Anatomy of Dodge County
A Traffic Safety Summary

WISCONSIN DEPARTMENT OF TRANSPORTATION

ZERO IN WISCONSIN
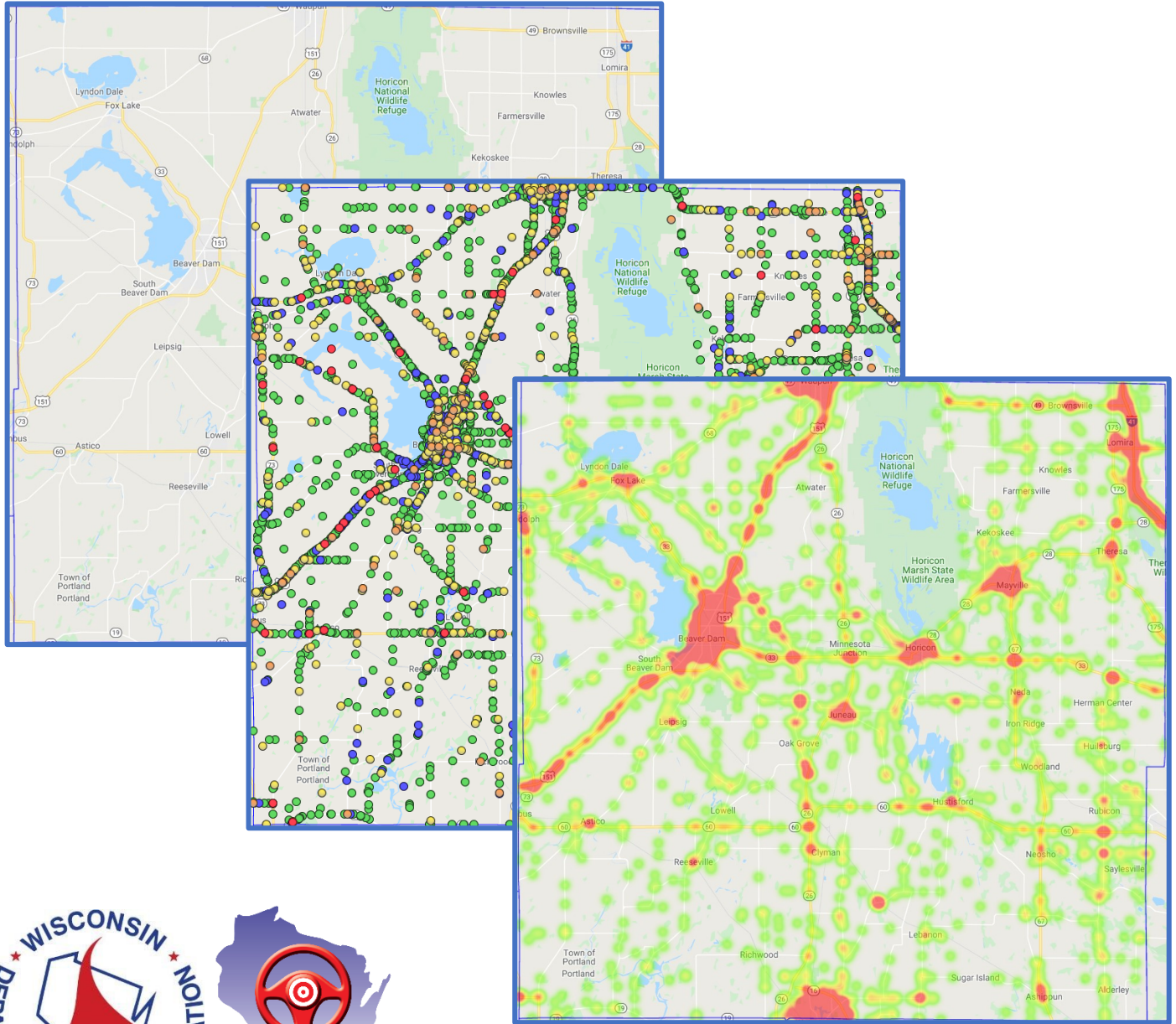
Did you know...

one individual is killed or injured in a crash in Dodge County everyday?

January 2020

Table of Contents

This document was created by the Division of State Patrol Bureau of Transportation Safety and Technical Services (BOTSTS). The data is based on a five-year (2014-2018) trend, while suspected drug or alcohol impairment and distracted driving is based on a two-year (2017-2018) trend. The intention of this document is to assist Traffic Safety Commissions to examine their own transportation safety issues within their respective county.

For further data, email BOTSTS at CrashDataAnalysis@dot.wi.gov.

Cover page (left to right): County map, five-year (2014-2018) trends of all crashes, heat map of crashes

Crash Trends

Per year in Dodge County, an average of

2,228 drivers are involved in a crash

502 people are injured

13 people are killed

While

November has the highest number of crashes

June has the highest number of injury and fatal crashes

7 out of 10 injured or killed people are Dodge County residents

19 out of 20 injured or killed people are Wisconsin residents

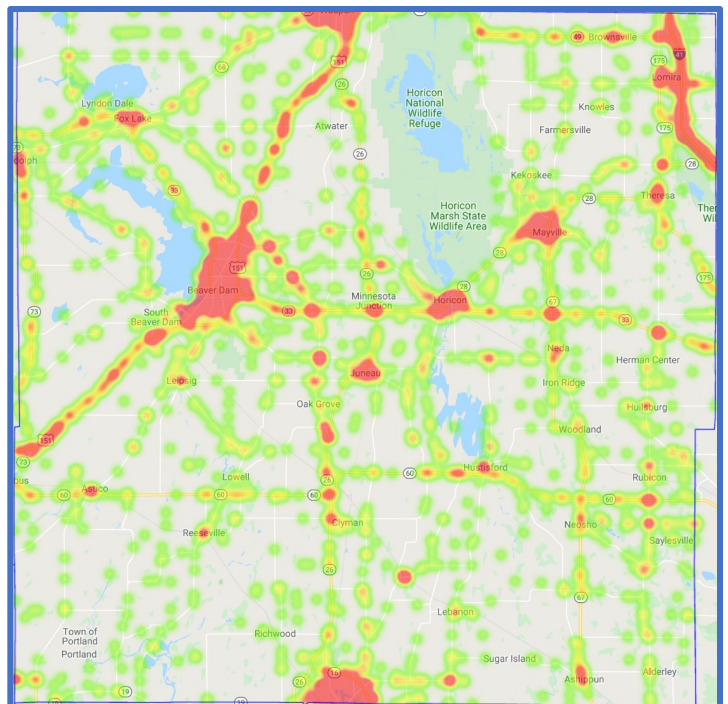## Where

5 out of 10 fatal and injury crashes occur on a county or state road

When
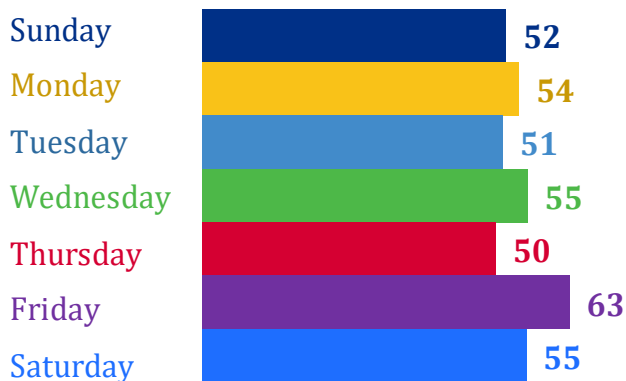
3pm-4pm is the peak time for injury and fatal crashes

### Hotspots of all crashes (2014-2018)

Source: TOPS Lab Community Maps. Explore this tool here.

On an average year in Dodge County, injury and fatal crashes occur somewhat consistently over the weekday while **Friday** has the **most crashes.**
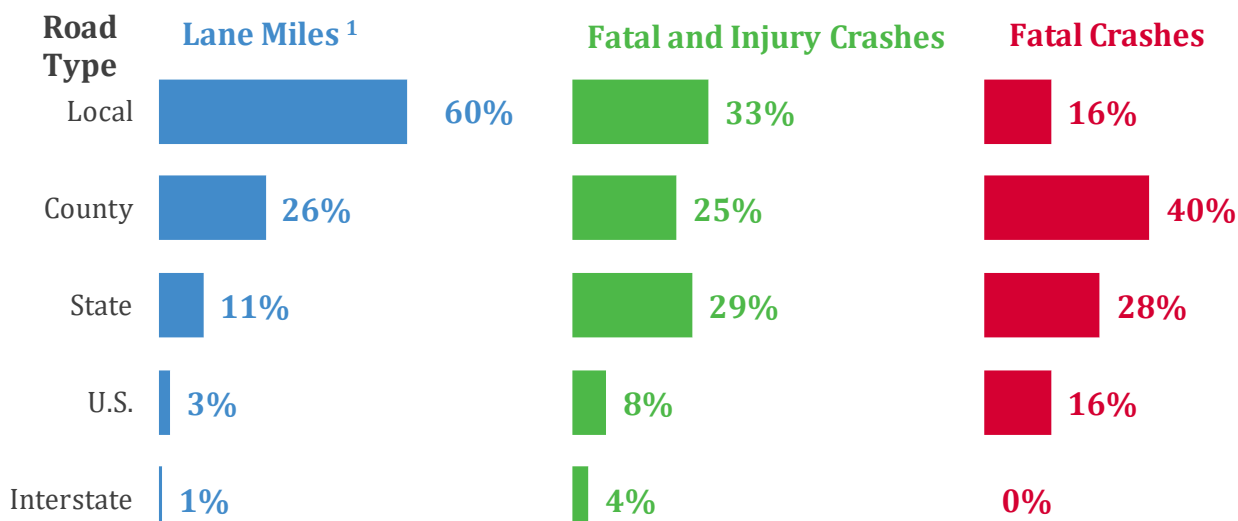
In addition, over a 24-hour period, injury and fatal crashes occur **most frequently** between **3pm-4pm,** peaking at **32** crashes in total throughout the year.

Day	Crashes
Sunday	52
Monday	54
Tuesday	51
Wednesday	55
Thursday	50
Friday	63
Saturday	55
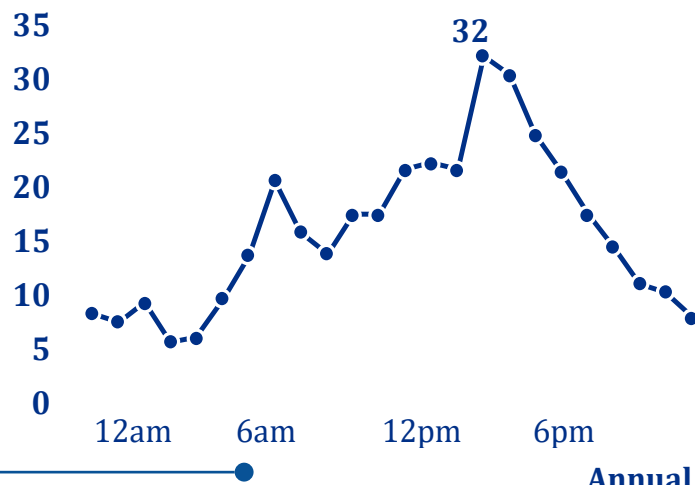
Over the past 5 years, fatal and injury crashes have **varied** while property damage crashes have **increased.**

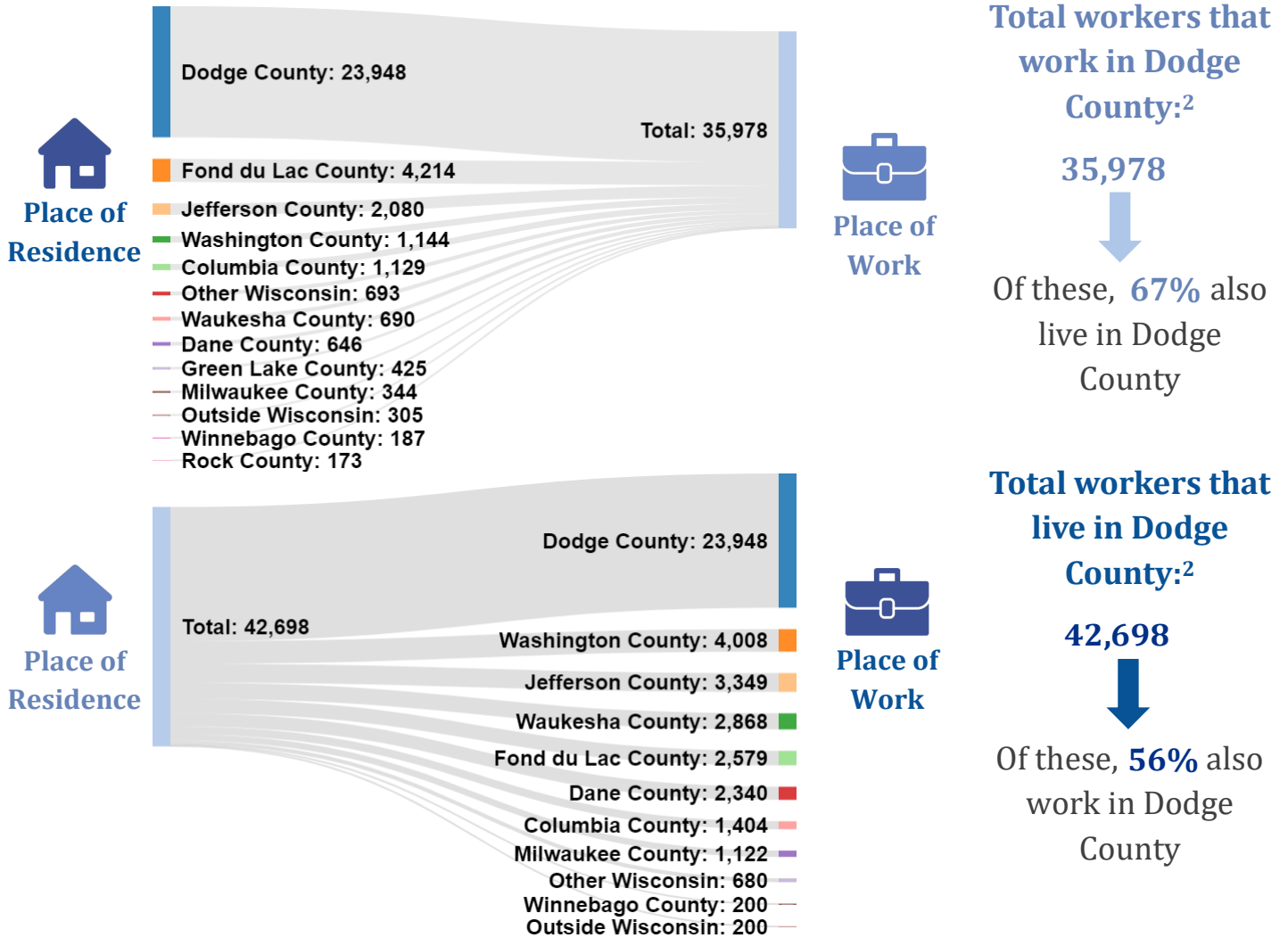| Year	2014	2015	2016	2017	2018	Annual Trends
Fatal	15	11	12	18	7	
Injury	368	348	404	329	353	
Property Damage	1,142	1,155	1,200	1,234	1,396	
Total	**1,525**	**1,514**	**1,616**	**1,581**	**1,756**	

Crashes on state, U.S., and interstate roads are disproportionally represented in injury and fatal crashes. On roads with **higher posted speed limits**, there's a higher risk for a **severe injury or fatality** if a crash were to occur.

Road Type	Lane Miles [1]	Fatal and Injury Crashes	Fatal Crashes
Local	60%	33%	16%
County	26%	25%	40%
State	11%	29%	28%
U.S.	3%	8%	16%
Interstate	1%	4%	0%

[1] Wisconsin Department of Transportation. Received from K. Spencer. Dec. 3, 2019.

Commuting Flows

Place of Residence

Dodge County: 23,948
Total: 35,978
Fond du Lac County: 4,214
Jefferson County: 2,080
Washington County: 1,144
Columbia County: 1,129
Other Wisconsin: 693
Waukesha County: 690
Dane County: 646
Green Lake County: 425
Milwaukee County: 344
Outside Wisconsin: 305
Winnebago County: 187
Rock County: 173

Place of Work

Total workers that work in Dodge County:[2]

35,978

Of these, **67%** also live in Dodge County

Place of Residence

Total: 42,698
Dodge County: 23,948
Washington County: 4,008
Jefferson County: 3,349
Waukesha County: 2,868
Fond du Lac County: 2,579
Dane County: 2,340
Columbia County: 1,404
Milwaukee County: 1,122
Other Wisconsin: 680
Winnebago County: 200
Outside Wisconsin: 200

Place of Work

Total workers that live in Dodge County:[2]

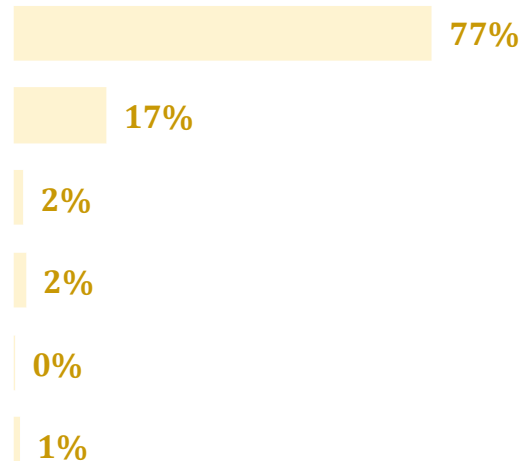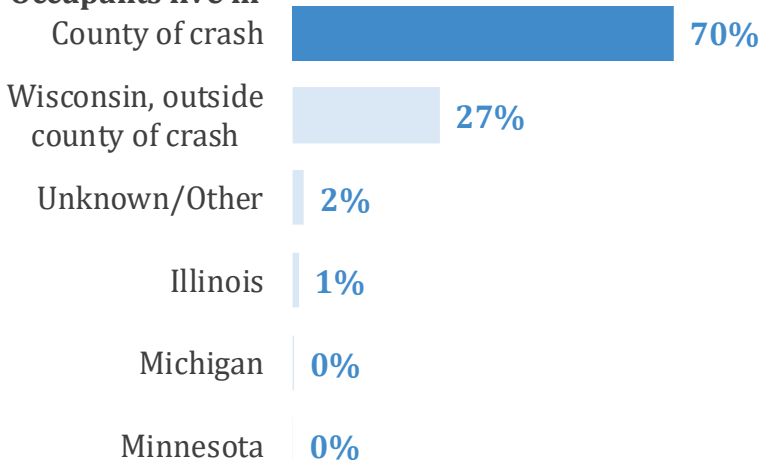**42,698**

Of these, **56%** also work in Dodge County

Locals are **more likely** to be involved in a crash in Dodge County as opposed to visitors. **70%** of occupants injured or killed in a crash in Dodge County also live in Dodge County.

Injured or Killed Occupants live in	Dodge County Crashes	Crashes in each Wisconsin County
County of crash	70%	77%
Wisconsin, outside county of crash	27%	17%
Unknown/Other	2%	2%
Illinois	1%	2%
Michigan	0%	0%
Minnesota	0%	1%

[2] United States Census Bureau. 2011-2015 5-Year American Community Survey Commuting Flows. https://www.census.gov/data/tables/2015/demo/metro-micro/commuting-flows-2015.html Accessed Oct. 11, 2019.

Transportation Safety

Alcohol and Drug-Impaired Driving

In Dodge County, **70** people are injured or killed in a crash involving a driver believed to be impaired by drugs or alcohol, in an average year.
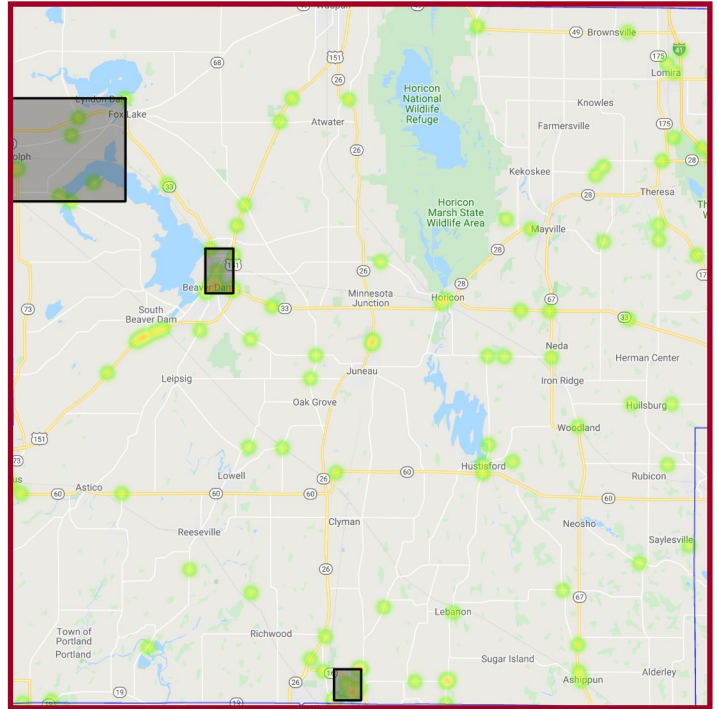
That is **50%** of all persons killed in a crash. Statewide, this is 33% of all persons killed.

While **75%** of drivers believed to be impaired by drugs or alcohol are **male**.

Age of Driver   **Female**   **Male**

Age	Average Drivers per Year
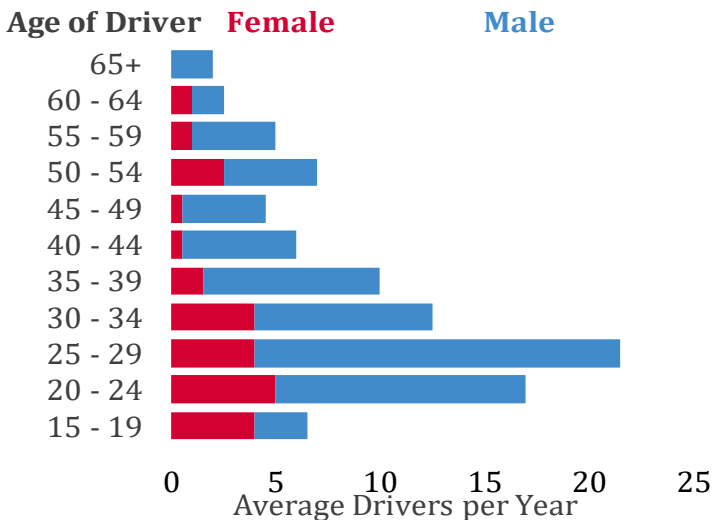
Hotspots of alcohol and drug-related crashes with an injury or fatality

Top 3 Areas:

1. Fox Lake
2. Beaver Dam
3. Watertown

Distracted Driving

In Dodge County, a driver being distracted is listed as a contributing factor in **24%** of injury and fatal crashes. Statewide, this is 22% of injury and fatal crashes.

Below shows the **breakdown** of the factors in these distracted driving crashes.
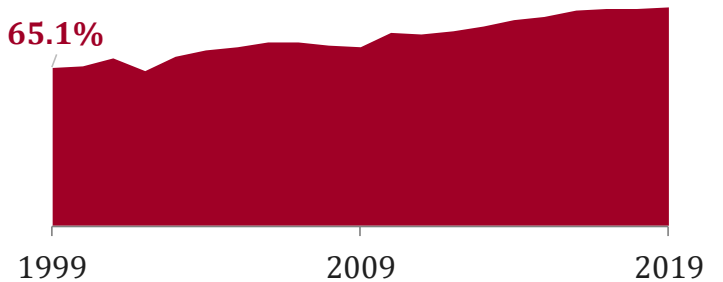
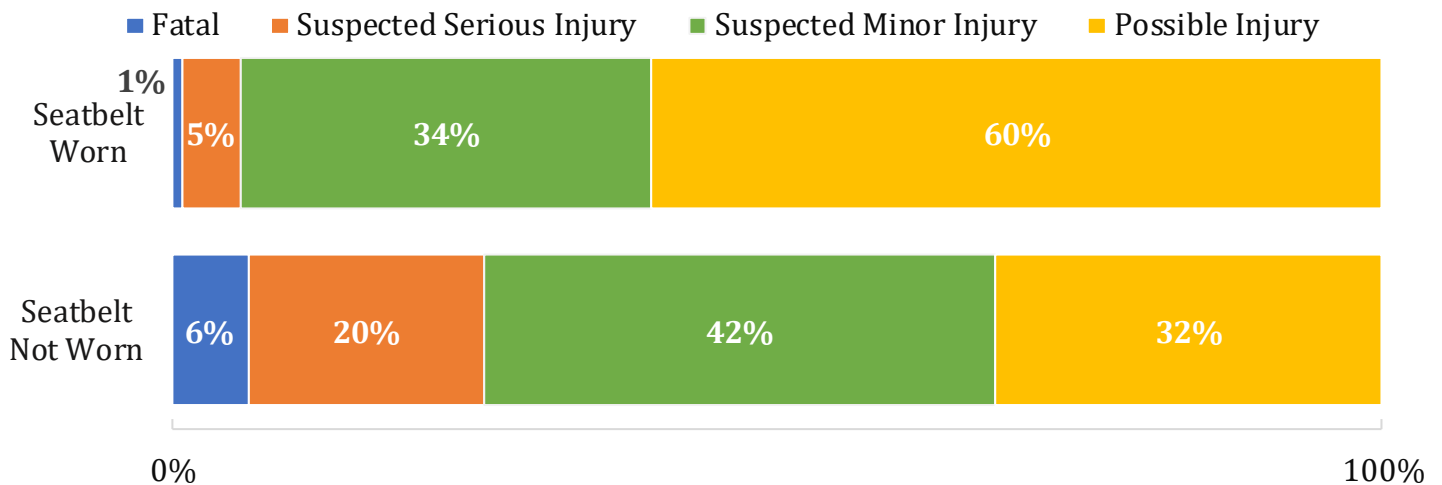**Top factors a driver was distracted were**

	Dodge County Crashes	Wisconsin Crashes
Distraction/Inattention	32%	32%
Looked But Did Not See	29%	28%
Careless/Inattention	7%	9%
Other Distraction	6%	6%
Inattention Details Unknown	4%	3%
Distracted By Outside Person	3%	4%
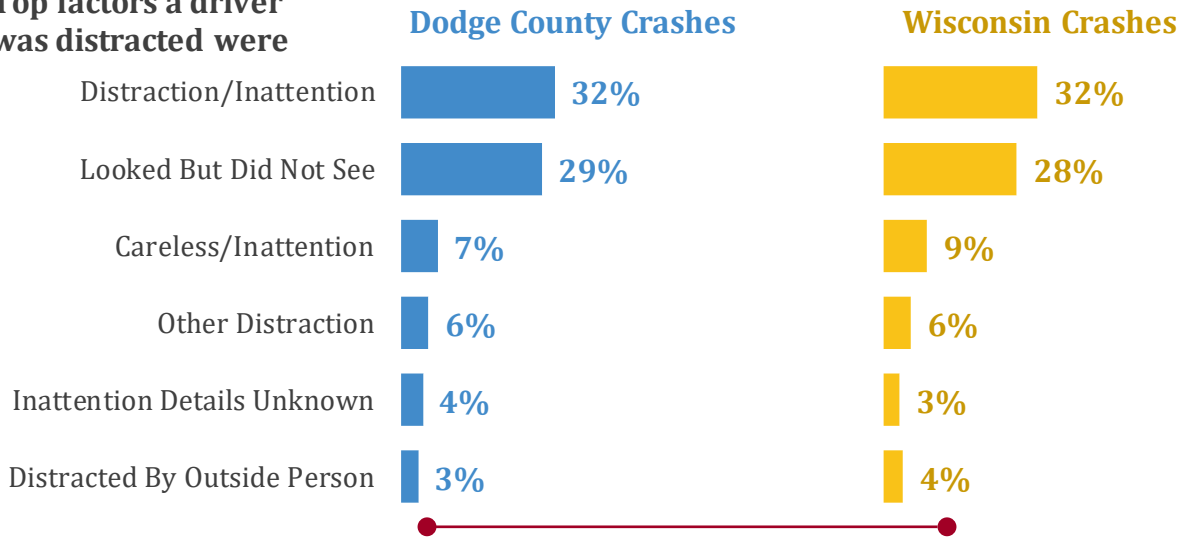
Occupant Protection

Statewide **seatbelt usage** has been **increasing** over the past two decades. This past year experienced a usage rate of **90.2%,** which is based on an annual seatbelt survey.

Occupants **not wearing a seatbelt** are **more likely** to suffer a serious injury or fatality. Of the total statewide occupant fatalities, **1 out of 3** were not wearing a seatbelt.

Statewide **seatbelt use rate** reached an all time **high** in 2019.

65.1% → 90.2% (1999 – 2009 – 2019)

People in your community can conduct their own seatbelt survey via the 'Local Seatbelt Survey' in the app store.

Legend: ■ Fatal ■ Suspected Serious Injury ■ Suspected Minor Injury ■ Possible Injury

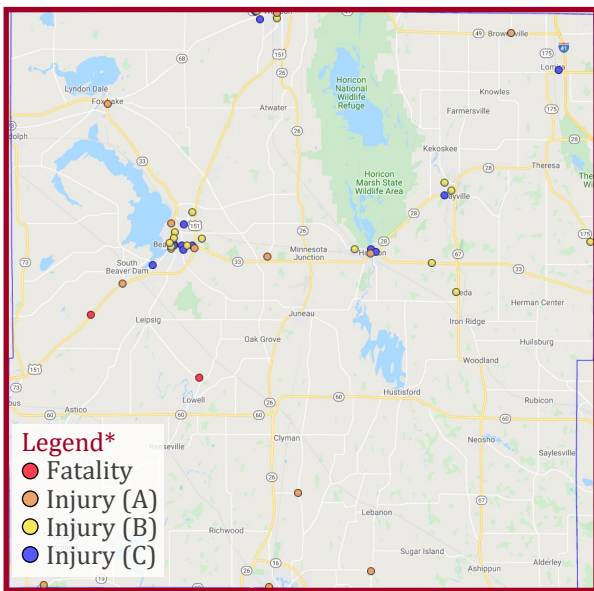|	Fatal	Suspected Serious Injury	Suspected Minor Injury	Possible Injury
Seatbelt Worn	1%	5%	34%	60%
Seatbelt Not Worn	6%	20%	42%	32%

0% — 100%

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Bicyclist and Pedestrian Safety

In the last 5 years in Dodge County, **39** cyclists and **45** pedestrians were killed or injured.

Locations of injury and fatal bicycle crashes
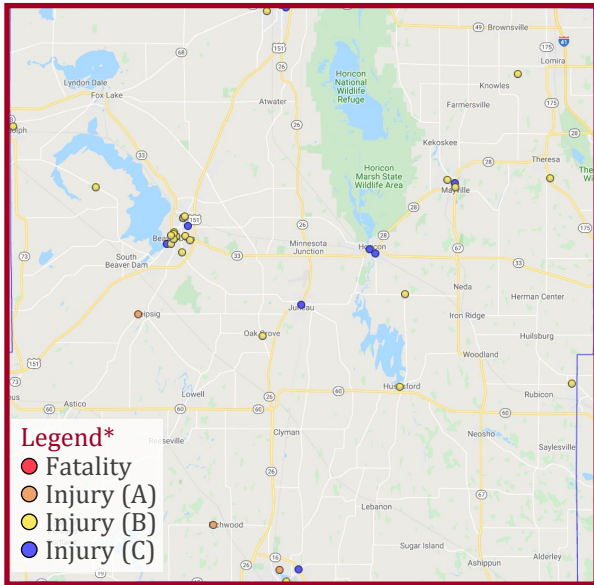
Locations of injury and fatal pedestrian crashes

A bike or pedestrian crash is more likely to happen in an urban area, however, a fatal or serious injury crash is more likely to occur in a rural area due to higher speeds.
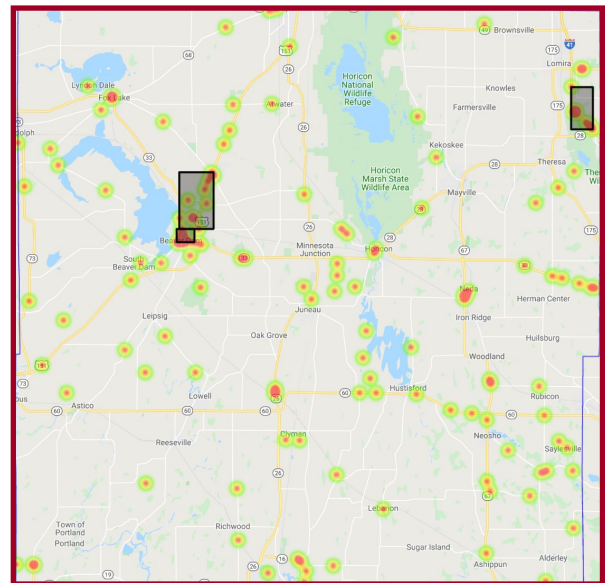
Motorcycle Safety

In the last 5 years in Dodge County, **160** motorcyclists were killed or injured.

Of these, **38%** were not wearing a helmet.

The type of helmet and other safety equipment worn, such as protective gear and gloves, can also impact the type of injury sustained.

Hotspots of injury and fatal motorcycle crashes

Top 3 Areas:

1. Beaver Dam (citywide)
2. Beaver Dam (U.S. 151/N Song St.)
3. Lomira (I.H. 41)

*Legend: Injury (A) = Suspected Serious Injury   Injury (B) = Suspected Minor Injury   Injury (C) = Possible Injury

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Teen and Older Drivers

In Dodge County, **teen or older drivers** make up **22%** of drivers involved in a fatal or injury crash. Statewide, this is 21% of drivers in fatal and injury crashes.
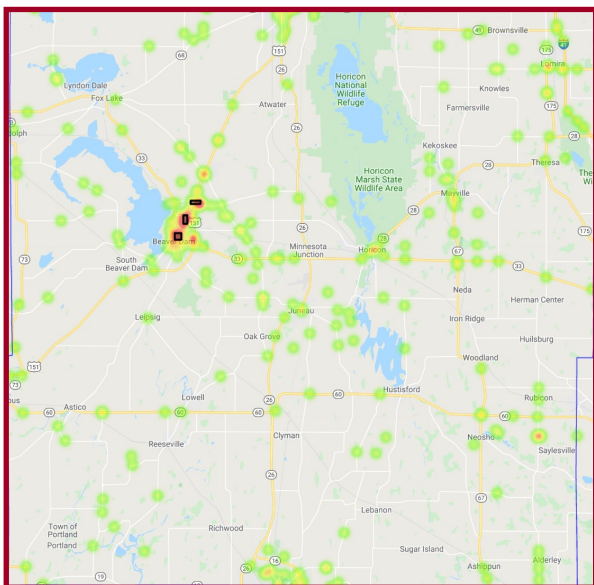
Breaking this down,

teen drivers make up **11%** of drivers involved in a crash and make up **5%** of licensed drivers and

older drivers make up **11%** of drivers involved a crash and make up **20%** of licensed drivers.
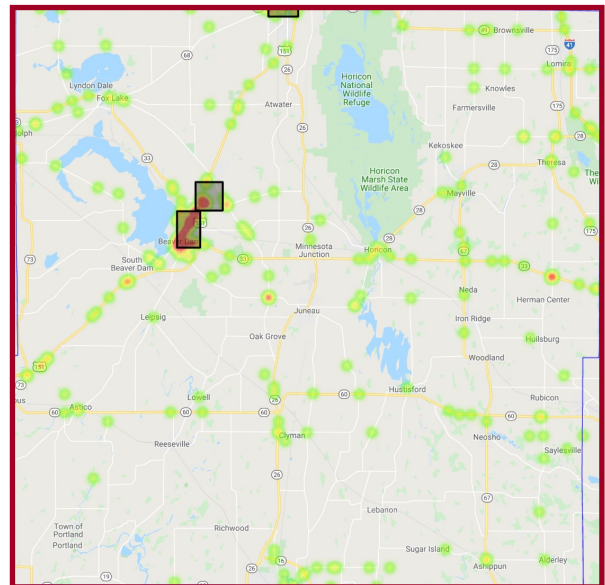
Drivers in a crash	Age	Licensed drivers
11%	65+	**20%**
6%	60-64	**9%**
7%	55-59	**11%**
6%	50-54	**10%**
8%	45-49	**9%**
7%	40-44	**7%**
9%	35-39	**7%**
10%	30-34	**8%**
11%	25-29	**7%**
13%	20-24	**7%**
11%	15-19	**5%**
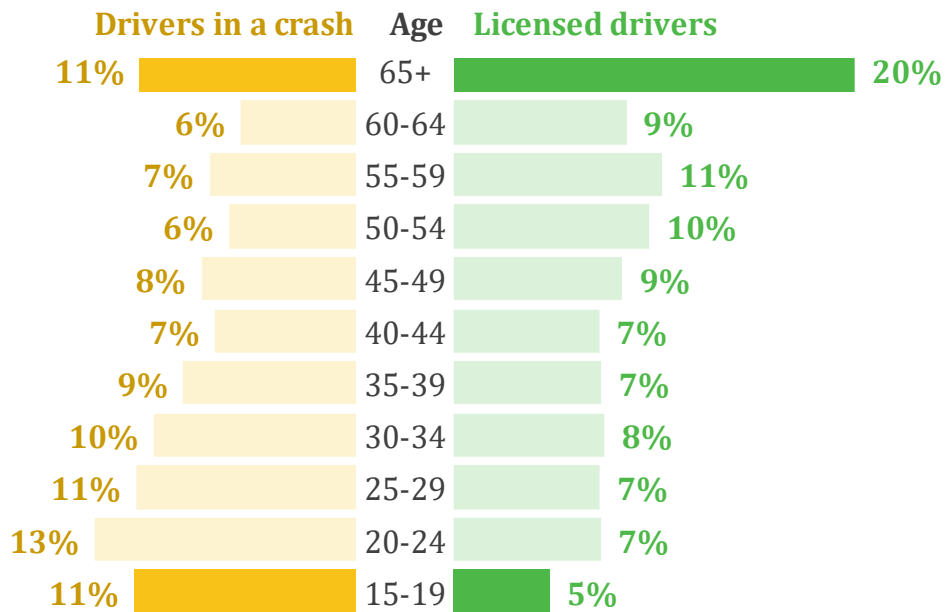
Hotspots of injury and fatal crashes involving a teen driver

Top 3 Areas:

1. Beaver Dam (downtown)
2. Beaver Dam (N Spring St.)
3. Beaver Dam (Gateway Dr.)

Hotspots of injury and fatal crashes involving an older driver

Top 3 Areas:

1. Beaver Dam (downtown)
2. Beaver Dam (Gateway Dr.)
3. Waupun

Lane Departure Crashes

49% Dodge County
35% Wisconsin

Below shows the **breakdown** of the 'first harmful event' in these lane departure crashes.
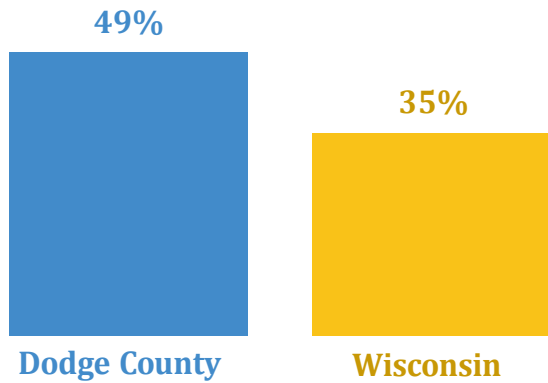
More lane departure crashes occur in Dodge County, out of total injury and fatal crashes, compared to the state. **Colliding** with a **Ditch/Culvert** was the most frequent 'first harmful event.'
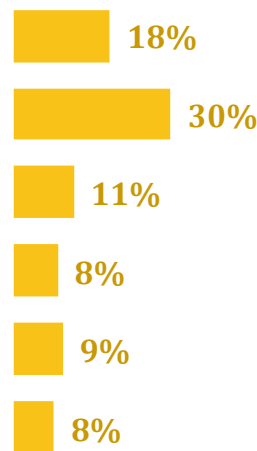
A **lane departure crash** is defined as when the driver crosses the centerline, edge line, or leaves the roadway and then usually colliding with another vehicle or an object, such as a guardrail or a tree.

The cause of a lane departure crash could be a mixture of factors – speeding, being impaired by alcohol, or feeling tired.

First object a driver hit was	Dodge County Crashes	Wisconsin Crashes
Ditch/Culvert	24%	18%
A Motor Vehicle	20%	30%
Overturn/Rollover	20%	11%
Sign Post/Utility Pole	13%	8%
Tree	7%	9%
Barrier/Guardrail	4%	8%

Speeding

Speeding includes both **exceeding the speed limit** and **driving too fast for conditions.** Speeding has a compounded affect in a crash; decreasing speed can reduce the crash risk, reduce injury severity, and make it possible to control the vehicle if an event were to occur.

Of all fatal and injury crashes, **22%** involved speed as a contributing factor resulting in **105** fatalities and injuries. Statewide, this is 19% of fatal and injury crashes.

2 out of 5 of all crashes where **speed** is a factor involves **a young driver.**

Age of Driver — Female — Male

Average Drivers per Year
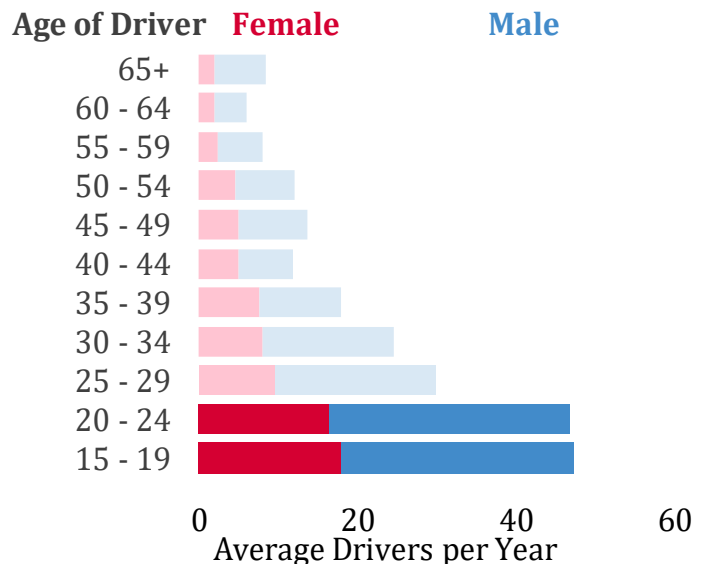
Appendix

Urbanization

Dodge County contains the Beaver Dam urban cluster. Dodge County is adjacent to the Milwaukee-Waukesha-West Allis, Madison, and Fond du Lac metropolitan areas and the Watertown-Fort Atkinson urban cluster.

Vehicle Miles of Travel (VMT)[3]

VMT is a measure of the total amount of and distance of vehicle travel in a year.

In Dodge County, the 2018 VMT was 1,085,644,685 miles with a crash rate of 33 injury and fatal crashes per 100 million VMT, lower than the state's rate of 46 crashes.

A crash rate* of

46

33

Dodge County   **Wisconsin**
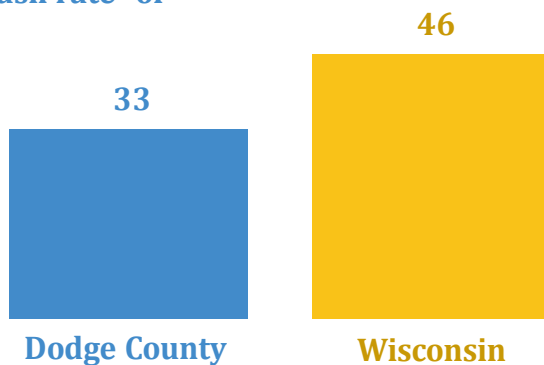
*Crash rate as measured by total injury and fatal crashes per 1 million vehicles miles traveled in 2018

Grants

The State Patrol Bureau of Transportation Safety and Technical Services (BOTSTS) administers federally funded overtime traffic safety grants to local law enforcement agencies each year.

The overtime grants are offered to agencies using a data driven targeting process. The targeting process includes a review of crash data from previous years to determine what areas have a traffic safety problem. The process is used to determine locations of concern in the areas of impaired driving, speeding, and unbelted vehicle occupants. If an agency participates in our national mobilizations, the agency may also receive one or more equipment grants, as determined in several annual drawings.

BOTSTS also provides grants to agencies that are not targeted but are part of a task force in their area. A task force is a group of law enforcement agencies working together to plan high visibility enforcement in their communities. Task forces can operate in their individual communities but only on the same day and at the same time as the group. They can also concentrate on one agency's community during a deployment.

[3] Wisconsin Department of Transportation. "2018 Vehicles Miles of Travel (VMT) by County." Accessed October 10, 2019. https://wisconsindot.gov/Documents/projects/data-plan/veh-miles/vmt2018.pdf

Below are **agency mobilizations** and **grants** that were recently awarded to Dodge County agencies.

■ Participate ☐ Did not participate

Mobilization Campaign	Dodge County SO	Beaver Dam PD	Beaver Dam Town PD	Brownsville PD	Emmet Town PD	Fox Lake PD	Fox Lake Town PD	Hartford PD
2017 Drive Sober or Get Pulled Over- Winter Holidays	☐	☐	☐	■	☐	☐	☐	☐
2018 Click It or Ticket	☐	☐	☐	■	☐	☐	☐	☐
2018 Drive Sober or Get Pulled Over – Labor Day	☐	☐	☐	■	☐	■	☐	☐
2018 Drive Sober or Get Pulled Over- Winter Holidays	■	☐	☐	■	☐	☐	☐	☐
2019 Click It or Ticket	☐	■	☐	■	☐	☐	☐	☐
2019 Drive Sober or Get Pulled Over – Labor Day	■	☐	☐	■	☐	☐	☐	☐
2018 Equipment Grant	☐	☐	☐	☐	☐	☐	☐	☐
2019 Equipment Grant	☐	☐	☐	☐	☐	☐	☐	☐

2019 Task Force Participation

	Dodge County SO							
Impaired Driving								
Speed Enforcement	Dodge County							
Occupant Protection	Dodge County							

2019 Grant Funded Amount for a Task Force

Fond du Lac County Speed Enforcement Taskforce	$69,995
Dodge County Speed Enforcement Taskforce	$15,000
Dodge County Occupant Protection Taskforce	$38,500

Abbreviations: DPS = Department of Public Safety, PD = Police Department, SO = Sheriff's Office

Mobilization Campaign	Horicon PD	Hustisford PD	Iron Ridge PD	Juneau PD	Lomira PD	Lowell PD	Mayville PD
☑ Participate ☐ Did not participate							
2017 Drive Sober or Get Pulled Over- Winter Holidays	☑	☐	☐	☑	☐	☐	☐
2018 Click It or Ticket	☑	☐	☐	☑	☑	☐	☑
2018 Drive Sober or Get Pulled Over – Labor Day	☑	☐	☐	☑	☑	☐	☐
2018 Drive Sober or Get Pulled Over- Winter Holidays	☑	☐	☐	☑	☑	☐	☐
2019 Click It or Ticket	☑	☐	☐	☑	☑	☐	☑
2019 Drive Sober or Get Pulled Over – Labor Day	☑	☐	☐	☑	☑	☐	☑
2018 Equipment Grant	☑	☐	☐	☐	☐	☐	☑
2019 Equipment Grant	☐	☐	☐	☐	☐	☐	☐

2019 Task Force Participation

	Horicon PD	Hustisford PD	Iron Ridge PD	Juneau PD	Lomira PD	Lowell PD	Mayville PD
Impaired Driving							
Speed Enforcement	Dodge County		Dodge County	Dodge County	Dodge County		Dodge County
Occupant Protection	Dodge County		Dodge County	Dodge County	Dodge County		Dodge County

2019 Grant Funded Amount for a Task Force

Fond du Lac County Speed Enforcement Taskforce	$69,995
Dodge County Speed Enforcement Taskforce	$15,000
Dodge County Occupant Protection Taskforce	$38,500

Abbreviations: DPS = Department of Public Safety, PD = Police Department, SO = Sheriff's Office

Mobilization Campaign	Neosho/Ashippun/Rubicon PD	Randolph PD	Reeseville PD	Theresa PD	Watertown PD	Waupun PD
☐ Participate ☐ Did not participate						
2017 Drive Sober or Get Pulled Over- Winter Holidays	☐	☐	☐	☐	☑	☐
2018 Click It or Ticket	☐	☑	☐	☑	☑	☑
2018 Drive Sober or Get Pulled Over – Labor Day	☐	☐	☐	☐	☑	☑
2018 Drive Sober or Get Pulled Over- Winter Holidays	☐	☑	☐	☐	☑	☑
2019 Click It or Ticket	☑	☑	☐	☐	☑	☑
2019 Drive Sober or Get Pulled Over – Labor Day	☐	☑	☐	☐	☑	☑
2018 Equipment Grant	☐	☑	☐	☐	☐	☑
2019 Equipment Grant	☐	☐	☐	☐	☐	☐

2019 Task Force Participation

|	Neosho/Ashippun/Rubicon PD	Randolph PD	Reeseville PD	Theresa PD	Watertown PD	Waupun PD
Impaired Driving						
Speed Enforcement					Dodge County	Fond du Lac County
Occupant Protection					Dodge County	

2019 Grant Funded Amount for a Task Force

|	
Fond du Lac County Speed Enforcement Taskforce	$69,995
Dodge County Speed Enforcement Taskforce	$15,000
Dodge County Occupant Protection Taskforce	$38,500

Abbreviations: DPS = Department of Public Safety, PD = Police Department, SO = Sheriff's Office
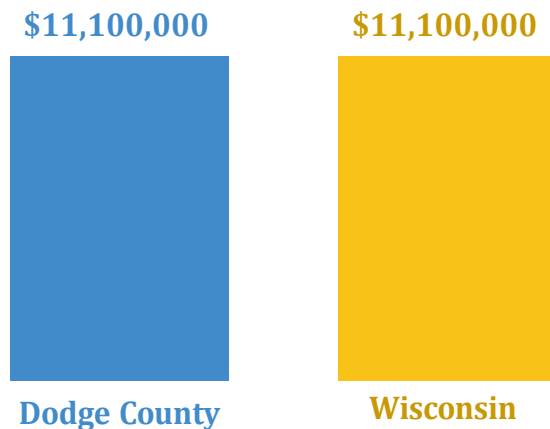
Health Impacts and Medical Costs

Compared to Wisconsin, **fewer** people are in a crash in Dodge County (per 1,000 residents)[4]

35
Dodge County

52
Wisconsin
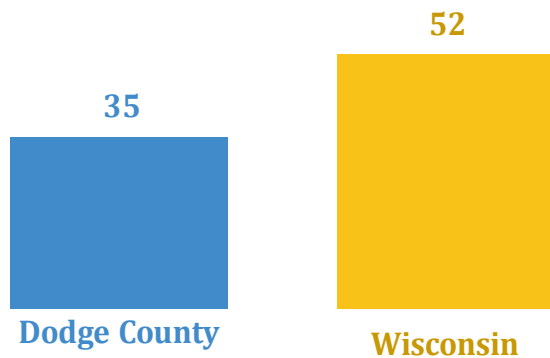
And **more** people are hospitalized due to a crash (per 100,000 residents)[4]

56
Dodge County

47
Wisconsin
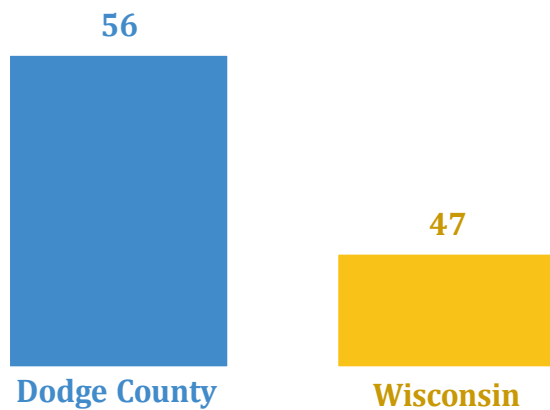
While total medical costs are **similar** (per 100,000 residents)[4]

$11,100,000
Dodge County

$11,100,000
Wisconsin

In Dodge County, for every **38 people injured, 1 person is killed**

This is the **injury-to-fatality ratio** and is below average from Wisconsin where the ratio is **74 to 1.**

Number of persons injured per one fatality
- 15 - 40
- 41 - 60
- 61 - 80
- 81 - 100
- 101 - 140
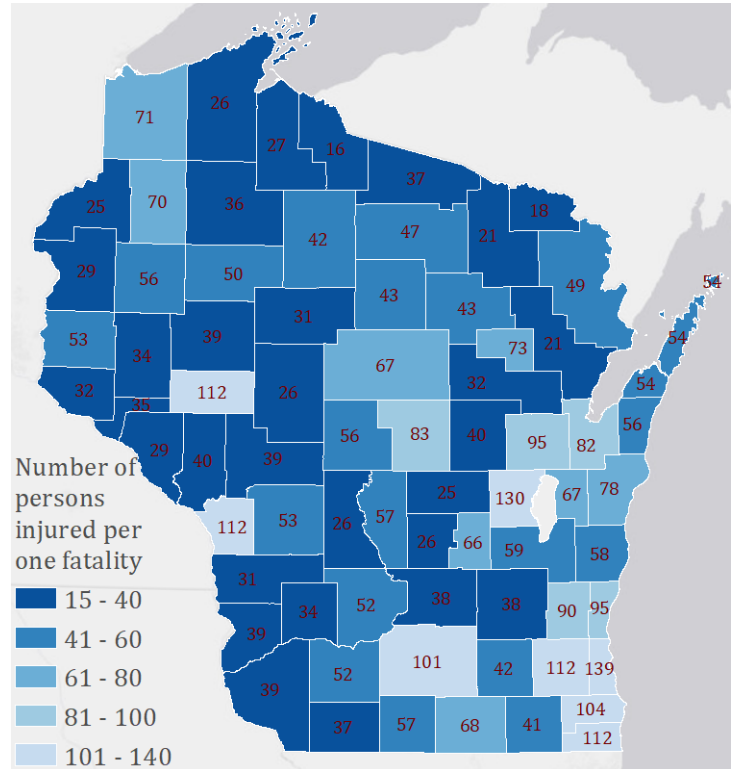
Injury-to-Fatality Ratio

The injury-to-fatality ratio is computed by dividing the total number of crash injuries by the total number of crash fatalities. A higher ratio is more ideal since fatalities comprise a smaller proportion of total crash victims.

The ratio tends to be lower in rural areas where there's a higher proportion of county and state roads. Higher speed limits means higher crash injury severity. Also rural areas generally suffer from a longer distance to hospitals and fewer emergency response services.

[4] University of Wisconsin-Madison, Center for Health Systems Research & Analysis. Wisconsin Crash Outcome Data Evaluation System Project. http://www.chsra.wisc.edu/codes/query/overview.html Accessed Oct. 11, 2019.