIGH RISK DRIVERS & BEHAVIORS

# OLDER DRIVERS



### GOALS

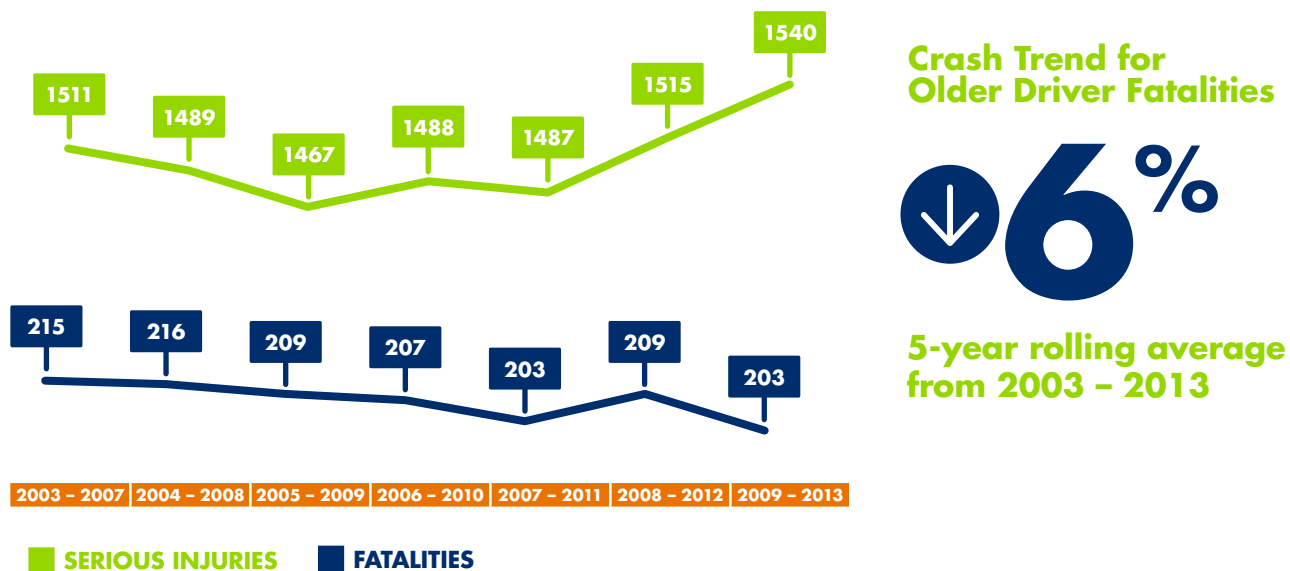
**Reduce the number of older driver fatalities from 203 to 187 between 2013-2017.**

**Reduce the number of older driver serious injuries from 1540 to 1420 between 2013-2017.**

Older driver-related crashes (65 and older) account for approximately 18 percent of Ohio's deaths and 16 percent of serious injuries. This number is expected to increase dramatically over the next decade as the U.S. population ages and older drivers cope with the impact aging has on safe driving. About half of all older driver-involved crashes occur at intersections, and the highest number of crashes occur between 1-4 p.m. The five-year rolling average historical trend for the years 2003-2013 shows a reduction of 6 percent in older driver fatalities and a 2 percent increase for serious injuries.



## AVERAGE FATALITY & SERIOUS INJURY TRENDS



## PERFORMANCE MEASURES

■ Number of older driver fatalities

■ Number of older driver serious injuries

## STRATEGIES

■ Create a comprehensive and coordinated outreach effort that educates older drivers and their caregivers on driving risks and remedies.

■ Encourage roadway design and engineering measures that reduce the risks of traffic crashes for older drivers.

■ Coordinate older driver messages developed by multi-agency communication committee.



EMPHASIS AREA

## HIGH RISK DRIVERS & BEHAVIORS

# DISTRACTED DRIVERS



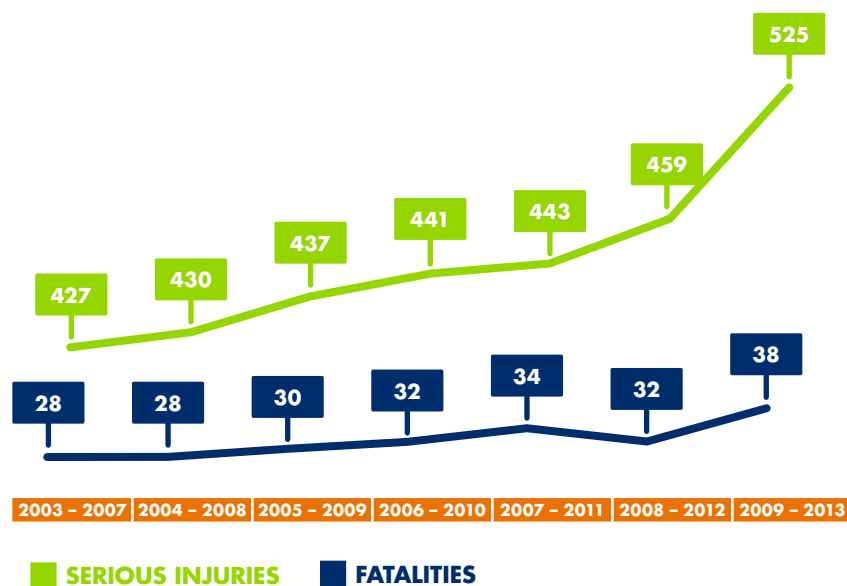
### GOALS

**Reduce the number of distracted driver fatalities from 38 to 35 between 2013-2017.**

**Reduce the number of distracted driver serious injuries from 525 to 484 between 2013-2017.**

Distracted/fatigued driver crashes accounted for about 3 percent of Ohio's fatalities and 4 percent of serious injuries, though the true number of crashes is likely under-reported. Nearly 60 percent of distracted/fatigued driving deaths and serious injuries involved roadway departure where a driver left the roadway and struck another object; and 36 percent involved a young driver under 20 years of age. To reduce distracted driver crashes, Ohio law bans teen drivers under age 18 from using any electronic communications device (handheld and hands-free); and adult drivers face fines for texting or reading and sending email while driving. The five-year rolling average historical trend for the years 2003-2013 shows a 35 percent increase in distracted driver fatalities and a 23 percent increase for serious injuries. Ohio changed its crash reporting form in 2013 to better categorize the types of driver distraction. This change will likely increase the reported number of distracted driving crashes.

## AVERAGE FATALITY & SERIOUS INJURY TRENDS



Crash Trend for  
Distracted Driver Fatalities

↑ **35%**

5-year rolling average  
from 2003 - 2013

## PERFORMANCE MEASURES

■ Number of distracted driver fatalities

■ Number of distracted driver serious injuries

## STRATEGIES

- Encourage high visibility distracted-related enforcement in jurisdictions with a disproportionate number of distracted driving-related fatalities and serious injuries.
- Expand earned media and outreach of distracted driving by using innovative and unique delivery methods that reach specific segments of the targeted audience.
- Conduct distracted driver observational surveys, similar to those done for seat belt use.
- Coordinate distracted driver messages developed by multi-agency communication committee.
- Encourage employer policies that prohibit distracted driving.



# BICYCLE RIDERS



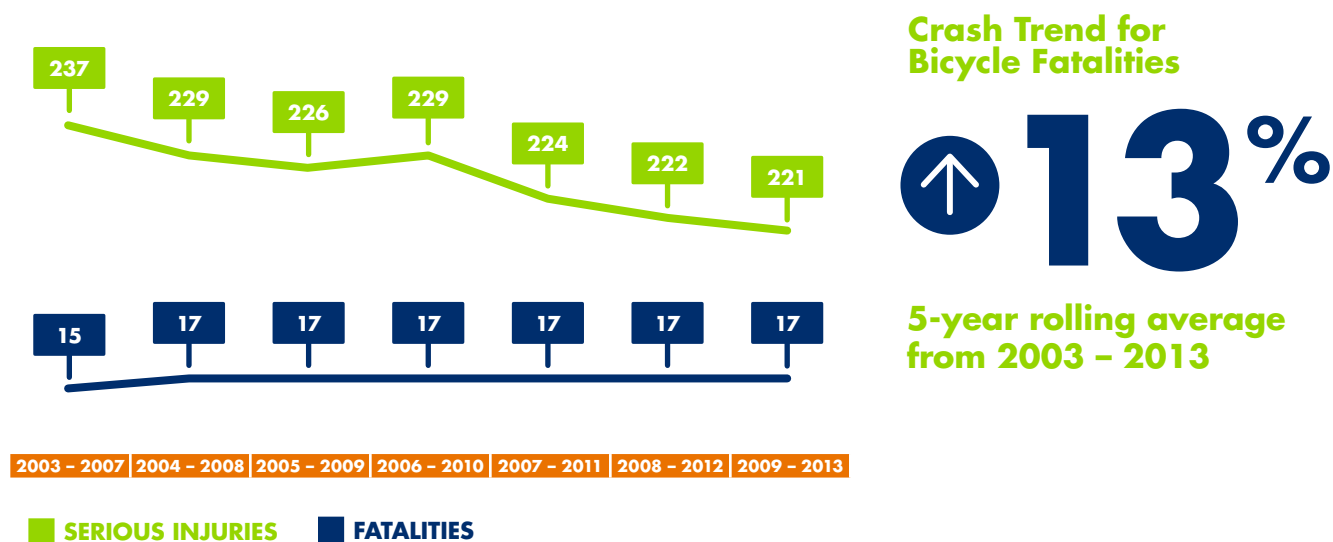
## GOALS

**Reduce the number of bicycle fatalities from 17 to 16 between 2013-2017.**

**Reduce the number of bicycle serious injuries from 221 to 204 between 2013-2017.**

Bicycle-related crashes account for approximately 2 percent of Ohio's deaths and about 2 percent of serious injuries each year. Bicycle crashes mainly occur on urban roads and increase during the summer and fall months, likely the result of favorable weather. While more than half of the bicycle-related deaths and serious injuries occurred in crashes where the bicyclist was determined to be at fault, motorists and bicyclists share responsibility for preventing these crashes. The five-year rolling average historical trend for the years 2003-2013 shows an increase of 13 percent in bicycle fatalities and a 7 percent decrease for serious injuries.

## AVERAGE FATALITY & SERIOUS INJURY TRENDS



## PERFORMANCE MEASURES

■ Number of bicyclist fatalities

■ Number of bicyclist serious injuries

## STRATEGIES

- Educate transportation partners, engineers and local governments on how to incorporate bicycle facilities and accommodations into community projects.
- Implement proven countermeasures to reduce bicycle crashes.
- Conduct education and outreach for law enforcement and all roadway users to increase understanding of bicycle laws.
- Advance use of technology and roadway designs that make travel safer for bicyclists.
- Improve bicycle data collection.





# PEDESTRIANS



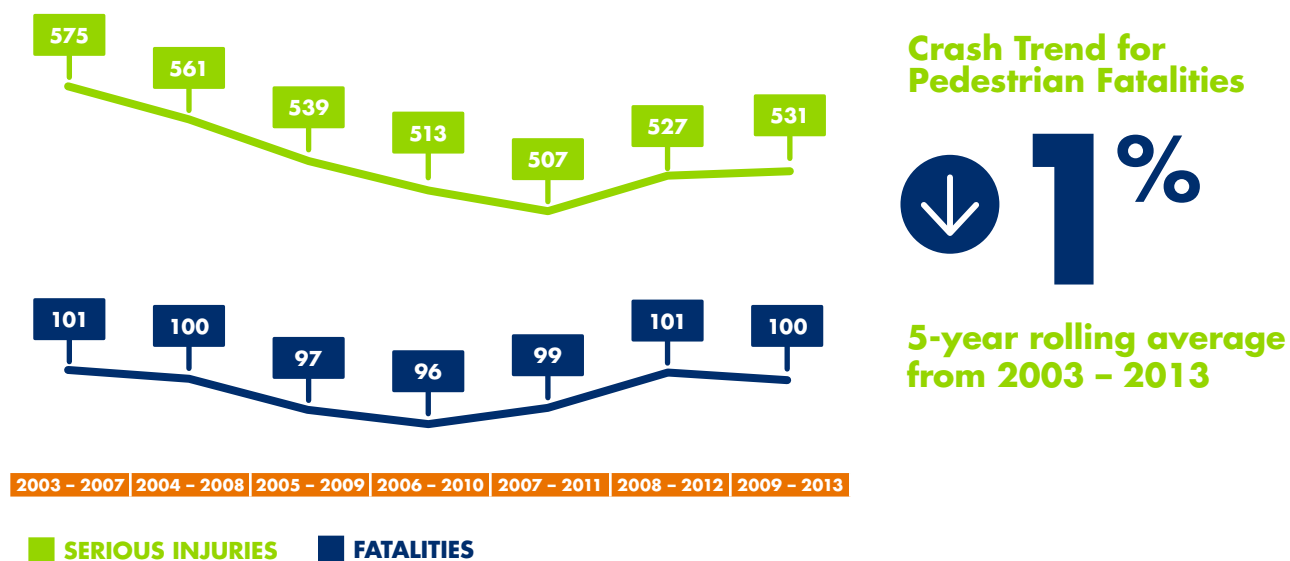
## GOALS

**Reduce the number of pedestrian fatalities from 100 to 92 between 2013-2017.**

**Reduce the number of pedestrian serious injuries from 531 to 490 between 2013-2017.**

Pedestrian-related crashes account for about 9 percent of Ohio's deaths and 5 percent of serious injuries each year. More than half of pedestrian-related deaths and serious injuries take place away from crosswalks and intersections, and occur predominantly in urban areas. Motorists and pedestrians share responsibility for preventing crashes. Less than half of the pedestrian-related deaths and serious injuries occurred in crashes where the pedestrian was at fault. The five-year rolling average historical trend for the years 2003-2013 shows a steady reduction of 1 percent in pedestrian fatalities and 8 percent for serious injuries.

## AVERAGE FATALITY & SERIOUS INJURY TRENDS



## PERFORMANCE MEASURES

■ Number of pedestrian fatalities

■ Number of pedestrian serious injuries

## STRATEGIES

- Educate transportation partners, engineers and local governments to incorporate pedestrian facilities and accommodations in community projects.
- Implement proven countermeasures to reduce pedestrian crashes.
- Conduct education and outreach to law enforcement and all roadway users to increase understanding and enforcement of pedestrian laws.
- Advance use of technology and roadway designs that make travel safer for pedestrians.
- Increase the knowledge of safety practices for target populations that are likely to walk and use transit.
- Improve pedestrian data collection.



# COMMERCIAL VEHICLES



## GOALS

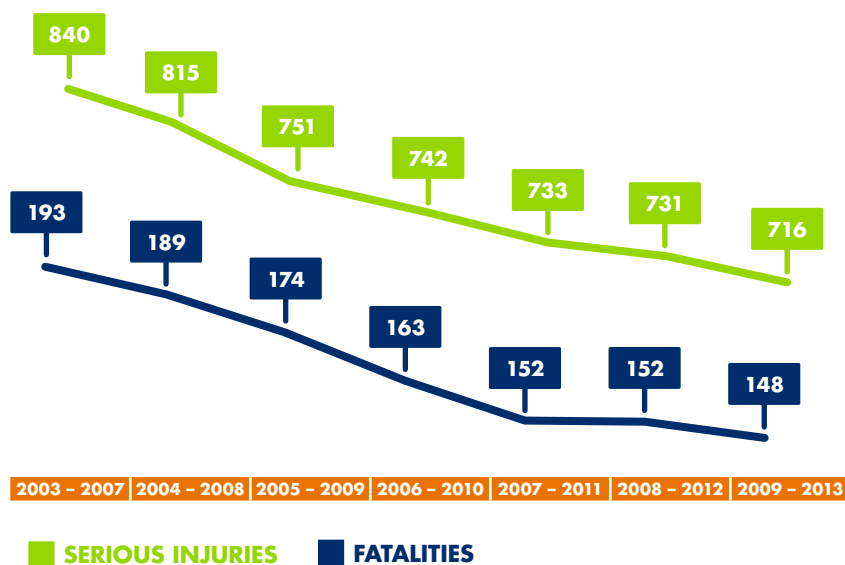
**Reduce the number of fatalities related to CMV crashes from 148 to 137 between 2013-2017.**

**Reduce the number of serious injuries related to CMV crashes from 716 to 660 between 2013-2017.**

Commercial motor vehicle (CMV) crashes account for about 15 percent of Ohio's deaths and 7 percent of serious injuries each year. Nearly 35 percent of these crashes occur at intersections and result in a large number of angle crashes. The number of CMV-related deaths and serious injuries typically increase between 2-3 p.m. There were also a high number of deaths in the morning between 8-9 a.m. CMV operators were not at fault in 61 percent of crashes. The five-year rolling average historical trend for the years 2003-2013 shows a steady reduction of 24 percent in commercial vehicle fatalities and 15 percent for serious injuries.



## AVERAGE FATALITY & SERIOUS INJURY TRENDS



### Crash Trend for Commercial Vehicle Fatalities

↓ **24%**

5-year rolling average from 2003 - 2013

## PERFORMANCE MEASURES

■ Number of CMV-related fatalities

■ Number of CMV-related serious injuries

## STRATEGIES

- Engage in high visibility traffic enforcement in and around commercial motor vehicles.
- Conduct driver/vehicle inspections to ensure commercial motor vehicles are in proper working order and drivers are properly credentialed, experienced and fit for duty.
- Review company operations to ensure compliance with state and federal safety and hazardous materials regulations.
- Educate and review new motor carrier operations to ensure proper understanding and compliance with motor carrier and hazardous materials safety regulations.
- Provide education and outreach to the public and industry on how to safely operate in and around commercial motor vehicles.
- Identify high crash corridors and initiate appropriate engineering and enforcement interventions.



# MOTORCYCLES



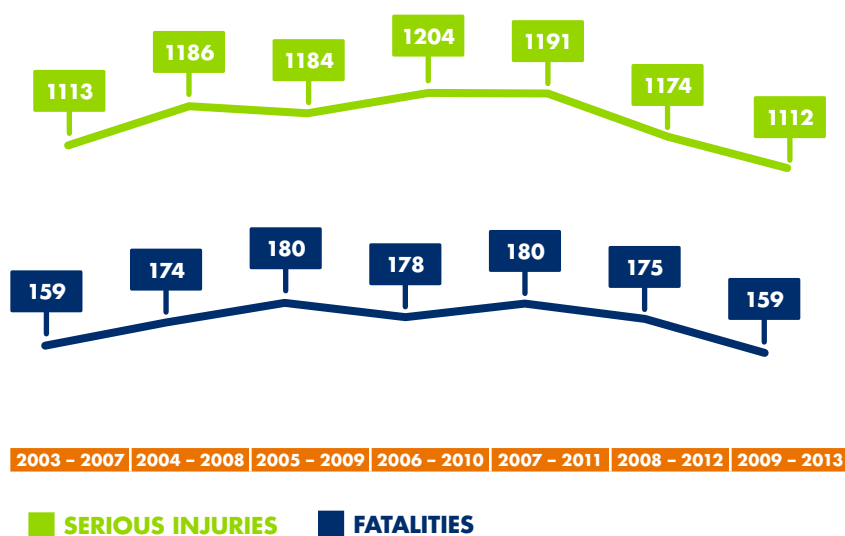
## GOALS

**Reduce the number of motorcycle fatalities from 159 to 147 between 2013-2017.**

**Reduce the number of motorcycle serious injuries from 1112 to 1026 between 2013-2017.**

Motorcyclist deaths and serious injuries accounted for 16 percent of Ohio's deaths and 12 percent of serious injuries each year. Almost 41 percent of these crashes occurred at intersections and driveways, and 35 percent occurred on curves. In 61 percent of these crashes, the motorcycle operator was at fault and in 50 percent of these crashes the motorcycle was the only vehicle involved. In nearly 66 percent of all serious crashes, helmets were not used. The five-year rolling average historical trend for the years 2003-2013 shows a reduction of 0 percent in motorcycle fatalities and 0 percent for serious injuries.

## AVERAGE FATALITY & SERIOUS INJURY TRENDS



### Crash Trend for Motorcycle Fatalities



5-year rolling average from 2003 - 2013

## PERFORMANCE MEASURES

- Number of motorcyclist fatalities
- Number of motorcyclist serious injuries
- Number of unhelmeted motorcyclist fatalities
- Number of unhelmeted serious injuries

## STRATEGIES

- Conduct high visibility enforcement to address speeding and impaired riding in jurisdictions whose problem identification indicates a motorcycle fatal/serious injury crash problem.
- Develop and implement programs to train novice and experienced riders on skills related to preventing crashes.
- Implement Ride SMART (Sober, Motorcycle endorsed, Alert, Right gear and Trained) paid media and outreach programs to motorcyclists and to motorists using Share the Road messaging.
- Coordinate motorcycle safety messages developed by multi-agency communication committee.



## EMPHASIS AREA DATA



All states are required by law to develop an SHSP that uses crash data to identify the greatest causes of fatalities and serious injuries on public roads. The results of the analysis are used to develop emphasis areas and strategy recommendations to reduce fatal and serious injury crashes. Data also helps highway safety stakeholders understand the challenges, set priorities and develop and evaluate programs that save lives.

Ohio's Traffic Records Coordinating Committee (TRCC), managed by the Ohio Department of Public Safety, acts as a subcommittee of the SHSP that works with organizations to share the data, pool funding and prioritize data improvement projects. Knowing how, when, where, who and why traffic crashes have occurred are the foundation of a comprehensive analysis system. Connecting that data to roadway information, injury outcome and other data also provides a clear picture of what happens when these crashes occur and gives clues to the types of strategies that can prevent crashes or reduce their severity.

Ohio's guiding principle has been to "get the data right," then automate the data so anyone at any skill level can use it to make better safety investments. Through the TRCC, Ohio has invested millions of dollars in roadway inventory and data analysis projects. In addition, other improvements have been developed by in-house staff at various agencies. Implementation of the following strategies will continue to improve the quality and accessibility of Ohio's traffic safety data.

## STRATEGIES

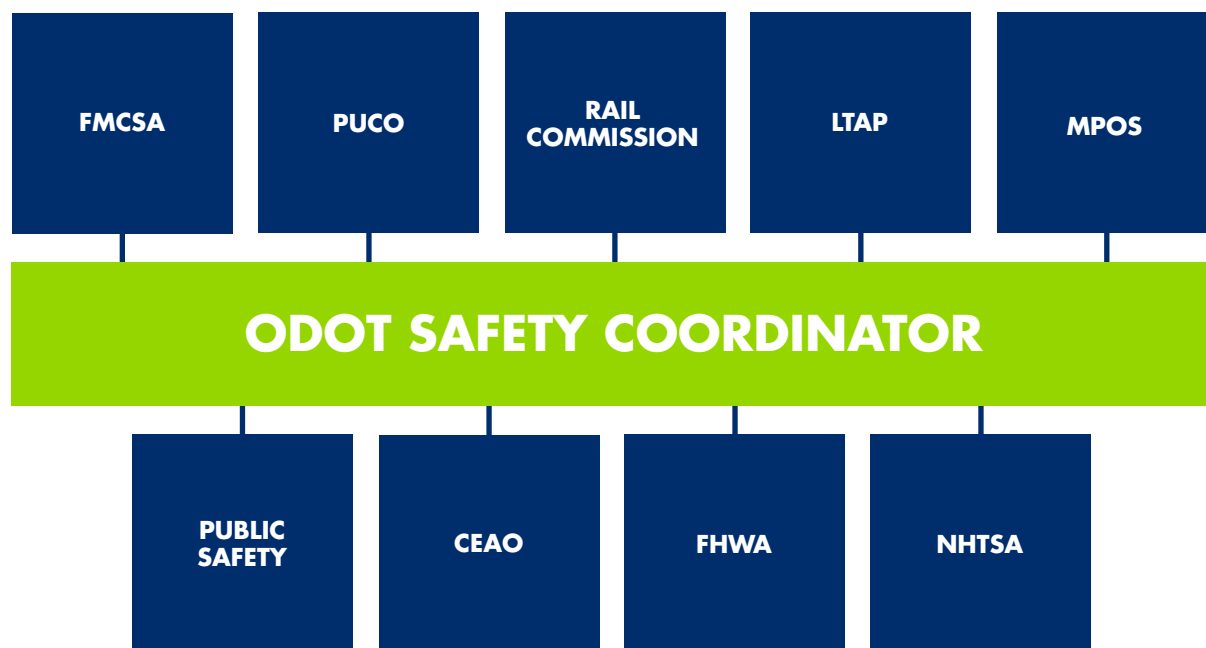
- Improve crash data collection.
- Improve the accuracy and completeness of crash location information for all public roads.
- Broaden data collection practices to include all roadway users (pedestrians, bicyclists, motorcyclists, older drivers, etc.).
- Maintain and link data systems from different stakeholders and improve access to linked data.
- Develop data analysis methods and tools for use at state, regional and local levels across all stakeholders and analysis skill levels.
- Implement analysis tools that support data-driven decision making.

# OHIO'S SHSP ORGANIZATIONAL STRUCTURE

Ohio has a unique SHSP organizational structure compared with other states across the nation. While some rely heavily on executive involvement and teams created specifically for each emphasis area, Ohio's committee structure was built on the philosophy of "use what you have, first." Ohio creates new committees only when existing ones are not strong or broad enough to identify and implement good crash-reduction strategies.

In Ohio, an Executive Committee of the state's top safety leaders guides the overall plan and its implementation. The day-to-day management of the plan is overseen by the SHSP Steering Committee, which is largely comprised of the decision-makers and fund managers representing key safety organizations across the state. Ohio's Statewide Steering Committee meets quarterly to review crash trends and action plans, and evaluate the plan's effectiveness. More importantly, this committee represents a network of thousands of stakeholders across the state working on common strategies and goals.

**Figure 1.** Key members of Ohio's SHSP Steering Committee



Ohio uses existing agency-driven committees to organize and consider stakeholder input, prioritize strategies and investments, and monitor action plan implementation progress. Ohio created this agency-driven process in the first SHSP to avoid duplicative committees and better integrate SHSP responsibilities with the day-to-day functions of these agencies.

# OHIO'S SHSP ORGANIZATIONAL STRUCTURE

**Figure 2** Ohio SHSP Organizational Structure



For example, the Ohio Department of Public Safety (ODPS) leads Ohio's efforts to reduce traffic deaths and serious injuries associated with High Risk Drivers and Behaviors. As such, they work with regional coalitions made up of Safe Communities programs, law enforcement agencies, health departments, local governments and transportation organizations to identify appropriate strategies based on local data. Coalition representatives are often ODPS subgrantees that receive National Highway Traffic Safety Administration funding for countermeasure-related activities that reduce speeding, encourage seat belt use and deter drug and alcohol impairment, among others.

These regional coalitions also meet quarterly to review data and implementation, and adjust actions based on results. ODPS then compiles the regional implementation information and shares the results with the SHSP Steering Committee at their quarterly meetings. The agency uses the alcohol, seat belt, speed and motorcycle SHSP Action Plans to communicate this progress.

However, in some cases new committee structures make sense. Beginning with the SHSP update in 2015, Ohio elected to create four new emphasis area (EA) teams to address older drivers, younger drivers, bicycles and pedestrians, and distracted drivers. These teams will function as "traditional" SHSP EA teams, which will meet to develop an action plan. As part of the process, they will meet several times throughout the year to review data, prioritize strategies and adjust their plans as needed. The EA team leaders will be members of the SHSP Steering Committee.



## NEXT STEPS – IMPLEMENTATION AND EVALUATION

Ohio's updated SHSP is a roadmap to achieve the plan's vision and goals through effective implementation of the proposed strategies and action steps. The SHSP Executive and Steering Committees, comprised of key safety stakeholders, will oversee and supervise the implementation process by:

- Tracking and reporting implementation progress in each emphasis area;
- Identifying barriers or problems to implementation;
- Providing regular updates on SHSP-related campaigns, training or other programs;
- Modifying action steps as required;
- Providing guidance on future programs, activities, etc.;
- Working with the Traffic Records Coordinating Committee on data improvements; and
- Determining the content and design of future SHSP updates.

Evaluation is a critical part of the implementation process. The overall plan and each emphasis area have specific goals to reduce traffic-related fatalities and serious injuries. Each of those goals will be tracked on a quarterly basis to ensure Ohio is meeting specific targets.

Everyone – whether they drive, walk, ride or bike – must keep the “Toward Zero Deaths” goal foremost in their mind every trip, every time, if we want to achieve continued reductions in traffic-related fatalities and serious injuries. This document will be available on the ODOT and Ohio safety partner websites for anyone interested in learning more about Ohio's Strategic Highway Safety Plan.

**JOIN US IN STAYING SAFE ON THE ROADS AS WE MOVE TOWARD ZERO DEATHS.**



## SHSP UPDATE PROCESS

Ohio began updating its plan in May 2013. This effort was led by the Ohio Department of Transportation (ODOT), in cooperation with its partners from the Ohio Traffic Safety Office (OTSO) and Ohio State Highway Patrol (OSHP). The state used the most current crash data to identify the greatest causes of serious injuries and deaths on public roads, which they presented to Ohio's safety partners. The updated plan outlines multi-agency strategies and investments to reduce these crash types, and encourages agencies and advocates to work together to achieve common safety goals.

Ohio used a three-pronged approach to obtain feedback from state and regional stakeholders on the most pressing traffic safety issues, with the goal of identifying safety strategies and actions to include in the updated SHSP. This approach included obtaining information and direction from the SHSP Executive and Steering Committees, as well as input from a variety of state and local stakeholders from across the state.

### EXECUTIVE COMMITTEE

Ohio's SHSP Executive Committee is comprised of the directors of the departments of Transportation, Public Safety and Public Utilities Commission; superintendent of the Ohio State Highway Patrol; division administrators from the FHWA and FMCSA; and the regional administrator of NHTSA. Ohio met with executive committee members in August 2013 to: provide an overview of the update process; discuss the state of traffic safety in Ohio; review SHSP structure; and emphasize the important roles and responsibilities of the safety executives and their staff. In July 2014, Ohio organized an SHSP Executive Summit to provide these agency leaders with an update from each emphasis area leader on crash trends, general strategies and major investments. This summit was vital in getting executive feedback and support for the goals and strategies in the updated plan.

### STEERING COMMITTEE

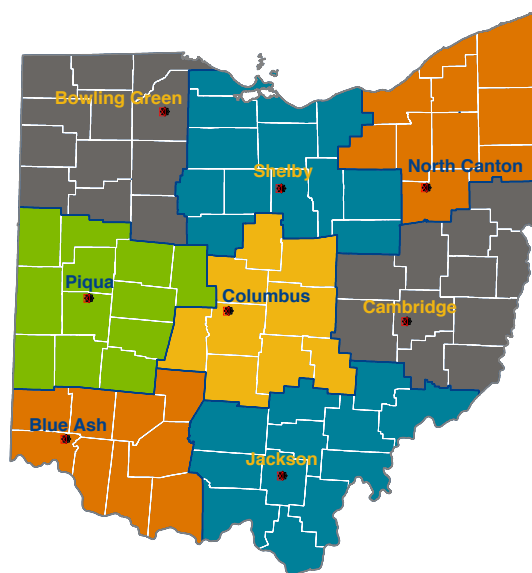
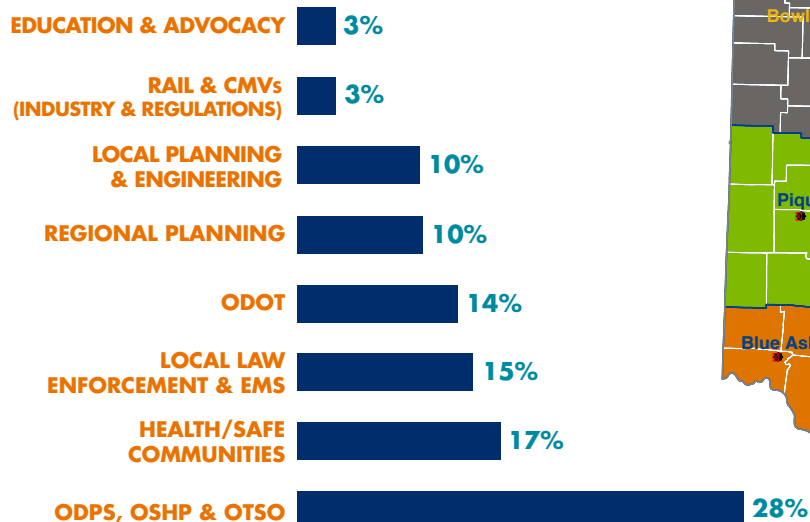
The SHSP Steering Committee, which oversees the day-to-day implementation of the SHSP, includes tenured and respected safety professionals representing enforcement, engineering, education and emergency medical services, oversees the SHSP update process. The departments of Transportation and Public Safety lead the process with assistance from local, state and federal agencies. The committee meets quarterly to review crash trends, discuss SHSP implementation and measure progress. During the update process, the Steering Committee provided direction on interaction with the Executive Committee, the stakeholder survey, regional meetings (locations, agenda and participants), goal setting, emphasis areas and action plans, and marketing materials.

## SAFETY ADVOCATES

Statewide safety advocates, including regional and local safety partners, gave input on the development of Ohio's emphasis areas. Ohio held eight regional meetings in the fall of 2013 to gather input for the plan. Almost 200 engineers, educators, law enforcement and emergency responders participated in the meetings (see "Thank You to All Our Safety Partners" on page 2). In addition, stakeholders could complete a 10-question online survey to share information about its group's safety activities, areas of safety need and relevant priorities, and ideas to support current strategies or identify new opportunities for inclusion in the SHSP. The steering committee discussed the stakeholder input, prioritized the ideas and re-affirmed the plan's emphasis areas.

### 195 transportation and safety stakeholders from the 4 Es participated in regional meetings

#### Regional Meeting Attendee Affiliation



## COORDINATION WITH OTHER PLANS

Several other transportation plans, including the Highway Safety Improvement Program (HSIP), Highway Safety Plan (HSP), Commercial Vehicle Safety Plan (CVSP), Statewide Transportation Plan, Metropolitan Transportation Plans and local road safety plans were considered during the development of the updated SHSP.

The Ohio Traffic Safety Office in the Ohio Department of Public Safety (ODPS) manages the HSP and is an active member of the SHSP Executive and Steering Committees. They also lead the impaired driving, seat belt, speed, young driver and distracted driver SHSP emphasis area teams. Motorcycle Ohio, also under ODPS, leads the motorcycle SHSP emphasis area team. Many of the strategies and actions identified in the action plans for those emphasis areas can also be found in the HSP.

In Ohio, commercial transportation companies are public utilities under the jurisdiction of the Public Utilities Commission of Ohio, which also coordinates the development of the CVSP. A PUCO representative participates on the SHSP Executive and Steering Committees, leads the commercial motor vehicle emphasis area team and coordinates the strategies and actions in the CVSP with the SHSP commercial motor vehicle action plan.

Representatives from the Ohio Association of Regional Councils sit on the SHSP Executive and Steering Committees to represent the interests of metropolitan planning organizations and local jurisdictions in the SHSP planning process. During stakeholder outreach, a large number of local and regional planning agencies participated in meetings, providing input into the SHSP based on their unique safety issues and needs.

## HIGH RISK RURAL ROADS (HRRR)

High risk rural roads (HRRR) are defined in Ohio as rural roadways, including county and township roads, that have a higher fatal and injury crash frequency than sites with similar characteristics. These rural roadway types include rural major or minor collectors, or rural local roads.

Each year, the Ohio Department of Transportation prioritizes roadway locations for safety study or review. Ohio is one of the first states in the country to fully implement AASHTOWare's Safety Analyst to prioritize safety locations across Ohio. Safety Analyst uses state-of-the-art statistical methodologies to identify roadway locations with the highest potential for reducing crashes. The software flags intersections and road segments that have higher-than-predicted crash frequencies. It also flags locations for review based on crash severity. This methodology is more efficient and cost effective and allows the department to study fewer locations yet address more crashes each year.

ODOT typically studies up to 300 locations across the state each year. These locations are grouped by type of roadway including the following rural roads:

- Rural Intersection
- Rural Segment – Non Freeway
- Rural Freeway

MAP-21 legislation does not set aside funds for a HRRR program. However, the special rule requires states to monitor fatality rates on rural roadways and obligate a specified amount of funding on high risk rural roads if the fatality rate increases over the most recent two years of data. This special rule does not currently apply to Ohio.

# EMPHASIS AREA DATA FACT SHEETS

Enclosed are fact sheets for each emphasis area and subcategory. Ohio used the information in the fall of 2013 to brief safety stakeholders and gather input for developing strategies and goals included in this update. The overview section of each fact sheet shows the trends for fatalities and serious injuries from 2006 – 2012. They also provide greater detail on who (gender and age), where (urban/rural, roadway type and prevalence by county), when (time of day, day of week), contributing factors and relationship to other emphasis areas.

# ROADWAY DEPARTURE DATA FACT SHEET

## OVERVIEW OF ROADWAY DEPARTURE-RELATED CRASHES

Between 2006 and 2012, 4,153 people died and 25,712 people were seriously injured in roadway departure crashes.

Since Ohio's first SHSP was adopted in 2006, roadway departure deaths declined by 10 percent and serious injuries decreased by 8 percent.



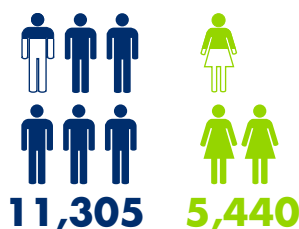
Roadway departure crashes account for about 52 percent of deaths and 37 percent of serious injuries in Ohio each year. These types of crashes occur when a vehicle leaves the travel lane and hits another vehicle head-on or strikes an object such as a tree or utility pole.



## AT FAULT DRIVERS IN CRASHES

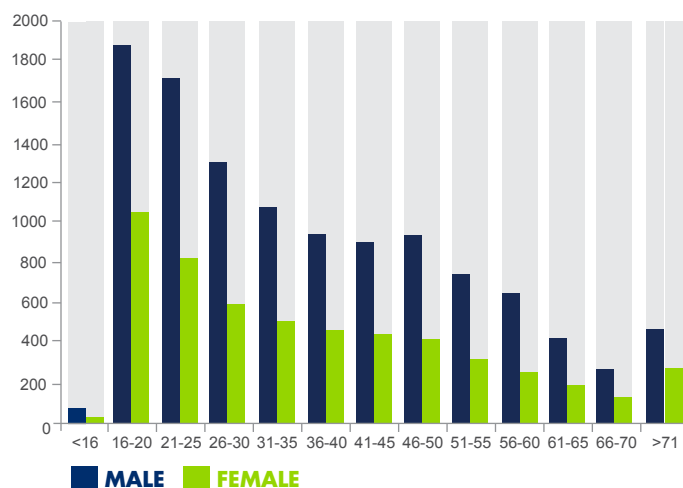
Male drivers were at fault in significantly more deaths and serious injuries related to roadway departures than females.

From 2008 to 2012, male drivers were at fault in 11,305 roadway departure deaths and serious injuries versus 5,440 for female drivers.



Male drivers between the ages of 16-25 accounted for the highest number of deaths and serious injuries.

### ROADWAY DEPARTURE-RELATED DEATHS AND SERIOUS INJURIES BY DRIVER AGE AND GENDER



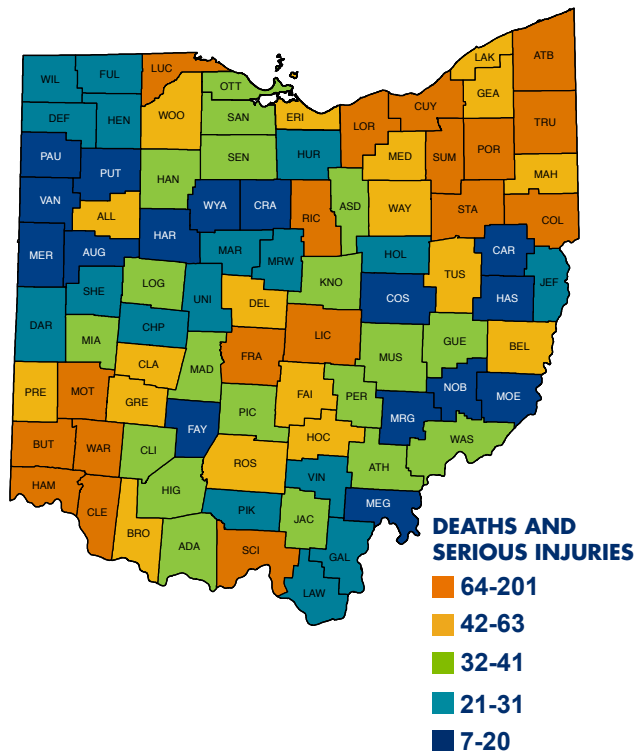
Note: all data from 2008-2012, except Overview section



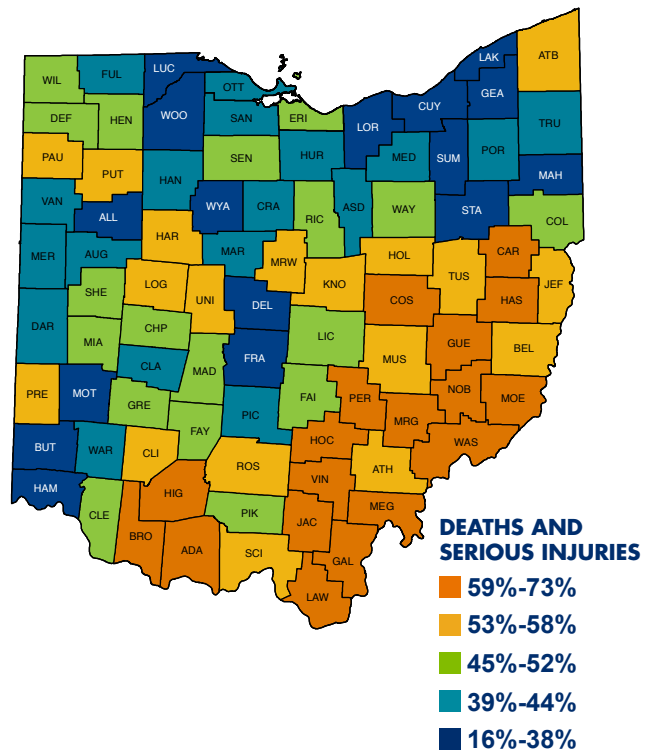
## WHERE CRASHES OCCURRED

These maps rank Ohio counties by the number of deaths and serious injuries that occur in roadway departure crashes. Warm colors indicate more crashes relative to cool colors. **Most urbanized counties have a higher number of serious injury roadway departure crashes. However, many rural counties have a higher percentage of serious roadway departure crashes when compared to the total number of serious crashes occurring within the county each year.**

**ROADWAY DEPARTURE-RELATED DEATHS AND SERIOUS INJURIES BY COUNTY TOTAL**

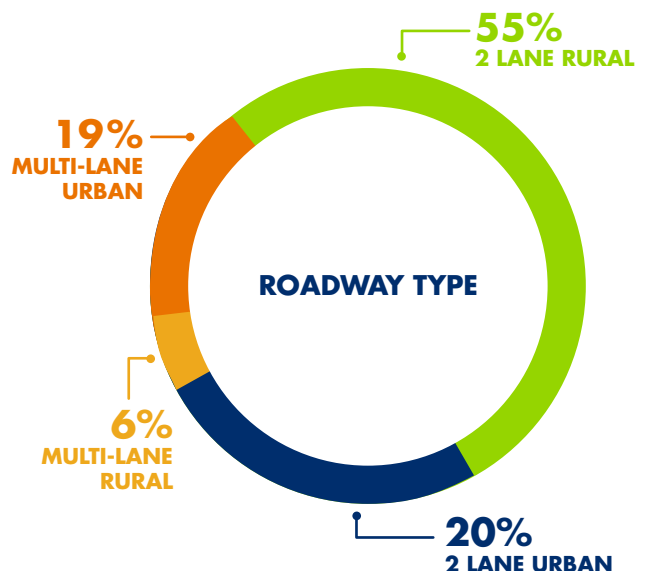


**ROADWAY DEPARTURE-RELATED DEATHS AND SERIOUS INJURIES BY PERCENTAGE OF COUNTY CRASHES**



**ROADWAY DEPARTURE-RELATED DEATHS AND SERIOUS INJURIES BY ROADWAY TYPE**

The majority of roadway departure deaths and serious injuries occurred on two-lane roads which often have narrow shoulders or no space for vehicles to recover when they leave the travel lane. More than half of these crashes are in rural areas.



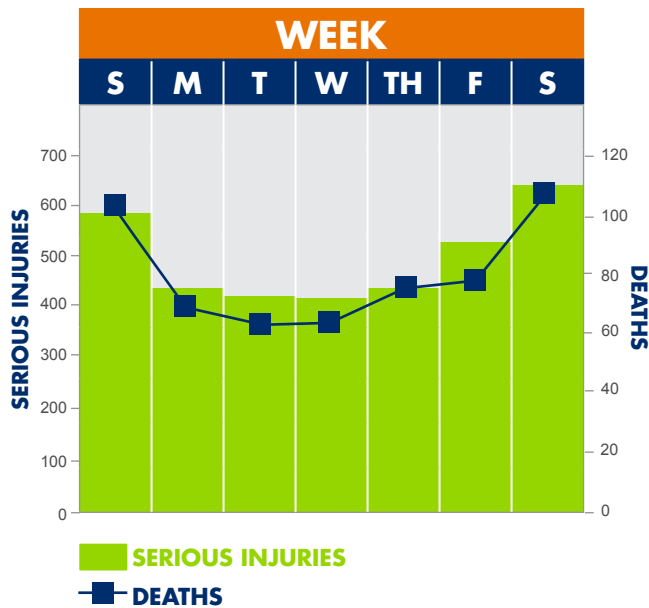
Note: all data from 2008-2012, except Overview section



## WHEN CRASHES OCCURRED

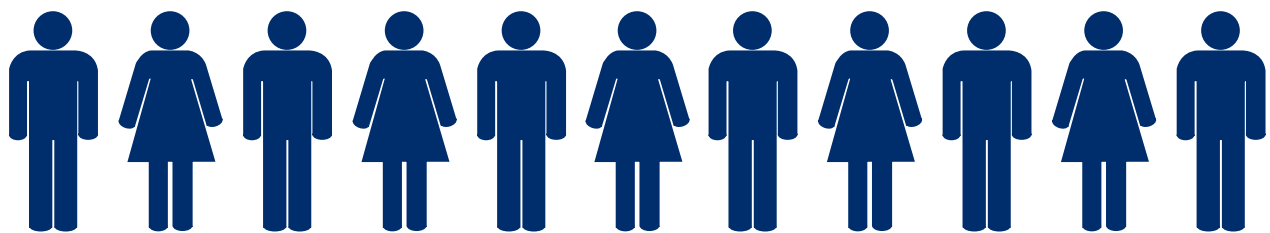
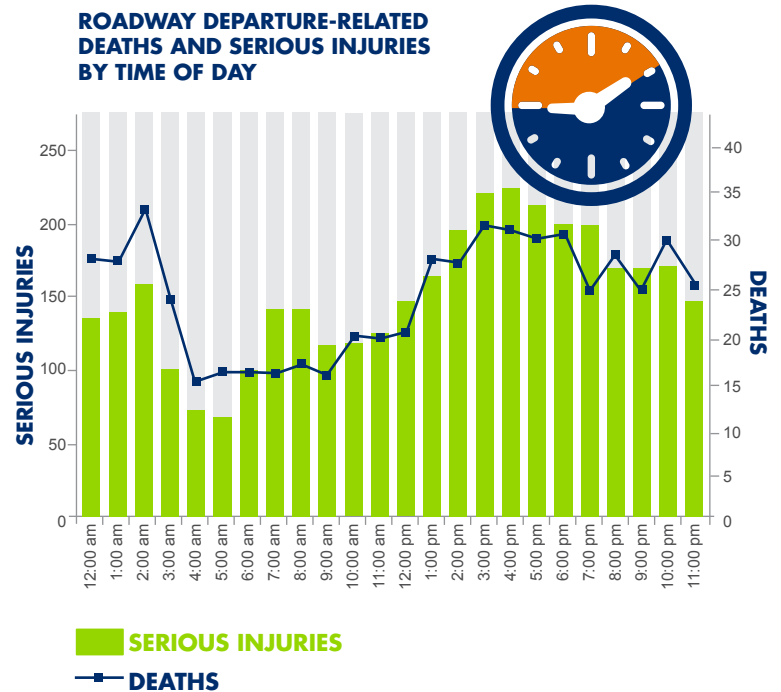
Most roadway departure deaths and serious injuries occurred on the weekend, with a noticeable jump on Saturday.

ROADWAY DEPARTURE-RELATED DEATHS AND SERIOUS INJURIES BY DAY OF THE WEEK



Serious crashes increased between 3-5 p.m. when more traffic is on the road, and late at night, which often correlates with drinking and driving.

ROADWAY DEPARTURE-RELATED DEATHS AND SERIOUS INJURIES BY TIME OF DAY



**AN AVERAGE OF 11 PEOPLE DIED OR WERE SERIOUSLY INJURED EACH DAY IN ROADWAY DEPARTURE CRASHES.**

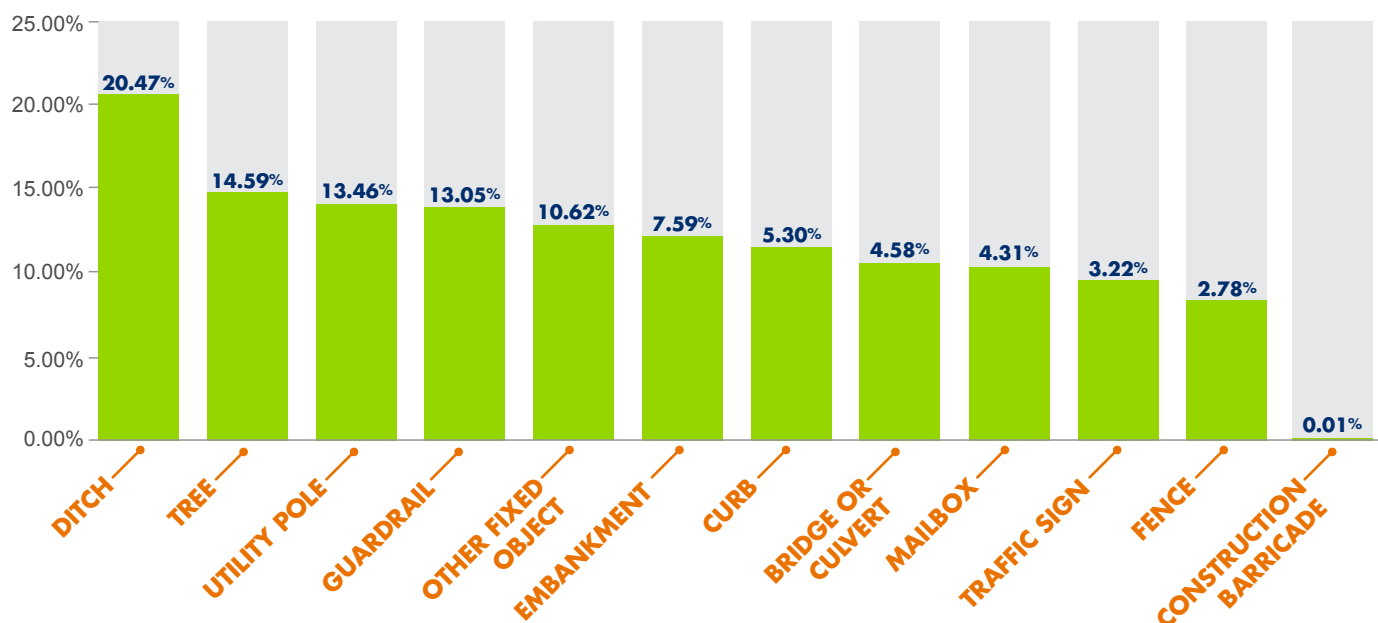
*Note: all data from 2008-2012, except Overview section*



## CONTRIBUTING FACTORS

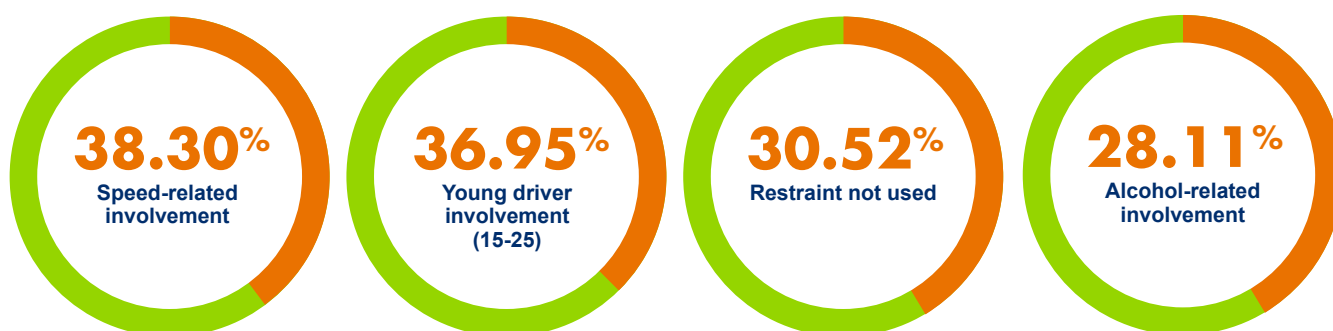
Ditches, trees and utility poles were struck most often when drivers left the travel lane and hit a fixed object. Guardrails were also hit frequently; however, they are designed to lessen the severity of a crash when a vehicle leaves the roadway. These objects were hit most frequently due to their presence along most roadways and their proximity to the travel lane.

### ROADWAY DEPARTURE-RELATED DEATHS AND SERIOUS INJURIES BY OBJECT STRUCK



**Thirty-eight percent of drivers that ran off the road were also speeding.** Alcohol and unbelted drivers and passengers were also significant factors in roadway departure serious injury and death crashes. Young drivers are disproportionately involved in these types of crashes as well.

### ROADWAY DEPARTURE-RELATED DEATHS AND SERIOUS INJURIES BY RELATED SHSP EMPHASIS AREAS



*Note: all data from 2008-2012, except Overview section*



# INTERSECTION DATA FACT SHEET

## OVERVIEW OF INTERSECTION-RELATED CRASHES

Between 2006 and 2012, 2,045 people died and 26,668 people were seriously injured in intersection-related crashes.

Since Ohio's first SHSP was adopted in 2006, serious injuries declined by 11 percent and deaths decreased 12 percent.

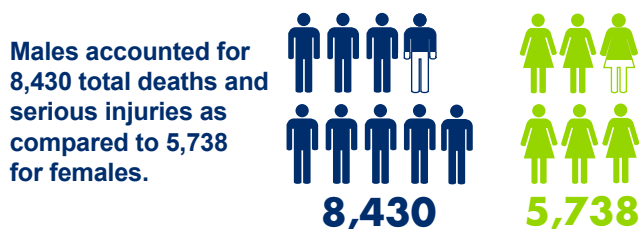


These crashes represent about 26 percent of all traffic deaths and 37 percent of all serious injuries in Ohio each year. Intersections posed a risk to all road users - vehicle occupants, pedestrians and bicyclists, and motorcycle riders. The risks increase based on the size, complexity and speed of the intersecting roadways.



## AT FAULT DRIVERS IN CRASHES

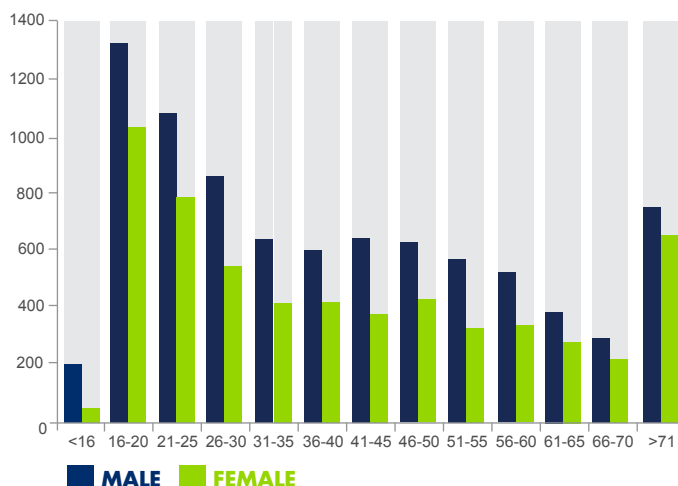
Male drivers were at fault in the majority of intersection-related deaths and serious injuries.



Male drivers between the ages of 16-25 accounted for the highest number of deaths and serious injuries, but another spike occurred among men ages 26-30. A noticeable spike occurred among drivers over 71, which may be attributed to difficulty in judging gaps in traffic.

*Note: all data from 2008-2012, except Overview section*

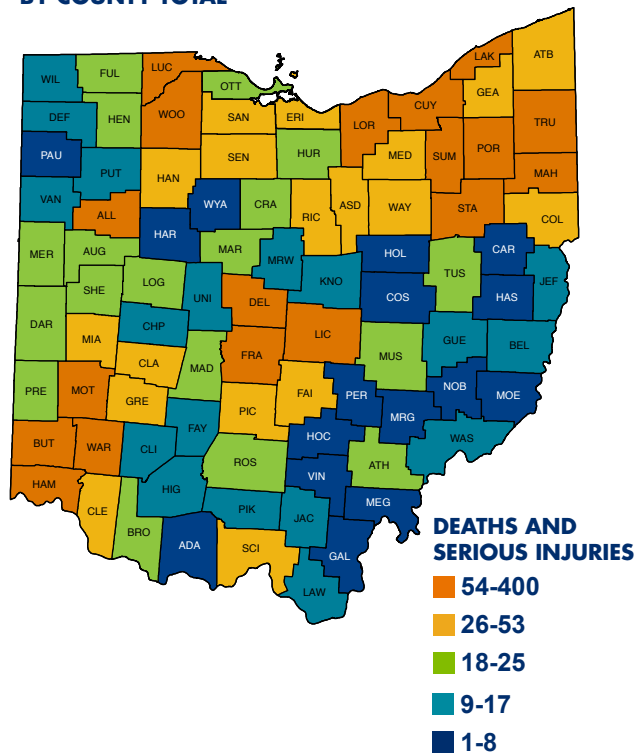
### INTERSECTION-RELATED DEATHS AND SERIOUS INJURIES BY DRIVER AGE AND GENDER



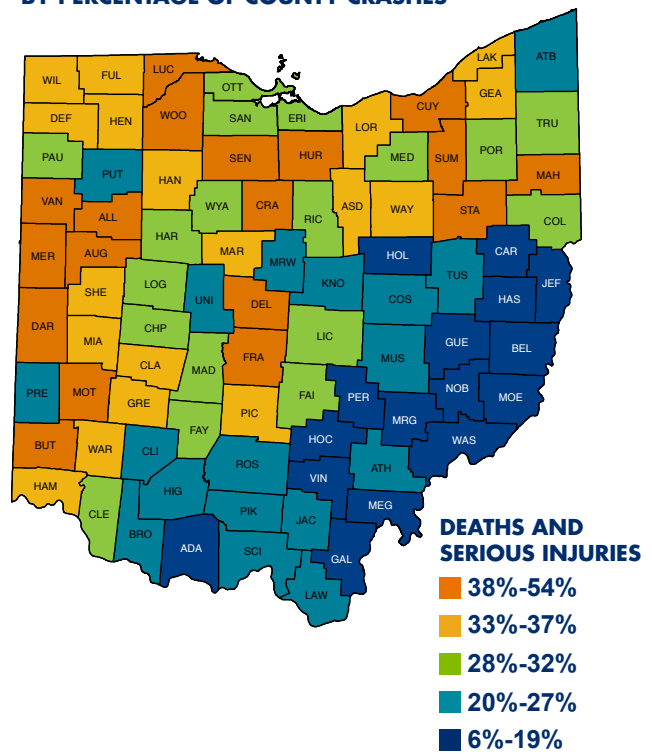
## WHERE CRASHES OCCURRED

These maps rank Ohio counties by the number of deaths and serious injuries that occurred at intersections. Warm colors indicate more crashes relative to cool colors. **Most urbanized counties have a higher number of serious crashes at intersections. However, many rural counties have a higher percentage of serious injury crashes at intersections when compared to the total number of serious crashes occurring within the county each year.**

**INTERSECTION-RELATED DEATHS AND SERIOUS INJURIES BY COUNTY TOTAL**

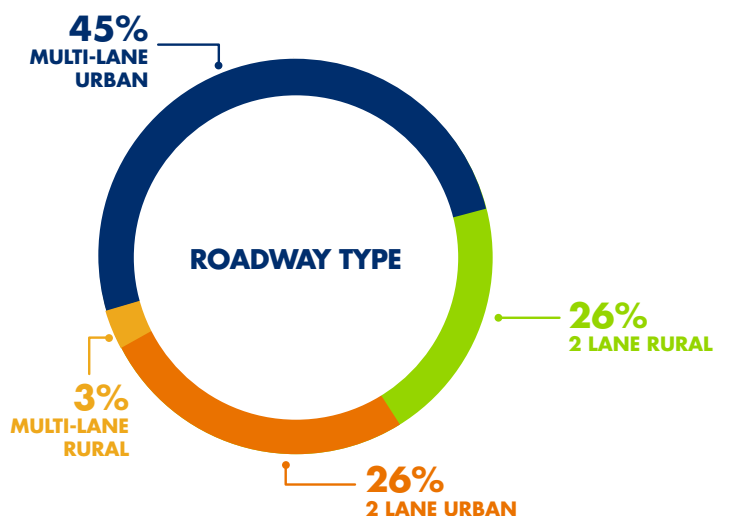


**INTERSECTION-RELATED DEATHS AND SERIOUS INJURIES BY PERCENTAGE OF COUNTY CRASHES**



**INTERSECTION-RELATED DEATHS AND SERIOUS INJURIES BY ROADWAY TYPE**

The number of intersection-related deaths and serious injuries on urban roads with multiple lanes is nearly double the amount on two-lane rural roads.



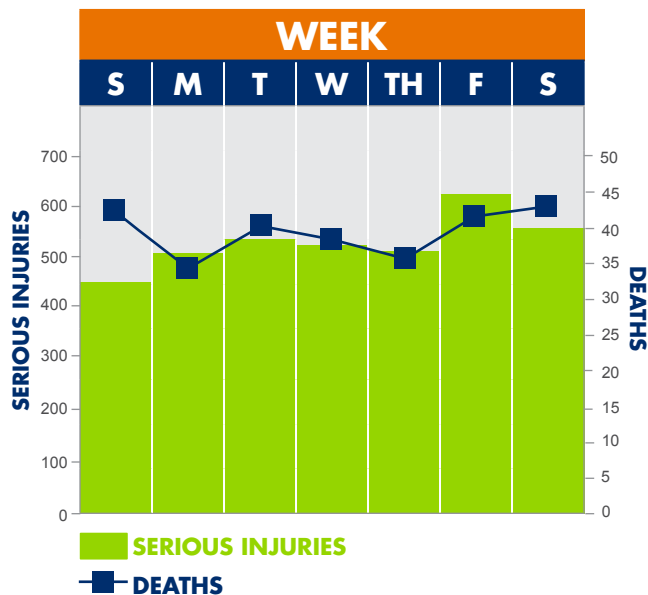
*Note: all data from 2008-2012, except Overview section*



## WHEN CRASHES OCCURRED

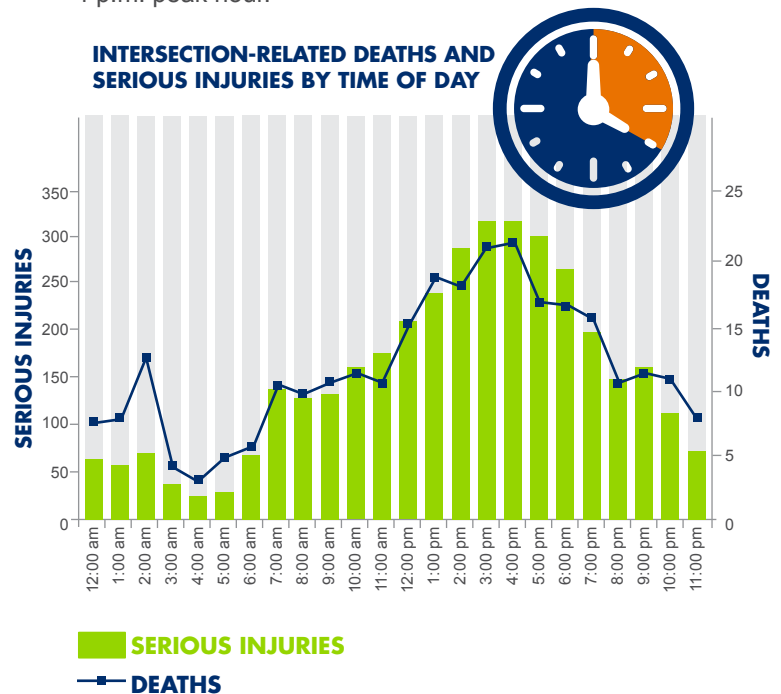
Intersection-related deaths and serious injuries were fairly evenly distributed throughout the week.

INTERSECTION-RELATED DEATHS AND SERIOUS INJURIES BY DAY OF THE WEEK



Intersection crashes that resulted in a death and/or serious injury peaked in the afternoon between 2-7 p.m. as a result of rush-hour traffic. An average of 321 serious injuries and 20 deaths occurred at the 4 p.m. peak hour.

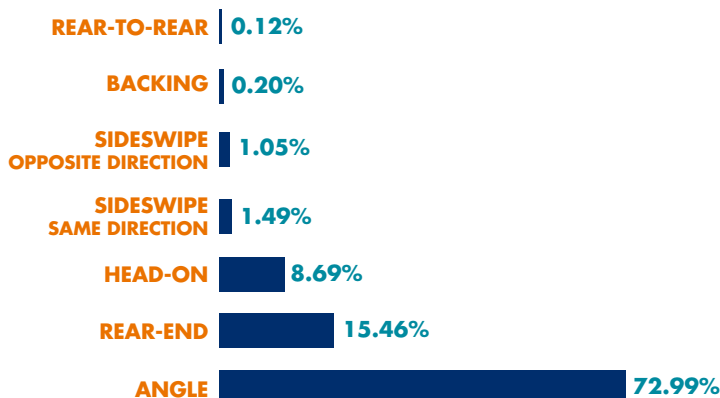
INTERSECTION-RELATED DEATHS AND SERIOUS INJURIES BY TIME OF DAY



## CONTRIBUTING FACTORS

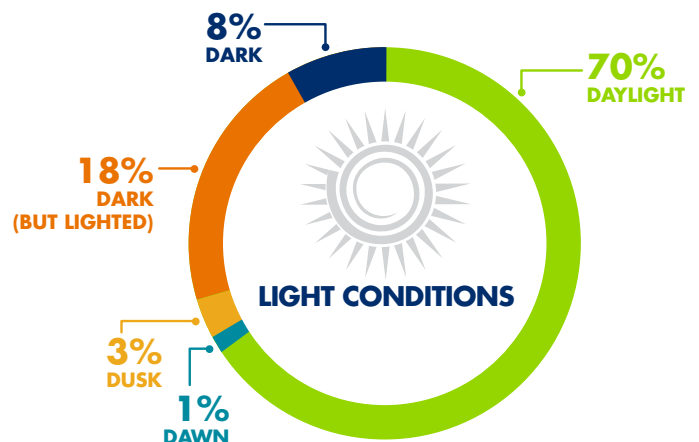
The most significant cause of serious injuries and deaths at Ohio intersections involved angle crashes, which typically occurred when one vehicle failed to either stop or yield the right of way.

INTERSECTION-RELATED DEATHS AND SERIOUS INJURIES BY COLLISION TYPE



Lighting did not seem to have a significant effect on intersection-related crashes. Only 8 percent of deaths and serious injuries in intersection-related crashes occurred during dark conditions where there was no lighting.

INTERSECTION-RELATED DEATHS AND SERIOUS INJURIES BY LIGHT CONDITION



Note: all data from 2008-2012, except Overview section

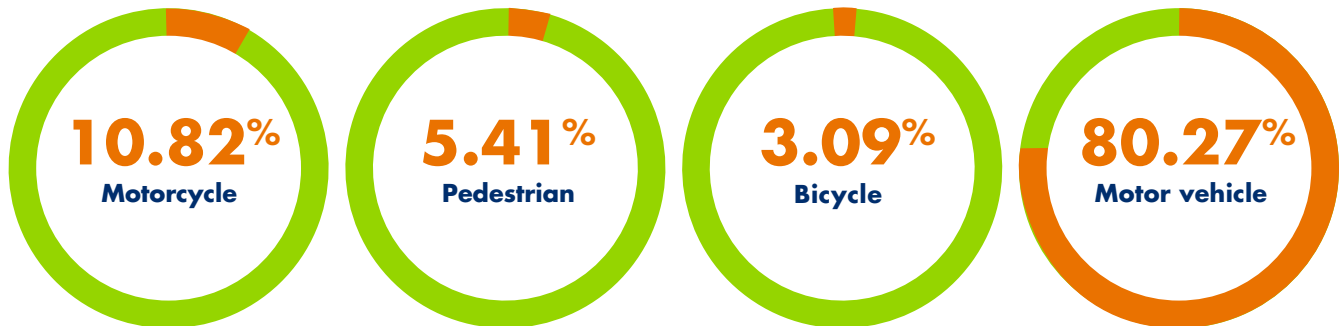




## CONTRIBUTING FACTORS CONTINUED

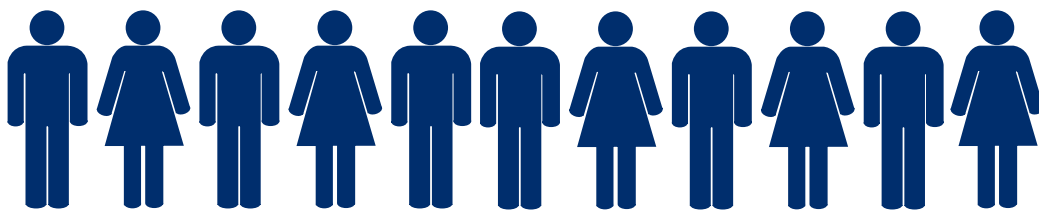
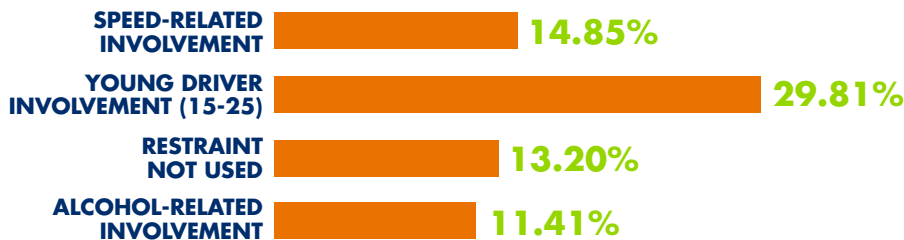
Collisions between two or more motor vehicles represented the highest number of deaths and serious injuries at intersections, with a total of 16,047, followed by motorcycle-involved crashes with 2,163.

### INTERSECTION-RELATED DEATHS AND SERIOUS INJURIES BY VEHICLE TYPE



Young drivers were, on average, disproportionately involved in serious injuries and deaths at Ohio intersections. This is likely caused by their lack of driving experience, which can lead them to make mistakes such as misjudging the speed of oncoming traffic when turning. Among drivers of all ages, speeding, not wearing a seat belt and driving under the influence of alcohol were also significant factors in intersection-related serious injuries and deaths.

### INTERSECTION-RELATED DEATHS AND SERIOUS INJURIES BY RELATED SHSP EMPHASIS AREAS



**AN AVERAGE OF 11 PEOPLE DIED OR WERE SERIOUSLY INJURED EACH DAY IN INTERSECTION CRASHES.**

*Note: all data from 2008-2012, except Overview section*



# REAR END DATA FACT SHEET

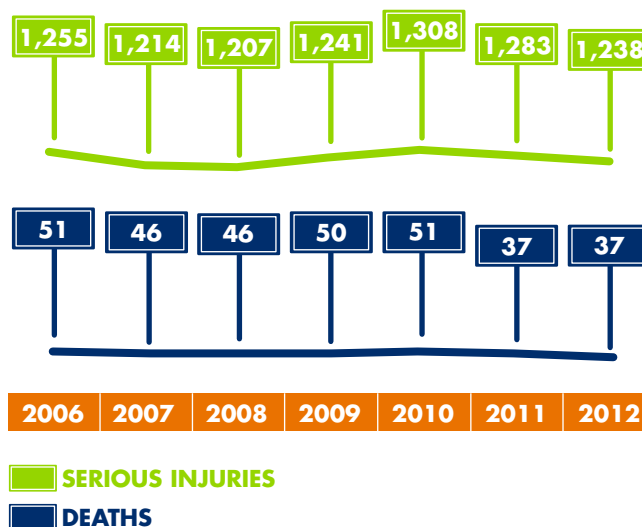
## OVERVIEW OF REAR END RELATED CRASHES

Between 2006 and 2012, 318 people died and 8,746 people were seriously injured in rear end crashes.

Since Ohio's first SHSP was adopted in 2006, fatalities have declined by 27 percent. Serious injuries fluctuated during the same time period, but declined 1 percent.



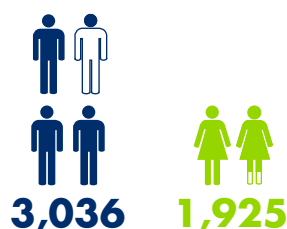
Rear end crashes account for about 4 percent of Ohio's fatalities and around 13 percent of serious injuries each year.



## AT FAULT DRIVERS IN CRASHES

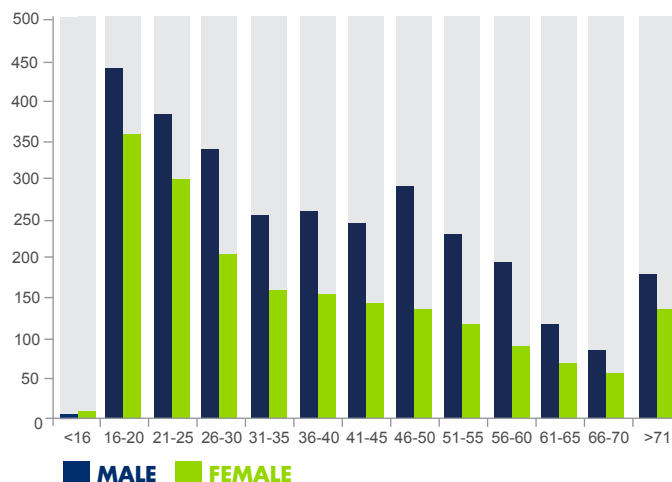
Data indicate that male drivers are more likely to be at fault in rear end crashes resulting in deaths or serious injuries.

From 2008 to 2012, male drivers were at fault in 3,036 rear end related deaths and serious injuries versus 1,925 female drivers.



Male drivers between the ages of 16-30 accounted for the highest number of fatalities and serious injuries, with another spike among men ages 46-50.

### REAR END RELATED DEATHS AND SERIOUS INJURIES BY DRIVER AGE AND GENDER

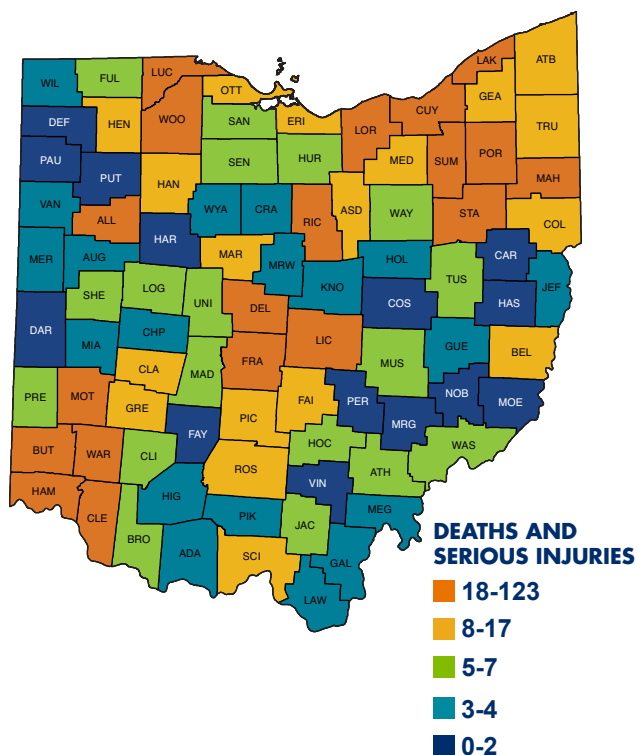


Note: all data from 2008-2012, except Overview section

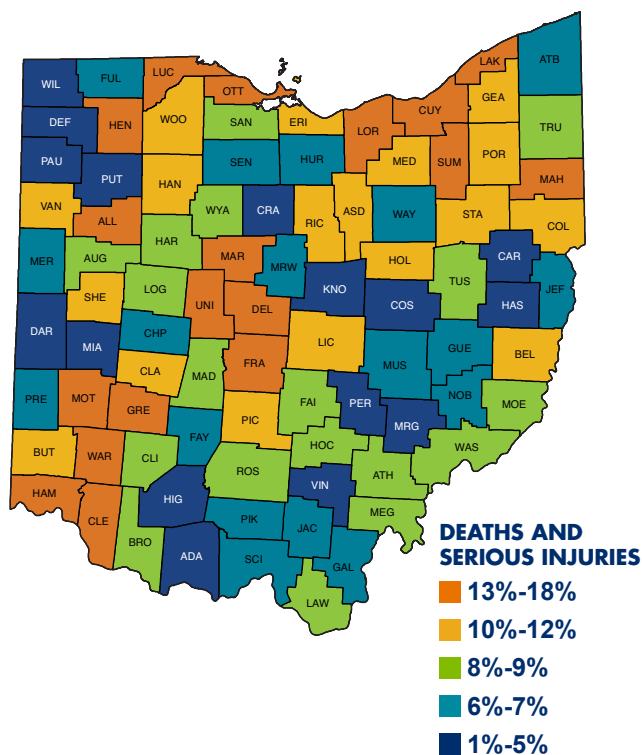
## WHERE CRASHES OCCURRED

These maps rank Ohio counties by the number of deaths and serious injuries attributed to rear end crashes. Warm colors indicate more crashes relative to cool colors. **Most urbanized counties have a higher total number of rear end serious crashes.**

**REAR END RELATED DEATHS AND SERIOUS INJURIES BY COUNTY TOTAL**



**REAR END RELATED DEATHS AND SERIOUS INJURIES BY PERCENTAGE OF COUNTY CRASHES**

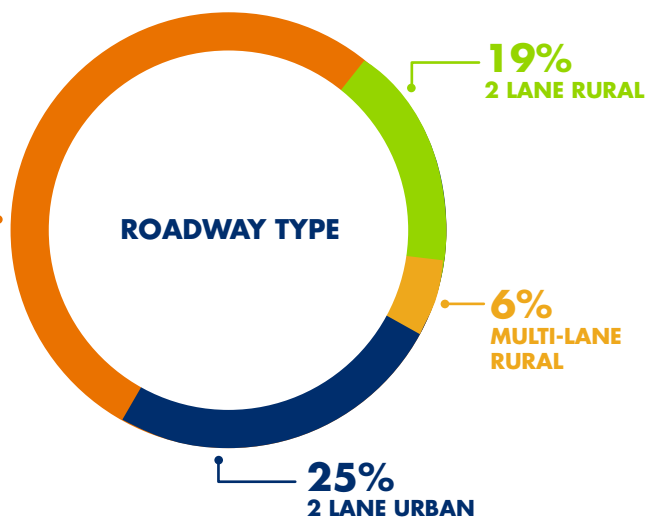


**REAR END RELATED DEATHS AND SERIOUS INJURIES BY ROADWAY TYPE**

The vast majority of rear end crashes involving serious injuries or deaths occur in urban areas. Urban areas are more congested and prone to frequent stops and starts that can lead to rear end crashes.



**50%**  
MULTI-LANE  
URBAN



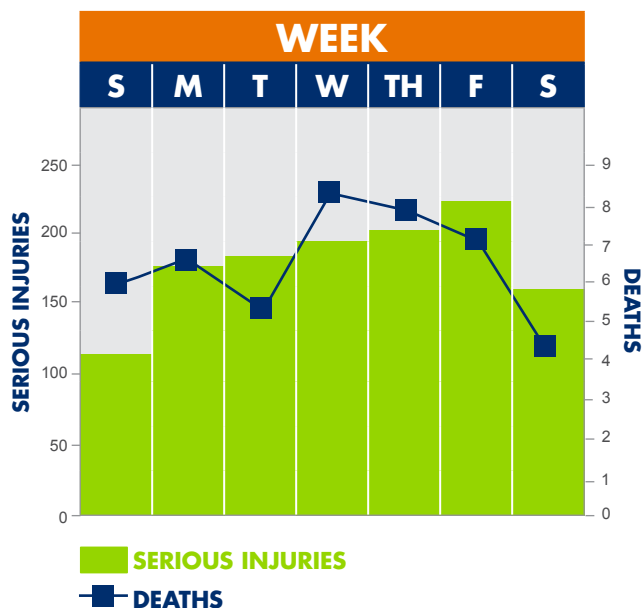
*Note: all data from 2008-2012, except Overview section*



## WHEN CRASHES OCCURRED

Fatalities and serious injuries related to rear end crashes peaked from Wednesday - Friday and experienced slight decreases over the weekend, likely due to less travelers on the road. An average of 224 serious injuries and 7 fatalities occurred on Fridays.

REAR END RELATED DEATHS AND SERIOUS INJURIES BY DAY OF THE WEEK



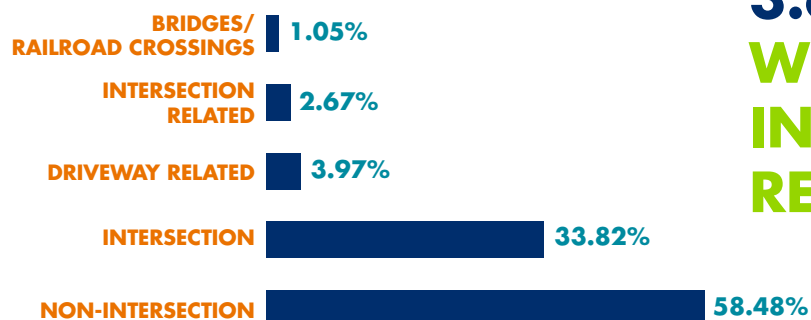
The highest number of crashes occurred between 3-5 p.m. with an average of 136 serious injuries and 2 fatalities happening around 3 p.m. each year. This is due to high traffic volumes during this time of day.



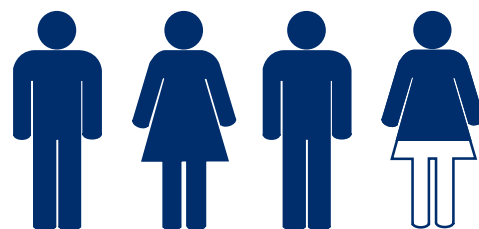
## CONTRIBUTING FACTORS

Many deaths and serious injuries occur at intersections where motorists frequently stop or slow down to turn. However, more than half of all serious rear end crashes are not intersection-related. Many of these crashes are on high speed roads such as interstates or freeways, where sudden stops caused by incidents and congestion can lead to serious injuries and deaths.

REAR END RELATED DEATHS AND SERIOUS INJURIES BY LOCATION



Note: all data from 2008-2012, except Overview section



**AN AVERAGE OF 3.6 PEOPLE DIED OR WERE SERIOUSLY INJURED EACH DAY IN REAR END CRASHES.**

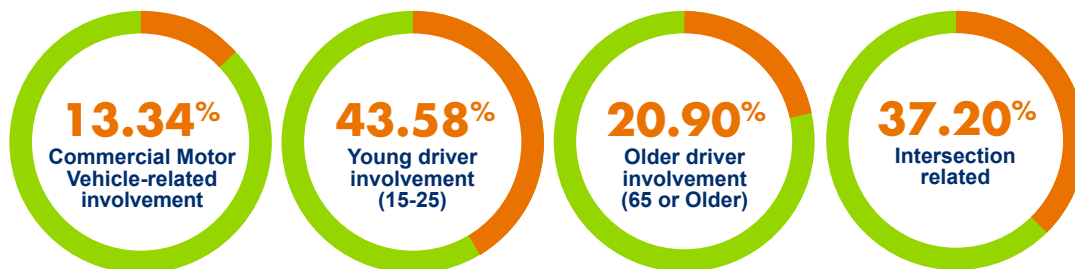


## CONTRIBUTING FACTORS CONTINUED

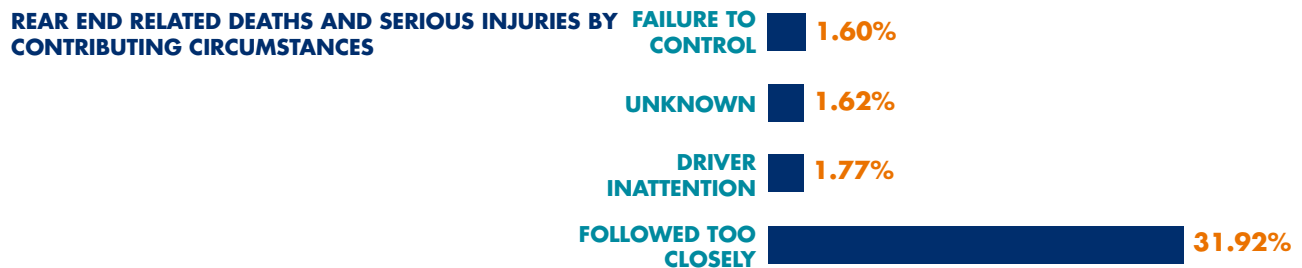
Many of the fatalities and serious injuries related to rear end crashes are due to driver inexperience.

Young drivers are involved in 44 percent of the crashes. Approximately one third of the crashes happen at intersections and older drivers are also involved in a high number of rear end crashes.

### REAR END RELATED DEATHS AND SERIOUS INJURIES BY RELATED SHSP EMPHASIS AREAS

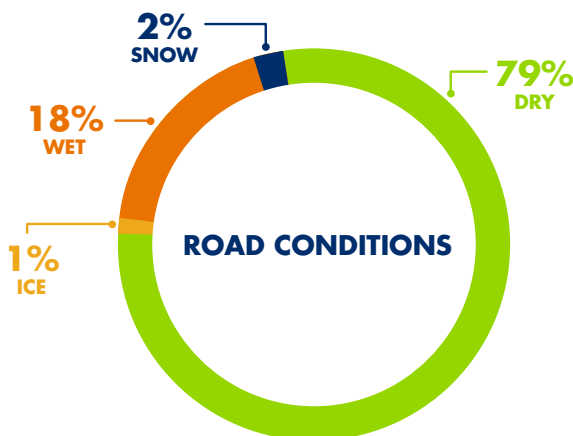


Over 31 percent of the time, rear end fatalities and serious injuries were the result of a driver following too closely to another vehicle. This correlates with the fact that rear end crashes are typically less severe than angle or head on crashes.



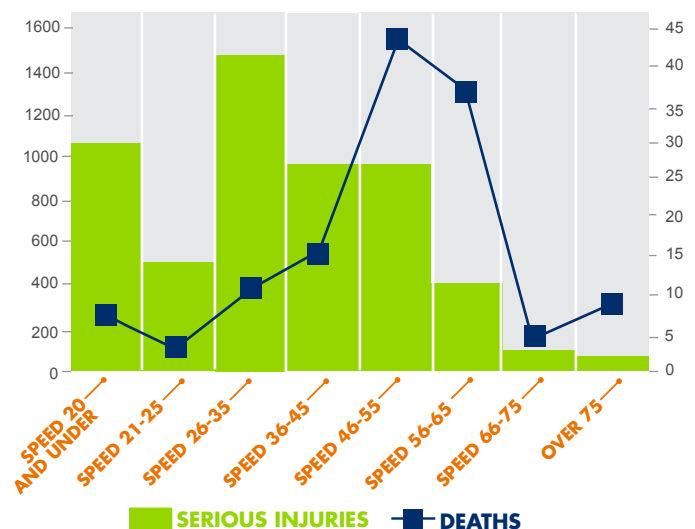
The majority of rear end crashes occurred under dry conditions. About 20 percent occurred under wet or snow conditions when the pavement is slick, requiring extra stopping distance to avoid a crash.

### REAR END RELATED DEATHS AND SERIOUS INJURIES BY ROAD CONDITION



Rear end serious injuries tend to occur at the mid-range speeds, most likely near intersections as opposed to highways. However, fatalities spike at higher speeds, due to high speed rural roads or freeways where traffic may have stopped due to congestion.

### REAR END RELATED DEATHS AND SERIOUS INJURIES BY AT FAULT DRIVER SPEED



Note: all data from 2008-2012, except Overview section

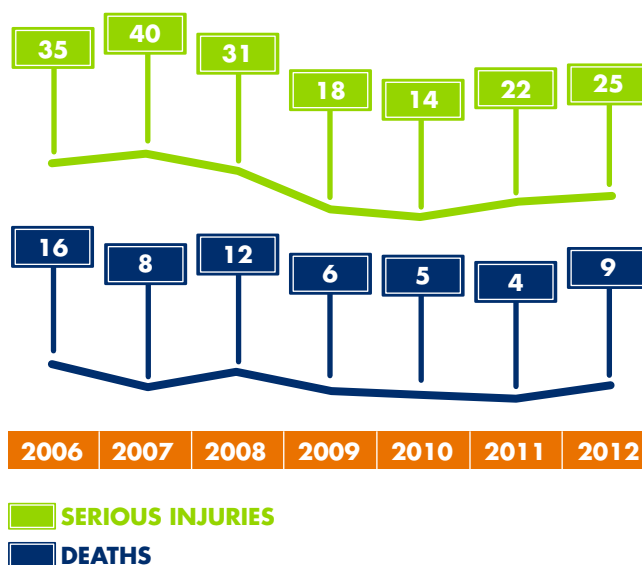


# RAILROAD DATA FACT SHEET

## OVERVIEW OF RAILROAD-RELATED CRASHES

Between 2006 and 2012, 60 people died and 185 people were seriously injured in railroad-related crashes where a motor vehicle and train collided.

Since Ohio's first SHSP was adopted in 2006, serious injuries decreased 29 percent and deaths decreased 44 percent.



Although railroad-related crashes accounted for less than 1 percent of Ohio's traffic deaths and serious injuries, they remain an important concern due to the severity of these crashes.

Railroad-related crash deaths and serious injuries reached a low of 19 in 2010, but increased in 2011 and 2012.

*Note: All data from 2008-2012, except Overview section*

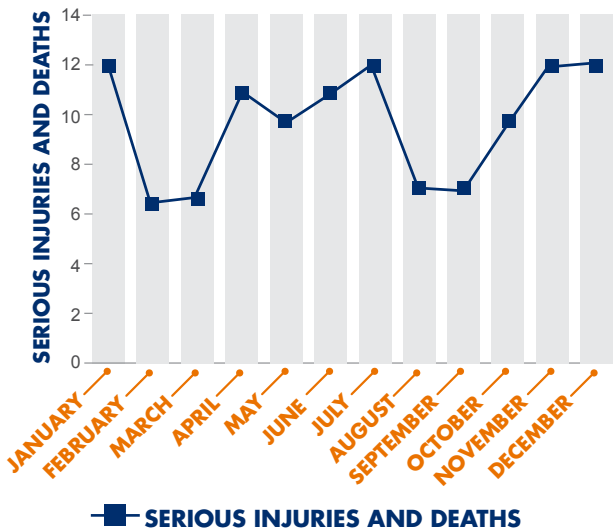


## WHEN CRASHES OCCURRED

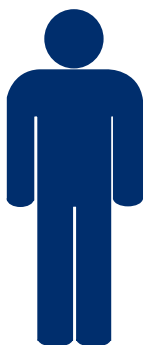
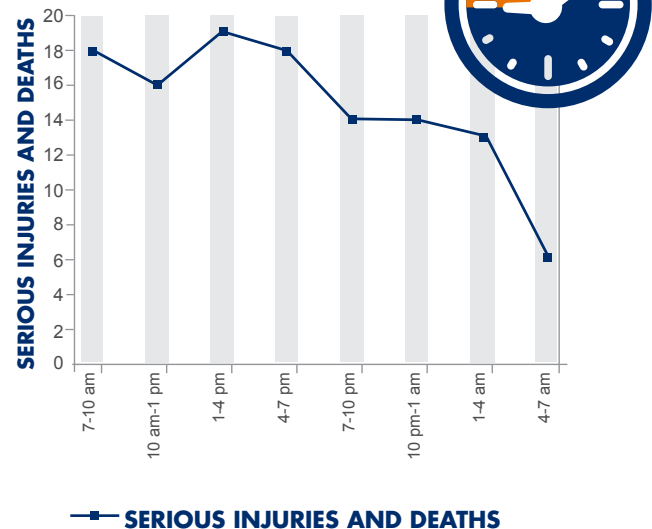
The number of people that died or were seriously injured in railroad-related crashes was inconsistent throughout the year. The fewest crashes happened in March, but there is no discernible pattern by month to these crashes.

The number of people that died or were seriously injured in railroad-related crashes was fairly consistent throughout the day, but dropped off after 7 p.m. From 4-7 a.m., the frequency of railroad-related deaths and serious injuries was at its lowest point.

**RAILROAD-RELATED DEATHS AND SERIOUS INJURIES BY MONTH**



**RAILROAD-RELATED DEATHS AND SERIOUS INJURIES BY TIME OF DAY**



**ON AVERAGE, 1 PERSON DIED OR WAS SERIOUSLY INJURED IN A RAILROAD CRASH EVERY 12 TO 13 DAYS FROM 2008 TO 2012.**

*Note: All data from 2008-2012, except Overview section*



## WHY CRASHES OCCURRED

Thirty-eight percent of railroad-related deaths and serious injuries occurred when the motor vehicle driver did not stop at a railroad crossing. Another 23 percent resulted from a driver attempting to drive around the crossing gate.

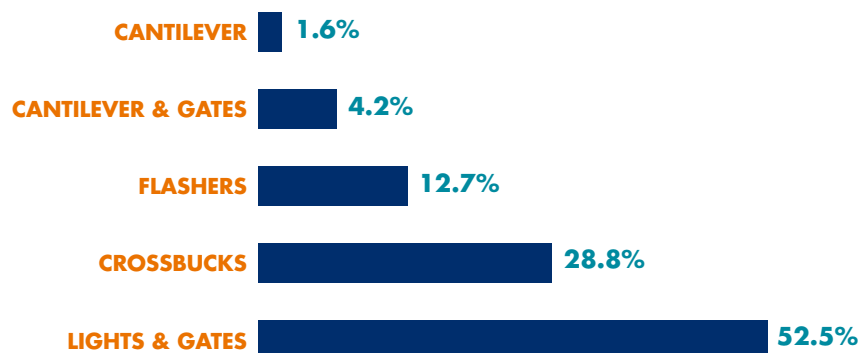
### RAILROAD-RELATED DEATHS/INJURIES BY MOTORIST ACTIONS



## WARNING DEVICES

Crossings with passive warning devices accounted for 29 percent of railroad-related deaths and serious injuries. The remaining 71 percent occurred at crossings with some combination of lights, gates, flashers or other active devices.

### RAILROAD-RELATED DEATHS/INJURIES BY TYPES OF WARNING DEVICES



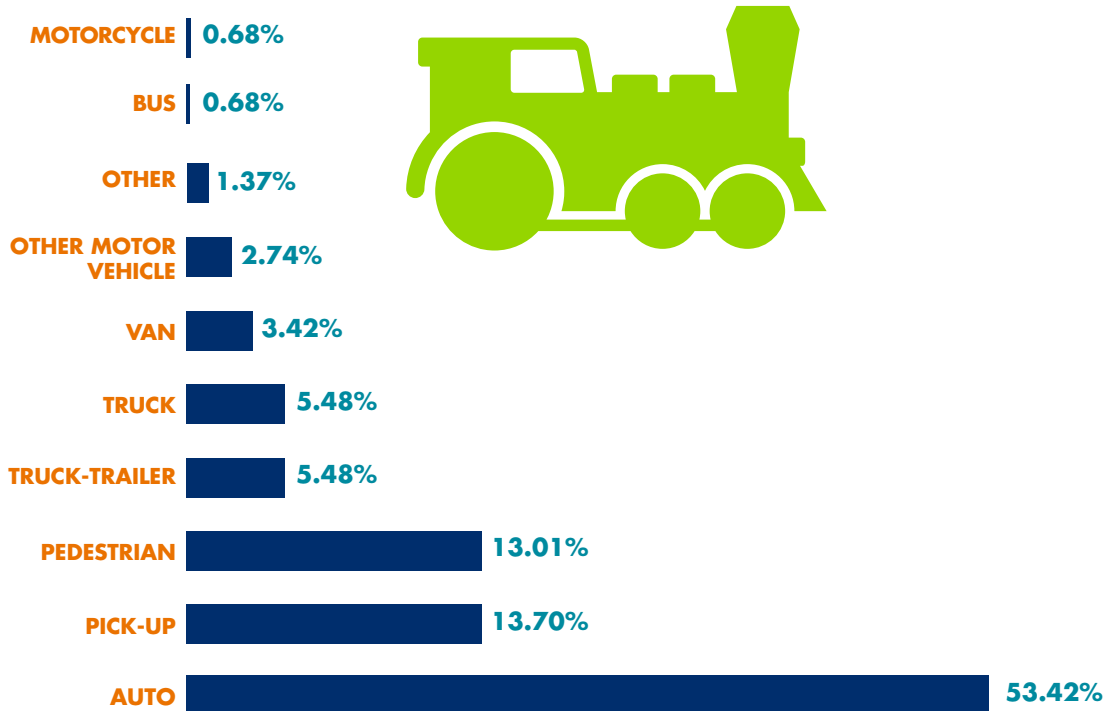
*Note: All data from 2008-2012, except Overview section*



## WHO WAS INVOLVED IN CRASHES

Passenger automobiles and vans represented 57 percent of railroad-related deaths and serious injuries, while trucks accounted for another 25 percent. Pedestrians were involved in 9 percent of serious injuries and 25 percent of deaths.

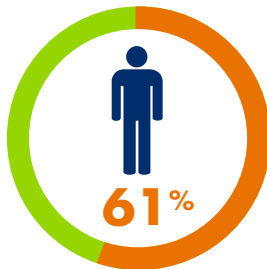
### RAILROAD-RELATED DEATHS/INJURIES BY VEHICLE TYPE



## AT FAULT DRIVERS IN CRASHES

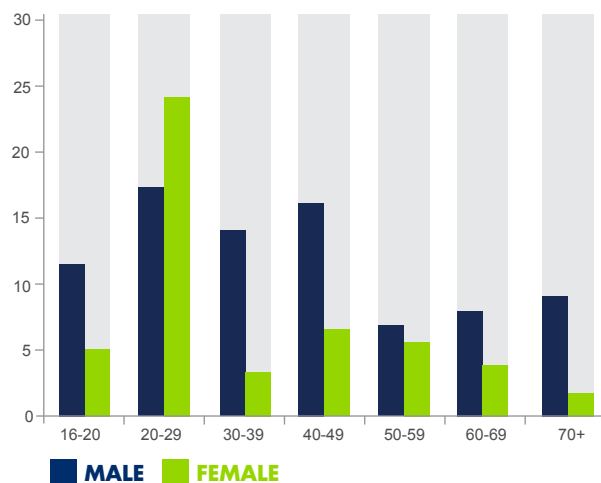
Males were significantly overrepresented in railroad-related deaths and serious injuries in almost every age category.

Overall, males accounted for 61 percent of those who died or were seriously injured in railroad crashes.



The only age group in which women outnumbered men was 20-29.

### RAILROAD RELATED DEATHS/INJURIES BY GENDER AND AGE



Note: All data from 2008-2012, except Overview section



# IMPAIRED DRIVER DATA FACT SHEET\*

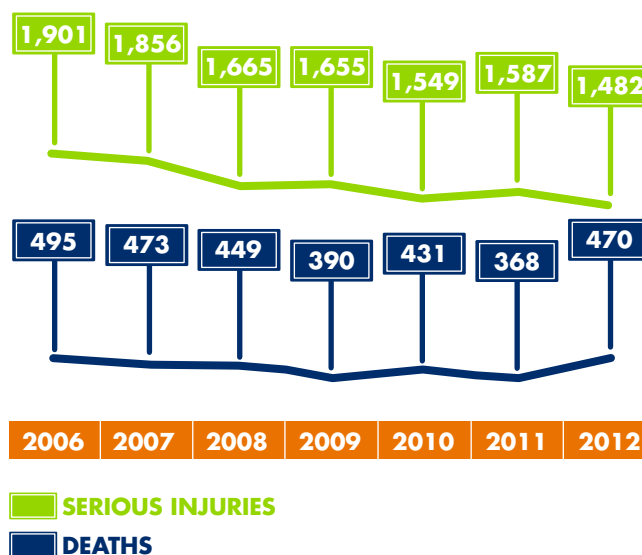
## OVERVIEW OF IMPAIRED-RELATED CRASHES

Between 2006 and 2012, 3,076 people died and 11,695 people were seriously injured in impaired-related crashes.

Since Ohio's first SHSP was adopted in 2006, serious injuries have declined by 22 percent.



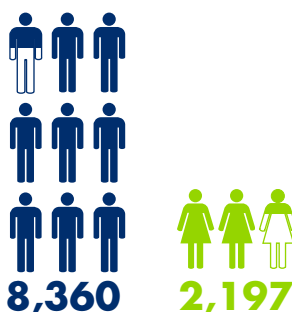
Deaths fluctuated during the same period, but reached a low of 368 in 2011. Impaired-related crashes account for about 40 percent of Ohio's deaths and around 17 percent of serious injuries each year.



## AT FAULT DRIVERS IN CRASHES

Male drivers are most likely to be at fault in impaired-related crashes resulting in deaths or serious injuries.

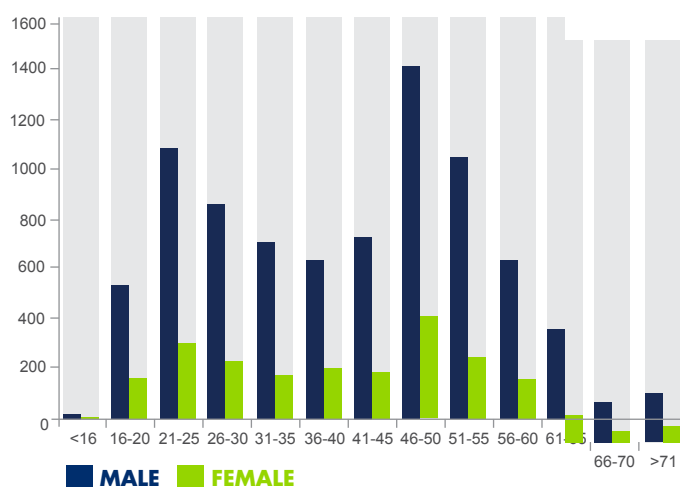
From 2008 to 2012, males were at fault in 8,360 impaired-related deaths and serious injuries versus 2,197 female drivers.



Male drivers between the ages of 46-55 accounted for the highest number of fatalities and serious injuries, and another spike occurred among men age 21-30.

Note: all data from 2008-2012, except Overview section

### IMPAIRED-RELATED DEATHS AND SERIOUS INJURIES BY DRIVER AGE AND GENDER

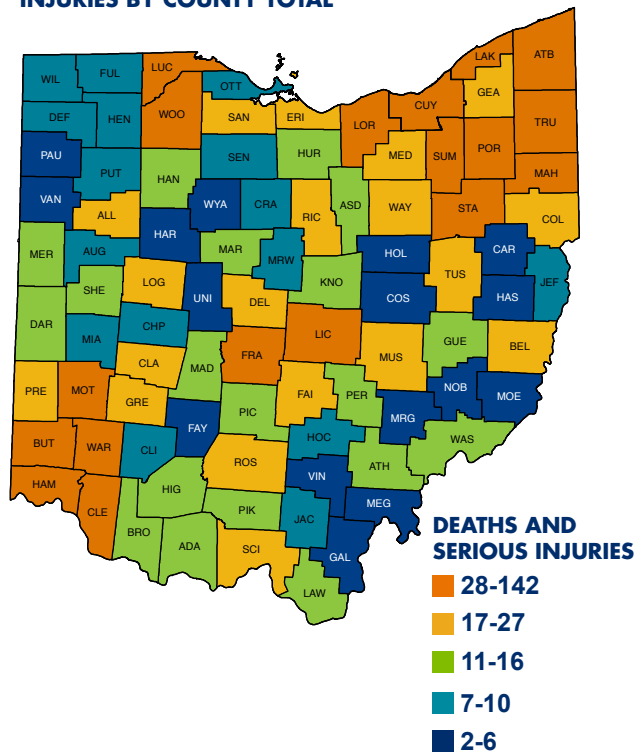


\* On January 1, 2013, Ohio began collecting additional data on drugged drivers. While the data presented here is all alcohol related, future reporting will provide more details, which is why this emphasis area is being renamed Impaired Drivers.

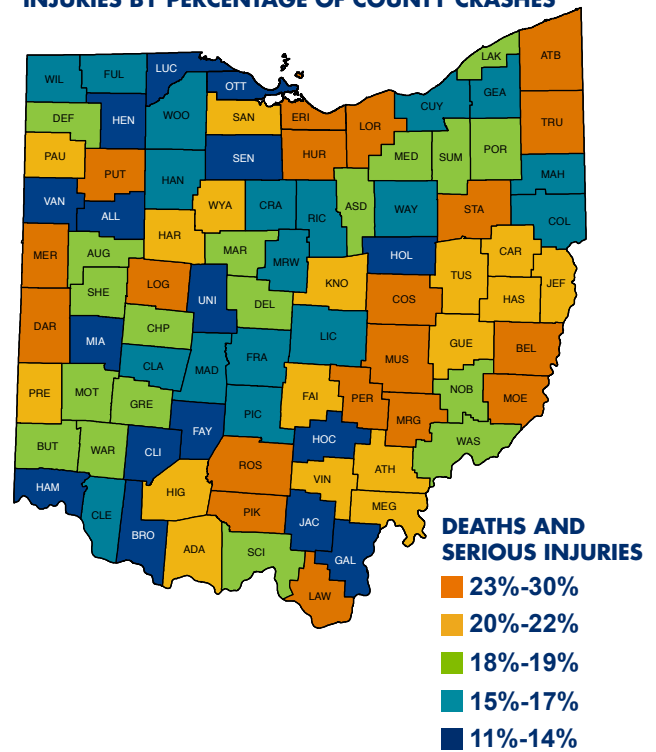
## WHERE CRASHES OCCURRED

These maps rank Ohio counties by the number of deaths and serious injuries that occurred due to impaired drivers. Warm colors indicate more crashes relative to cool colors. **Most urbanized counties have a higher number of serious crashes associated with impaired drivers. However, many rural counties have a higher percentage of serious related injuries or deaths when compared to the total number of serious crashes occurring within the county each year.**

**IMPAIRED DRIVER-RELATED DEATHS AND SERIOUS INJURIES BY COUNTY TOTAL**

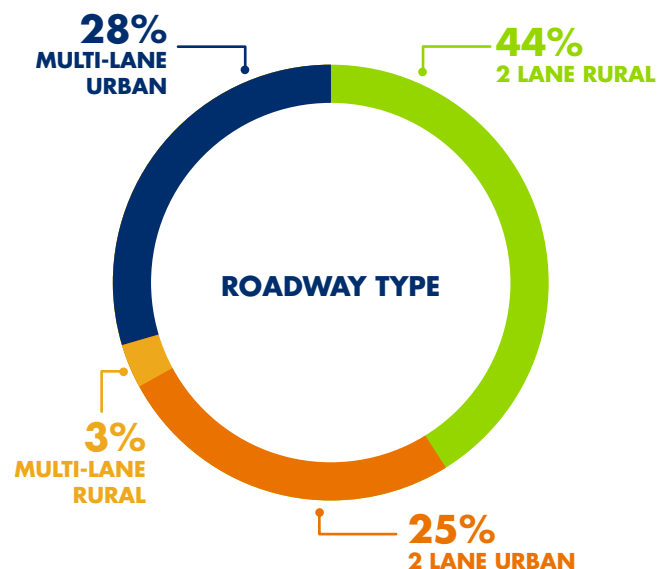


**IMPAIRED DRIVER-RELATED DEATHS AND SERIOUS INJURIES BY PERCENTAGE OF COUNTY CRASHES**



**IMPAIRED DRIVER-RELATED DEATHS AND SERIOUS INJURIES BY ROADWAY TYPE**

The number of impaired driver-related deaths and serious injuries on two-lane rural roads was nearly double the amount on two-lane urban roads. Rural, two-lane roads have higher speeds and narrow lanes and shoulders that provide less room for recovery when a vehicle leaves the travel lane or road.



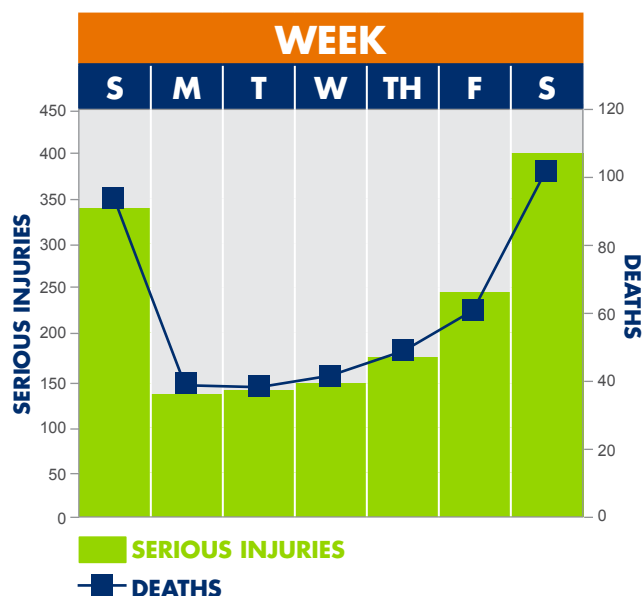
*Note: all data from 2008-2012, except Overview section*



## WHEN CRASHES OCCURRED

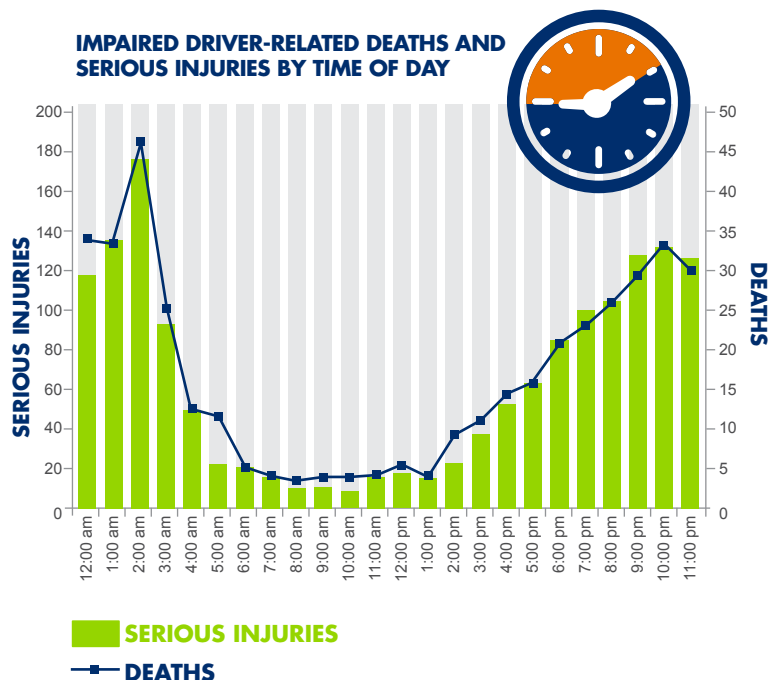
Most impaired driver-related deaths and serious injuries occurred on Saturday and Sunday and at night.

IMPAIRED DRIVER-RELATED DEATHS AND SERIOUS INJURIES BY DAY OF THE WEEK



The highest number of deaths and serious injuries occurred between 9 p.m. and 2 a.m.

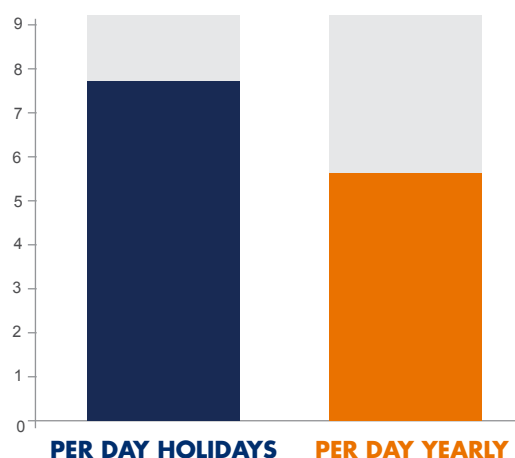
IMPAIRED DRIVER-RELATED DEATHS AND SERIOUS INJURIES BY TIME OF DAY



An average of 5.5 impaired driver-related serious injuries and deaths occurred every day, but over holidays, the average increased to 7.8 per day; a 42 percent increase.

**42%**  
INCREASE OVER  
HOLIDAYS

IMPAIRED DRIVER-RELATED DEATHS AND SERIOUS INJURIES BY DAILY RATE



Note: all data from 2008-2012, except Overview section

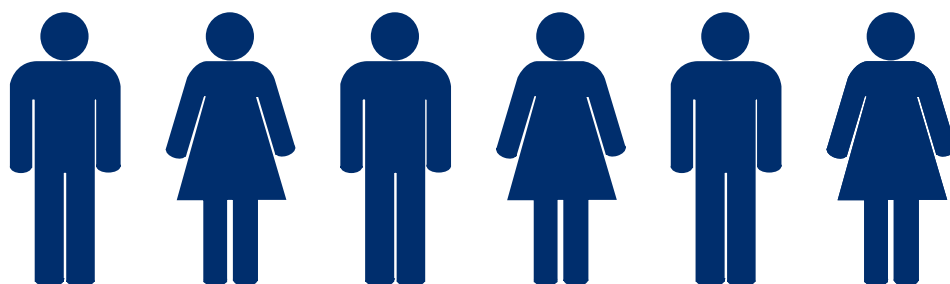
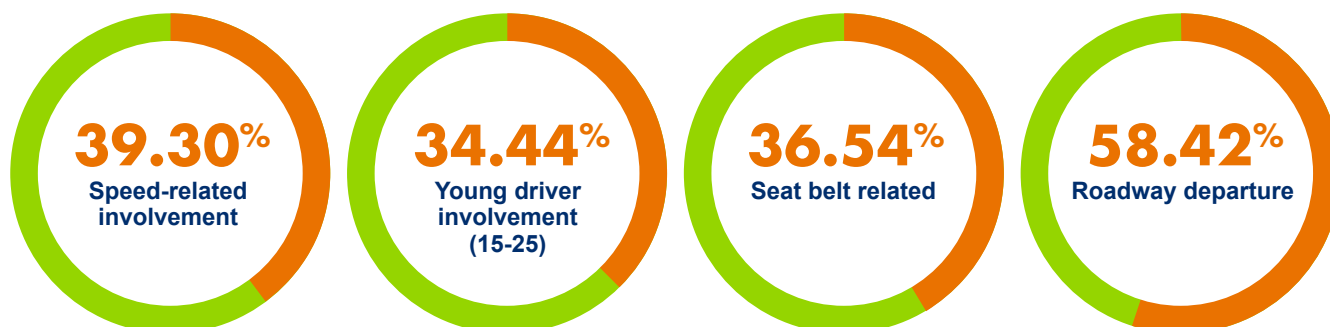


## CONTRIBUTING FACTORS

An average of 50 percent of impaired driver-related serious injuries and deaths involved a fixed object. This typically occurs when a motorist leaves the roadway and hits an object close to the road.

On average, roadway departure crashes were a factor in 58 percent of impaired driver-related deaths and serious injuries. Speed, young drivers and lack of seat belt use were also a factor in one-third of impaired driver-related deaths and serious injuries.

### IMPAIRED DRIVER-RELATED DEATHS AND SERIOUS INJURIES BY RELATED SHSP EMPHASIS AREAS



**AN AVERAGE OF 6 PEOPLE EACH DAY  
DIED OR WERE SERIOUSLY INJURED IN  
IMPAIRED DRIVER-RELATED CRASHES.**

*Note: all data from 2008-2012, except Overview section*



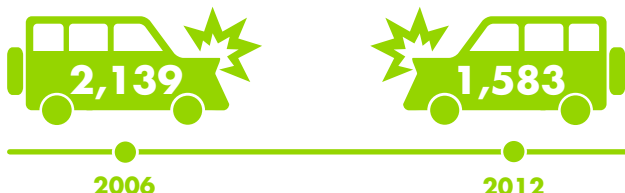


# SEAT BELT DATA FACT SHEET

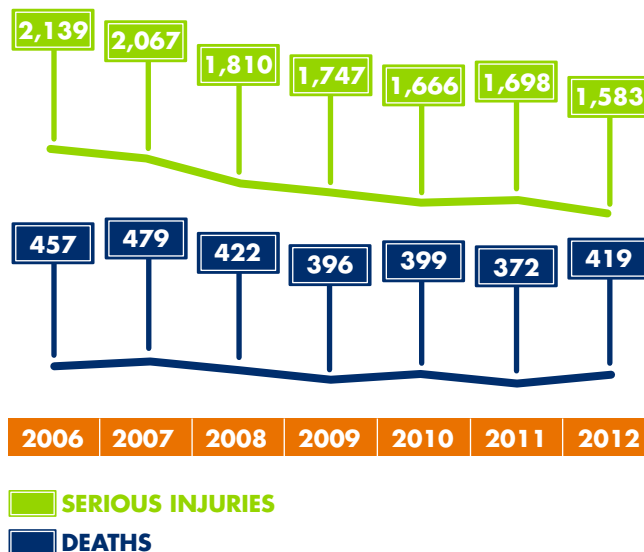
## OVERVIEW OF SEAT BELT-RELATED CRASHES

Between 2006 and 2012, 2,944 people died and 12,710 people were seriously injured in crashes where a vehicle occupant was not wearing a seat belt.

Since Ohio's first SHSP was adopted in 2006, serious injuries decreased 26 percent.



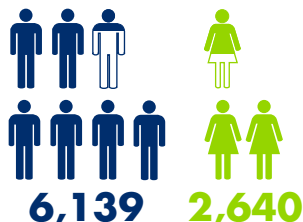
Deaths also declined, reaching a low of 372 in 2011. An average of 37 percent of all deaths and approximately 18 percent of serious injuries are related to not wearing a seat belt.



## AT FAULT DRIVERS IN CRASHES

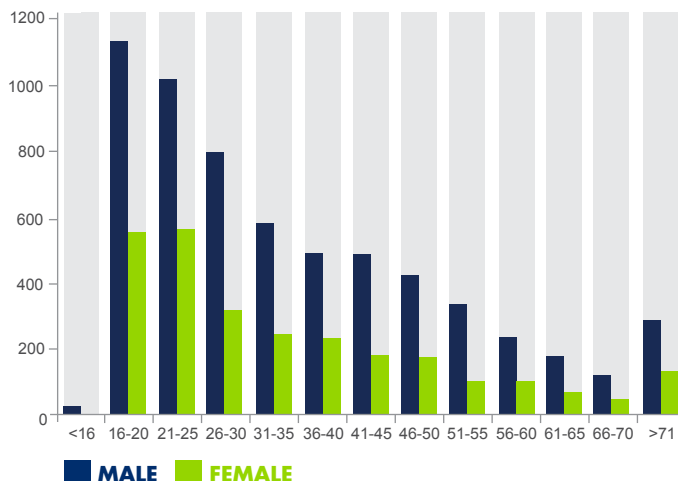
Male drivers were more likely to be seriously injured or killed in a crash because they were not wearing a seat belt.

From 2008 to 2012, male drivers were at fault in 6,139 unrestrained deaths and serious injuries versus 2,640 for female drivers.



Male drivers between the ages of 16-25 accounted for the highest number of deaths and serious injuries.

## SEAT BELT-RELATED DEATHS AND SERIOUS INJURIES BY DRIVER AGE AND GENDER

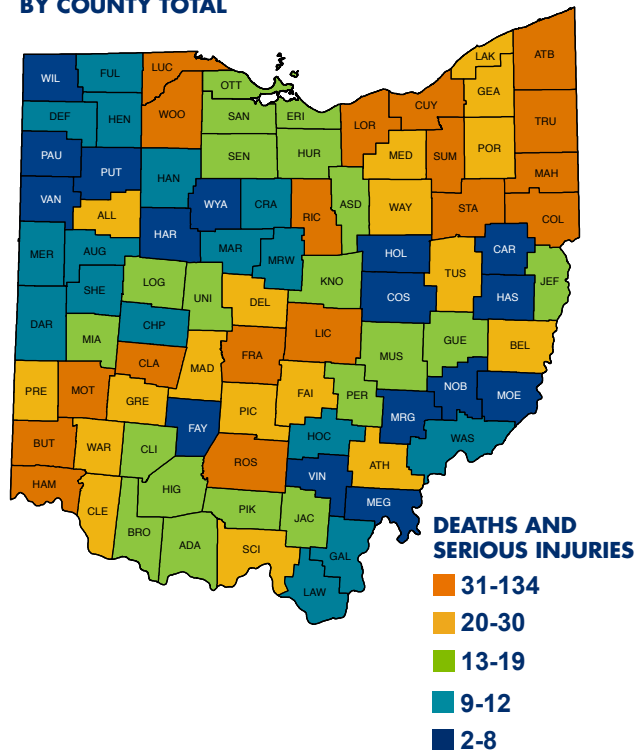


Note: all data from 2008-2012, except Overview section

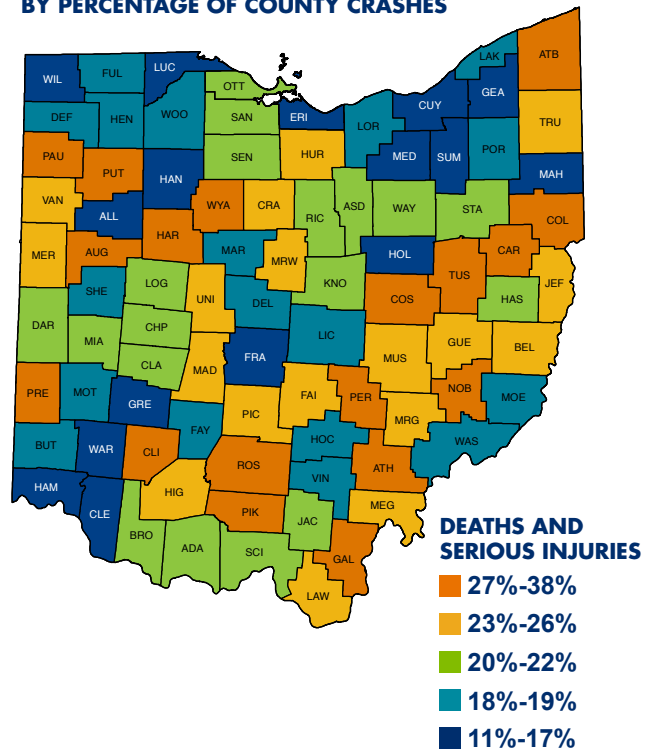
## WHERE CRASHES OCCURRED

These maps rank Ohio counties by the number of deaths and serious injuries that occurred due to unrestrained vehicle occupants. Warm colors indicate more crashes relative to cool colors. **Most urbanized counties have a higher number of serious crashes associated with not buckling up. However, many rural counties have a higher percentage of unrestrained serious injury crashes when compared to the total number of serious crashes occurring within the county each year.**

**SEAT BELT-RELATED DEATHS AND SERIOUS INJURIES BY COUNTY TOTAL**

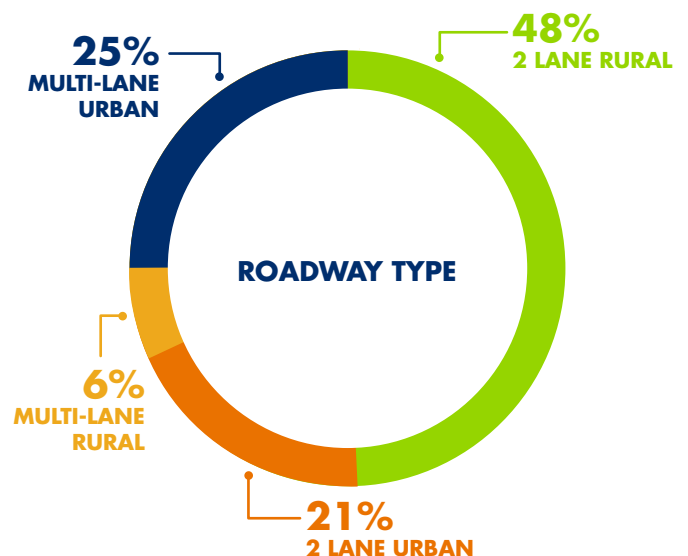


**SEAT BELT-RELATED DEATHS AND SERIOUS INJURIES BY PERCENTAGE OF COUNTY CRASHES**



**SEAT BELT-RELATED DEATHS AND SERIOUS INJURIES BY ROADWAY TYPE**

The number of unrestrained seat belt deaths and serious injuries on two-lane rural roads was more than double the amount on two-lane and multi-lane urban roads. Rural, two-lane roads have higher speeds and narrow lanes and shoulders that provide less room for recovery when a vehicle leaves the travel lane or road.



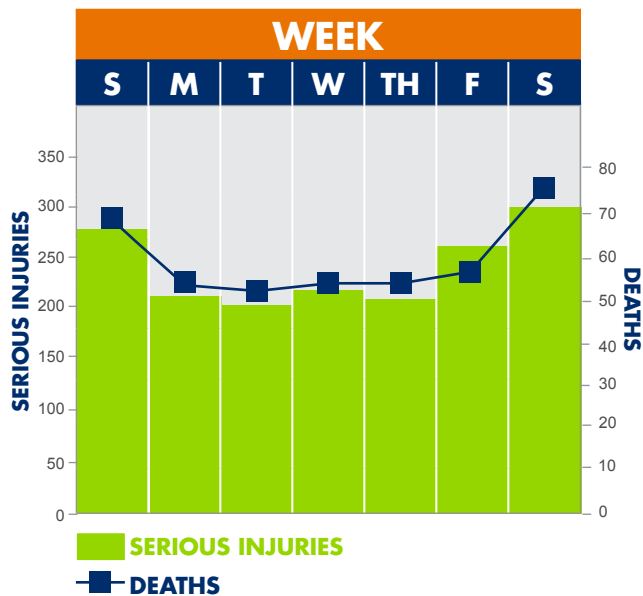
Note: all data from 2008-2012, except Overview section



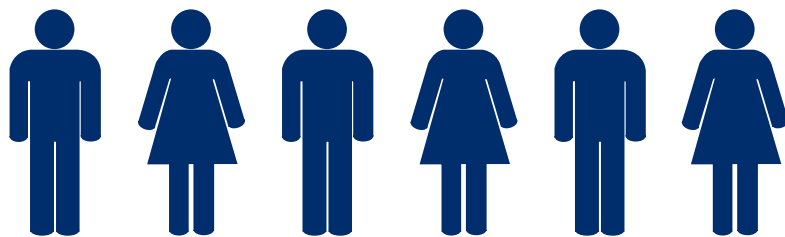
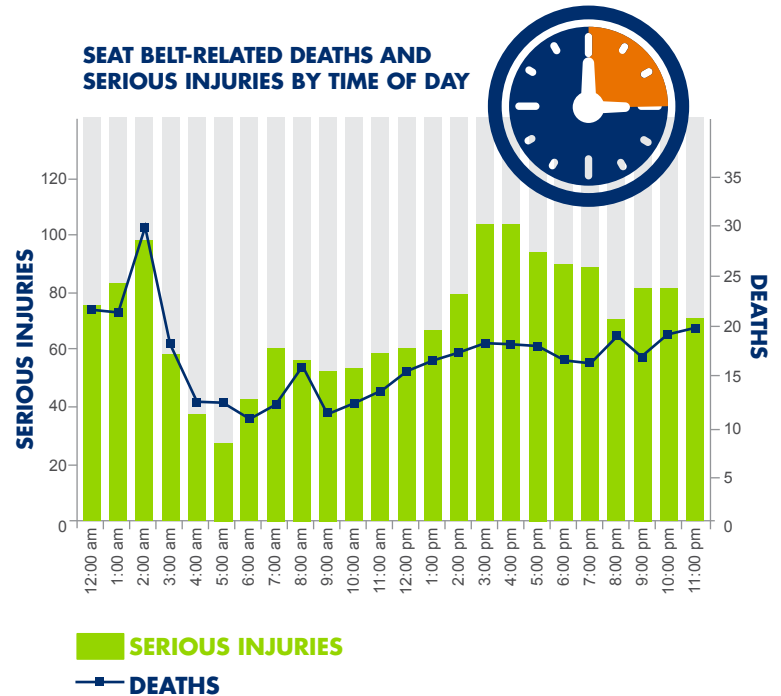
## WHEN CRASHES OCCURRED

**Most unrestrained deaths and serious injuries occurred on the weekend, with an increase on Friday as well.** Serious injury crashes increased in the afternoon between 3-5 p.m. when more traffic is on the road, and late at night, which often correlates with impaired driving.

SEAT BELT-RELATED DEATHS AND SERIOUS INJURIES BY DAY OF THE WEEK



SEAT BELT-RELATED DEATHS AND SERIOUS INJURIES BY TIME OF DAY



**AN AVERAGE OF 6 PEOPLE DIED OR WERE SERIOUSLY INJURED EACH DAY IN CRASHES WHERE A DRIVER AND/OR PASSENGER WAS NOT WEARING A SEAT BELT.**

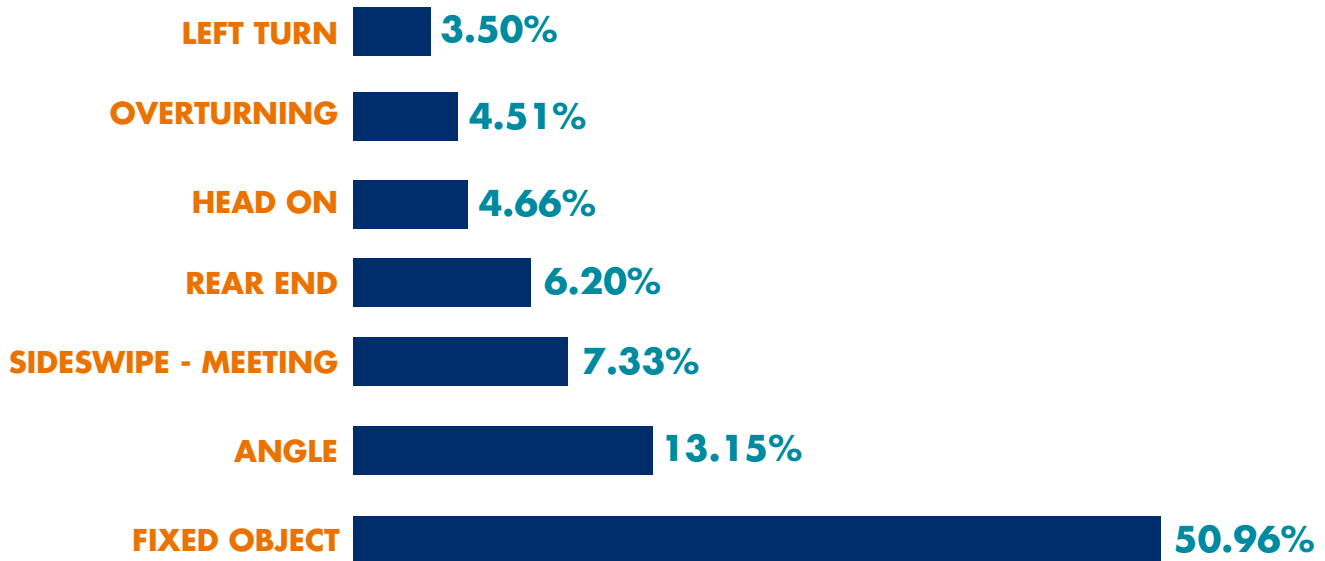
*Note: all data from 2008-2012, except Overview section*



## CONTRIBUTING FACTORS

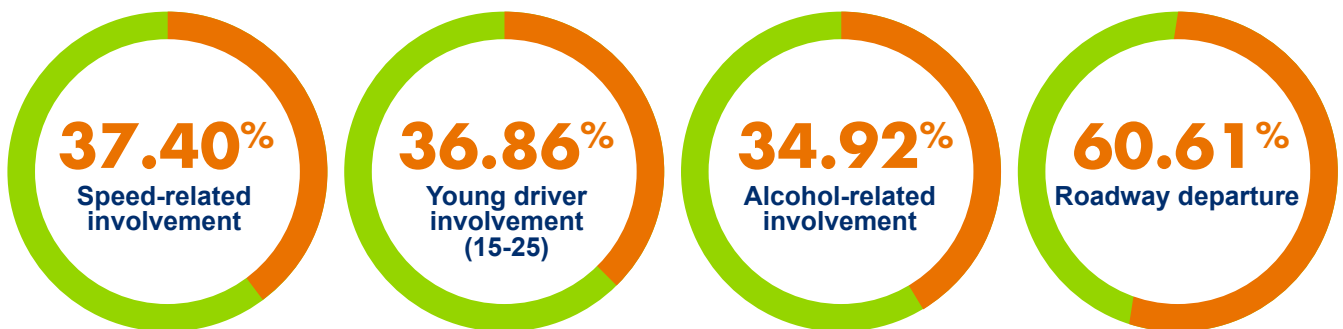
**Fifty percent of unbelted deaths and serious injuries came from fixed object crashes.** Thirteen percent of the crashes involved an angle crash, which typically occurred when one vehicle failed to either stop or yield the right of way.

### SEAT BELT-RELATED DEATHS AND SERIOUS INJURIES BY CRASH TYPE



**Sixty-one percent of unrestrained occupants were killed or seriously injured when the vehicle ran off the road and struck another object.** The likelihood of being killed or seriously injured in a roadway departure crash increases if the occupants are unrestrained. Approximately one-third of unrestrained crashes also involved speed, alcohol and young drivers.

### SEAT BELT-RELATED DEATHS AND SERIOUS INJURIES BY RELATED SHSP EMPHASIS AREAS



*Note: all data from 2008-2012, except Overview section*



# SPEED DATA FACT SHEET

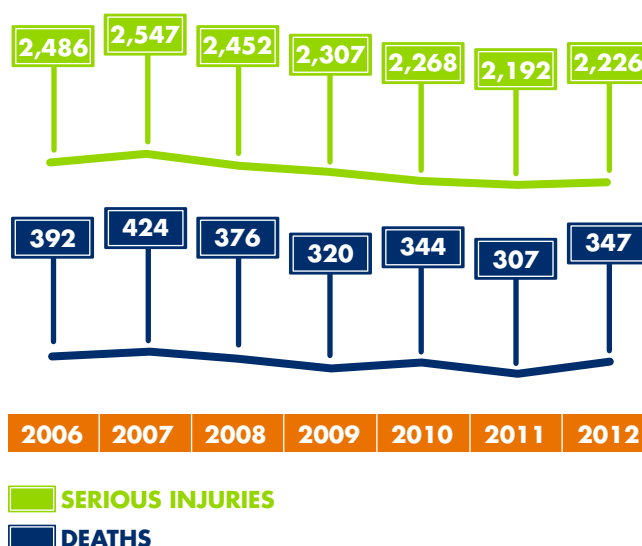
## OVERVIEW OF SPEED-RELATED CRASHES

Between 2006 and 2012, 2,510 people died and 16,478 people were seriously injured in speed-related crashes.

Since Ohio's first SHSP was adopted in 2006, serious injuries decreased 10 percent and deaths decreased 11 percent.



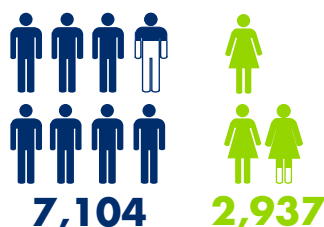
Speed-related crashes account for about 32 percent of Ohio's deaths and approximately 24 percent of its serious injuries.



## AT FAULT DRIVERS IN CRASHES

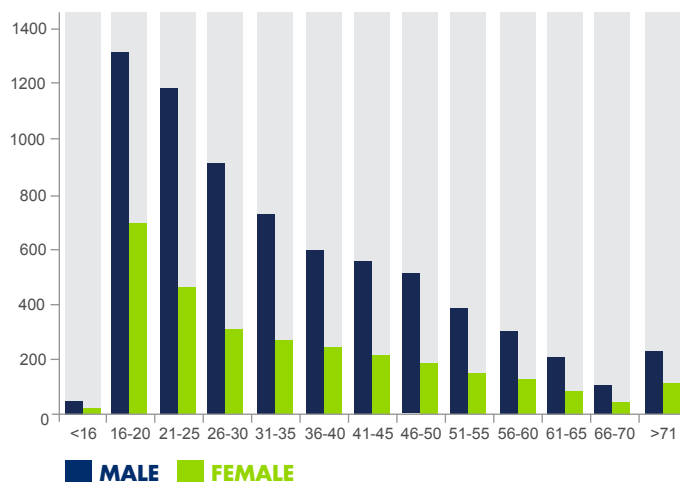
Male drivers were more likely to be seriously injured or killed in a speed-related crash.

From 2008 to 2012, male drivers were at fault in 7,104 speed related deaths and serious injuries; more than half the number for females — 2,937.



Male drivers between the ages of 16-25 accounted for the highest number of speed-related deaths and serious injuries.

### SPEED-RELATED DEATHS AND SERIOUS INJURIES BY DRIVER AGE AND GENDER

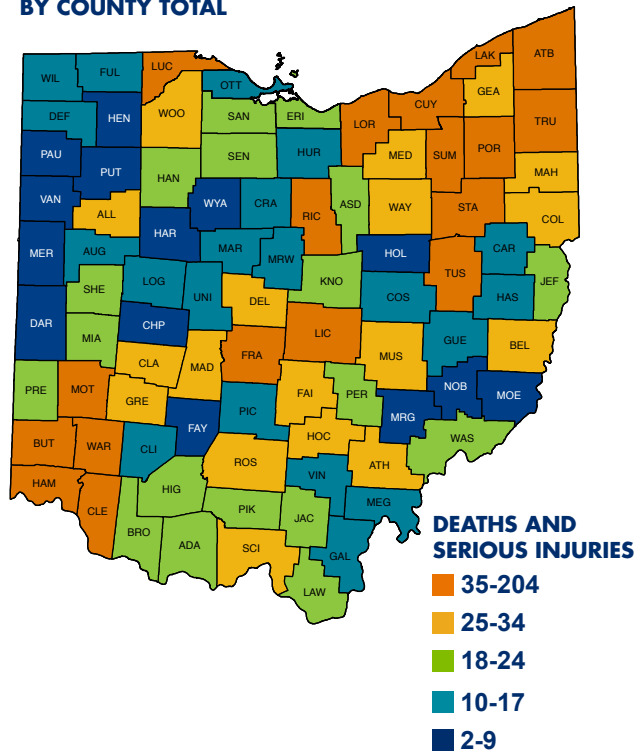


*Note: All data from 2008-2012, except Overview section*

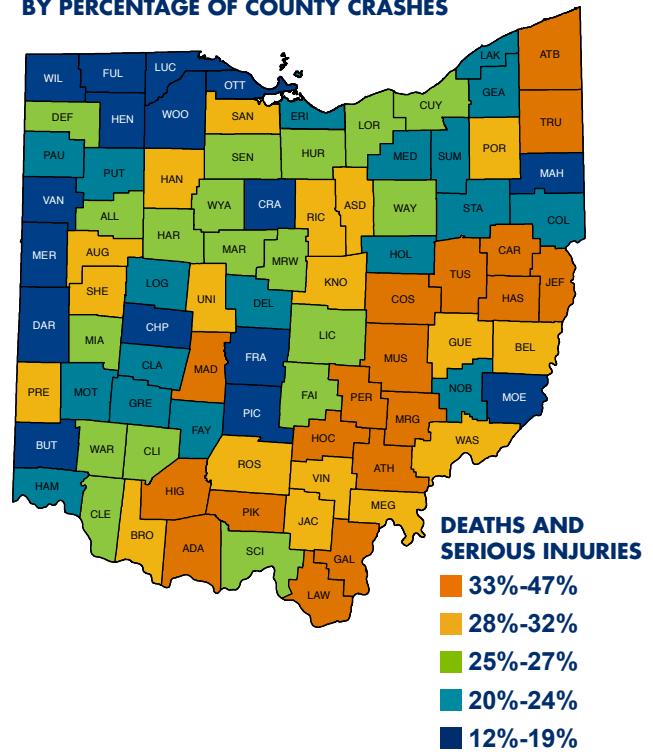
## WHERE CRASHES OCCURRED

These maps rank Ohio counties by the number of deaths and serious injuries that occurred due to speed. Warm colors indicate more crashes relative to cool colors. **Most urbanized counties had a higher total number of fatal and serious injury crashes associated with speeding. However, many rural counties had a higher percentage of speed-related deaths and serious injury crashes when compared to the total number of serious crashes occurring within the county each year.**

**SPEED-RELATED DEATHS AND SERIOUS INJURIES BY COUNTY TOTAL**

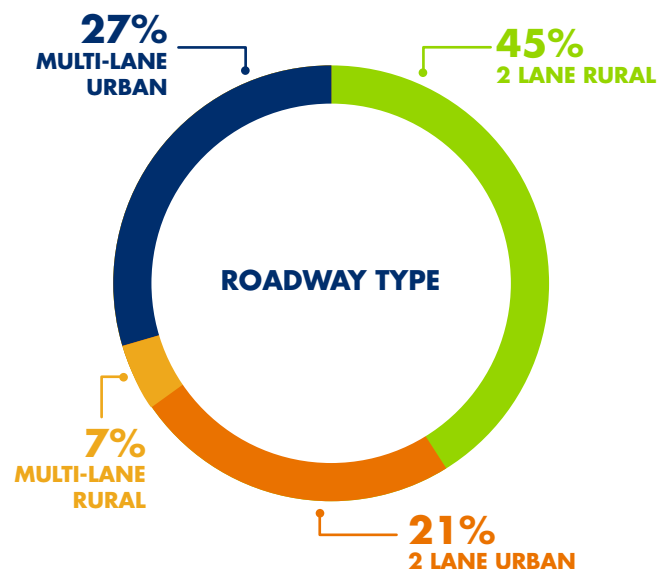


**SPEED-RELATED DEATHS AND SERIOUS INJURIES BY PERCENTAGE OF COUNTY CRASHES**



**SPEED-RELATED DEATHS BY ROADWAY TYPE**

The number of speed-related deaths and serious injuries on two-lane roads accounted for more than **half of the total**. Rural, two-lane roads have higher speeds and narrow lanes and shoulders that provide less room for recovery when a vehicle leaves the travel lane or road. Speed was also an issue on multi-lane urban roads.

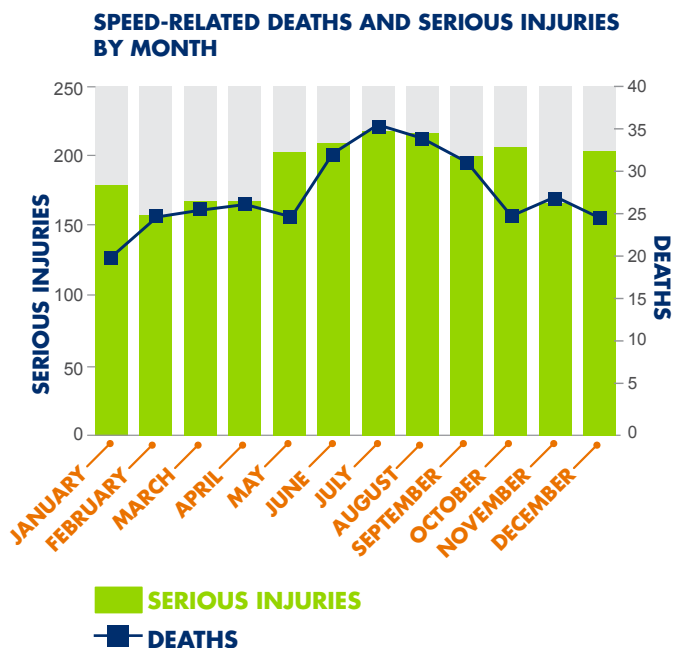


Note: All data from 2008-2012, except Overview section



## WHEN CRASHES OCCURRED

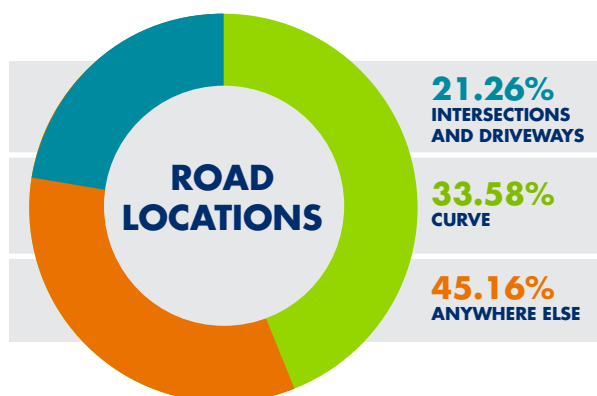
Most speed-related deaths and serious injuries occurred during the summer months of July and August and between the hours of 1-7 p.m. when traffic was heavier.



## CONTRIBUTING FACTORS

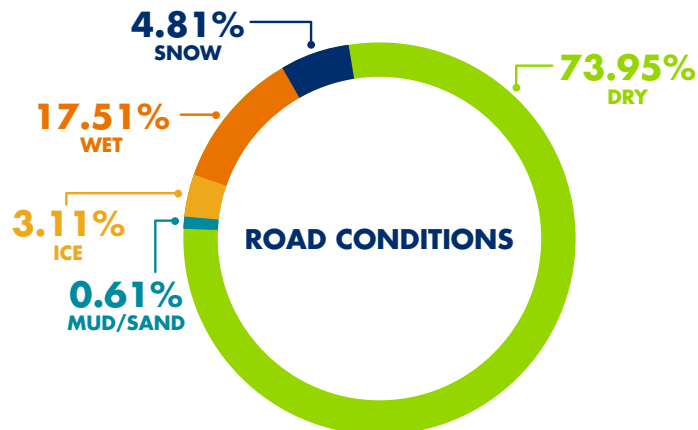
One-third of speed-related deaths and serious injuries happened on curves and nearly one-quarter happened at intersections and driveways.

**SPEED-RELATED DEATHS AND SERIOUS INJURIES BY ROAD LOCATION**



The majority of speed-related deaths and serious injuries happened on dry roadways; nearly 18 percent occurred in wet road conditions.

**SPEED-RELATED DEATHS AND SERIOUS INJURIES BY ROAD CONDITION**



Note: All data from 2008-2012, except Overview section

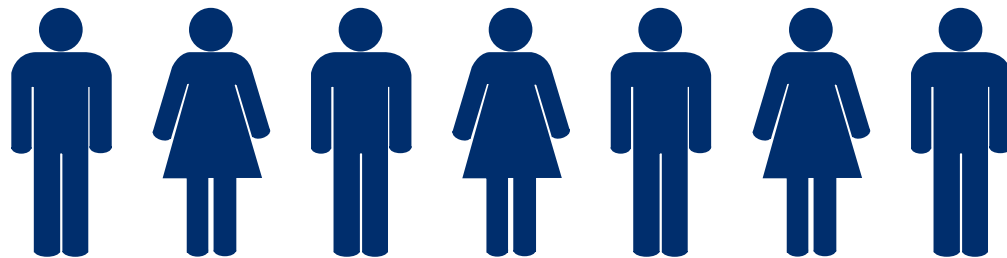
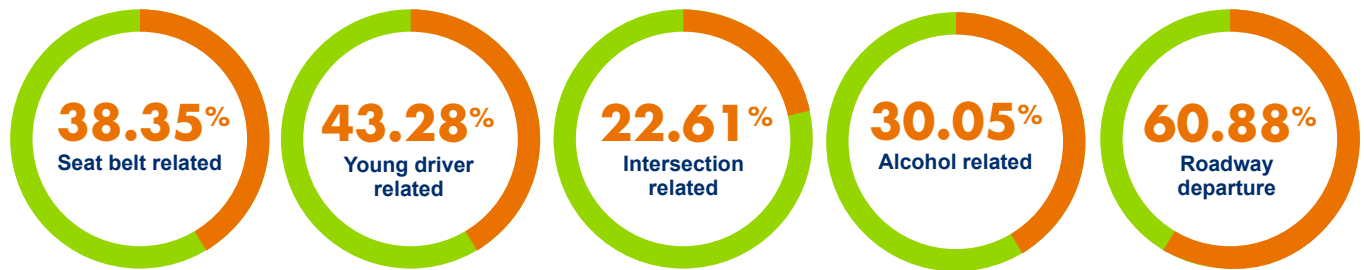




## CONTRIBUTING FACTORS CONTINUED

Road departure was a factor in 60 percent of speed-related deaths and serious injuries, and approximately 30 percent were alcohol-related. Nearly 40 percent of speed-related deaths and serious injuries involved an occupant that was unrestrained, and 43 percent involved a young driver.

### SPEED-RELATED DEATHS AND SERIOUS INJURIES BY RELATED SHSP EMPHASIS AREAS



**AN AVERAGE OF 7 PEOPLE DIED OR WERE SERIOUSLY INJURED EACH DAY IN SPEED-RELATED CRASHES.**

*Note: All data from 2008-2012, except Overview section*



# YOUNG DRIVER DATA FACT SHEET

## OVERVIEW OF YOUNG DRIVER-RELATED CRASHES

Between 2006 and 2012, there were 2,657 deaths and 28,328 serious injuries involving a young driver (15-25 years of age).

Since Ohio's first SHSP was adopted in 2006, serious injuries decreased 18 percent and deaths decreased 17 percent.



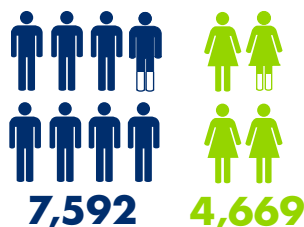
Young driver-related crashes accounted for 32 percent of Ohio's deaths and 39 percent of serious injuries.



## AT FAULT DRIVERS INVOLVED IN CRASHES

Males had a significantly higher involvement in young driver-related crashes resulting in deaths or serious injuries.

Male drivers accounted for 7,592 young-driver related deaths and serious injuries, and females for 4,669.

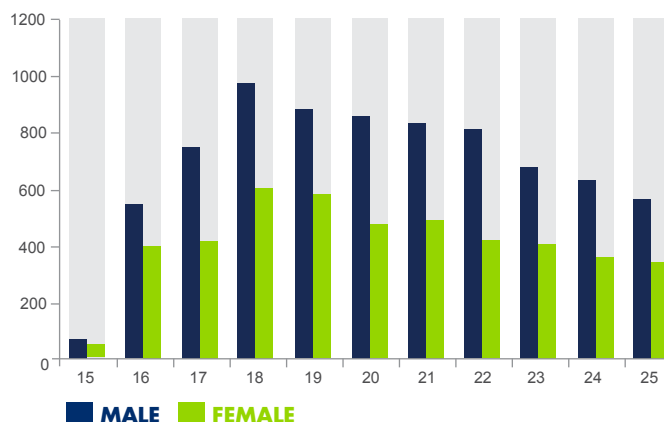


Male drivers between the ages of 18 and 22 accounted for the highest number of young driver-related deaths and serious injuries.

*Note: All data from 2008-2012, except Overview section*

To be consistent with national performance measures, Ohio has chosen to base its young driver goals on the 15 to 20 year old age group. However, Ohio will continue to track crashes and implement strategies associated with the broader young driver age group of 15-25.

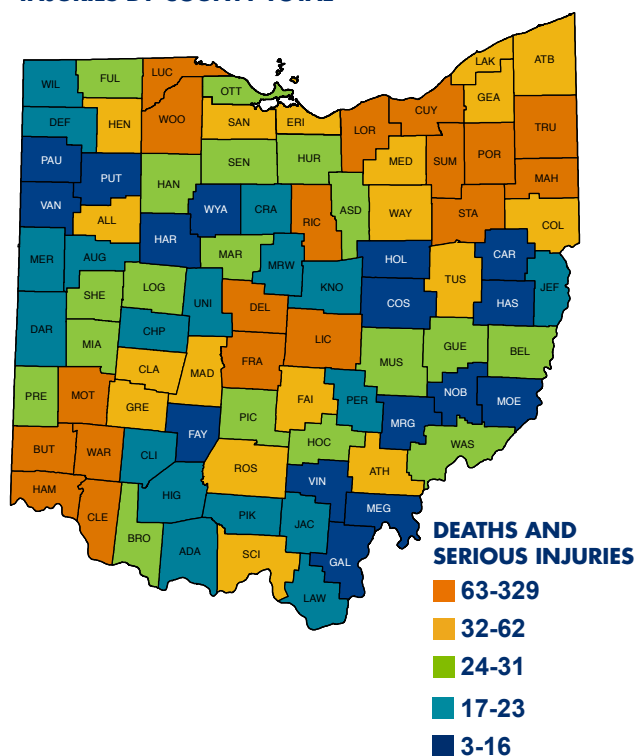
YOUNG DRIVER-RELATED DEATHS AND SERIOUS INJURIES BY AT FAULT DRIVER AGE AND GENDER



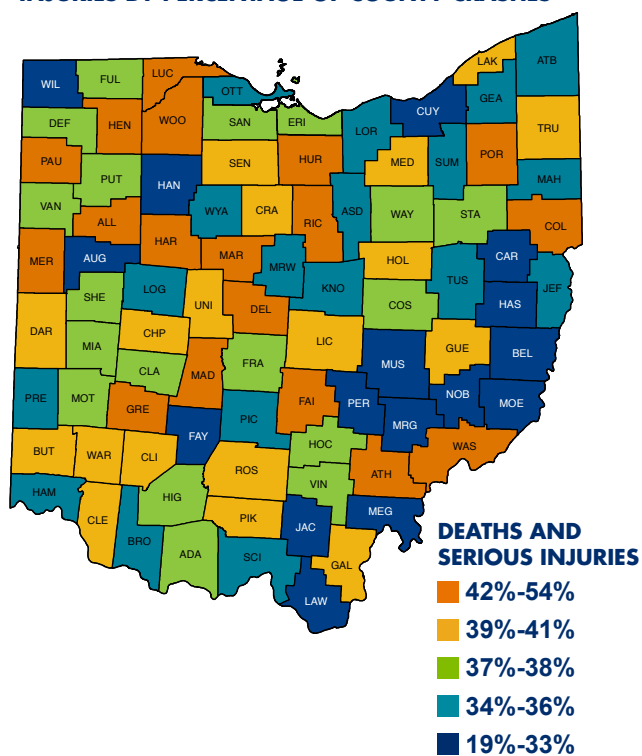
## WHERE CRASHES OCCURRED

These maps rank Ohio counties by the number of deaths and serious injuries that involved young drivers. Warm colors indicate more crashes relative to cool colors. **Most urbanized counties have a higher total number of young driver-related serious crashes. However, many rural counties have a higher percentage of serious young driver-related crashes when compared to the total number of serious crashes occurring within the county each year.**

**YOUNG DRIVER-RELATED DEATHS AND SERIOUS INJURIES BY COUNTY TOTAL**

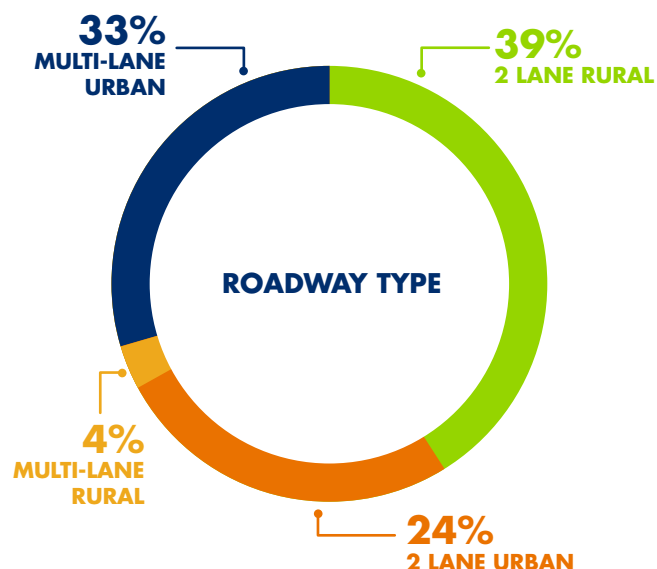


**YOUNG DRIVER-RELATED DEATHS AND SERIOUS INJURIES BY PERCENTAGE OF COUNTY CRASHES**



**YOUNG DRIVER-RELATED DEATHS AND SERIOUS INJURIES BY ROADWAY TYPE**

The number of young driver-related deaths and serious injuries on two-lane roads accounted for nearly two-thirds of the total number of deaths and serious injuries; multi-lane urban roads accounted for one-third.



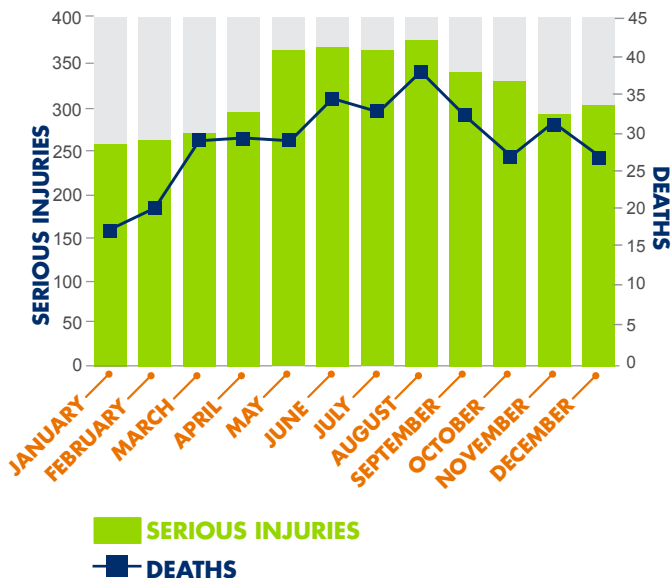
*Note: All data from 2008-2012, except Overview section*



## WHEN CRASHES OCCURRED

More deaths and serious injuries involving young drivers occurred during the summer months from May to August.

YOUNG DRIVER-RELATED DEATHS AND SERIOUS INJURIES BY MONTH



The highest number of young driver-related serious injuries occurred between 3-4 p.m. when traffic is heaviest, and the highest number of deaths happened at 2 a.m. and often involved alcohol.

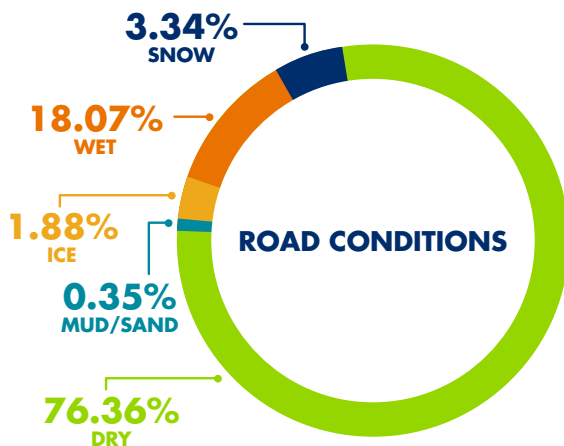
YOUNG DRIVER-RELATED DEATHS AND SERIOUS INJURIES BY TIME OF DAY



## CONTRIBUTING FACTORS

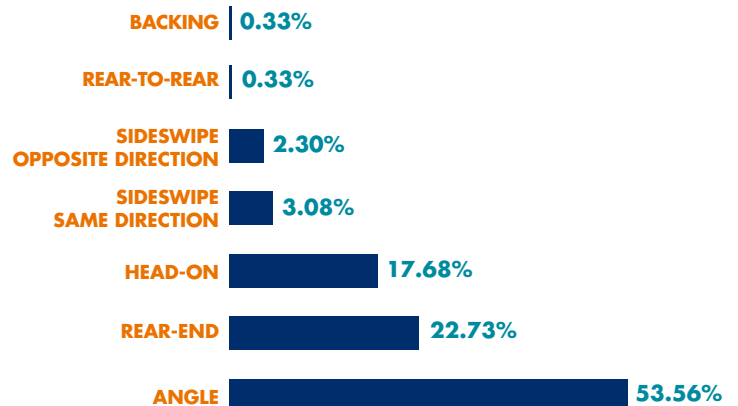
The majority of deaths and serious injuries involving young drivers happened when the road was dry, and 18 percent occurred in wet road conditions.

YOUNG DRIVER-RELATED DEATHS AND SERIOUS INJURIES BY ROAD CONDITION



Over 50 percent of young driver-related deaths and serious injuries happened in angle crashes, many at intersections, and one-quarter happened in rear end crashes.

YOUNG DRIVER-RELATED DEATHS AND SERIOUS INJURIES BY COLLISION TYPE



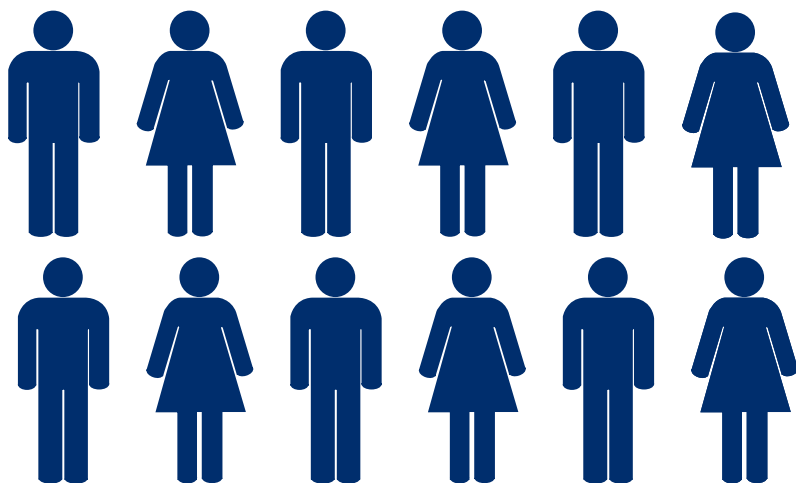
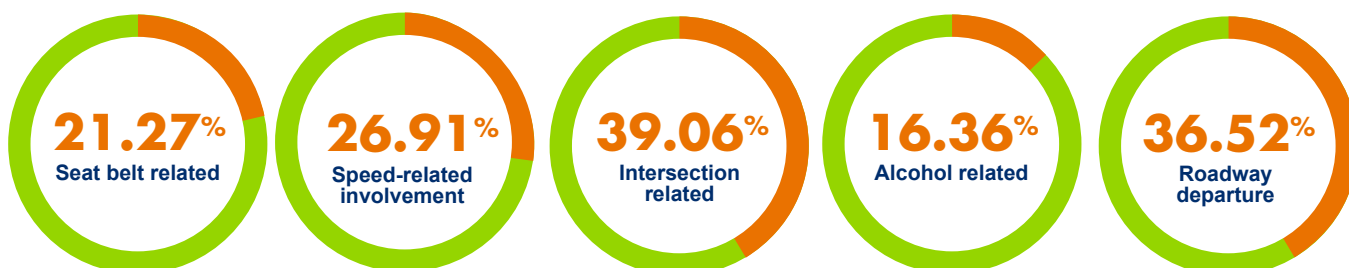
Note: All data from 2008-2012, except Overview section



## CONTRIBUTING FACTORS CONTINUED

Nearly 40 percent of young driver-related deaths and serious injuries occurred at intersections and slightly less (36.52 percent) involved road departure. Nearly 30 percent involved speeding, 25 percent involved an occupant that was unrestrained and 16 percent involved alcohol.

### YOUNG DRIVER-RELATED DEATHS AND SERIOUS INJURIES BY RELATED SHSP EMPHASIS AREAS



**AN AVERAGE OF 12 DEATHS  
AND SERIOUS INJURIES EACH DAY  
WERE YOUNG DRIVER RELATED.**

*Note: All data from 2008-2012, except Overview section*



# OLDER DRIVER DATA FACT SHEET

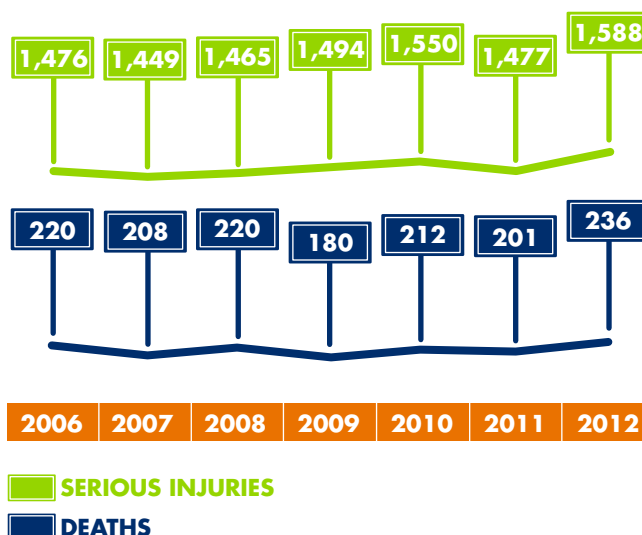
## OVERVIEW OF OLDER DRIVER CRASHES

Between 2006 and 2012, 1,477 people died and 10,499 were seriously injured in older driver-related crashes (individuals age 65 and older).

Since Ohio's first SHSP was adopted in 2006, older driver-related deaths increased 7 percent and serious injuries increased 8 percent.



Older driver-related crashes account for approximately 18 percent of Ohio's deaths and around 16 percent of serious injuries.

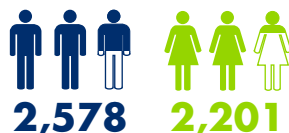


## AT FAULT DRIVERS IN CRASHES

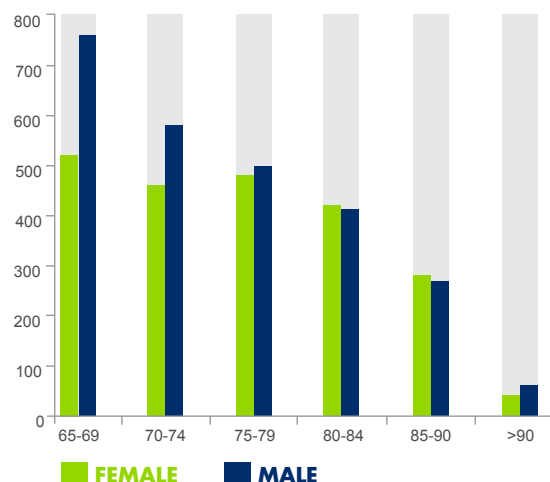
Based on 2008-2012 crash data, 60 percent of older driver related-deaths and serious injuries are due to crashes in which the older driver was at fault.

The highest numbers of at fault drivers over 64 years of age in crashes resulting in deaths and serious injuries are males 65-79.

Males accounted for 2,578 total deaths and serious injuries as compared to 2,201 for females.



## OLDER DRIVER DEATHS AND SERIOUS INJURIES BY AT FAULT AGE AND GENDER

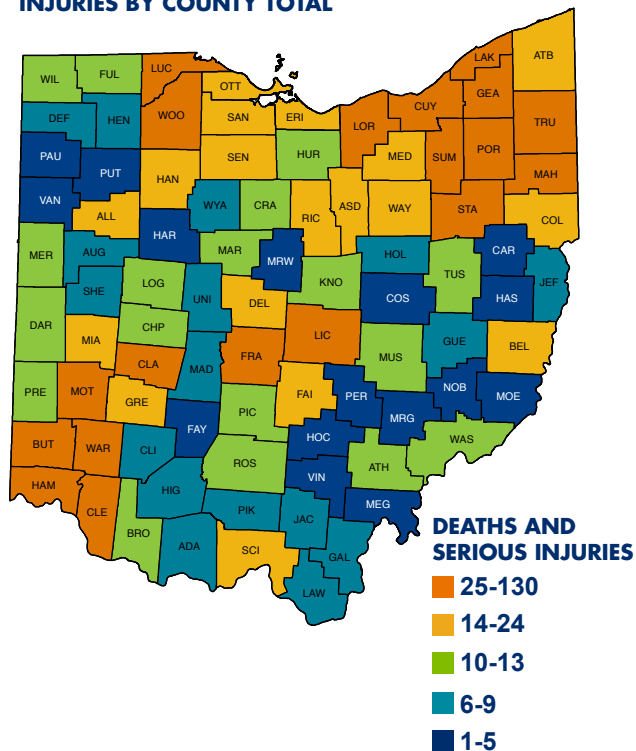


Note: All data from 2008-2012, except Overview section

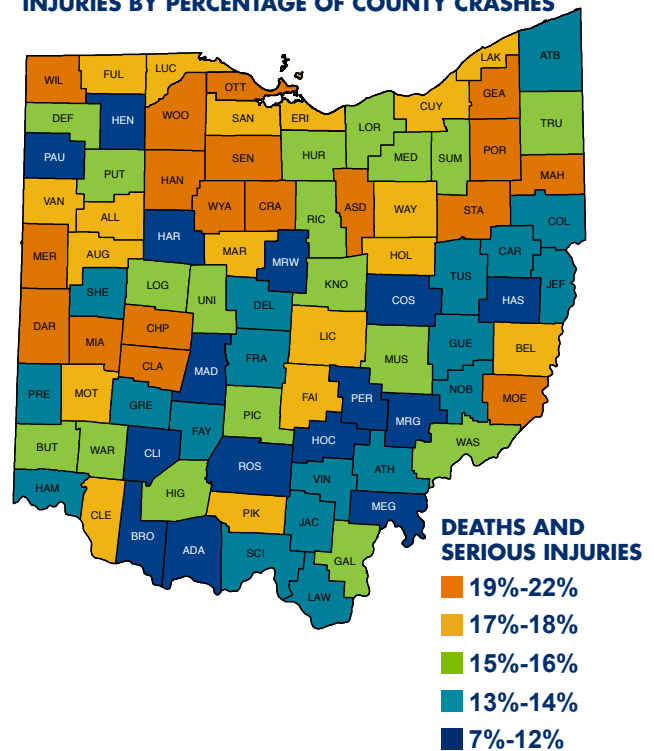
## WHERE CRASHES OCCURRED

These maps rank Ohio counties by the number of older driver-related deaths and serious injuries. Warm colors indicate more crashes relative to cool colors. **Most urbanized counties have a higher total number of older driver-related serious crashes. However, many rural counties have a higher percentage of serious older driver-related crashes when compared to the total number of serious crashes occurring within the county each year.**

**OLDER DRIVER-RELATED DEATHS AND SERIOUS INJURIES BY COUNTY TOTAL**

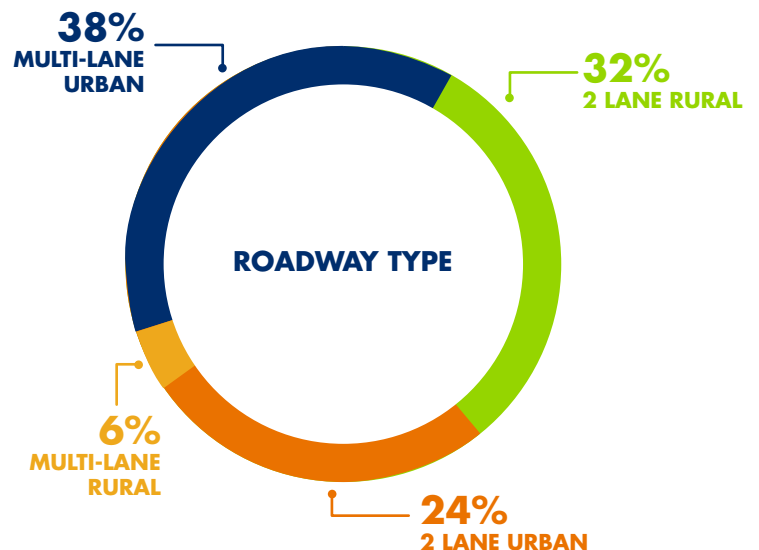


**OLDER DRIVER-RELATED DEATHS AND SERIOUS INJURIES BY PERCENTAGE OF COUNTY CRASHES**



**OLDER DRIVER-RELATED DEATHS BY ROADWAY TYPE**

More than 60 percent of all older driver-related deaths and serious injuries occurred on urban roads and 38 percent happened on multi-lane urban roads where intersections can be confusing to older drivers.



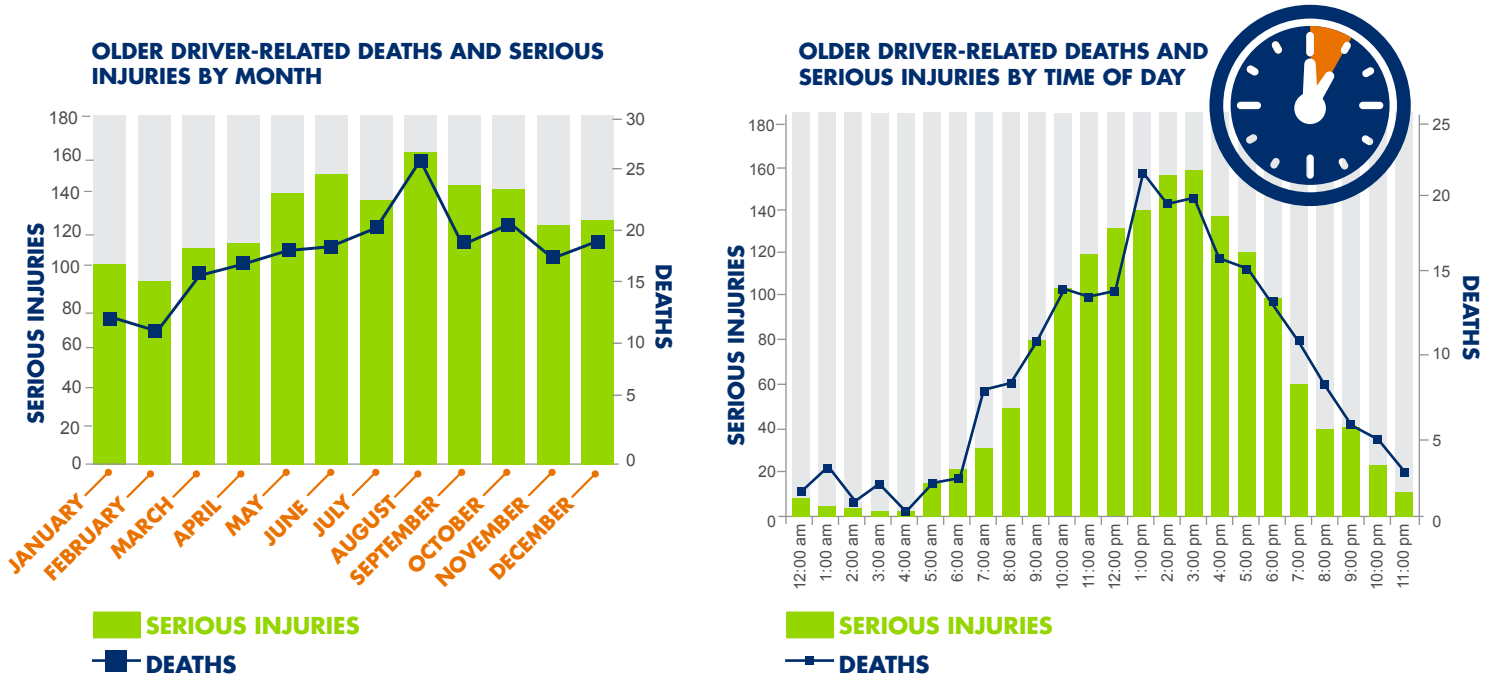
Note: All data from 2008-2012, except Overview section





## WHEN CRASHES OCCURRED

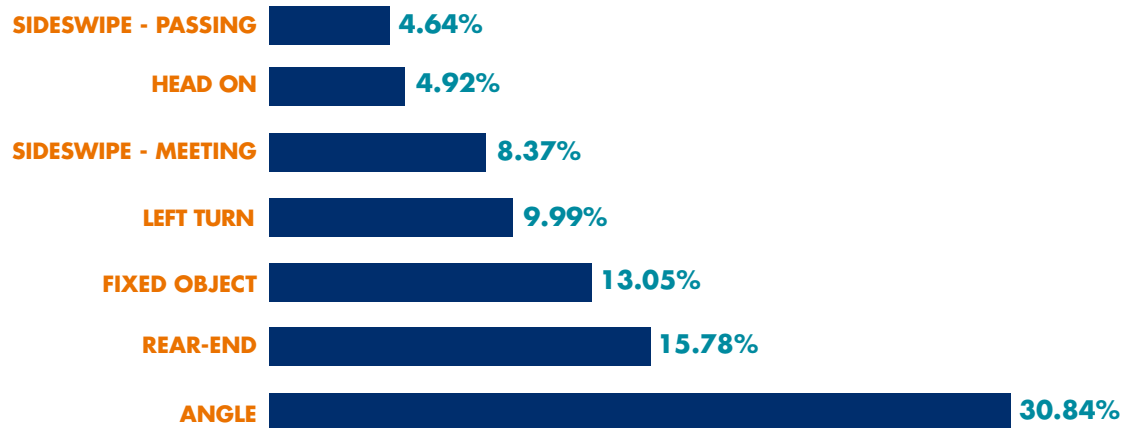
Older driver-related deaths and serious injuries were evenly spread throughout the year with the highest number occurring in August. The hours between 1-4 p.m. had the highest number of older driver-related crashes, but declined during evening hours when older drivers were less likely to drive.



## CONTRIBUTING FACTORS

Over 30 percent of older driver-related deaths and serious injuries occurred in angle crashes. The next highest crash type was rear end crashes, which constituted 15 percent of older driver-related deaths and serious injuries.

### OLDER DRIVER-RELATED DEATHS AND SERIOUS INJURIES BY CRASH TYPE



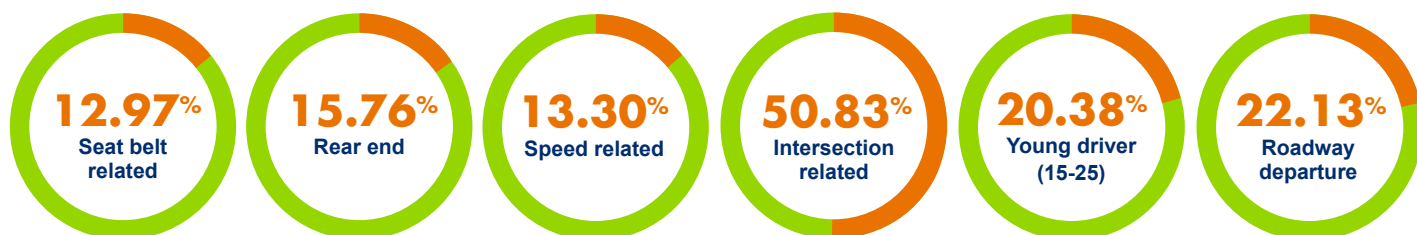
Note: All data from 2008-2012, except Overview section



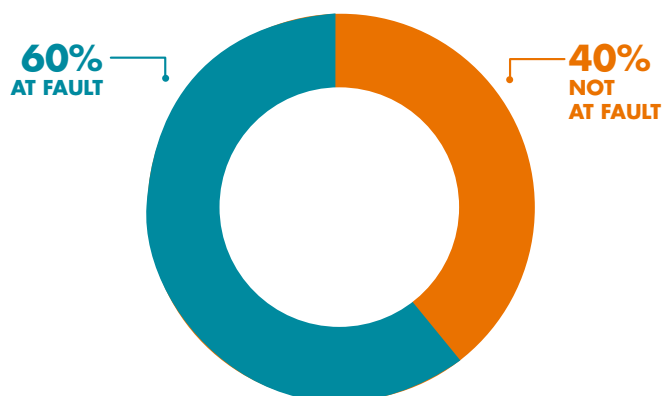
## CONTRIBUTING FACTORS CONTINUED

Over 50 percent of older driver-related deaths and serious injuries occurred at intersections; 22 percent involved roadway departures where the driver left the roadway; and young drivers were a factor in 20 percent of these crashes.

### OLDER DRIVER-RELATED DEATHS AND SERIOUS INJURIES BY RELATED SHSP EMPHASIS AREAS



### DEATHS AND SERIOUS INJURIES BY OLDER DRIVER AT FAULT



*Note: All data from 2008-2012, except Overview section*



# DISTRACTED/FATIGUED DRIVING DATA FACT SHEET

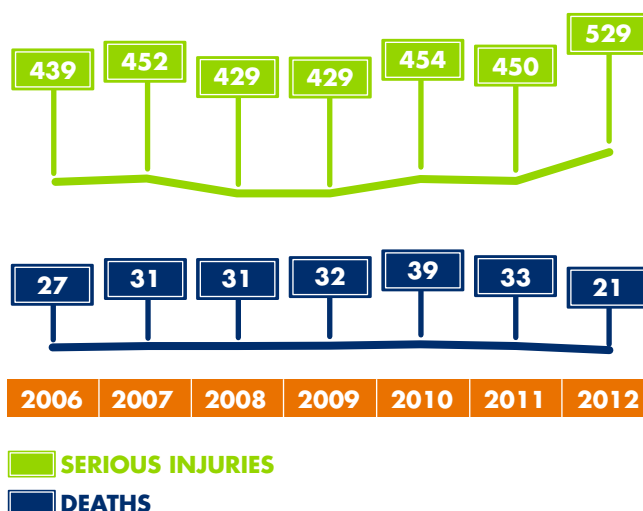
## OVERVIEW OF DISTRACTED/FATIGUED DRIVING-RELATED CRASHES

Between 2006 and 2012, 214 people died and 3,182 people were seriously injured in crashes where the driver was distracted/fatigued.

**Distracted/fatigued driver crashes accounted for approximately 3 percent of Ohio's fatalities and around 4 percent of serious injuries.**



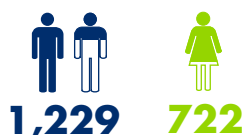
Ohio changed its crash reporting form and starting in 2013 law enforcement officers are required to provide more specific information on distractions. Officers can now indicate the driver was distracted by a phone, texting/emailing, electronic communications or other device, another distraction inside the vehicle or an external distraction. Over the next few years, the numbers for distracted driving offenses will grow as more information is captured.



## AT FAULT DRIVERS IN CRASHES

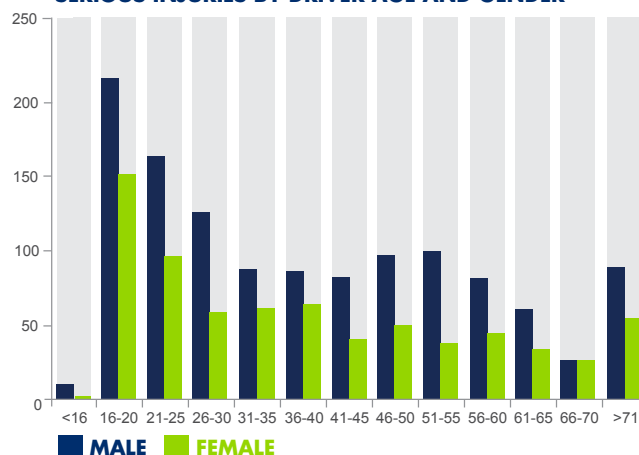
Males and females between age 16 and 20 had the highest number of distracted/fatigued driving-related deaths and serious injuries followed by drivers age 21 to 25.

**From 2008 to 2012, males were at fault in 1,229 distracted/fatigued driving deaths and serious injuries versus 722 for female drivers.**



Another spike occurred among men ages 26-30 and again with males between 46-55 years old.

## DISTRACTED/FATIGUED DRIVING-RELATED DEATHS AND SERIOUS INJURIES BY DRIVER AGE AND GENDER

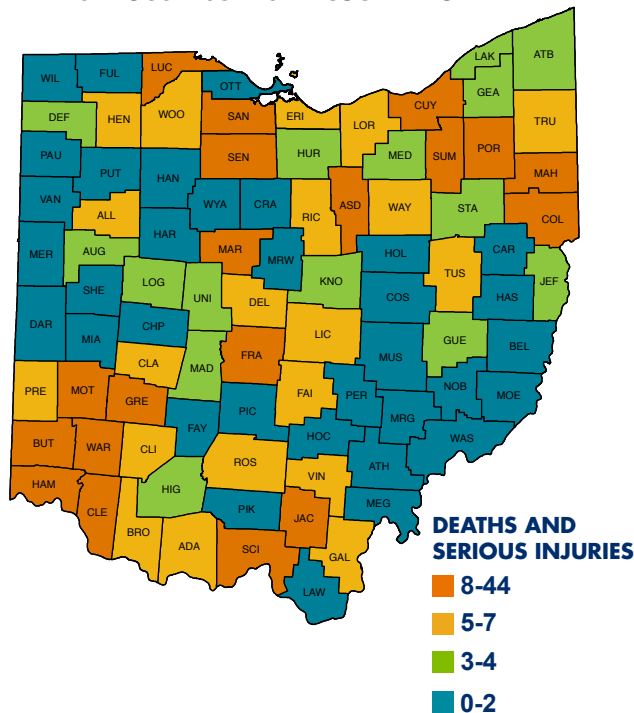


*Note: All data from 2008-2012, except Overview section*

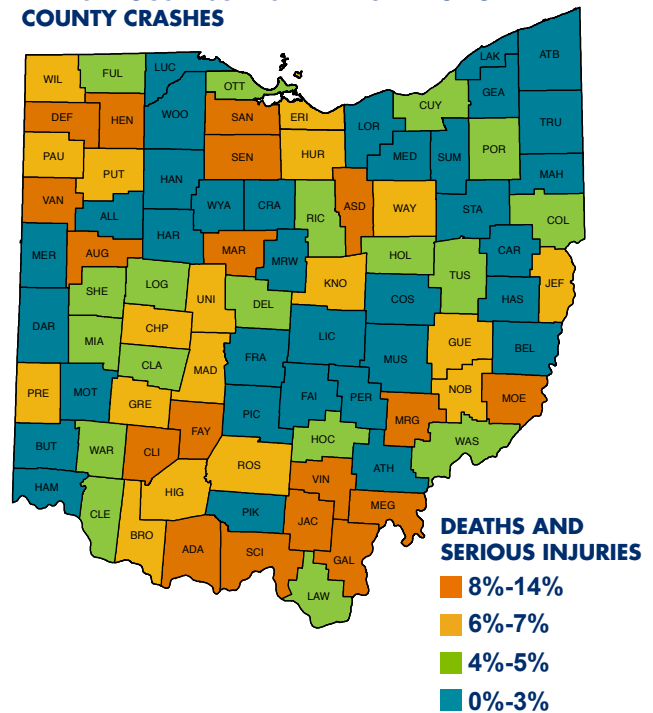
## WHERE CRASHES OCCURRED

These maps rank Ohio counties by the number of deaths and serious injuries that occurred due to distracted/fatigued driving. Warm colors indicate more crashes relative to cool colors. **Most urbanized counties have a higher total number of serious distracted/fatigued driving crashes. However, many rural counties have a higher percentage of serious distracted/fatigued crashes when compared with the total number of serious crashes occurring within the county each year.**

**DISTRACTED/FATIGUED DRIVING-RELATED DEATHS AND SERIOUS INJURIES BY COUNTY TOTAL**



**DISTRACTED/FATIGUED DRIVING-RELATED DEATHS AND SERIOUS INJURIES BY PERCENTAGE OF COUNTY CRASHES**



## DRIVING AND TEXTING

There are many types of distractions, but texting may be the worst because it takes the driver's eyes off the road, hands off the wheel, and the driver's mind off driving. The low number of texting and driving crashes may be due to under-reporting by police officers who are more likely to code a violation to a proven offense such as speeding or following too close. To charge someone with texting and driving, the officer or a witness must see the violation, the driver admits to the offense or the officer subpoenas phone records to prove texting.

**Ohio law bans teen drivers under age 18 from using any electronic communications device (handheld and hands-free). Adult drivers are prohibited from texting or reading/sending email while driving, but can only be ticketed if pulled over for another offense.**



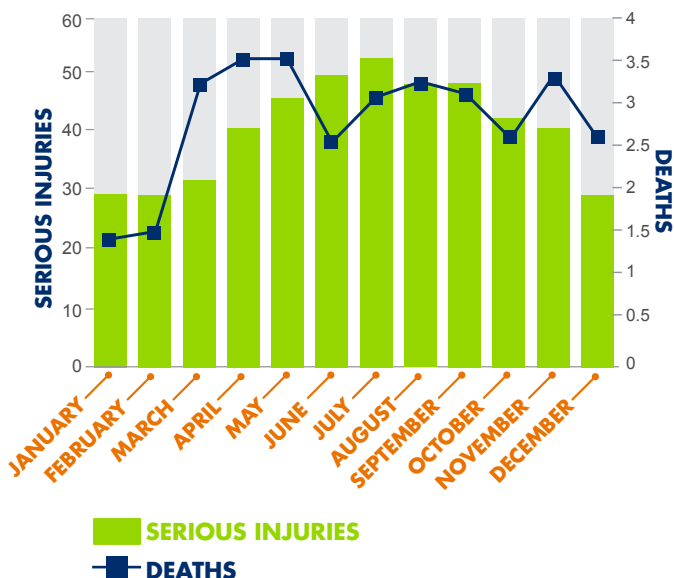
*Note: All data from 2008-2012, except Overview section*



## WHEN CRASHES OCCURRED

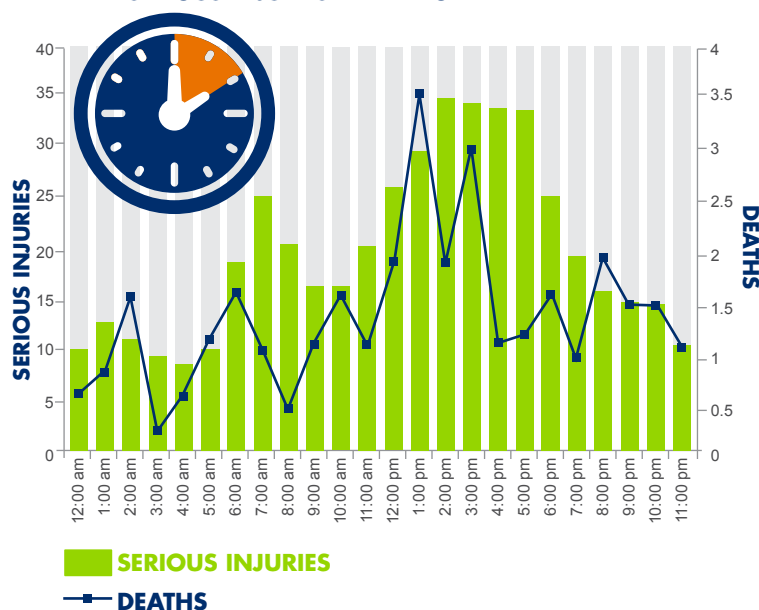
Most distracted/fatigued driving deaths and serious injuries occurred during the summer months and declined when the weather got colder.

**DISTRACTED/FATIGUED DRIVING-RELATED DEATHS AND SERIOUS INJURIES BY MONTH**



The number of deaths and serious injuries in distracted/fatigued driving crashes increased between 2-5 p.m. when there was more traffic on the roadway. Distracted/fatigue driving deaths, however, spiked at 1 p.m. and again at 2 a.m.

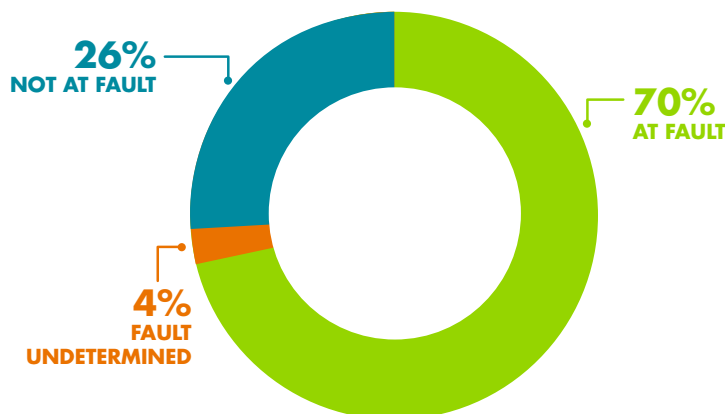
**DISTRACTED/FATIGUED DRIVING-RELATED DEATHS AND SERIOUS INJURIES BY TIME OF DAY**



## CONTRIBUTING FACTORS

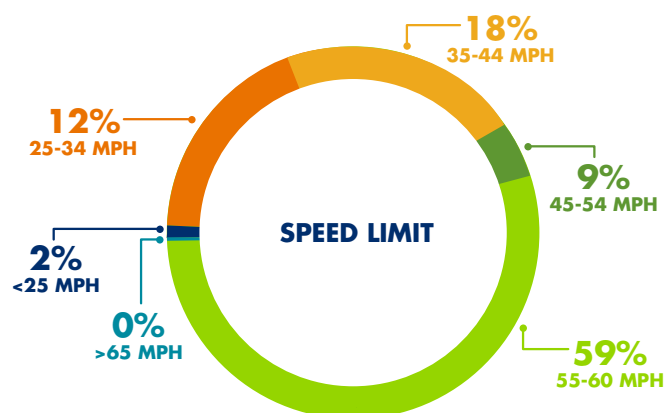
Seventy percent of distracted/fatigued driver-related deaths and serious injuries are due to crashes in which the driver was at fault.

**DISTRACTED/FATIGUED DRIVING-RELATED DEATHS AND SERIOUS INJURIES BY DRIVER AT FAULT**



Fifty-nine percent of distracted/fatigued driving deaths and serious injuries occurred when people were driving between 55 and 65 mph. The next highest number of deaths and serious injuries was at speed limits between 35 and 44 mph (18 percent).

**DISTRACTED/FATIGUED DRIVING-RELATED DEATHS AND SERIOUS INJURIES BY POSTED SPEED LIMIT (MPH)**



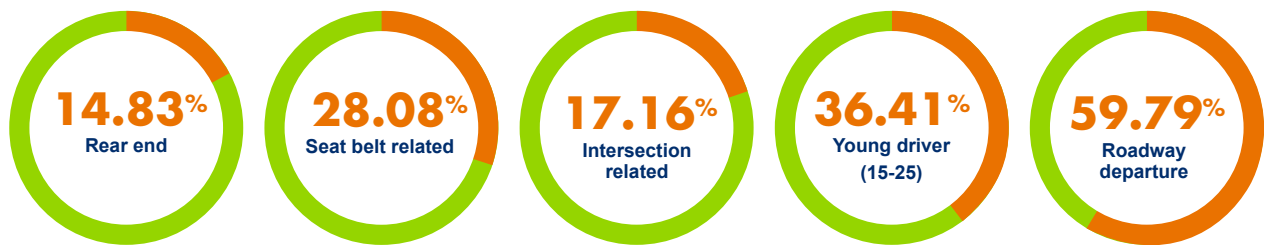
Note: All data from 2008-2012, except Overview section



## CONTRIBUTING FACTORS CONTINUED

The majority (nearly 60 percent) of distracted/fatigued driving deaths and serious injuries involved roadway departure where a driver left the roadway and struck another object; 36 percent involved a young driver; 28 percent involved unbelted drivers or passengers; 17 percent happened at intersections; and nearly 15 percent involved rear-end crashes.

### DISTRACTED/FATIGUED DRIVING-RELATED DEATHS AND SERIOUS INJURIES BY RELATED SHSP EMPHASIS AREAS



*Note: All data from 2008-2012, except Overview section*

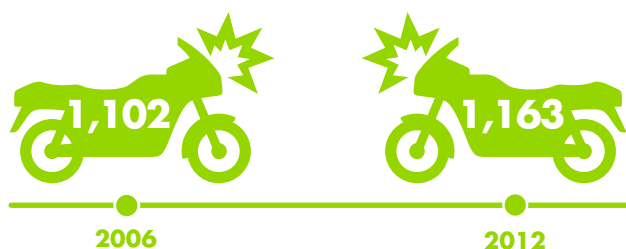


# MOTORCYCLE DATA FACT SHEET

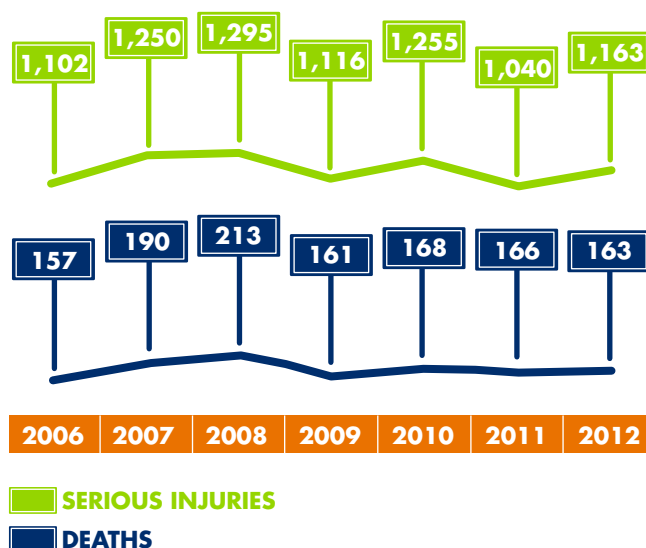
## OVERVIEW OF MOTORCYCLE-RELATED CRASHES

Between 2006 and 2012, 1,218 motorcycle operators and passengers died and 8,221 were seriously injured in motorcycle-related crashes.

Since Ohio's first SHSP was adopted in 2006, serious injuries increased 5 percent and deaths increased 4 percent.



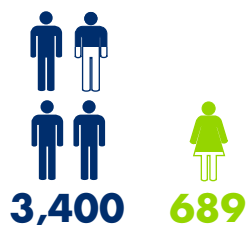
Motorcycle deaths and serious injuries accounted for 16 percent of Ohio's deaths and 12 percent of serious injuries.



## AT FAULT DRIVERS IN CRASHES

Sixty-one percent of motorcycle deaths and serious injuries are due to crashes in which the motorcycle driver was at fault. Male operators and passengers were more likely to be seriously injured or killed in a traffic crash.

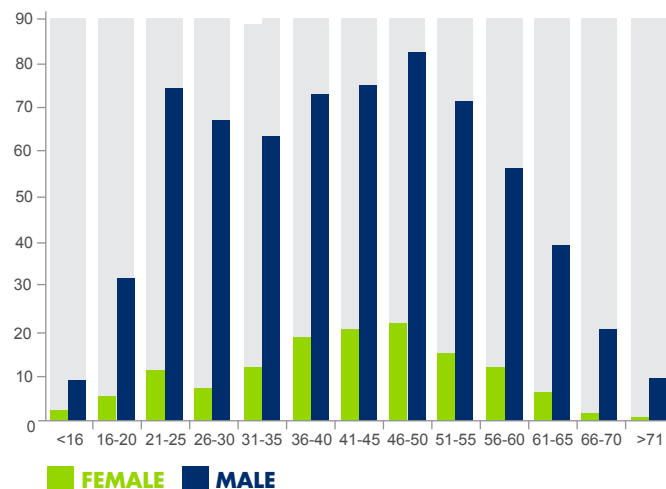
From 2008 to 2012, male operators/passengers were at fault in 3,400 motorcycle deaths and serious injuries versus 689 for female operators/passengers.



The highest number of at fault motorcycle drivers in crashes resulting in deaths and serious injuries are males between the ages of 41-50. Males 21-25 years old also have fairly high at fault numbers for these types of crashes.

Note: All data from 2008-2012, except Overview section

### MOTORCYCLE-RELATED DEATHS AND SERIOUS INJURIES BY OPERATOR AGE AND GENDER

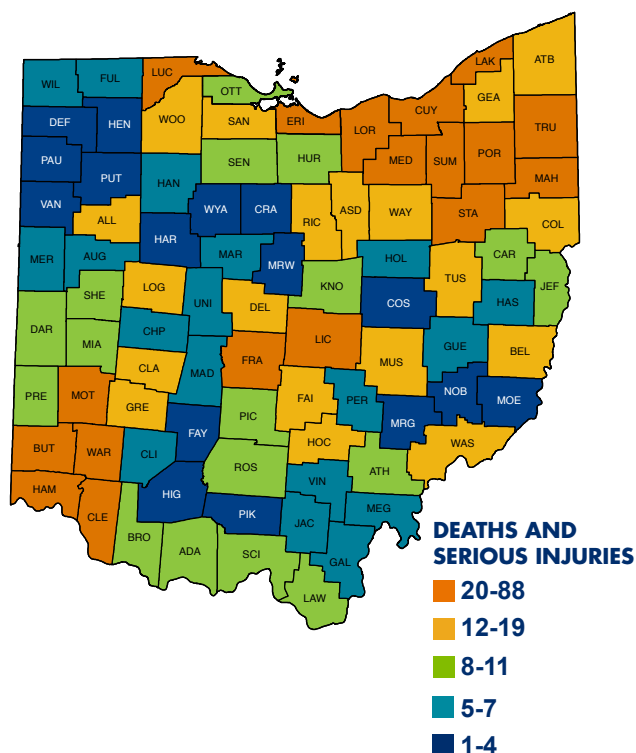




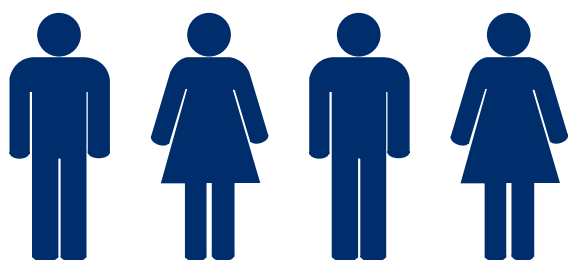
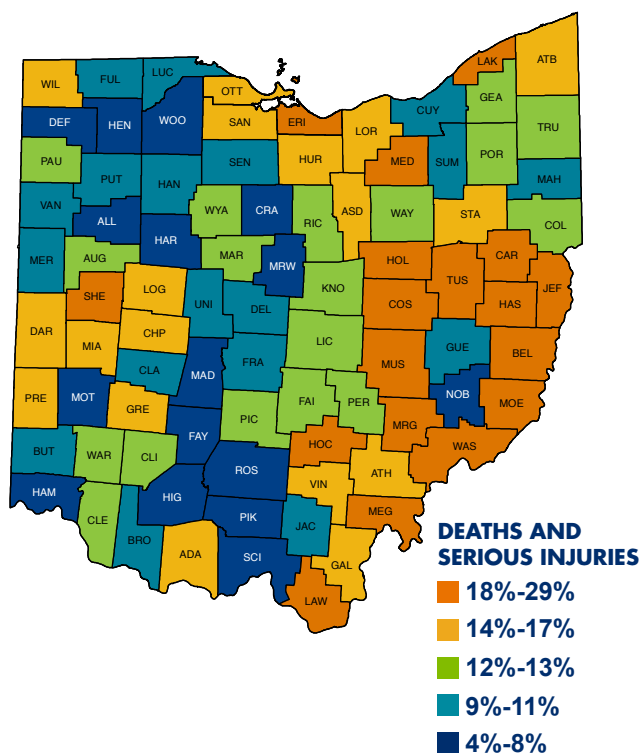
## WHERE CRASHES OCCURRED

These maps rank Ohio counties by the number of deaths and serious injuries that involved motorcycle operators and passengers. Warm colors indicate more crashes relative to cool colors. **Most urbanized counties had a higher total number of fatal and serious injury crashes associated with motorcycles. However, many rural counties had a higher percentage of motorcycle operator/passenger deaths and serious injury crashes when compared to the total number of serious crashes occurring within the county each year.**

**MOTORCYCLE-RELATED DEATHS AND SERIOUS INJURIES BY COUNTY TOTAL**



**MOTORCYCLE-RELATED DEATHS AND SERIOUS INJURIES BY PERCENTAGE OF COUNTY CRASHES**



**AN AVERAGE OF 4 MOTORCYCLE OPERATORS OR PASSENGERS DIED OR WERE SERIOUSLY INJURED EACH DAY.**

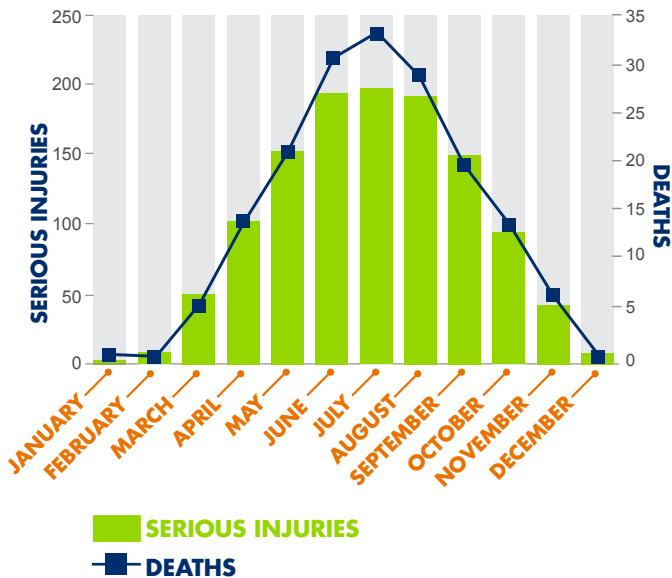
*Note: All data from 2008-2012, except Overview section*



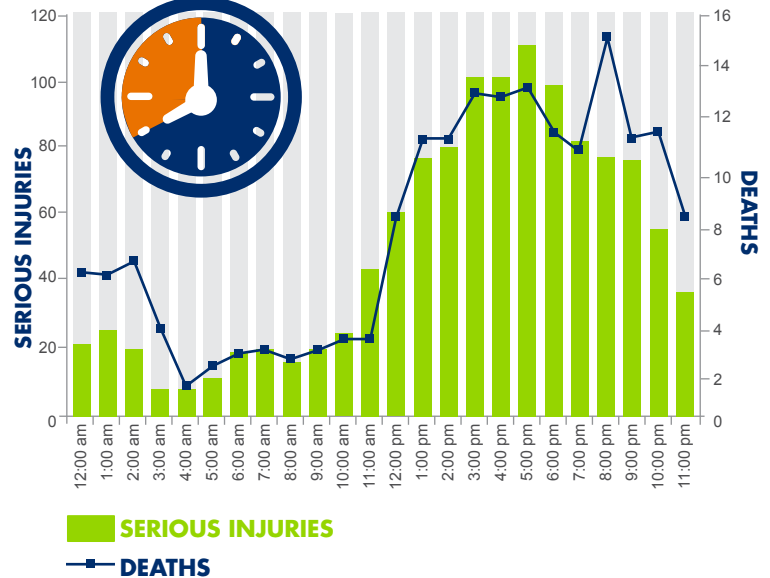
## WHEN CRASHES OCCURRED

The majority of motorcycle operator/passenger deaths and serious injuries occurred during the summer months from June to August when the weather was warmer and between the hours of 3-5 p.m., with a notable spike in deaths at 8 p.m.

**MOTORCYCLE-RELATED DEATHS AND SERIOUS INJURIES BY MONTH**



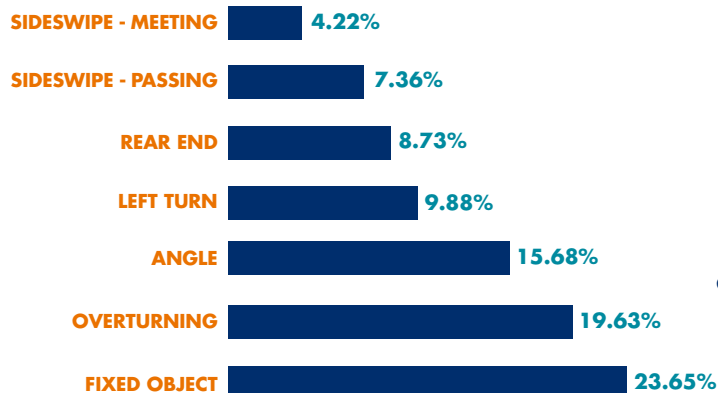
**MOTORCYCLE-RELATED DEATHS AND SERIOUS INJURIES BY TIME OF DAY**



## CONTRIBUTING FACTORS

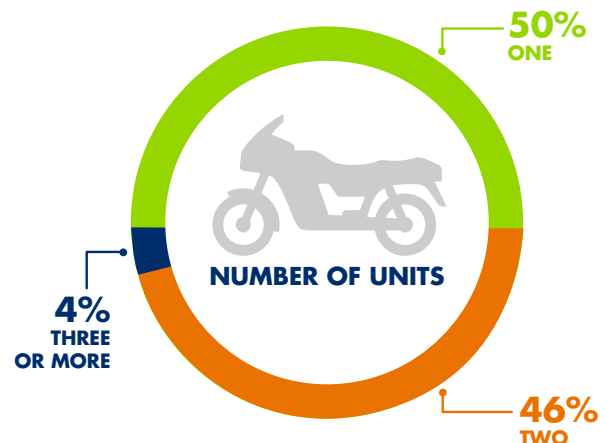
Approximately 24 percent of motorcycle operator/passenger deaths and serious injuries involved a crash with a fixed object on the side of the road. Almost 20 percent were injured or killed by over-turning the motorcycle.

**MOTORCYCLE OPERATOR/PASSENGERS DEATHS AND SERIOUS INJURIES BY CRASH TYPE**



Half of all motorcycle operator and passenger deaths and serious injuries occurred in single vehicle crashes where the motorcycle was the only vehicle involved.

**MOTORCYCLE OPERATOR/PASSENGERS DEATHS AND SERIOUS INJURIES BY NUMBER OF UNITS**



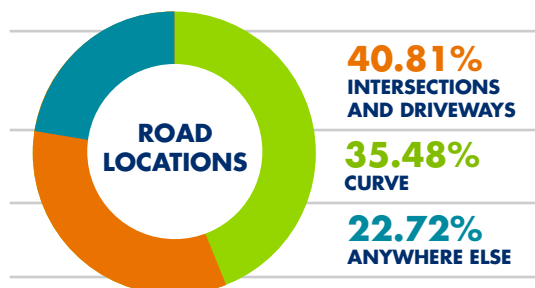
Note: All data from 2008-2012, except Overview section



## CONTRIBUTING FACTORS CONTINUED

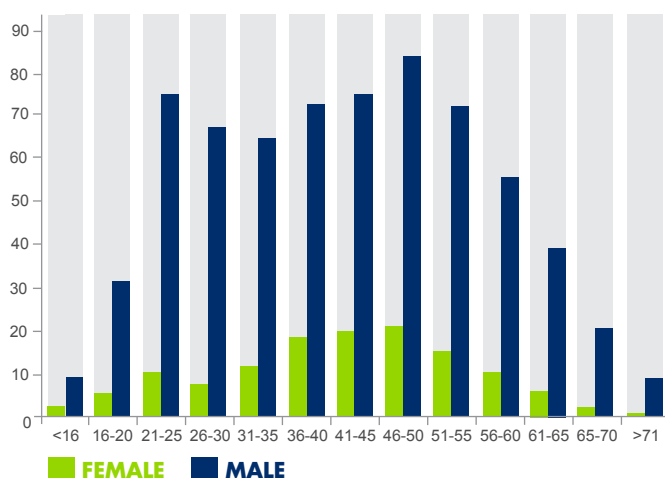
Motorcycle operator/passenger deaths and serious injuries mainly happened at intersections and driveways (40 percent) and at curves (36 percent).

**MOTORCYCLE-RELATED DEATHS AND SERIOUS INJURIES BY ROAD LOCATION**

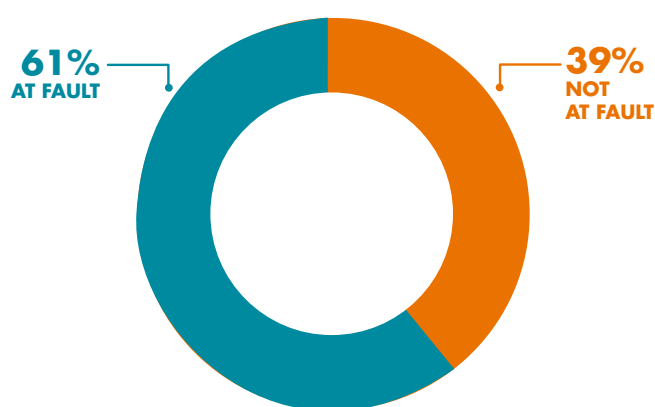


Sixty-one percent of motorcycle deaths and serious injuries were due to crashes in which the motorcycle operator was at fault. The highest number of at fault crashes resulting in deaths and serious injuries involved males between the ages of 41 and 50. Males 21 to 25 years also had high numbers for these types of crashes.

**MOTORCYCLE OPERATOR/PASSENGER DEATHS AND SERIOUS INJURIES BY AT FAULT AGE AND GENDER**



**MOTORCYCLE OPERATOR/PASSENGER DEATHS AND SERIOUS INJURIES BY MOTORCYCLE AT FAULT**



Nearly 66 percent of all motorcycle operator and passenger deaths and serious injuries involved crashes where helmets were not used. Approximately one-third of the deaths and serious injuries were due to roadway departure and one-third were intersection-related. A little over 24 percent involved speed and nearly 20 percent involved alcohol.

**MOTORCYCLE-RELATED OPERATOR/PASSENGERS DEATHS AND SERIOUS INJURIES BY RELATED SHSP EMPHASIS AREAS BY OPERATOR AGE AND GENDER**



Note: All data from 2008-2012, except Overview section

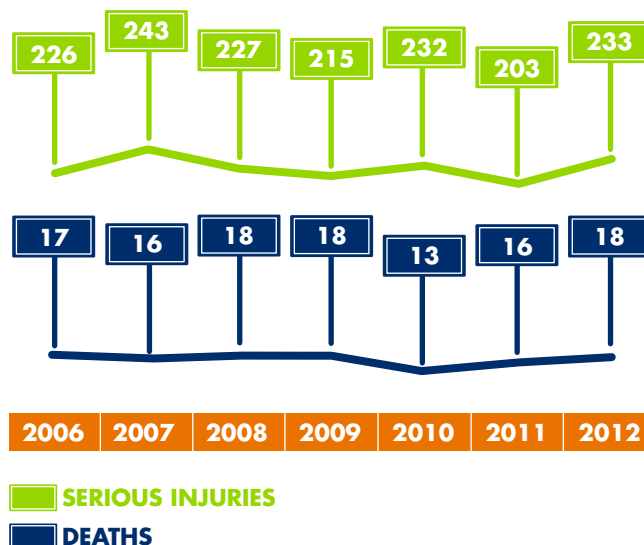
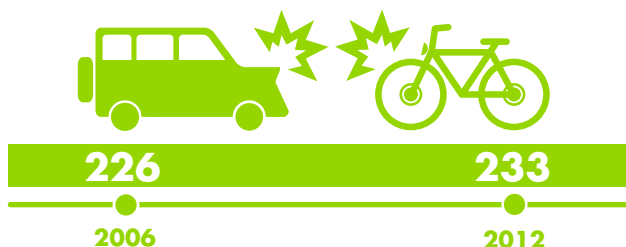


# BICYCLE DATA FACT SHEET

## OVERVIEW OF BICYCLE-RELATED CRASHES

Between 2006 and 2012, 116 people died and 1,579 people were seriously injured in bicycle-related crashes.

Bicycle-related crashes accounted for approximately 2 percent of Ohio's deaths and about 2 percent of serious injuries. However, since Ohio's first SHSP was adopted in 2006, serious injuries increased 3 percent and deaths by 6 percent.

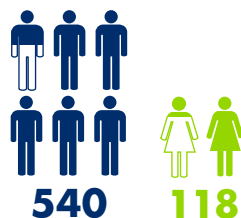


## AT FAULT BICYCLISTS IN CRASHES

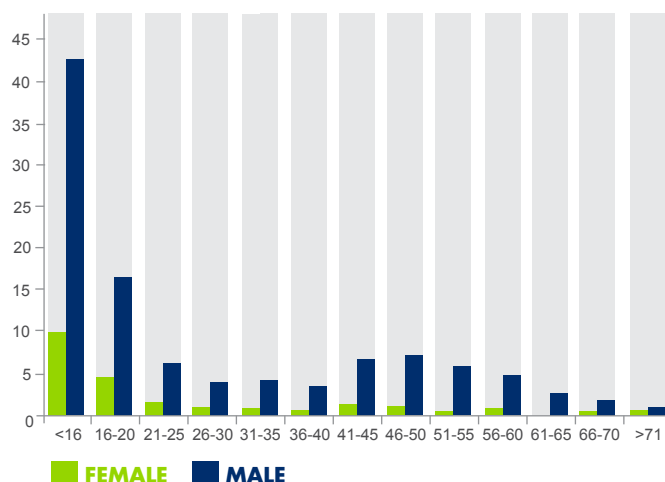
Based on 2008-2012 crash data, 55 percent of bicycle related deaths and serious injuries are due to crashes in which the bicyclist was determined to be at fault.

The highest numbers of at fault bicyclist crashes resulting in deaths and serious injuries are males under the age of 16. Males 16-20 years old also have fairly high at fault numbers for these types of crashes.

Male bicyclists accounted for 540 fatalities and serious injuries and females accounted for 118 deaths and serious injuries.



### BICYCLE-RELATED DEATHS AND SERIOUS INJURIES BY AGE AND GENDER

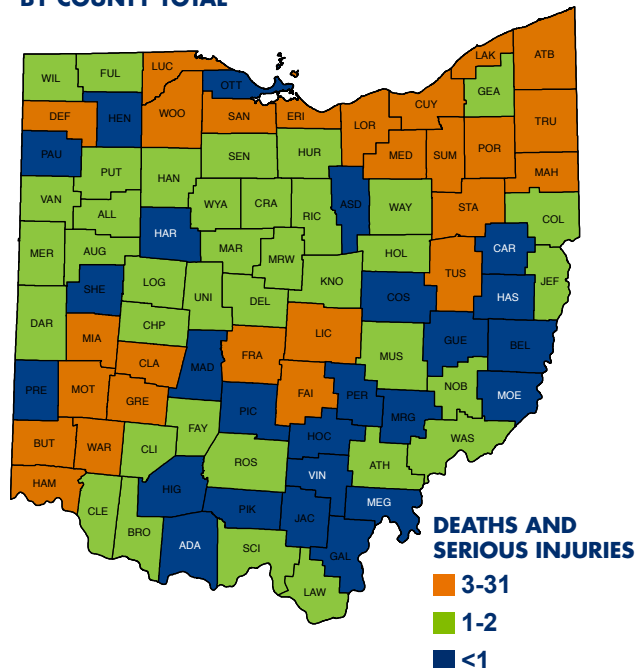


Note: All data from 2008-2012, except Overview section

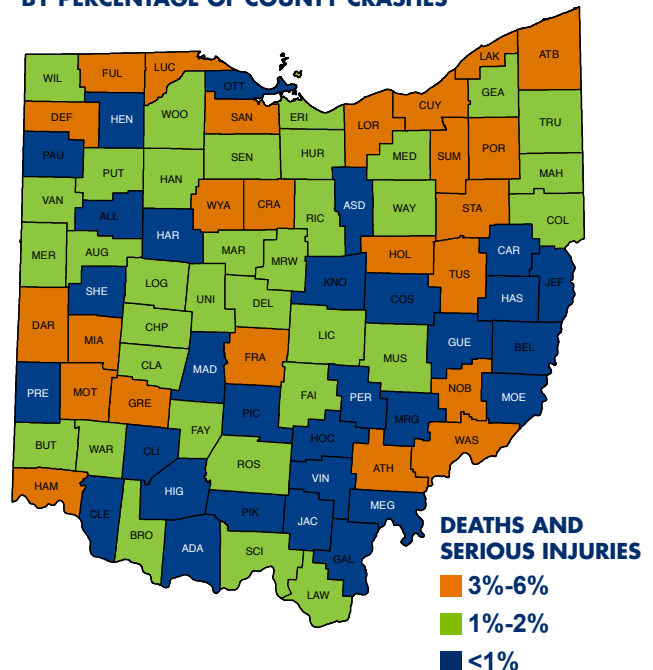
## WHERE CRASHES OCCURRED

These maps rank Ohio counties by the number of bicycle-related deaths and serious injuries. Warm colors indicate more crashes relative to cool colors. **Most urbanized counties have a higher total number and a higher percentage of serious bicycle crashes.**

**BICYCLE-RELATED DEATHS AND SERIOUS INJURIES BY COUNTY TOTAL**

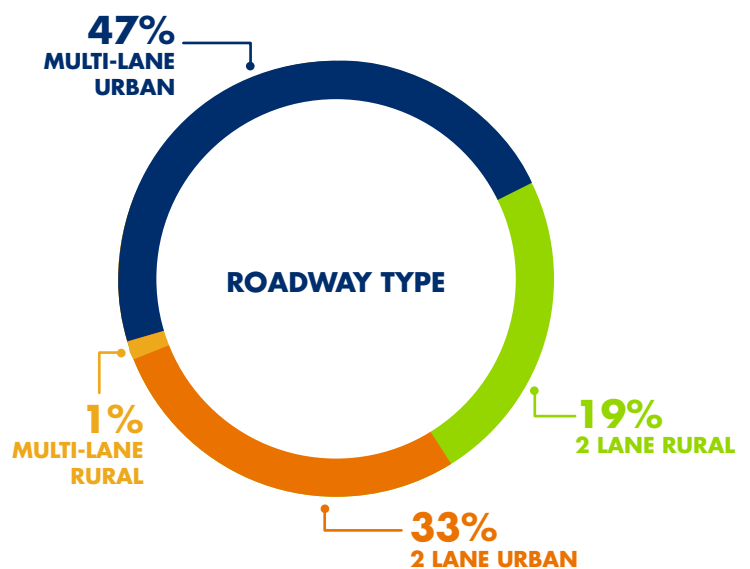


**BICYCLE-RELATED DEATHS AND SERIOUS INJURIES BY PERCENTAGE OF COUNTY CRASHES**



**BICYCLE-RELATED DEATHS AND SERIOUS INJURIES BY ROADWAY TYPE**

Bicycle crashes on urban roads accounted for 80 percent of bicycle-related deaths and serious injuries, with 47 percent occurring on multi-lane urban roads.



*Note: All data from 2008-2012, except Overview section*

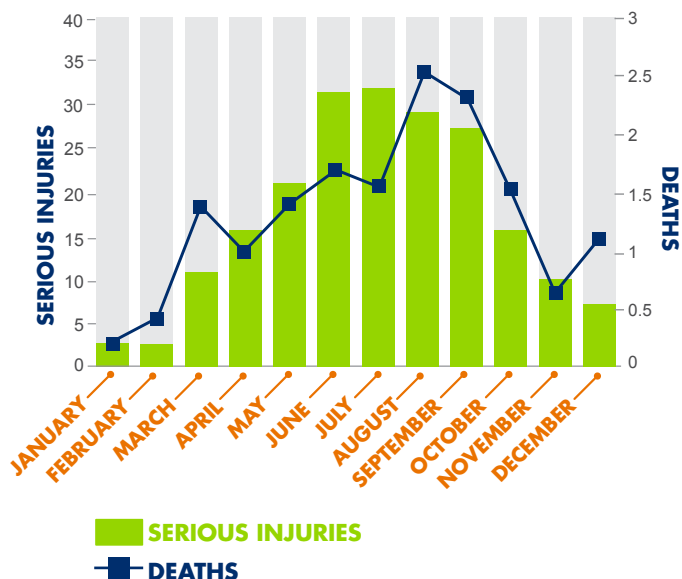


## WHEN CRASHES OCCURRED

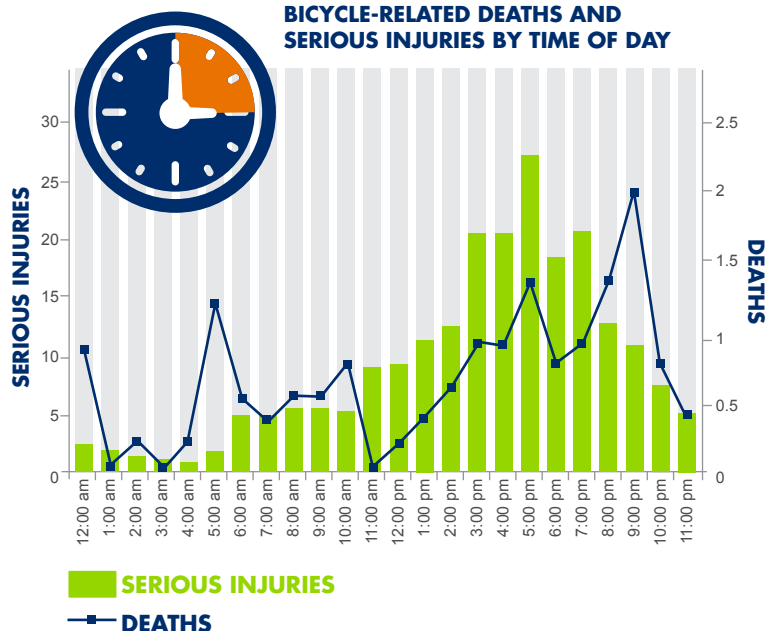
Most bicycle-related deaths and serious injuries occurred during the summer and fall months of June through September, likely the result of favorable weather.

The number of serious injuries in bicycle-related crashes increased between 3-7 p.m. due to higher volumes of bicyclists and motor vehicles. The serious injury numbers decreased late at night when fewer drivers and bicyclists were on the road. Deaths fluctuated during the day, but were highest around traveler commute times.

**BICYCLE-RELATED DEATHS AND SERIOUS INJURIES BY MONTH**



**BICYCLE-RELATED DEATHS AND SERIOUS INJURIES BY TIME OF DAY**



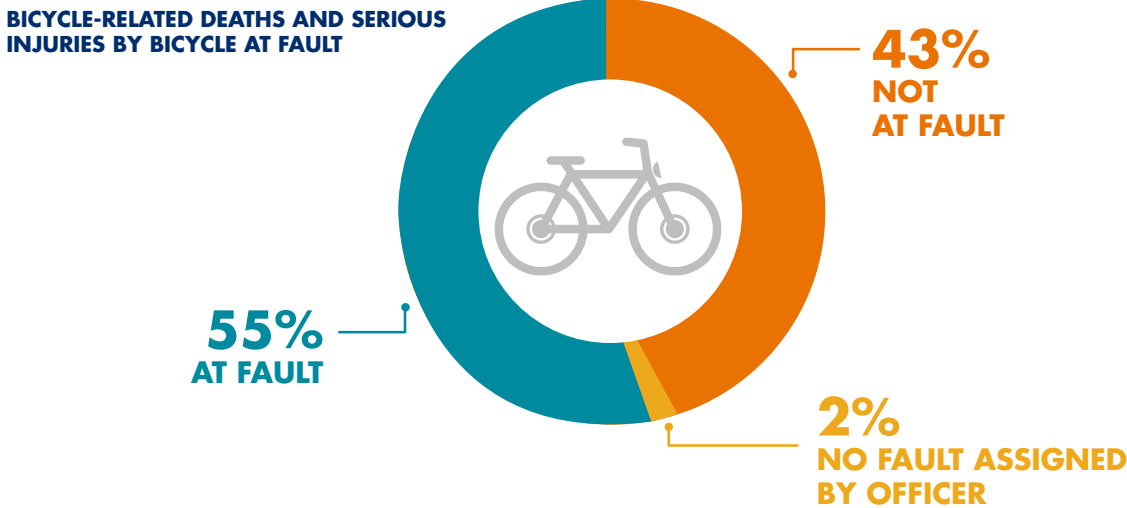
**AN AVERAGE OF 1 PERSON DIED OR WAS SERIOUSLY INJURED EACH DAY IN BICYCLE-RELATED CRASHES.**

*Note: All data from 2008-2012, except Overview section*



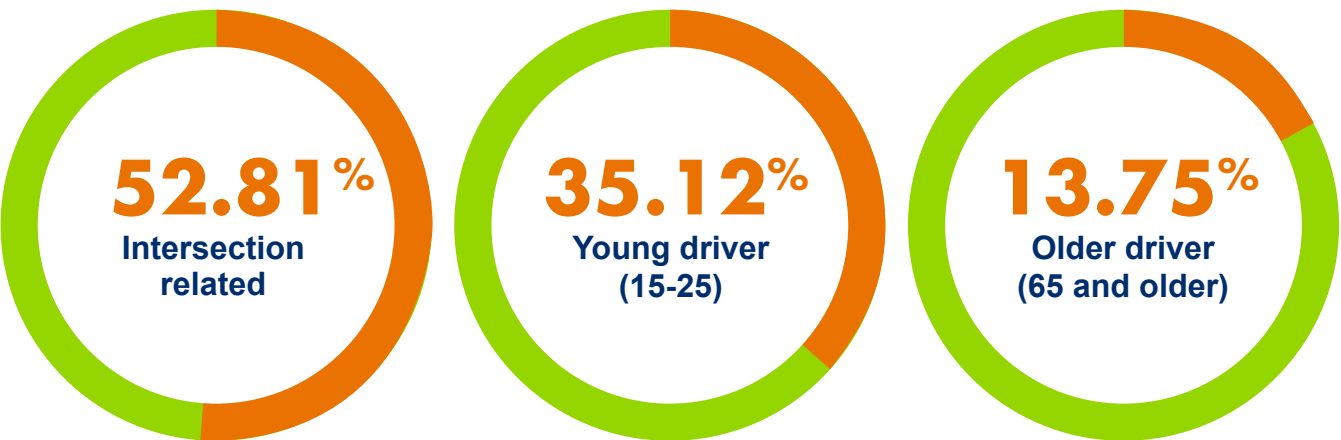
# CONTRIBUTING FACTORS

Motorists and bicyclists share responsibility for causing crashes. Over half of the bicycle-related deaths and serious injuries occurred in crashes where the bicyclist was determined to be at fault. Motorists were also at fault about 43 percent of the time.



**BICYCLE-RELATED DEATHS AND SERIOUS INJURIES BY RELATED SHSP EMPHASIS AREAS**

Bicycle-related deaths and serious injuries occurred at intersections 52 percent of the time. Young drivers were a factor in 35 percent of bicycle-related deaths and serious injuries from crashes and older drivers were a factor 14 percent of the time.



*Note: All data from 2008-2012, except Overview section*





# PEDESTRIAN DATA FACT SHEET

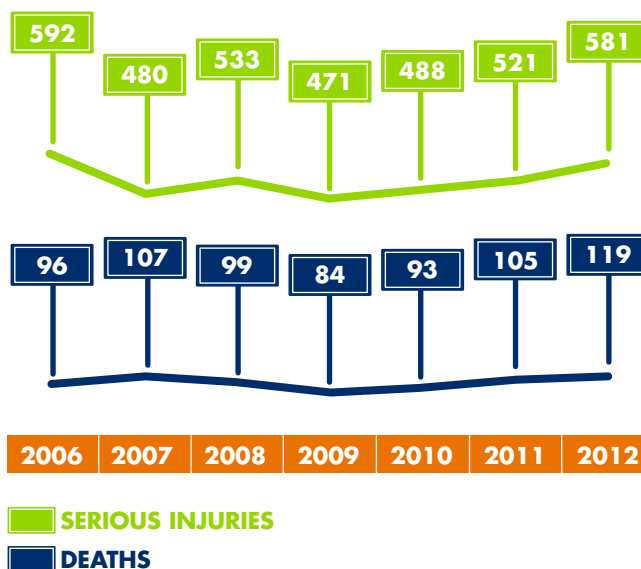
## OVERVIEW OF PEDESTRIAN-RELATED CRASHES

Between 2006 and 2012, 703 people died and 3,666 people were seriously injured in pedestrian-related crashes.

Since Ohio's first SHSP was adopted in 2006, deaths have been steadily increasing from a low of 84 in 2009 to 119 in 2012; a 29 percent increase.



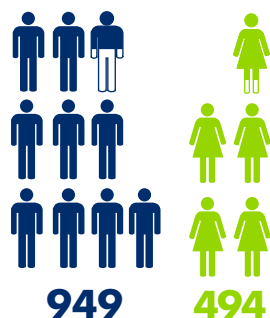
Serious injuries, however, declined by almost 2 percent. Pedestrian-related crashes accounted for about 9 percent of Ohio's deaths and around 5 percent of serious injuries.



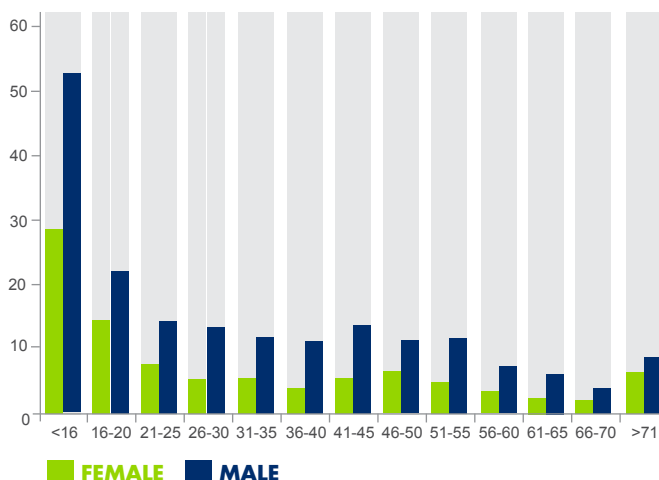
## AT FAULT PEDESTRIANS IN CRASHES

Based on 2008-2012 crash data, 46 percent of pedestrian-related deaths and serious injuries are due to crashes in which the pedestrian was at fault.

The highest numbers of at fault pedestrians in crashes resulting in deaths and serious injuries are males and females under the age of sixteen. Males 16-20 years old also have fairly high at fault numbers for these types of crashes.



### PEDESTRIAN-RELATED DEATHS AND SERIOUS INJURIES BY AGE AND GENDER

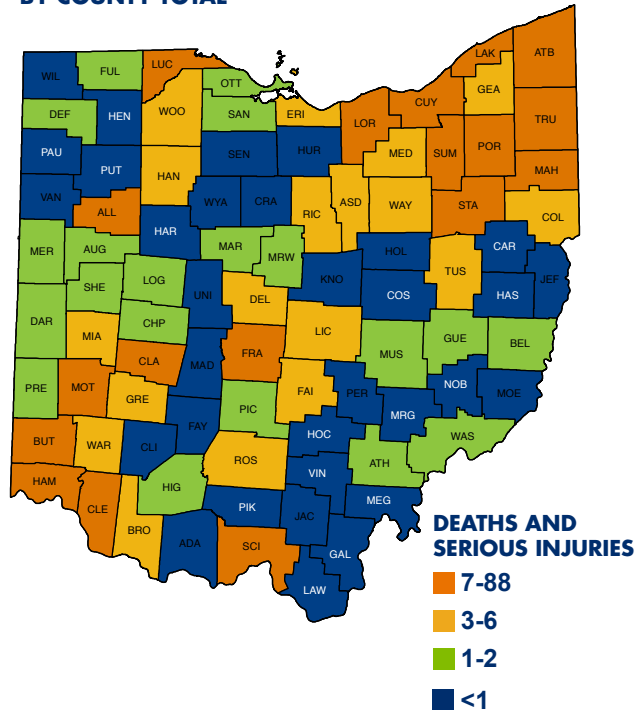


Note: All data from 2008-2012, except Overview section

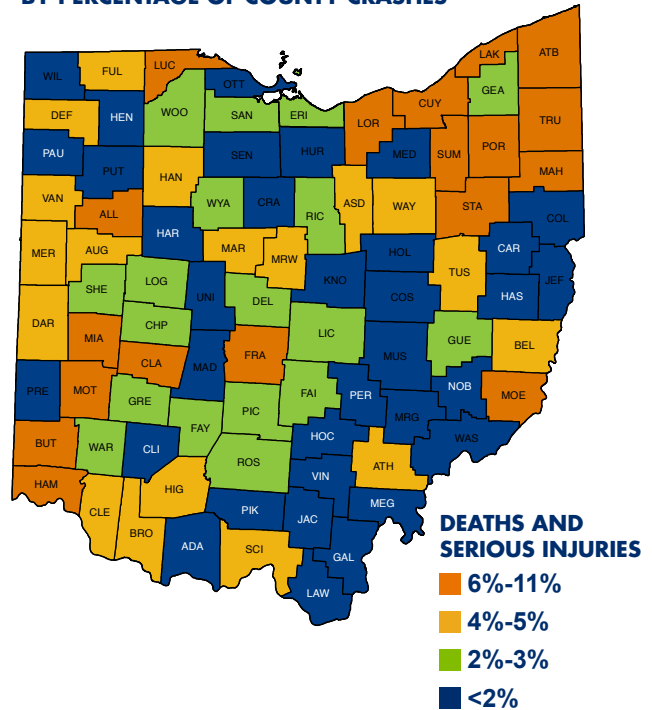
## WHERE CRASHES OCCURRED

These maps rank Ohio counties by the number of pedestrian deaths and serious injuries. Warm colors indicate more crashes relative to cool colors. **Most urbanized counties have a higher total number and a higher percentage of serious pedestrian crashes.**

**PEDESTRIAN-RELATED DEATHS AND SERIOUS INJURIES BY COUNTY TOTAL**

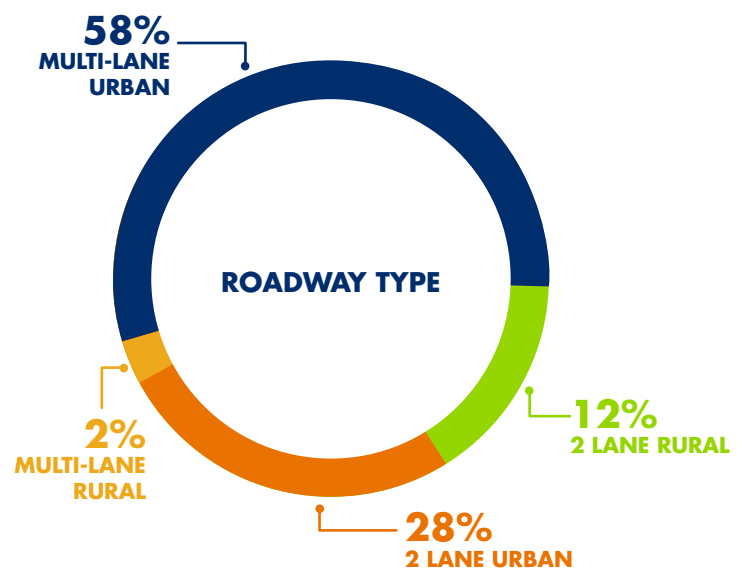


**PEDESTRIAN-RELATED DEATHS AND SERIOUS INJURIES BY PERCENTAGE OF COUNTY CRASHES**



**PEDESTRIAN-RELATED DEATHS AND SERIOUS INJURIES BY ROADWAY TYPE**

Crashes on urban roads accounted for 86 percent of pedestrian-related deaths and serious injuries. Fifty-eight percent of those crashes occurred on multi-lane urban roads where pedestrians must cross multiple lanes, have limited time to cross and have decreased visibility of oncoming traffic.



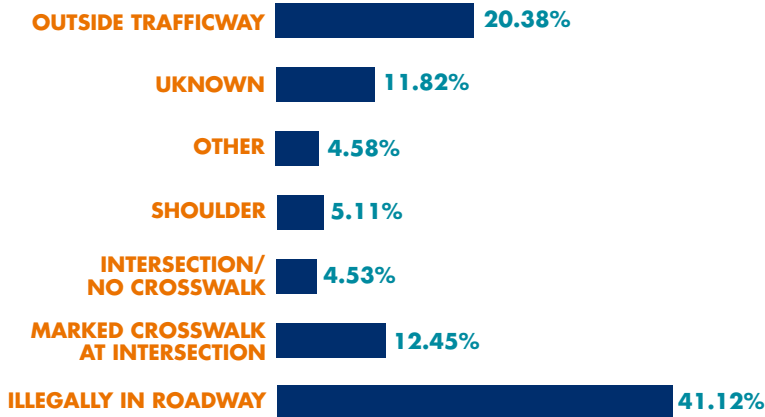
*Note: All data from 2008-2012, except Overview section*



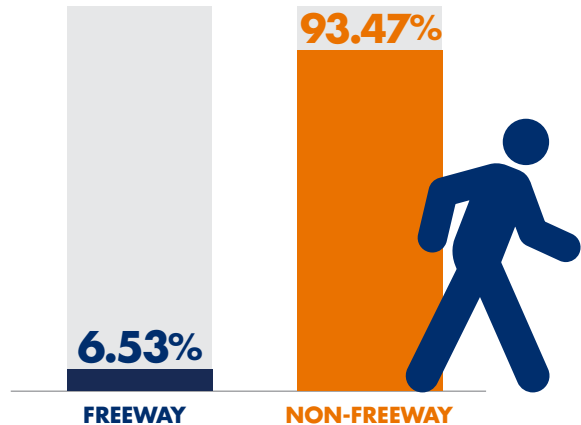
## WHERE CRASHES OCCURRED CONTINUED

Almost half of pedestrian-related deaths and serious injuries took place away from crosswalks and intersections. Almost 7 percent of pedestrian-related deaths and serious injuries occurred on freeways.

PEDESTRIAN-RELATED DEATHS AND SERIOUS INJURIES BY PEDESTRIAN LOCATION



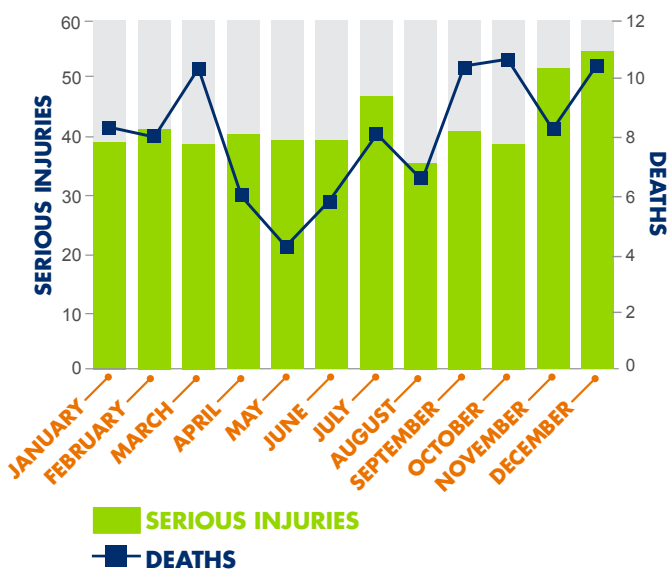
PEDESTRIAN-RELATED DEATHS AND SERIOUS INJURIES BY FREEWAY LOCATION



## WHEN CRASHES OCCURRED

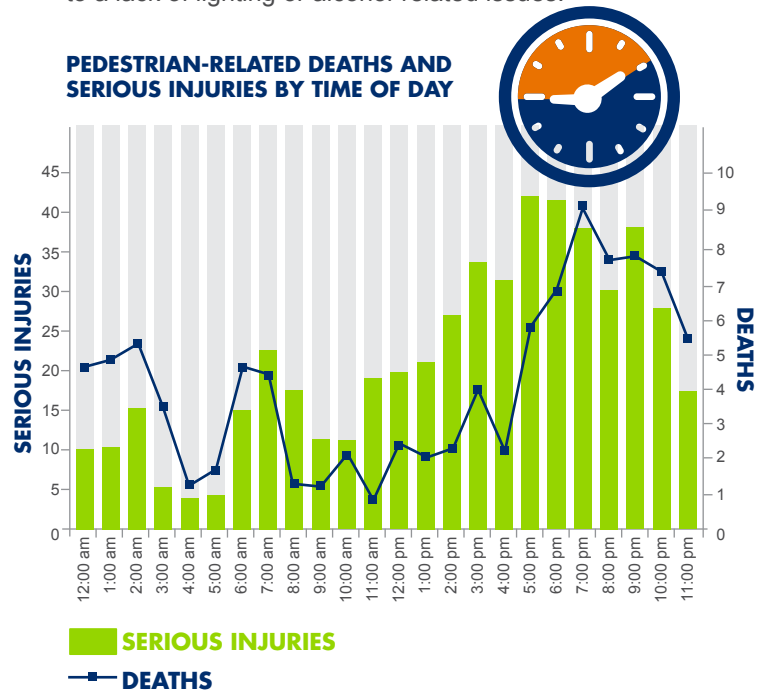
Most pedestrian-related deaths and serious injuries occurred during the summer and fall from June through September when the weather is more favorable. The spike in March may also be due to the beginning of warmer weather.

PEDESTRIAN-RELATED DEATHS AND SERIOUS INJURIES BY MONTH



The number of serious injuries and deaths in pedestrian-related crashes increased between 5-10 p.m. due to higher volumes of pedestrians and motor vehicles on the road. The death numbers remain high until 2 a.m. possibly due to a lack of lighting or alcohol-related issues.

PEDESTRIAN-RELATED DEATHS AND SERIOUS INJURIES BY TIME OF DAY



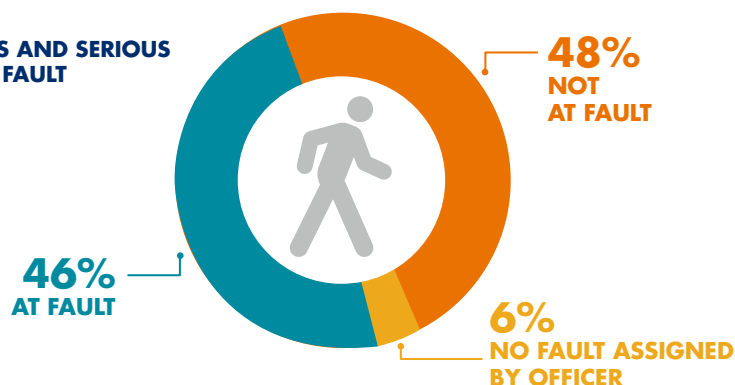
Note: All data from 2008-2012, except Overview section



## CONTRIBUTING FACTORS

Motorists and pedestrians share responsibility for causing crashes. Less than half of the pedestrian-related deaths and serious injuries occurred in crashes where the pedestrian was at fault.

### PEDESTRIAN-RELATED DEATHS AND SERIOUS INJURIES BY PEDESTRIAN AT FAULT



### PEDESTRIAN-RELATED DEATHS AND SERIOUS INJURIES BY RELATED SHSP EMPHASIS AREAS

Pedestrian-related deaths and serious injuries occurred at intersections 36 percent of the time. Young drivers between the ages of 15-25 were a factor in 23 percent of the crashes and alcohol was a factor 20 percent of the time.



**AN AVERAGE OF 2 PEDESTRIANS DIED OR WERE SERIOUSLY INJURED EACH DAY IN CRASHES.**

*Note: All data from 2008-2012, except Overview section*



# COMMERCIAL VEHICLE DATA FACT SHEET

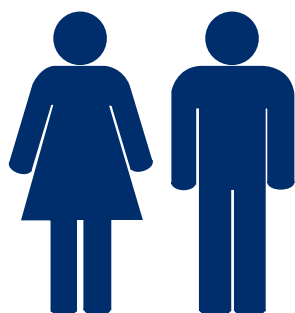
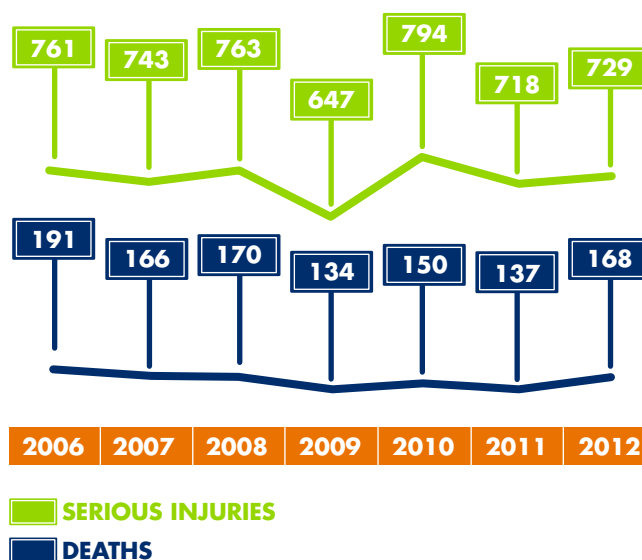
## OVERVIEW OF COMMERCIAL VEHICLE-RELATED CRASHES

Between 2006 and 2012, 1,116 people died and 5,155 people were seriously injured in commercial motor vehicle-related (CMV) crashes.

Since Ohio's first SHSP was adopted in 2006, serious injuries decreased 4 percent and deaths decreased 12 percent.



CMV-related crashes accounted for approximately 15 percent of Ohio's deaths and around 7 percent of serious injuries. From 2011 to 2012, CMV-related deaths increased by 18 percent and serious injuries increased by 2 percent.



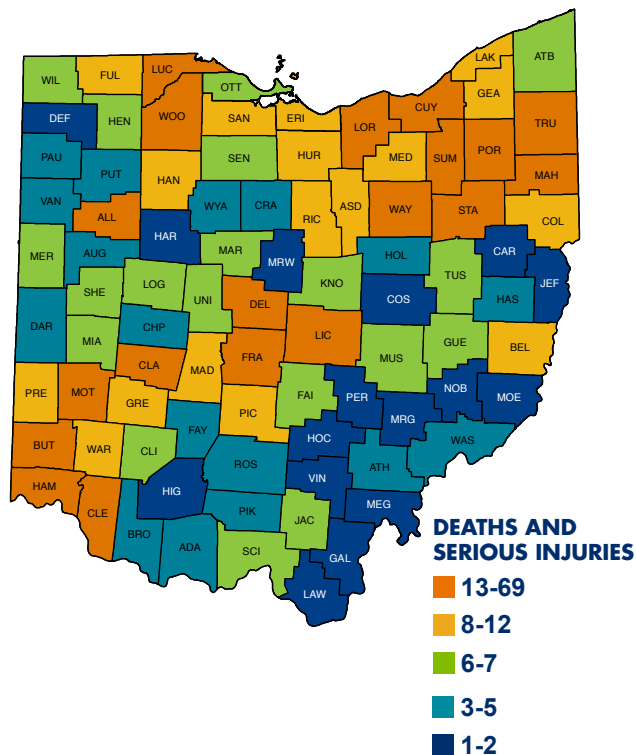
**AN AVERAGE OF 2 PEOPLE DIED  
OR WERE SERIOUSLY INJURED  
EACH DAY IN CMV-RELATED CRASHES.**

*Note: All data from 2008-2012, except Overview section*

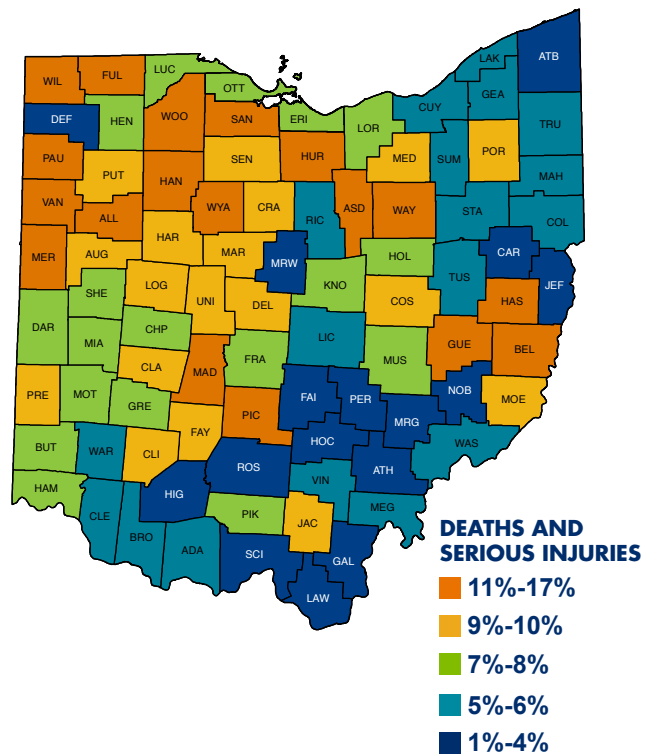
## WHERE CRASHES OCCURRED

These maps rank Ohio counties by the number of CMV-related deaths and serious injuries. Warm colors indicate more crashes relative to cool colors. **Most urbanized counties have a higher total number of CMV-related serious crashes. However, many rural counties have a higher percentage of these types of crashes when compared to the total number of serious crashes occurring within the county each year.**

**COMMERCIAL VEHICLE-RELATED DEATHS AND SERIOUS INJURIES BY COUNTY TOTAL**

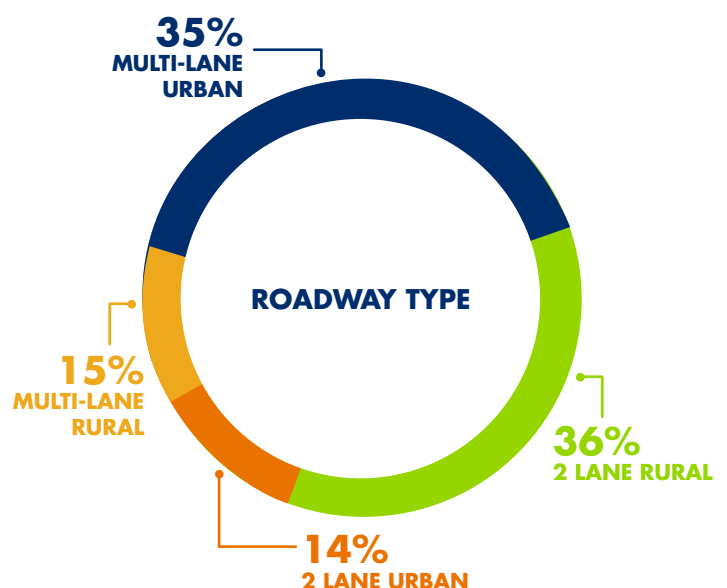


**COMMERCIAL VEHICLE-RELATED DEATHS AND SERIOUS INJURIES BY PERCENTAGE OF COUNTY CRASHES**



**COMMERCIAL VEHICLE-RELATED DEATHS AND SERIOUS INJURIES BY ROADWAY TYPE**

Most CMV-related deaths and serious injuries occurred on rural two-lane roads (36 percent) and multi-lane urban roads (35 percent).



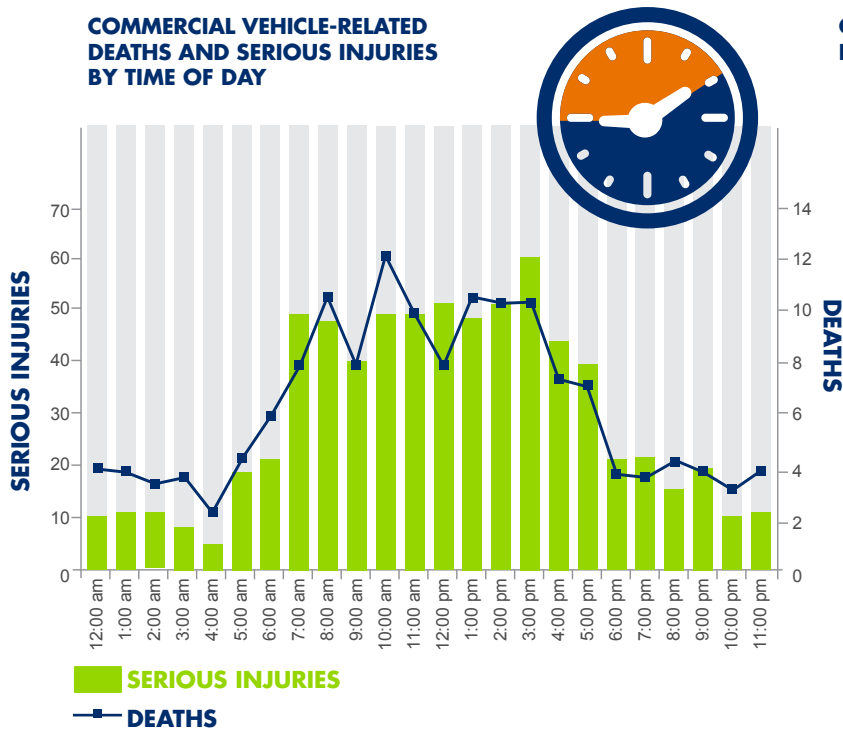
Note: All data from 2008-2012, except Overview section



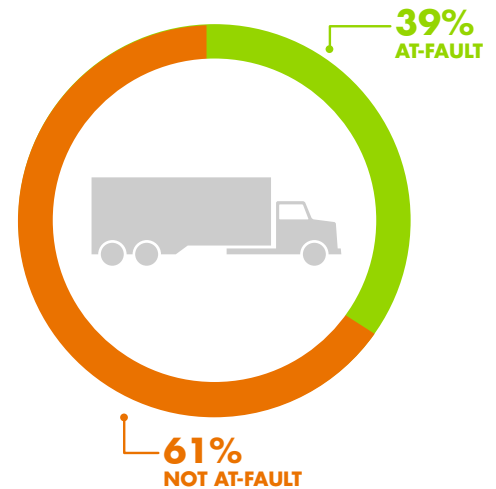
## WHEN CRASHES OCCURRED

The number of CMV-related deaths and serious injuries increased between 2-3 p.m. when traffic is often heaviest. There were also a high number of deaths in the morning at 8-10 a.m.

**COMMERCIAL VEHICLE-RELATED DEATHS AND SERIOUS INJURIES BY TIME OF DAY**



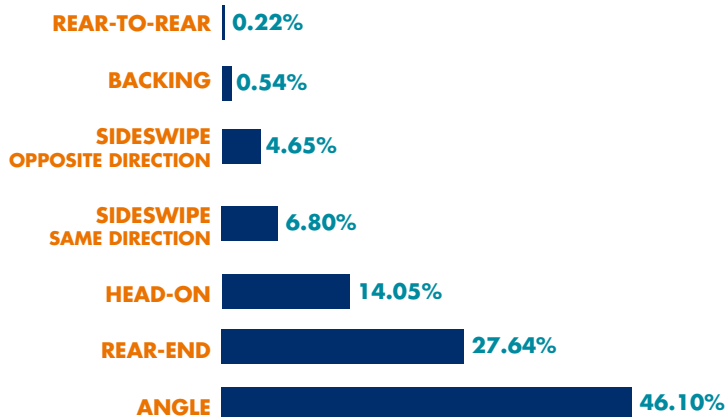
**CMV RELATED DEATHS AND SERIOUS INJURIES BY AT-FAULT VEHICLE**



## CONTRIBUTING FACTORS

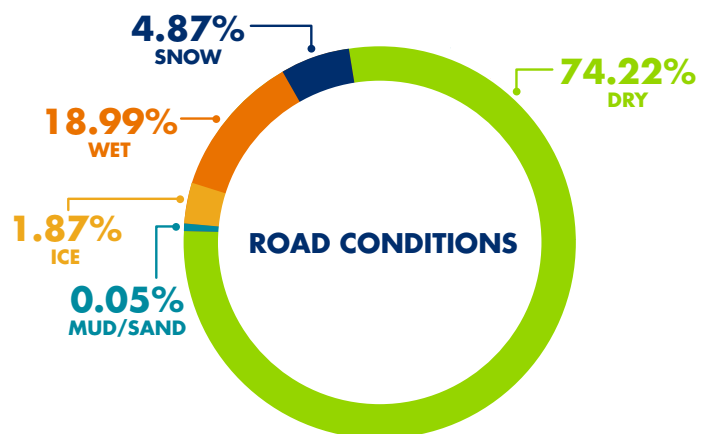
Forty-six percent of CMV-related deaths and serious injuries occurred in angle crashes and 28 percent in rear-end collisions.

**COMMERCIAL VEHICLE-RELATED DEATHS AND SERIOUS INJURIES BY COLLISION TYPE**



The majority of CMV-related deaths and serious injuries occurred under dry conditions, 74 percent on wet roads and 5 percent on snow-covered roads.

**COMMERCIAL VEHICLE-RELATED DEATHS AND SERIOUS INJURIES BY ROAD CONDITION**



*Note: All data from 2008-2012, except Overview section*

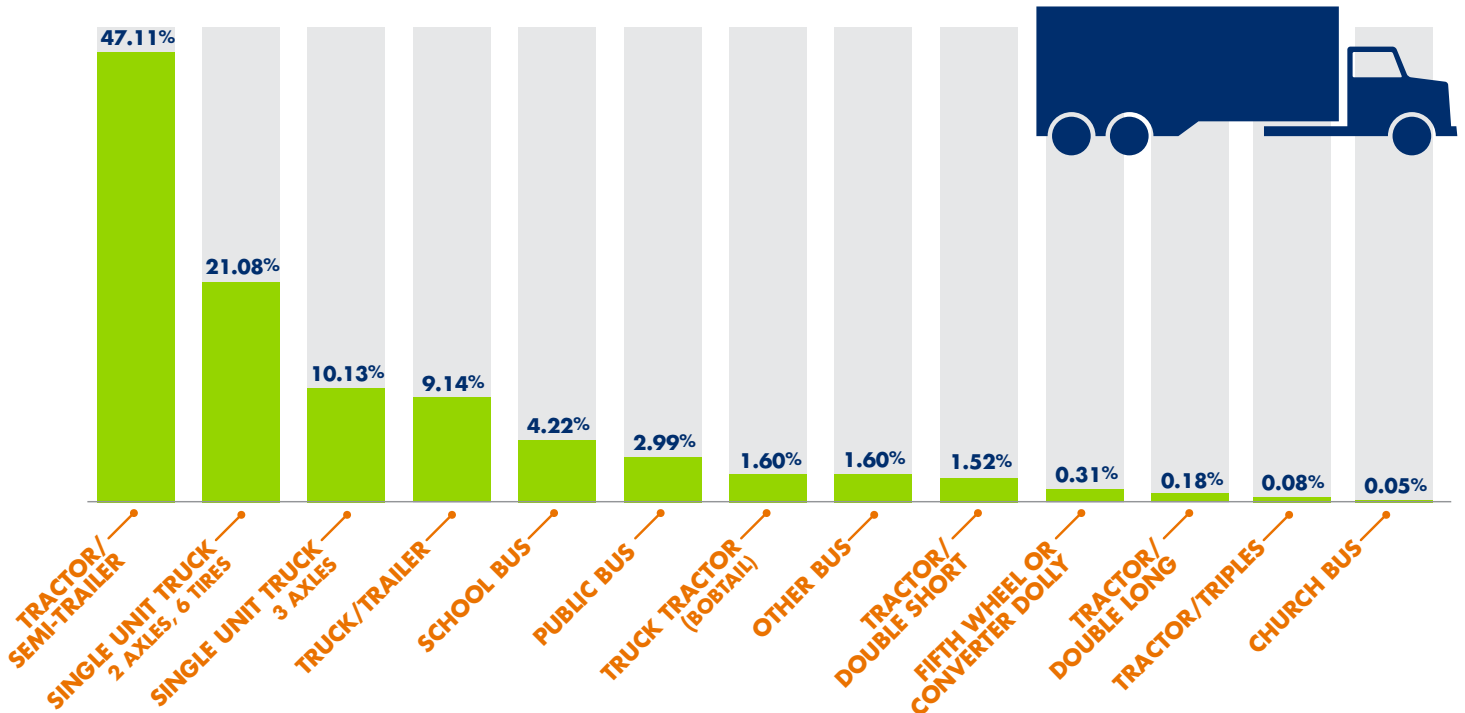




## CONTRIBUTING FACTORS CONTINUED

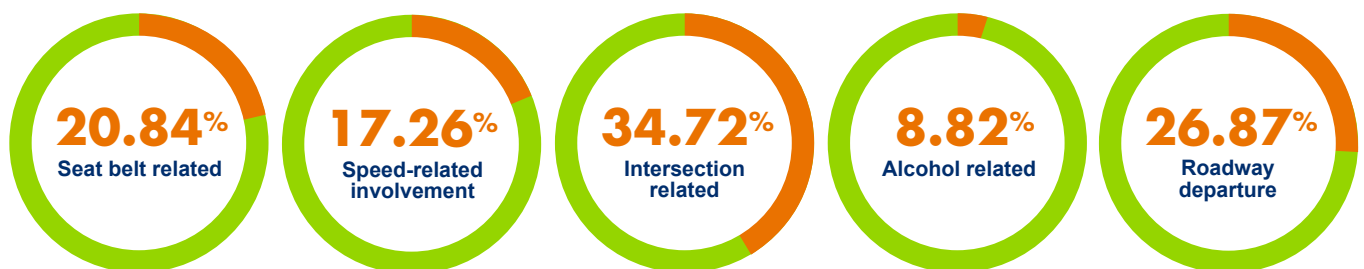
Semi-tractor trailers were involved in the majority (47 percent) of CMV-related deaths and serious injuries. Twenty-one percent involved single unit trucks.

### COMMERCIAL VEHICLE DEPARTURE-RELATED DEATHS AND SERIOUS INJURIES BY VEHICLE TYPE



Most CMV-related deaths and serious injuries occurred at intersections, nearly 27 percent involved roadway departure, and 20 percent involved a driver or occupant that was unrestrained. Approximately 9 percent involved alcohol.

### COMMERCIAL VEHICLE-RELATED DEATHS AND SERIOUS INJURIES BY RELATED SHSP EMPHASIS AREAS



Note: All data from 2008-2012, except Overview section





# EMPHASIS AREA ACTION PLANS

Action plans are the foundation of the SHSP: They focus the state's resources where they are most needed, and they keep the plan alive during the implementation phase. Ohio's SHSP is categorized into four broad emphasis areas and 15 subcategories. Each one has an action plan that identifies the strategies and steps that will be implemented to help Ohio achieve its goals and quarterly evaluate its progress. These action plans are "living, breathing" documents that will be adjusted throughout the years as we complete steps, and either meet or fall short of established goals.



# OHIO STRATEGIC HIGHWAY SAFETY PLAN

## ROADWAY DEPARTURE ACTION PLAN

**Fatality Goal:** Reduce the number of roadway departure fatalities from 552 in 2013 to 509 in 2017.

**Serious Injury Goal:** Reduce the number of serious injuries related to roadway departures from 3,510 in 2013 to 3,238 in 2017.

**EMPHASIS AREA TEAM LEADER:** Michelle May, ODOT

**Strategy 1:** Advance the use of new technology and roadway designs to address roadway departure crashes.

Step #	Action Step Leader	Description	Output Measure	Timeline
1.1	ODOT - Michelle May/Michael McNeill	Provide the funding and technical assistance to pilot new equipment or roadway designs to reduce roadway departure crashes.	# of miles or locations installed % crash reductions	Annual
1.2	ODOT - Michael McNeill	Provide startup funding to create a national clearinghouse for roadway departure safety information that will identify best practices, safety countermeasures, new roadside technologies and the latest research and training. The clearinghouse is being funded through the national Transportation Pooled Fund Program.	Funding committed	Annual

**Strategy 2:** Implement proven and low-cost systematic safety countermeasures to reduce roadway departure crashes (*e.g.*, improved signage on curves, friction treatments in spot locations and centerline and edge line rumble stripes).

Step #	Action Step Leader	Description	Output Measure	Timeline
2.1	ODOT - Michael McNeill	Implement statewide at least one nationally proven countermeasure that reduces roadway departure crashes ( <i>e.g.</i> , edge and centerline rumble stripes).	% crash reduction # of miles or locations installed	Annual
2.2	ODOT/LTAP - Victoria Beale	Provide funding and technical assistance to upgrade signage within the top 100 townships (measured by crash frequency).	% crash reduction # of participating townships	Annual
2.3	ODOT/LTAP - Victoria Beale	Educate local transportation partners on the importance of addressing roadway departure crashes by using ODOT created maps, lists and other prioritization tools, and by promoting the installation of nationally proven countermeasures that reduce these types of crashes.	Update maps, lists and other tools annually for use by local governments. # of training classes # of requests for RSA and other assistance	Annual

**Strategy 3:** Design roadside to include appropriate hardware (*e.g.*, cable median, crash cushions and guardrail end treatments) or manage trees, road shoulders and other objects along the roadway to minimize the severity of crashes.

Step #	Action Step Leader	Description	Output Measure	Timeline
3.1	ODOT - Michael McNeill CEAO -Michele Risko	Continue to work with the County Engineers Association of Ohio (CEAO) on improving guardrail end treatments on locally maintained roads. CEAO will continue to promote the guardrail replacement program funded through the Highway Safety Improvement Program.	% increase in counties applying for the program # of installations	Annual
3.2	ODOT - Michael McNeill	Monitor cross median crashes and install cable median where warranted across the state.	Miles of cable median installed/crash reductions	Annual

3.3	ODOT/LTAP - Victoria Beale	Develop a smartphone application to communicate the proper design of roadside safety hardware.	Implementation	Annual
-----	----------------------------	--	----------------	--------

**Strategy 4:** Conduct high visibility enforcement, media campaigns and public outreach on selected corridors with a significant number of severe roadway departure crashes.

Step #	Action Step Leader	Description	Output Measure	Timeline
4.1	OTSO/ODOT	Initiate high-visibility enforcement and earned media on selected corridors with a significant number of severe roadway departure crashes.	# of enforcement hours conducted on blitzes # of citations issued # of educational and outreach activities conducted	Annual



# OHIO STRATEGIC HIGHWAY SAFETY PLAN

## INTERSECTION ACTION PLAN

**Fatality Goal:** Reduce the number of fatalities related to intersection crashes from 266 in 2013 to 245 in 2017.

**Serious Injury Goal:** Reduce the number of serious injuries related to intersection crashes from 3,687 in 2013 to 3,401 in 2017.

**EMPHASIS AREA TEAM LEADER:** Michelle May, ODOT

**Strategy 1:** Advance the use of new technology and roadway designs that make intersections safer.

Step #	Action Step Leader	Description	Output Measure	Timeline
1.1	ODOT - Michelle May	Install intersection conflict warning systems at spot locations as pilot project.	% crash reduction	0-12 months
1.2	ODOT/LTAP - Victoria Beale	Increase knowledge of roundabouts through training classes to improve intersection safety.	# of training programs delivered # of transportation partners trained	0-24 months

**Strategy 2:** Implement proven and low-cost systematic safety improvements to reduce intersection crashes (*e.g.*, enhancing signs and pavement markings, modifying signals and signal timing, adding turn lanes and controlling access through medians).

Step #	Action Step Leader	Description	Output Measure	Timeline
2.1	ODOT - Michelle	Develop an MPO-led pilot program that encourages local governments to install low-cost safety treatments	# of public agencies involved	Annual

	May	that reduce intersection crashes.	# of treatments installed % reduction in rear-end crashes	
2.2	ODOT – Michael McNeill/Jason Yeray	Implement dilemma zone detection at select spot locations.	% crash reduction	Ongoing
2.2	ODOT-Michelle May	Continue statewide signal timing analysis program that provides consultant assistance to ODOT districts and local governments to analyze and update signal timing on high-crash corridors.	% reduction in rear-end crashes # of agencies helped	Annual

**Strategy 3:** Educate roadway users on the types of crashes that occur at intersections, new intersection types, signals and laws.

Step #	Action Step Leader	Description	Output Measure	Timeline
3.1	ODOT-Michelle May	Form an action team to identify media to be used for message distribution and develop a strategy for educating the public.	Identification of media to be used for messages Education strategy developed	0-12 months

**Strategy 4:** Conduct high visibility enforcement, media campaigns and public outreach at selected locations with a significant number of intersection crashes.

Step #	Action Step Leader	Description	Output Measure	Timeline
4.1	OTSO/ODOT	Initiate high-visibility enforcement and earned media on selected corridors with a significant number of severe intersection crashes.	# of enforcement hours conducted on blitzes # of citations issued # of educational and outreach activities conducted	Annual





# OHIO STRATEGIC HIGHWAY SAFETY PLAN

## REAR-END COLLISION ACTION PLAN

**Fatality Goal:** Reduce the number of fatalities related to rear end crashes from 47 in 2013 to 43 in 2017.

**Serious Injury Goal:** Reduce the number of serious injuries related to rear end crashes from 1,248 in 2013 to 1,151 in 2017.

**EMPHASIS AREA TEAM LEADER:** Michelle May, ODOT

**Strategy 1:** Advance the use of new technologies and roadway designs that reduce rear end crashes.

Step #	Action Step Leader	Description	Output Measure	Timeline
1.1	ODOT - Michael McNeill/Jason Yeray	Implement dilemma zone detection at select spot locations.	# of systems implemented % reduction in rear-end crashes	Annual

**Strategy 2:** Apply proven and low-cost safety countermeasures to reduce rear end crashes and their severity. Examples include improving the visibility and timing of signals, removing unwarranted signals, installing turn lanes and building medians to control access.

Step #	Action Step Leader	Description	Output Measure	Timeline
2.1	ODOT - Michelle May	Develop an MPO-led pilot program that encourages local governments to install low-cost safety treatments that reduce rear-end collisions.	# of public agencies involved # of treatments installed % reduction in rear-end	Annual

			crashes	
2.2	ODOT-Michelle May	Continue statewide signal timing analysis program that provides consultant assistance to ODOT districts and local governments to analyze and update signal timing on high-crash corridors.	% reduction in rear-end crashes # of agencies helped	Annual

**Strategy 3:** Provide real-time travel information to motorists so they can make informed decisions about travel routes.

Step #	Action Step Leader	Description	Output Measure	Timeline
3.1	ODOT - Office of Traffic Engineering	Maintain OHGO website and mobile app with real-time travel information.	Current up-to-date traffic feeds	Ongoing
3.2	ODOT - Michael McNeill	Evaluate performance of speed-based "queue warning" signs installed at four pilot locations.	% reduction in rear-end crashes Evaluate performance of system equipment	End of 2015
3.3	ODOT - Office of Traffic Engineering	Monitor traffic conditions statewide and update message boards to inform motorists of stopped traffic ahead.	Current up-to-date traffic feeds	Ongoing

**Strategy 4:** Remove minor incidents, crashes and debris from the roadway quickly to avoid congestion and secondary crashes.

Step #	Action Step Leader	Description	Output Measure	Timeline
4.1	ODOT - State Farm Safety Patrol	Maintain the 24-vehicle fleet of patrol trucks that monitor major highways and interstates in the major cities for incidents.	Keep program active	Ongoing
4.2	ODOT - Office of Traffic Engineering	Work with Ohio Police and Fire Academies to include Quick Clear in the standard curriculum.	Implemented	2015



# OHIO STRATEGIC HIGHWAY SAFETY PLAN

## HIGHWAY RAILROAD CROSSINGS ACTION PLAN

**Fatality Goal:** Maintain the number of highway railroad crossing fatalities at 7 between 2013 and 2017.

**Serious Injury Goal:** Reduce the number of serious injuries related to highway railroad crossing crashes from 20 in 2013 to 18 in 2017.

**EMPHASIS AREA TEAM LEADER:** Matt Dietrich, ORDC/Randall Schumacher, PUCO

**Strategy 1:** Expand the use of new and proven crash prevention methods at grade crossings.

Step #	Action Step Leader	Description	Output Measure	Timeline
1.1	ORDC - Cathy Stout	Provide funding and technical assistance for traffic signal preemption to reduce vehicle queues over grade crossings.	# of installations or improvements	Annual
1.2	ORDC - Cathy Stout & Project Managers PUCO- Jill Henry	Install new or modernize existing active grade crossing warning systems.	# of installations or modernizations	Annual
1.3	PUCO-Jill Henry	Provide funding and technical assistance for the supplemental assistance program to provide safety enhancements at crossbuck-only crossings or crossings pending light and gate upgrades.	# of supplemental enhancements	Annual

**Strategy 2:** Establish or expand multi-disciplinary teams to examine railroad corridors for improvements and fatal crash locations for quick corrective action.

Step #	Action Step Leader	Description	Output Measure	Timeline
2.1	ORDC – Cathy Stout & Project Managers	Assess every fatal crash with train involvement at a grade crossing to determine whether engineering improvements should be implemented.	# of crash assessment or diagnostic review survey reports completed	Annual
2.2	ORDC – Cathy Stout & Project Managers	Continue Class 1 Railroad corridor improvement program and expansion of rail corridor program to Short Lines.	# of warning device improvements	Annual

**Strategy 3:** Expand the marketing and adoption of Ohio’s Grade Crossing Upgrade Programs (e.g., Federal and State Light and Gate projects, Supplemental Enhancements and Crossing Consolidation Programs).

Step #	Action Step Leader	Description	Output Measure	Timeline
3.1	ORDC – Cathy Stout & Project Managers PUCO- Jill Henry	Identify and close redundant grade crossings.	# of crossings closed	Annual
3.2	ORDC – Julianne Kaercher, Cathy Stout & Project Managers PUCO- Jill Henry, Brenda Jones, & Field Inspectors	Conduct outreach to communities by personal contact, letter and representation at conferences and meetings.	# of contacts and events attended	Annual

**Strategy 4:** Expand railroad crossing safety education opportunities through continued involvement and financial support of highway safety education and enforcement programs (e.g., Operation Lifesaver).

Step #	Action Step Leader	Description	Output Measure	Timeline
4.1	ORDC - Matt Dietrich PUCO- Alan Martin	Continue role on board of Operation Lifesaver.	Maintenance of board seat	Annual
4.2	ORDC - Lou Jannazo	Encourage railroads to engage with local communities, emergency services, etc. when planning increases in rail traffic to promote public awareness regarding changing rail traffic through grade crossings.	# of public awareness campaigns	Annual
4.3	PUCO- Jill Henry	Provide financial support to Operation Lifesaver.	# members of the public reached	Annual

**Strategy 5:** Develop or expand the County Task Force Program to encourage grassroots interest in railroad safety and to identify problem locations.

Step #	Action Step Leader	Description	Output Measure	Timeline
5.1	PUCO- Randall Schumacher, Jill Henry	Meet with local county task force programs when requested to educate them about our programs and to help identify problems/issues in their county.	# outreach contacts	Annual

**Strategy 6:** Encourage accurate and timely data reporting for database updates by all stakeholders.

Step #	Action Step Leader	Description	Output Measure	Timeline
6.1	ORDC - Tom Burns	Fund a study to evaluate various crash prediction formulas used by other states to determine whether changes should be made in how Ohio identifies hazardous crossings for upgrades.	Funding committed Study completed	24 months

6.2	PUCO- Randall Schumacher, Jill Henry, Brenda Jones	Monitor the assignment of DOT's for new crossings, updating the database when updates are received from field inspectors or railroads.	100% of data received is entered into the database within one month	On-going
6.3	PUCO- Randall Schumacher, Brenda Jones	Send requests to railroads and local authorities to provide updated data ( <i>i.e.</i> , schools, railroads, communities, etc.)	# of railroads and local authorities providing updated data	Biennial
6.4	PUCO-Jill Henry	Provide funding to contract for updated traffic counts.	Funding provided Contractor secured	Biennial



# OHIO STRATEGIC HIGHWAY SAFETY PLAN

## IMPAIRED DRIVER ACTION PLAN

**Fatality Goal:** Reduce the average number of impaired driver-related fatalities from 392 in 2013 to 362 in 2017.

**Serious Injury Goal:** Reduce the average number of impaired driver-related serious injuries from 1,541 in 2013 to 1,421 in 2017.

**EMPHASIS AREA TEAM LEADER:** Felice Moretti, DPS/OTSO

**Strategy 1:** Improve enforcement and prosecution of drugged driving.

Step #	Action Step Leader	Description	Output Measure	Timeline
1.1	OSHP	Conduct Drug Recognition Experts (DRE) certification courses.	# DRE officers # of DRE evaluations # of samples sent to the lab for testing from DRE evaluations	Annual
1.2	OSHP and OPOTA	Conduct Advance Roadside Impaired Driving Enforcement (ARIDE) courses for law enforcement officers.	# of officers trained in ARIDE courses	Annual
1.3	OTSO	Expand training for law enforcement officers testifying in court, prosecutors, judges and DREs.	# of law enforcement officers trained # of DREs trained # of prosecutors trained # of judges trained	Annual



**Strategy 2:** Expand earned media and outreach of impaired driving beyond the traditional mass media campaign by using innovative and unique delivery methods that reach specific segments of the targeted population.

Step #	Action Step Leader	Description	Output Measure	Timeline
2.1	OTSO	Law enforcement, Safe Communities programs and other traffic safety partners to distribute and display messaging consistent with the national communications plan to ensure earned media is achieved statewide using the following components: campaign toolkit developed for distribution to these partners and others with a vested interest in traffic safety; broadcast e-mails to all safety partners directing them to the NHTSA web site as the mini-planners are released; coordinated media kick off events by both the ODPS and the Safe Communities programs; and weekly traffic safety e-mail broadcast.	Gross impressions Additional earned media ( <i>e.g.</i> , number of: PSAs with high profile talent, live reads during major events, times traffic safety messaging is integrated into social media and enforcement) # of additional bonus spots # of on the ground events # of volunteer hours	Annual
2.2	ODPS	Partner with other state agencies to issue joint press releases and assist with media exposure.	Additional earned media	Annual

**Strategy 3:** Sustain a data-driven and high visibility impaired driving enforcement program.

Step #	Action Step Leader	Description	Output Measure	Timeline
3.1	OTSO	Impaired Driving Enforcement Program (IDEP) grants awarded to law enforcement agencies to conduct highly visible enforcement activities based on local fatal/serious injury crash problem identification (sub-grantees coordinate activities and plan locations based on local data) and at strategic times throughout the year (Halloween, Thanksgiving, Christmas/New Years, Super Bowl, St. Patrick's Day, Prom, 4th of July, Drive Sober or Get Pulled Over and Homecoming).	# of agencies conducting impaired driving enforcement activities # of sobriety checkpoints conducted # of hours of saturation patrols conducted	Annual



3.2	OTSO	IDEP sub-grantees attend district meetings and report on previous blitzes/national campaigns, upcoming blitzes/national campaigns, current crash trends, enforcement activities, educational activities and other timely traffic related information specific to the district.	# of enforcement hours conducted on blitzes # of impaired driving arrests issued # of impaired driving educational and outreach activities conducted	Quarterly
3.3	OTSO	Conduct checkpoint and Standardized Field Sobriety Test (SFST) training for law enforcement agencies.	# of officers trained by course type	Annual

**Strategy 4:** Increase publicity of “trace back” investigations so sellers, servers, providers and the public understand the consequences of over serving or illegally serving alcohol.

Step #	Action Step Leader	Description	Output Measure	Timeline
4.1	OSHP	OSHP troopers call OIU agents to alcohol-involved fatal and serious injury crashes to interview suspect/ witnesses to “trace back” where the alcohol was consumed prior to crash.	# of crashes resulting in trace back referrals	Annual
4.2	Ohio Investigative Unit (OIU)	Following interviews of suspects/ witnesses at alcohol-involved fatal and serious injury crashes, OIU agents open a case to determine if alcohol was served or consumed in violation of the law in an effort to hold establishments accountable for over serving and/or selling to minors.	# of cases initiated due to the trace back program # of convictions due to the trace back program	Annual

**Strategy 5:** Coordinate impaired driving safety messages developed by multi-agency communication committee.

Step #	Action Step Leader	Description	Output Measure	Timeline
5.1	OTSO/ODOT	Vet messaging to be used for impaired driving campaigns/initiatives through the SHSP Communication Committee.	Committee recommendations	Quarterly



# OHIO STRATEGIC HIGHWAY SAFETY PLAN

## SEAT BELT ACTION PLAN

**Fatality Goal:** Reduce the number of seat belt-related fatalities from 391 in 2013 to 361 in 2017.

**Serious Injury Goal:** Reduce the number of seat belt-related serious injuries from 1,652 in 2013 to 1,524 in 2017.

**EMPHASIS AREA TEAM LEADER:** Felice Moretti, DPS/OTSO

**Strategy 1:** Encourage high visibility seat belt-related enforcement in jurisdictions with a disproportionate number of unrestrained occupant-related fatalities and serious injuries.

Step #	Action Step Leader	Description	Output Measure	Timeline
1.1	OTSO	Selective Traffic Enforcement Program (STEP) grants awarded to law enforcement agencies to conduct highly visible enforcement activities ( <i>i.e.</i> , speed, seat belt, aggressive, etc.) to impact their fatal crashes (sub-grantees coordinate activities and plan locations based on local data) and at strategic times (Thanksgiving, Click It or Ticket, Prom and Homecoming).	# of law enforcement agencies conducting speed related high visibility enforcement	Annual
1.2	OTSO	STEP sub-grantees attend district meetings and report on previous blitzes/national campaigns, upcoming blitzes/national campaigns, current crash trends, enforcement activities, educational activities and other timely traffic related information specific to the district.	# of enforcement hours conducted on blitzes # of restraint use citations issued # of occupant protection/seat belt related educational and outreach activities conducted	Quarterly

**Strategy 2:** Expand earned media and outreach of seat belt use beyond the traditional mass media campaign by using innovative and unique delivery methods that reach specific segments of the targeted population.

Step #	Action Step Leader	Description	Output Measure	Timeline
2.1	OTSO	Law enforcement, Safe Communities programs and other traffic safety partners to distribute and display messaging consistent with the national communications plan to ensure earned media is achieved statewide using the following components: campaign toolkit developed for distribution to these partners and others with a vested interest in traffic safety; broadcast e-mails to all safety partners directing them to the NHTSA web site as the mini-planners are released; coordinated media kick off events by both the ODPS and the Safe Communities programs; and weekly traffic safety e-mail broadcast.	# of gross impressions Additional earned media ( <i>e.g.</i> , # of: PSAs with high profile talent, live reads during major events, times traffic safety messaging is integrated into social media and enforcement) # of additional bonus spots # of on the ground events # of volunteer hours	Annual
2.2	ODPS	Partner with other state agencies to issue joint press releases and assist with media exposure.	Additional earned media	

**Strategy 3:** Expand reach of earned media seat belt use messages to high-risk populations (*i.e.*, teens, rural and 18-34 year old males).

Step #	Action Step Leader	Description	Output Measure	Timeline
3.1	OTSO	Develop earned media messages targeted to each high risk population and secure local partners to display messages. <ul style="list-style-type: none"> <li>Brand high school tickets for regular season events (sports, plays, etc.) with a seat belt message during the school year to directly target the teen audience.</li> <li>Print the outside of bus shelters located along rural routes with a seat belt message for passing traffic to see to target the rural audience.</li> </ul>	Increase in belt use among high risk populations # of venues where belt use messages are delivered # of delivery methods utilized	Annual

		<ul style="list-style-type: none"> <li>Provide television, radio, interior and exterior signage seat belt messages during home games throughout the season with Ohio sports teams to target 18-34 year old males.</li> </ul>		
--	--	--	--	--

**Strategy 4:** Coordinate seat belt safety messages developed by multi-agency communication committee.

Step #	Action Step Leader	Description	Output Measure	Timeline
4.1	OTSO/ODOT	Vet messaging to be used for seat belt safety campaigns/initiatives through the SHSP Communication Committee.	Committee recommendations	Quarterly



# OHIO STRATEGIC HIGHWAY SAFETY PLAN

## SPEED ACTION PLAN

**Fatality Goal:** Reduce the number of fatalities in speed-related crashes from 327 in 2013 to 302 in 2017.

**Serious Injury Goal:** Reduce the number of serious injuries speed-related crashes from 2,223 in 2013 to 2,050 in 2017.

**EMPHASIS AREA TEAM LEADER:** Felice Moretti, DPS/OTSO

**Strategy 1:** Encourage high visibility speed-related enforcement in jurisdictions with a disproportionate number of speed-related fatalities and serious injuries.

Step #	Action Step Leader	Description	Output Measure	Timeline
1.1	OTSO	Selective Traffic Enforcement Program (STEP) grants awarded to law enforcement agencies to conduct highly visible enforcement activities ( <i>i.e.</i> , speed, seat belt, aggressive, etc.) to impact their fatal crashes (sub-grantees coordinate activities and plan locations based on local data) and at strategic times (Thanksgiving, Click It or Ticket, Prom and Homecoming).	# of law enforcement agencies conducting speed related high visibility enforcement # of speed trailers deployed # of times speed trailers were deployed # of agencies which deployed speed trailers	Annual
1.2	OTSO	STEP sub-grantees attend district meetings and report on previous blitzes/national campaigns, upcoming blitzes/national campaigns, current crash trends, enforcement activities, educational activities and other timely traffic related information specific to the district.	# of enforcement hours conducted on blitzes # of speeding citations issued # of speed related educational and outreach activities	Quarterly

		conducted	
--	--	-----------	--

**Strategy 2:** Use peer-to-peer programs to reduce speeding and other risky behaviors that contribute to injuries and fatalities among young drivers.

Step #	Action Step Leader	Description	Output Measure	Timeline
2.1	OTSO	Develop evidence-based youth programs which are funded based on problem identification and are implemented locally through Safe Communities programs.	# of teen events conducted # of students reached	Annual

**Strategy 3:** Set appropriate speed limits and deploy other speed management techniques. (ODOT, locals)

Step #	Action Step Leader	Description	Output Measure	Timeline
3.1	ODOT-Michelle May/ Office of Traffic Engineering	Form a Speed Management action team to develop a statewide plan for setting speed limits and deployment of research-based speed management techniques. <ul style="list-style-type: none"> <li>Identify and secure commitment from state and local stakeholders to participate on action team.</li> <li>Conduct first action team meeting, identify team leader and review current state of practice for setting speed limits and speed management techniques.</li> </ul>	Team members identified First Speed Management action team meeting conducted Action team leader identified	0-12 months
3.2	Speed Management Action Team	Develop a plan for setting speed limits and deployment of research-based speed management techniques that can be used by ODOT and local entities.	Plan developed	TBD





# OHIO STRATEGIC HIGHWAY SAFETY PLAN

## YOUNG DRIVER ACTION PLAN

**Fatality Goal:** Reduce the number of young driver fatalities from 177 in 2013 to 163 in 2017.

**Serious Injury Goal:** Reduce the number of young driver serious injuries from 2,153 in 2013 to 1,986 in 2017.

**EMPHASIS AREA TEAM LEADER:** Felice Moretti, DPS/OTSO

**Strategy 1:** Use a statewide peer-to-peer program to increase seat belt use and reduce speeding, impaired driving, distracted driving, underage drinking and other risky behaviors that contribute to injuries and fatalities among teens.

Step #	Action Step Leader	Description	Output Measure	Timeline
1.1	OTSO	Develop evidence-based youth programs which are funded based upon problem identification and implemented locally through Safe Communities programs.	# of teen events conducted # of students reached	Annual
1.2	ODOT	Conduct distracted driving awareness events at high schools, fairs and other public venues. Events will be implemented locally through ODOT District Offices, Safe Communities programs and local law enforcement agencies.	# of events conducted # of people reached	Annual

**Strategy 2: Implement enforcement programs to reduce risky teen driving behavior.**

Step #	Action Step Leader	Description	Output Measure	Timeline
2.1	OTSO	Selective Traffic Enforcement Program (STEP) and Impaired Driving Enforcement Program (IDEP) grants are awarded to law enforcement agencies to conduct highly visible enforcement activity ( <i>i.e.</i> , speed, seat belt, impaired driving, aggressive, etc.) to impact their fatal crashes (sub-grantees coordinate activities and plan locations based on local data) and at strategic times (Click It or Ticket, Prom and Homecoming).	# of enforcement agencies conducting high visibility enforcement in conjunction with homecoming and prom events  # of citations issued in conjunction with prom and homecoming	Annual

**Strategy 3: Implement community outreach programs to reduce risky teen driving behavior.**

Step #	Action Step Leader	Description	Output Measure	Timeline
3.1	OTSO	Each Safe Communities program will conduct programming in schools that is evidence based and will include outreach activities for Prom and Homecoming.	# of programs and events conducted by Safe Communities throughout the grant year	Annual

**Strategy 4: Strengthen the Graduated Driver's Licensing (GDL) law.**

Step #	Action Step Leader	Description	Output Measure	Timeline
4.1	OTSO	Using Ohio crash data identify which research-based and proven GDL strategies, if implemented, could reduce young driver fatalities and injuries.	# of GDL safety measures identified	FFY 2016
4.2	DPS/OTSO and Driver Training	Provide information to educate and support policymakers on research-based and proven GDL strategies that could reduce young driver fatalities and injuries.	Information available for distribution	FFY 2016



**Strategy 5:** Coordinate young driver safety messages developed by multi-agency communication committee.

Step #	Action Step Leader	Description	Output Measure	Timeline
5.1	OTSO/ODOT	Vet messaging to be used for young driver campaigns/initiatives through the SHSP Communication Committee.	Committee recommendations	Quarterly



# OHIO STRATEGIC HIGHWAY SAFETY PLAN

## OLDER DRIVER ACTION PLAN

**Fatality Goal:** Reduce the number of older driver fatalities from 203 in 2013 to 187 in 2017.

**Serious Injury Goal:** Reduce the number of older driver serious injuries from 1,540 in 2013 to 1,420 in 2017.

### EMPHASIS AREA TEAM LEADER: To Be Determined

**Strategy 1:** Establish a new emphasis area (EA) team to examine the crash data, develop strategies and make recommendations for older driver-related program and project investments.

Step #	Action Step Leader	Description	Output Measure	Timeline
1.1	ODOT - Michelle May	Identify and secure commitment from older driver stakeholders to participate on EA team.	Team members identified	0-6 months
1.2	EA Team Leader	Conduct first EA team meeting, identify team leader and review strategies identified during SHSP update process.	First Older Driver EA Team meeting conducted EA Team leader identified	6-8 months

**Strategy 2:** Create a comprehensive and coordinated outreach effort that educates older drivers and their caregivers on driving risks and remedies.

Step #	Action Step Leader	Description	Output Measure	Timeline
2.1		To be determined by new EA team.		

**Strategy 3:** Encourage roadway design and engineering measures that reduce the risks of traffic crashes for older drivers.

Step #	Action Step Leader	Description	Output Measure	Timeline
3.1		To be determined by new EA team.		

**Strategy 4:** Coordinate older driver messages developed by multi-agency communication committee.

Step #	Action Step Leader	Description	Output Measure	Timeline
4.1	OTSO/ODOT	Vet messaging to be used for older driver campaigns/initiatives through the SHSP Communication Committee.	Committee recommendations	Quarterly



# OHIO STRATEGIC HIGHWAY SAFETY PLAN

## DISTRACTED DRIVER ACTION PLAN

**Fatality Goal:** Reduce the number of distracted driver fatalities from 38 in 2013 to 35 in 2017.

**Serious Injury Goal:** Reduce the number of distracted driver serious injuries from 525 in 2013 to 484 in 2017.

**EMPHASIS AREA TEAM LEADER:** Felice Moretti, DPS/OTSO

**Strategy 1:** Encourage high visibility enforcement in jurisdictions with a disproportionate number of distracted driving-related fatalities and serious injuries.

Step #	Action Step Leader	Description	Output Measure	Timeline
1.1	OTSO	Selective Traffic Enforcement Program (STEP) grants awarded to law enforcement agencies to conduct highly visible enforcement activities to impact their distracted driving fatal crashes (sub-grantees coordinate activities and plan locations based on local data), will include participation in distracted driving media blitzes during National Distracted Driving Month (April) and the last week of July through the first week of August.	# of law enforcement agencies conducting distracted driving high visibility enforcement	Annual
1.2	OTSO	STEP sub-grantees attend district meetings and report on previous blitzes/national campaigns, upcoming blitzes/national campaigns, current crash trends, enforcement activities, educational activities and other timely traffic related information specific to the district.	# of enforcement hours conducted on blitzes # of distracted driving related educational and outreach activities conducted	Quarterly

**Strategy 2:** Expand earned media and outreach of distracted driving beyond the traditional mass media campaign by using innovative and unique delivery methods that reach specific segments of the targeted audience.

Step #	Action Step Leader	Description	Output Measure	Timeline
2.1	OTSO	Law enforcement, Safe Communities programs and other traffic safety partners to distribute and display messaging consistent with the national communications plan to ensure earned media is achieved statewide using the following components: campaign toolkit developed for distribution to these partners and others with a vested interest in traffic safety; broadcast e-mails to all safety partners directing them to the NHTSA web site as the mini-planners are released; coordinated media kick off events by both the ODPS and the Safe Communities programs; and weekly traffic safety e-mail broadcast. Educational and promotional materials will be sustained throughout the year educating motorists on Ohio's texting law.	Gross impressions Additional earned media ( <i>e.g.</i> , number of: PSAs with high profile talent, live reads during major events, times traffic safety messaging is integrated into social media and enforcement) # of additional bonus spots # of on the ground events # of volunteer hours	Annual
2.2	ODPS	Partner with other state agencies to issue joint press releases and assist with media exposure.	Additional earned media	Annual

**Strategy 3: Collect distracted driver information/ data.**

Step #	Action Step Leader	Description	Output Measure	Timeline
3.1	OTSO	Conduct statewide telephone surveys to evaluate and measure the effects of earned, paid and enforcement for the distracted driving initiative.	Increase in knowledge and awareness of distracted driving initiative  Increase in number of survey respondents who report not driving and texting, using a handheld phone, etc.	Annual
3.2	OTSO	Collect distracted driving data as an element of the observational seat belt surveys.	# of drivers observed using handheld phones	Annual

**Strategy 4: Collaborate with the public and private sectors on new ideas to reduce distracted driving crashes.**

Step #	Action Step Leader	Description	Output Measure	Timeline
4.1	OTSO	Reach out to local corporations as part of campaign earned media activities.	# of new partners	Annual
4.2	ODOT	Conduct distracted driving awareness events at high schools, fairs and other public venues. Events will be implemented locally through ODOT District Offices, Safe Communities programs, local law enforcement agencies and 10TV's Maria's Message initiative.	# of events conducted # of people reached	Annual

**Strategy 5: Coordinate distracted driver messages developed by multi-agency communication committee.**

Step #	Action Step Leader	Description	Output Measure	Timeline
5.1	OTSO/ODOT	Vet messaging to be used for distracted driving campaigns/initiatives through the SHSP Communication Committee.	Committee recommendations	Quarterly



# OHIO STRATEGIC HIGHWAY SAFETY PLAN

## MOTORCYCLIST ACTION PLAN

**Fatality Goal:** Reduce the number of motorcyclist fatalities from 159 in 2013 to 147 in 2017.

**Serious Injury Goal:** Reduce the number of motorcyclist serious injuries from 1,112 in 2013 to 1,026 in 2017.

**EMPHASIS AREA TEAM LEADER:** Chuck Stiteler, DPS/Motorcycle Ohio (MO), Felice Moretti, DPS/OTSO

**Strategy 1:** Conduct high visibility enforcement to address speeding and impaired riding in jurisdictions whose problem identification indicates a motorcycle fatal/serious injury crash problem.

Step #	Action Step Leader	Description	Output Measure	Timeline
1.1	OTSO	Selective Traffic Enforcement Program (STEP) grants awarded to law enforcement agencies to conduct highly visible enforcement activities ( <i>i.e.</i> , speed, aggressive, etc.) which include motorcyclists to impact their fatal crashes (sub-grantees coordinate activities and plan locations based on local data) and at strategic times throughout the riding season.	# of law enforcement agencies conducting speed-related, high visibility enforcement # of speed trailers deployed # of times speed trailers were deployed # of agencies which deployed speed trailers	Annual

1.2	OTSO	Impaired Driving Enforcement Program (IDEP) grants awarded to law enforcement agencies to conduct highly visible enforcement activities which include impaired riders based on local fatal/serious injury crash problem identification (sub-grantees coordinate activities and plan locations based on local data) and at strategic times throughout the riding season.	# of agencies conducting impaired driving enforcement activities # of sobriety checkpoints conducted # of hours of saturation patrols conducted	Annual
1.3	OTSO	STEP and IDEP sub-grantees attend district meetings and report on previous blitzes/national campaigns, upcoming blitzes/national campaigns, current crash trends, enforcement activities, educational activities and other timely traffic related information specific to the district.	# of enforcement hours conducted on blitzes # of speeding citations issued # of impaired driving arrests issued # of speed related and/or impaired driving educational and outreach activities conducted specific to motorcyclists	Annual

**Strategy 2:** Develop and implement initiatives and programs to increase training of untrained and unendorsed riders on skills related to crash causation.

Step #	Action Step Leader	Description	Output Measure	Timeline
2.1	Motorcycle Ohio	Convert the Basic Rider Course 2 (BRC-2) to a license waiver course to appeal to and bring in untrained and unendorsed riders.	# of BRC-2s completed # of riders successfully completing a BRC-2	Annual
2.2	Motorcycle Ohio	Pass legislation to close the continuous motorcycle learner's permit loophole by restricting the number of times any motorcyclist can obtain a motorcycle learner's permit to twice in a 10-year period.	Passage of legislation # increase of unendorsed riders who register for MO courses	Calendar year 2015



2.3	Motorcycle Ohio	Pass legislation that requires any motorcyclist who fails the motorcycle license skill test after the first attempt to successfully complete a Basic Rider Course.	Passage of legislation  # increase of untrained and unendorsed riders who register for MO courses	Calendar year 2015
2.4	Motorcycle Ohio	Create paid media and earned messages and an outreach program to increase qualified motorcyclists' enrollment in the motorcycle instructor preparation course.	% increase in instructor course enrollment	FY 2015

**Strategy 3: Implement Ride SMART** (Sober, Motorcycle endorsed, Alert, Right gear and Trained) paid media and outreach programs to motorcyclists and to motorists using *Share the Road* messages.

Step #	Action Step Leader	Description	Output Measure	Timeline
3.1	Motorcycle Ohio	<p>Increase enrollment in all Motorcycle Ohio rider training courses.</p> <ul style="list-style-type: none"> <li>Create paid media messages targeted at novice and untrained experienced riders with placement in high crash counties (e.g., ONN radio stations, small newspapers, billboard ads, ads in Ohio motorcycle magazines and on Facebook and other digital services)</li> <li>Create earned media messages targeted at novice and untrained experienced riders (e.g., brochure display holders at dealerships and auto stores)</li> <li>Create and implement a "motorcycle ambassador" outreach program to increase training among novice, unendorsed and untrained experienced riders <ul style="list-style-type: none"> <li>- Develop outreach program criteria, procedures and materials</li> </ul> </li> </ul>	<p>Gross impressions</p> <p># of additional bonus spots</p> <p>Additional earned media</p> <p># of on the ground events to each rider type</p>	Annual

		<ul style="list-style-type: none"> <li>- Solicit Ohio motorcycle group members to attend motorcycle riding training</li> <li>- Utilize members who complete training as “motorcycle ambassadors” to increase training as an outreach program to novice, unendorsed or untrained experienced riders.</li> </ul>		
3.2	Motorcycle Ohio	<p>Reach out to registered motorcycle owners who do not have a motorcycle endorsement to encourage rider training.</p> <ul style="list-style-type: none"> <li>• Establish field in MO registration database for how individual heard about the training which includes reference to DPS letter</li> <li>• Match motorcycle registrations with motorcycle endorsement and learner’s permit holders</li> <li>• Send letters to registered motorcycle owners who do not have a motorcycle endorsement with information on rider training course benefits and locations</li> </ul>	# of unlicensed motorcycle owners who register for a MO training course after receipt of a letter	Annual

**Strategy 4:** Coordinate motorcycle safety messages developed by multi-agency communication committee.

Step #	Action Step Leader	Description	Output Measure	Timeline
4.1	OTSO/ODOT	Vet messaging to be used for motorcycle safety campaigns/initiatives through the SHSP Communication Committee.	Committee recommendations	Quarterly



# OHIO STRATEGIC HIGHWAY SAFETY PLAN

## BICYCLIST ACTION PLAN

**Fatality Goal:** Reduce the number of bicyclist fatalities from 17 in 2013 to 16 in 2017.

**Serious Injury Goal:** Reduce the number of bicyclist serious injuries from 221 in 2013 to 204 in 2017.

**EMPHASIS AREA TEAM LEADER:** Julie Walcoff, ODOT

**Strategy 1:** Educate transportation partners, engineers and local governments on how to incorporate bicycle facilities and accommodations into community projects.

Step #	Action Step Leader	Description	Output Measure	Timeline
1.1	ODOT/LTAP - Victoria Beale/ODOT - Julie Walcoff	Continue to educate our transportation partners on how to incorporate safe bicycle design into transportation projects, including suggestions made by FHWA such as road diets and design flexibility.	# of training programs delivered # of transportation partners trained	0-12 months
1.2	ODOT - Julie Walcoff/Vince Rapp	Update the state's bicycle accommodation guidelines which provide guidance to state and local governments on how to consider bicycle infrastructure and incorporate the design into transportation projects.	Written policy updated	0-24 months

**Strategy 2:** Implement proven countermeasures to reduce bicycle crashes.

Step #	Action Step Leader	Description	Output Measure	Timeline
2.1	LTAP - Victoria Beale/ODOT - Julie Walcott	Provide training and communication on nationally proven countermeasures that reduce the potential for bicycle crashes.	# of training programs delivered # of transportation partners trained # of website updates pertaining to countermeasure effectiveness	0-24 months
2.2	ODOT - Julie Walcott/DSRT's/District Bike/Ped Coordinators	Conduct bicycle safety audits in high-priority corridors.	# of corridors reviewed # of projects or improvements initiated % of crash reduction % increase in bicycle traffic	0-24 months
2.3	ODOT - Julie Walcott/MORPC	Develop an MPO-led pilot program that encourages local governments to install low cost safety treatments that reduce bicycle crashes.	# of projects or improvements initiated % of crash reduction	0-24 months

**Strategy 3:** Conduct education and outreach to increase law enforcement's and all roadway users' understanding of bicycle laws.

Step #	Action Step Leader	Description	Output Measure	Timeline
3.1	ODOT - Julie Walcott	Implement pilot campaign to encourage <i>Share the Road</i> principles and educate road users and law enforcement on the laws governing cycling and sharing the road.	Pilot campaign implemented # of law enforcement agencies reached # of road users reached by pre and post surveys	0-24 months

**Strategy 4:** Advance use of new technology and roadway designs that make travel safer for bicyclists.

Step #	Action Step Leader	Description	Output Measure	Timeline
4.1	ODOT - Julie Walcoff/ Dave Holstein	Implement pilot project to build and evaluate the <i>Cycle Track</i> , which is a bike path or lane typically separated using raised median, on-street parking or bollards and running parallel to vehicle traffic.	% crash reduction % increase or decrease in bicycle travel	0-36 months

**Strategy 5:** Improve bicycle usage and problem identification data.

Step #	Action Step Leader	Description	Output Measure	Timeline
5.1	ODOT - Scott Phinney	Develop protocols and a statewide database for collecting and integrating bicycle counts into transportation planning and investment decisions.	Implementation of database	0-12 months
5.2	ODOT - Cory Hopwood	Create a process to identify future maintenance and construction projects on designated bike routes. This would allow bicycle coordinators to work with project managers in reviewing projects to ensure or incorporate bicycle safety.	# of projects routinely identified and reviewed to incorporate bicycle accommodations and safety	0-12 months

**Strategy 6:** Coordinate bicyclist safety messages developed by multi-agency communication committee.

Step #	Action Step Leader	Description	Output Measure	Timeline
6.1	OTSO/ODOT	Vet messaging to be used for bicyclist safety campaigns/initiatives through the SHSP Communication Committee.	Committee recommendations	Quarterly



# OHIO STRATEGIC HIGHWAY SAFETY PLAN

## PEDESTRIAN ACTION PLAN

**Fatality Goal:** Reduce the number of pedestrian fatalities from 100 in 2013 to 92 in 2017.

**Serious Injury Goal:** Reduce the number of pedestrian serious injuries from 531 in 2013 to 490 in 2017.

**EMPHASIS AREA TEAM LEADER:** Julie Walcoff, ODOT

**Strategy 1:** Educate transportation partners, engineers and local governments on how to incorporate pedestrian facilities and accommodations in community projects.

Step #	Action Step Leader	Description	Output Measure	Timeline
1.1	ODOT/LTAP - Victoria Beale/ODOT - Julie Walcoff	Continue to educate our transportation partners on how to incorporate safe pedestrian design into transportation projects including suggestions made by FHWA such as road diets and design flexibility.	# of training programs delivered # of transportation partners trained	0-12 months
1.2	ODOT - Julie Walcoff/Vince Rapp	Update the state's pedestrian accommodation guidelines which provide guidance to state and local governments on how to consider pedestrian infrastructure and incorporate the design into transportation projects.	Written policy updated	0-24 months

**Strategy 2:** Implement proven countermeasures to reduce pedestrian crashes.

Step #	Action Step Leader	Description	Output Measure	Timeline
2.1	ODOT/LTAP - Victoria Beale/ODOT - Julie Walcott	Provide training and communication on nationally proven countermeasures that reduce the potential for pedestrian crashes.	# of training programs delivered # of transportation partners trained # of website updates pertaining to countermeasure effectiveness	0-24 months
2.2	ODOT - Julie Walcott/DSRT's /District Bike/Ped Coordinators	Conduct pedestrian safety audits in high-priority corridors.	# of corridors reviewed # of projects or improvements initiated % of crash reduction % increase in pedestrian traffic	0-24 months
2.3	ODOT - Julie Walcott/MORPC	Develop an MPO-led pilot program that encourages local governments to install low cost safety treatments that reduce pedestrian crashes.	# of projects or improvements initiated % of crash reduction	0-24 months



**Strategy 3:** Conduct education and outreach to increase understanding and enforcement of pedestrian laws for law enforcement and all roadway users.

Step #	Action Step Leader	Description	Output Measure	Timeline
3.1	ODOT - Julie Walcoff	Implement pilot campaign to encourage <i>Share the Road</i> principles and educate road users and law enforcement on the laws governing walking and sharing the road.	Pilot campaign implemented # of law enforcement agencies reached # of road users reached by pre and post surveys	0-24 months

**Strategy 4:** Advance use of technology and roadway designs that make travel safer for pedestrians.

Step #	Action Step Leader	Description	Output Measure	Timeline
4.1	ODOT - Julie Walcoff/ Dave Holstein	Use FHWA recommended design guidelines for pedestrian facility design and research uses of newer countermeasures to gauge effectiveness.	% crash reduction	Ongoing

**Strategy 5:** Increase the knowledge of safety practices for target populations that are likely to walk and use transit.

Step #	Action Step Leader	Description	Output Measure	Timeline
5.1	ODOT - Julie Walcoff	Implement pilot campaign to encourage <i>Share the Road</i> principles and educate road users and law enforcement on the laws governing walking and sharing the road.	Pilot campaign implemented # of law enforcement agencies reached # of road users reached by pre and post surveys	0-24 months



**Strategy 6:** Improve pedestrian usage and problem identification data.

Step #	Action Step Leader	Description	Output Measure	Timeline
6.1	ODOT - Scott Phinney	Develop protocols and a statewide database for collecting and integrating pedestrian counts into transportation planning and investment decisions.	Implementation of database	0-12 months
6.2	ODOT - Cory Hopwood	Create a process to identify future maintenance and construction projects on priority walking routes. This would allow pedestrian coordinators to work with project managers in reviewing projects to ensure or incorporate pedestrian safety.	# of projects routinely identified and reviewed to incorporate pedestrian accommodations and safety.	0-12 months

**Strategy 7:** Coordinate pedestrian safety messages developed by multi-agency communication committee.

Step #	Action Step Leader	Description	Output Measure	Timeline
7.1	OTSO/ODOT	Vet messaging to be used for pedestrian safety campaigns/initiatives through the SHSP Communication Committee.	Committee recommendations	Quarterly



# OHIO STRATEGIC HIGHWAY SAFETY PLAN

## COMMERCIAL MOTOR VEHICLES ACTION PLAN

**Fatality Goal:** Reduce the number of fatalities related to CMV crashes from 148 in 2013 to 137 in 2017.

**Serious Injury Goal:** Reduce the number of serious injuries related to CMV crashes from 716 in 2013 to 660 in 2017.

**EMPHASIS AREA TEAM LEADER:** Alan Martin, PUCO

**Strategy 1:** Engage in high visibility traffic enforcement in and around commercial motor vehicles.

Step #	Action Step Leader	Description	Output Measure	Timeline
1.1	OSHP	Increase the number of traffic enforcement stops to decrease the number of commercial motor vehicle-related crashes.	# of CMV-related traffic enforcement stops # of CMV-related fatalities and serious injuries	Annual

**Strategy 2:** Conduct driver/vehicle inspections to ensure commercial motor vehicles are in proper working order and drivers are properly credentialed, experienced and fit for duty.

Step #	Action Step Leader	Description	Output Measure	Timeline
2.1	OSHP/PUCO	Increase the number of inspections conducted which ensures problems with the driver and/or vehicle are identified proactively.	# of inspections conducted during the federal fiscal year	Ongoing

**Strategy 3:** Review company operations to ensure compliance with state and federal safety and hazardous materials regulations.

Step #	Action Step Leader	Description	Output Measure	Timeline
3.1	PUCO	Conduct corporate audits that address company wide safety problems and reduce the threat of crashes by curbing behavior detrimental to safe operations by the company as a whole.	# of audits completed within the federally required timeframes during the federal fiscal year	Ongoing

**Strategy 4:** Educate and review new motor carrier operations to ensure proper understanding and compliance with motor carrier and hazardous materials safety regulations.

Step #	Action Step Leader	Description	Output Measure	Timeline
4.1	PUCO	Provide early education to new carriers to discuss the most prevalent areas of vehicle and driver safety and prevent future crashes.	# of safety audits completed within the federal fiscal year	Ongoing

**Strategy 5:** Provide education and outreach to the public and industry on how to safely operate in and around commercial motor vehicles.

Step #	Action Step Leader	Description	Output Measure	Timeline
5.1	PUCO/OHSP	Increase the number of outreach opportunities to educate the public on commercial motor vehicle safety.	# of outreach efforts conducted during the federal fiscal year	Ongoing
5.2	PUCO	Increase the number of outreach opportunities to local governments to increase awareness of commercial motor vehicle safety.	# of outreach efforts conducted to local governments	2014-2018
5.3	OSHP	Host a display at the Ohio State Fair to educate the public on commercial motor vehicle safety.	# of people that visit the fair display	Annual
5.4	PUCO/OHSP	Host events for CMV drivers to provide better education and understanding of regulations and issues.	# of carrier education events conducted during the federal fiscal year	Ongoing

**Strategy 6:** Identify high-crash corridors and initiate appropriate engineering and enforcement interventions.

Step #	Action Step Leader	Description	Output Measure	Timeline
6.1	ODOT - Michael McNeill	Identify and report high-crash corridors for CMV crashes each year and provide information to safety partners.	Data and map of high crash corridors produced	Annual
6.2	PUCO/DPS/ODOT	Initiate high-visibility enforcement and earned media on selected corridors with a significant number of severe CMV crashes.	# of enforcement hours conducted on blitzes # of citations issued # of educational and outreach activities conducted	Annual

**Strategy 7:** Coordinate commercial motor vehicle safety messages developed by multi-agency communication committee.

Step #	Action Step Leader	Description	Output Measure	Timeline
7.1	OTSO/ODOT	Vet messaging to be used for CMV safety campaigns/initiatives through the SHSP Communication Committee.	Committee recommendations	Quarterly



# OHIO STRATEGIC HIGHWAY SAFETY PLAN DATA ACTION PLAN

**Goal:** Improve the timeliness, accuracy, completeness, accessibility and integration of Ohio crash records.

**EMPHASIS AREA TEAM LEADER:** Captain Robin Schmutz, DPS/OSP

**Strategy 1:** Improve crash data collection.

Step #	Action Step Leader	Description	Output Measure	Timeline
1.1	TRCC Chair DPS/Traffic Statistics Coordinator	<p>Increase support among law enforcement agencies for electronic submission of their traffic crash reports to ODPS.</p> <ul style="list-style-type: none"> <li>Review current operations of sheriff departments and police agencies to determine what agencies are still submitting crashes on paper.</li> <li>Reach out to agencies through the Buckeye Sheriffs' Association and Ohio Chiefs of Police to promote the advantages of electronic submission over paper.</li> </ul>	# of police agencies submitting crash reports electronically	Ongoing
1.2	DPS/ Traffic Statistics Coordinator	Provide law enforcement agencies with a PowerPoint demonstration of the attributes of the newly developed Ohio Law Enforcement Information System (OLEIS).	# of law enforcement agencies becoming new users of OLEIS	Ongoing

**Strategy 2:** Improve the accuracy and completeness of crash location information for all public roads.

Step #	Action Step Leader	Description	Output Measure	Timeline
2.1	ODOT/Michael McNeill	Develop an in-car Crash Mapping System to pinpoint crash locations more accurately.	Increase in accuracy of crash location data submitted  Decrease in reporting with errors	Implement Spring 2015

**Strategy 3:** Broaden data collection practices to include all roadway users (pedestrians, bicyclists, motorcyclists, older drivers, etc.).

Step #	Action Step Leader	Description	Output Measure	Timeline
3.1	TRCC Committee	Incorporate all disciplines within the traffic safety community to share information for educational awareness on safety including roadway users and manufacturers (e.g., Harley Davidson, Honda, Schwinn, Huffy) and corporate businesses such as chambers of commerce and fitness centers.	Increase in participation  # of partnerships with roadway users, manufacturers and community centers	Ongoing

**Strategy 4:** Maintain and link data systems from different stakeholders and improve access to linked data.

Step #	Action Step Leader	Description	Output Measure	Timeline
4.1	TRCC Committee  DPS/ Traffic Statistics Coordinator	Maintain traffic citation and crash information in a central database which provides timely access to traffic safety agencies.	Citation and crash information made available 1 to 2 days of occurrence	Ongoing

**Strategy 5:** Develop data analysis methods and tools for use at state, regional and local levels across all stakeholders and analysis skill levels.

Step #	Action Step Leader	Description	Output Measure	Timeline
5.1	TRCC Committee  DPS/Statistical Analysis Unit	Provide up-to-date data on crashes for immediate access to division's website.	% of crash entries made available daily to website	Ongoing

**Strategy 6:** Implement analysis tools that support data-driven decision-making.

Step #	Action Step Leader	Description	Output Measure	Timeline
6.1	DPS/ Statistical Analysis Unit  DPS/ Public Information Office	Provide maps, charts and graphs of crash locations, times and causative factors.  Maintain website that provides statistical data for public access.	% increase in website visitors	Ongoing





