

# CHAMPAIGN COUNTY SAFETY PLAN

September 2019



# 1 EXECUTIVE SUMMARY

Champaign County is in the central western portion of Ohio and home to approximately 40,000 residents who are spread across 12 townships spanning 430 square miles. Many residents choose to live in the area because they appreciate the small/rural town atmosphere. In this type of setting, it is common for residents and visitors alike to travel to and from locations in their vehicles. While transit services and bicycle and pedestrian amenities are available, the easiest and quickest route, is often in a car. With the majority of people traveling by this mode, crashes can occur, impacting families, friendships and the fabric of a smaller community.

Between 2008 and 2017, approximately 757 transportation-related crashes occurred per year in Champaign County. An average of 6 people lost their lives, 43 were seriously injured and 1,529 people were involved in a crash each year, during that 10-year span. Severe crashes are preventable, but it takes an understanding of where and why they are occurring to diagnose the problems and present proven solutions.

The 2019-2023 *Champaign County Transportation Safety Plan* presents solutions to the most challenging safety issues in the county, ensuring everyone can go about their daily lives, but also arrive home safely. Crash data were reviewed with stakeholders to understand:

- **Crash Trends** – How fatal and serious injury crashes have trended over the past 10 years. This also included a review of crashes by jurisdiction and by roadway type.
- **Safety Performance** – How fatal and serious injury crashes could be reduced and to what extent, through the implementation of proven solutions.
- **Crash Types** – What types of crashes (i.e., rear end) are over-represented in the county.
- **Contributing Factors** – What types of crash contributors (i.e., alcohol impairment) are over-represented in the county.
- **Locations** – The segments and intersections in the county that experience more crashes on average than other locations and could be reviewed further for safety improvements.

VISION  
 A safer Champaign County

GOAL  
 Reduce fatalities and serious injuries through improved infrastructure and driver behavior.

OBJECTIVE  
 Reduce fatalities and serious injuries by 1 percent per year.

Local transportation and safety stakeholders met twice to review the crash data and provide input into what is now the foundation of this plan. This document represents the best approach to lowering fatalities and serious injuries in the County, including:

- **Vision, Goal and Objectives** providing a framework for identifying safety programs, projects and policies.
- Four emphasis areas, **Impaired Driving, Young Drivers, Intersections and Unbelted Drivers**, identifying the biggest safety challenges in the County.
- An **Action Plan**, identifying locations, outlining programmatic and project solutions and showing stakeholders where to focus their time and resources to make the most difference.



YOUNG DRIVERS



ALCOHOL IMPAIRED



OCCUPANT PROTECTION



INTERSECTIONS

## 2 TRANSPORTATION SAFETY PARTNERS

Champaign County has a wide range of transportation and safety stakeholders, working to reduce fatalities and serious injuries. Representatives from the following agencies and jurisdictions came together on two occasions to inform the contents of this plan. The goal will be ongoing coordination to implement the safety solutions in this plan and lower transportation-related fatalities and serious injuries.

- Champaign County Engineer's Office
- Champaign County Sherriff's Office
- Champaign Health District
- City of Urbana Engineering Department
- City of Urbana Police Department
- City of Urbana Fire Department
- City of Urbana Schools
- Clark County-Springfield Transportation Coordinating Committee
- Logan-Union-Champaign Regional Planning
- Ohio Department of Transportation
- Ohio State Highway Patrol
- Triad Local Schools
- Urbana Daily Citizen
- Village of Mechanicsburg
- Village of North Lewisburg
- West Liberty-Salem School District



# INTRODUCTION – Setting the Stage

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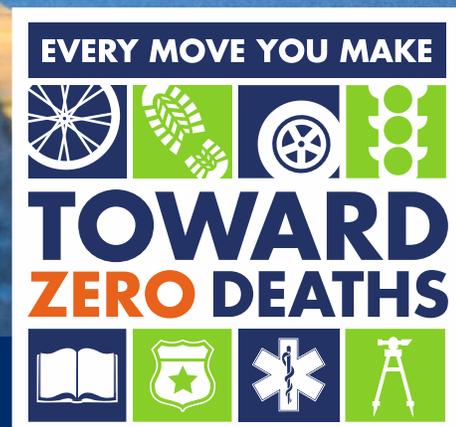
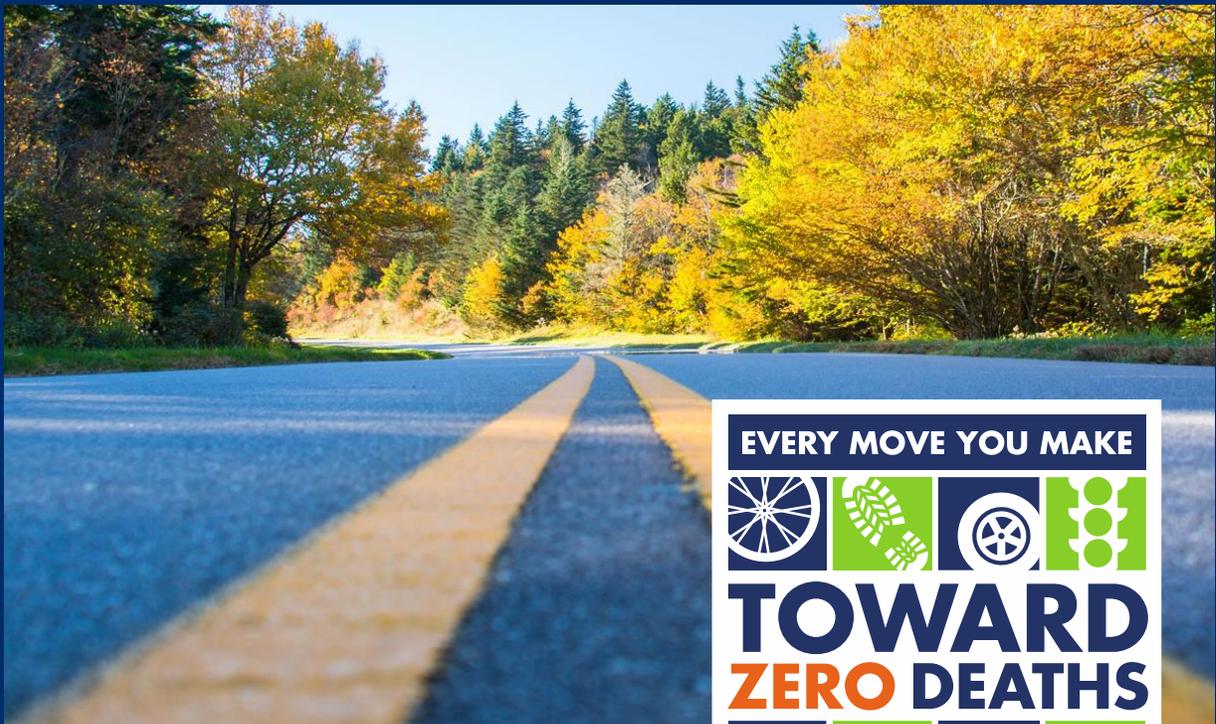
## SECTION CONTENT:

Transportation Safety Planning

Champaign County Transportation Safety

Vision Goals & Objectives

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### 3 INTRODUCTION – SETTING THE STAGE

#### TRANSPORTATION SAFETY PLANNING

Ohio has an average of 1,000 transportation-related fatalities every year. A national strategy called *Toward Zero Deaths*, driven and supported by transportation, enforcement, local government, educators, health professionals and emergency response associations, concludes that even if it is unclear when fatalities will reach zero, even one death on the transportation network is unacceptable. The Ohio Department of Transportation (ODOT) has adopted this strategy and is working toward solutions to ensure everyone is safe on Ohio’s transportation network.

One effective solution to achieve this vision is a local road safety plan (LRSP). This type of plan empowers local and regional transportation agencies to organize stakeholders; review crash data to understand the unique safety challenges in their areas; and customize solutions, or countermeasures, that will be effective based on the local context.

The *Champaign County Transportation Safety Plan* followed a similar approach to develop multi-disciplinary safety solutions. The planning process focused on the fact that motor vehicle-related crashes can be prevented. In some instances, roadway features can be improved to limit the severity of crashes; in others, stopping people from engaging in unsafe behaviors is key. However in most cases, it’s both. To reduce crashes related to infrastructure and driver error, state and local stakeholders identified proven strategies, actions, programs and projects.

**A SOLUTION – ROAD SAFETY PLAN**

ODOT recognizes the need to address crash statistics and is encouraging the development of Regional Safety Plans to reduce them.

The Champaign County plan provides a framework for identifying, analyzing and prioritizing roadway safety improvements.

Upon completion, local stakeholders will have a prioritized list of strategies and projects that will be eligible for ODOT safety funding.

Figure 1: Regional Safety Plan Process Graphic



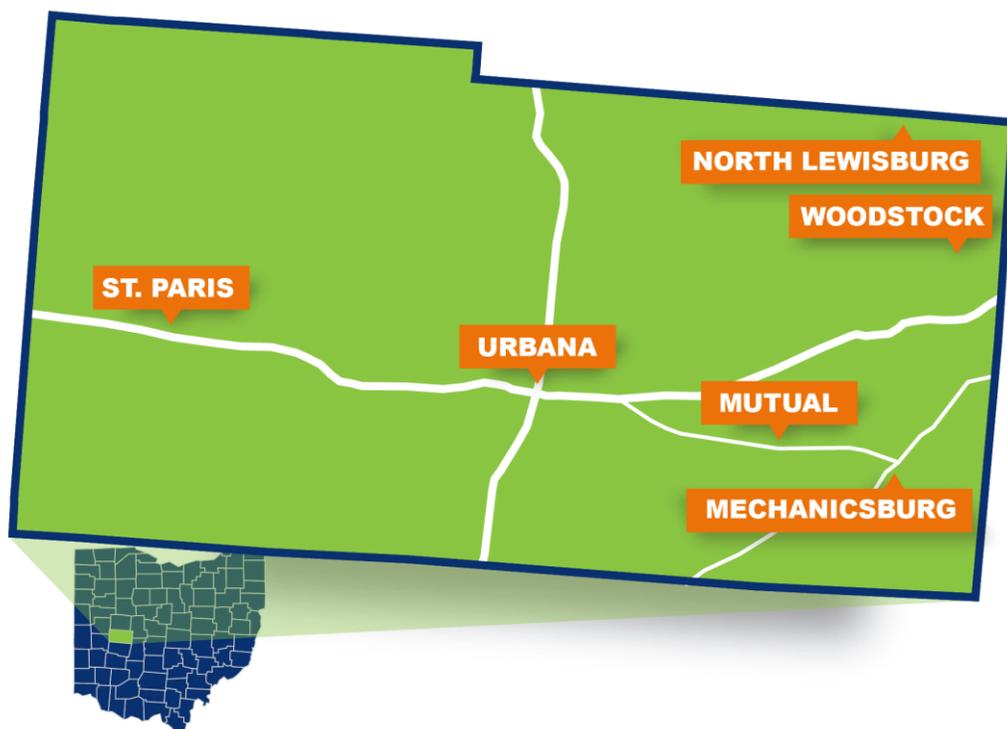
## CHAMPAIGN COUNTY TRANSPORTATION SAFETY

### THE STUDY AREA

Champaign County is located in west-central Ohio. The county seat is in Urbana, Ohio. According to the *Ohio County Profile on Champaign County*, researched and published by the Ohio Development Services Agency, the estimated 2018 population was 38,754 people. This is a slight decline from the official population recorded by the 2010 United States Census of 40,097 people.

Champaign County is mostly rural. According to its Ohio County Profile, nearly 93 percent of the county is covered in farmland or forests. Just over six percent of the county is developed. In addition to being the county seat, the City of Urbana and Urbana Township are the largest jurisdictions within Champaign County by population. Over one-third of Champaign County residents live in one of these two areas. The study area for this safety plan is shown in Figure 2.

Figure 2: Champaign County Map



Based on the Champaign County Profile, there are approximately 870 miles of public roadways in the county. Nearly 210 miles are state and US routes, 340 miles are township roads and 242 miles are county roads. For this plan, all public roads were reviewed to understand where and why crashes were occurring.

### EXTERNAL FACTORS IMPACTING CRASHES

This planning effort primarily focused on crash trends to understand where and why crashes were occurring. However, additional safety insights can be gained by understanding how other factors play a role in transportation safety. Population and Vehicle Miles Traveled (VMT) trends also were reviewed to understand the impact on crash occurrences in Champaign County.

## Introduction – Setting the Stage

### Population

Based on population estimates included in the Ohio County Profile, the overall population is decreasing in Champaign County. However, the number of fatalities is slightly increasing, while the number of serious injuries are slightly decreasing.

Figure 3: Fatalities and Population, 2008–2017

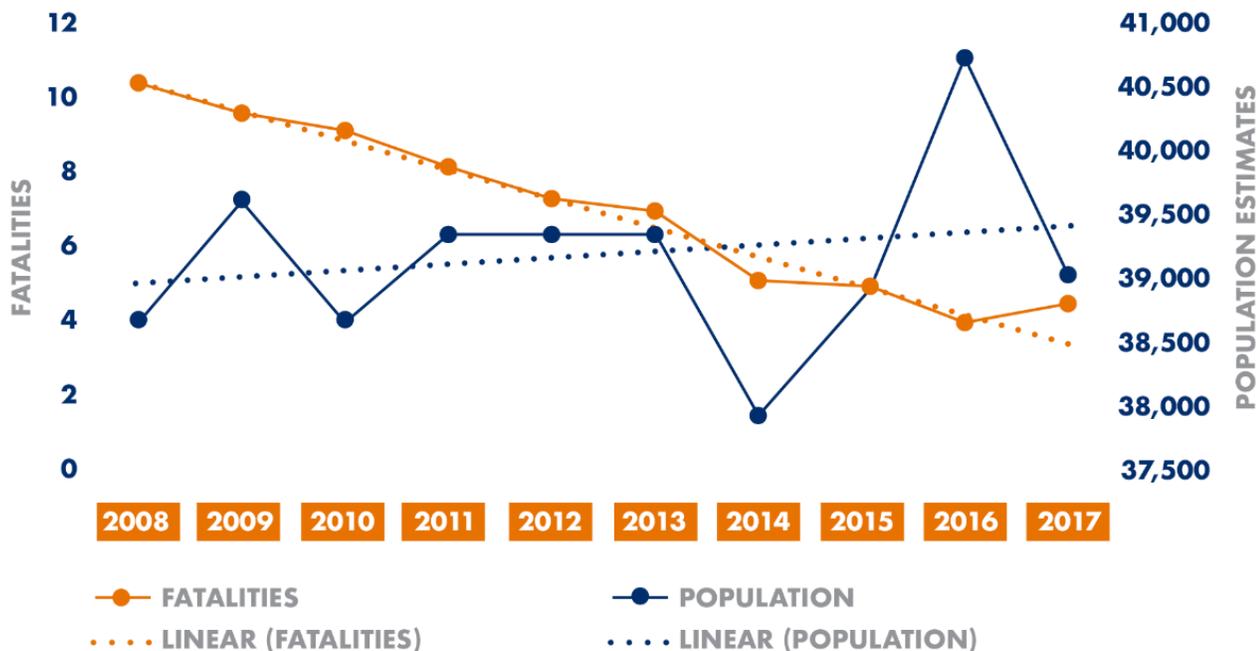
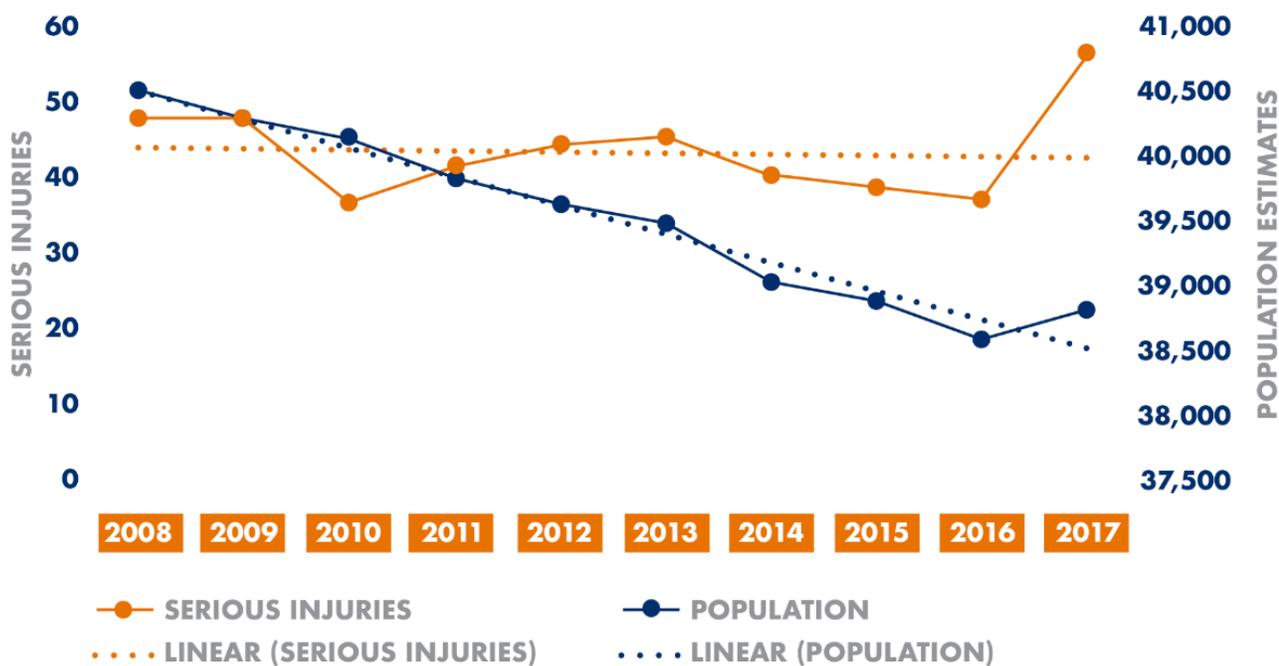


Figure 4: Serious Injuries and Population, 2008–2017

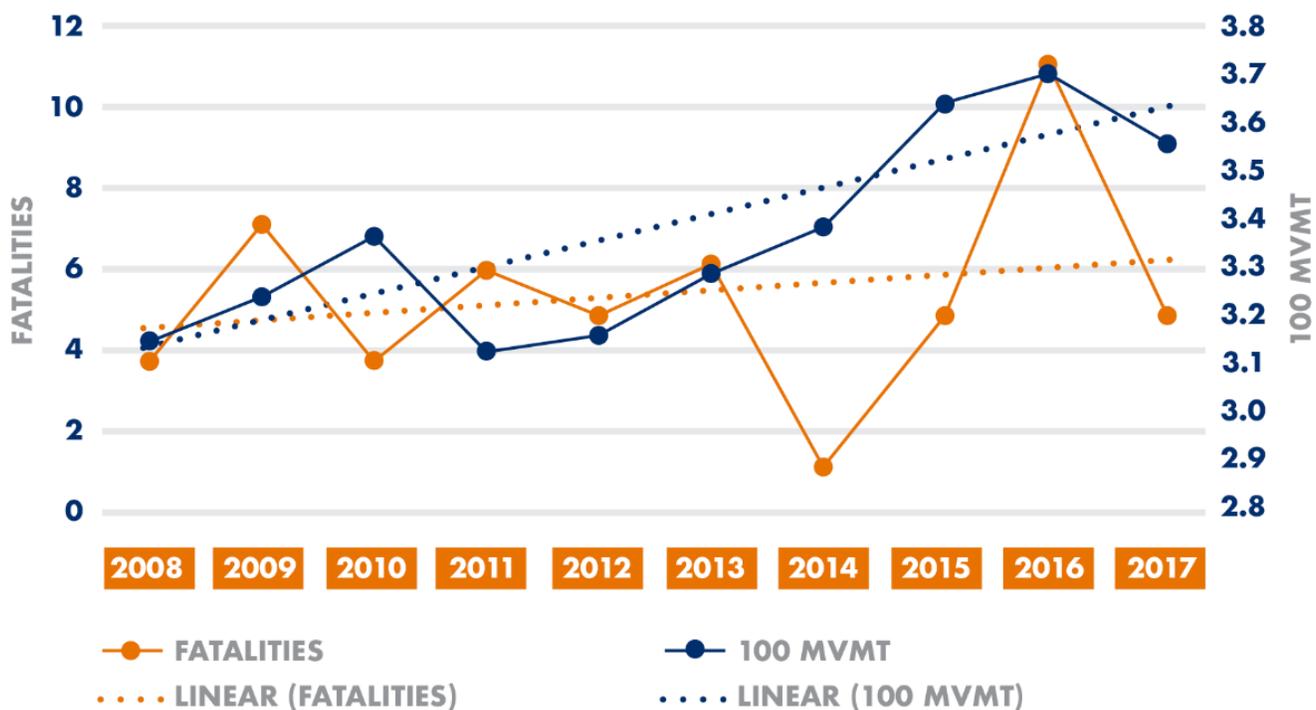


## Introduction – Setting the Stage

### Vehicle Miles Traveled

Population is a good estimation of the number of people living in the area, but it does not capture the full traffic picture which includes residents as well as visitors to the county. VMT is a factor calculated by multiplying the number of centerline roadway miles by the Average Daily Traffic (ADT) volumes. This factor is independent of the county’s population. It looks at the number of vehicles traveling on a specific roadway over a given year. Based on calculations provided by ODOT, the amount of VMT in the county is increasing at a rate faster than the frequency of the fatalities. This is a positive trend considering that many areas see increases in fatalities and serious injuries when VMT increases.

Figure 5: Fatalities and VMT, 2008–2017



### CURRENT SAFETY ACTIVITIES

Existing safety programs and projects in the county were another consideration during this planning process. The goal of this plan is to not replace current activities, but to build upon them and implement other proven strategies to reduce fatalities and serious injuries. The Logan-Union-Champaign (LUC) Regional Planning Commission reviewed crash data for a larger study area, which included Champaign County, to identify priority safety locations. The results of this analysis were reviewed during stakeholder meetings and incorporated into this plan.

### VISION, GOAL AND OBJECTIVES

The Champaign County safety vision, goal and objective describe the safety aspirations over the next 20 years and what safety success looks like in the near term. Stakeholders were presented with examples of visions, goals and objectives from ODOT and other agencies as well as local crash data, showing historical safety performance and future forecasts.

## Introduction – Setting the Stage

The vision, goal and objectives for Champaign County were selected using a combination of qualitative and quantitative factors.

Figure 7: Fatalities Forecast

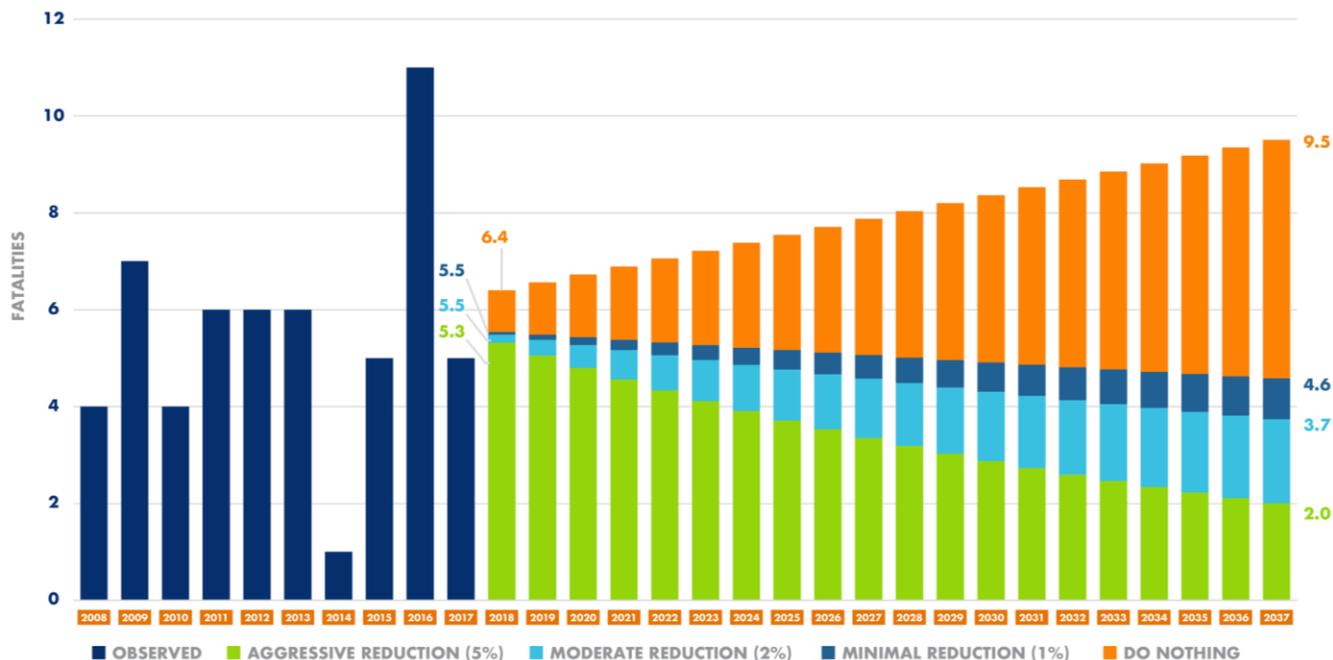
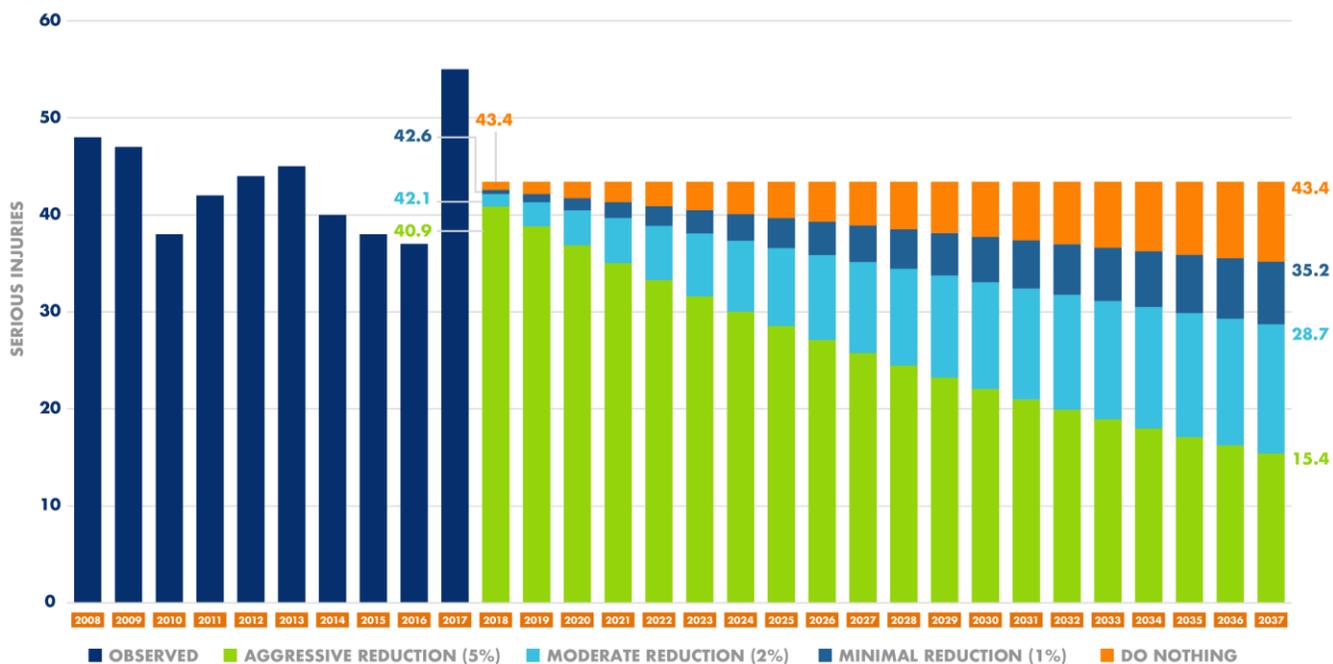


Figure 8: Serious Injuries Forecast



## Introduction – Setting the Stage

The elements below present a plan framework that will help the county focus funding and resources to implement safety policies, programs and projects that will best achieve the identified safety goal and objectives.



### **VISION**

A safer Champaign County



### **GOAL**

Reduce fatalities and serious injuries through improved infrastructure and driver behavior.



### **OBJECTIVE**

Reduce fatalities and serious injuries by 1 percent per year.



# Existing Conditions – Understanding Safety Needs in Champaign County

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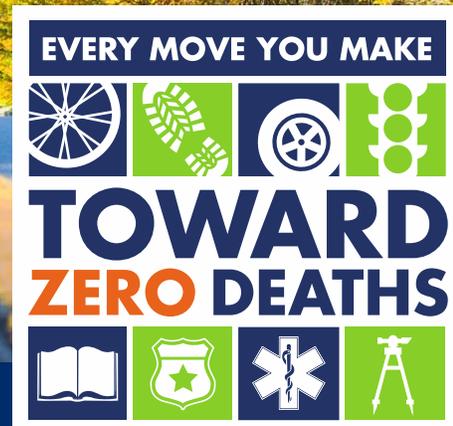
## SECTION CONTENT:

The Big Picture

Crash Types

Vision Goals & Objectives

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## 4 EXISTING CONDITIONS – UNDERSTANDING SAFETY NEEDS IN CHAMPAIGN COUNTY

### THE BIG PICTURE

For the development of the Champaign County Safety Plan, crash data from January 1, 2008 to December 31, 2017 for all crashes, on all public roads, were analyzed. The 10 year timeframe provided enough information to establish reliable trends and distinguish patterns. Data was provided by ODOT and analyzed to understand overall crash trends, severe crash trends, how crashes compared across jurisdictions and the types of roads on which crashes were occurring. This analysis demonstrates existing safety conditions and helps set the stage for why safety planning in Champaign County is critical.

*“There are, on average, 757 crashes per year (two per day) in Champaign County which includes five fatal crashes and 196 injury crashes.”*

### CRASH STATISTICS

Between 2008 and 2017, there were 7,573 crashes in Champaign County with 51 (0.6 percent) resulting in a fatality and 1,960 (26 percent) resulting in injury. There are, on average, 757 crashes per year (two per day) in Champaign County which includes five fatal crashes and 196 injury crashes.

YEAR	FATAL CRASHES	INJURY CRASHES	PROPERTY DAMAGE CRASHES	TOTAL CRASHES
2008	4	193	617	814
2009	5	145	434	584
2010	4	198	590	792
2011	6	184	512	702
2012	6	215	618	839
2013	6	190	575	771
2014	1	224	600	825
2015	5	207	533	745
2016	10	201	564	775
2017	4	203	519	726
<b>10-YEAR TOTAL</b>	<b>51</b>	<b>1,960</b>	<b>5,562</b>	<b>7,573</b>
<b>ANNUAL AVERAGE</b>	<b>5</b>	<b>196</b>	<b>556</b>	<b>757</b>

YEAR WITH THE HIGHEST VALUE FOR EACH RESPECTIVE COLUMN

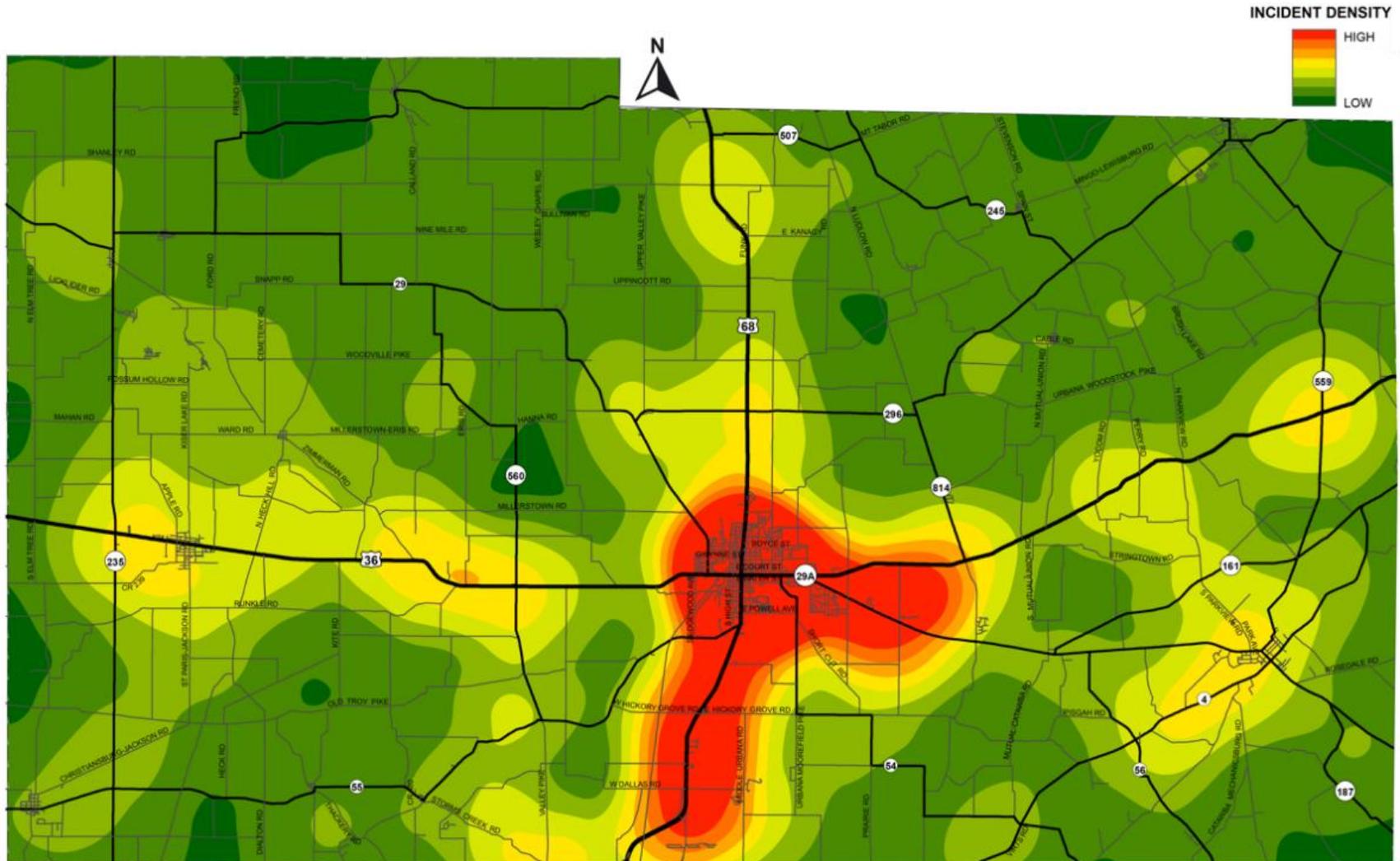
Figure 9: Crash Statistics, 2008–2017

## Existing Conditions – Understanding Safety Needs Champaign County

### FATAL AND SERIOUS INJURY CRASH LOCATIONS

Severe crashes predominantly occur on the higher volume roads, near and within the City of Urbana, especially along US 36, US 68 and SR 29.

Figure 10: Fatal and Serious Injury Crash Density Map, 2008–2017



## Existing Conditions – Understanding Safety Needs Champaign County

### OCCUPANT STATISTICS

Of the 15,294 people involved in crashes in Champaign County between 2008 and 2017, 55 died and 434 were seriously injured. On average, crashes affect nearly 1,500 people every year in Champaign County with six dying and 43 seriously injured.

Figure 11: Occupant Statistics, 2008–2017

YEAR	FATALITIES	SERIOUS INJURIES	MINOR INJURIES	NO INJURIES	TOTAL PEOPLE INVOLVED
2008	4	48	231	1,251	1,534
2009	7	47	199	850	1,103
2010	4	38	225	1,207	1,474
2011	6	42	230	1,119	1,397
2012	6	44	256	1,408	1,714
2013	6	45	216	1,425	1,692
2014	1	40	265	1,358	1,664
2015	5	38	240	1,229	1,512
2016	11	37	261	1,314	1,623
2017	5	55	244	1,277	1,581
<b>10-YEAR TOTAL</b>	<b>55</b>	<b>434</b>	<b>2,367</b>	<b>12,438</b>	<b>15,294</b>
<b>ANNUAL AVERAGE</b>	<b>6</b>	<b>43</b>	<b>237</b>	<b>1,244</b>	<b>1,529</b>

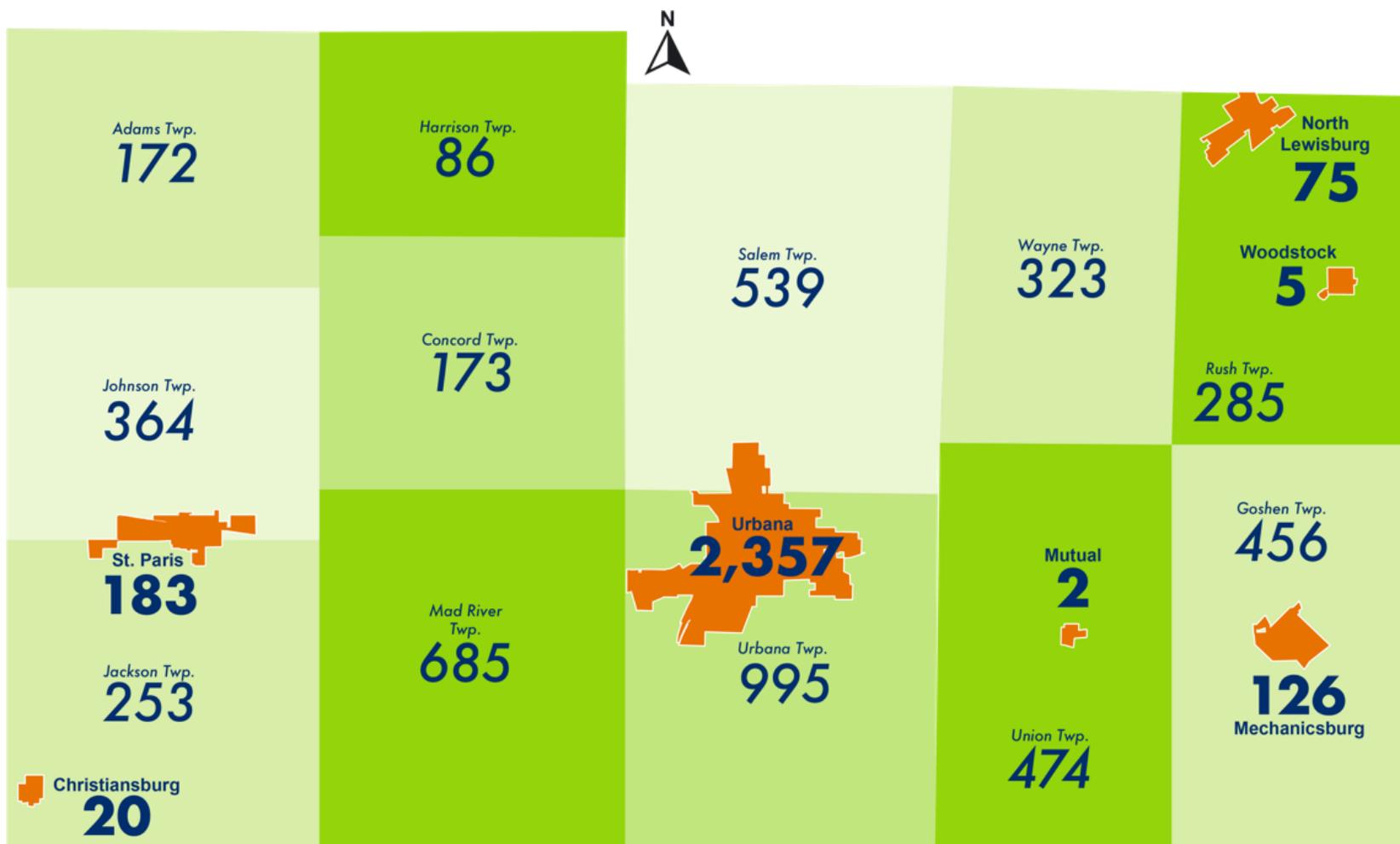
YEAR WITH THE HIGHEST VALUE FOR EACH RESPECTIVE COLUMN

## Existing Conditions – Understanding Safety Needs Champaign County

### CRASHES BY JURISDICTION

Crashes occur in the more populated areas of the county, including the City of Urbana, Urbana Township, Mad River Township and Salem Township than in other, more rural areas of the county.

Figure 12: Crashes by Jurisdiction Map



## Existing Conditions – Understanding Safety Needs Champaign County

### CRASHES BY MAINTAINING AUTHORITY

Nearly two-thirds of all crashes in Champaign County occur on non-state-maintained roadways. Because ODOT does not own, operate or maintain these roads, it is incumbent upon local jurisdictions to determine what and where the biggest safety issues lie and apply for funding to implement improvements.

Figure 13: Crashes by Jurisdiction and Maintaining Authority

	ALL CRASHES			NON-STATE MAINTAINED ROADWAYS			COUNTY-MAINTAINED ROADWAYS		
	FATAL INJURY	SERIOUS INJURY	GRAND TOTAL	FATAL INJURY	SERIOUS INJURY	GRAND TOTAL	FATAL INJURY	SERIOUS INJURY	GRAND TOTAL
ADAMS TOWNSHIP	2	8	172	1	3	52	1	0	27
CHRISTIANSBURG	0	1	20	0	1	20	0	0	0
CONCORD TOWNSHIP	2	6	173	1	4	96	0	2	61
GOSHEN TOWNSHIP	3	28	456	0	6	108	0	4	60
HARRISON TOWNSHIP	4	3	86	3	1	47	3	0	33
JACKSON TOWNSHIP	2	16	253	1	10	148	1	5	97
JOHNSON TOWNSHIP	2	25	364	0	15	186	0	13	129
MAD RIVER TOWNSHIP	8	33	685	5	14	308	4	9	204
MECHANICSBURG	0	3	126	0	3	126	0	0	0
MUTUAL	0	0	2	0	0	2	0	0	0
NORTH LEWISBURG	0	0	75	0	0	75	0	0	0
RUSH TOWNSHIP	5	16	285	1	5	155	0	2	57
SAINT PARIS	0	5	183	0	5	183	0	0	0
SALEM TOWNSHIP	6	26	539	2	4	198	2	1	99
UNION TOWNSHIP	3	27	474	1	3	111	1	2	52
URBANA	4	53	2,357	4	53	2,357	0	0	0
URBANA TOWNSHIP	10	76	995	6	20	426	3	12	192
WAYNE TOWNSHIP	0	11	323	0	6	151	0	3	108
WOODSTOCK	0	0	5	0	0	5	0	0	0
<b>GRAND TOTAL</b>	<b>51</b>	<b>337</b>	<b>7,573</b>	<b>25</b>	<b>153</b>	<b>4,754</b>	<b>15</b>	<b>53</b>	<b>1,119</b>

### CRASH STATISTICS BY MAINTAINING AUTHORITY

While only 37 percent of the total crashes occur on state-maintained roadways, over 50 percent of all fatal and serious injury crashes are occurring on state-maintained facilities. Conversely, approximately 40 percent of all crashes in Champaign County are occurring on city-maintained roadways, but only 12 percent of all fatalities occur on city-maintained facilities.

Figure 14: Crash Statistics by Maintaining Authority

	FATAL INJURY	SERIOUS INJURY	VISIBLE INJURY	POSSIBLE INJURY	NO INJURY	GRAND TOTAL
<b>STATE HIGHWAY</b>	<b>26</b>	<b>184</b>	<b>284</b>	<b>346</b>	<b>1,979</b>	<b>2,819</b>
<b>COUNTY HIGHWAY</b>	<b>15</b>	<b>53</b>	<b>132</b>	<b>126</b>	<b>793</b>	<b>1,119</b>
<b>CITY OR VILLAGE HIGHWAY</b>	<b>6</b>	<b>68</b>	<b>209</b>	<b>369</b>	<b>2,312</b>	<b>2,964</b>
<b>TOWNSHIP HIGHWAY</b>	<b>4</b>	<b>32</b>	<b>86</b>	<b>71</b>	<b>478</b>	<b>671</b>
<b>GRAND TOTAL</b>	<b>51</b>	<b>337</b>	<b>711</b>	<b>912</b>	<b>5,562</b>	<b>7,573</b>

## CRASH TYPES

Crash type (i.e., fixed object, head-on, rear-end, left turn, angle) analysis is a common method to categorize crashes, understand key concerns and identify countermeasure solutions. The following outlines the analysis results for the specific crash types in Champaign County.

*“Between 2008 and 2017, the four most prevalent crash types were fixed object, rear end, animal and angle crashes.”*

### COUNTYWIDE CRASH TYPES

Between 2008 and 2017, the four most prevalent crash types were fixed object, rear end, animal and angle crashes. From 2008 to 2017, there were just over 2,100 fixed object crashes. Fortunately only six percent of those crashes resulted in a fatality or serious injury. Over 25 percent of the reported pedestrian crashes resulted in a fatality or serious injury. Both the total crash frequency and the percentage of fatal and serious injury crashes compared to the overall number of crashes can be used to identify applicable improvement strategies.

Figure 15: Countywide Crash Types, 2008–2017

	TOTAL CRASHES	FATAL CRASHES	SERIOUS INJURY CRASHES	FSI RATE
FIXED OBJECT	2,105	20	106	6.0%
REAR END	1,181	2	37	3.3%
ANIMAL	1,174	1	8	0.8%
ANGLE	710	11	54	9.2%
SIDESWIPE-PASSING	453	0	14	3.1%
LEFT TURN	448	1	23	5.4%
PARKED VEHICLE	363	0	4	1.1%
BACKING	273	0	3	1.1%
OVERTURNING	162	7	27	21.0%
RIGHT TURN	153	0	6	3.9%
HEAD ON	144	7	23	20.8%
OTHER NON-COLLISION	127	0	6	4.7%
SIDESWIPE-MEETING	104	1	5	5.8%
PEDALCYCLES	47	1	8	19.1%
PEDESTRIAN	47	0	12	25.5%
OTHER OBJECT	41	0	0	0.0%
UNKNOWN	38	0	1	2.6%
TRAIN	3	0	0	0.0%
<b>TOTAL</b>	<b>7,573</b>	<b>51</b>	<b>337</b>	

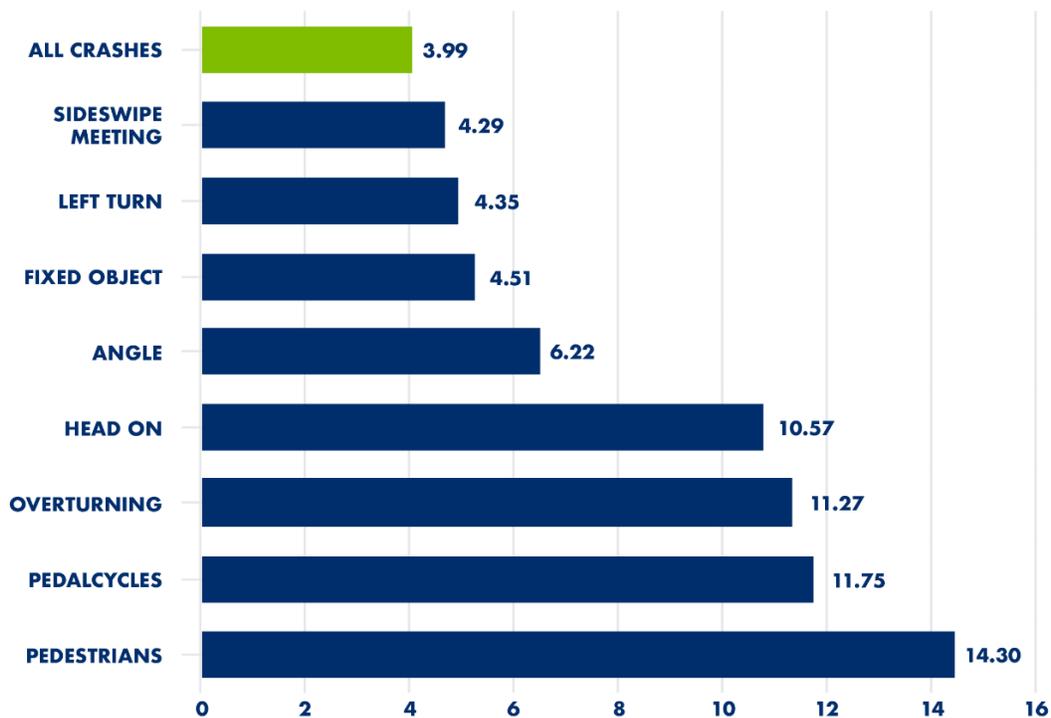
**EQUIVALENT PROPERTY DAMAGE ONLY CRASHES**

The equivalent property damage only (EPDO) crash frequency calculates the relative severity of the crashes occurring at a specific location. This EPDO crash frequency relates all crashes in terms of a property damage only (no injury) crash. To calculate the EPDO, the following equation was used with factors based on information provided in the ODOT Economic Crash Analysis Tool (ECAT).

$$EPDO \text{ Crash Frequency} = (41.18 * \text{Fatal and Serious Injury Crashes} + 6.55 * \text{Visible Injury Crashes} + 4.44 * \text{Possible Injury Crashes} + \text{Property Damage Only Crashes}) / \text{Total number of crashes}$$

Pedestrian crashes have the highest EPDO value which indicates a crash type with high levels of serious injuries or fatalities.

Figure 16: EDPO for Crash Types, 2008–2017



## Existing Conditions – Understanding Safety Needs Champaign County

### CRASH TYPES BY JURISDICTION

Fixed object and animal crashes are mostly over-represented in the more rural, less developed areas of the county whereas rear end and angle crashes are generally over-represented in more urban areas like Urbana and Mechanicsburg.

Figure 17: Crash Types by Jurisdiction Table, 2008–2017

	FIXED OBJECT	REAR END	ANIMAL	ANGLE
ADAMS TOWNSHIP	37%	5%	34%	3%
CHRISTIANSBURG	10%	10%	0%	10%
CONCORD TOWNSHIP	46%	3%	25%	8%
GOSHEN TOWNSHIP	41%	5%	29%	5%
HARRISON TOWNSHIP	50%	5%	23%	6%
JACKSON TOWNSHIP	42%	9%	11%	15%
JOHNSON TOWNSHIP	30%	15%	26%	4%
MAD RIVER TOWNSHIP	38%	9%	20%	10%
MECHANICSBURG	9%	16%	3%	10%
MUTUAL	0%	0%	100%	0%
NORTH LEWISBURG	28%	12%	0%	13%
RUSH TOWNSHIP	45%	5%	19%	8%
SAINT PARIS	13%	24%	4%	7%
SALEM TOWNSHIP	37%	13%	18%	7%
UNION TOWNSHIP	42%	7%	24%	7%
URBANA	10%	27%	4%	13%
URBANA TOWNSHIP	30%	16%	19%	10%
WAYNE TOWNSHIP	42%	6%	29%	5%
WOODSTOCK	60%	0%	20%	0%
COUNTYWIDE	28%	16%	16%	9%

■ ABOVE COUNTYWIDE AVERAGE    
 ■ BELOW COUNTYWIDE AVERAGE

## Existing Conditions – Understanding Safety Needs Champaign County

### CRASH TYPES FOR SEVERE CRASHES BY MAINTAINING AUTHORITY

While most of the severe crashes occur on state-maintained roadways, almost all of the several bicycle and pedestrian crashes occur on city- or village-maintained roadways.

Figure 18: Crash Types for Severe Crashes by Maintaining Authority, 2008–2017

	STATE	COUNTY HIGHWAY	CITY/VILLAGE HIGHWAY	TOWNSHIP HIGHWAY	GRAND TOTAL
FIXED OBJECT	70	28	13	15	126
ANGLE	36	12	14	3	65
REAR END	23	3	12	1	39
OVERTURNING	17	7	1	9	34
HEAD ON	22	3	4	1	30
LEFT TURN	18	2	4	0	24
SIDESWIPE-PASSING	6	3	4	1	14
PEDESTRIAN	0	1	10	1	12
ANIMAL	4	2	1	2	9
PEDALCYCLES	1	2	6	0	9
SIDESWIPE - MEETING	4	2	0	0	6
OTHER NON-COLLISION	4	0	1	1	6
RIGHT TURN	3	2	0	1	6
PARKED VEHICLE	1	0	3	0	4
BACKING	1	1	0	1	3
UNKNOWN	0	0	1	0	1
<b>GRAND TOTAL</b>	<b>210</b>	<b>68</b>	<b>74</b>	<b>36</b>	<b>388</b>

## Over-Represented Crash Types

The most prevalent crash types occurring in Champaign County are fixed object, rear end, animal and angle crashes. While animal crashes can result in fatalities or serious injuries, they are often random occurrences without an identified solution. Therefore, a more in-depth analysis was not performed for this crash type. However, analysis was performed for the other three crash types

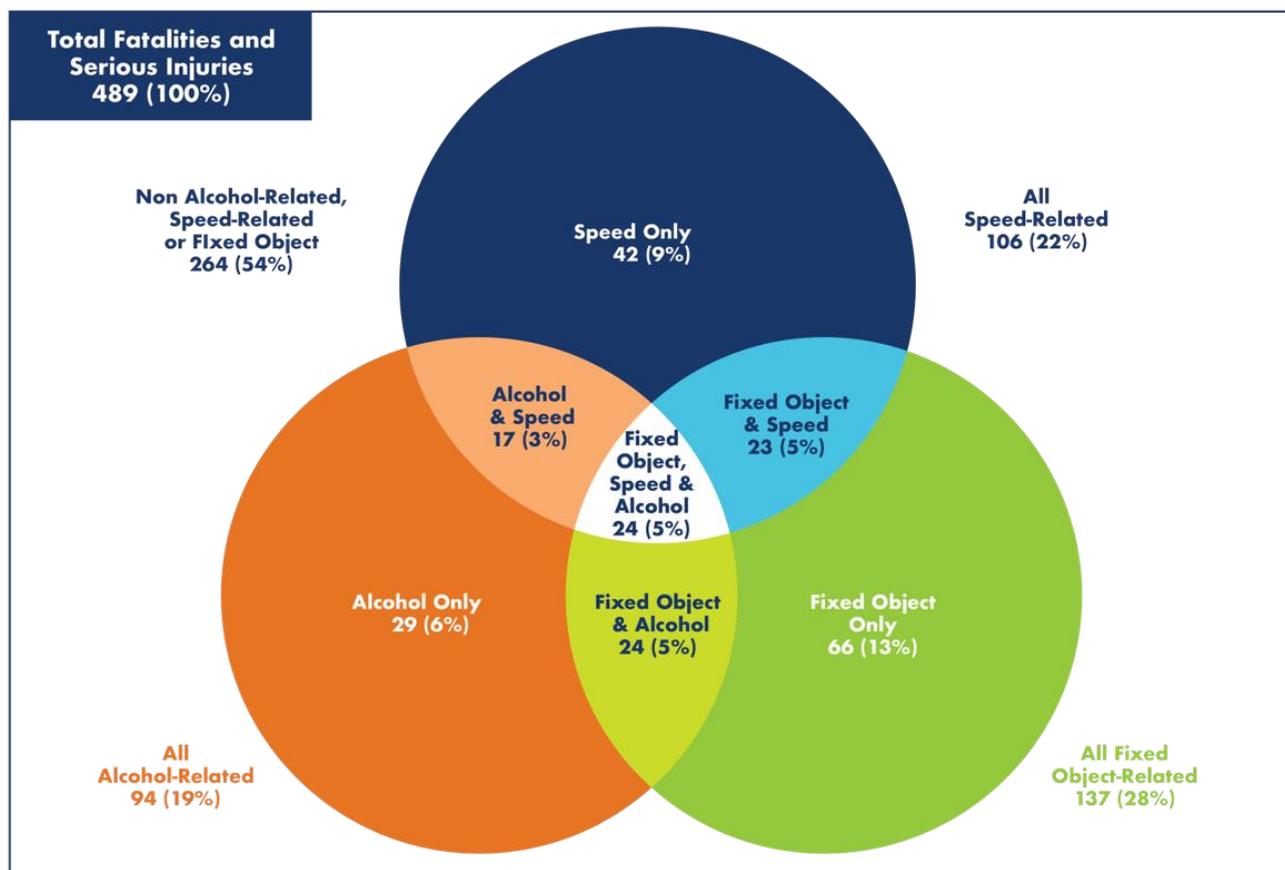
### FIXED OBJECT CRASHES

There were 2,105 fixed object crashes between 2008 and 2017 with 20 crashes resulting in a fatality and 106 resulting in a serious injury. Fixed object crashes occur when a vehicle leaves the roadway and collides with a stationary object such as a tree, utility pole or mailbox.

*“Speed, alcohol, striking a fixed object or a combination of the three contributed to 46 percent of all fatalities and serious injuries in Champaign County.”*

Speed, alcohol, striking a fixed object or a combination of them contributed to 46 percent of all fatalities and serious injuries in Champaign County. In 15 percent of fatalities and serious injuries in Champaign County between 2008 and 2017, speed and/or alcohol were contributing factors in a fixed object collision.

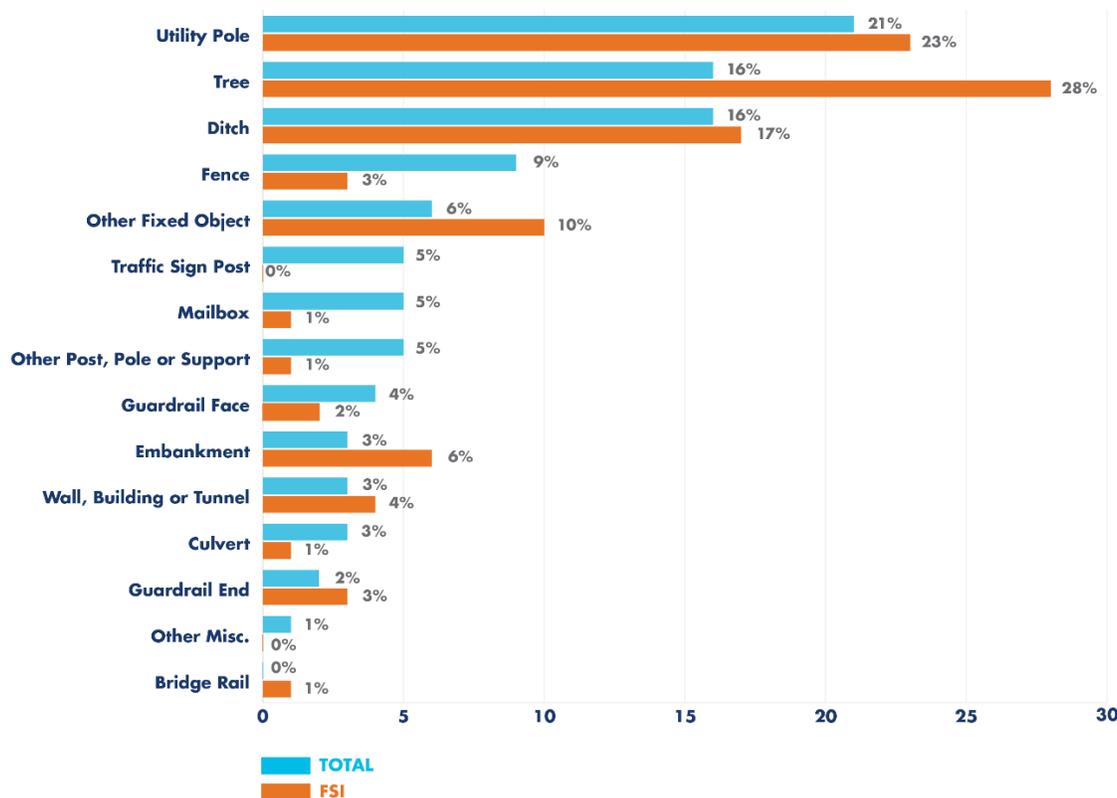
Figure 19: Fixed Object-Related Fatal and Serious Injury Crashes Primary Contributing Factors, 2008–2017



## Existing Conditions – Understanding Safety Needs Champaign County

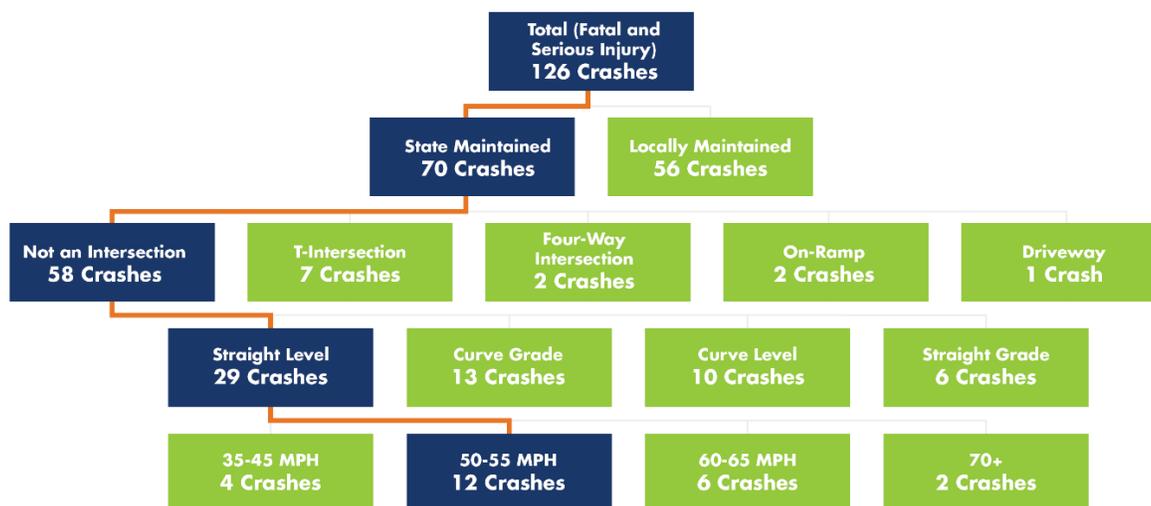
Utility poles, trees, ditches and fences were the most commonly struck fixed objects. Trees were struck in 16 percent of all fixed object crashes but in 28 percent of fatal and serious injury crashes.

Figure 20: Fixed Object Related Fatal and Serious Injury Crashes by Object Struck, 2008–2017



Of the 126 fixed object crashes that resulted in a fatality or serious injury, most occurred on straight, level roadway segments on state-maintained facilities.

Figure 21: Fixed Object Related Fatal and Serious Injury Crashes Crash Tree Diagram, 2008–2017

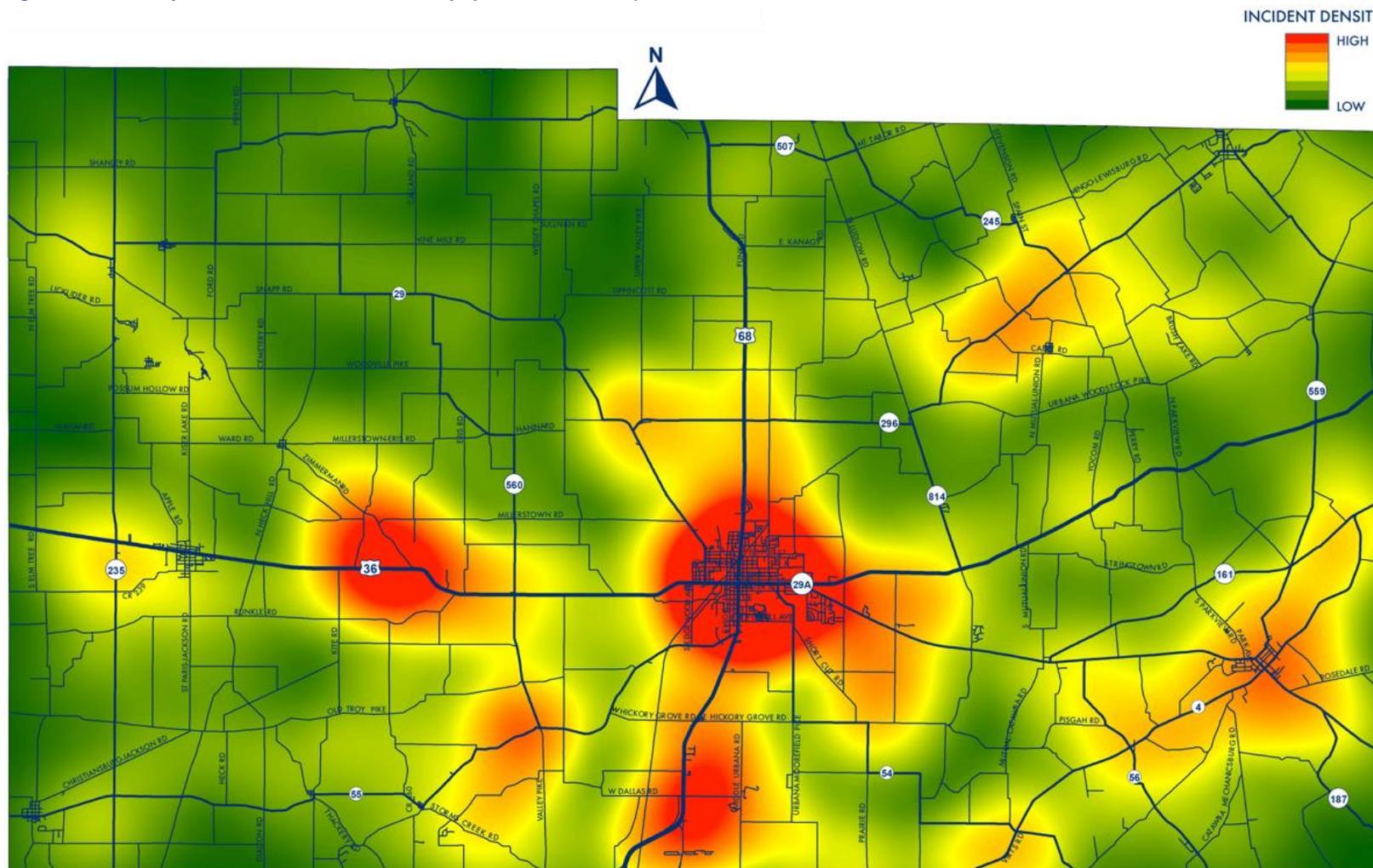


## Existing Conditions – Understanding Safety Needs Champaign County

### FIXED OBJECT CRASH LOCATIONS

Fixed object crashes occurred throughout the county, but there are hot spots in Urbana, along US 36 just east of Saint Paris and along US 68 south of Urbana.

Figure 22: Fixed Object Related Fatal and Serious Injury Crashes Heat Map, 2008–201



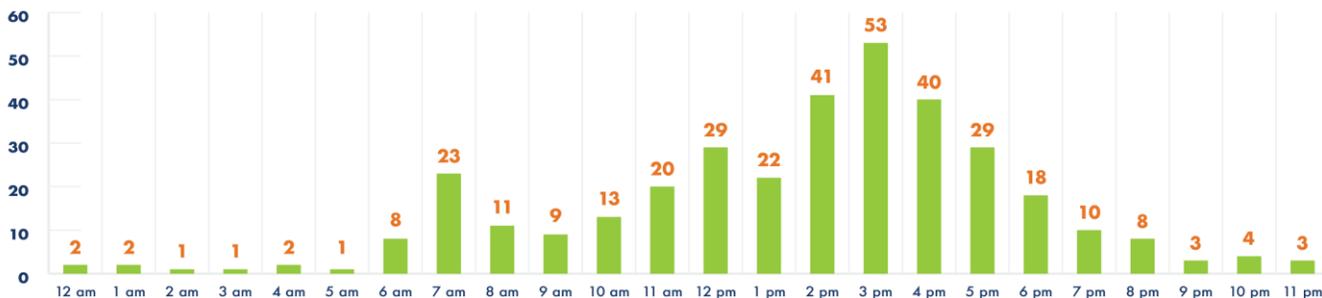
## Existing Conditions – Understanding Safety Needs Champaign County

### REAR END CRASHES

There were 1,181 rear end crashes between 2008 and 2017 with two crashes resulting in a fatality and 37 resulting in a serious injury.

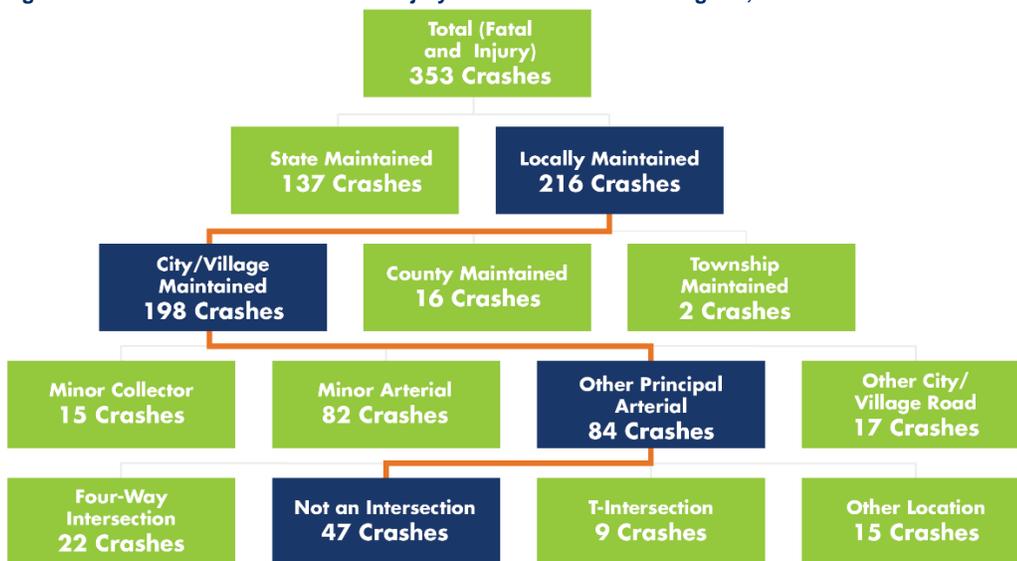
The frequency of fatal and injury rear end crashes in Champaign County spikes during peak periods of traffic volumes such as the AM peak period, lunch peak period and afternoon/evening peak period. Severe rear end crashes are less likely to occur in the late night or early morning hours in Champaign County.

Figure 23: Rear End Related Fatal and Injury Crashes Time of Day, 2008–2017



In Champaign County, fatal and injury rear end crashes occur mostly on city- or village-maintained principal arterials. Furthermore, most of these rear end crashes are not occurring at intersections which means they are likely happening at driveways along these routes where vehicles are slowing or stopping to turn into a driveway.

Figure 24: Rear End Related Fatal and Injury Crashes Crash Tree Diagram, 2008–2017

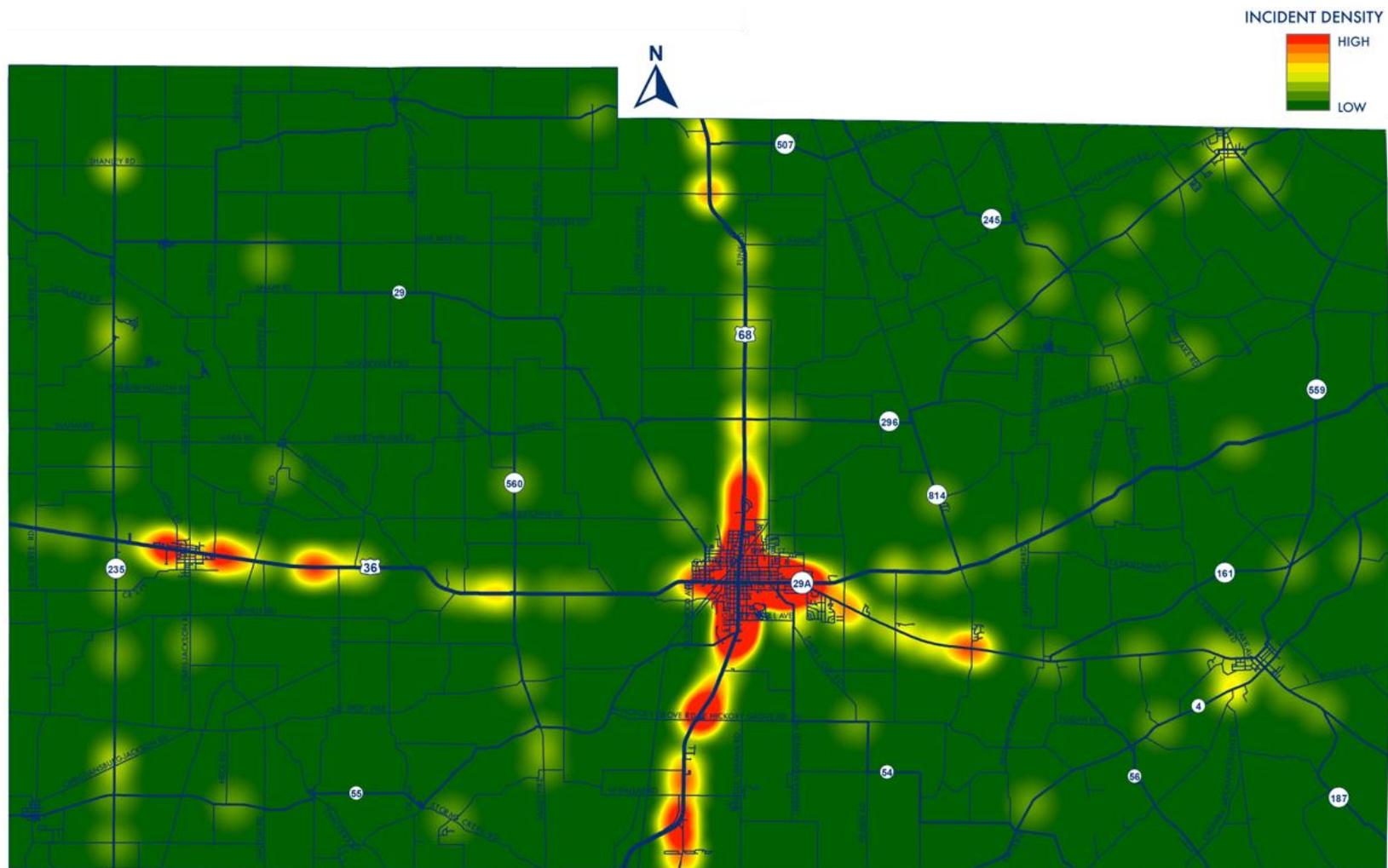


## Existing Conditions – Understanding Safety Needs Champaign County

### REAR END CRASH LOCATIONS

Most of the fatal and injury rear end crashes occur along US 68 especially through and south of Urbana; and along US 36 especially west and through Urbana. A number of rear end crashes also occur along SR 29 between Urbana and Mechanicsburg.

Figure 25: Rear End Related Fatal And Injury Crashes Heat Map, 2008–201



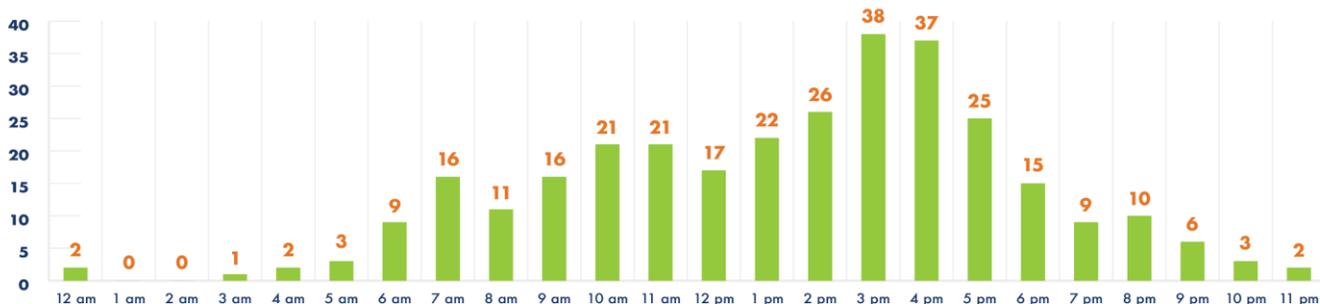
## Existing Conditions – Understanding Safety Needs Champaign County

### ANGLE CRASHES

There were 710 angle crashes between 2008 and 2017 with 11 crashes resulting in a fatality and 54 resulting in a serious injury.

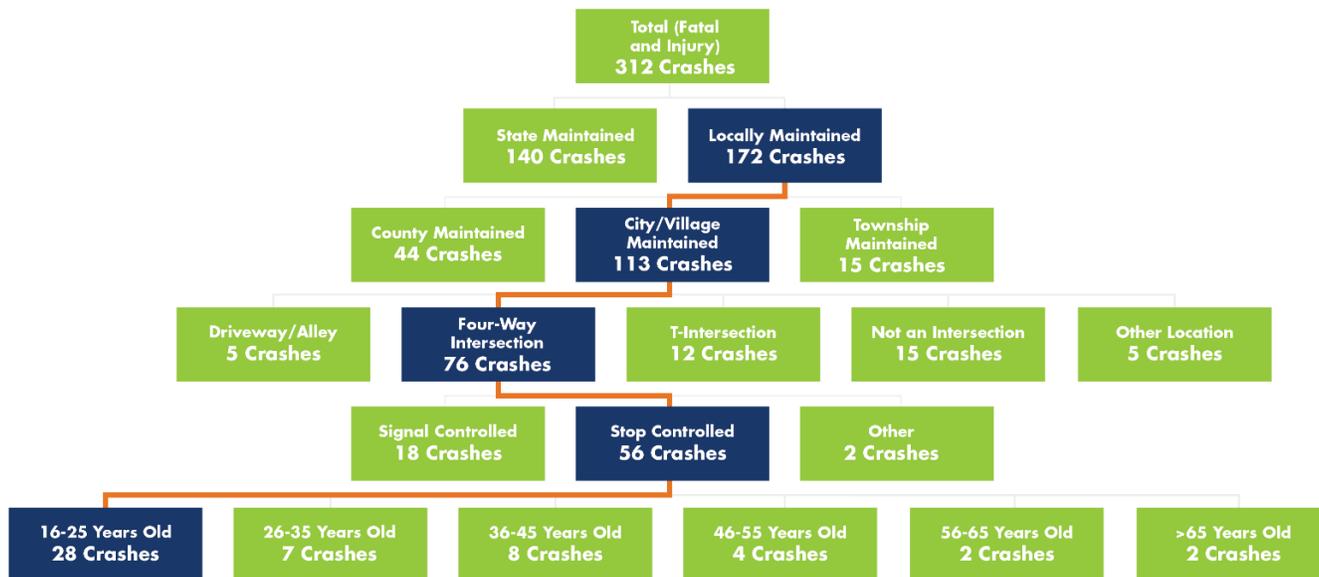
Angle crashes that result in a fatality or injury generally occur throughout the day, but the majority occur between the hours of 6:00 AM and 9:00 PM. The frequency of these types of crashes spikes between the hours of 2:00 PM and 6:00 PM which correlates with hours of peak traffic volumes in the county.

Figure 26: Angle Related Fatal and Injury Crashes Time of Day Chart, 2008–2017



Most of the fatal and injury angle crashes occurred at stop-controlled, four-legged intersections on city- or village-maintained roadways. Most often, young drivers ages 16-25 were considered at-fault in these crashes.

Figure 27: Angle Related Fatal and Injury Crashes Crash Tree Diagram, 2008–2017

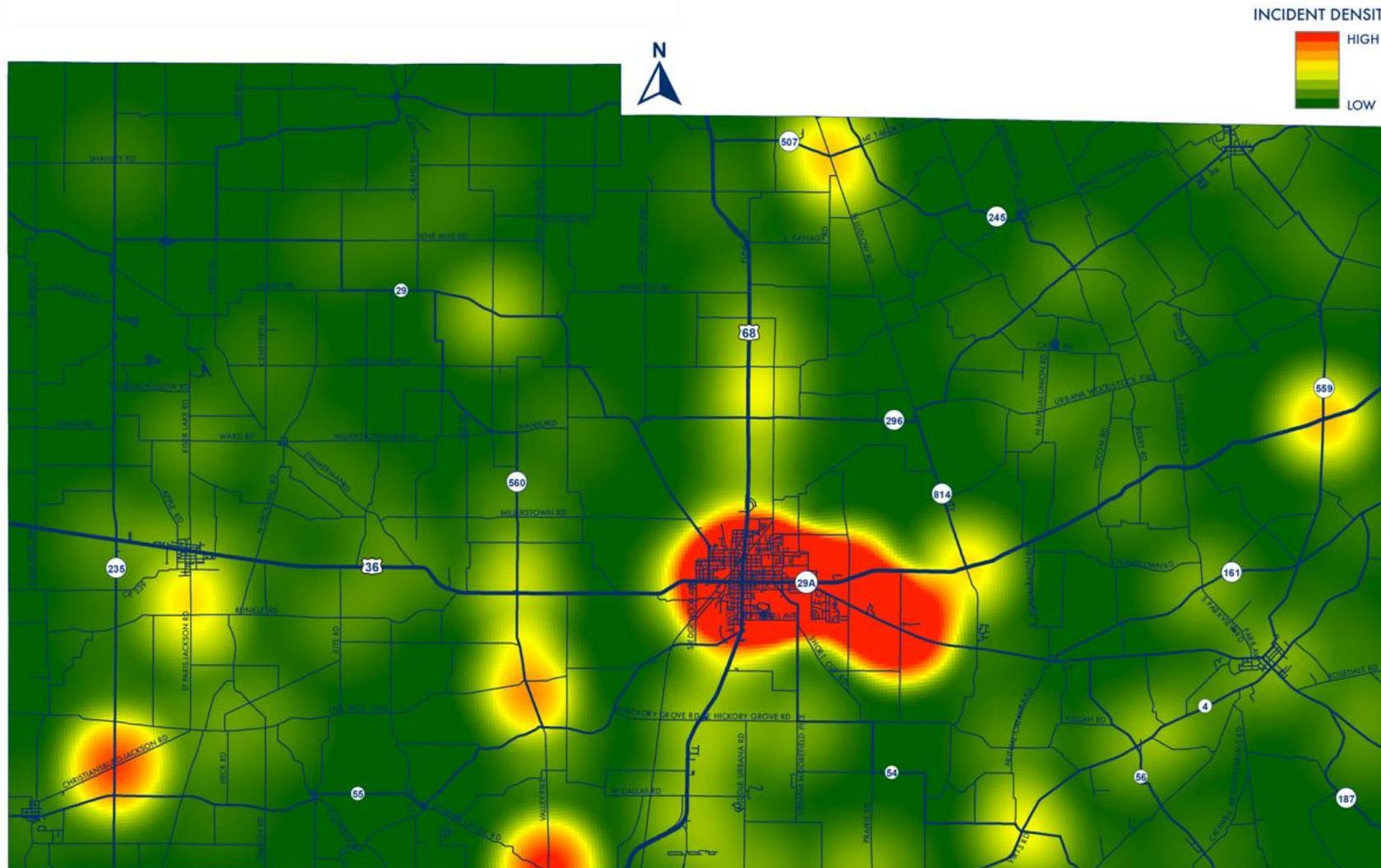


## Existing Conditions – Understanding Safety Needs Champaign County

### ANGLE CRASH LOCATIONS

Angle crashes that result in a fatality or serious injury occur at the major intersections in Champaign County, including several in and around Urbana.

Figure 28: Angle Related Fatal and Injury Crashes Heat Map, 2008–2017



# Emphasis Areas – Prioritized Focus Areas

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## SECTION CONTENT:

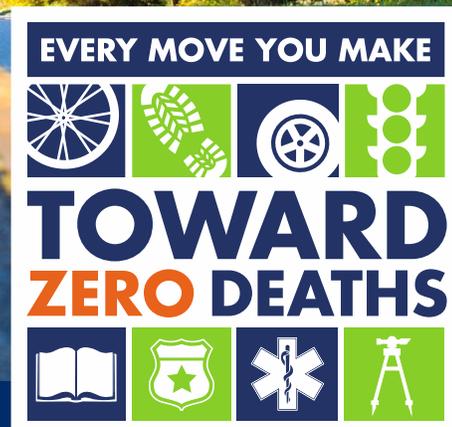
Young Drivers

Alcohol Impaired

Occupant Protection

Intersections

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## 5 EMPHASIS AREAS – Prioritized Focus Areas

A number of different factors contribute to, or can cause, a crash, such as impairment, speed, distraction, etc. At the statewide level, the Ohio Strategic Highway Safety Plan (SHSP) reviews a wide range of potential factors; identifies the top issues causing fatalities and serious injuries; and develops strategies and actions to address them. Agencies often refer to these primary contributing factors as emphasis areas, which means they receive additional “emphasis,” in the form of time and resources.

For Champaign County, crash data for a five-year timeframe (2013-2017), were evaluated to determine the top contributors to crashes, or the local emphasis areas.

While roadway departures contribute to over 35 percent of all fatal and serious injury crashes in Champaign County, it was not selected as a primary emphasis area. This is due to the fact that a number of infrastructure improvements are already planned or underway to address this issue. Additionally, roadway departures are caused most frequently by young drivers and impaired drivers. Strategies and actions to address roadway departures were considered in the context of those two emphasis areas.

	STATEWIDE	COUNTYWIDE - ALL ROADS	COUNTYWIDE - LOCAL ROADS
ROADWAY DEPARTURE	37.6%	35.8%	30.1%
YOUNG DRIVER INVOLVEMENT (15-25)	36.9%	37.0%	32.5%
INTERSECTION	36.7%	40.3%	44.7%
SPEED RELATED INVOLVEMENT	24.0%	29.6%	22.8%
RESTRAINTS NOT USED DRIVER/OCCUPANTS	18.9%	30.9%	28.5%
OLDER DRIVER INVOLVEMENT (65+)	18.4%	14.4%	20.3%
ALCOHOL RELATED INVOLVEMENT	16.5%	22.2%	18.7%
REAR END	12.4%	11.5%	12.2%
MOTORCYCLE DRIVER/PASSENGER	10.9%	7.4%	8.1%
DRUG RELATED INVOLVEMENT	8.1%	7.8%	7.3%
PEDESTRIAN INVOLVEMENT	6.6%	2.1%	4.1%
DISTRACTED DRIVERS	6.4%	6.2%	4.9%
RAILROAD CROSSING	0.3%	0.0%	0.0%
BICYCLE INVOLVEMENT	2.0%	2.1%	4.1%

■ ABOVE STATEWIDE AVERAGE    ■ BELOW STATEWIDE AVERAGE

Figure 29: Contributing Factors, 2008–2017

Based on the results of the crash analysis, stakeholder input, feasibility to address the problem in the county and alignment or relationship to the Ohio SHSP, the following were prioritized for Champaign County to help focus implementation efforts.



**YOUNG DRIVERS**



**ALCOHOL IMPAIRED**



**OCCUPANT PROTECTION**



**INTERSECTIONS**



# YOUNG DRIVERS



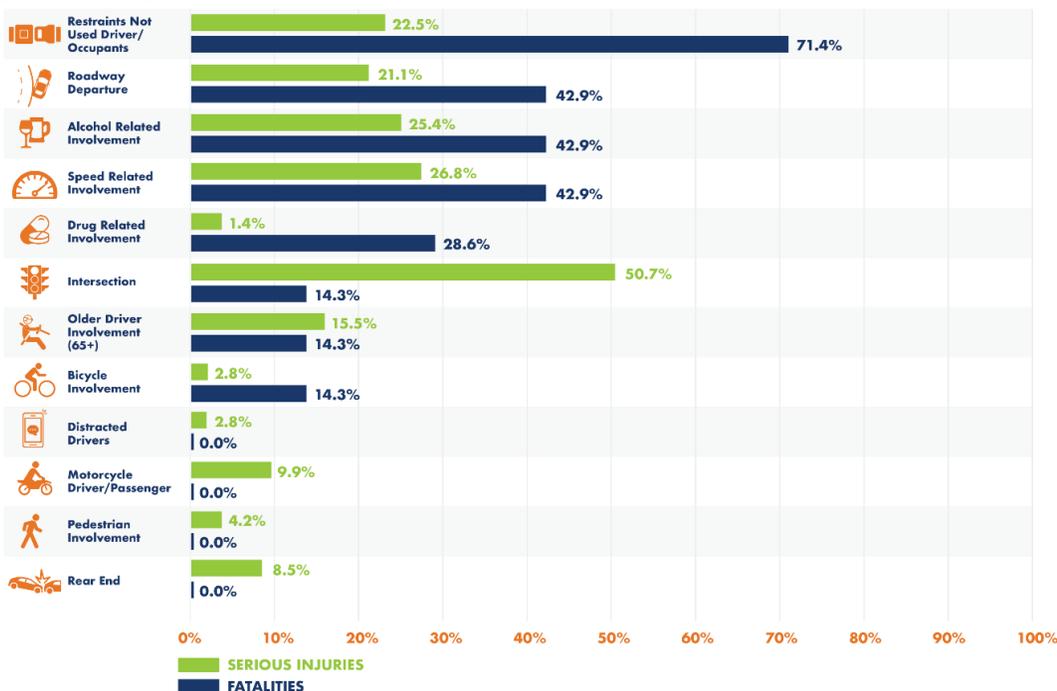
Between 2013 and 2017, crashes involving young drivers contributed to 37 percent of all fatal and serious injury crashes in Champaign County. Ohio considers young drivers to be between the ages of 15 and 25. Research shows immaturity, risk taking and inexperience as the primary factors in these crashes. On average one to two people are fatally injured and 17 to 18 people are seriously injured each year in a crash involving a young driver. Fortunately, based on historical data, serious injuries and fatalities involving young drivers are slightly decreasing in the county.

Figure 30: Young Driver Related Fatal and Serious Injury Crashes 5-Year Rolling Average, 2008–2017



Most commonly, fatalities involving young drivers involved occupants not wearing a seat belt, roadway departure, alcohol, speed or a combination of them. Serious injury crashes involving young drivers most often occurred at intersections.

Figure 31: Young Driver Related Fatal and Serious Injury Crashes Overlaps, 2008–2017



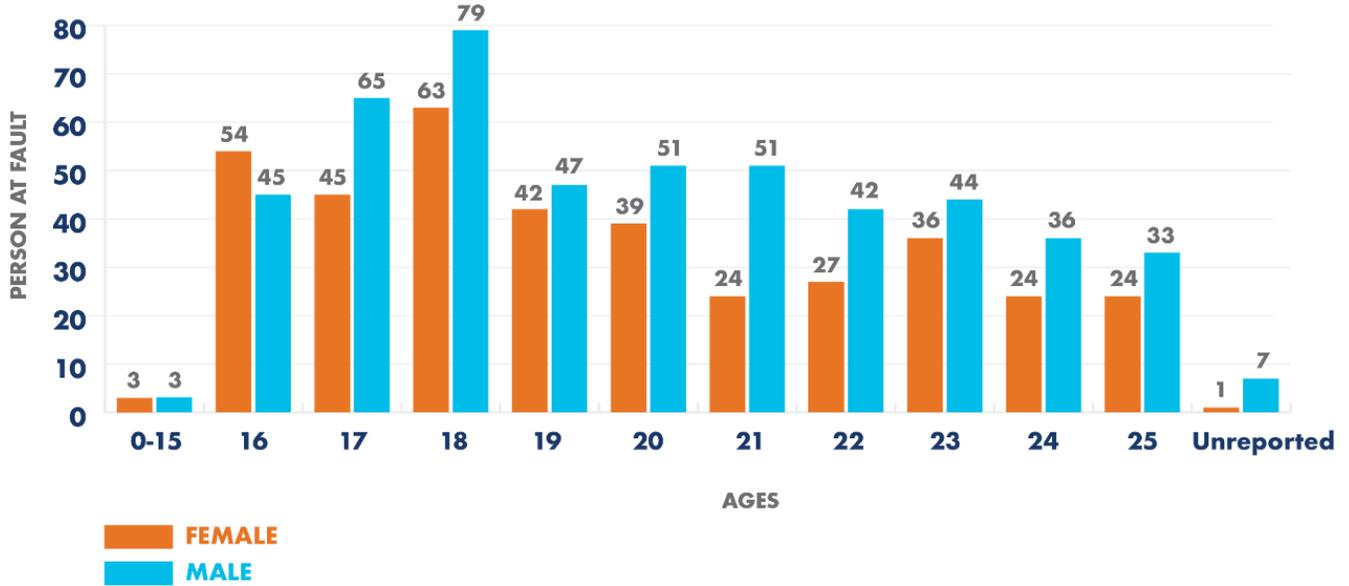


# YOUNG DRIVERS



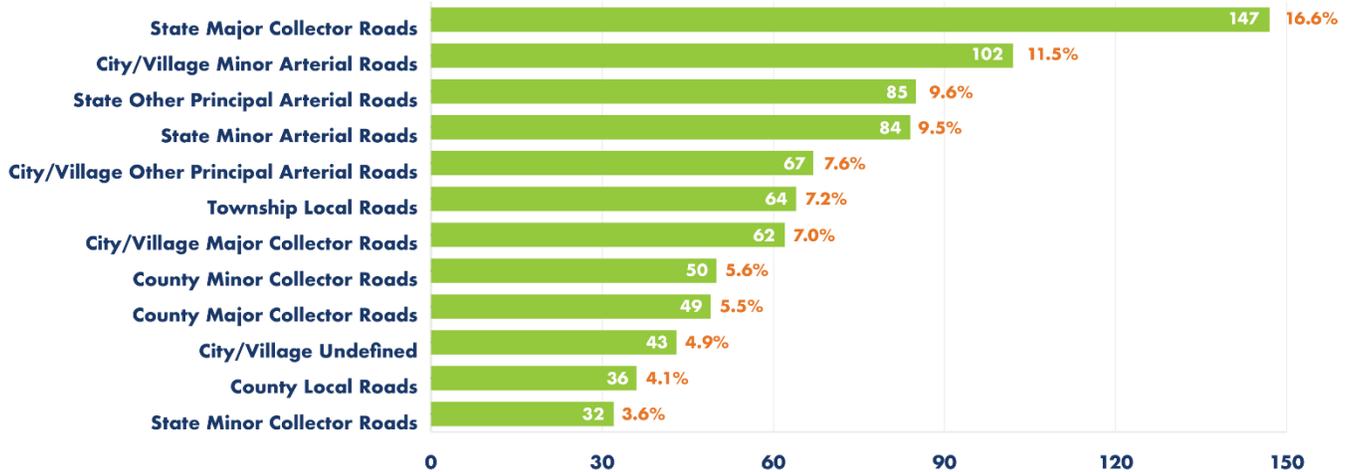
**WHO?** Most of the young drivers at-fault were male. The majority of young drivers were between the ages of 16 and 20.

Figure 32: Young Driver-Related Fatal and Injury Crashes Age/Gender, 2008–2017



**WHERE?** Over 40 percent of young driver related fatalities and injuries occurred on state-maintained facilities, with nearly 17 percent occurring on state-maintained major collector roads (i.e., SR 29, SR 54, SR 55, US 36, etc.). An additional 11.5 percent of fatal or injury crashes involving young drivers occurred on minor arterial roads maintained by cities or villages (i.e., US 36 and SR 29 through Urbana).

Figure 33: Young Driver-Related Fatal and Injury Crashes Roadway Functional Class, 2008–2017





# YOUNG DRIVERS



**WHEN?** The majority of fatal and injury crashes involving young drivers occurred between the hours of 7:00 AM and 8:00 PM. There are noticeable peaks in the 7:00 AM hour and in the 3:00 PM hour which correlates to school arrivals and dismissals. Crashes occurred throughout the week with no one day having significantly more crashes than another. Over 10 percent of young driver involved fatal and injury crashes occurred in September when school starts after summer break. The fewest young driver involved fatal and injury crashes occurred in March and June.

Figure 34: Young Driver-Related Fatal and Injury Crashes Time of Day, 2008–2017

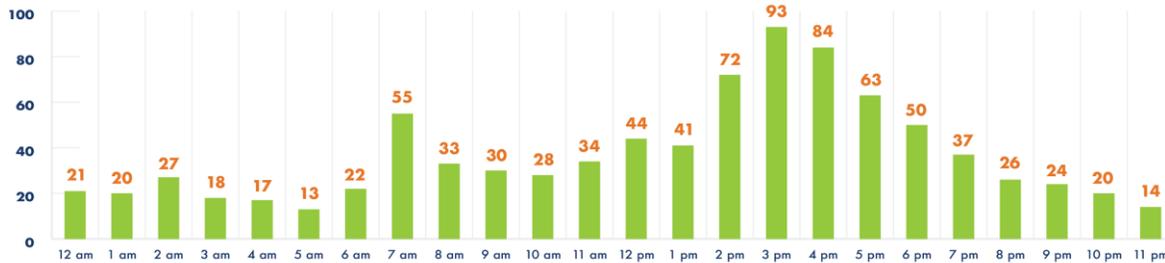


Figure 35: Young Driver-Related Fatal and Injury Crashes Day of Week, 2008–2017

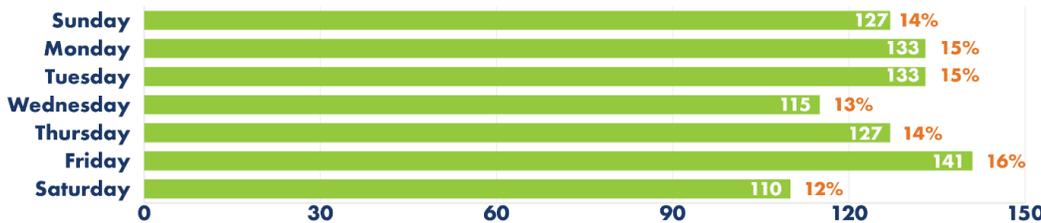
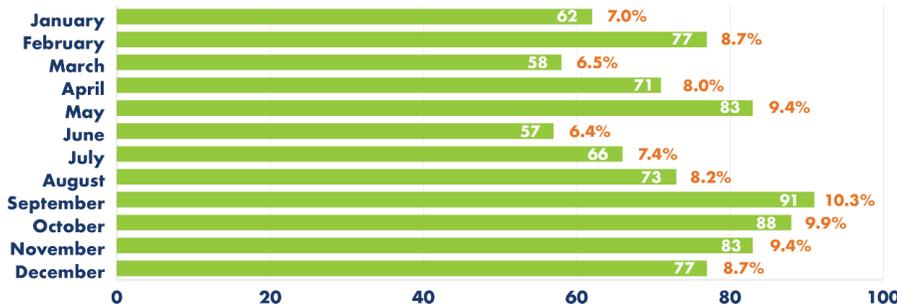
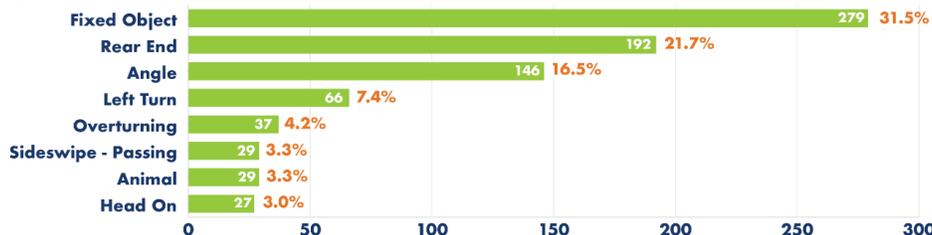


Figure 36: Young Driver-Related Fatal and Injury Crashes by Month, 2008–2017



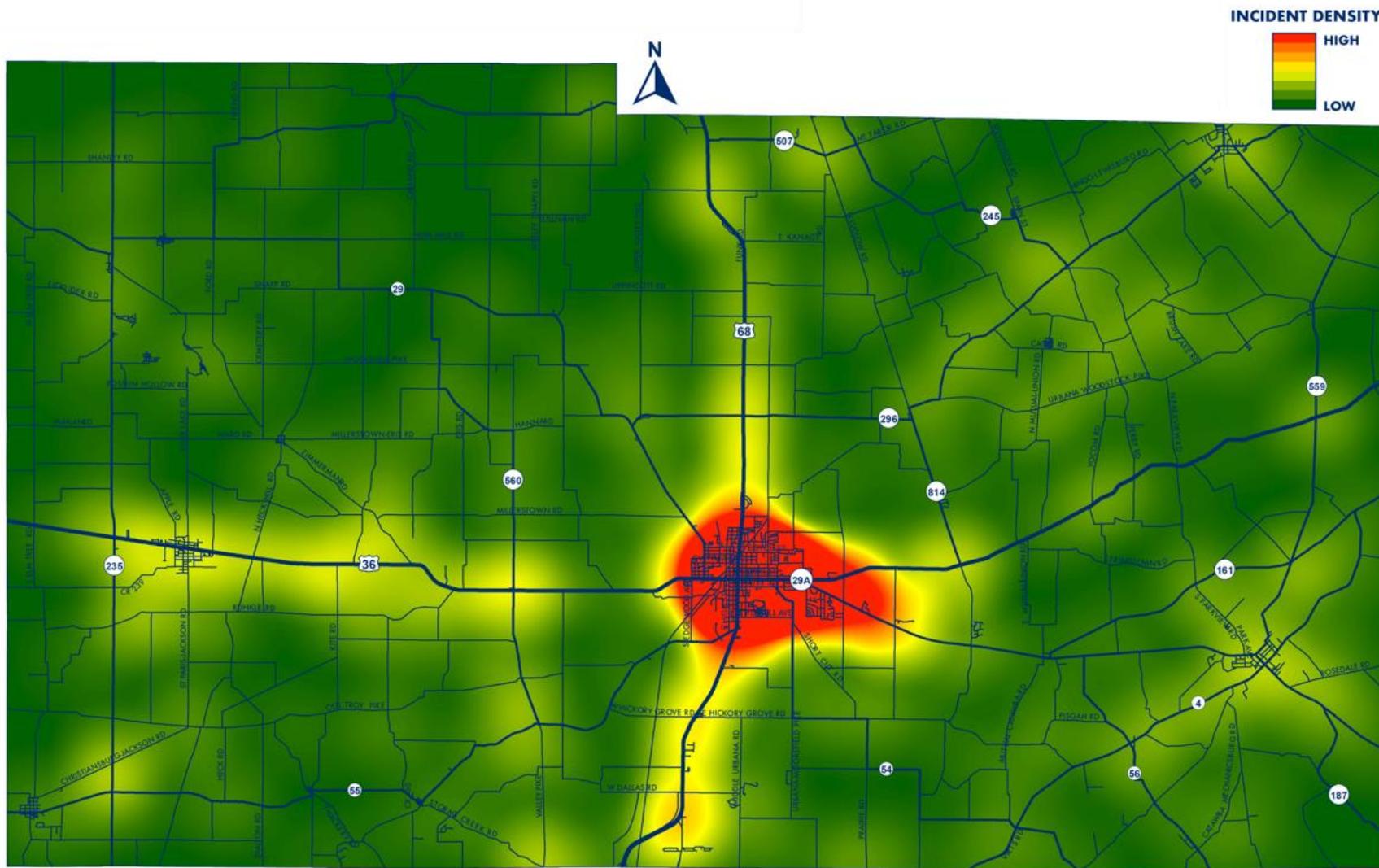
**WHY?** Over 31 percent of young driver related fatal and injury crashes involved the vehicle leaving the roadway and striking a stationary object like a utility pole, tree or mailbox. Fixed object crashes along with rear end, angle and left turn crashes account for over 77 percent of all fatal and injury crashes involving young drivers.

Figure 37: Young Driver-related Fatal and Injury Crashes by Type, 2008–2017



Most of the young driver involved fatal or injury crashes occurred in or surrounding Urbana. There were concentrations of crashes involving young drivers along US 36 and US 68 as well.

Figure 38: Young Driver-Related Fatal and Injury Crashes Heat Map, 2008–2017





# ALCOHOL IMPAIRED DRIVERS



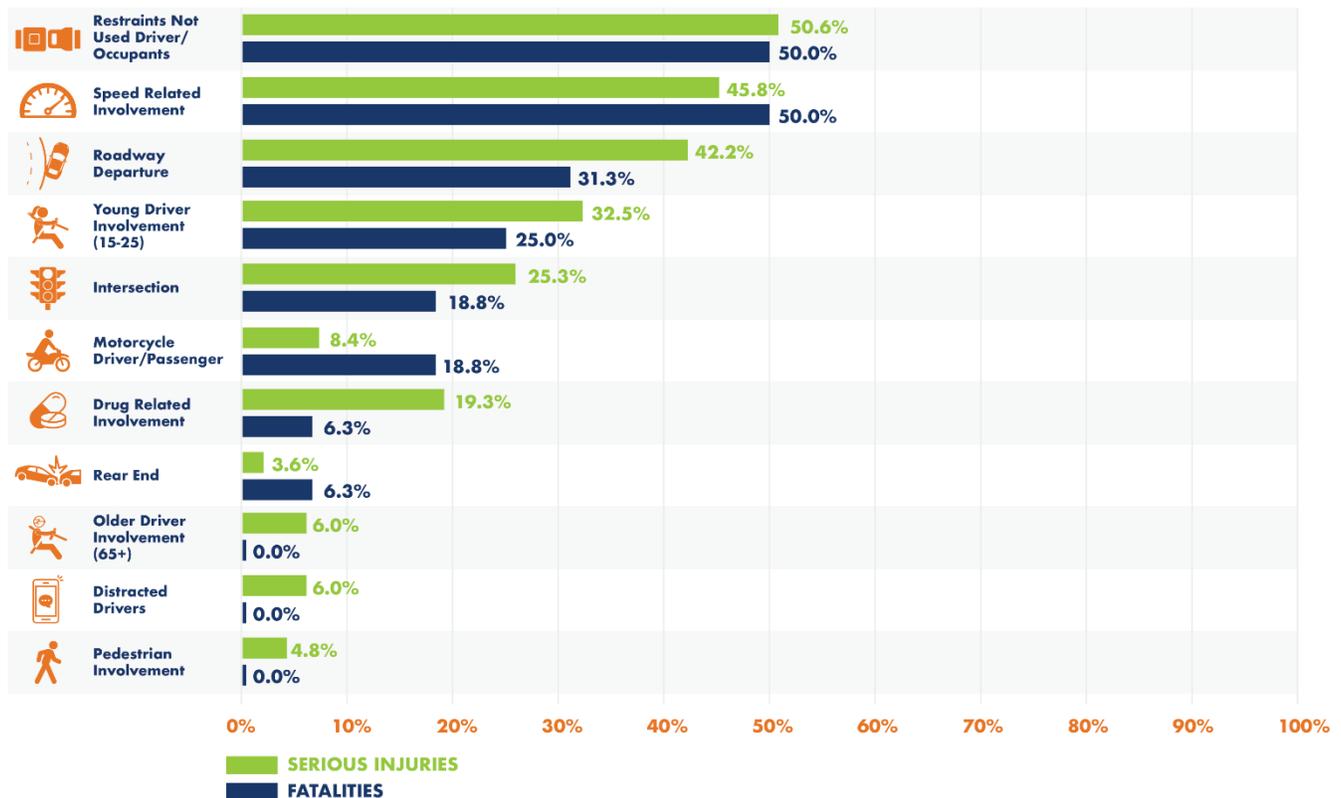
Between 2013 and 2017, alcohol impaired driving contributed to over 22 percent of all fatal and serious injury crashes in Champaign County. On average, one to two people are fatally injured and seven to nine people are seriously injured each year in a crash involving alcohol impairment. Based on this historical data, serious injuries and fatalities from crashes involving alcohol impairment are trending upward.

Figure 39: Alcohol-Related Fatal and Serious Injury Crashes 5-Year Rolling Average, 2008–2017



Usually multiple factors contribute to a crash. The main factor contributing to alcohol impaired driving fatalities and serious injuries was when an occupant was not wearing a seat belt. Other significant factors contributing to deaths and serious injuries in alcohol-impairment related crashes include speed and roadway departures.

Figure 40: Alcohol-Related Fatal and Serious Injury Crashes Overlaps, 2008–2017



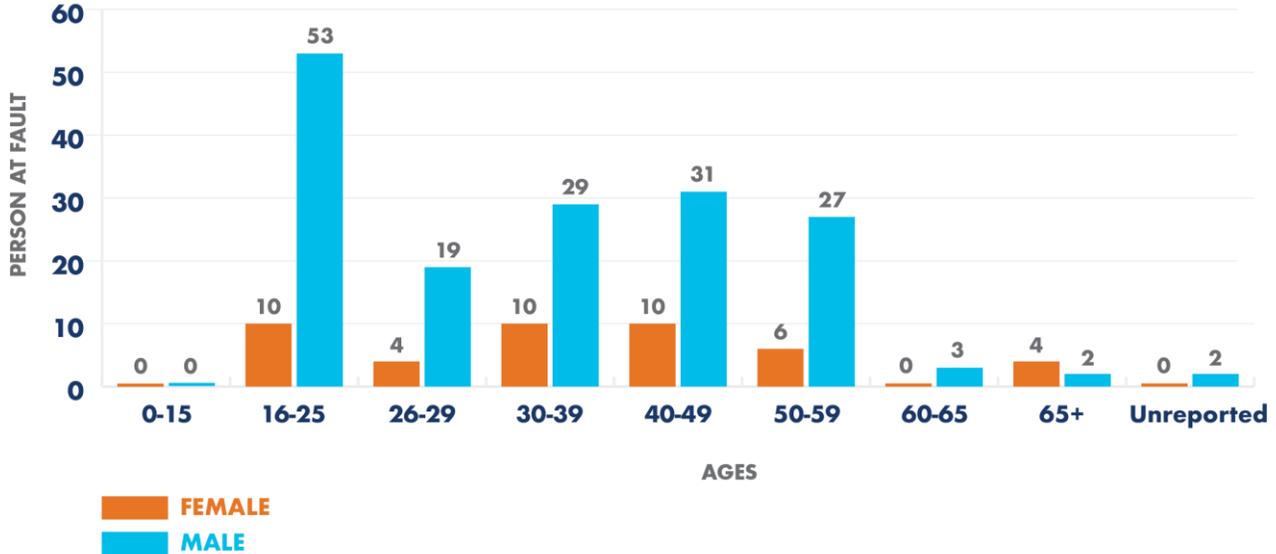


# ALCOHOL IMPAIRED DRIVERS



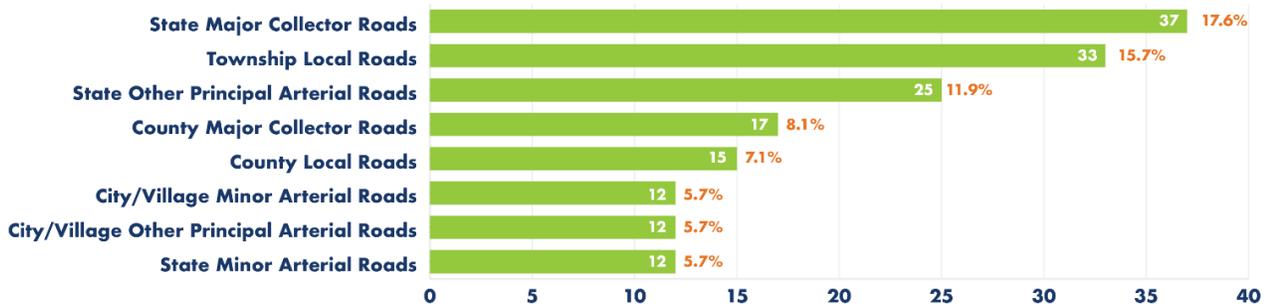
**WHO?** The vast majority of at-fault drivers in alcohol impaired related crashes resulting in a fatality or injury were male. Most of the male drivers were between the ages of 16 and 25 years old.

Figure 41: Alcohol-Related Fatal and Injury Crashes Age/Gender, 2008–2017



**WHERE?** Nearly 40 percent of alcohol-impaired related fatalities and injuries occurred on state-maintained facilities, with over 17 percent occurring on state-maintained major collector roads (i.e., SR 29, US 36, SR 559, etc.). An additional 15.7 percent of fatal or injury crashes involving alcohol impairment occur on local roads maintained by townships (i.e., Stony Creek Road in Mad River Township or Knight Road in Urbana Township).

Figure 42: Alcohol-Related Fatal and Injury Crashes Roadway Functional Class, 2008–2017





# ALCOHOL IMPAIRED DRIVERS



**WHEN?** The majority of fatal and injury crashes involving alcohol impairment occurred between the hours of 6:00 PM and 5:00 AM with a noticeable peak occurring in the 2:00 AM hour. Sixty-five percent of alcohol-related fatal and injury crashes occurred on Friday, Saturday or Sunday.

Figure 43: Alcohol-Related Fatal And Injury Crashes Time Of Day, 2008–2017

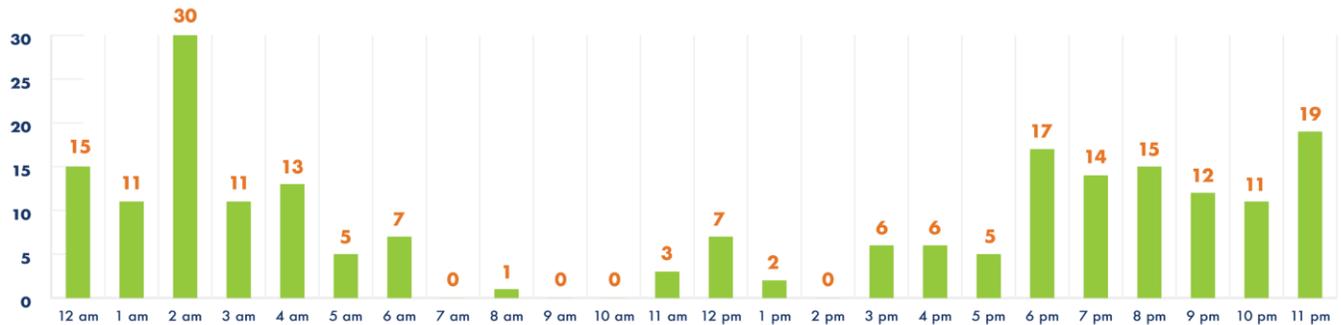
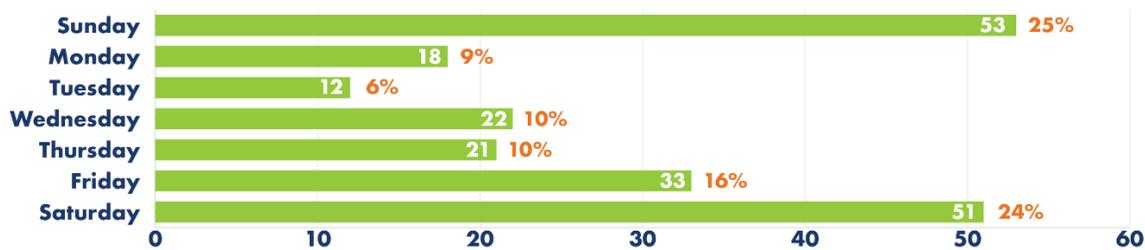
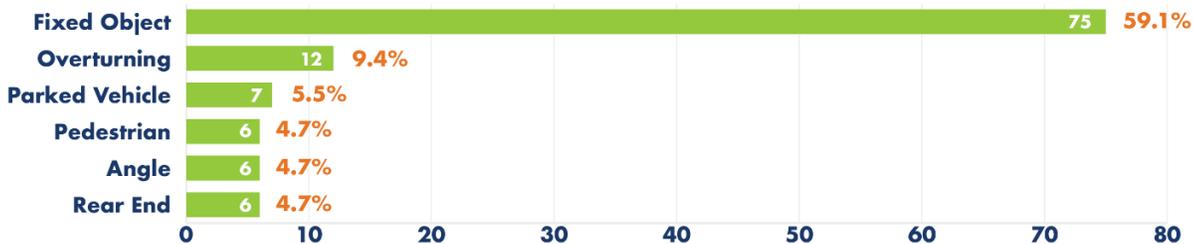


Figure 44: Alcohol-Related Fatal and Injury Crashes Day of Week, 2008–2017



**WHY?** The vast majority of alcohol-related fatal and injury crashes occurred when a vehicle left the roadway and struck a fixed object. Another nearly 10 percent of alcohol-related fatal and injury crashes involved the vehicle overturning. Together, these two crash types account for nearly 70 percent of all alcohol-related fatal and injury crashes in Champaign County.

Figure 45: Alcohol-Related Fatal and Injury Crashes by Type, 2008–2017

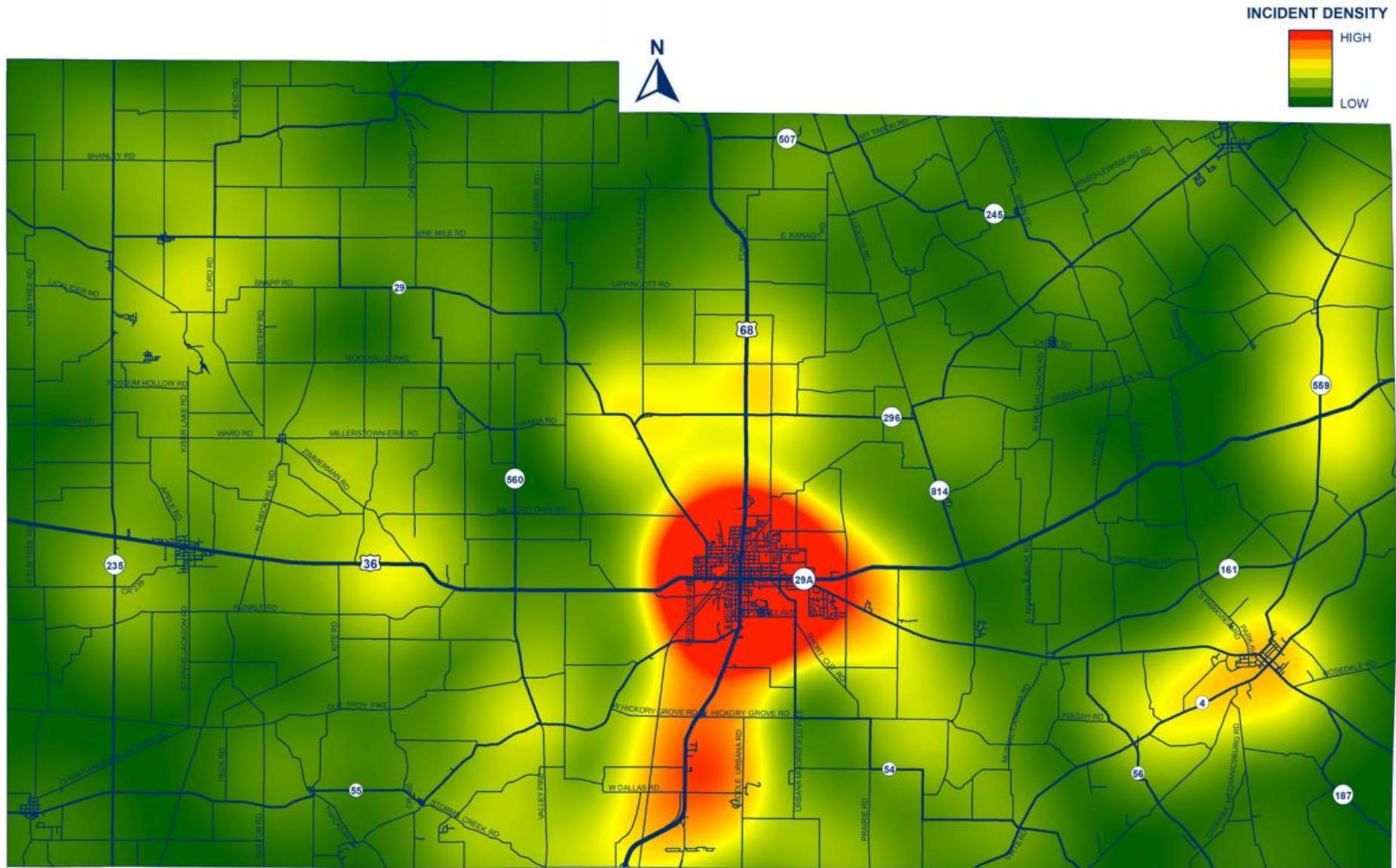




# ALCOHOL IMPAIRED DRIVERS

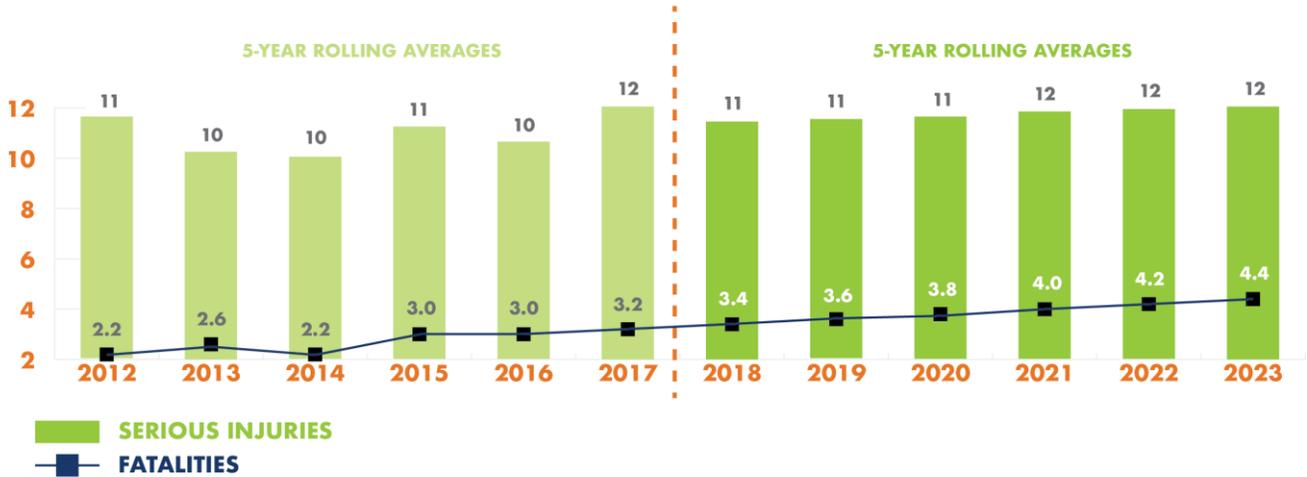


Figure 46: Alcohol-Related Fatal and Injury Crashes Heat Map, 2008–2017



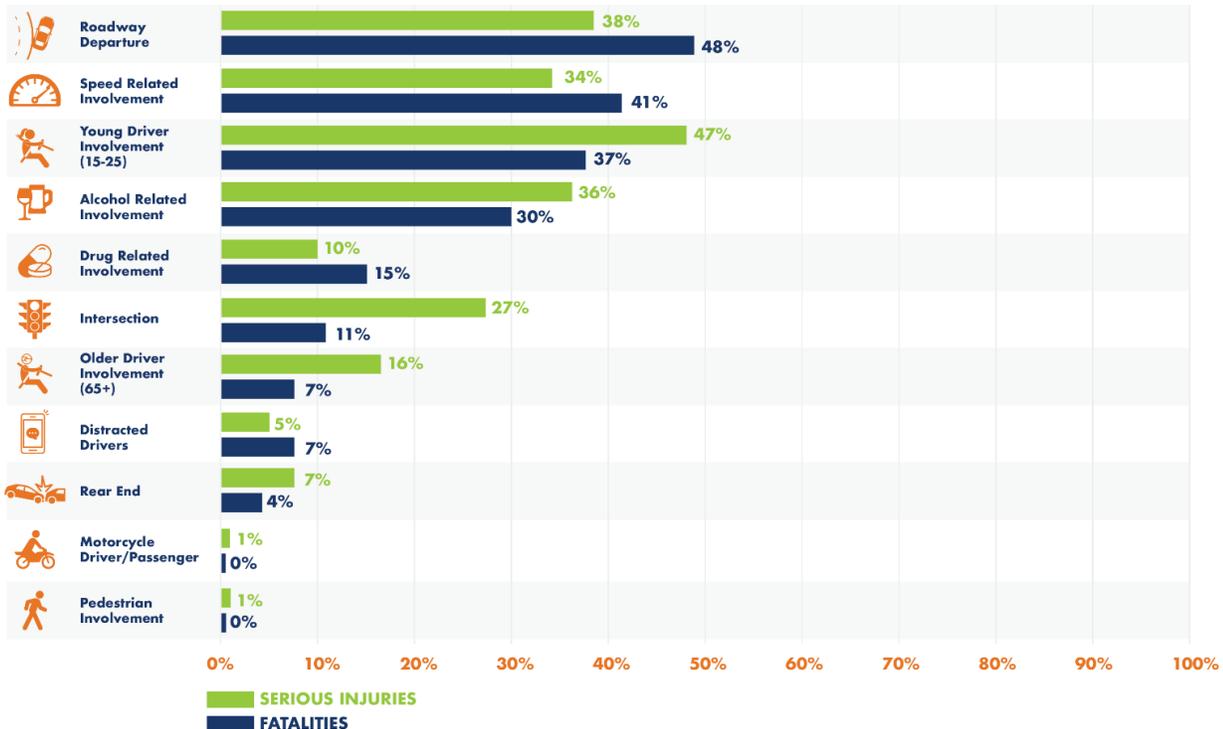
Between 2013 and 2017, unrestrained occupants contributed to over 30 percent of the fatal and serious injury crashes in Champaign County which is much higher than the statewide average of nearly 19 percent. On average, two to four people are fatally injured and 10 to 12 people are seriously injured each year in crashes where occupants are not restrained. Based on the historical trends, fatalities and serious injuries involving unbelted occupants are increasing in Champaign County.

Figure 47: Unbelted-Related Fatal and Serious Injury Crashes 5-Year Rolling Average, 2008–2017



Usually multiple factors contribute to a crash. Other factors contributing to fatalities and serious injuries when occupants are unrestrained involve the vehicle leaving the roadway, alcohol, speed and young drivers. In 50 percent of fatalities involving occupants not being restrained, the vehicle left the roadway.

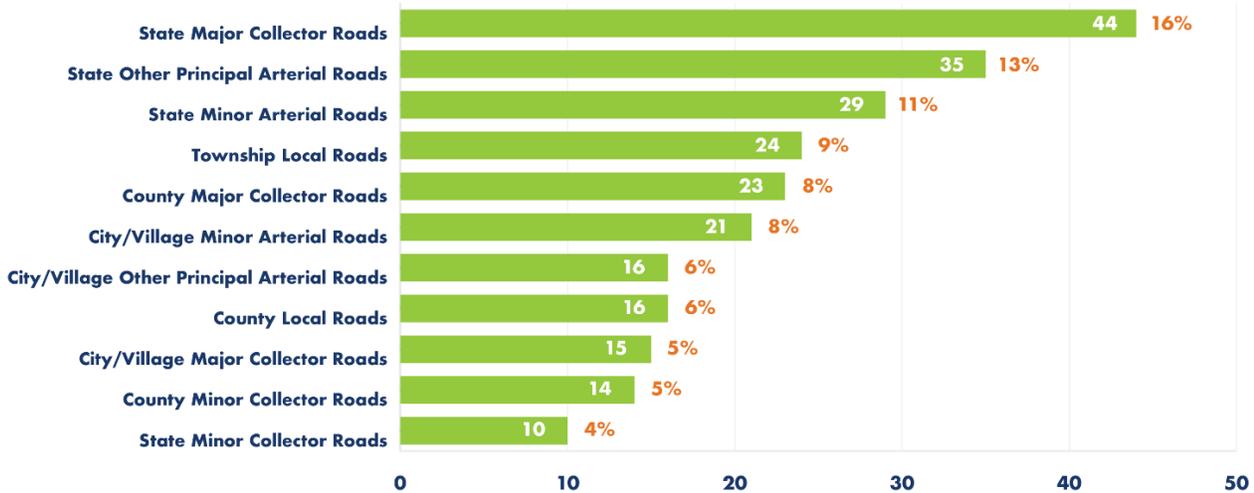
Figure 48: Unbelted-Related Fatal and Serious Injury Crashes Overlaps, 2008–2017





**WHERE?** Forty-five percent of unrestrained occupant related fatalities and injuries occurred on state-maintained facilities, with 16 percent occurring on state-maintained major collector roads (i.e., SR 29, US 36, SR 559, etc.). An additional 13 percent and 11 percent of fatal or injury crashes involving unrestrained occupants occur on state-maintained principal arterial roads (i.e., US 68, SR 4, etc.) and minor arterial roads (i.e., SR 29 between Urbana and Mechanicsburg, US 36 wests of Urbana, etc.), respectively.

Figure 49: Unbelted-Related Fatal and Injury Crashes Roadway Functional Class, 2008–2017



**WHEN?** Fatal and injury crashes involving unrestrained occupants occur throughout the day with a peak occurring between 3:00 PM and 7:00 PM. These types of crashes also peak in the early morning hours between 1:00 AM and 3:00 AM. While fatal and serious injury crashes involving unbelted occupants occur throughout the week, over 18 percent occur on Saturdays.

Figure 50: Unbelted-Related Fatal and Injury Crashes Time of Day, 2008–2017

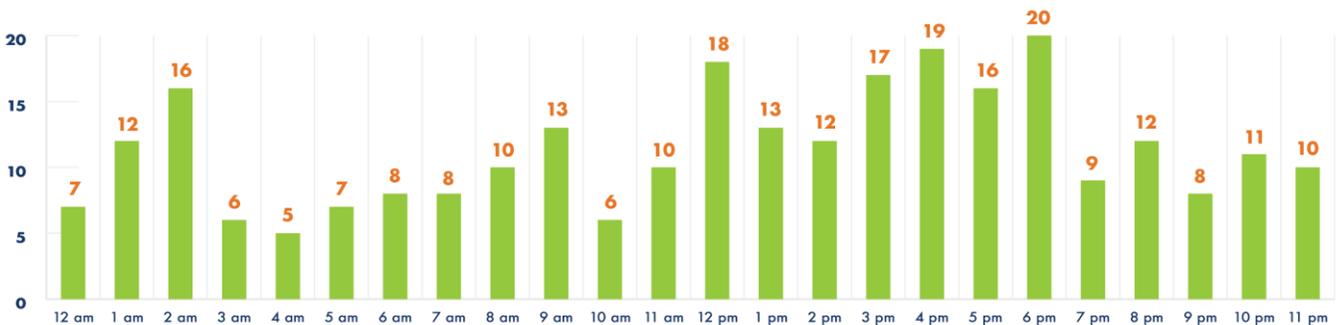
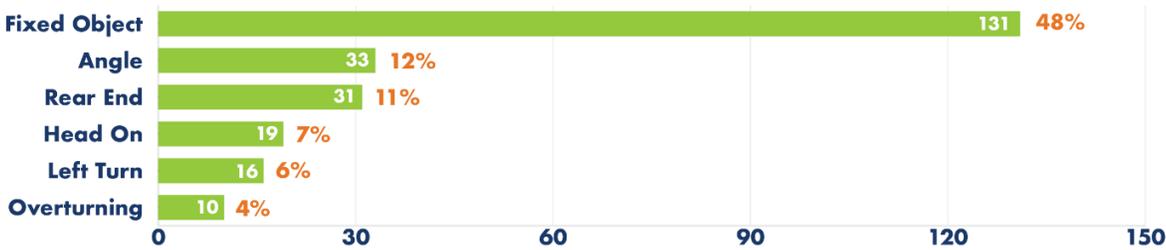


Figure 51: Unbelted-Related Fatal and Injury Crashes Day of Week, 2008–2017



**WHY?** The vast majority of unbelted occupant-related fatal and injury crashes occurred when a vehicle left the roadway and struck a fixed object. Together with angle and rear end crashes, these three crash types account for 71 percent of all fatal and injury crashes in Champaign County involving an unrestrained occupant.

Figure 52: Unbelted-Related Fatal and Injury Crashes by Type, 2008–2017

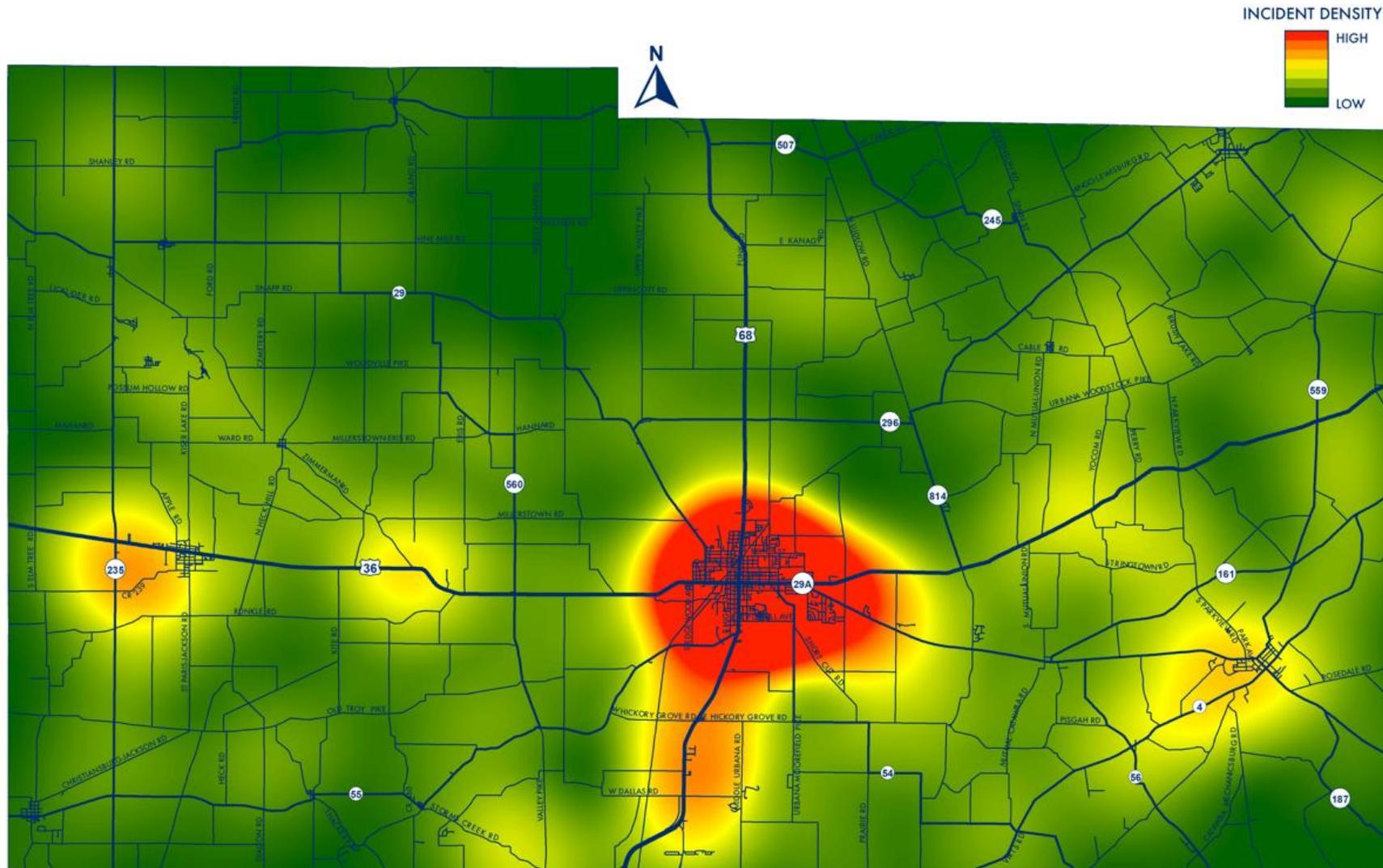


# SEAT BELTS



Most of the unbelted occupant fatal and injury crashes occurred in or around Urbana with hotspots near St. Paris and Mechanicsburg.

Figure 53: Unbelted-Related Fatal and Injury Crashes Heat Map, 2008–2017





# INTERSECTIONS



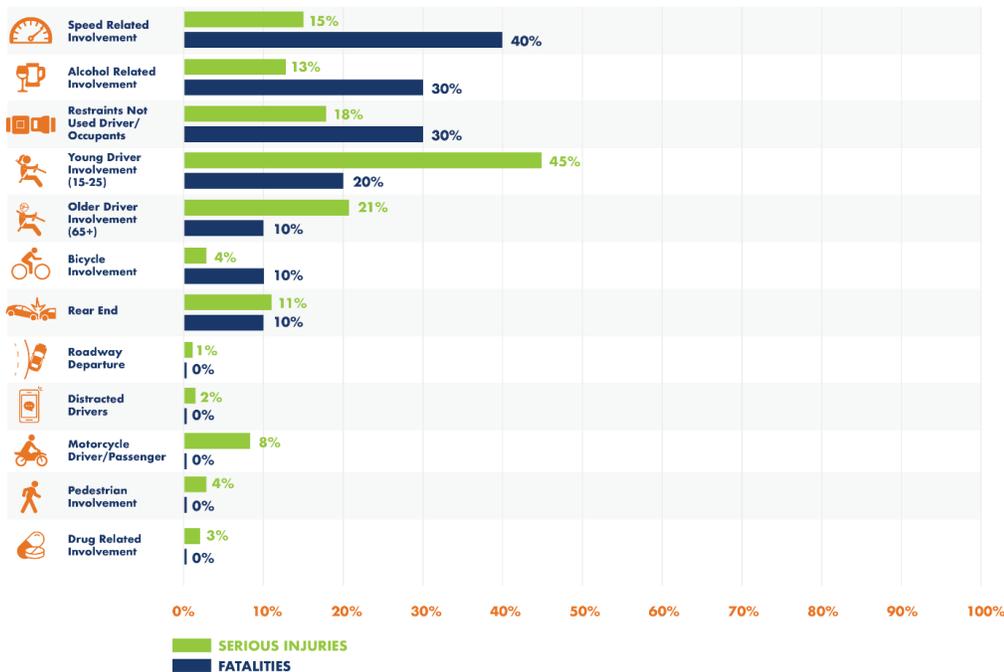
Between 2013 and 2017, crashes at intersections contributed to 40 percent of all fatal and serious injury crashes in Champaign County. Forty-four percent of fatal and serious injury crashes on non-state-maintained roads occur at an intersection. On average, one to two people are fatally injured and 16 to 18 people are seriously injured each year in a crash at an intersection. Based on historical data, the frequency of fatal and injury crashes at intersections are increasing every year in Champaign County.

Figure 54: Intersection Related Fatal and Serious Injury Crashes 5-Year Rolling Average, 2008–2017



Usually multiple factors contribute to a crash. Most common speed, alcohol and unbelted occupants contribute to fatalities at intersection crashes in Champaign County. Young drivers are involved in 45 percent of serious injury crashes at intersections.

Figure 55: Intersection Related Fatal and Serious Injury Crashes Overlaps, 2008–2017



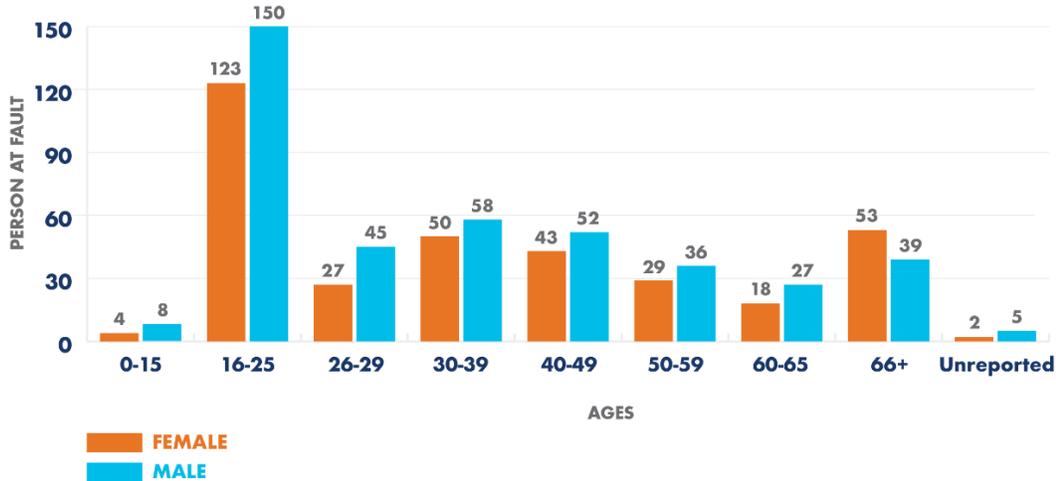


# INTERSECTIONS



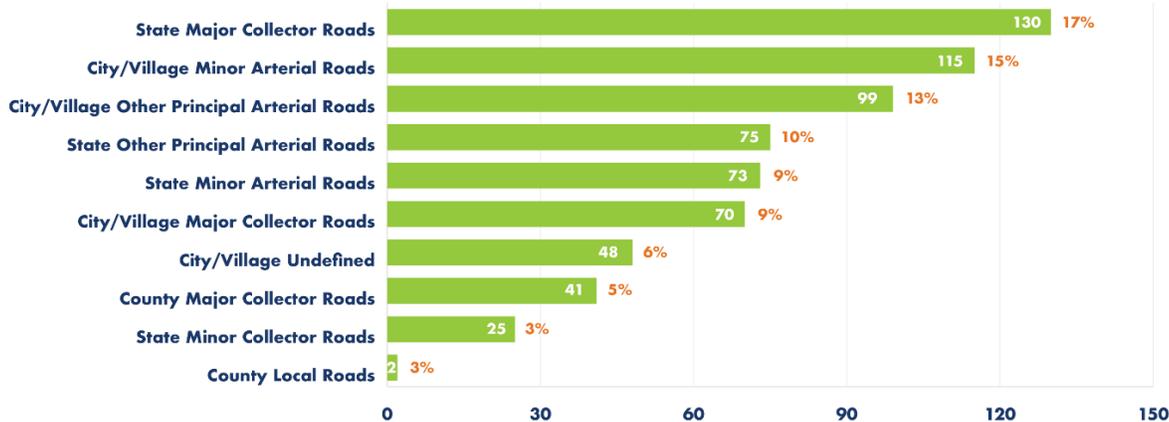
**WHO?** The vast majority of at-fault drivers in intersection-related crashes were young drivers between the ages of 16 and 25. In general, males were most cited for contributing to intersection crashes.

Figure 56: Intersection-Related Fatal and Injury Crashes Age/Gender, 2008–2017



**WHERE?** Over 46 percent of fatal and injury intersection crashes occur on city- or village-maintained facilities. Another 40 percent of these crashes happen on state-maintained roadways. Seventeen percent of intersection crashes resulting a fatality or injury occur on state-maintained major collector roads (i.e., SR 29, SR 54, SR 55, SR 235, US 36, etc.) while another 15 percent occur on city- or village-maintained minor arterial roads (i.e., US 36 and SR 29 through Urbana, etc.). Intersection-related fatal and injury crashes occurred throughout Champaign County, but there are a cluster of crashes in and around Urbana as well as at the intersections of two state routes throughout the county.

Figure 57: Intersection-Related Fatal and Injury Crashes Roadway Functional Class, 2008–2017





# INTERSECTIONS



**WHEN?** Intersection crashes generally correlate with the hours of peak traffic volumes – 7:00 AM hour and between 2:00 PM and 6:00 PM. Nineteen percent of intersection fatal and injury crashes occur on Fridays with the fewest crashes occurring on Sundays.

Figure 58: Intersection-Related Fatal and Injury Crashes Time of Day, 2008–2017

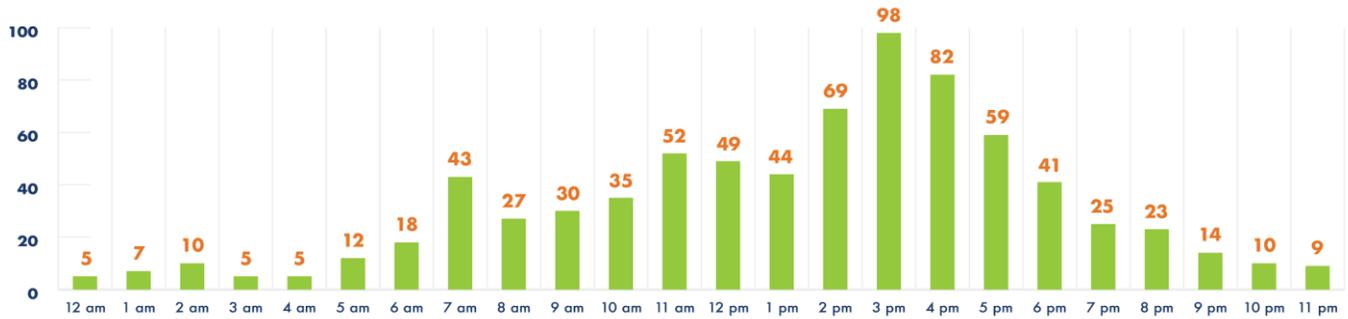
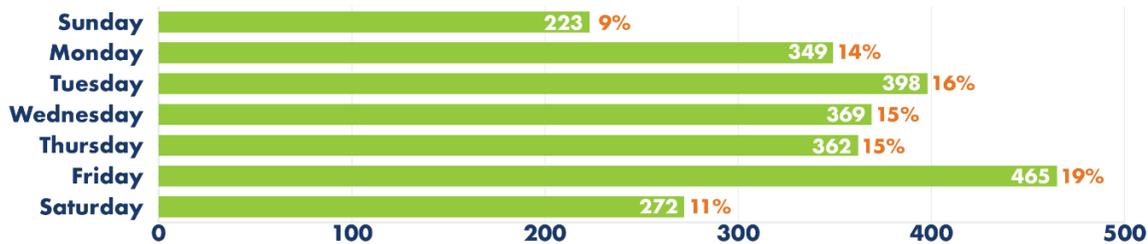


Figure 59: Intersection-Related Fatal and Injury Crashes Day of Week, 2008–2017



**WHY?** Nearly 35 percent of fatal and injury crashes at intersections in Champaign County were angle collisions. Angle crashes, rear end crashes and left turn crashes account for nearly 70 percent of all fatal and injury crashes at intersections in Champaign County. These crash types are typical at intersections nationwide.

Figure 60: Intersection-Related Fatal and Injury Crashes by Type Chart, 2008–2017

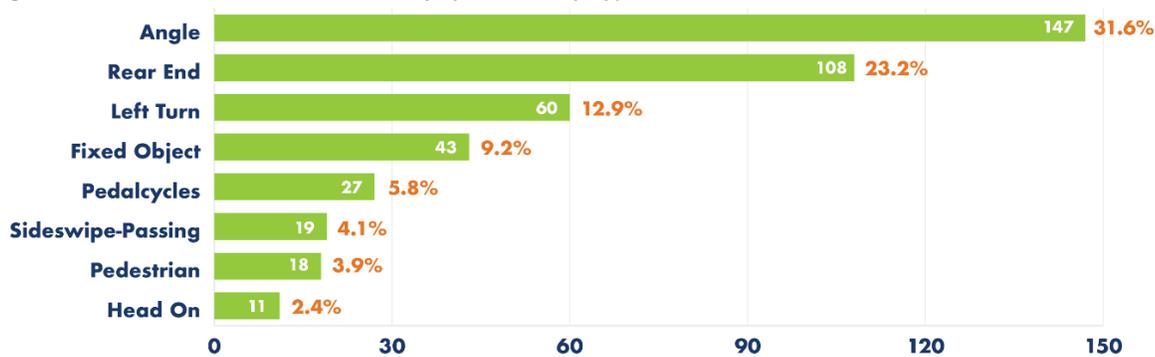
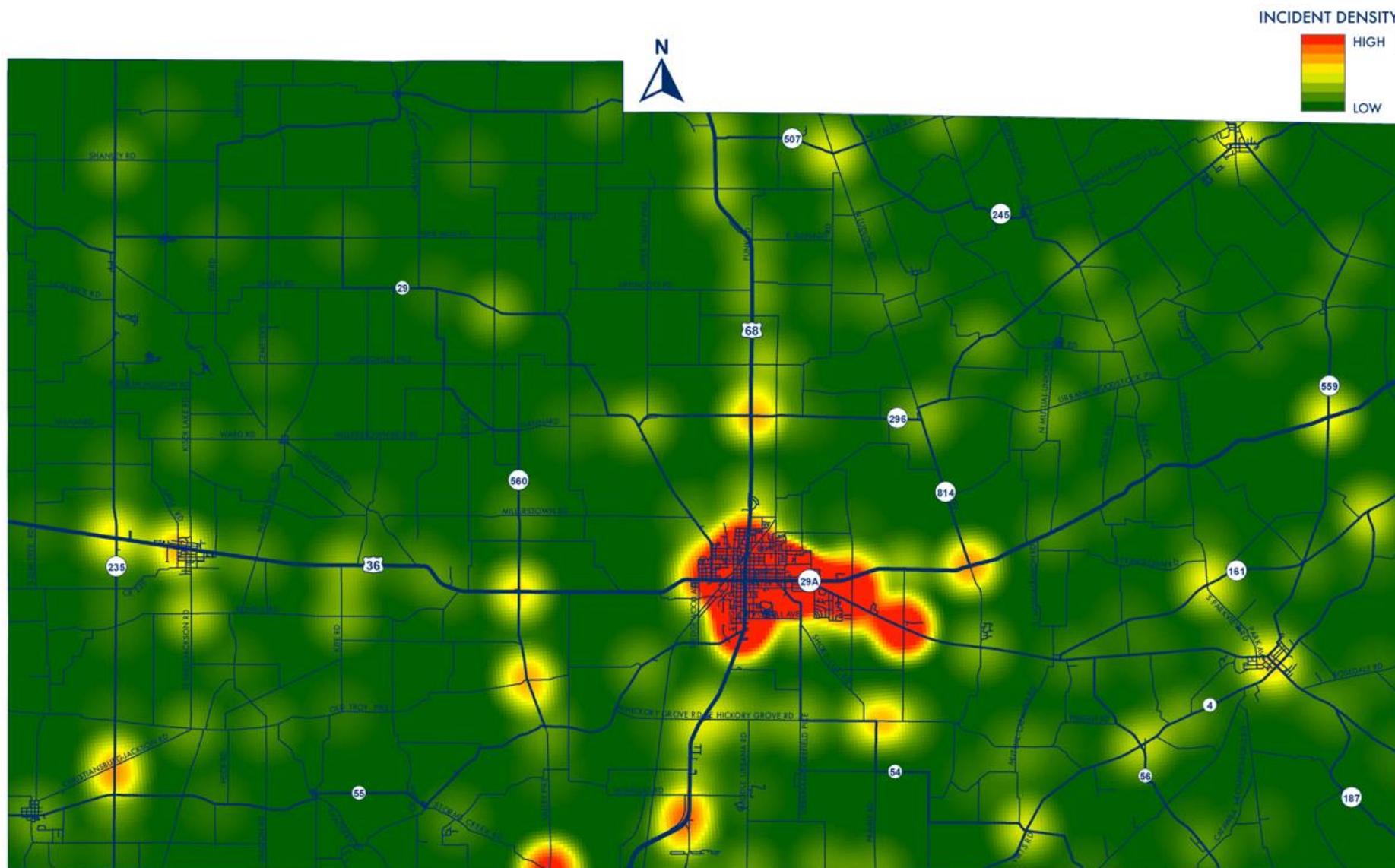


Figure 61: Intersection-Related Fatal and Injury Crashes Heat Map, 2008–2017



# Implementation & Action Plan – Creating a Safer System

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## SECTION CONTENT:

Intersections

Unbelted

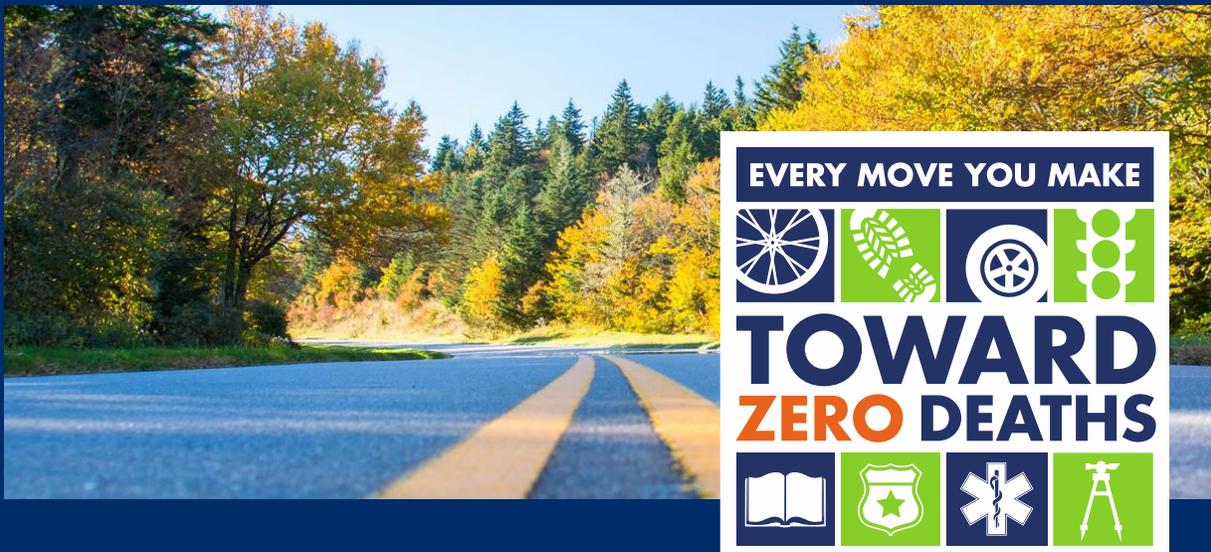
Young Driver

Impaired

Priority Locations

Priority Segments

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## 6 IMPLEMENTATION & ACTION PLAN – CREATING A SAFER SYSTEM

The *Champaign County Road Safety Action Plan* outlines the specific strategies and actions to address the most critical safety concerns in the county — intersections, unbelted drivers, young drivers and alcohol impaired drivers. It also identifies the corridors, intersections and road segments that could benefit from safety improvements. The *Action Plan* recognizes the most effective approaches to help transportation and safety stakeholders make progress toward the vision of “A safer Champaign County.” The *Action Plan* was informed by the results of data analysis, proven strategies to lower fatalities and serious injuries and stakeholder input. The goal is to implement this plan over the next five years, while evaluating annually whether the identified programs, projects and policies are helping to achieve performance goals. The *Action Plan* identifies a combination of enforcement, education, engineering and data strategies to best address safety needs.

<p><b>INTERSECTIONS</b></p>	<p>Implementation of these strategies and actions will ensure safety projects are implemented to lower fatalities and serious injuries at intersections and that the public and others are educated about intersection safety.</p>
<p><b>UNBELTED</b></p>	<p>Implementation of these strategies and actions will ensure the public and stakeholders are educated about seat belt use; employers are promoting safety in the workplace; and education and enforcement campaigns are effectively utilized.</p>
<p><b>YOUNG DRIVER</b></p>	<p>Implementation of these strategies and actions will ensure young drivers are well educated about the risks associated with driving through peer-to-peer efforts, resource materials and law enforcement engagement.</p>
<p><b>IMPAIRED</b></p>	<p>Implementation of these strategies and actions will ensure the public, stakeholders and vendors are educated about the consequences of impaired driving and informed of options and alternatives to drinking and driving.</p>
<p><b>LOCATIONS</b></p>	<p>Implementation of safety projects along corridors or at specific segments and intersections will minimize the chances of fatalities or serious injuries occurring.</p>

## EDUCATION STRATEGIES AND ACTIONS



**Strategy 1:** Conduct enforcement and public outreach at selected locations with a significant number of intersection crashes.

**Timeline:** 0-2 years

Leaders	Description	Performance Measure
<b>Jurisdiction Engineers</b>	Prioritize intersections for combined education and enforcement efforts. Overlay impaired driver, unbelted and young driver crash data on top 20 intersections to further prioritize and select locations.	Map overlays completed
<b>Urbana Daily Citizen</b>	Highlight major intersection safety concerns through media outlets to raise awareness and encourage behavioral changes.	# of media messages shared

**Strategy 2:** Focus education on issues related to sight distances approaching and at, intersections.

**Timeline:** 0-2 years

Leaders	Description	Performance Measure
<b>Jurisdiction engineers</b>	Educate property owners through mailers or another mechanism about proper landscape maintenance near intersections.	Educational content developed
<b>Jurisdiction engineers</b>	Coordinate with the Farm Bureau to educate farmers about sight distance obstructions (high crops) near intersections.	Coordination meeting with Farm Bureau



## INFRASTRUCTURE STRATEGIES AND ACTIONS



**Strategy 1:** Implement proven and/or low-cost systematic and systemic safety improvements to reduce intersection crashes.

**Timeline:** Ongoing

Leaders	Description	Performance Measure
<b>Jurisdiction engineers</b>	From the list of high crash locations, study at least one intersection more closely every year with the final deliverable being in a format that can be submitted to ODOT as part of the safety funding application.	One intersection safety study/year
<b>ODOT consultant team</b>	Further prioritize the intersection list with an emphasis on which locations/corridors would benefit from systemic, low-cost improvements.	# of systemic improvements implemented
<b>ODOT</b>	Develop a list of eligible low-cost countermeasures that could be incorporated into construction projects.	List created and shared with local jurisdictions
<b>Jurisdiction engineers</b>	Evaluate clearance intervals of all signalized intersections.	# of clearance intervals evaluated
<b>Jurisdiction engineers</b>	Review current stop-controlled intersections to determine if they warrant a signal or other intersection control type.	# of stop-controlled intersections reviewed



## EDUCATION STRATEGIES AND ACTIONS

**Strategy 1:** Expand employer programs to promote seat belt use.

**Timeline:** 1-3 years

Leaders	Description	Performance Measure
<b>Champaign County</b>	Advertise safety messages or provide safety information to major employers in region (Honeywell, Bundy, KTH).	Safety messages developed
<b>Champaign County</b>	Place safety message signs ( <i>i.e.</i> , Buckle Up) as employees are leaving parking lots.	Signs installed at employer locations

**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 audience.

**Timeline:** Ongoing

Leaders	Description	Performance Measure
<b>School Districts</b>	Provide education resources at Champaign County Fair, proms and/or in schools at the beginning of the year.	Education resources developed
<b>School Districts</b>	Utilize school app (Remind App), that sends notifications to parents, as a resource to share safety information.	# of messages sent through app
<b>Jurisdiction engineers</b>	Target signage and messaging ( <i>i.e.</i> , electronic trailer signs on side of road) along corridors where unbelted numbers are higher.	# of messages posted along corridors

**Strategy 3:** Coordinate safety belt messages developed by multi-agency communication committee.

**Timeline:** Annually, during campaign

Leaders	Description	Performance Measure
Highway Safety Office/ Champaign County	Coordinate marketing and outreach locally during the Ohio statewide Click-It-Or-Ticket events.	# of agencies sharing materials

## INFRASTRUCTURE STRATEGIES AND ACTIONS

**Strategy 1:** Utilize infrastructure approaches to minimize the impacts of unbelted crashes.

**Timeline:** Ongoing

Leaders	Description	Performance Measure
Jurisdiction engineers	Provide clear zones to remove obstructions and limit vehicle ejections.	# of clear zones established

## ENFORCEMENT STRATEGIES AND ACTIONS

**Strategy 1:** Support law enforcement in their role educating citizens about seat belt use and enforcing laws.

**Timeline:** Ongoing

Leaders	Description	Performance Measure
Champaign County	Provide crash maps to local police departments showing unbelted driving crash hot spots.	Crash maps developed and disseminated
Local Enforcement	Disseminate information when local education/enforcement events are occurring.	# of materials/media/information shared

## DATA STRATEGIES AND ACTIONS

**Strategy 1:** Continue to review and analyze crash data to support local occupant protection efforts.

**Timeline:** 1 year

Leaders	Description	Performance Measure
<b>Champaign County</b>	Look at crashes by school district to understand where major problems are occurring to target resources.	Prioritized list of schools
<b>ODOT Consultants</b>	Try to identify correlations of unbelted crash spikes by month to support education and enforcement campaigns more than once a year.	Additional crash analysis completed



## EDUCATION STRATEGIES AND ACTIONS



**Strategy 1:** Conduct safety education (distraction, impaired, unbelted) in high schools.

**Timeline:** Ongoing

Leaders	Description	Performance Measure
Local Enforcement	Identify target schools for local law enforcement to make safety presentations.	Target schools identified
Department of Public Safety District Office	Identify proven youth-based safety programs ( <i>i.e.</i> , Every 15 Minute program, SADD, teenSMART, peer-to-peer) that could be implemented in county.	Program identified and implemented in at least one school/year
Local Enforcement	Contact school resource deputies at individual schools to identify whether opportunities exist to provide safety education programs/presentations.	Deputies contacted
Department of Public Safety District Office	Develop a safety public service announcement and target viewership in high schools.	PSA developed
School Districts	Install signs in high school parking lots to remind students to buckle up.	# of signs installed
Local Enforcement	Engage enforcement at high school events (pep rallies, football games) to share safety messages.	# of events attended by local enforcement
Champaign County	Share information specifically on proper/safe ways to navigate intersections.	Materials developed and disseminated



## ENFORCEMENT STRATEGIES AND ACTIONS



**Strategy 2:** Utilize enforcement, as needed, to reduce the potential for young driver crashes.

**Timeline:** 1-2 years

Leaders	Description	Performance Measure
<p><b>ODOT Consultants</b></p>	<p>Identify if/where major problems are occurring around high schools to target enforcement resources at arrival/dismissal times.</p>	<p>Prioritized list of schools</p>





# ALCOHOL IMPAIRED DRIVERS



## EDUCATION STRATEGIES AND ACTIONS



**Strategy 1:** Increase publicity on “trace back” investigations so sellers, servers, providers and the public understand the consequences of over serving or illegally serving alcohol.

**Timeline:** 1-2 years

Leaders	Description	Performance Measure
<b>Local Enforcement</b>	Develop education materials for establishments selling alcohol to ensure they are aware of laws and liabilities.	Materials developed and disseminated

**Strategy 2:** Raise awareness of local transit and rideshare options.

**Timeline:** 1-2 years

Leaders	Description	Performance Measure
<b>Champaign County</b>	Contact Uber and/or Lyft to determine what options could be undertaken to promote/incentivize ridesharing.	Rideshare services contacted

**Strategy 3:** Expand outreach related to impacting impaired driving crashes.

**Timeline:** 1-2 years

Leaders	Description	Performance Measure
<b>School Districts</b>	Review education/information available in driver’s education courses and in high schools to determine needs related to reducing impaired driving.	Drivers education materials reviewed





# ALCOHOL IMPAIRED DRIVERS



## INFRASTRUCTURE STRATEGIES AND ACTIONS

**Strategy 1:** Utilize infrastructure approaches to minimize the impacts of impaired crashes.

**Timeline:** Ongoing

Leaders	Description	Performance Measure
Jurisdiction engineers	Systemic implementation of rumble strips (or road blocks in rural areas) along priority high crash corridors.	# of rumble strips implemented

## ENFORCEMENT STRATEGIES AND ACTIONS

**Strategy 1:** Continue to review and analyze crash data to support local occupant protection efforts.

**Timeline:** Ongoing

Leaders	Description	Performance Measure
Champaign County	Provide crash maps to local police departments showing impaired driving crash hot spots.	Crash maps developed and disseminated



# PRIORITY LOCATIONS



The factors contributing to crashes are over-represented along certain corridors and more specifically at a number of segments and intersections. Using a combination of crash analysis and stakeholder input, the *Action Plan* identifies areas within the County that could be studied further to identify countermeasures to mitigate crashes.

## CORRIDOR HEAT MAPS

Using 2008 and 2017 data, crash frequency hot spots were reviewed to understand what corridors were experiencing the highest number of incidents. The following information can help the county pinpoint specific corridors where additional field investigations or data analysis could be completed to understand specific site improvements, or risk factors and systemic solutions. Figures 62-67 show the hot spots.

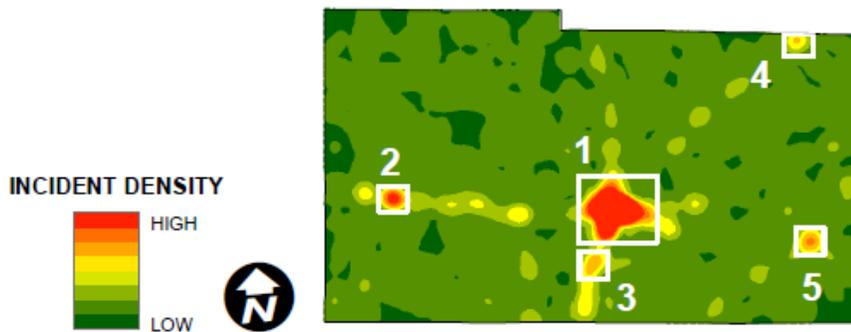


Figure 62: Champaign County Crash Hot Spots

### Location 1

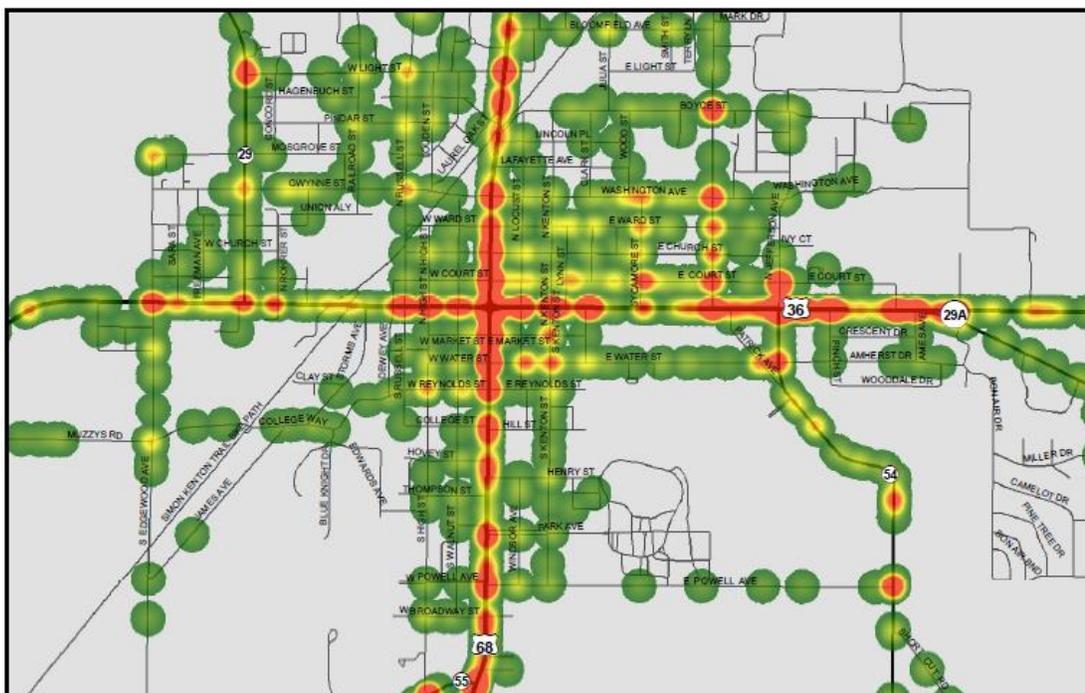


Figure 63: Hot Spot Location 1 in Champaign County



### Location 2

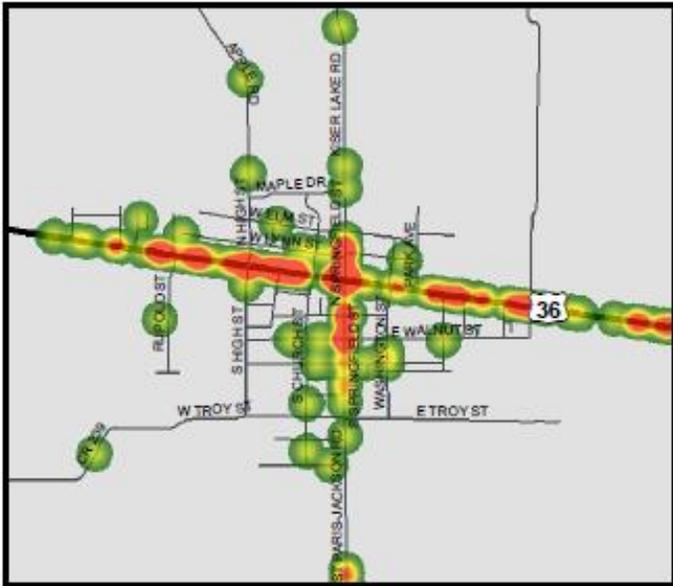


Figure 64: Hot Spot Location 2 in Champaign County

### Location 3



Figure 65: Hot Spot Location 3 in Champaign County



# PRIORITY LOCATIONS



## Location 4



Figure 66: Hot Spot Location 4 in Champaign County

## Location 5



Figure 67: Hot Spot Location 5 in Champaign County



## PRIORITY INTERSECTIONS

Along the corridor hot spots, a number of specific segments and intersections were identified as locations within the county that could benefit from safety improvements. These locations were identified through an analysis completed for the Logan-Union-Champaign (LUC) Regional Planning Commission's 2018 *Local Roadway Safety Program*. The methodology for identifying these locations is in Appendix A.

**Table 1. Top 25 Crash Intersections in Champaign County**

Name of Location	Local Rank	State Rank	Maintaining Authority	# Fatal Crashes	# Injury Crashes	# Total Crashes	Corridor Hot Spot Correlation	Emphasis Area Overlap	Location Status
Ludlow (SR 814) & US 36	1	--	ODOT	1	6	15	--	I	
Main (US 68) & Court/Scioto (US 36)/Market/Water	2	--	City of Urbana	0	29	169	1	A, I, U, Y	
Jefferson & Scioto (US 36)/Court	3	401	City of Urbana	0	18	75	--	A, I, U, Y	
Valley Pike & Storms Creek/County Line	4	--	Champaign County	1	3	12	--	I	
US 68 & Urbana	5	--	ODOT	0	7	11	--	A, I, U, Y	
Ames & US 36/SR 29	6	--	City of Urbana	0	8	17	1	A, I, U, Y	
SR 560 & US 36	7	111	ODOT	0	4	11	--	I	
Springfield & Main (US 36)	8	248	City of Saint Paris	0	2	13	2	I, U	
Oakland (SR 29) & Miami (US 36)	9	--	City of Urbana	0	6	13	1	A, I, U, Y	
SR 559 & US 36	10	--	ODOT	1	3	9	--	A, I	
Three Mile & SR 29	11	133	ODOT	0	6	10	--	A, I, U, Y	



# PRIORITY LOCATIONS



Name of Location	Local Rank	State Rank	Maintaining Authority	# Fatal Crashes	# Injury Crashes	# Total Crashes	Corridor Hot Spot Correlation	Emphasis Area Overlap	Location Status
SR 4 & SR 161	12	--	ODOT	0	3	11	--	I	
High/Russell & Miami (US 36)/Court/Market	13	--	City of Urbana	0	4	18	1	A, I, U, Y	
East Lawn & Scioto (US 36)	14	--	City of Urbana	0	2	16	1	A, I, U, Y	
Oakland (SR 29) & Light	15	--	City of Urbana	1	1	10	1	A, I, U, Y	
Kenton & Court/Scioto (US 36)/Market/Water	16	--	City of Urbana	0	3	21	1	A, I, U, Y	
Main (SR 29) & Sandusky (SR 4)	17	--	Village of Mechanicsburg	0	1	11	5	A, I, U	
US 68 & Hickory Grove	18	--	ODOT	0	2	10	3	A, I, U, Y	
SR 235 & US 36	19	--	ODOT	0	1	10	--	I, U	
Main (US 68) & Gwynne/Washington	20	--	City of Urbana	0	4	10	1	A, I, U, Y	
Dugan & SR 29	21	--	ODOT	0	3	12	--	A, I, U, Y	
Main (US 68) & Commercial (SR 55)	22	--	City of Urbana	0	2	14	1	A, I, U, Y	
East Lawn & Washington	23	--	City of Urbana	0	1	9	1	A, I, U, Y	
Jefferson/Patrick & Water	24	--	City of Urbana	0	1	9	1	A, I, U, Y	
Edgewood & US 36	25	--	City of Urbana	0	3	9	1	A, I, U, Y	

A – Alcohol, I – Intersection, U – Unbelted, Y – Young Driver



# PRIORITY LOCATIONS

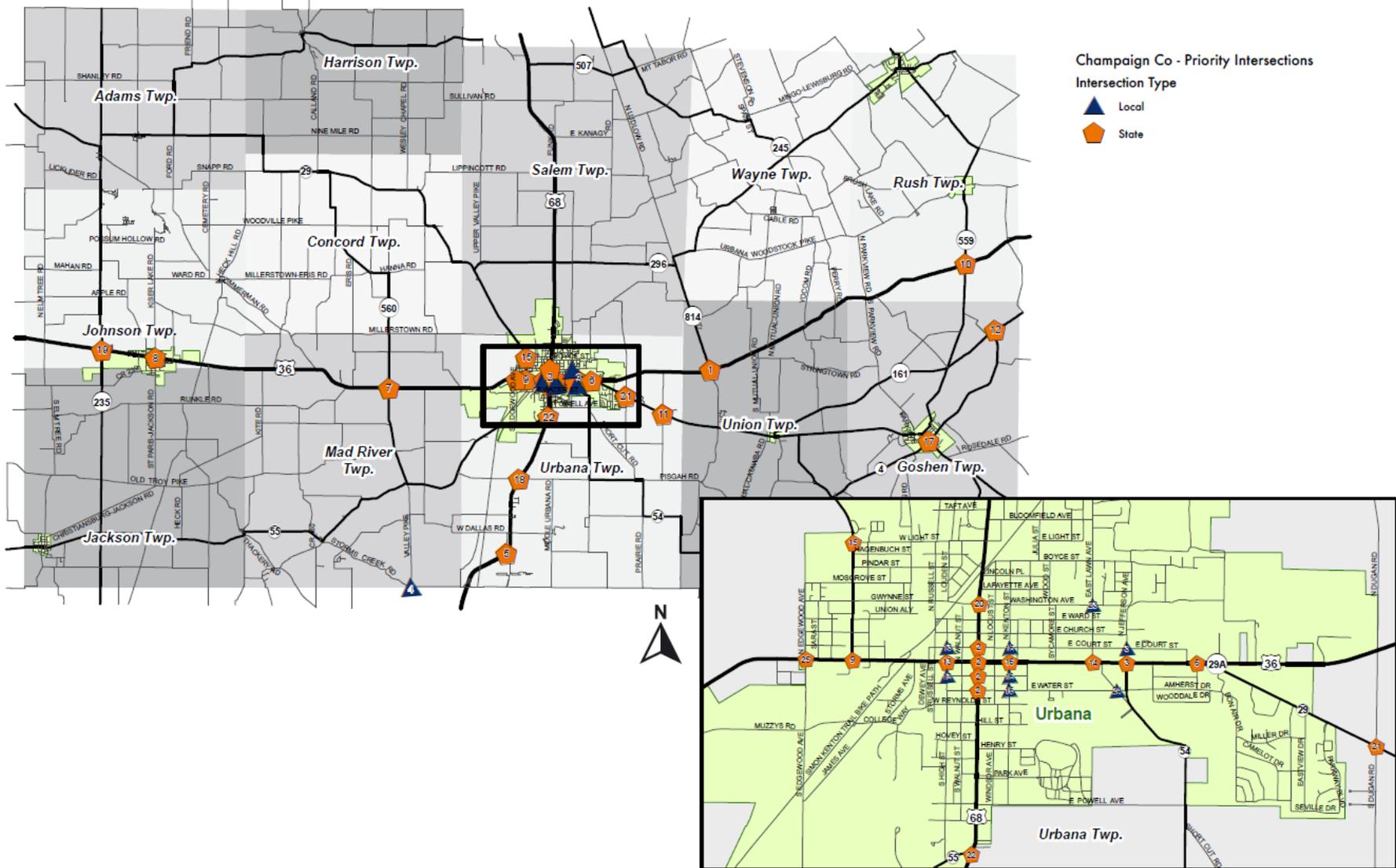


Figure 68: Top 25 Crash Intersections in Champaign County

## RURAL SEGMENTS

Table 2. Top 25 Crash Segments in Champaign County

Name of Location	Local Rank	State Rank	Maintaining Authority	# Total Crashes	Corridor Hot Spot Correlation	Emphasis Area Overlap	Location Status
Storms Creek between SR 55 & CR 15 (Valley Pike)	1	--	Champaign County	21	--	--	
SR 296 between SR 29 & US 68	2	--	ODOT	16	--	A, I	
US 36 between SR 814 & CR 10 (Parkview)	3	--	ODOT	32	--	I	
Middle Urbana between TR 96 Knight & CR 92 Hickory Grove	4	--	Champaign County	22	--	A, U	
Valley between Storms Creek & SR 55	5	--	Champaign County	27	--	--	
County Line between CR 468 (Springfield-Urbana) & CR 92 Urbana Moorefield	6	--	Urbana Township	25	--	--	
Ludlow between SR 29 & US 36	7	--	Union Township	20	--	I	
Pisgah between SR 54 & SR 29	8	--	ODOT, Champaign County, Urbana Township	18	--	--	
SR 559 between US 36 & Bennett	9	--	ODOT, Woodstock	11	--	A	
US 36 between SR 559 and Union Co Line	10	--	ODOT	12	--	A	
Zimmerman between CR 26 (Heck Hill) & US 36	11	--	Champaign County	17	--	U	



# PRIORITY LOCATIONS



Name of Location	Local Rank	State Rank	Maintaining Authority	# Total Crashes	Corridor Hot Spot Correlation	Emphasis Area Overlap	Location Status
Dugan between SR 29 & TR 102 (Childrens Home)	12	--	Urbana Township	19	--	A, I, U, Y	
SR 29 between TR 37 (Harris) & SR 560	13	--	ODOT	10	--	--	
SR 559 between SR 161 & US 36	14	--	ODOT	10	--	--	
SR 29 between TR 101 (Dugan) & TR 222	15	--	ODOT	32	--	A, I, U, Y	
County Line between CR 15 (Valley Pike) & CR 468 (Springfield-Urbana)	16	--	Mad River Township, Urbana Township	24	--	--	
SR 559 between SR 29 & SR 161	17	--	ODOT, Village of Mechanicsburg	14	5	A, I, U	
Springfield-Urbana between Clark County Line & US 68	18	--	Champaign County	21	--	A, Y	
US 68 between CR 468 (Springfield-Urbana) & CR 92 Hickory Grove	19	--	ODOT	50	3	A, I, U, Y	
Ludlow between TR 219 (Sibley) & SR 245	20	--	Champaign County	11	--	--	
SR 161 between CR 10 (Parkview) & SR 4	21	--	ODOT	23	--	--	
St. Paris-Jackson between CR 17 (Runkle) & US 36	22	--	Champaign County	10	--	I	
Kite between Runkle & US 36	23	--	Champaign County	7	--	--	





# PRIORITY LOCATIONS



Name of Location	Local Rank	State Rank	Maintaining Authority	# Total Crashes	Corridor Hot Spot Correlation	Emphasis Area Overlap	Location Status
SR 54 between CR 9 (Powell) & Water	24	--	ODOT, City of Urbana	21	1	A, I, U, Y	
US 36 between CR 18/19 (Springfield) & CR 26 (Heck Hill)	25	--	City of Saint Paris	30	--	--	

A – Alcohol, I – Intersection, U – Unbelted, Y – Young Driver

## URBAN SEGMENTS

Table 3. Top 25 Crash Segments in Champaign County

Name of Location	Local Rank	State Rank	Maintaining Authority	# Total Crashes	Corridor Hot Spot Correlation	Emphasis Area Overlap	Location Status
Patrick between Water & US 36	1	--	City of Urbana	45	1	A, I, U, Y	
Court between East Lawn & Jefferson	2	--	City of Urbana	15	--	A, I, U, Y	
Washington between Main & Wood	3	--	City of Urbana	17	--	A, I, U, Y	
Main between Water & Court	4	--	City of Urbana	96	1	A, I, U, Y	
Scioto between Jefferson & SR 29A	5	--	City of Urbana	110	1	A, I, U, Y	
Miami between Russell & Kenton	6	--	City of Urbana	91	1	A, I, U, Y	
East Lawn between US 36 & Washington	7	--	City of Urbana	30	1	A, I, U, Y	





# PRIORITY LOCATIONS



Name of Location	Local Rank	State Rank	Maintaining Authority	# Total Crashes	Corridor Hot Spot Correlation	Emphasis Area Overlap	Location Status
Main between Court & Washington	8	--	City of Urbana	42	1	A, I, U, Y	
High between Market & Court	9	--	City of Urbana	9	1	A, I, U, Y	
Court between Main & Kenton	10	--	City of Urbana	9	--	A, I, U, Y	
Oakland between Light & Gwynne	11	--	City of Urbana	10	--	A, I, U, Y	
Boyce between Wood & East Lawn	12	--	City of Urbana	8	--	A, I, U, Y	
Main between Washington & Bloomfield	13	--	City of Urbana	29	1	A, I, U, Y	
High between SR 55 & Powell	14	--	City of Urbana	8	--	A, I, U, Y	
Boyce between East Lawn & Jefferson	15	--	City of Urbana	7	--	A, I, U, Y	
Scioto between East Lawn & Jefferson	16	--	City of Urbana	29	1	A, I, U, Y	
Main between SR 55 & Powell	17	--	City of Urbana	18	1	A, I, U, Y	
Main between Powell & Water	18	--	City of Urbana	64	1	A, I, U, Y	
East Lawn between Washington & Boyce	19	--	City of Urbana	8	--	A, I, U, Y	
Washington between Wood & East Lawn	20	--	City of Urbana	15	--	A, I, U, Y	





# PRIORITY LOCATIONS



Name of Location	Local Rank	State Rank	Maintaining Authority	# Total Crashes	Corridor Hot Spot Correlation	Emphasis Area Overlap	Location Status
<b>Jefferson between Scioto &amp; Washington</b>	21	--	City of Urbana	12	1	A, I, U, Y	
<b>Court between Kenton &amp; East Lawn</b>	22	--	City of Urbana	13	--	A, I, U, Y	
<b>Oakland between New Haven &amp; TR 101 (Dugan)</b>	23	--	City of Urbana	15	--	A, I, U, Y	
<b>Miami between Edgewood &amp; Oakland</b>	24	--	City of Urbana	14	1	A, I, U, Y	
<b>Scioto between Kenton &amp; East Lawn</b>	25	--	City of Urbana	40	1	A, I, U, Y	

A – Alcohol, I – Intersection, U – Unbelted, Y – Young Driver



# PRIORITY LOCATIONS

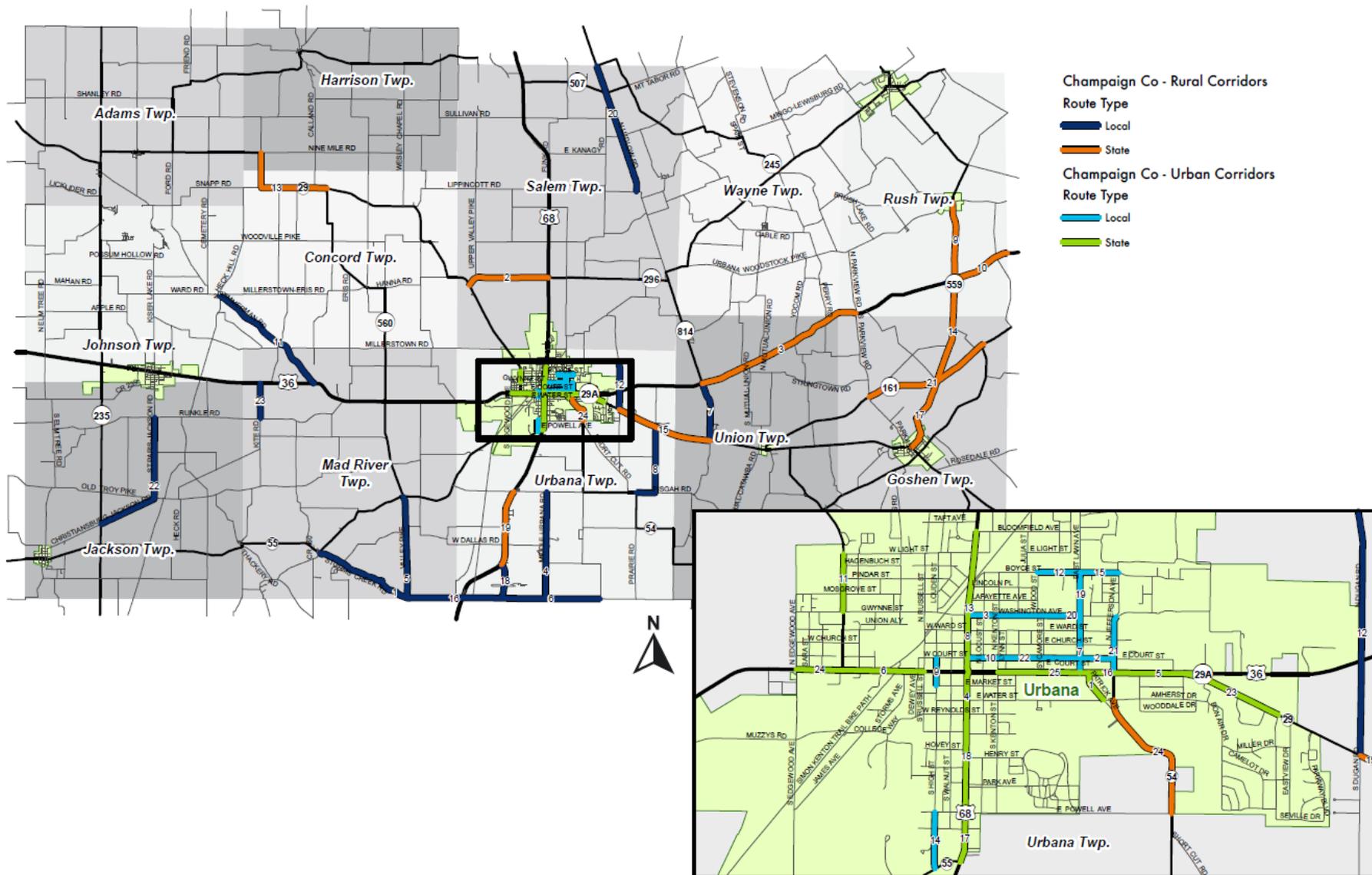


Figure 69: Top 25 Crash Segments in Champaign County

