



Greater Hickory MPO Crash Summaries

2016-2023 Crash Data

Introduction

The Greater Hickory MPO (GHMPO) Crash Summaries report gives an overview of crash history in the GHMPO Region. The report shows a data-informed snapshot of transportation safety in the region and serves as a summary of the data analysis performed as a foundation to the **Western Piedmont Transportation Safety Plan (TSP)**.

How to Read this Report

The report is divided into 3 sections:

- Overview—detailing crash histories for the full region (2016 – 2023)
- Vulnerable Road Users—detailing bicycle and pedestrian crash histories for the region and by county. (2016 – 2022)
- Counties—detailing crash histories for Alexander, Burke, Caldwell, and Catawba counties (2016 – 2022)

Key terminology used in this report

Crash Types—Crash types are derived from crash reports filled out by law enforcement. The following crash types are used in this report:

1. **Collision with a fixed object** (tree, pole, sign, guardrail, curb/median, etc.)
2. **Head-On:** head on collision of motor vehicles moving in opposite directions in which initial contact is on the fronts of both vehicles.
3. **Overturn/Rollover:** crash in which a motor vehicle in transport overturns for any reason without antecedent collision.
4. **Vulnerable Road User:** collision with a pedestrian or bicyclist (pedalcyclist).
5. **Angle:** collision most often resulting in the vehicles hitting at or near right angles, with the front of one vehicle striking the side of the other vehicle. Most often occurs at an intersection when two vehicles are going straight on intersecting roads and neither vehicle is turning.
6. **Left-Turn:** collision of vehicles with one or multiple turning left.
7. **Sideswipe:** the collision of motor vehicles, traveling in the same direction, in which contact usually results from attempting to pass too closely, skidding, or other side-to-side initial contact. Damage is generally along entire side of vehicle.
8. **Rear End:** rear end collision.
9. **Ran Off Road:** vehicle runs off roadway.
10. **Collision with a Parked Vehicle:** any crash involving motor vehicle in transport and a motor vehicle not in transport.
11. **Collision with a Movable Object** (objects dropped from a motor vehicle, fallen tree, etc.)
12. **Right-Turn:** collision of vehicles with one or multiple turning right.
13. **Collision with Animal**
14. **Single Vehicle:** “Jackknife” crash where a trailing unit(s) and the pulling vehicle rotate with respect to each other.
15. **Other/Miscellaneous**

Key terminology used in this report

- **Emphasis Areas**—the following statewide safety emphasis areas are used in this report:
 - **Lane Departure:** Crashes that occur due to a driver leaving their lane. Includes run-off-road, fixed object, head-on, rollover, and sideswipe-opposite direction crash types.
 - **Intersections:** Crashes occurring at intersections or considered intersection-related, including driveways, alleys, and on- and off-ramp terminal crossroads.
 - **Vulnerable Road User:** Pedestrians, bicyclists, and users of personal mobility, which includes transportation modes such as scooters, skateboards, assistive devices, and other emerging mobility options that lack physical protection from other vehicles.
 - **Seat Belts and Car Seats:** Crashes involving unrestrained or improperly restrained motor vehicle occupants.
 - **Impaired Driving:** Crashes that involve a driver in which alcohol or drug impairment is suspected or detected.
 - **Speed:** Crashes where the reporting officer noted the driver’s contributing circumstances as “exceeding authorized speed limit” or “exceeding safe speed for conditions.”
 - **Older Drivers:** Crashes involving older drivers (ages 65 and older).
 - **Motorcycle:** Crashes involving motorcyclists. Motorcycles are defined as a two-wheeled motor vehicle having one or more riding saddles, and sometimes a third wheel for the support of a sidecar. The sidecar is considered a part of the motorcycle.
 - **Younger Drivers:** Crashes involving younger drivers (ages 15 to 19).

Overview



4 County Region

2016
—
2023

83,610

Total Crashes

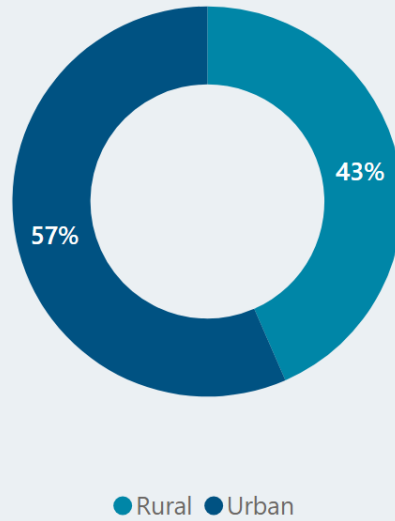
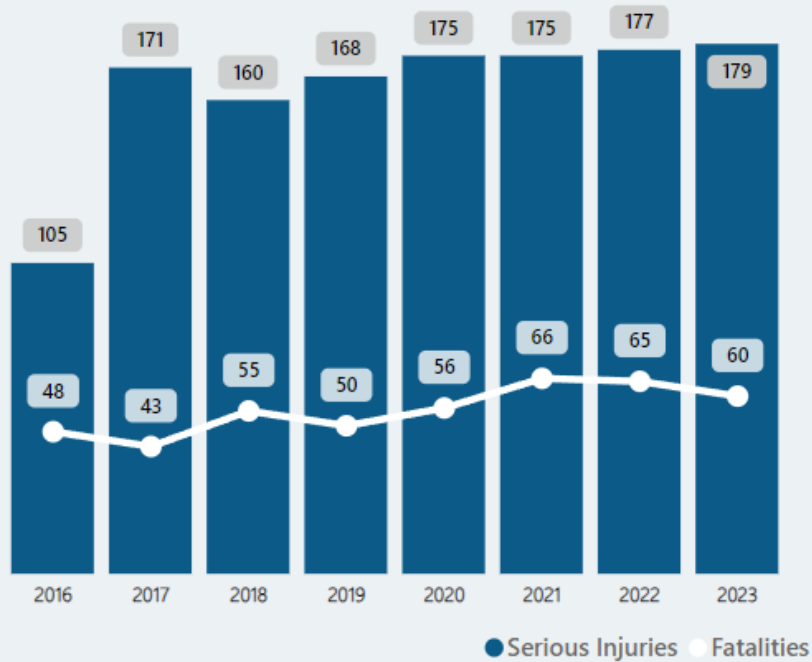
443

Fatalities

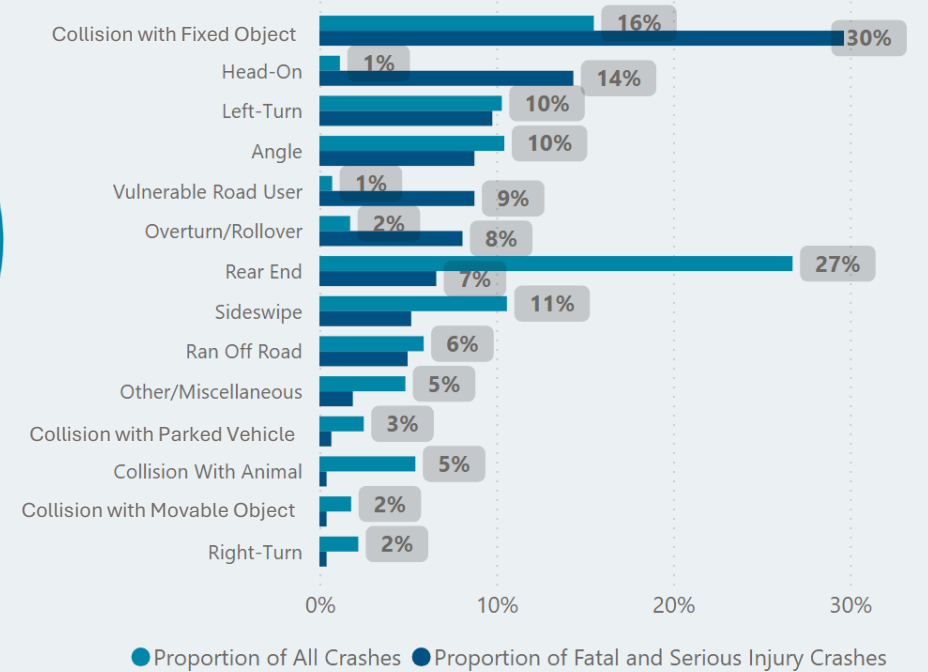
1,310

Serious Injuries

Fatal and Serious Injuries

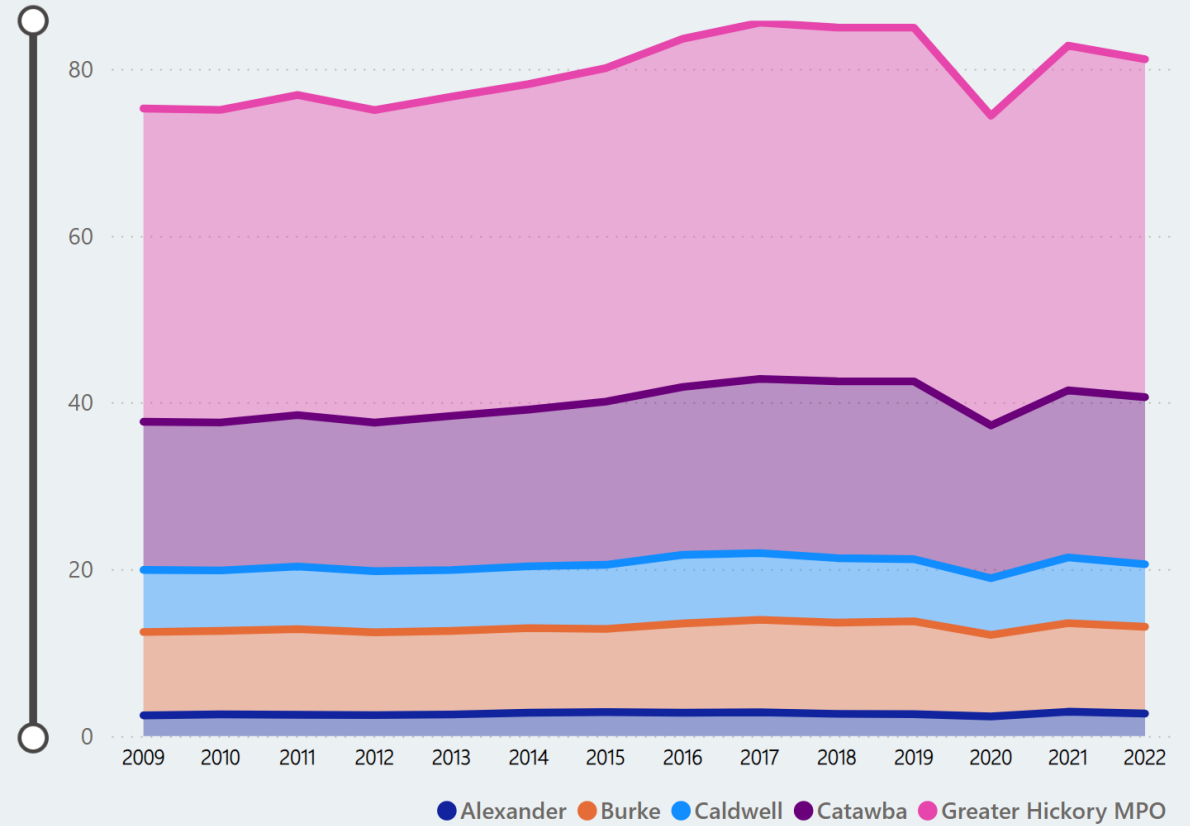
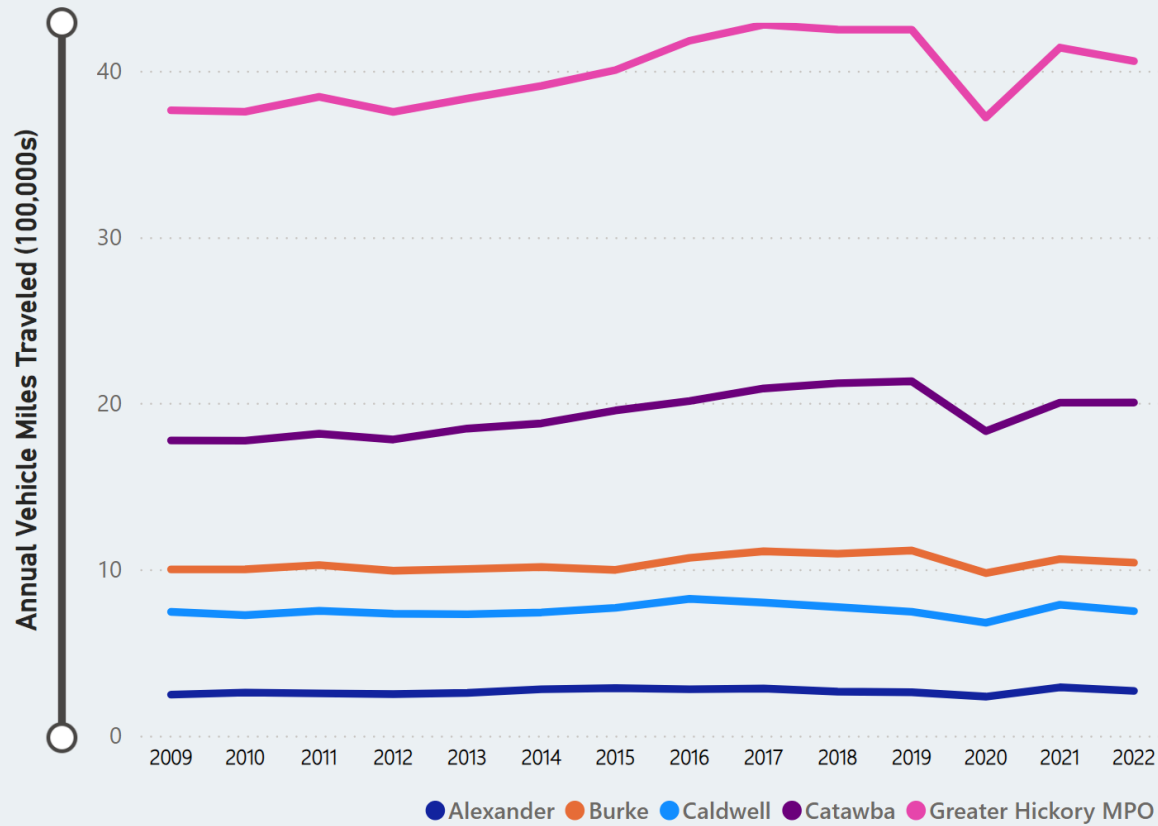


Crash Type Proportion



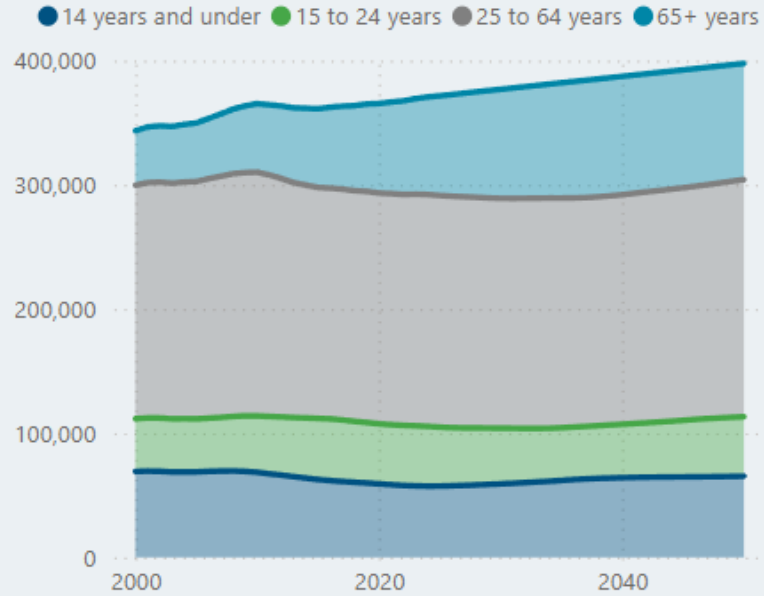
4 County Region

Between 2009 and 2022 Annual VMT changed by 7.9 % for all selected geography



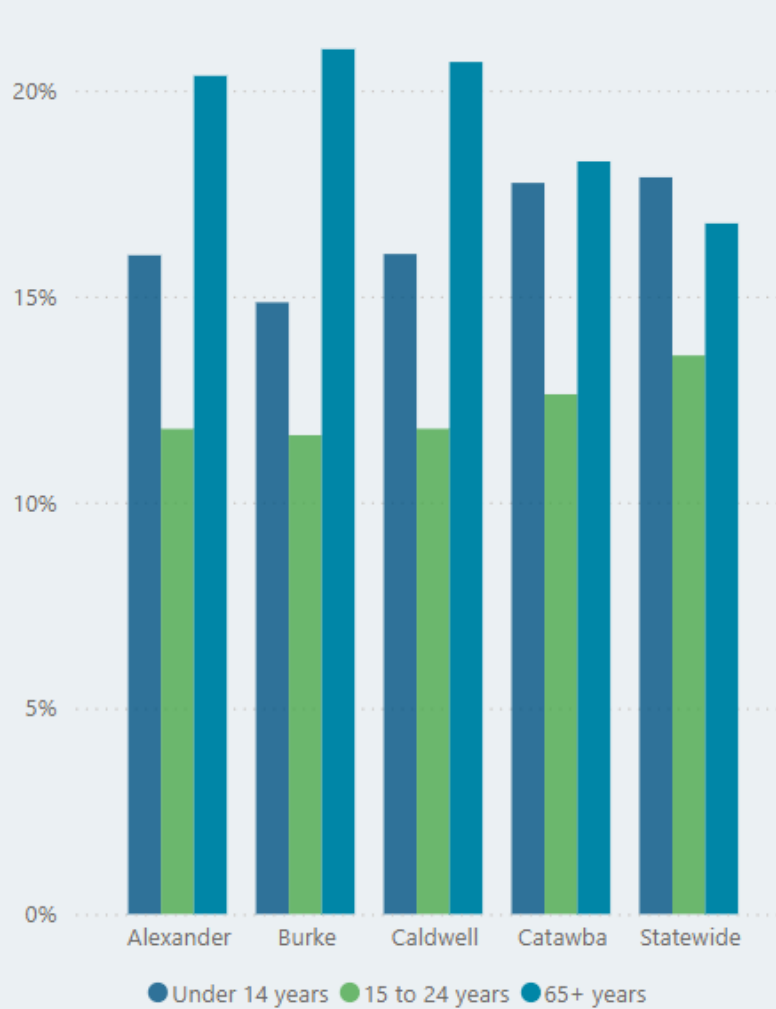
4 County Region

Population Growth

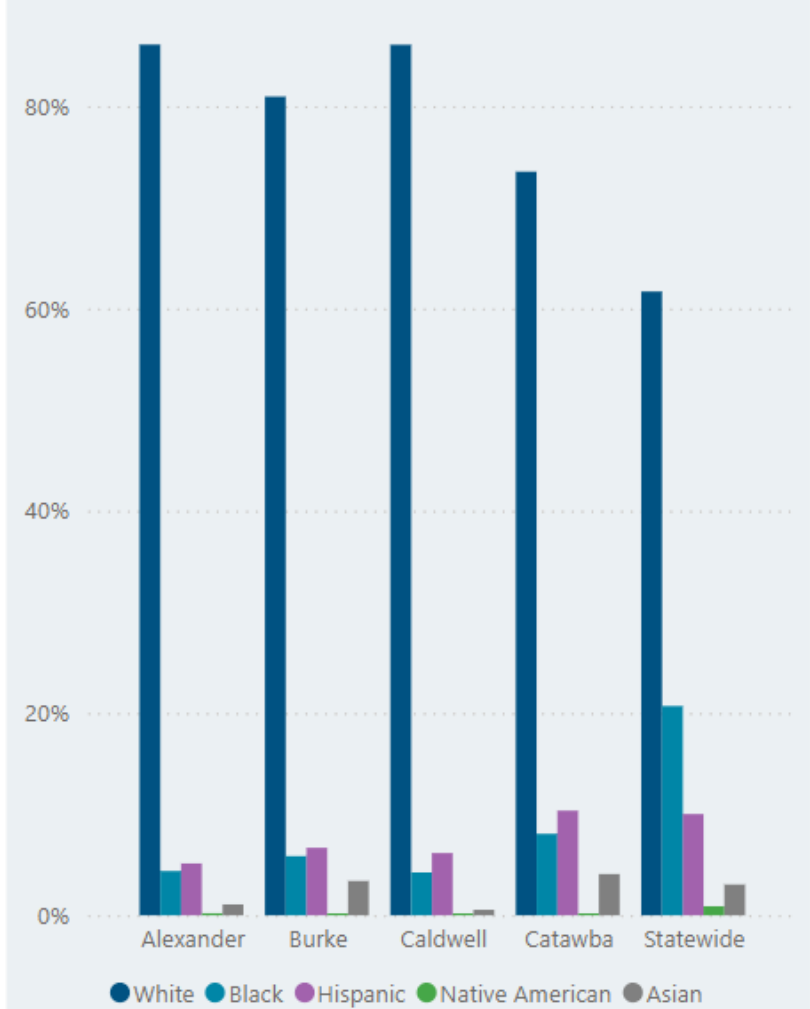


Age Group	2000 Population	2050 Population	Percent Change
14 years and under	69,215	65,393	-6%
15 to 24 years	42,530	47,848	13%
25 to 64 years	187,937	191,008	2%
65+ years	43,903	93,515	113%
Total	343,585	397,764	16%

Census Estimate, Age Distribution (2022)



Census Estimate, Race & Ethnicity Distribution (2022)



Emphasis Areas



INTERSECTIONS



LANE DEPARTURE



OCCUPANT PROTECTION



ALERTNESS



SPEED



MOTORCYCLISTS



YOUNGER DRIVERS



OLDER DRIVERS



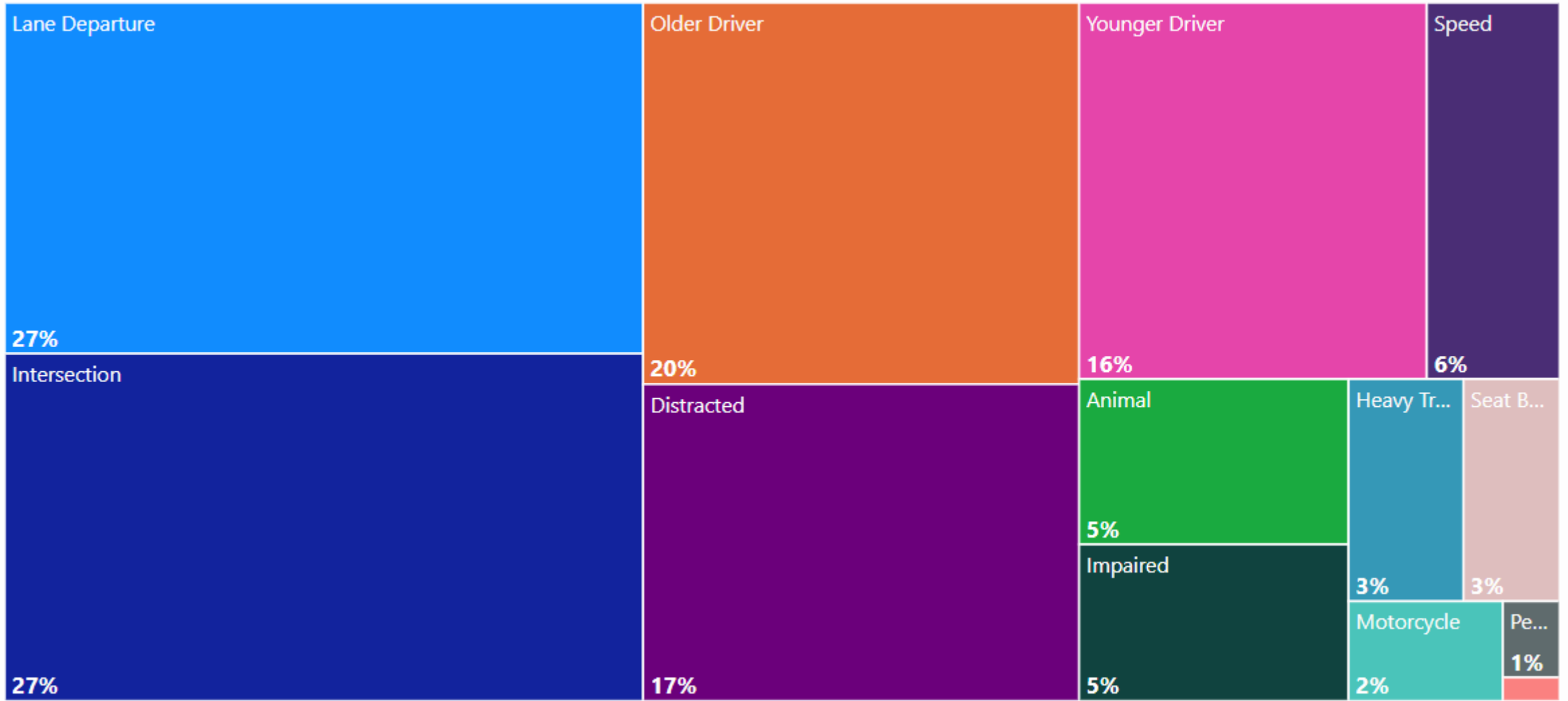
PEDESTRIANS, BICYCLISTS, AND PERSONAL MOBILITY



SUBSTANCE IMPAIRED DRIVING

4 County Region

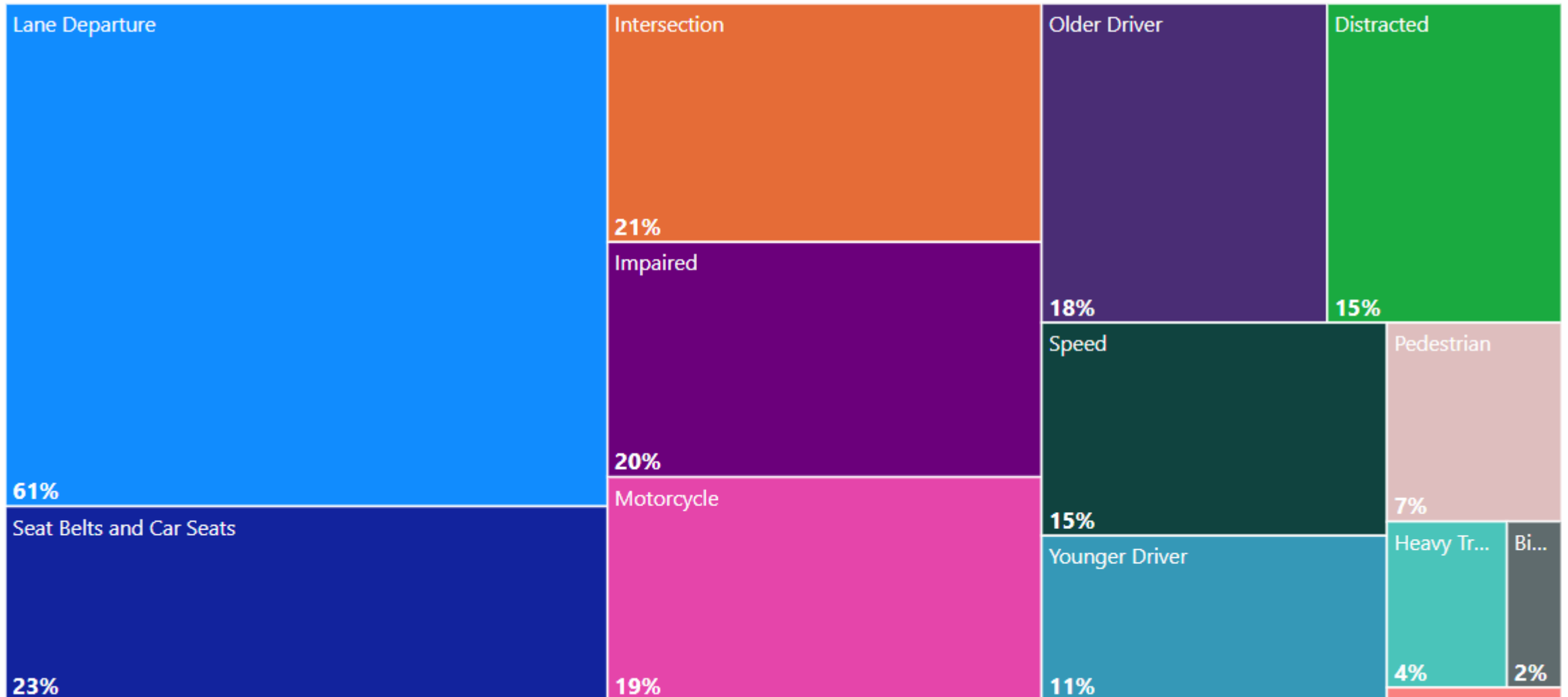
All Crashes by Emphasis Area



● Lane Departure ● Intersection ● Older Driver ● Distracted ● Younger Driver ● Speed ● Animal ● Impaired ● Heavy Truck ● Seat Belts and Car Seats ● Motorcycle ● Pedestrian ● Bicyclists

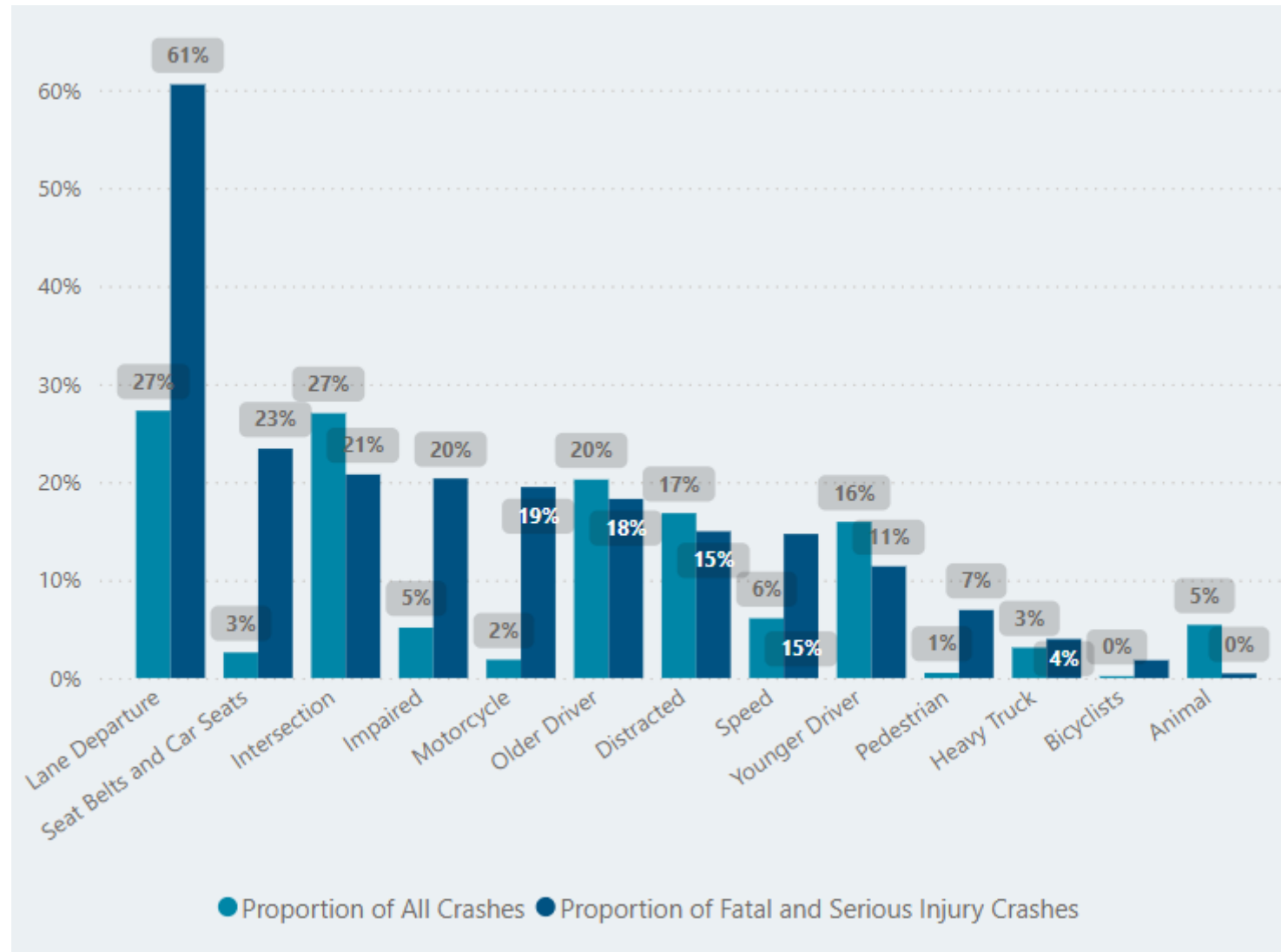
4 County Region

Fatal and Serious Injury Crashes by Emphasis Area



● Lane Departure ● Seat Belts and Car Seats ● Intersection ● Impaired ● Motorcycle ● Older Driver ● Distracted ● Speed ● Younger Driver ● Pedestrian ● Heavy Truck ● Bicyclists ● Animal

Proportion of Crashes by Emphasis Area

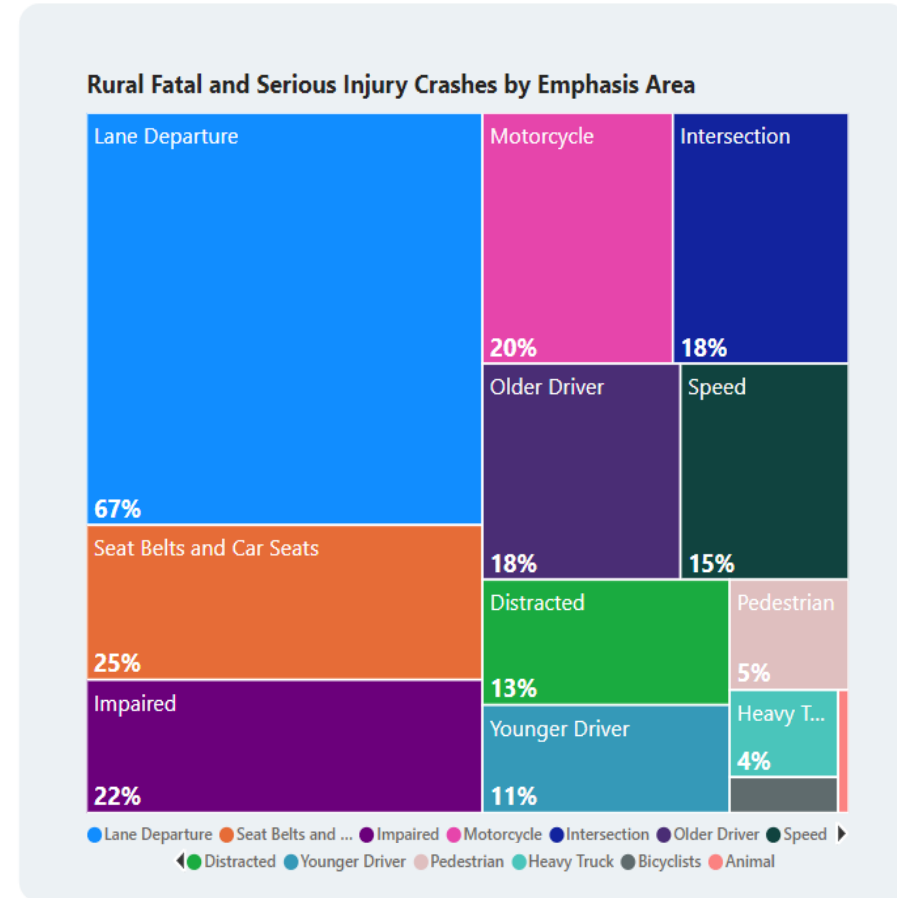
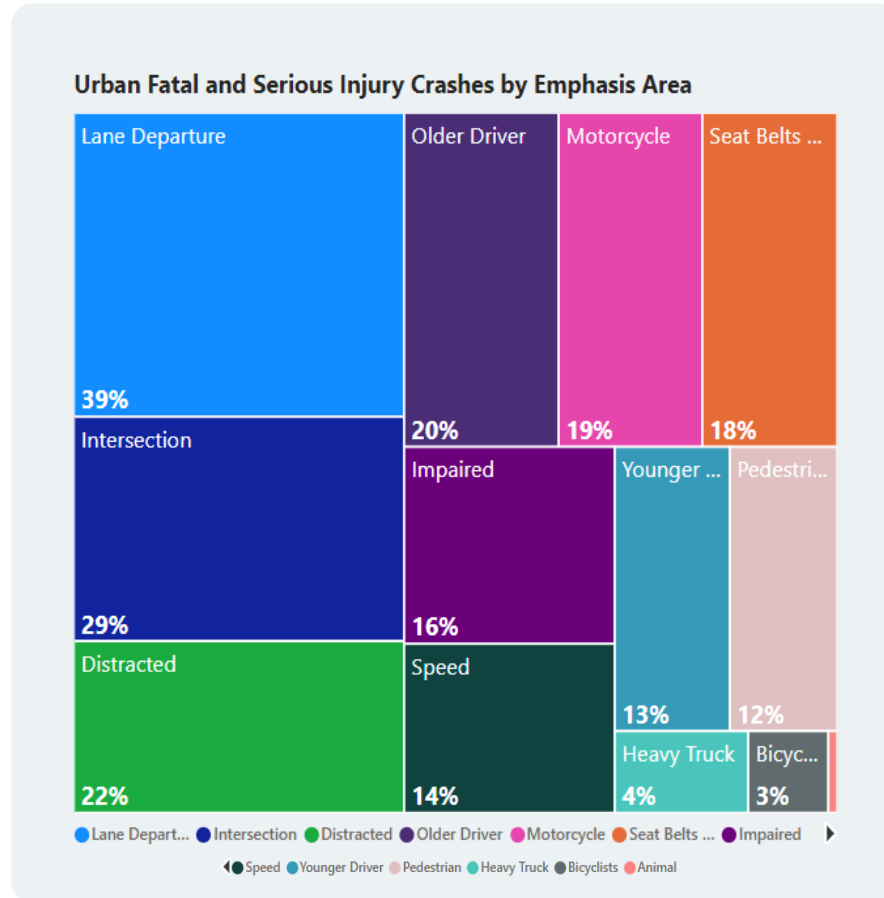
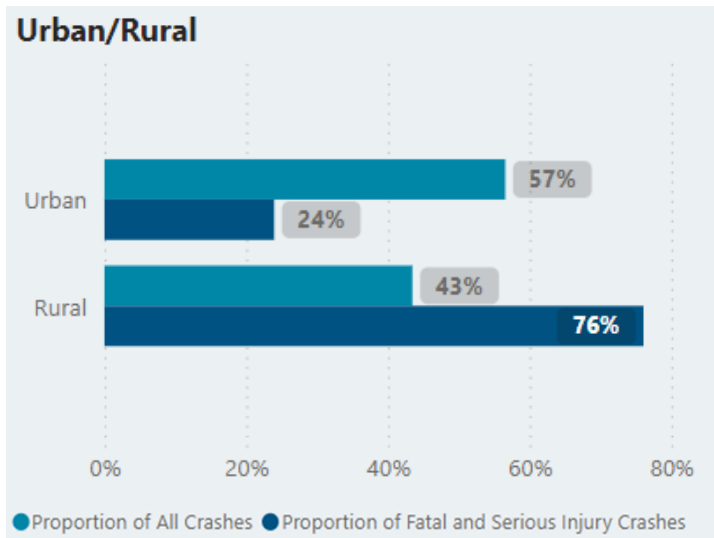


Emphasis Area Comparison Table

Proportion of Fatal and Serious Injury Crashes by County

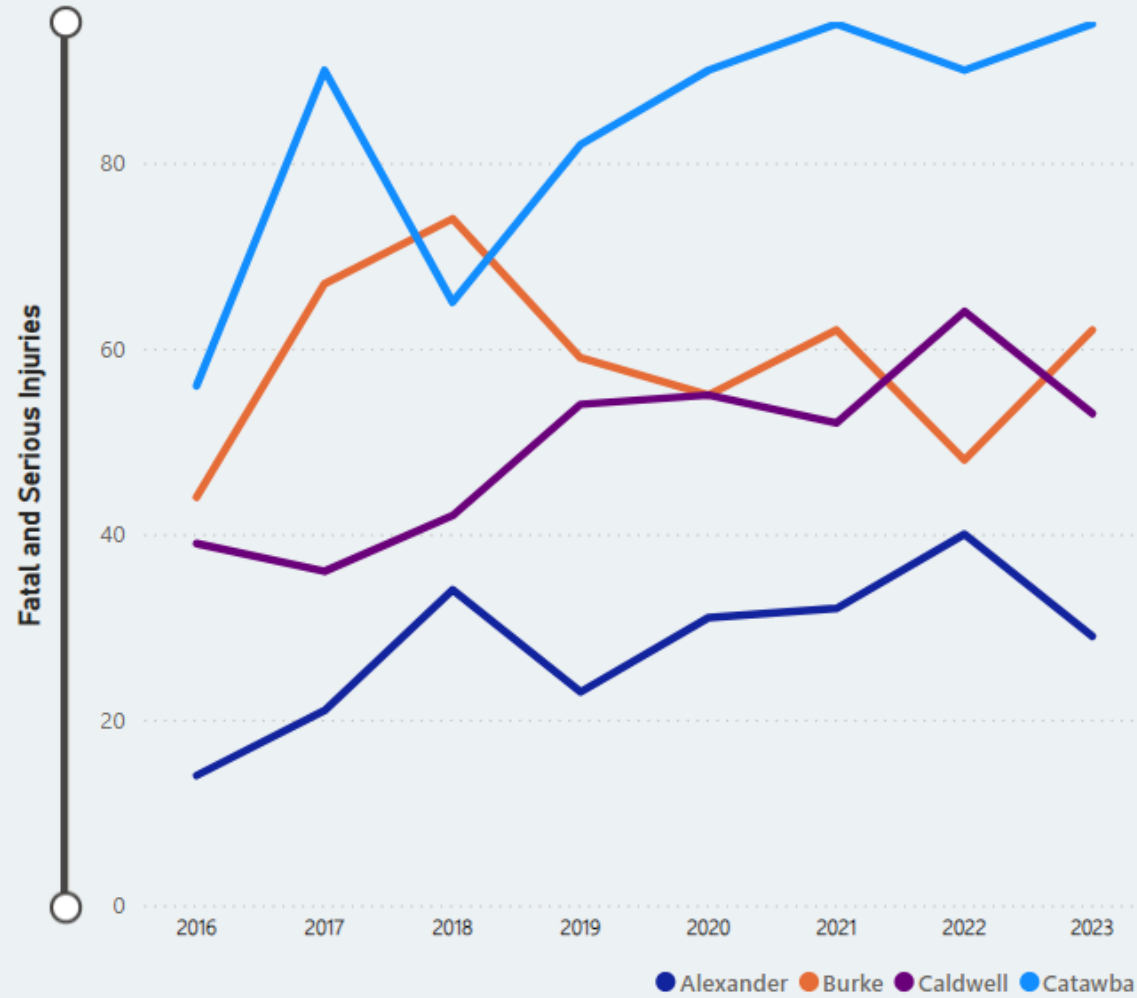
Emphasis Areas	Alexander	Burke	Caldwell	Catawba	Statewide
Animal	1%	0%	0%	1%	1%
Bicyclists		2%	2%	2%	2%
Distracted	14%	20%	14%	12%	12%
Heavy Truck	1%	5%	3%	5%	5%
Impaired	21%	21%	18%	21%	23%
Intersection	21%	16%	20%	24%	22%
Lane Departure	69%	65%	62%	54%	53%
Motorcycle	18%	23%	15%	20%	14%
Older Driver	17%	15%	22%	19%	17%
Pedestrian	4%	7%	6%	8%	10%
Seat Belts and Car Seats	25%	25%	24%	22%	27%
Speed	17%	16%	19%	11%	18%
Younger Driver	15%	11%	11%	11%	11%

4 County Region

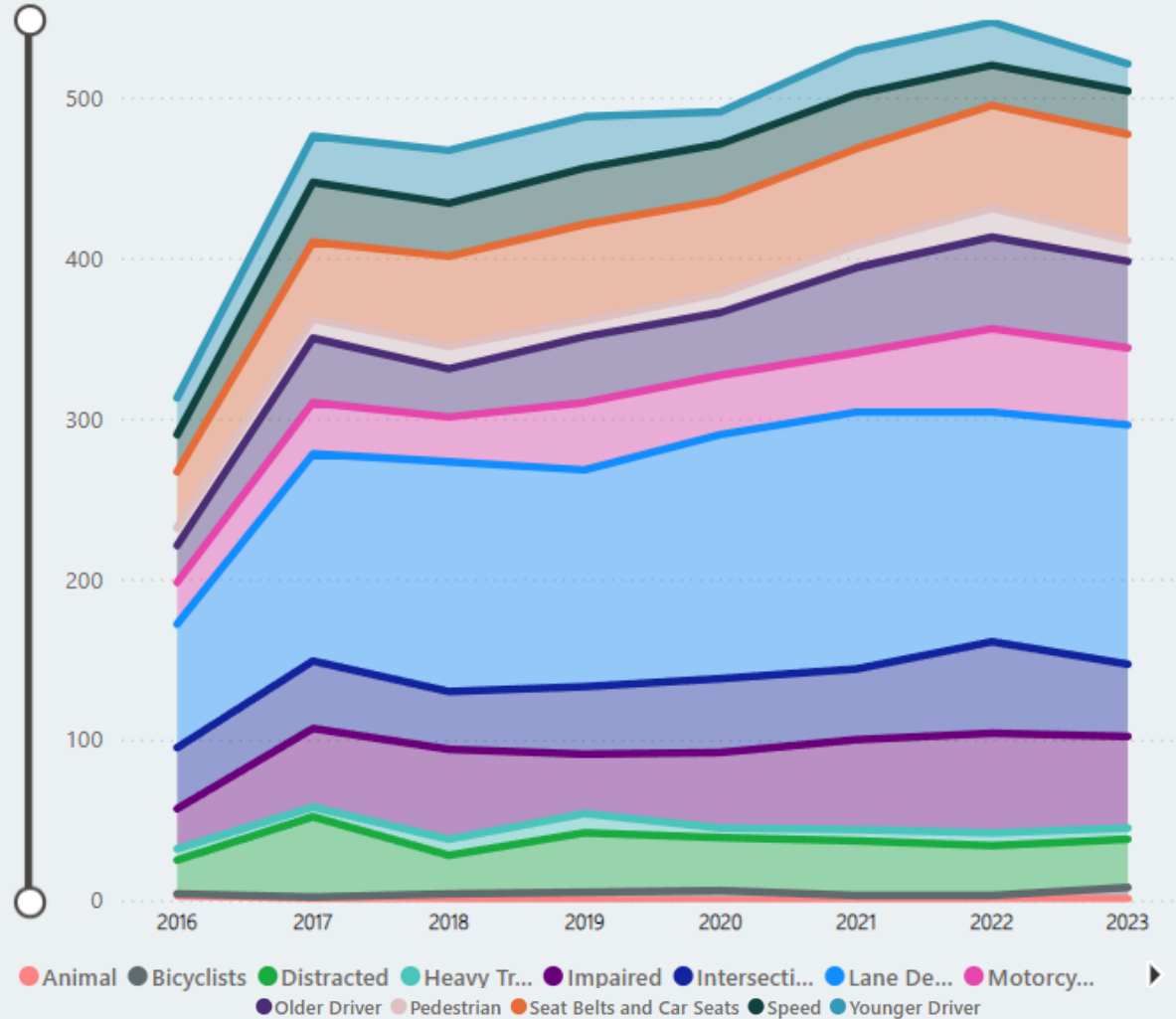


4 County Region

Fatal and Serious Injuries by County



Fatal and Serious Injuries by Emphasis Area



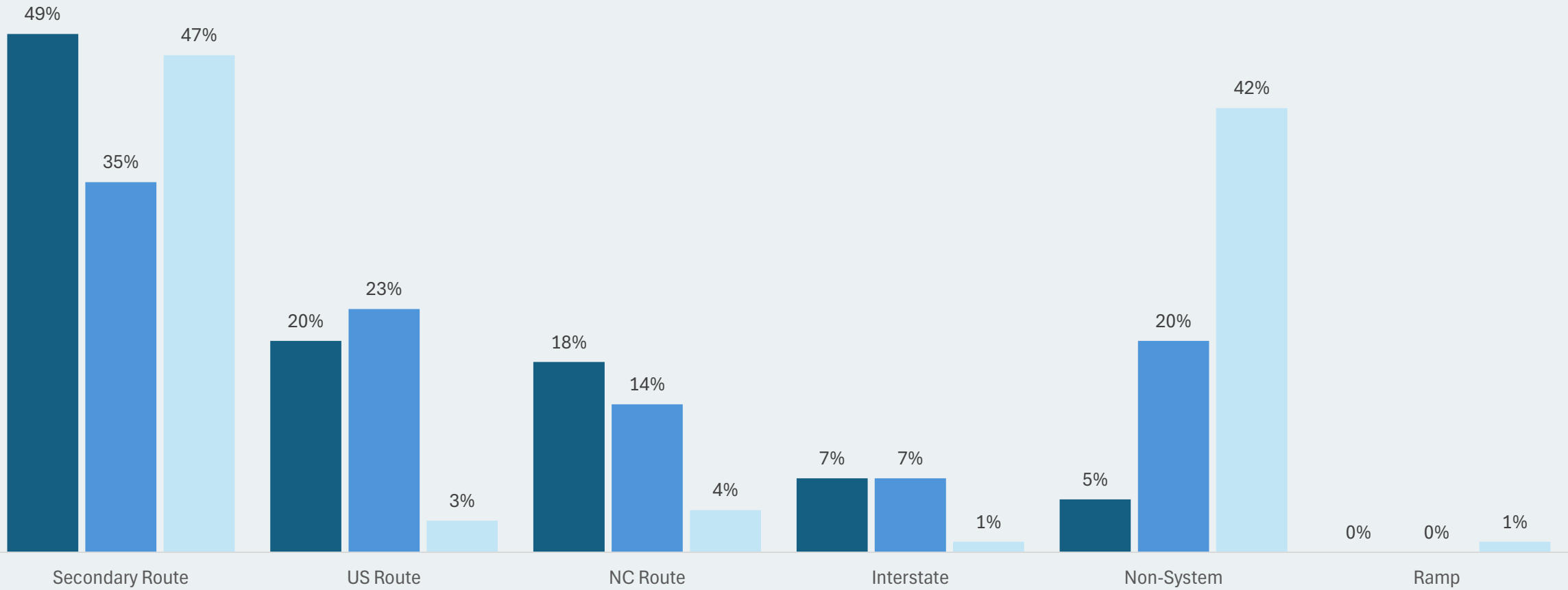
4 County Region

Crashes and Roadway Mileage by Route Class

■ Proportion of Fatal and Serious Injury Crashes

■ Proportion of All Crashes

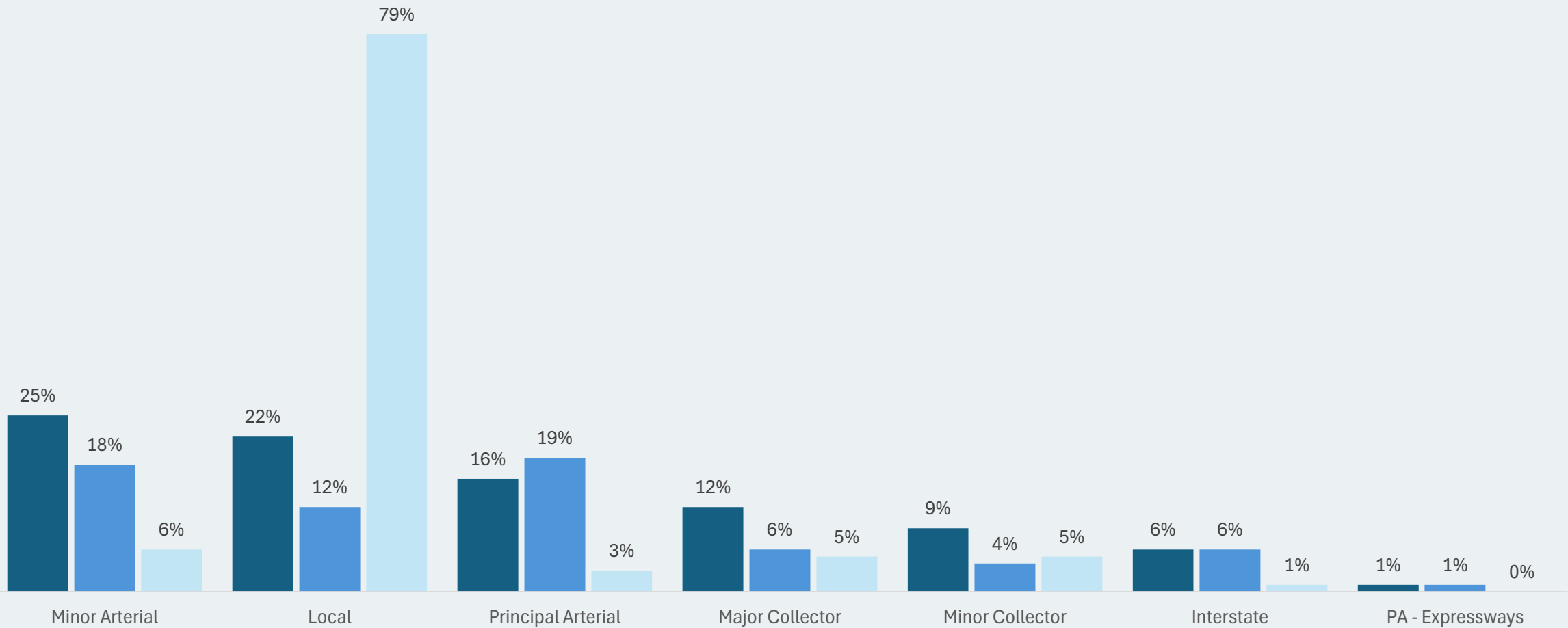
■ Proportion of Mileage



4 County Region

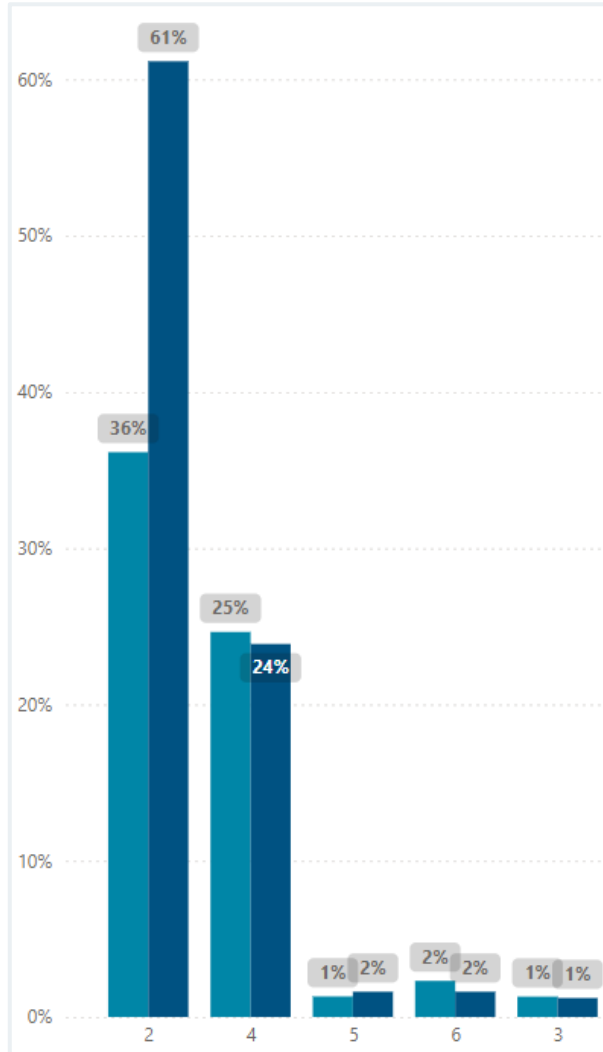
Crashes and Roadway Mileage by Functional Class

■ Proportion of Fatal and Serious Injury Crashes ■ Proportion of All Crashes ■ Proportion of Mileage

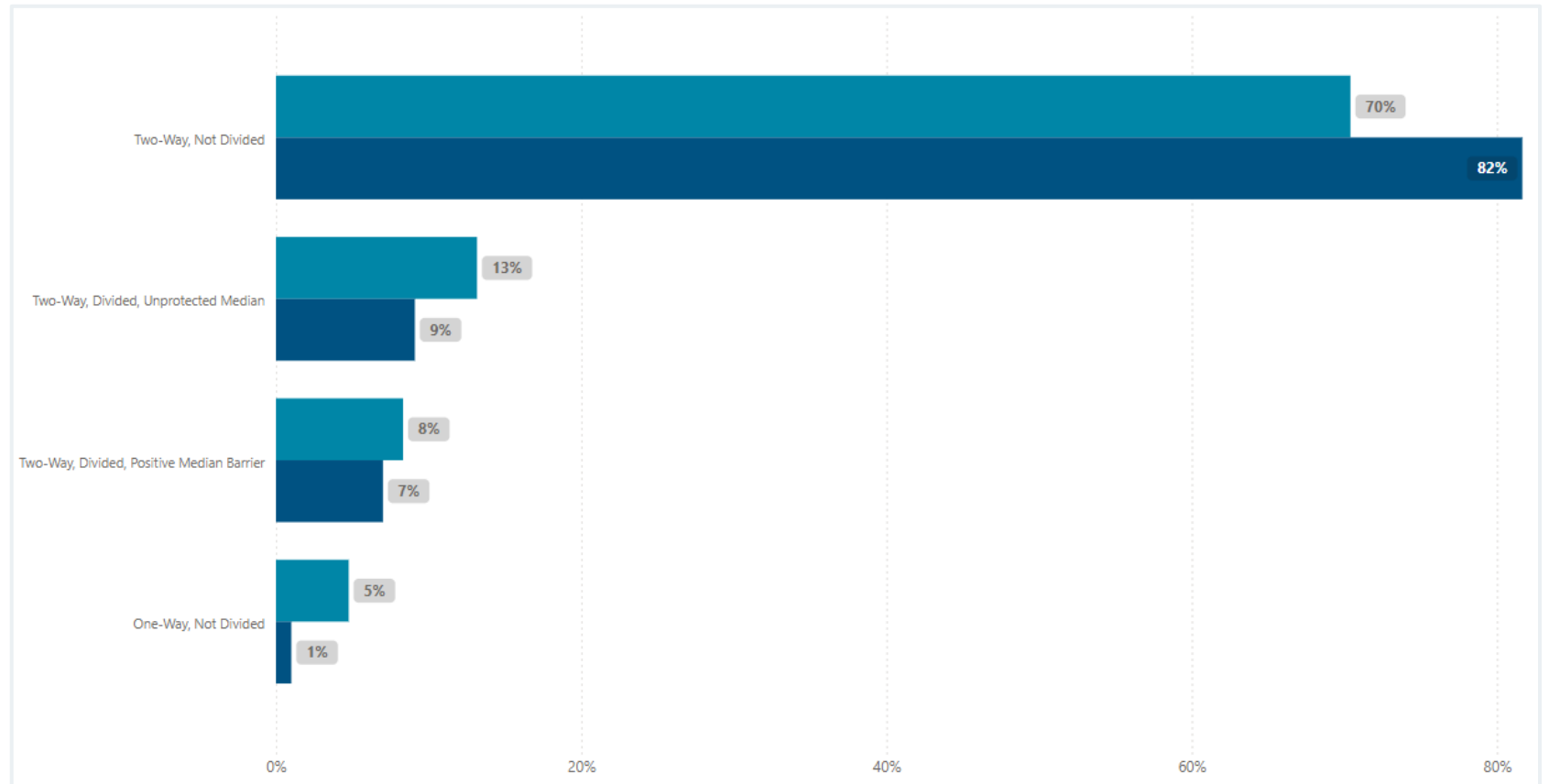


4 County Region

Number of Lanes

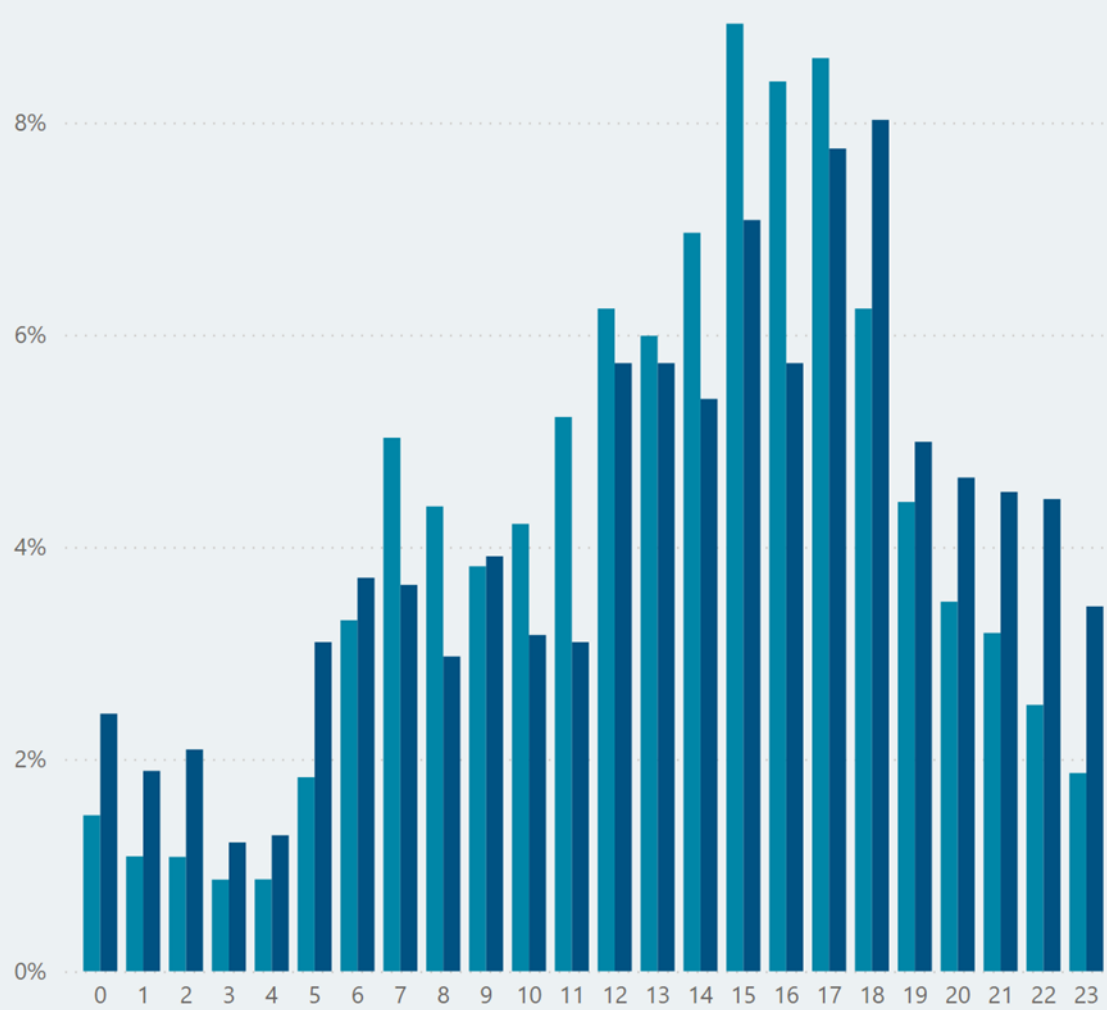


Roadway Configuration

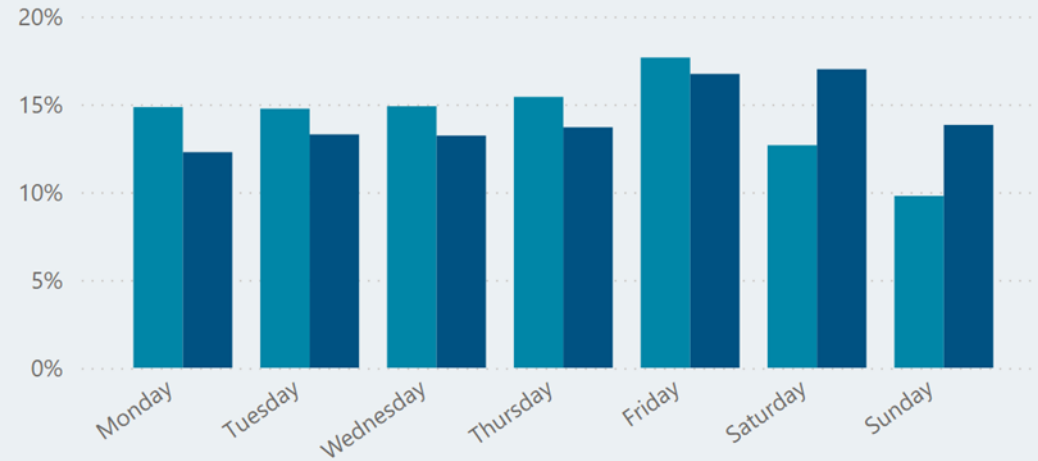


4 County Region

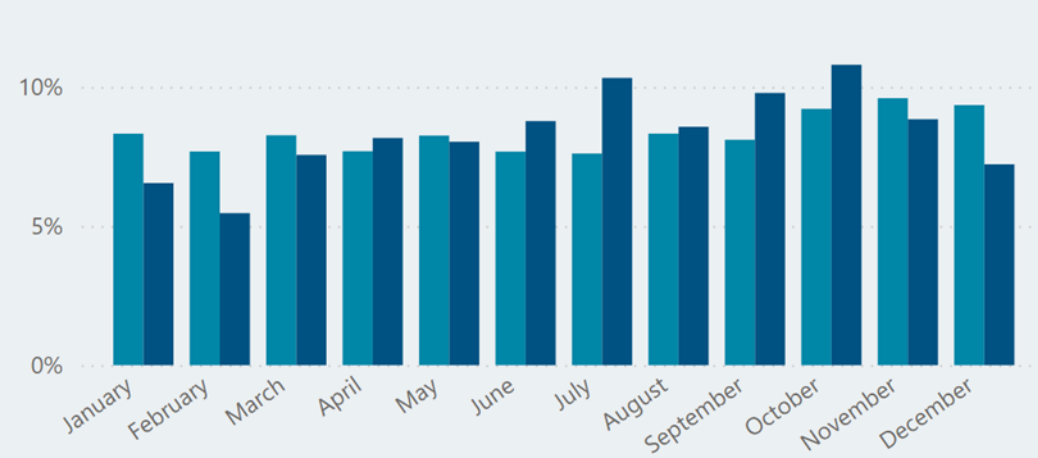
Comparison of Crash Outcomes by Hour



Day of Week

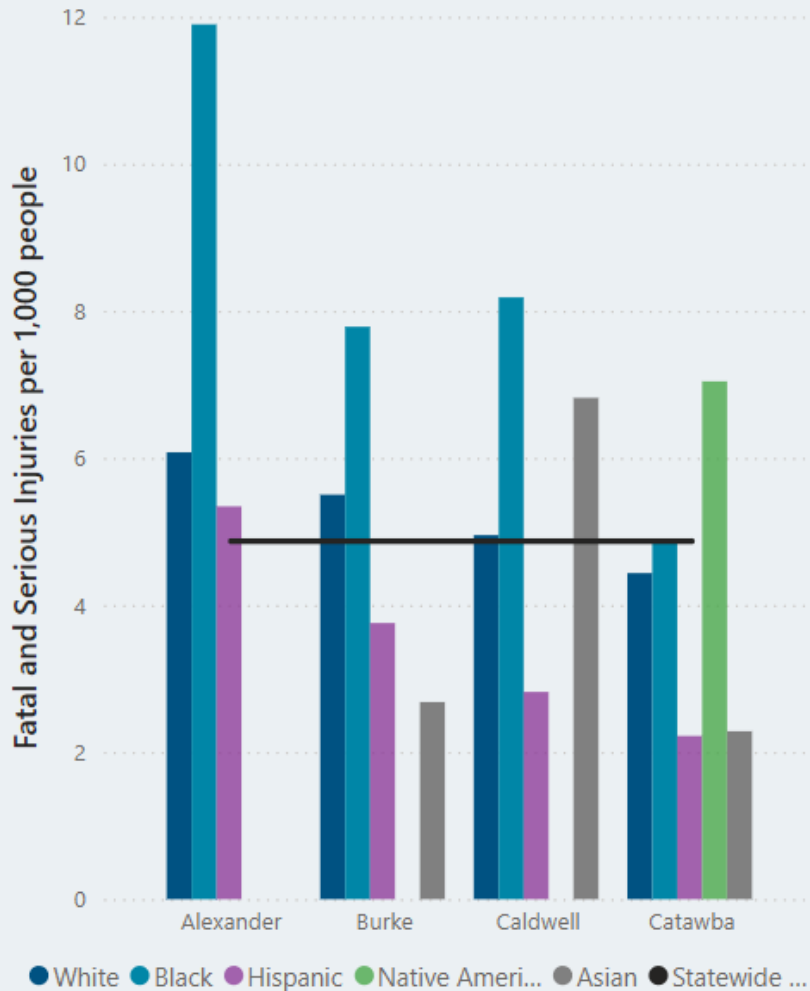


Month

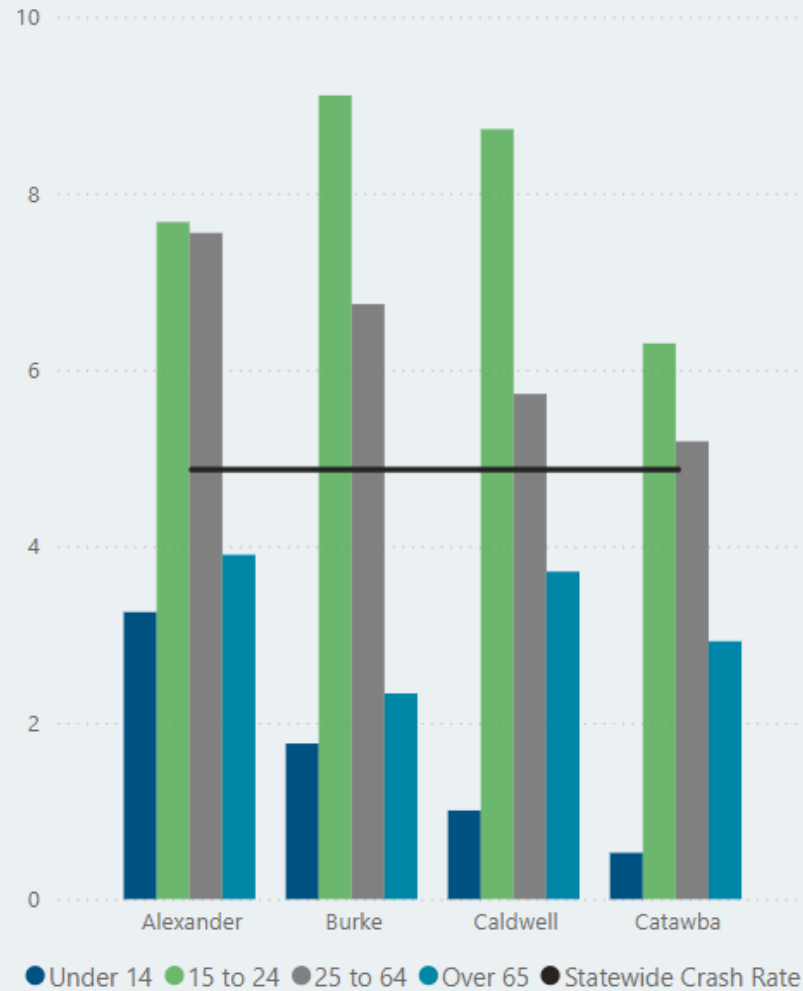


4 County Region

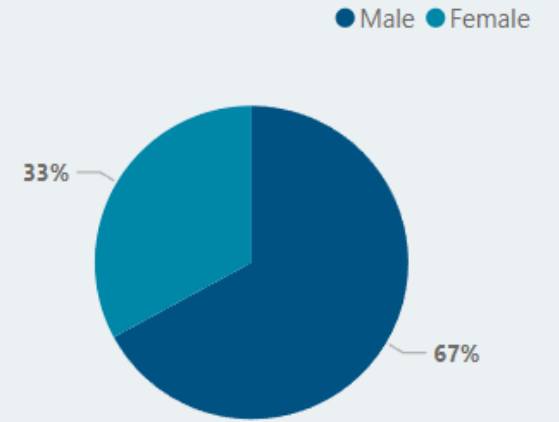
Crash Rates by Race and Ethnicity



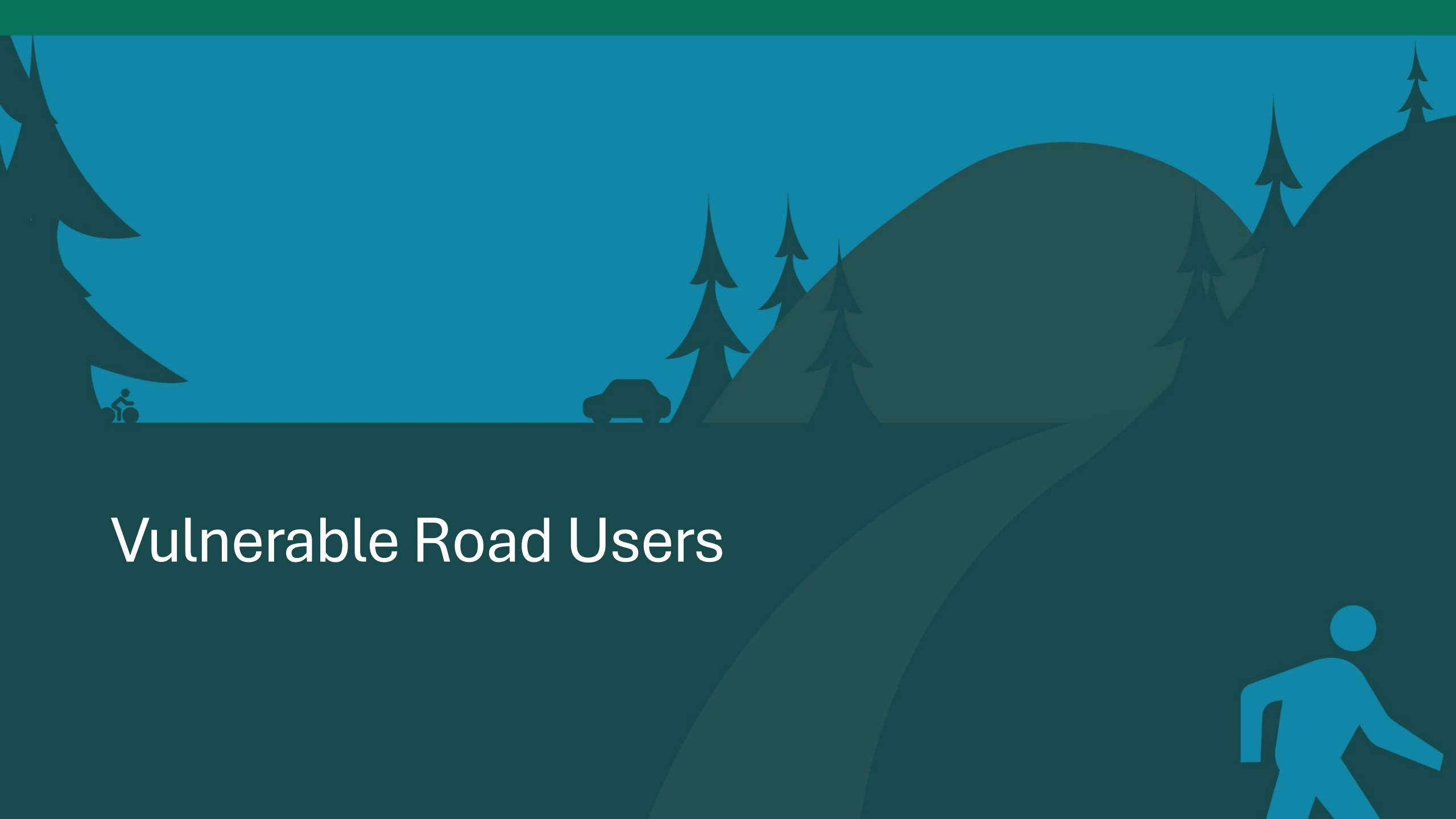
Crash Rates by Age Group



Crash Rates by Sex



Vulnerable Road Users



Vulnerable Road Users

2016
—
2022

500

Total Crashes

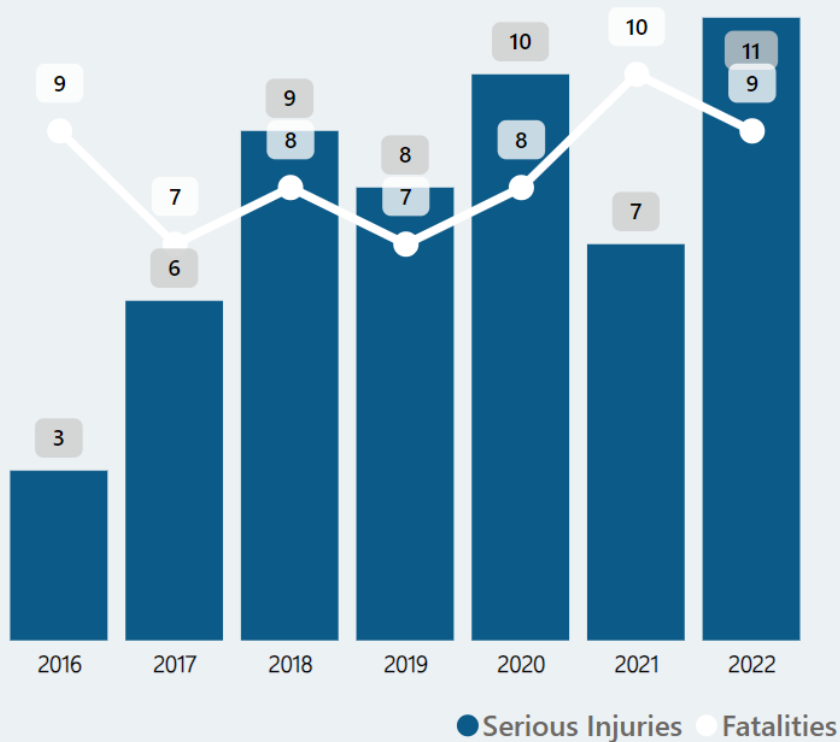
58

Fatalities

55

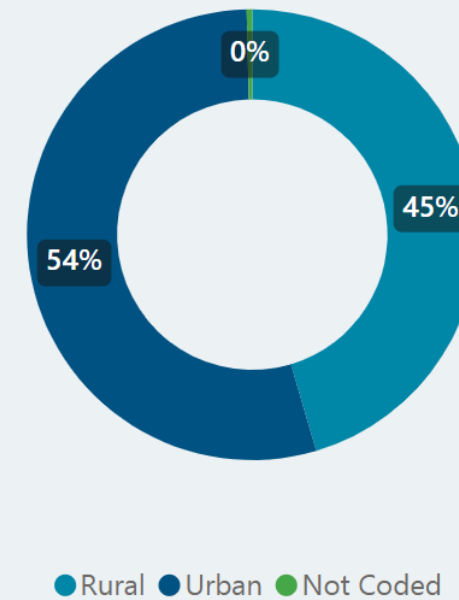
Serious Injuries

Fatal and Serious Injuries

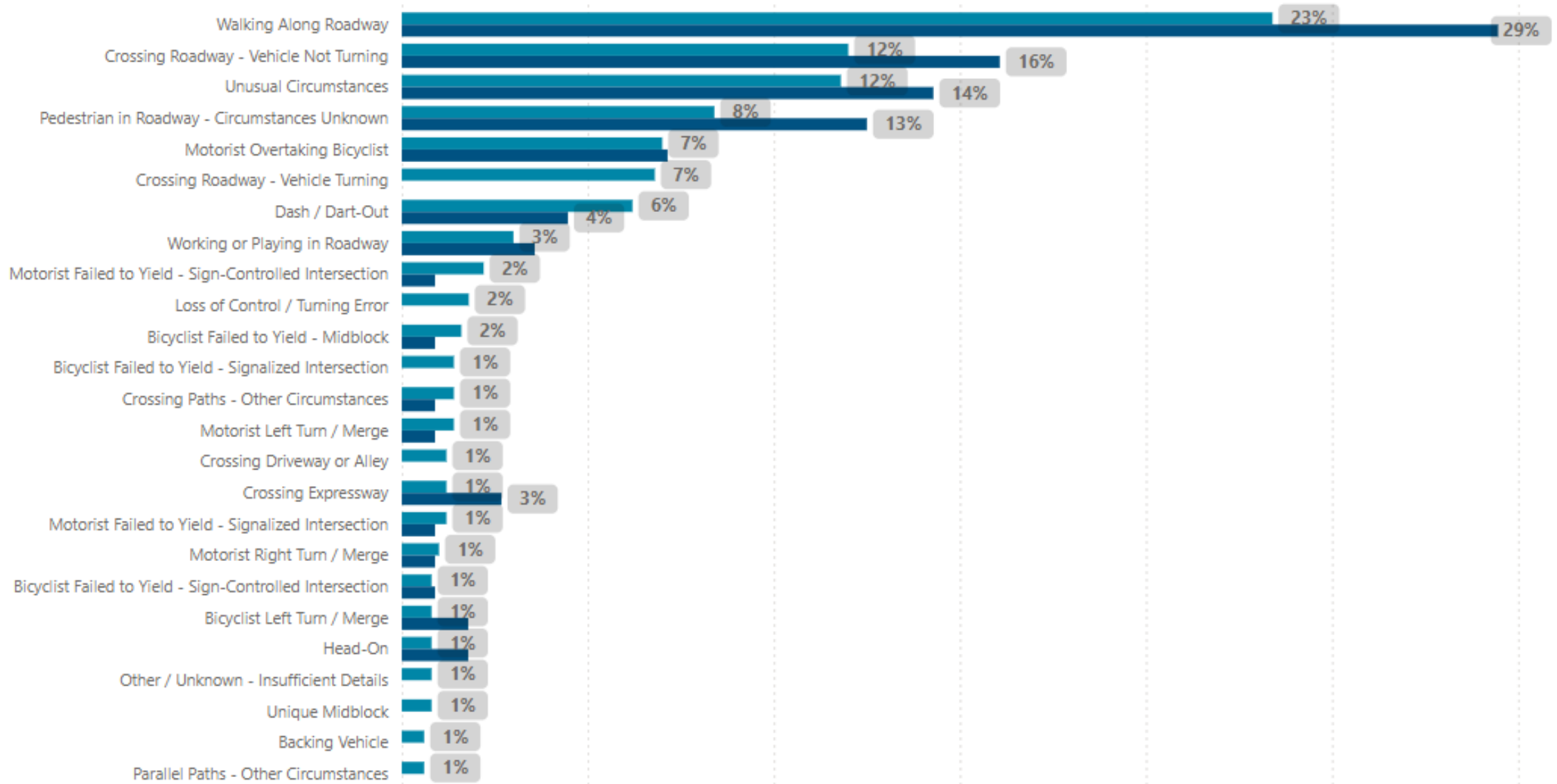


Urban vs Rural Crashes

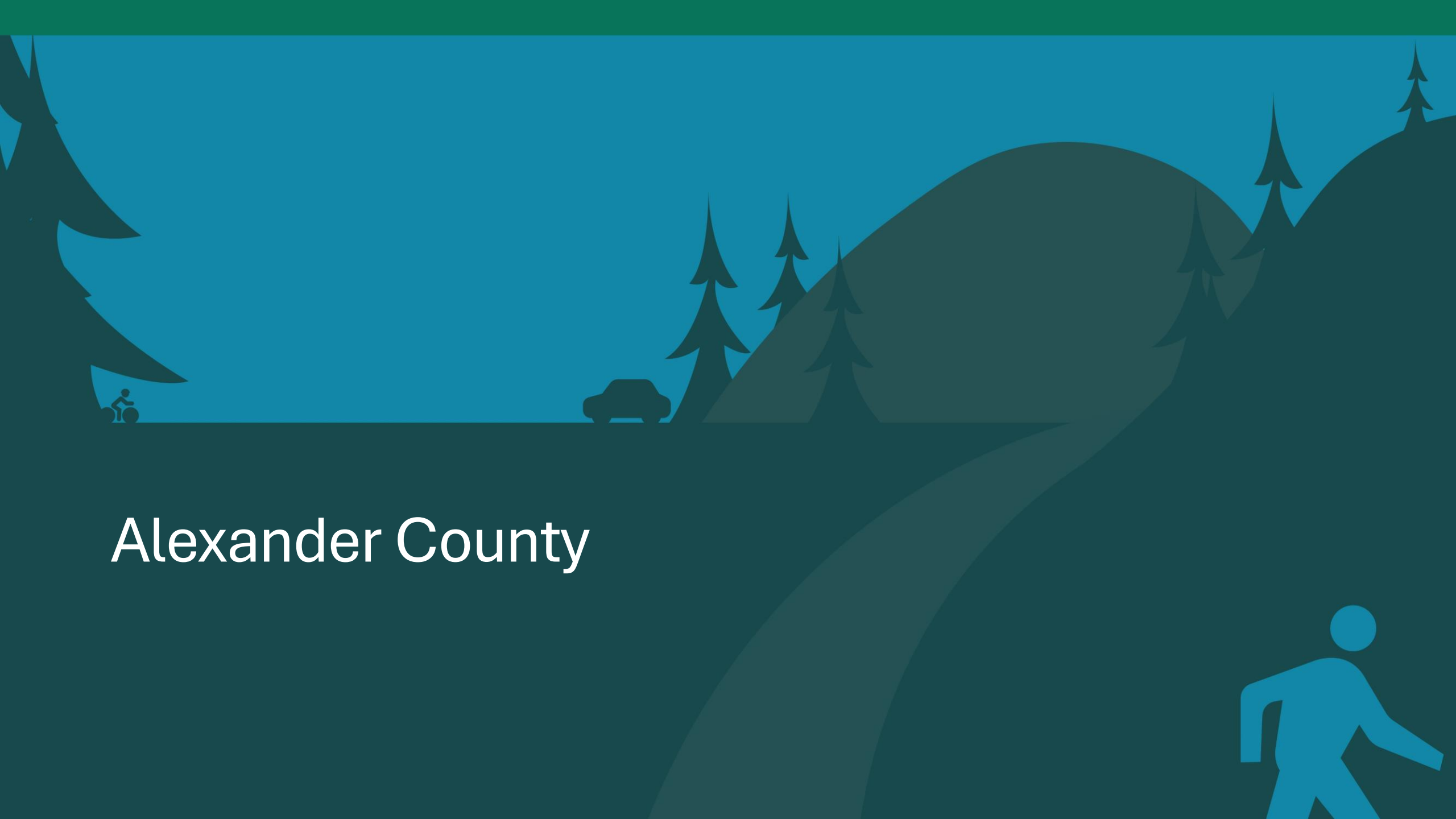
227 Rural **271** Urban **2** Not Coded



Vulnerable Road Users



Alexander County



Alexander County

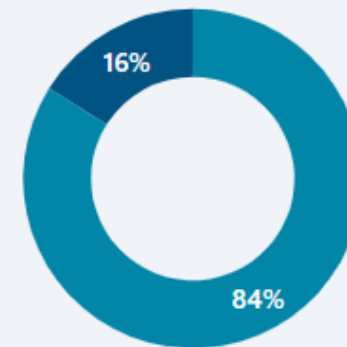
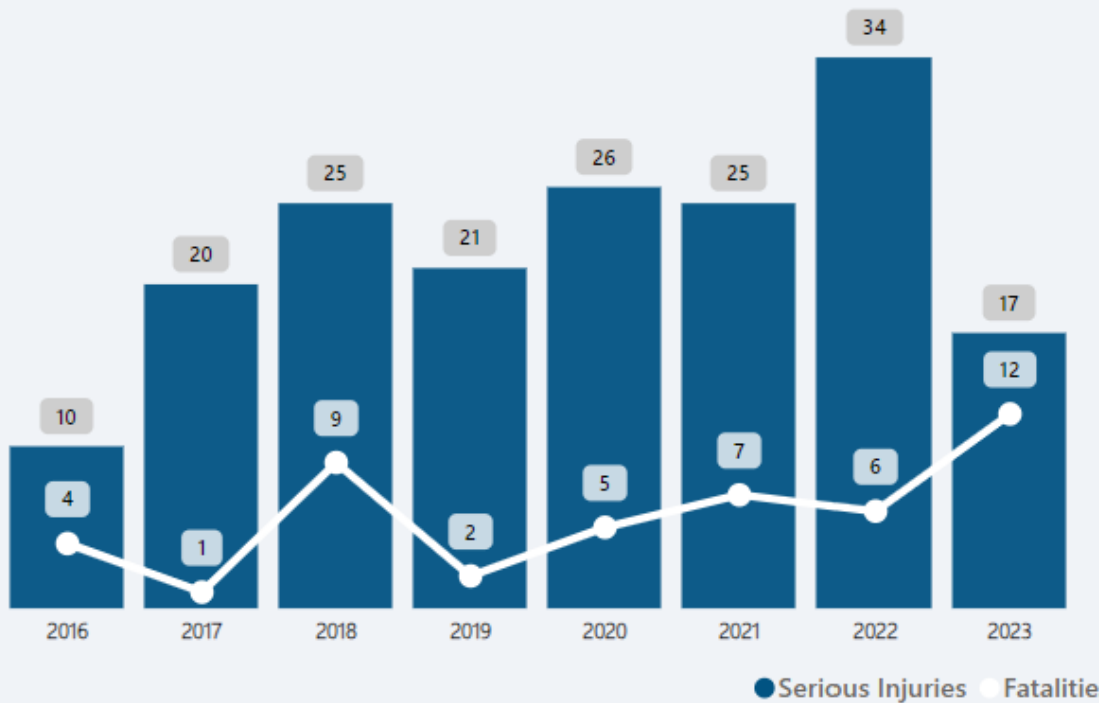
2016
—
2023

4,790
Total Crashes

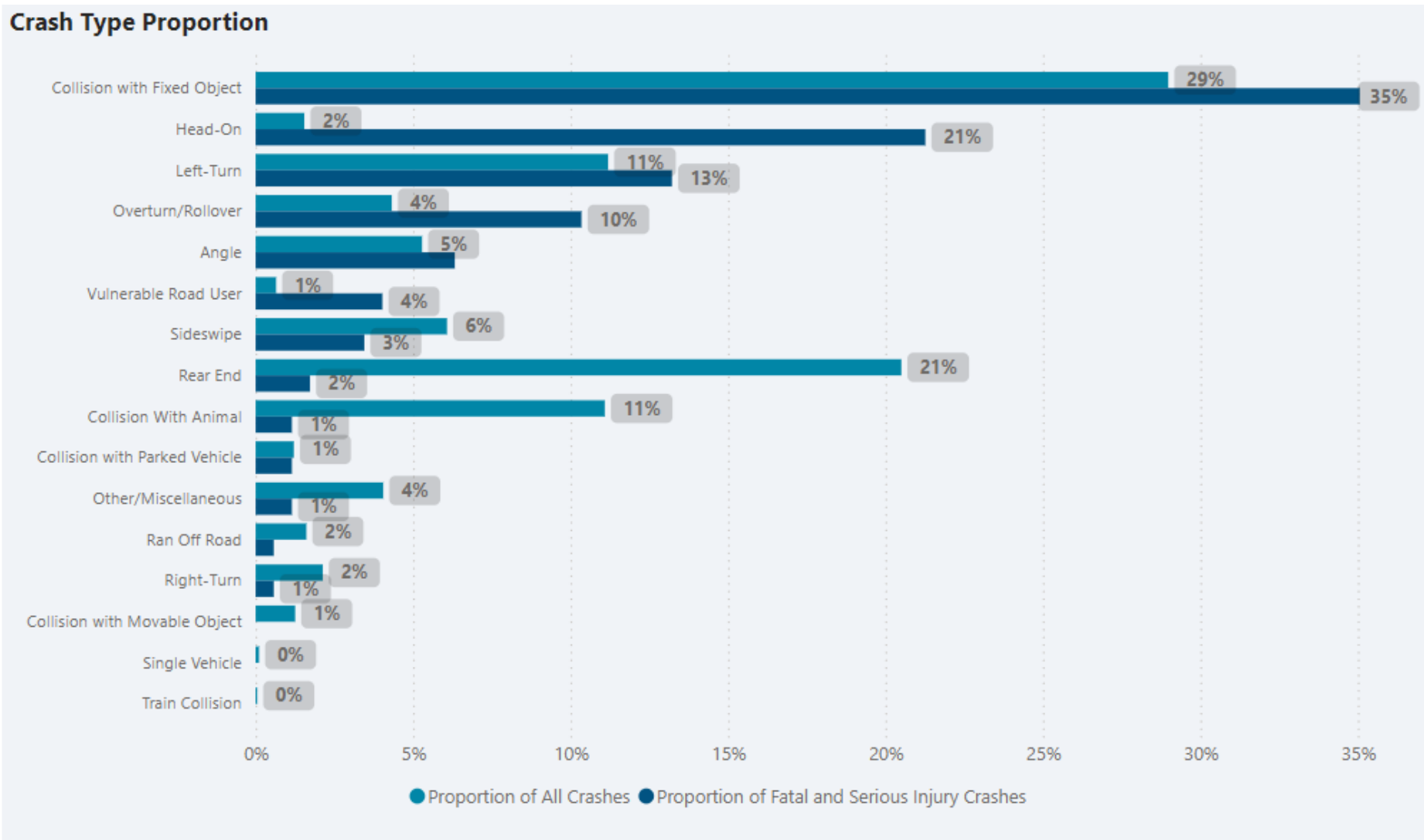
46
Fatalities

178
Serious Injuries

Fatal and Serious Injuries

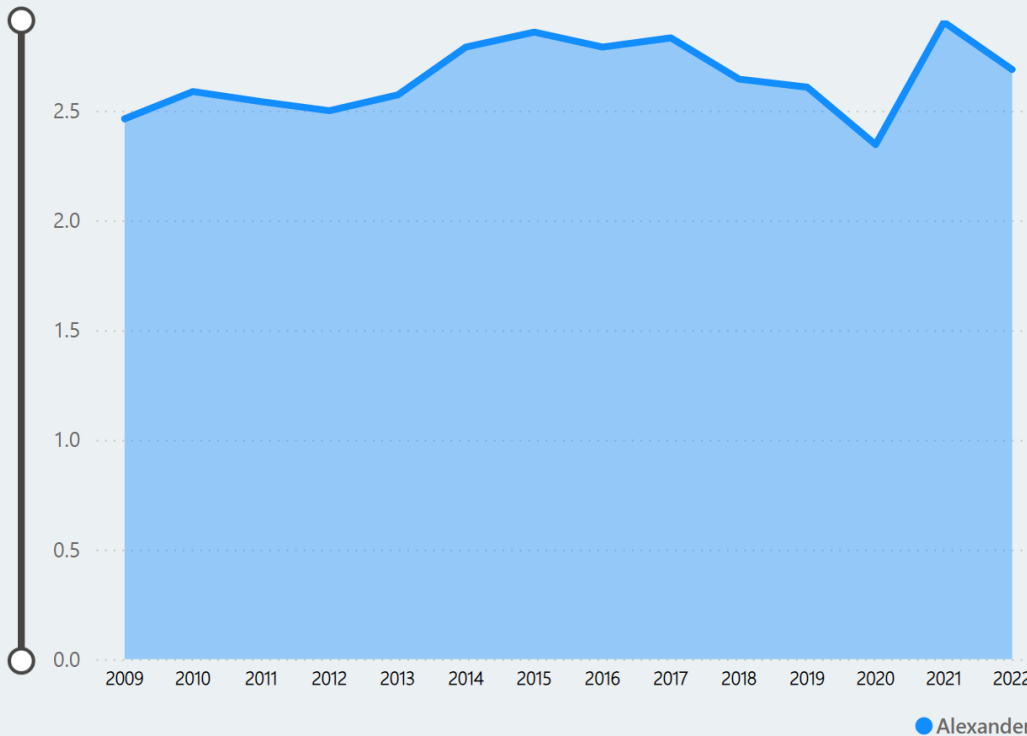
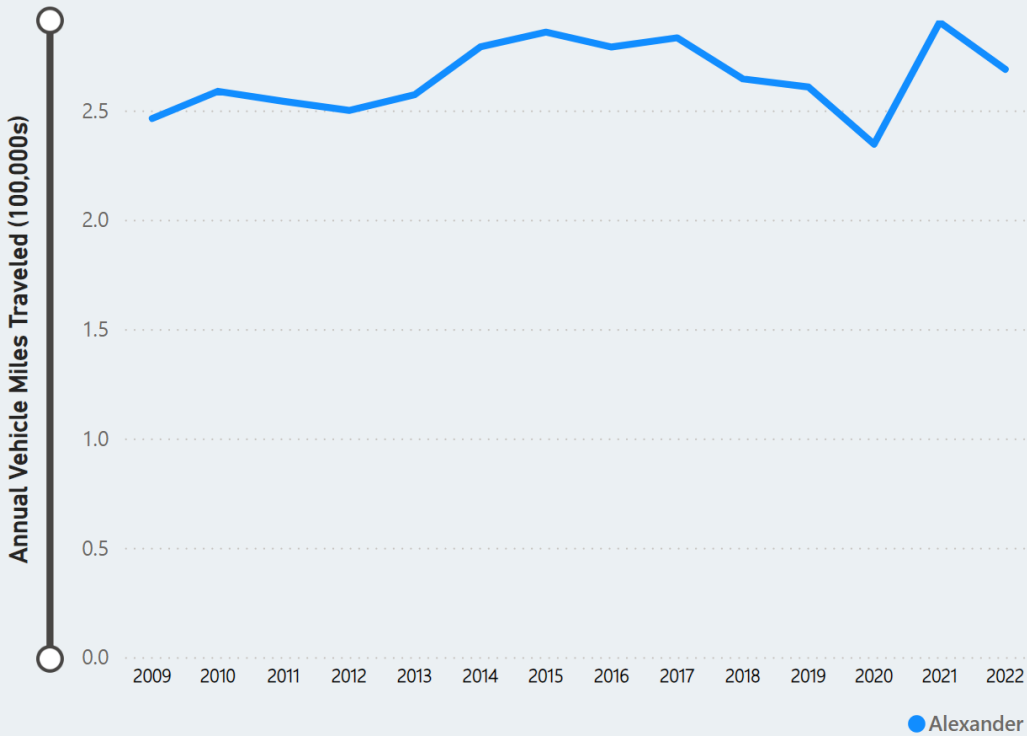


Alexander County



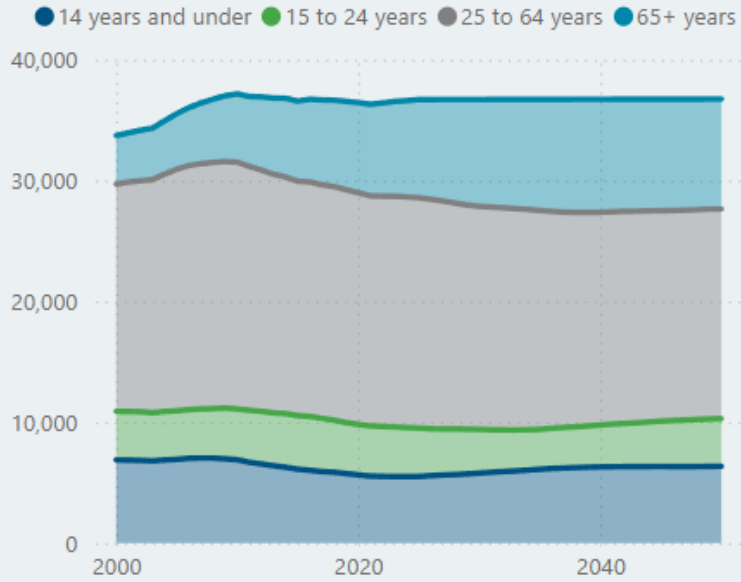
Alexander County

Between 2009 and 2022 Annual VMT changed by 9.1 % for all selected geography



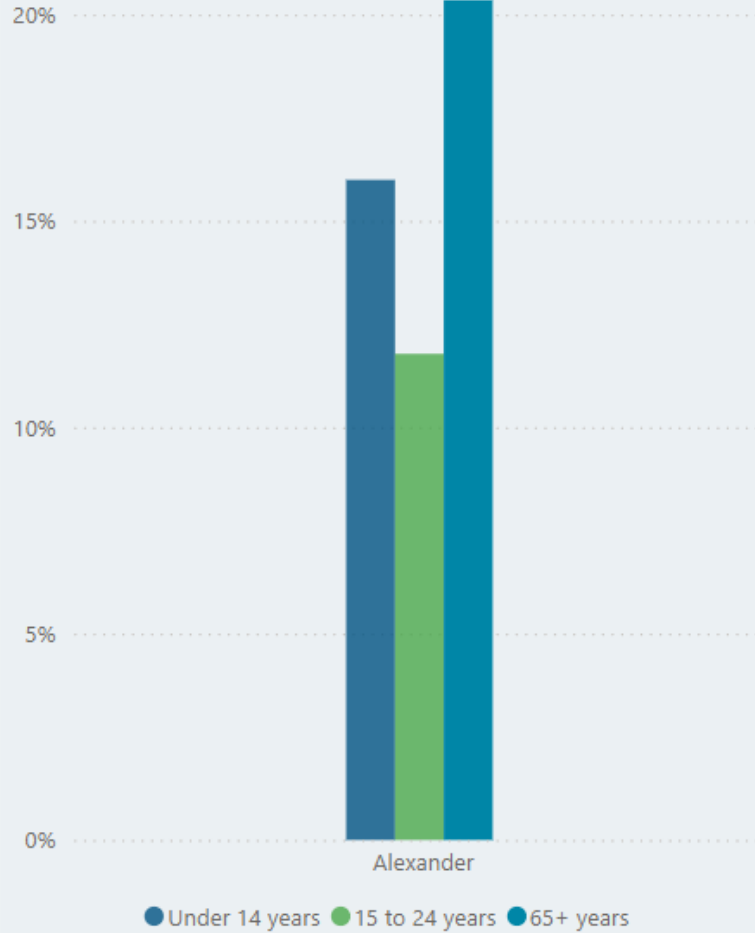
Alexander County

Population Growth

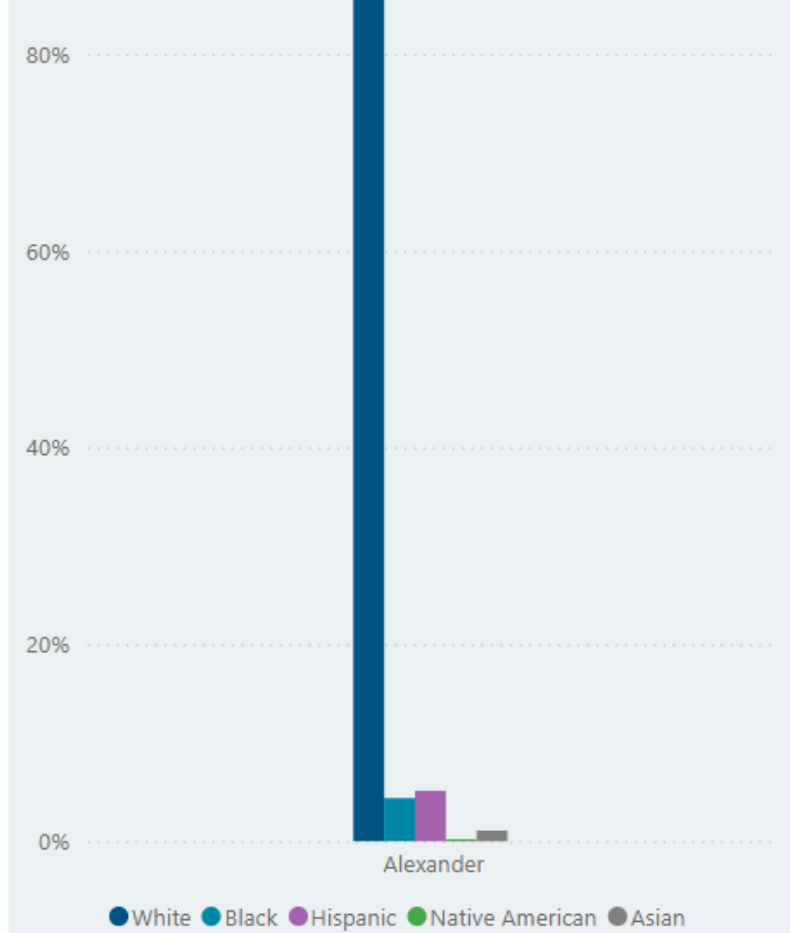


Age Group	2000 Population	2050 Population	Percent Change
14 years and under	6,879	6,357	-8%
15 to 24 years	4,022	3,948	-2%
25 to 64 years	18,813	17,346	-8%
65+ years	4,021	9,104	126%
Total	33,735	36,755	9%

Census Estimate, Age Distribution (2022)

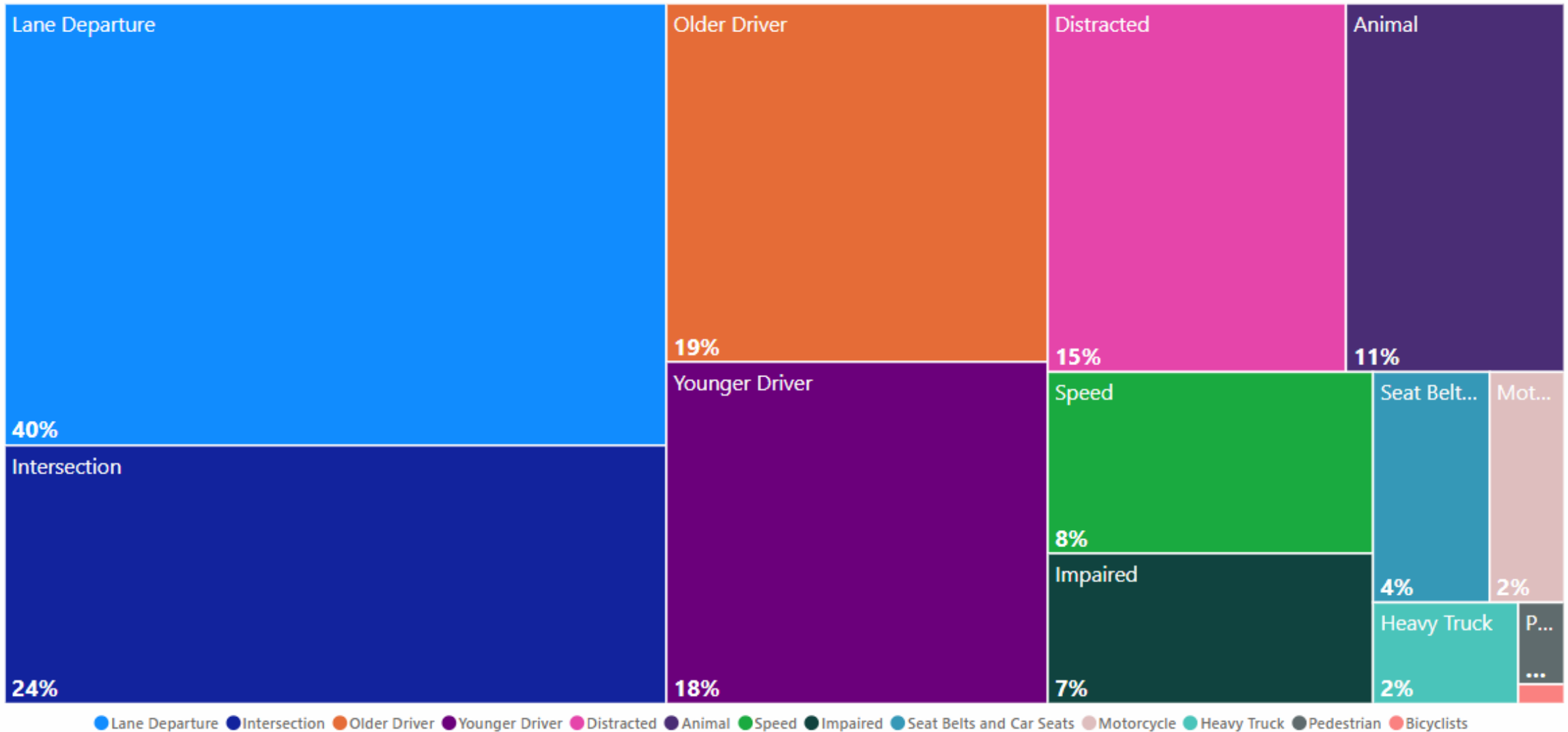


Census Estimate, Race & Ethnicity Distribution (2022)



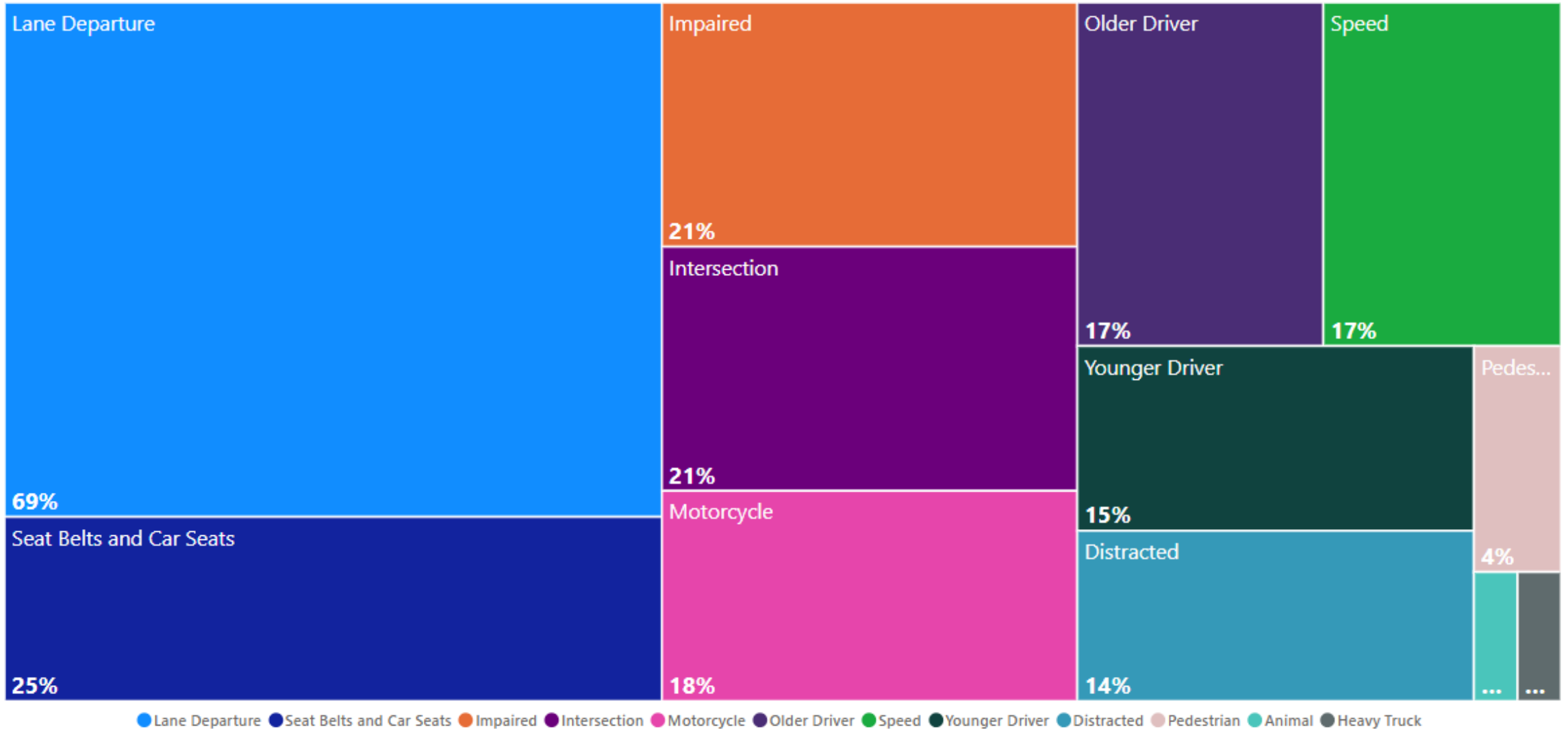
Alexander Crashes by Emphasis Area

All Crashes by Emphasis Area

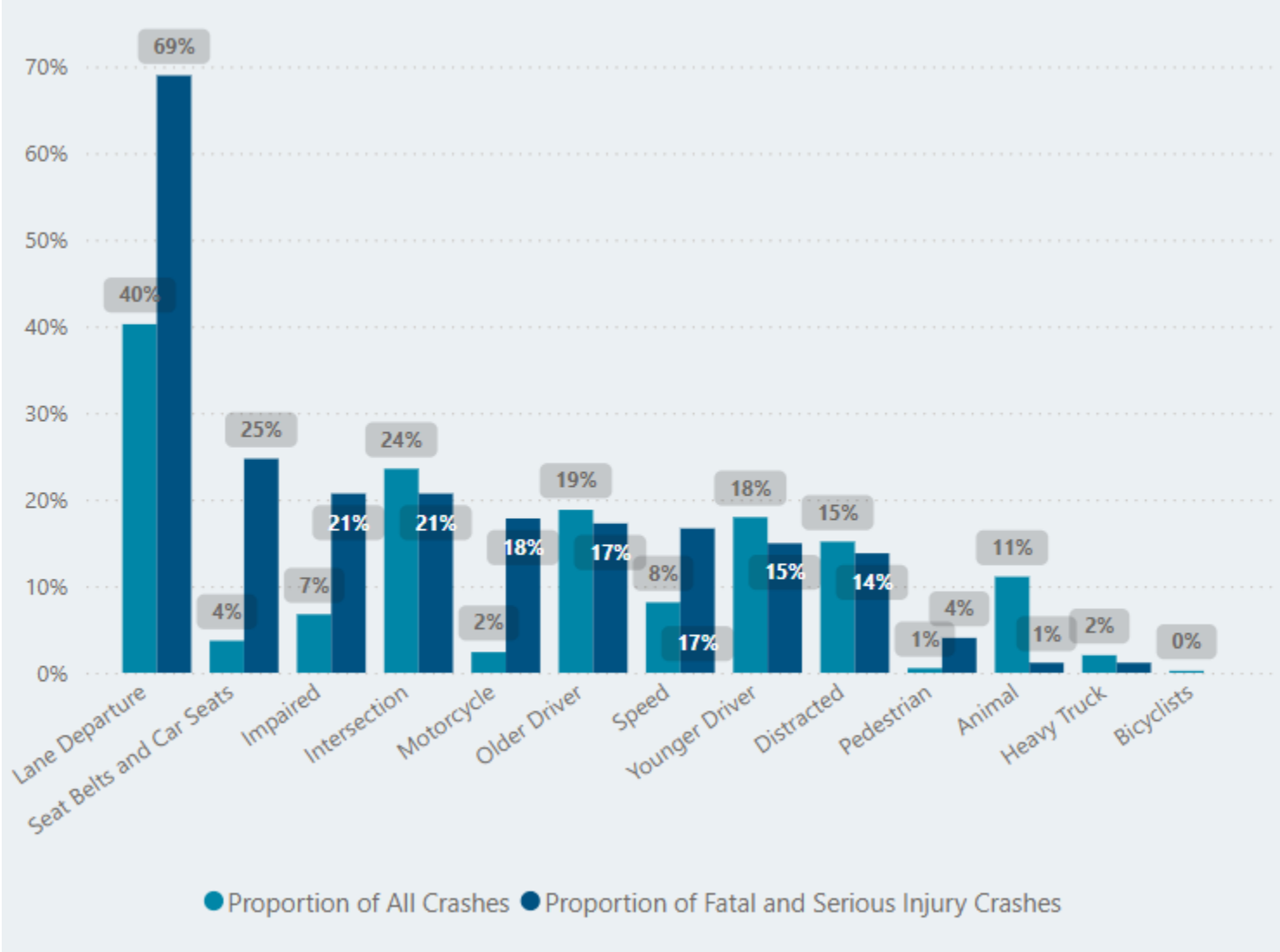


Alexander Fatal and Serious Crashes by Emphasis Area

Fatal and Serious Injury Crashes by Emphasis Area



Proportion of Alexander Crashes by Emphasis Area

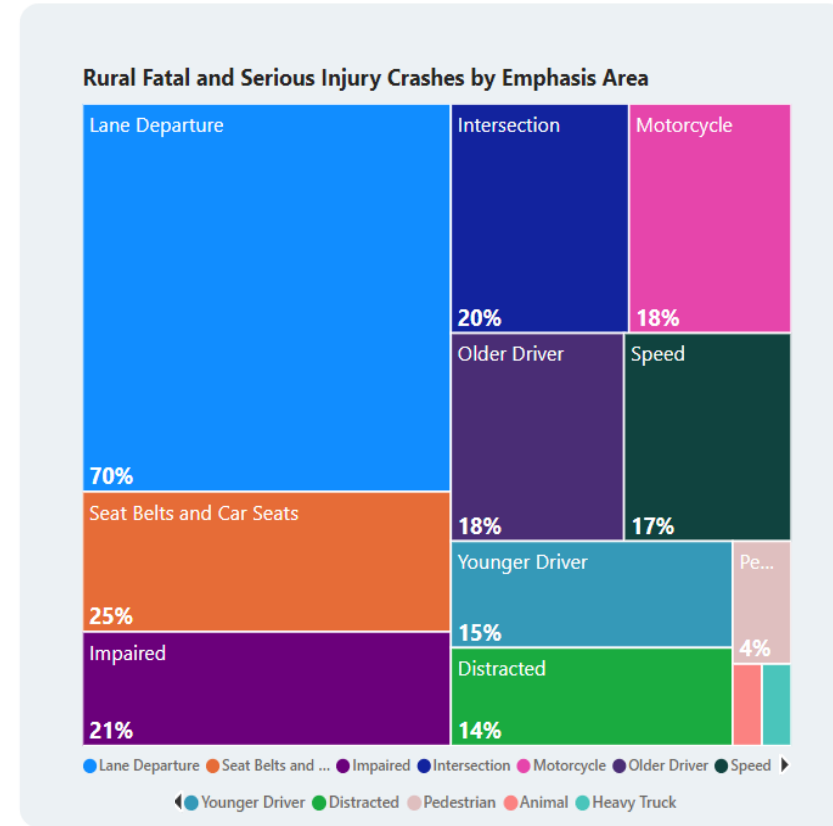
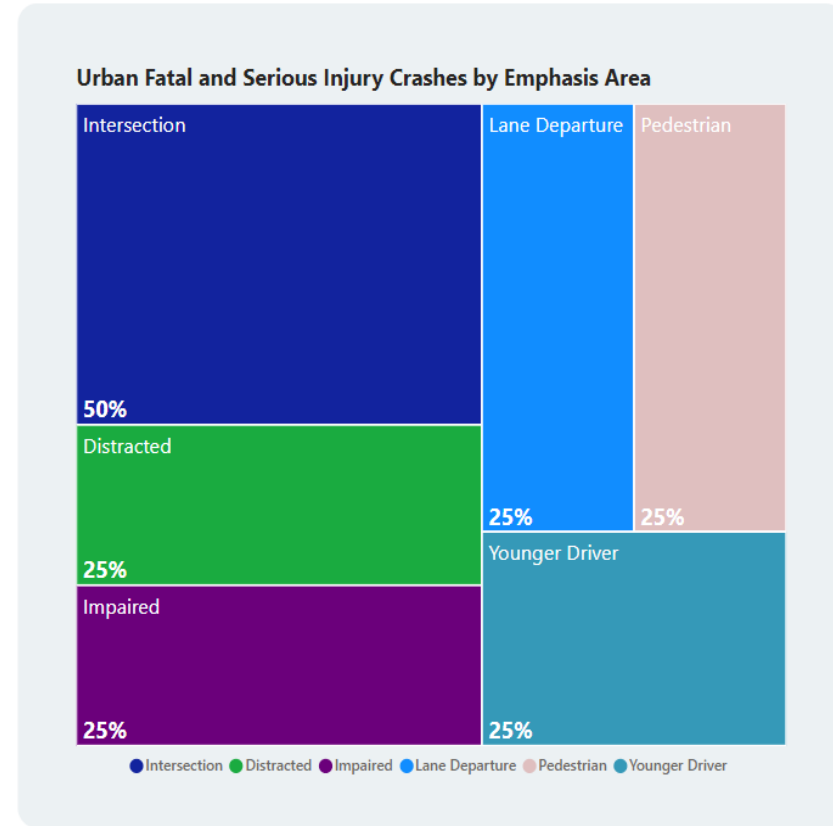
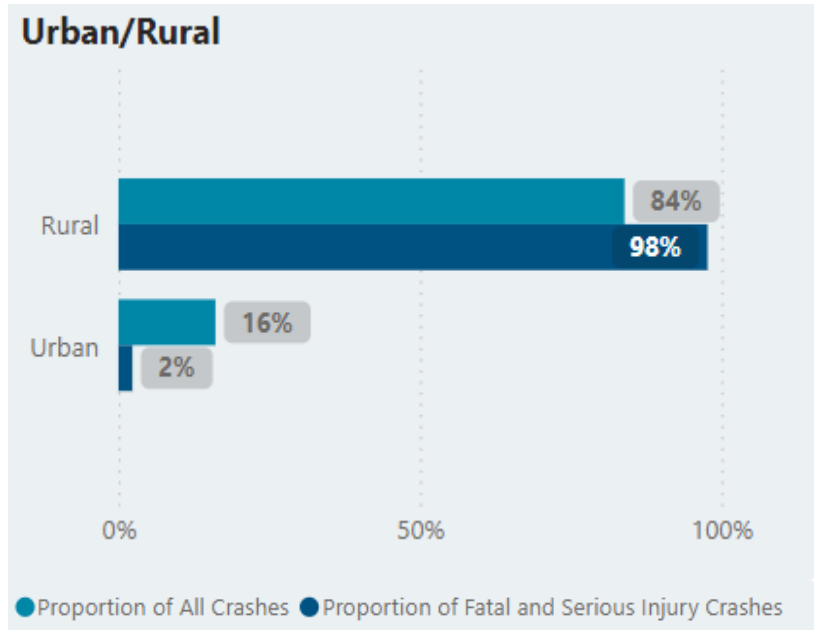


Alexander Emphasis Area Comparison Table

Proportion of Fatal and Serious Injury Crashes by County

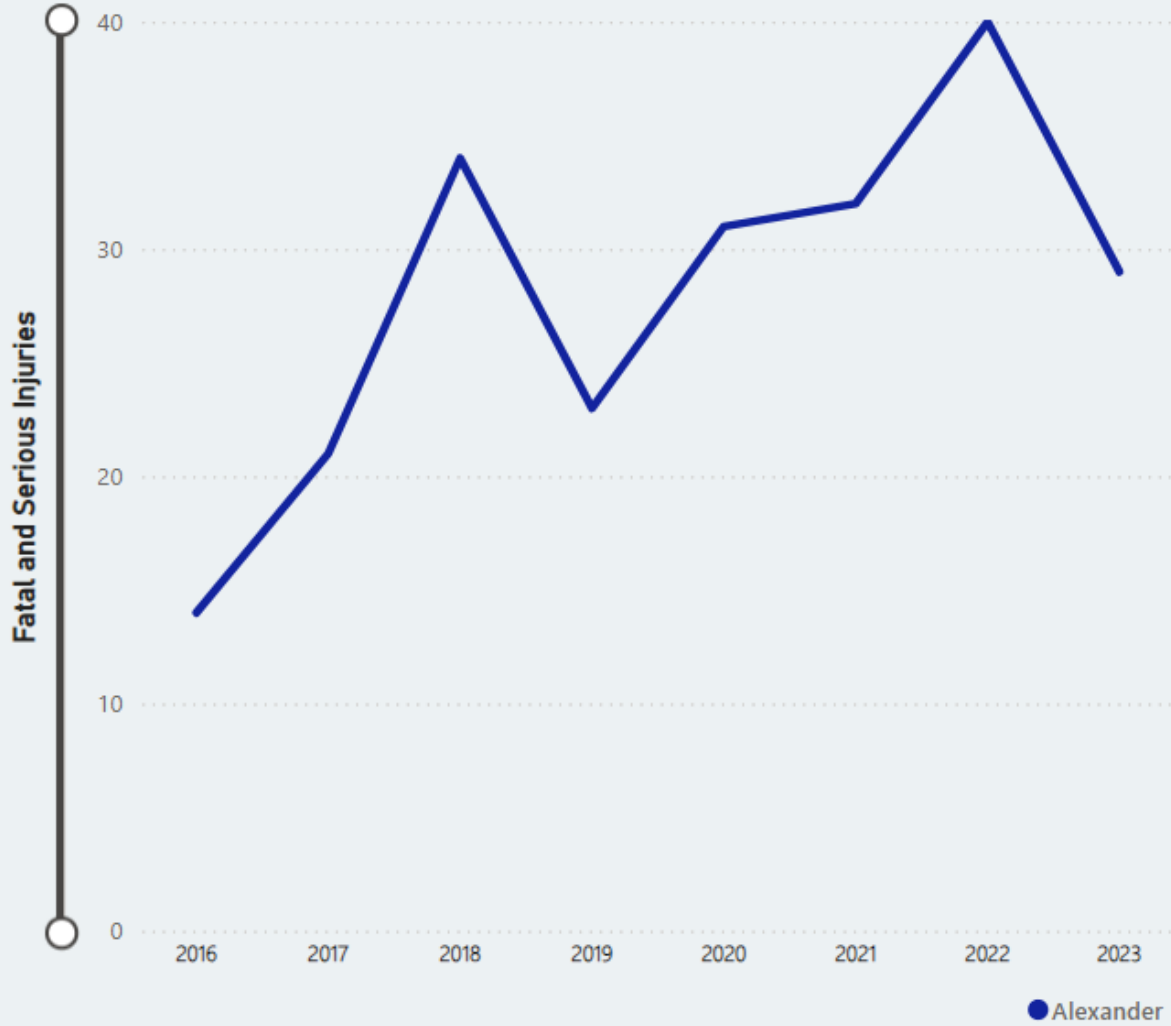
Emphasis Areas	Alexander	Burke	Caldwell	Catawba	Statewide
Animal	1%	0%	0%	1%	1%
Bicyclists		2%	2%	2%	2%
Distracted	14%	20%	14%	12%	12%
Heavy Truck	1%	5%	3%	5%	5%
Impaired	21%	21%	18%	21%	23%
Intersection	21%	16%	20%	24%	22%
Lane Departure	69%	65%	62%	54%	53%
Motorcycle	18%	23%	15%	20%	14%
Older Driver	17%	15%	22%	19%	17%
Pedestrian	4%	7%	6%	8%	10%
Seat Belts and Car Seats	25%	25%	24%	22%	27%
Speed	17%	16%	19%	11%	18%
Younger Driver	15%	11%	11%	11%	11%

Alexander Urban and Rural Crashes

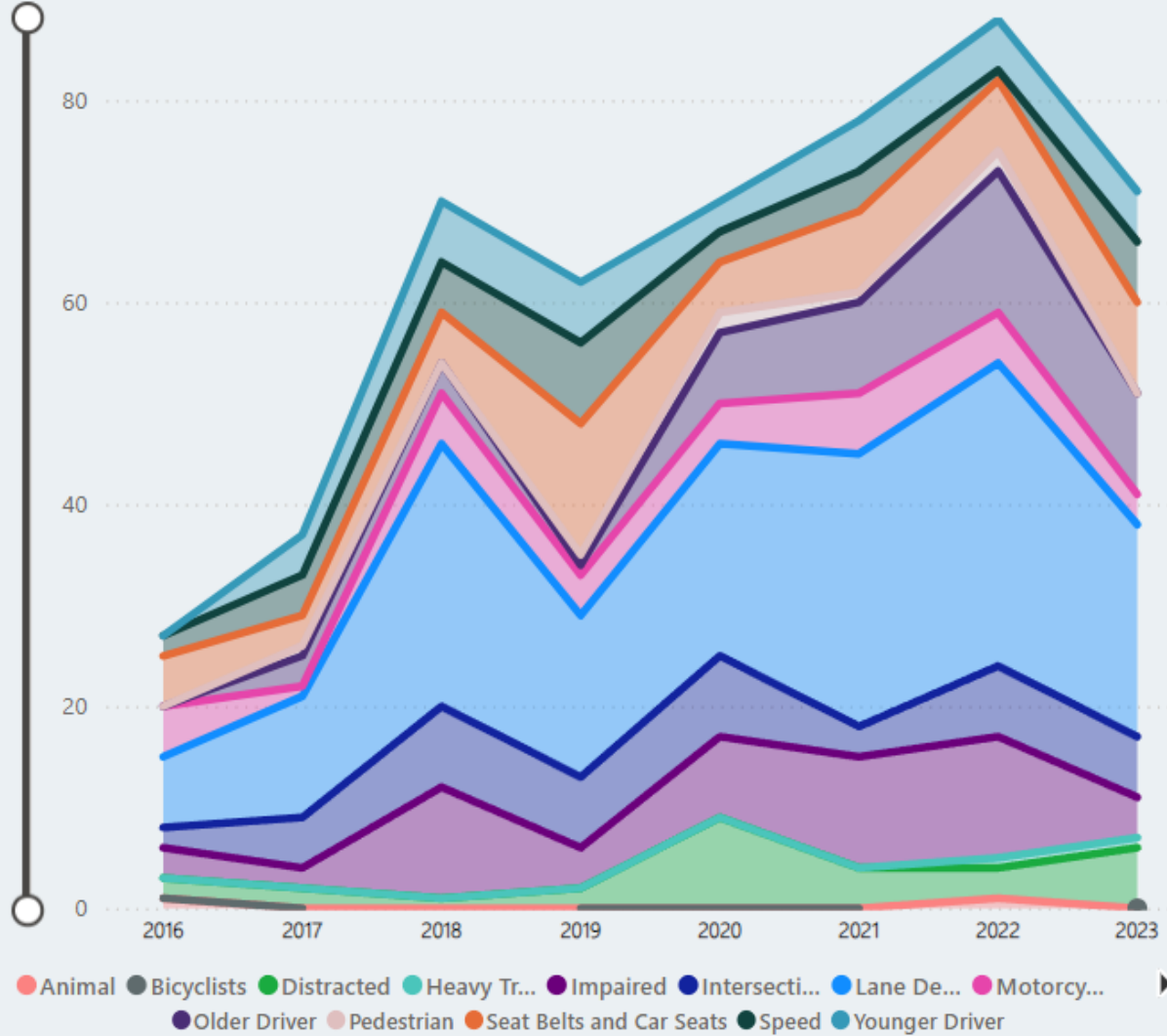


Alexander County

Fatal and Serious Injuries by County

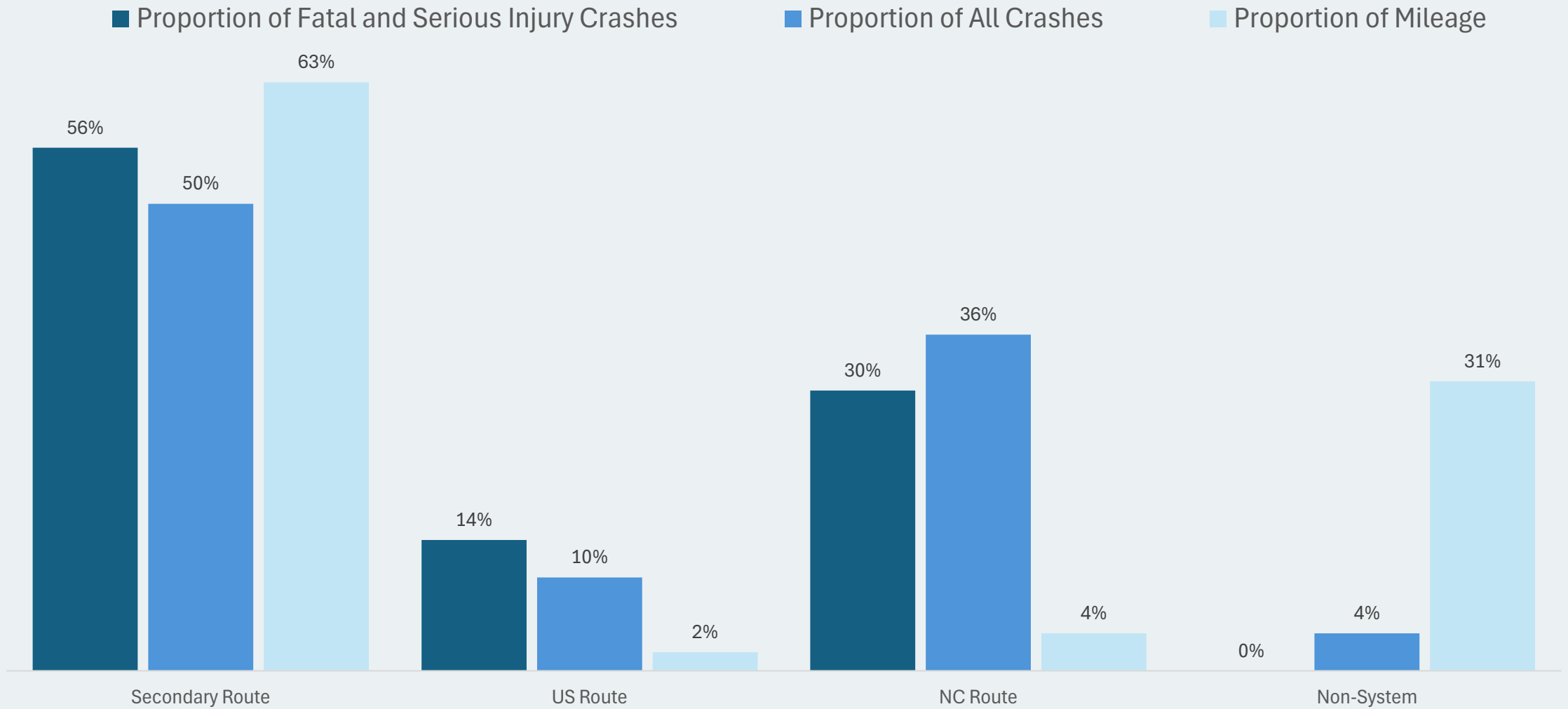


Fatal and Serious Injuries by Emphasis Area



Alexander County

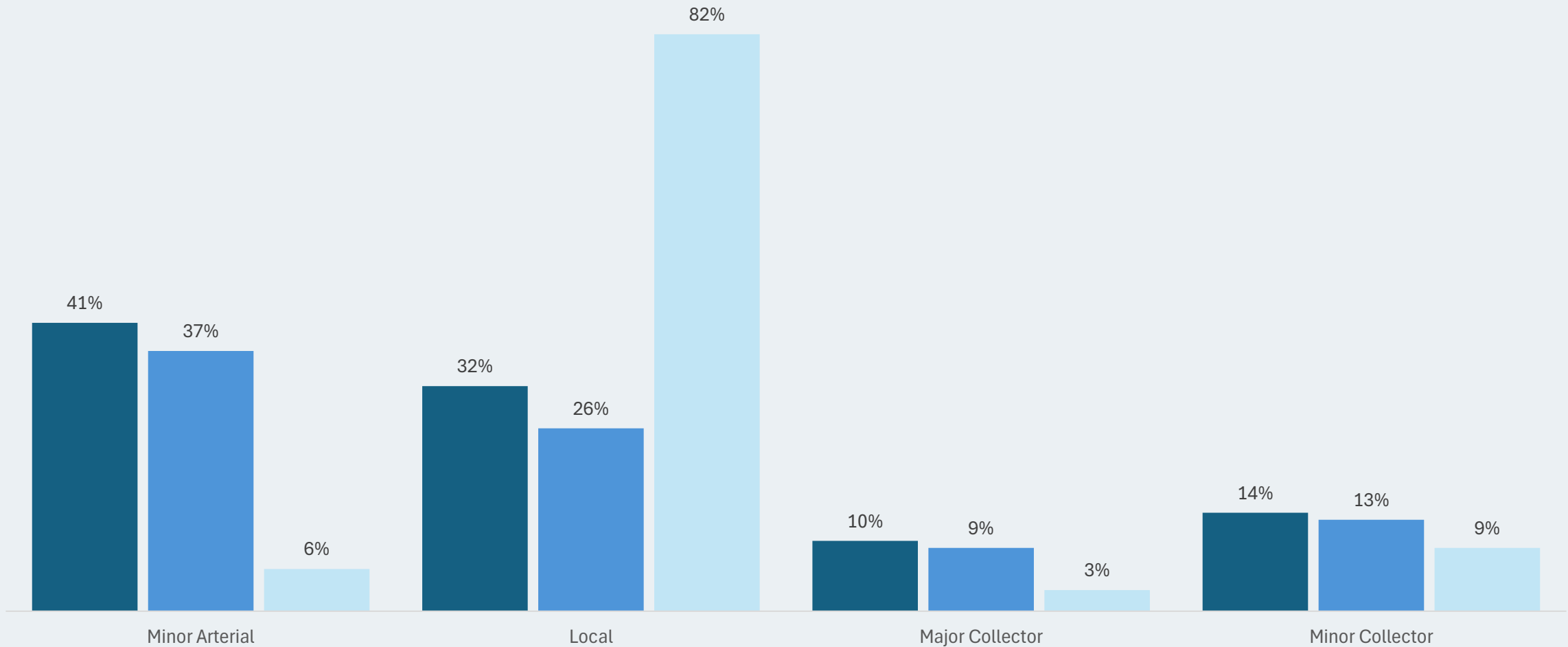
Crashes and Roadway Mileage by Route Class



Alexander

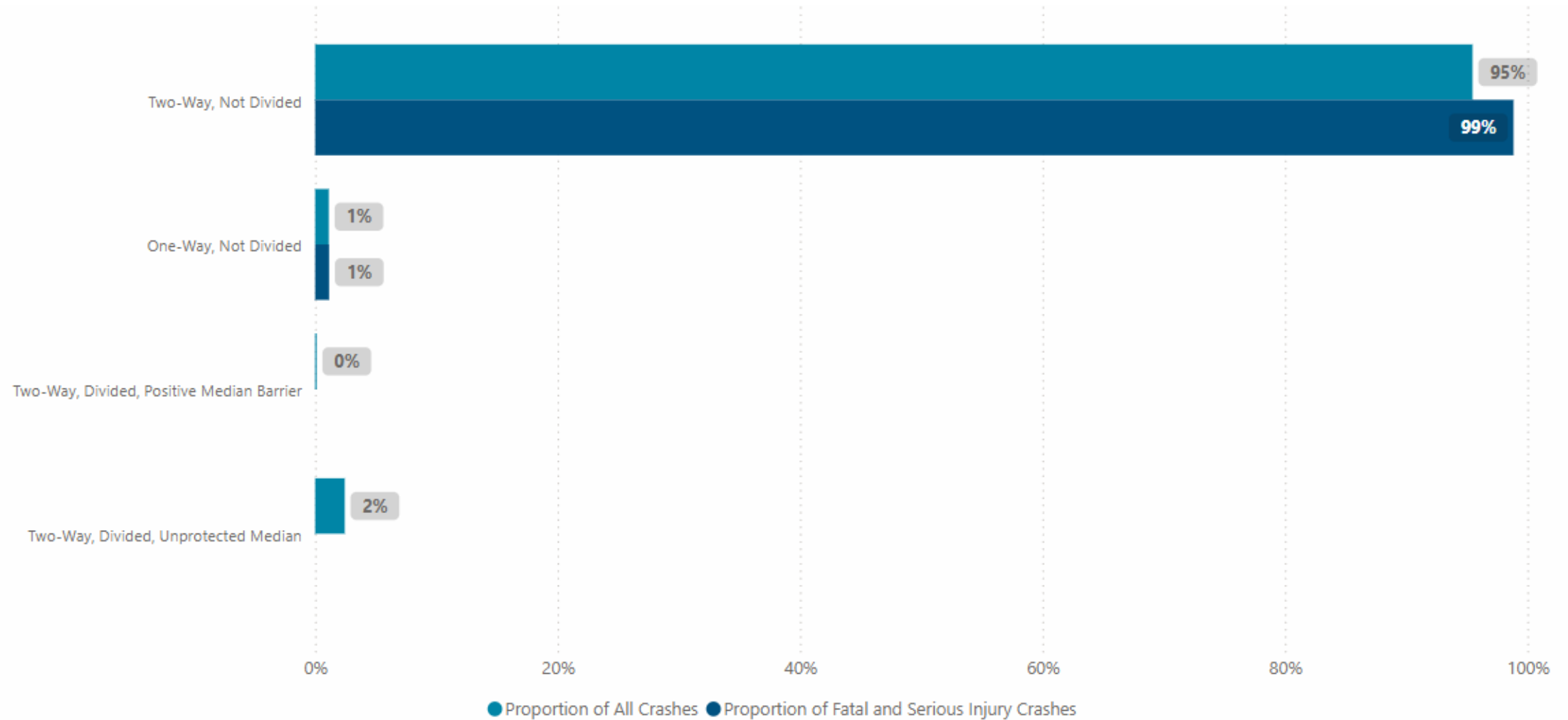
Crashes and Roadway Mileage by Functional Class

■ Proportion of Fatal and Serious Injury Crashes ■ Proportion of All Crashes ■ Proportion of Mileage



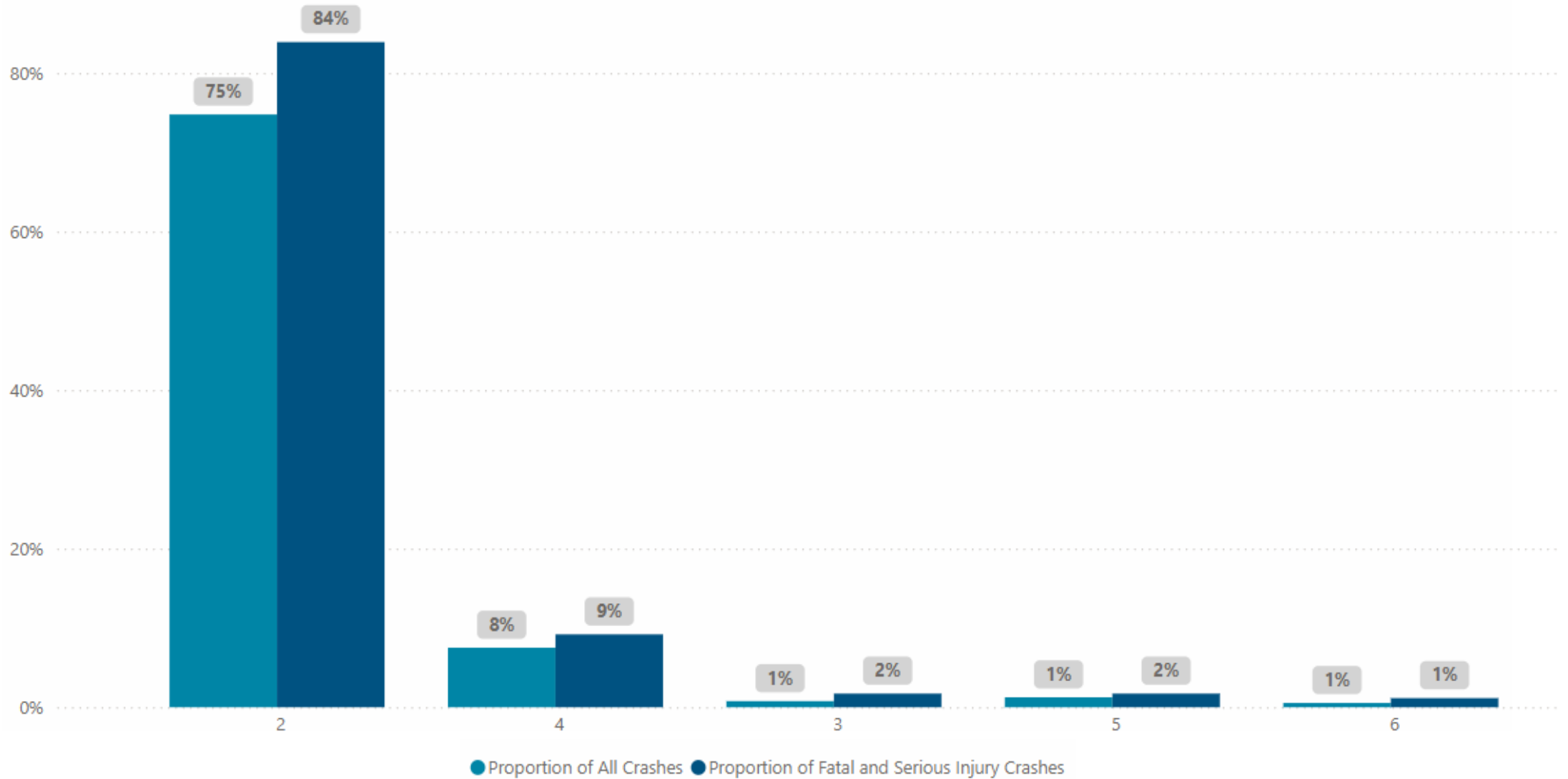
Alexander County

Roadway Configuration



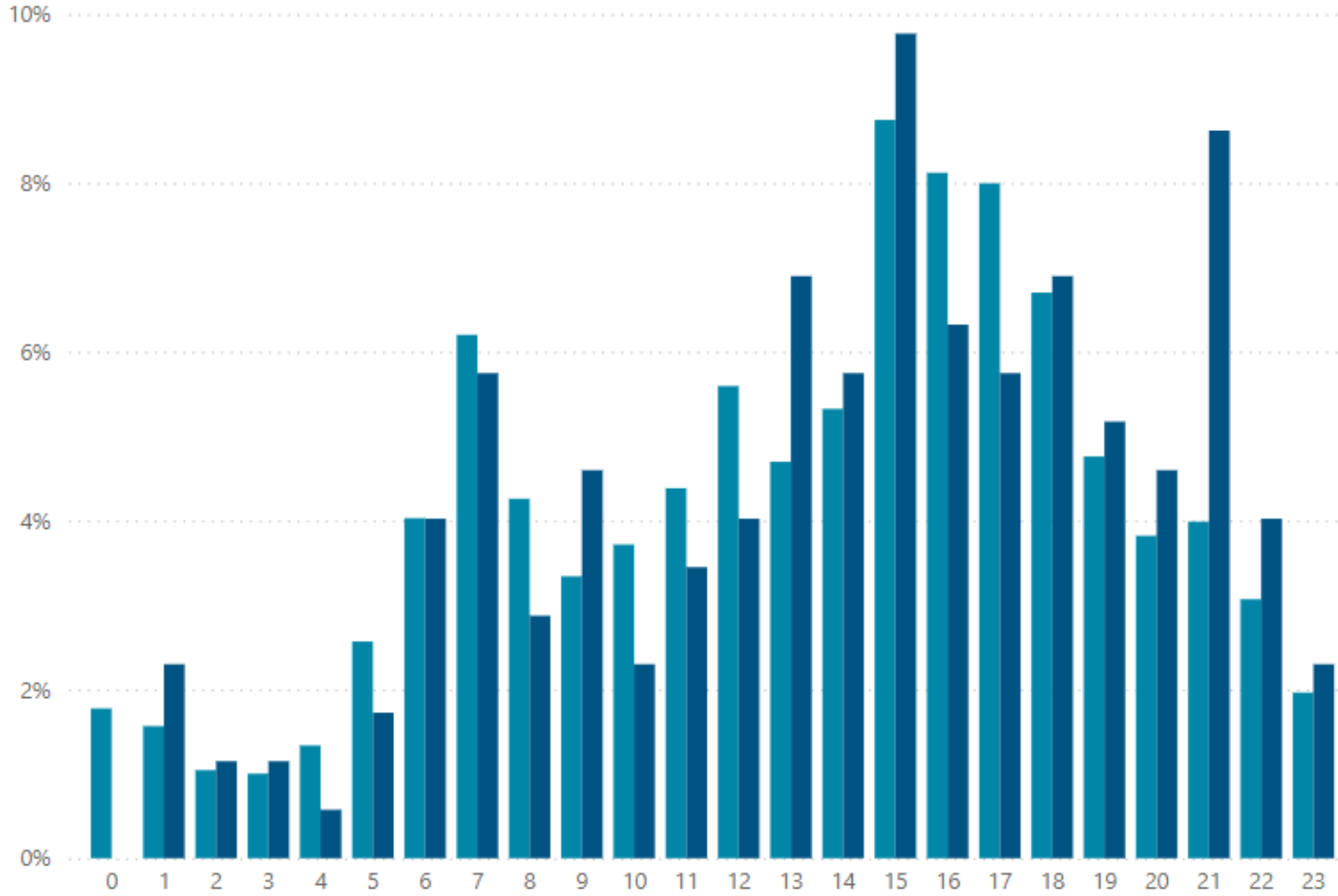
Alexander County

Number of Lanes

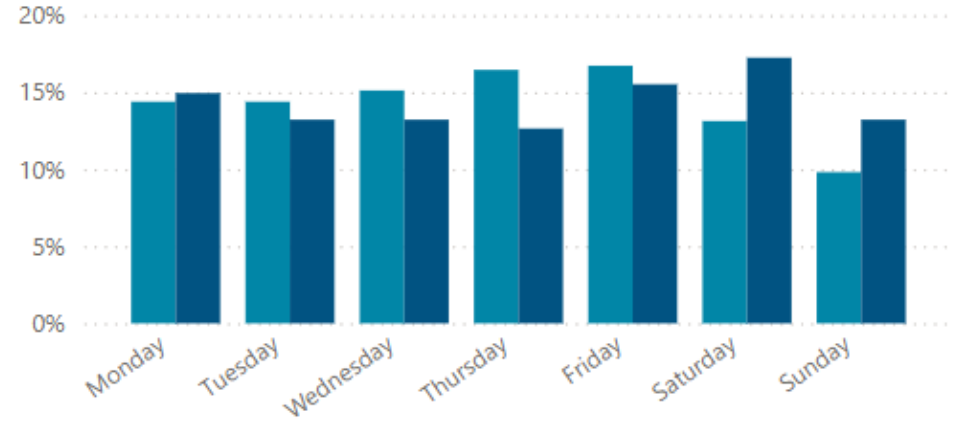


Alexander County

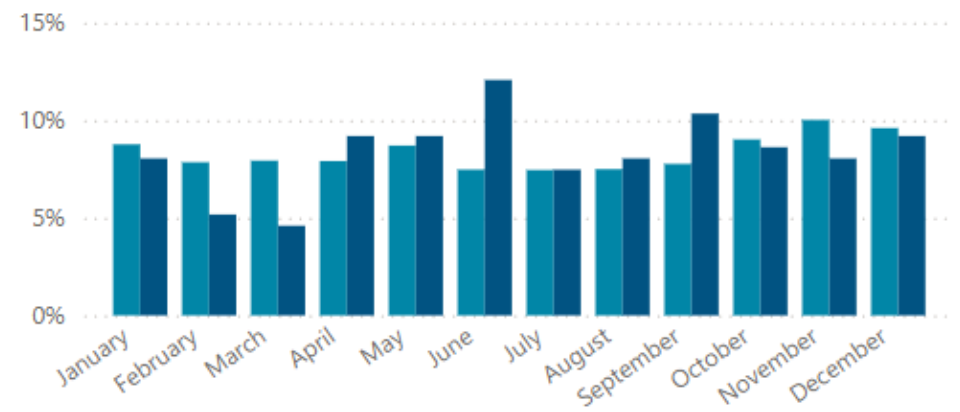
Comparison of Crash Outcomes by Hour



Day of Week

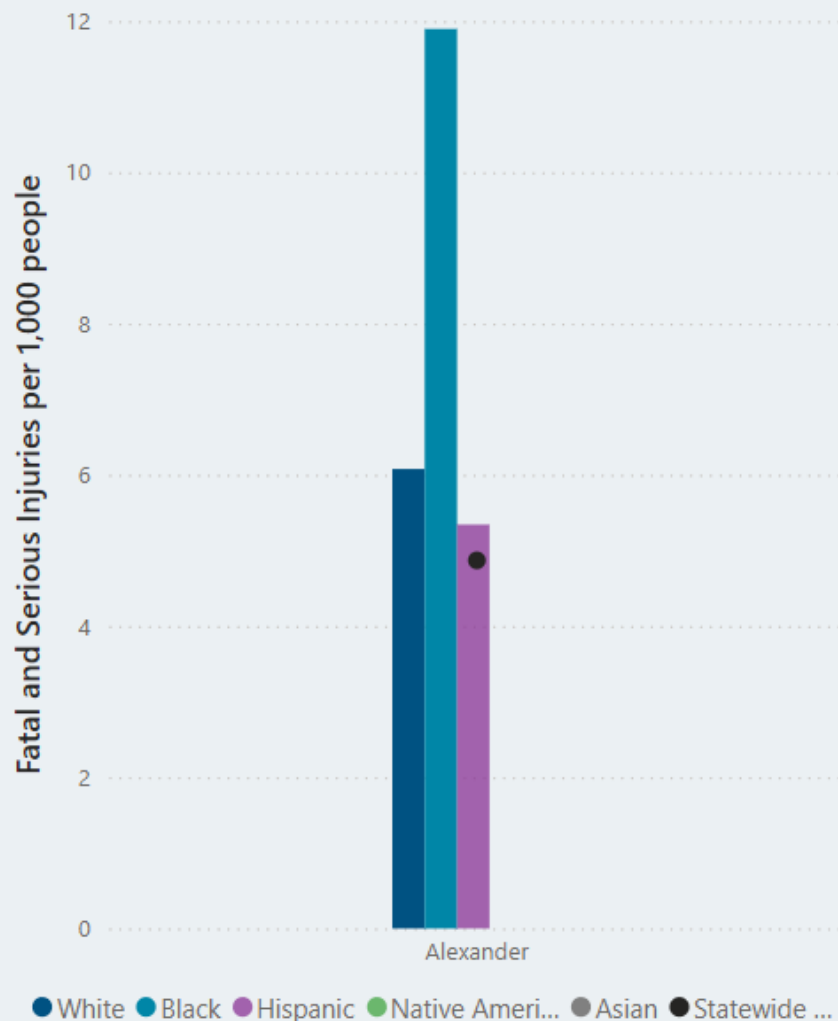


Month

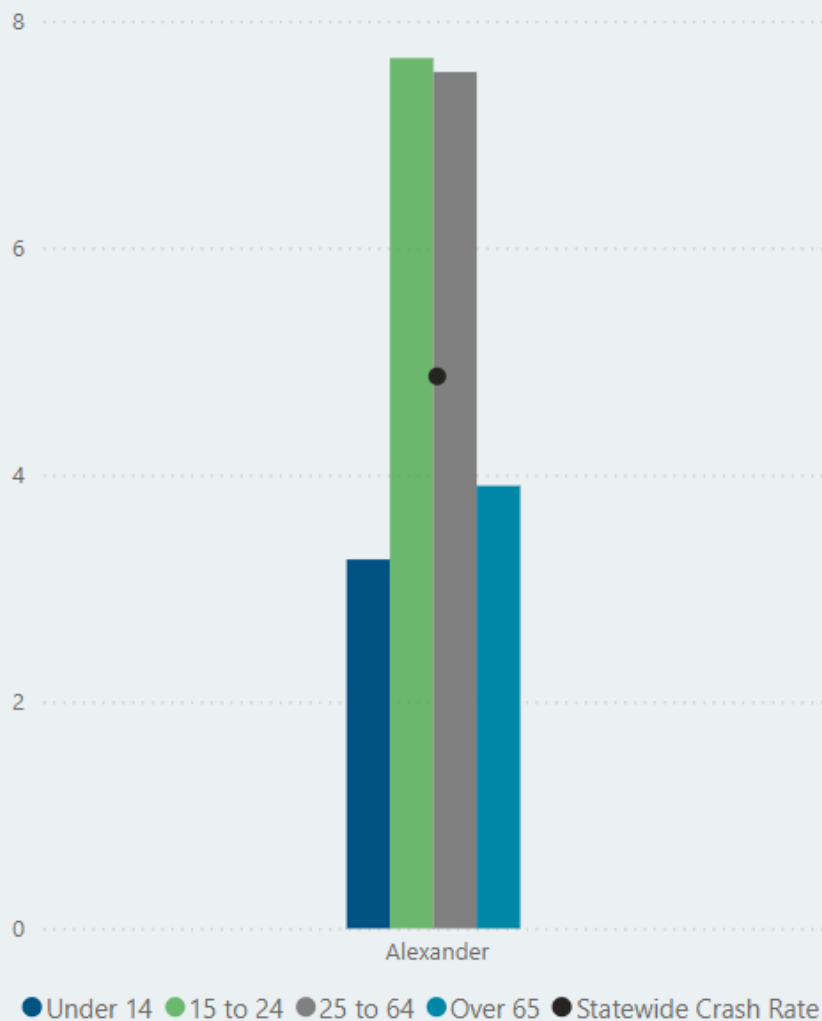


Alexander County

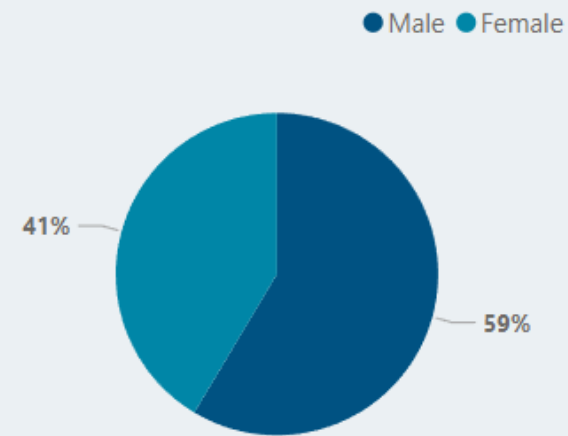
Crash Rates by Race and Ethnicity



Crash Rates by Age Group



Crash Rates by Sex



Burke County



Burke County

2016
—
2023

17,956

Total Crashes

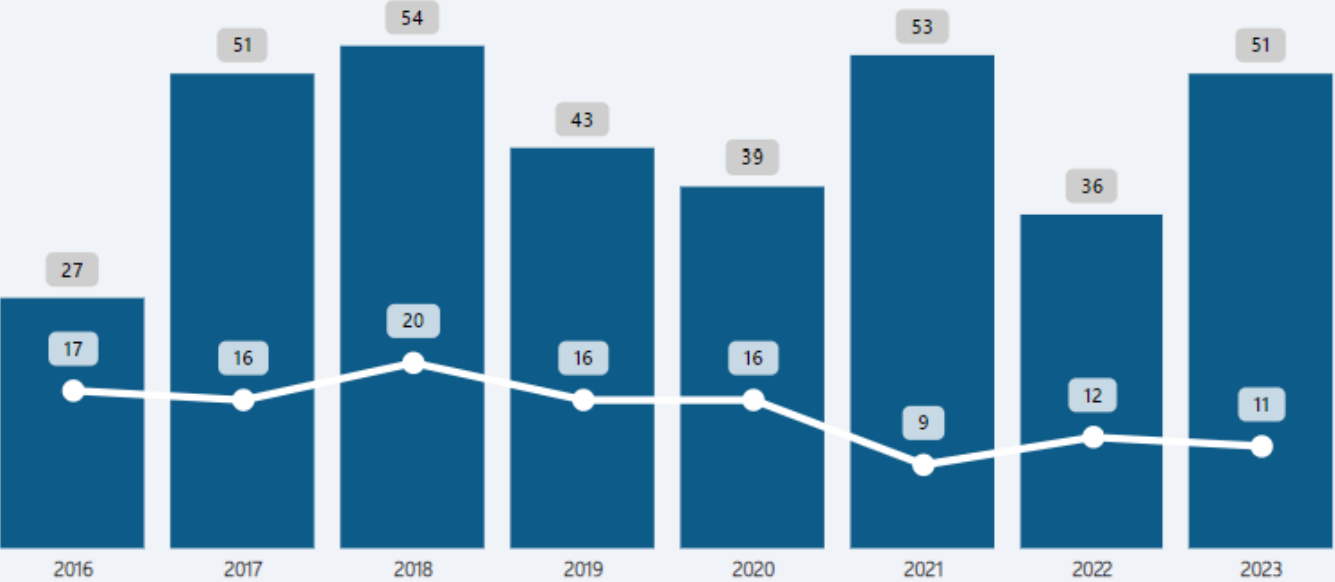
117

Fatalities

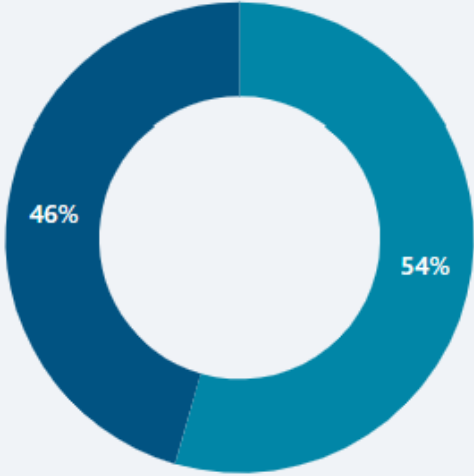
354

Serious Injuries

Fatal and Serious Injuries



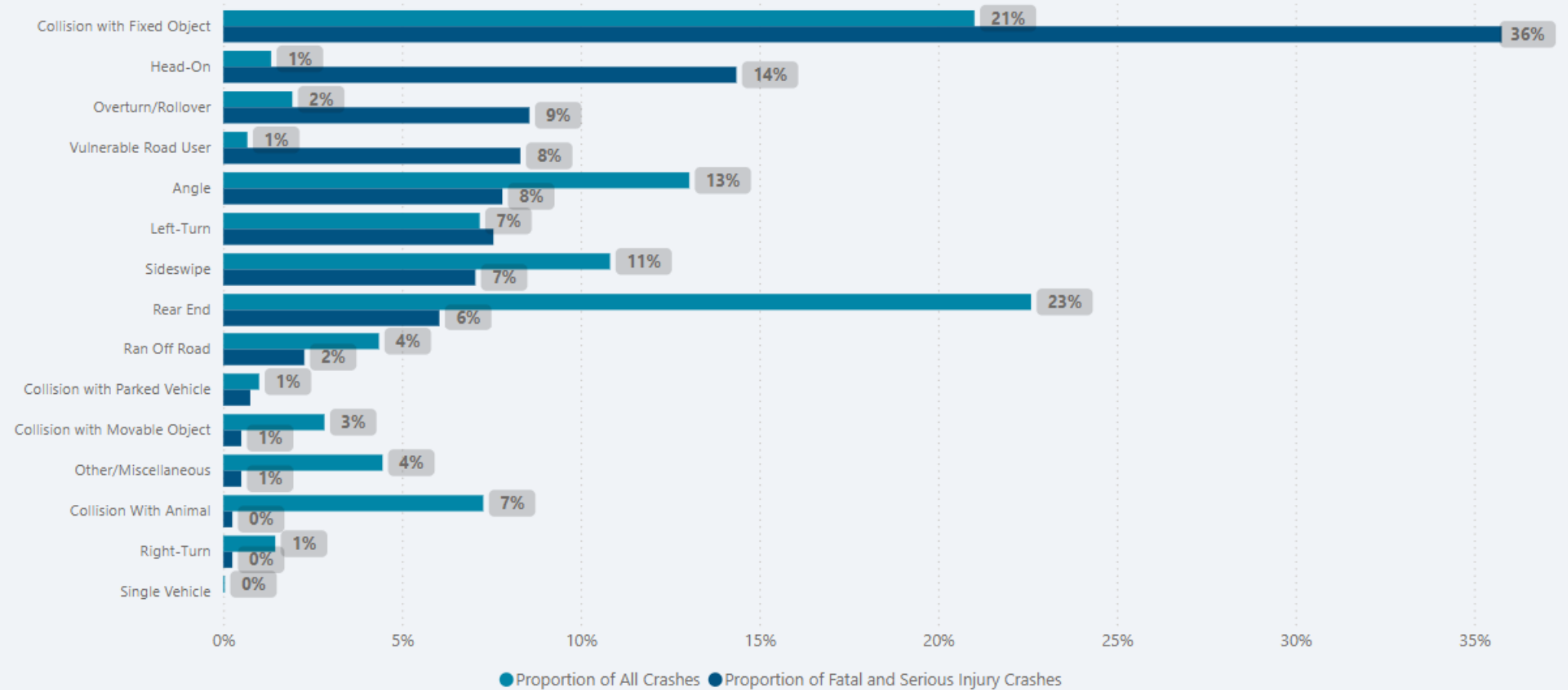
● Serious Injuries ● Fatalities



● Rural ● Urban

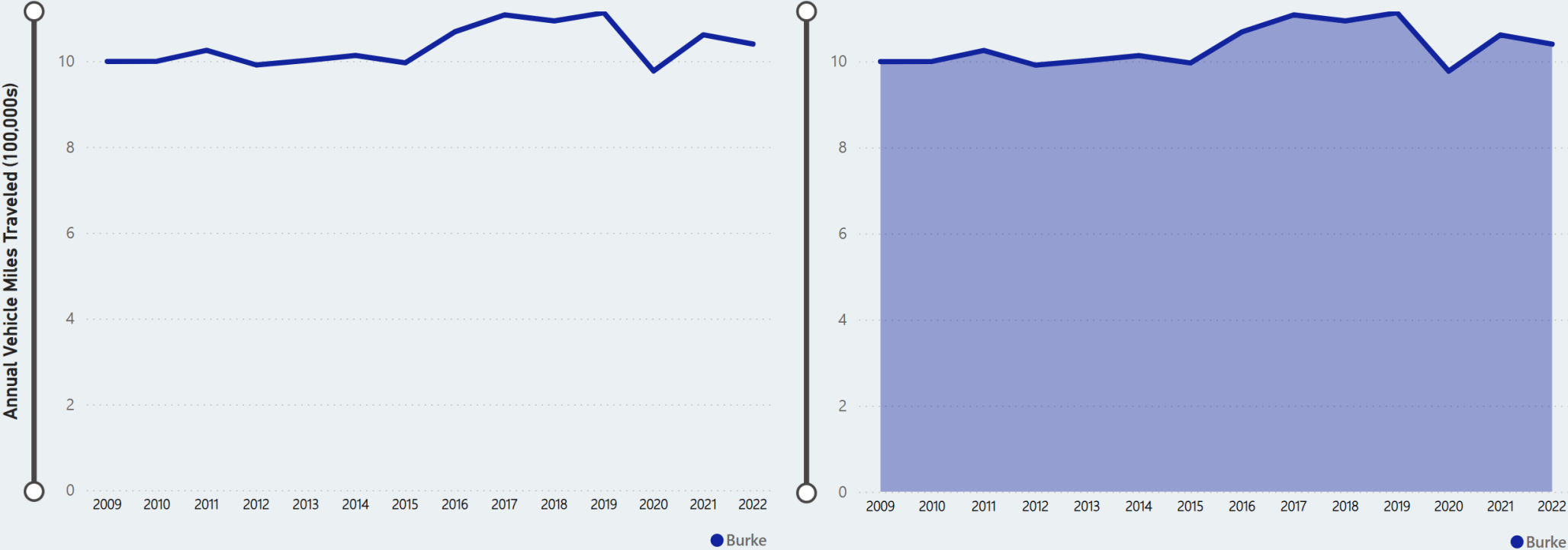
Burke County

Crash Type Proportion



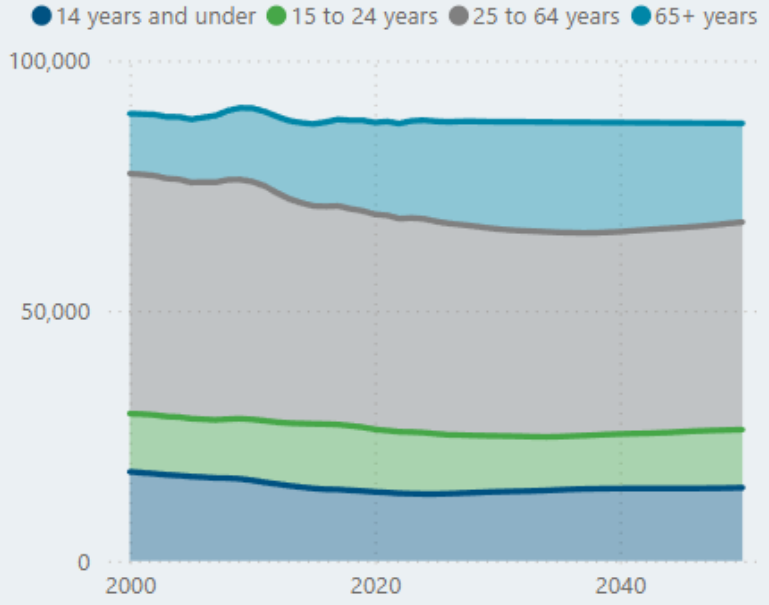
Burke County

Between 2009 and 2022 Annual VMT changed by 4.1 % for all selected geography



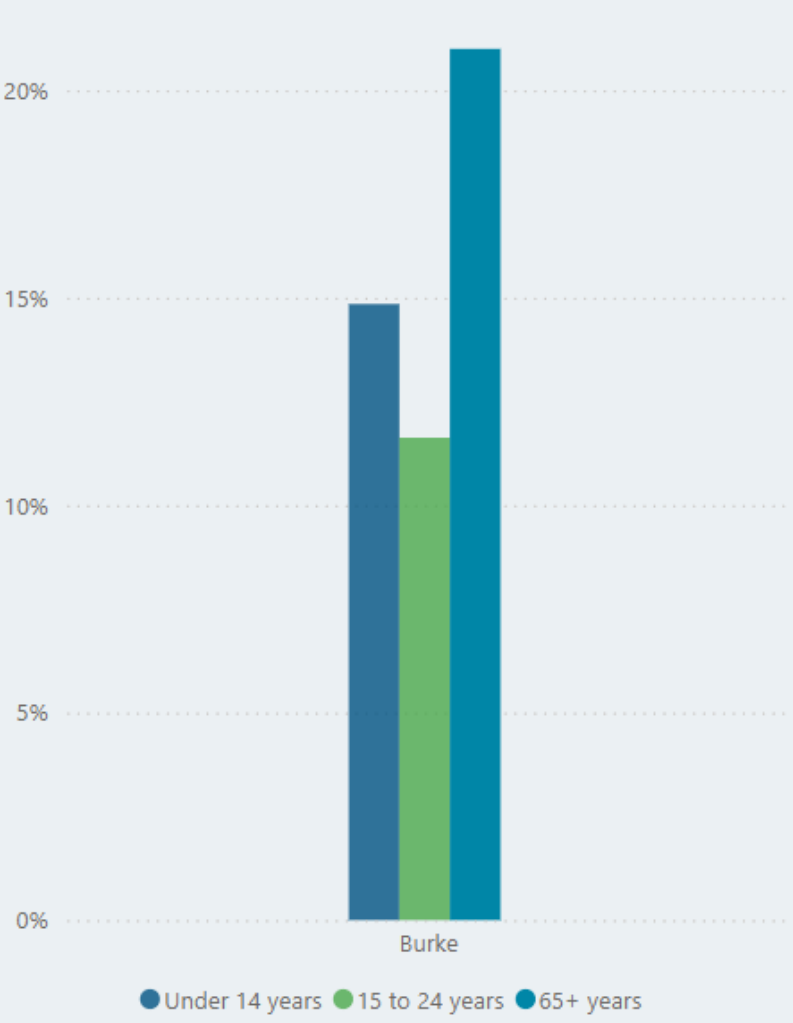
Burke County

Population Growth

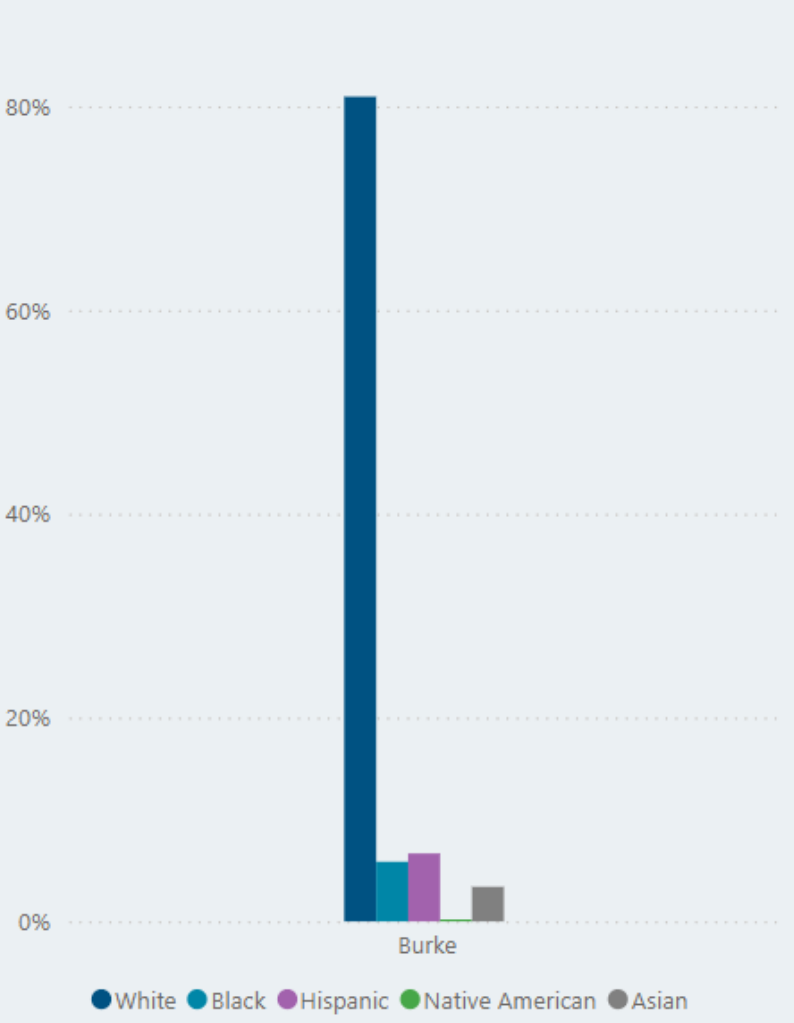


Age Group	2000 Population	2050 Population	Percent Change
14 years and under	17,820	14,627	-18%
15 to 24 years	11,596	11,599	0%
25 to 64 years	47,978	41,472	-14%
65+ years	11,989	19,749	65%
Total	89,383	87,447	-2%

Census Estimate, Age Distribution (2022)

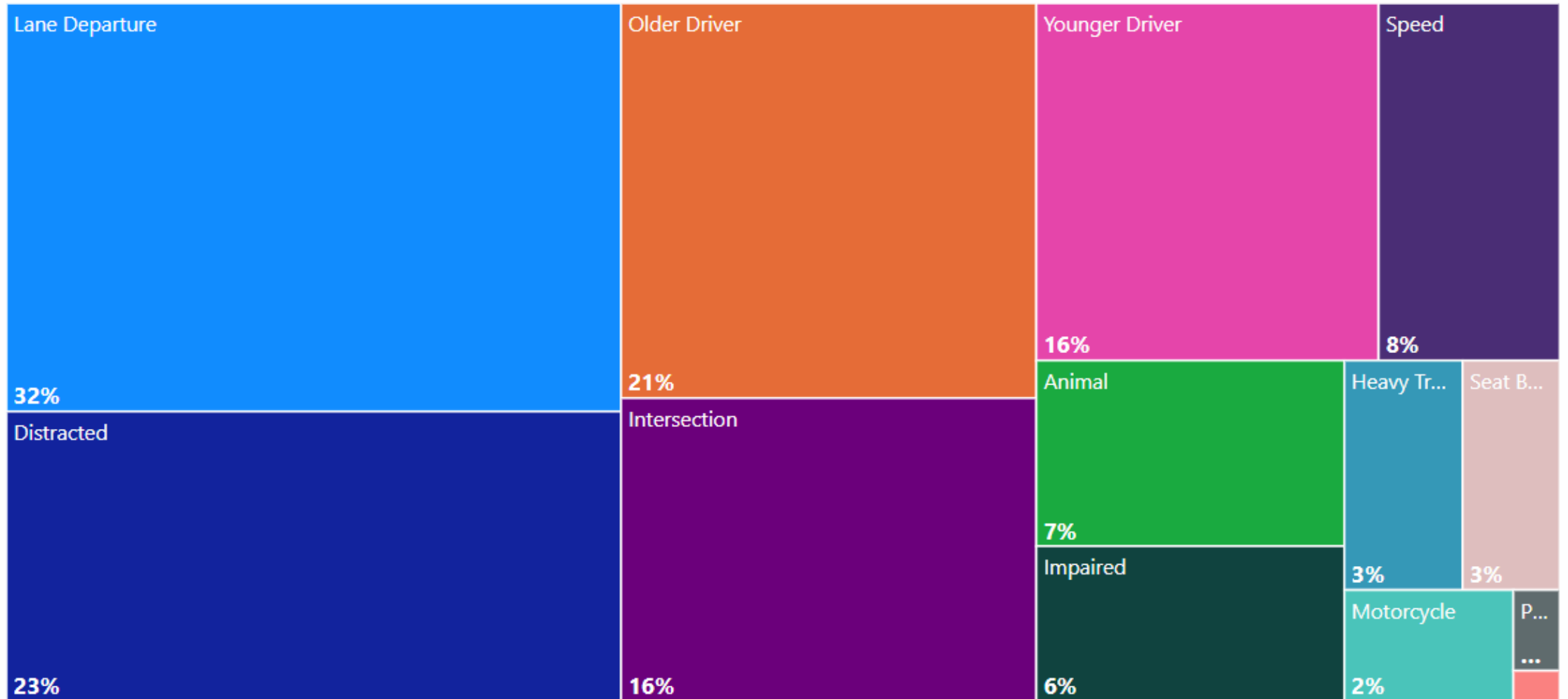


Census Estimate, Race & Ethnicity Distribution (2022)



Burke Crashes by Emphasis Area

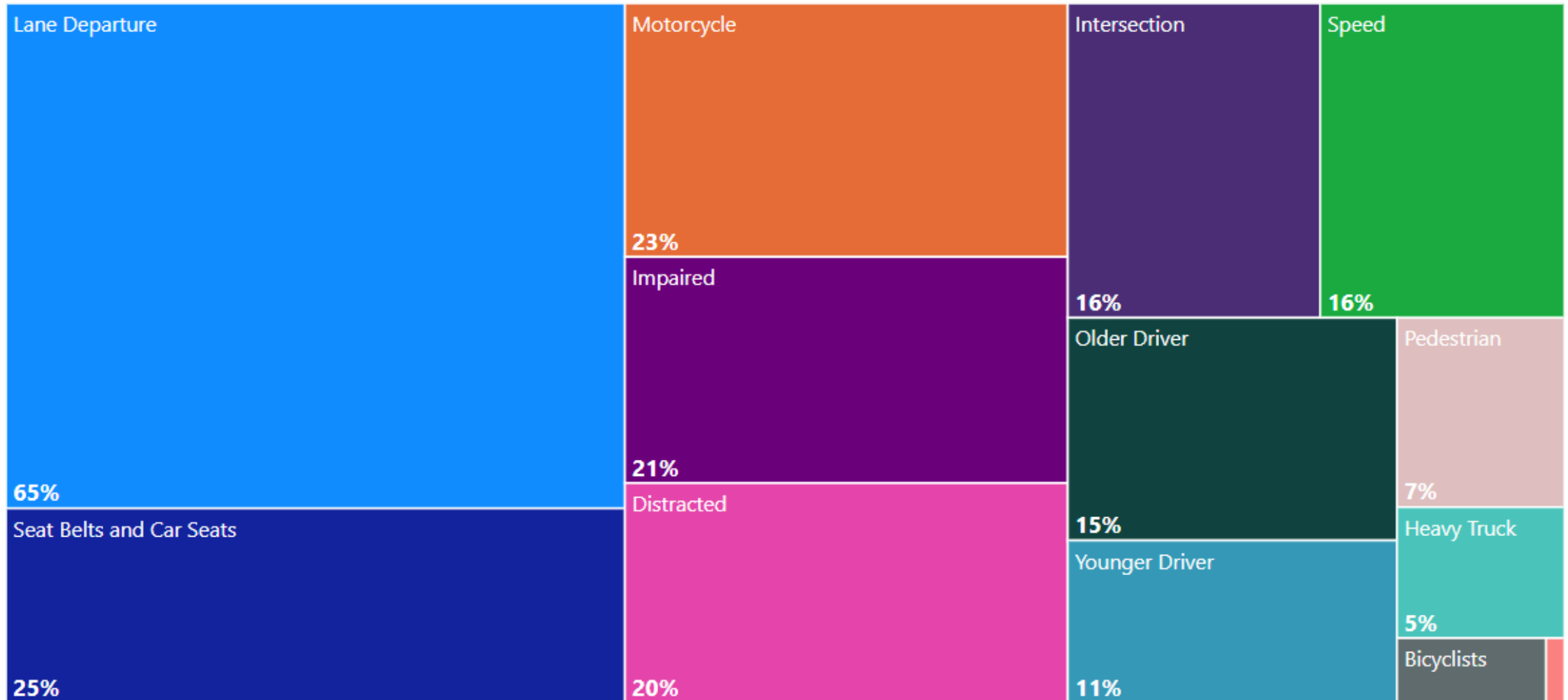
All Crashes by Emphasis Area



● Lane Departure
 ● Distracted
 ● Older Driver
 ● Intersection
 ● Younger Driver
 ● Speed
 ● Animal
 ● Impaired
 ● Heavy Truck
 ● Seat Belts and Car Seats
 ● Motorcycle
 ● Pedestrian
 ● Bicyclists

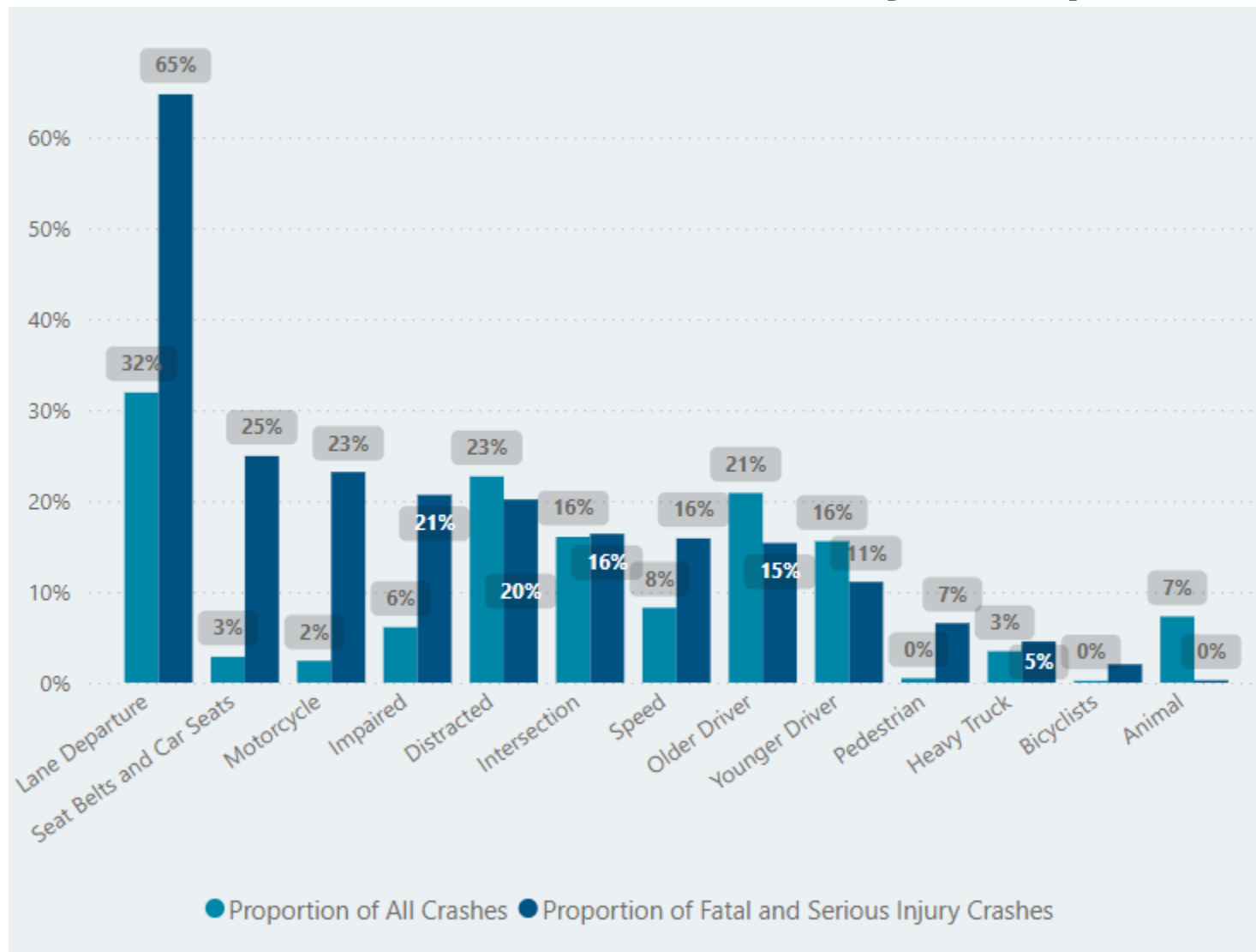
Burke Fatal and Serious Crashes by Emphasis Area

Fatal and Serious Injury Crashes by Emphasis Area



● Lane Departure ● Seat Belts and Car Seats ● Motorcycle ● Impaired ● Distracted ● Intersection ● Speed ● Older Driver ● Younger Driver ● Pedestrian ● Heavy Truck ● Bicyclists ● Animal

Proportion of Burke Crashes by Emphasis Area

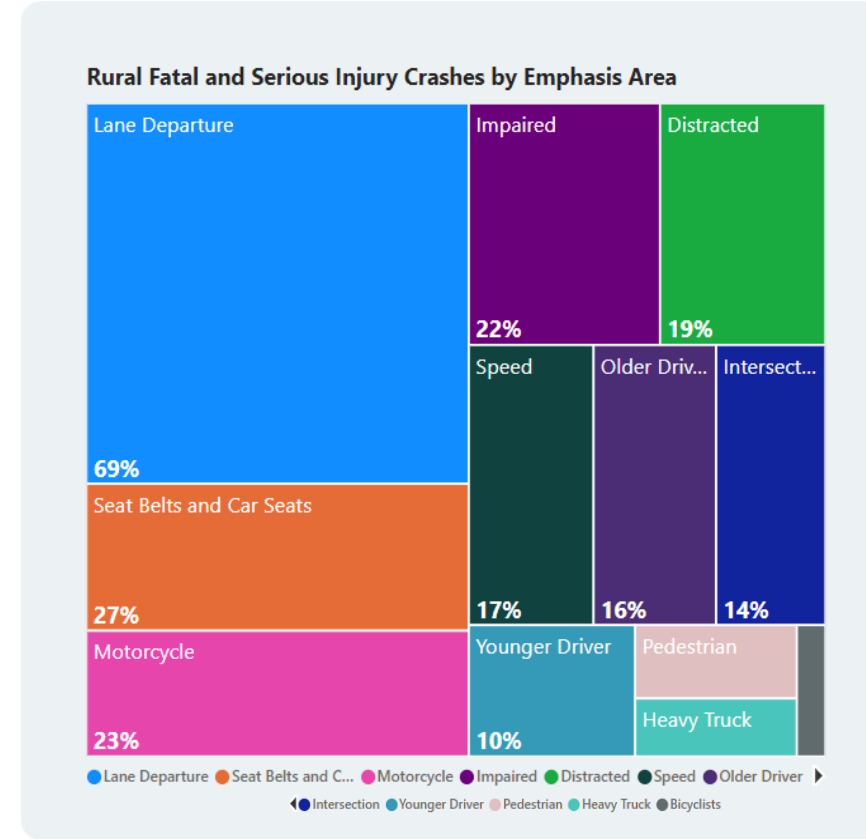
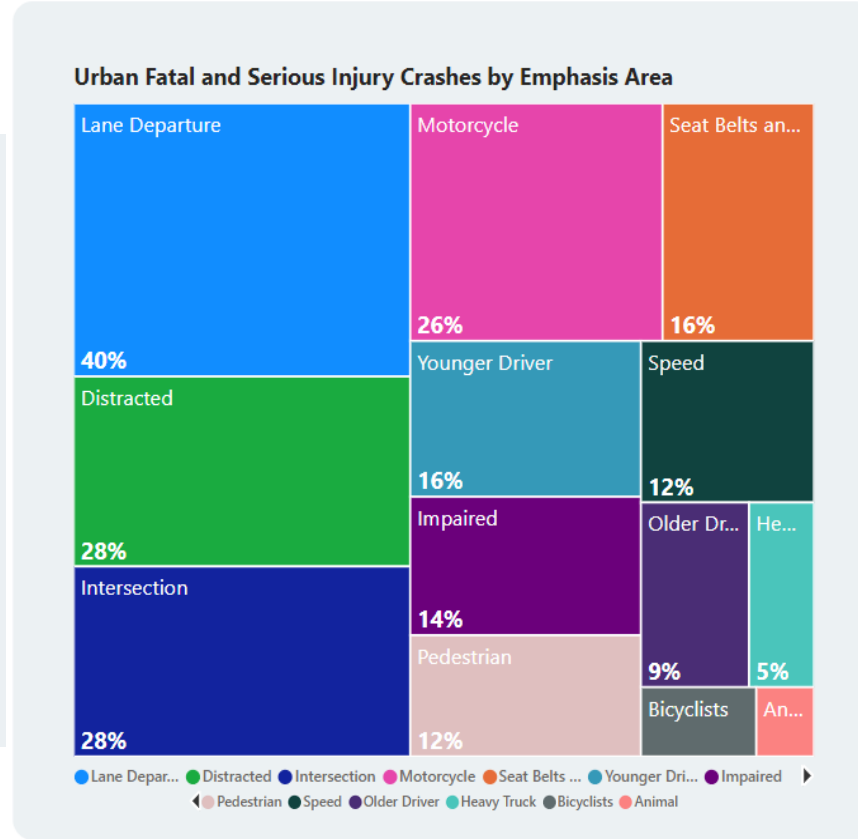
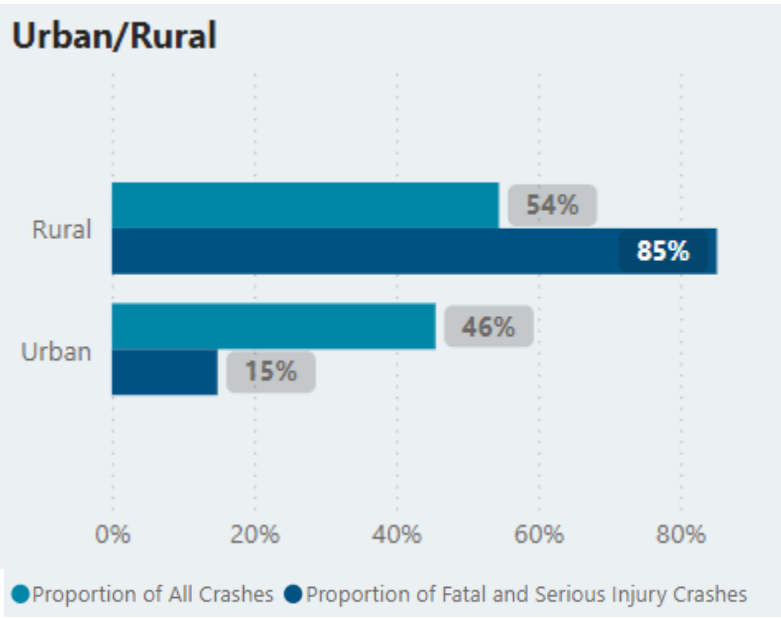


Burke Emphasis Area Comparison Table

Proportion of Fatal and Serious Injury Crashes by County

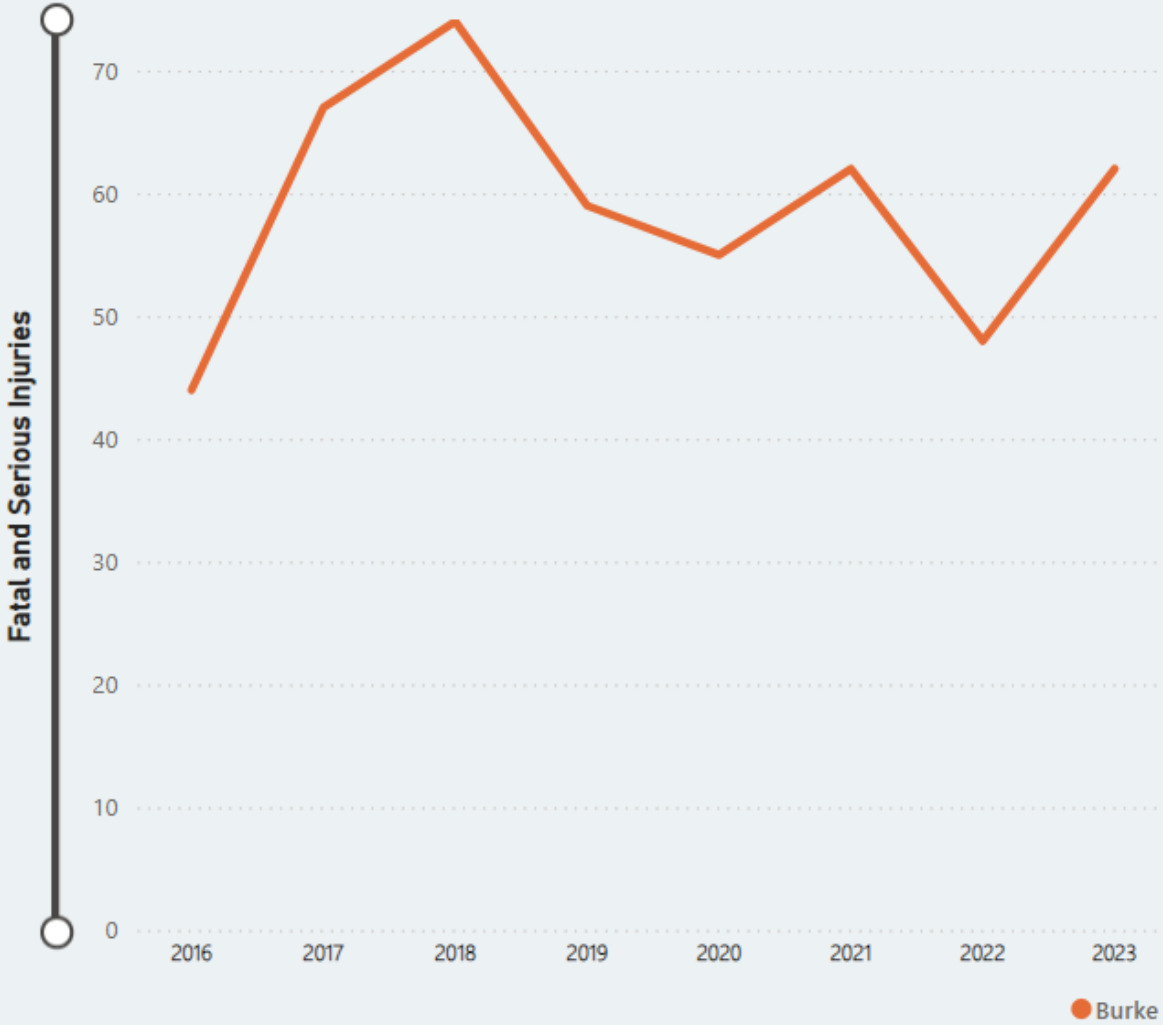
Emphasis Areas	Alexander	Burke	Caldwell	Catawba	Statewide
Animal	1%	0%	0%	1%	1%
Bicyclists		2%	2%	2%	2%
Distracted	14%	20%	14%	12%	12%
Heavy Truck	1%	5%	3%	5%	5%
Impaired	21%	21%	18%	21%	23%
Intersection	21%	16%	20%	24%	22%
Lane Departure	69%	65%	62%	54%	53%
Motorcycle	18%	23%	15%	20%	14%
Older Driver	17%	15%	22%	19%	17%
Pedestrian	4%	7%	6%	8%	10%
Seat Belts and Car Seats	25%	25%	24%	22%	27%
Speed	17%	16%	19%	11%	18%
Younger Driver	15%	11%	11%	11%	11%

Burke Urban and Rural Crashes

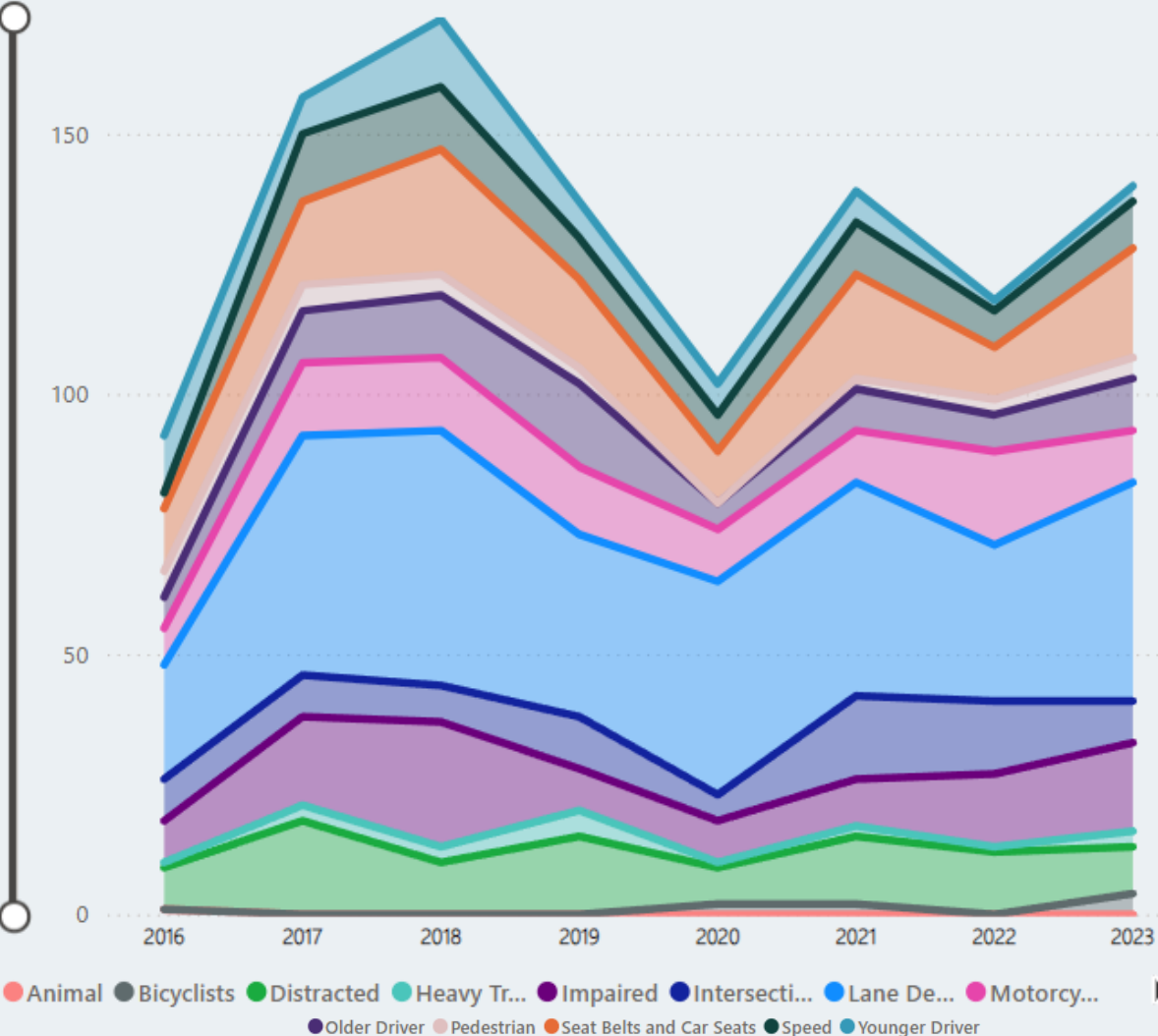


Burke County

Fatal and Serious Injuries by County



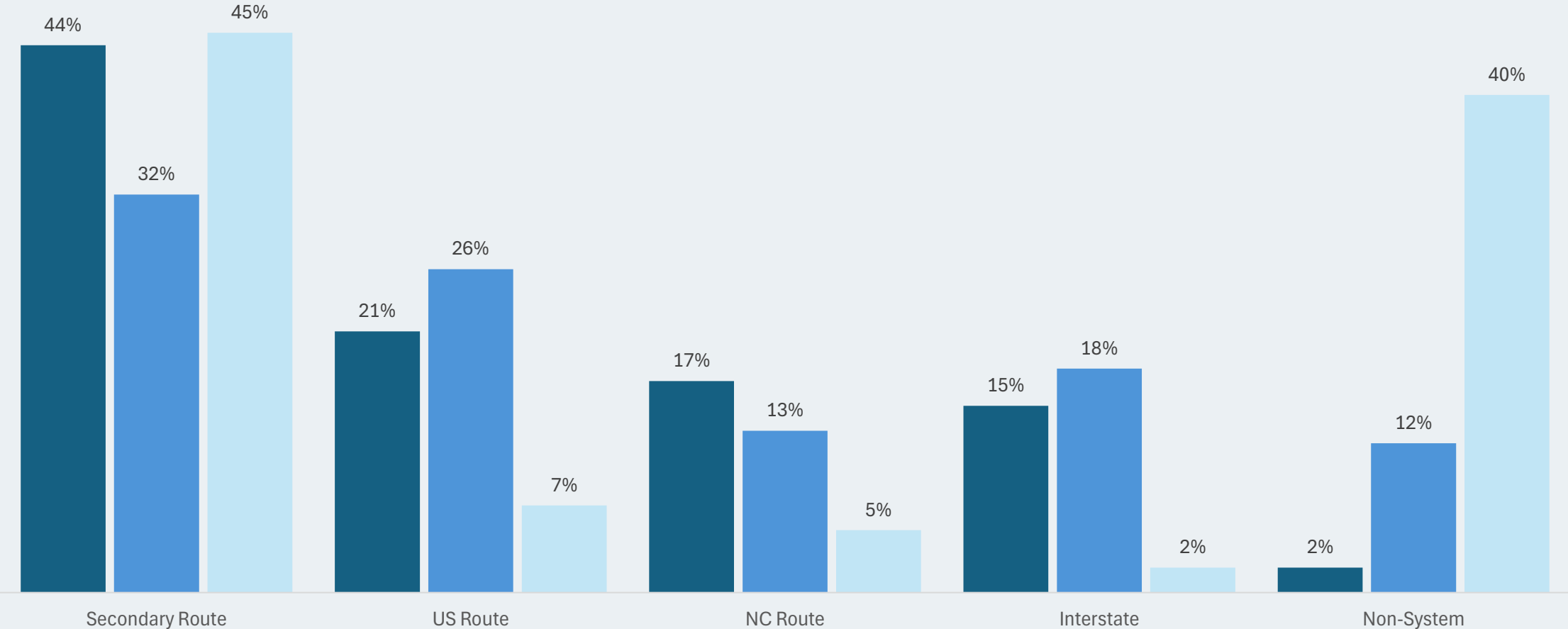
Fatal and Serious Injuries by Emphasis Area



Burke County

Crashes and Roadway Mileage by Route Class

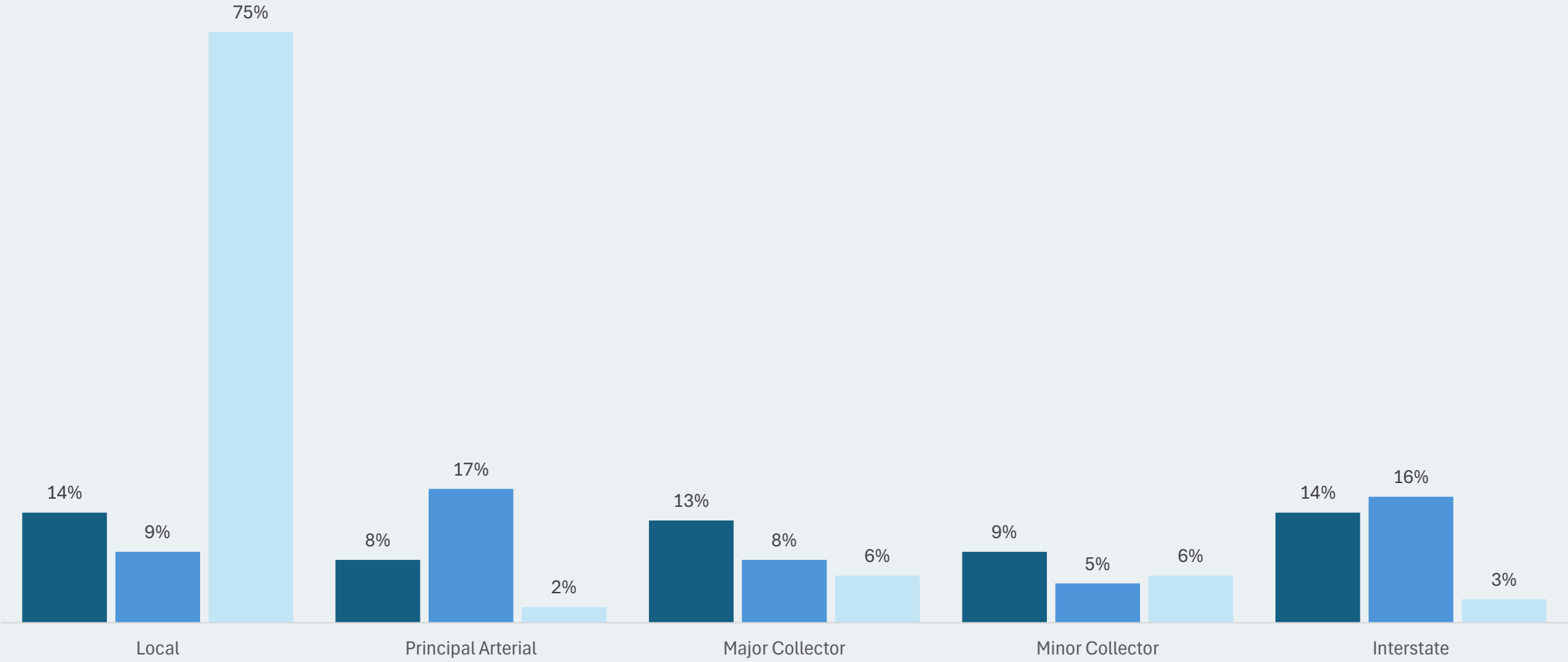
■ Proportion of Fatal and Serious Injury Crashes ■ Proportion of All Crashes ■ Proportion of Mileage



Burke County

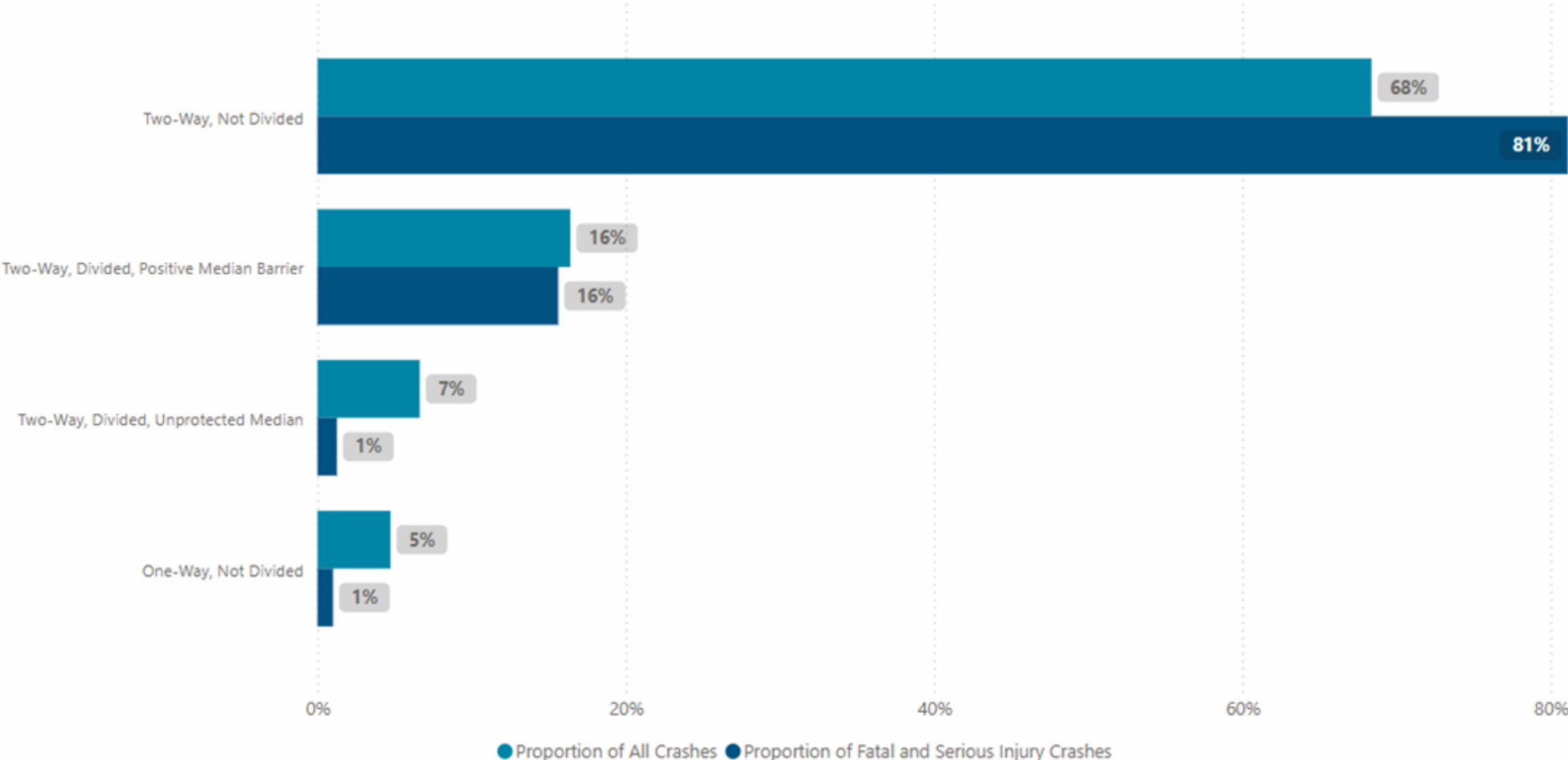
Crashes and Roadway Mileage by Functional Class

■ Proportion of Fatal and Serious Injury Crashes ■ Proportion of All Crashes ■ Proportion of Mileage



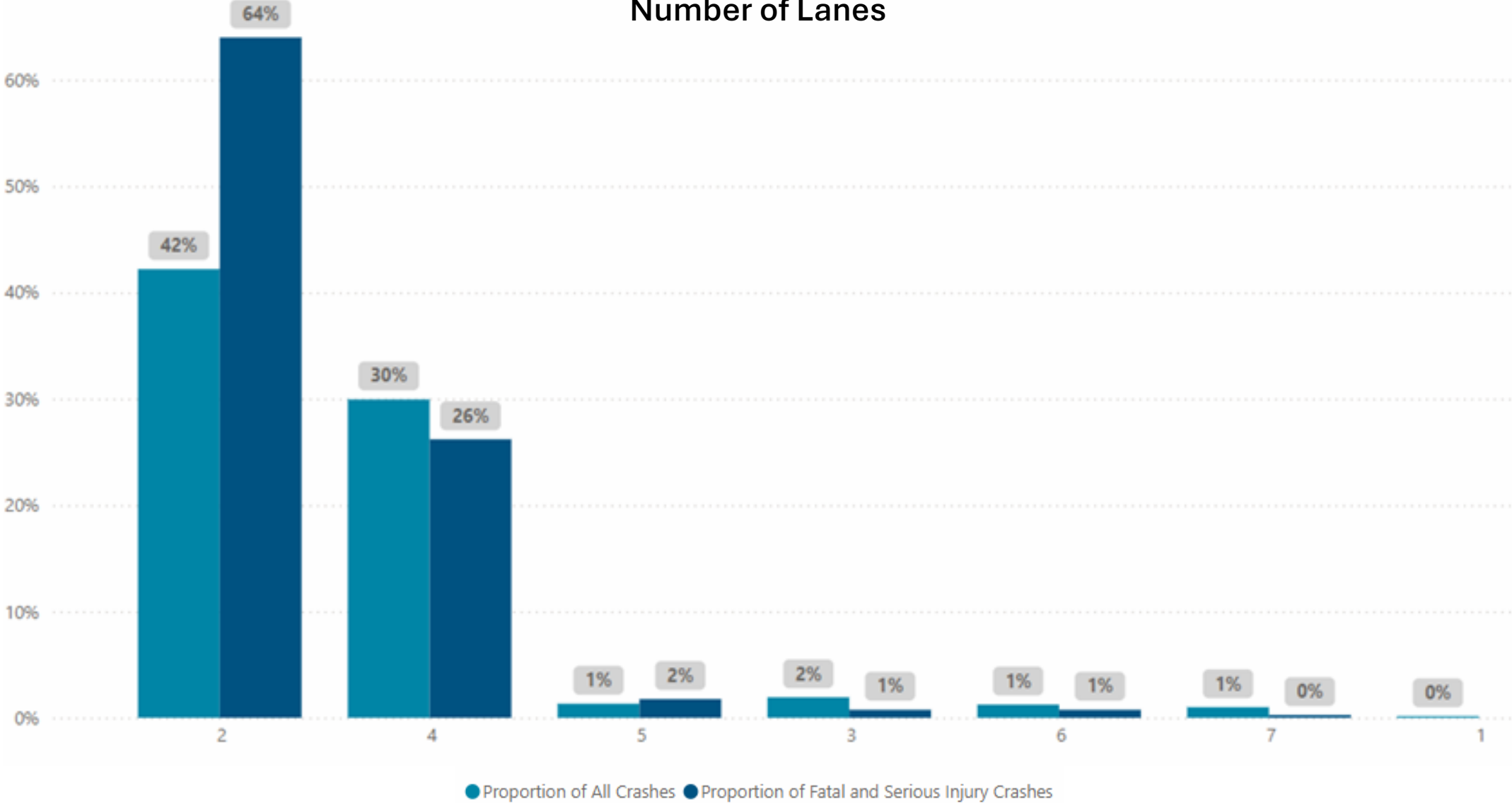
Burke County

Roadway Configuration



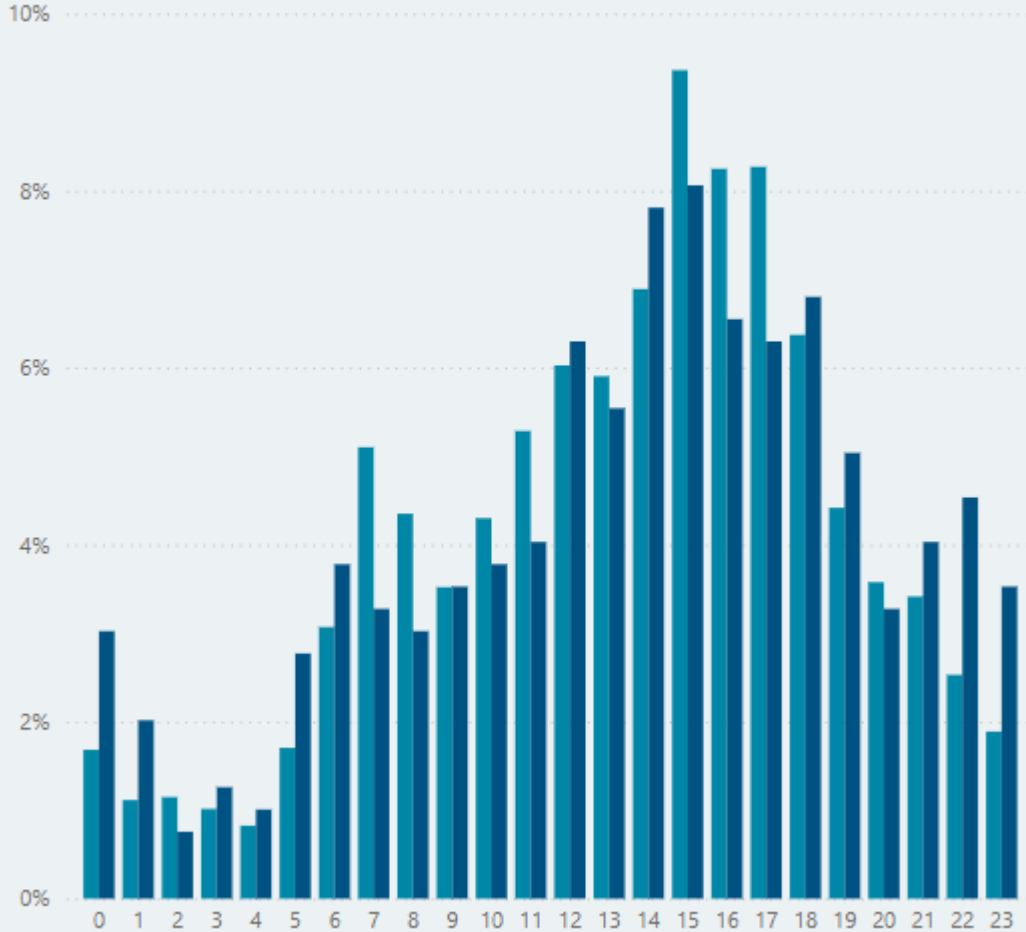
Burke County

Number of Lanes

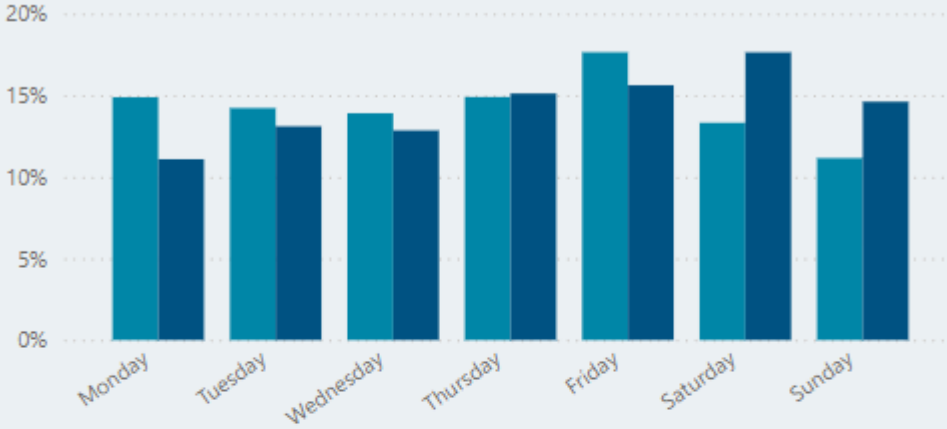


Burke County

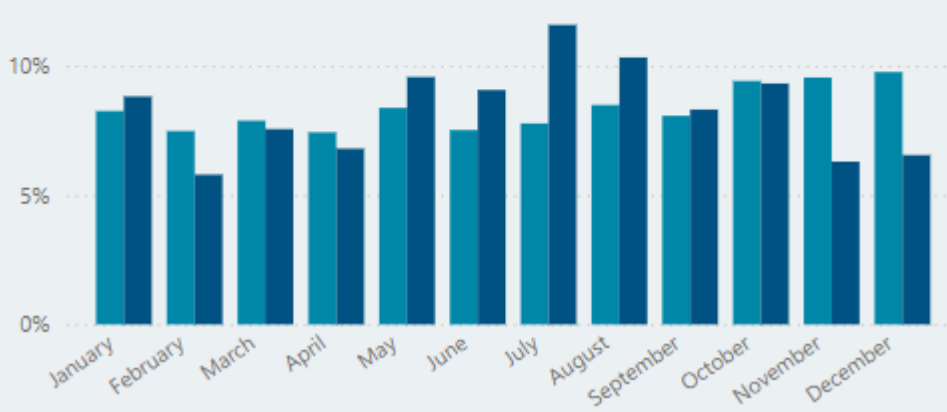
Comparison of Crash Outcomes by Hour



Day of Week

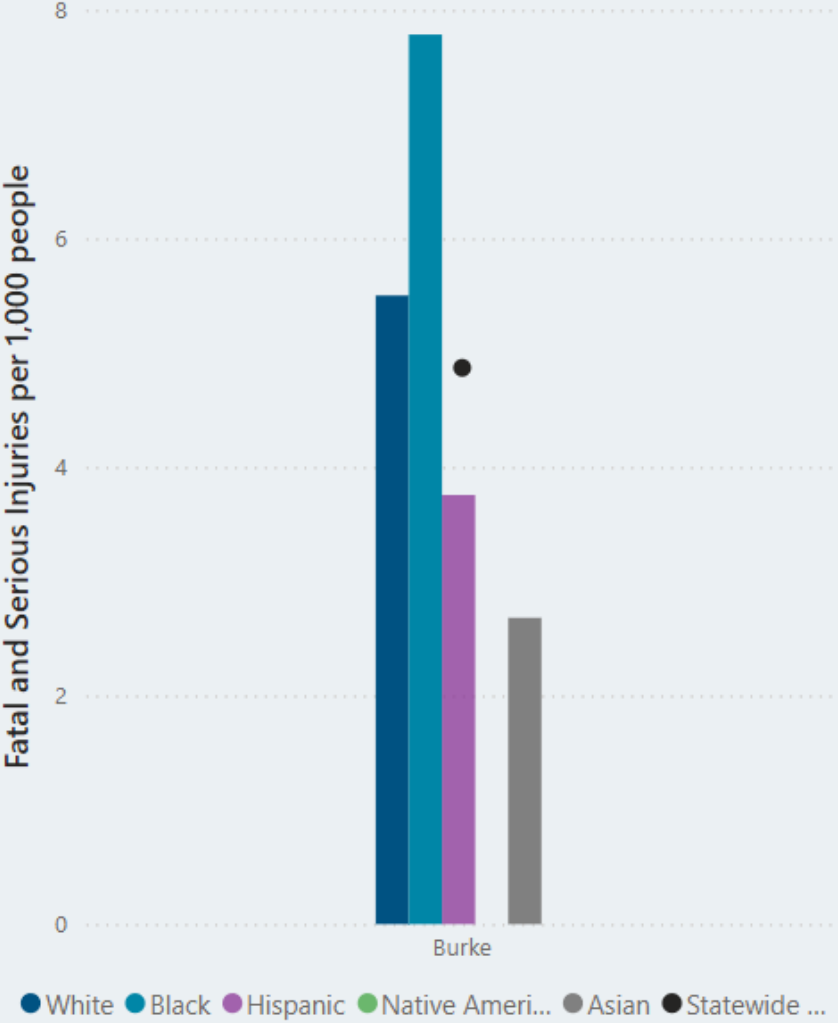


Month

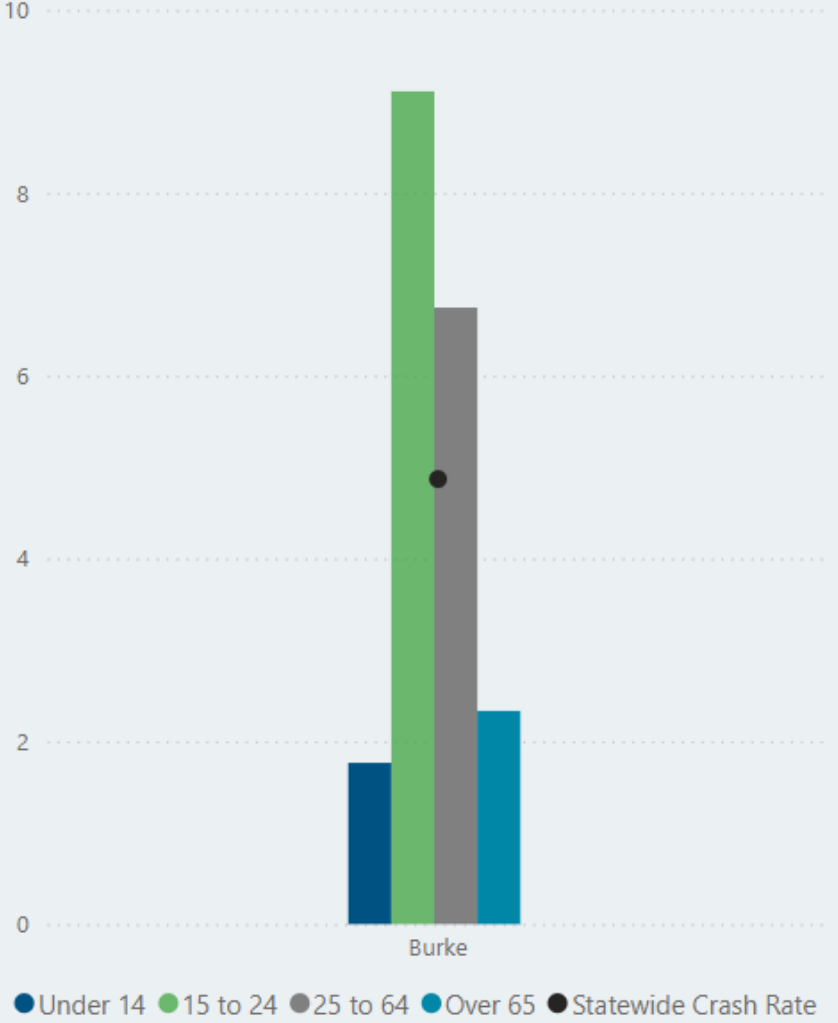


Burke County

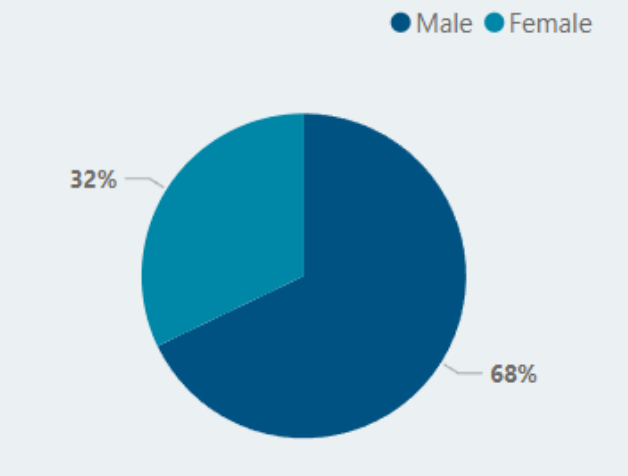
Crash Rates by Race and Ethnicity



Crash Rates by Age Group



Crash Rates by Sex



Caldwell County



Caldwell County

2016
—
2023

16,251

Total Crashes

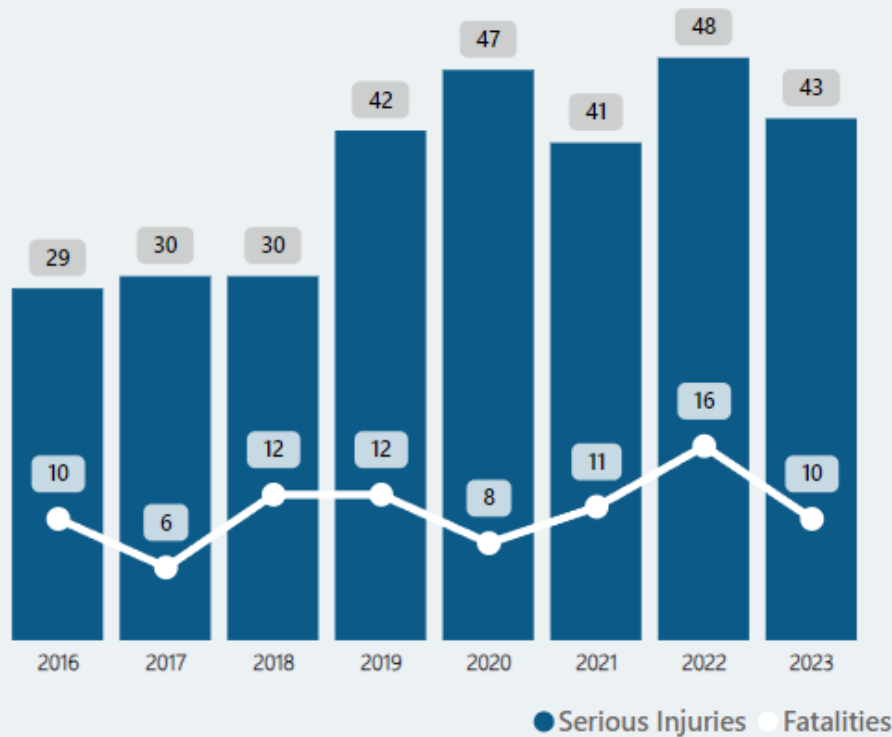
85

Fatalities

310

Serious Injuries

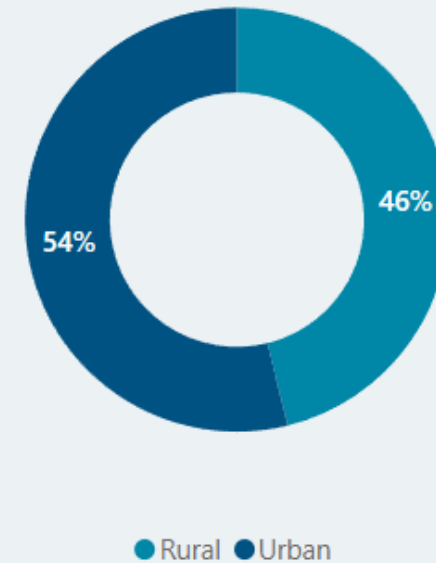
Fatal and Serious Injuries



Urban vs Rural Crashes

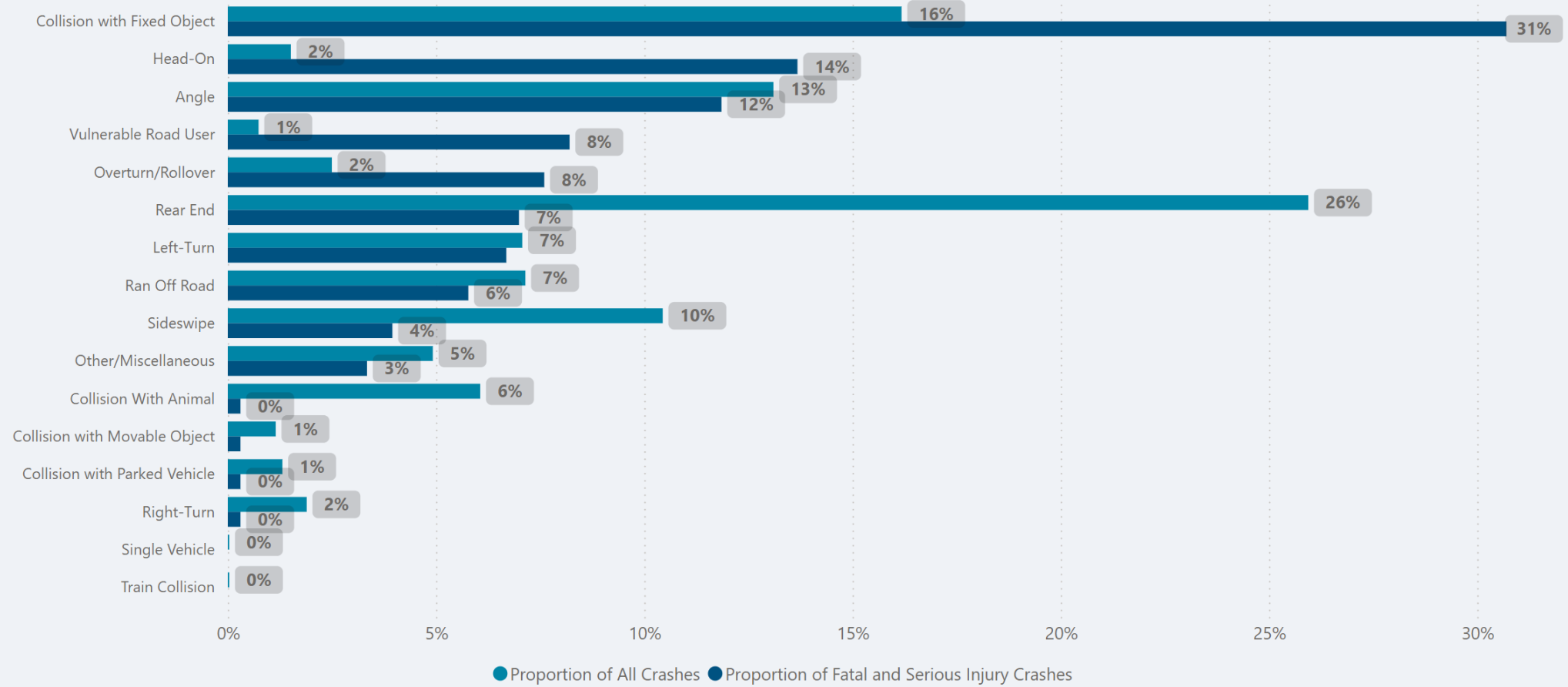
8,751
Urban

7,500
Rural



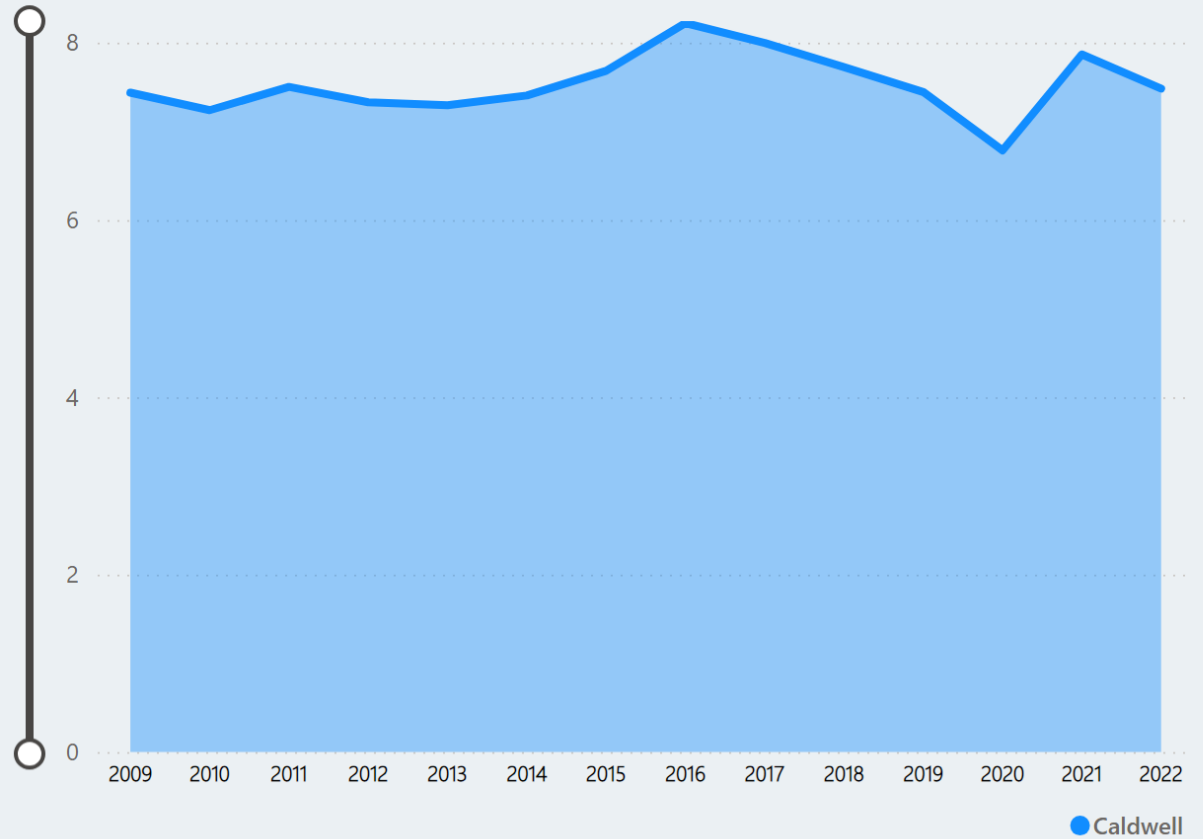
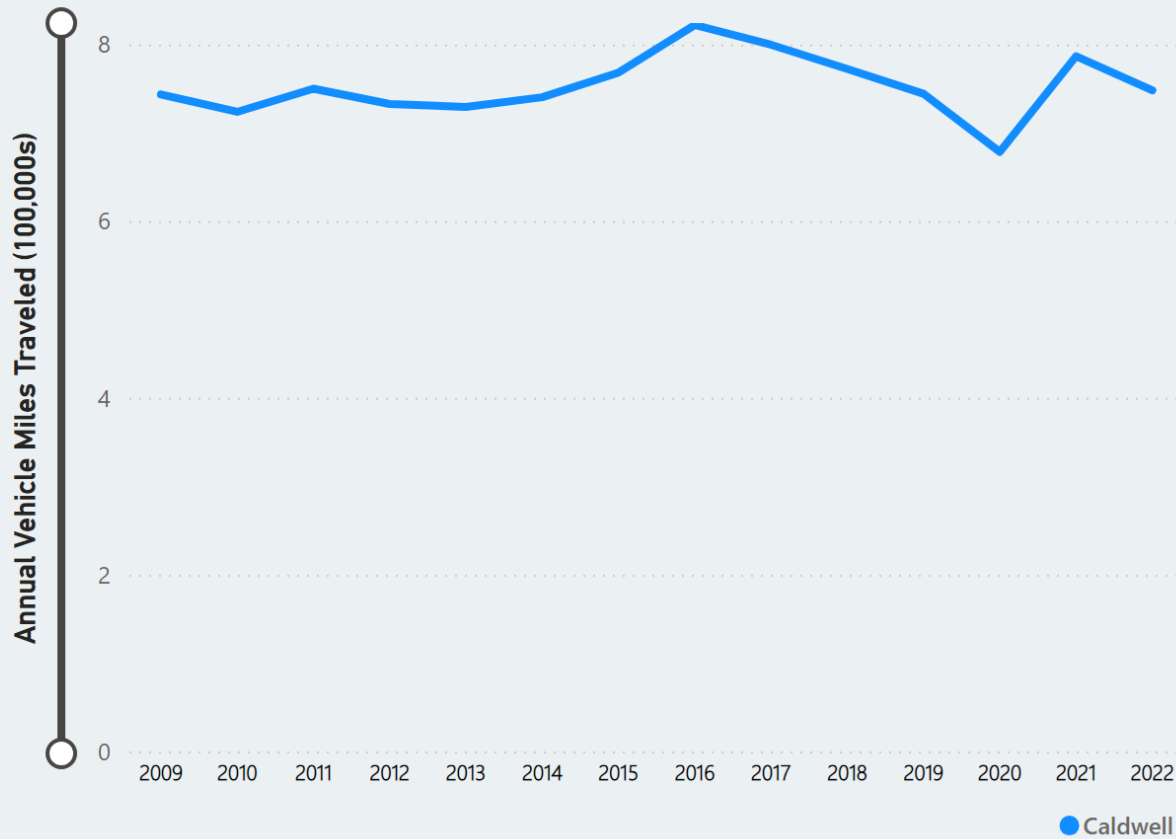
Caldwell County

Crash Type Proportion



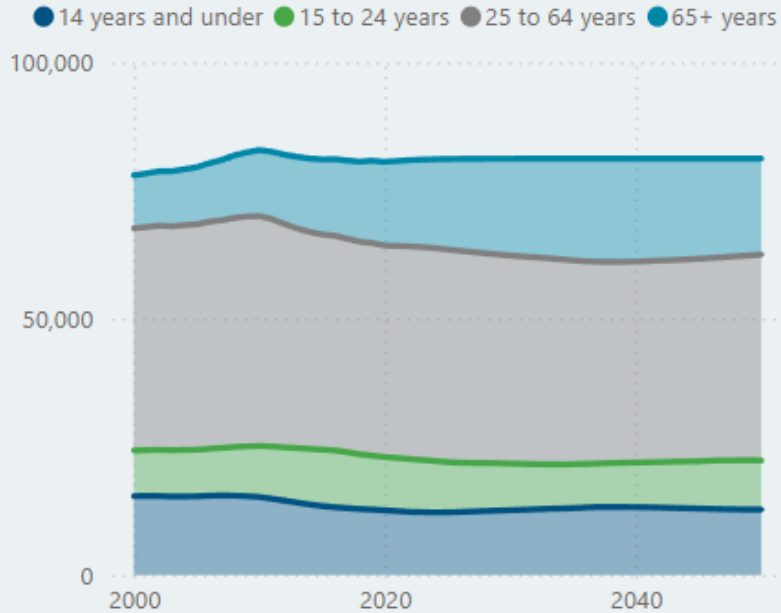
Caldwell County

Between 2009 and 2022 Annual VMT changed by 0.6 % for all selected geography



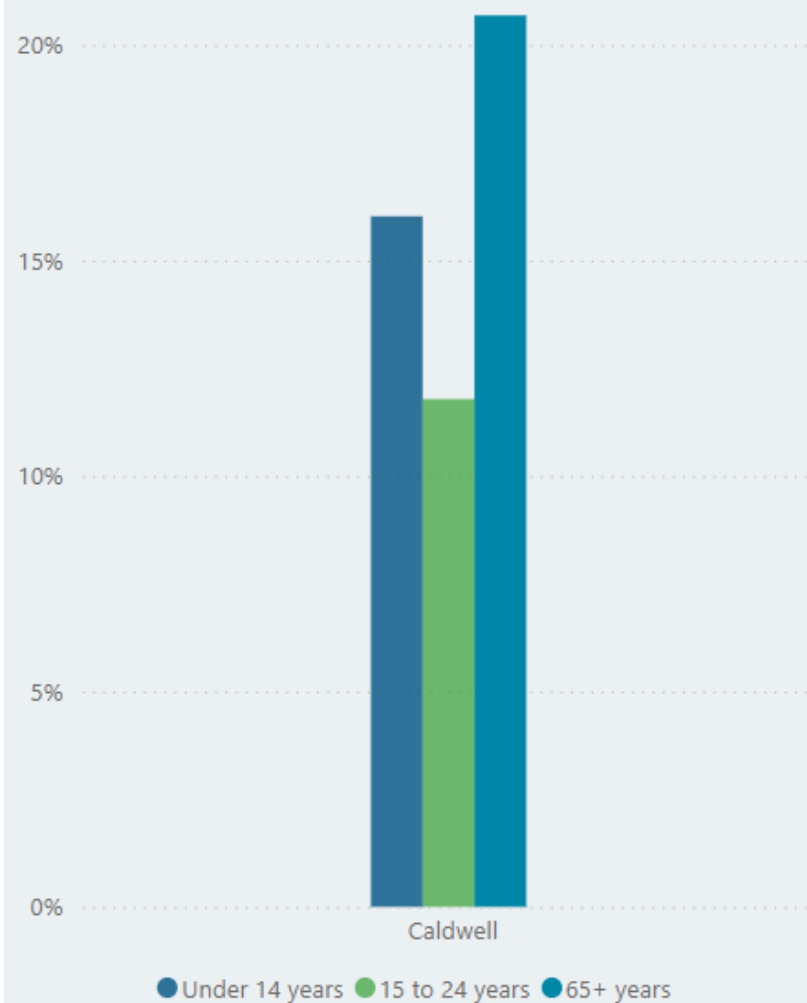
Caldwell County

Population Growth

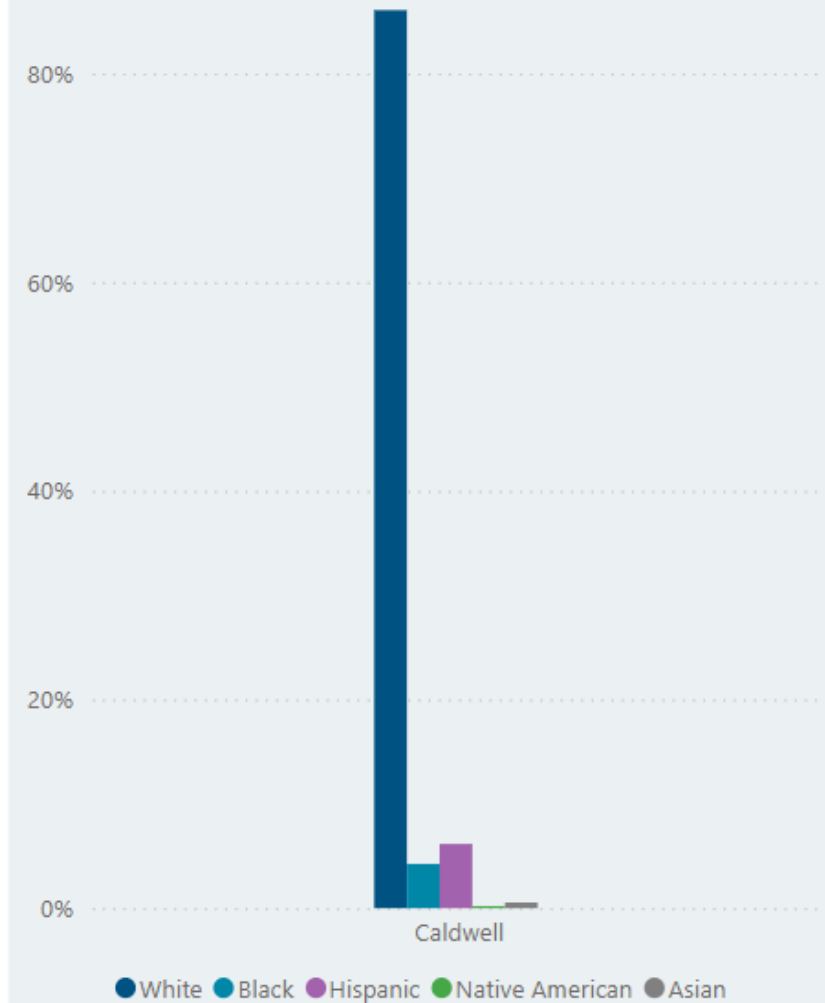


Age Group	2000 Population	2050 Population	Percent Change
14 years and under	15,390	12,763	-17%
15 to 24 years	8,917	9,617	8%
25 to 64 years	43,372	40,150	-7%
65+ years	10,345	18,729	81%
Total	78,024	81,259	4%

Census Estimate, Age Distribution (2022)

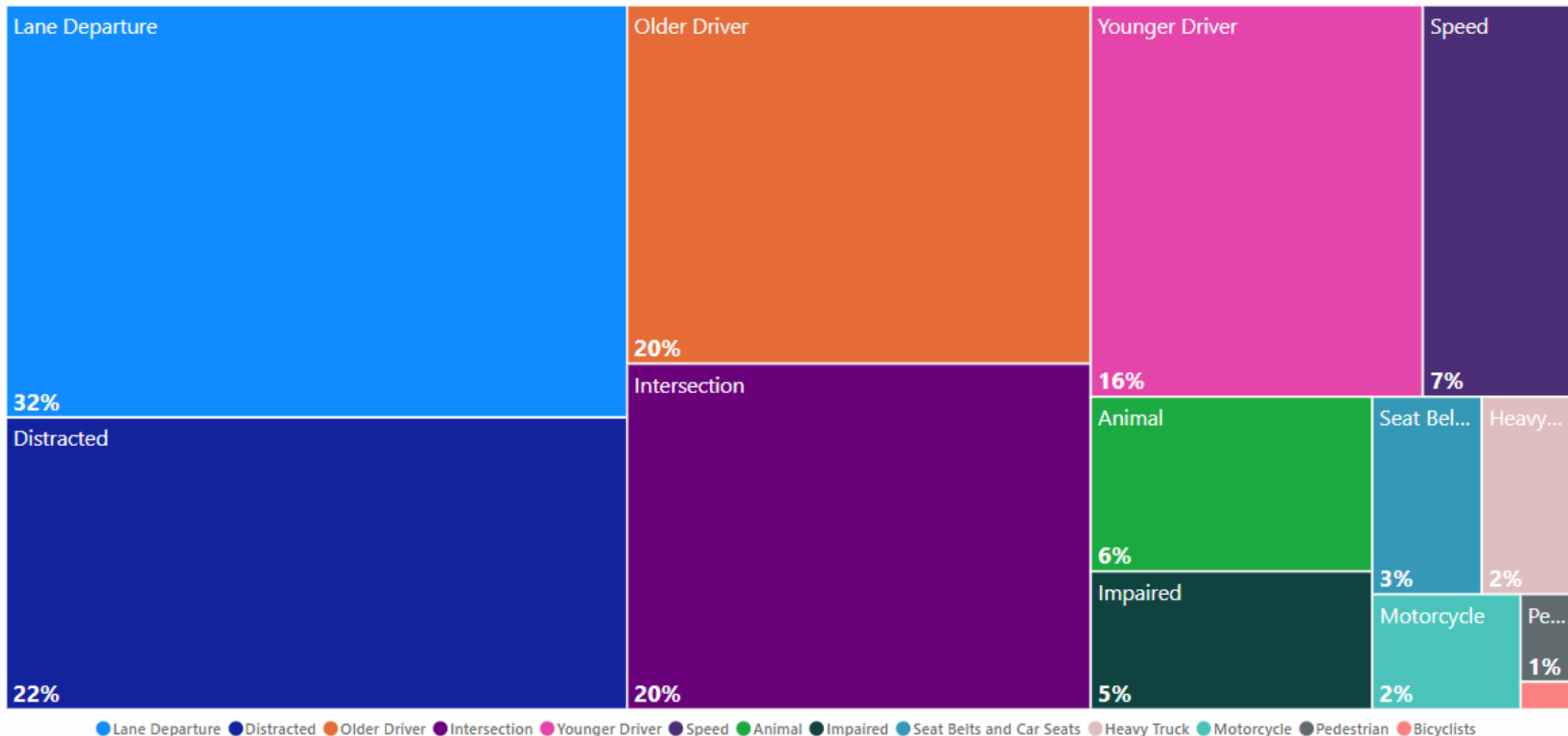


Census Estimate, Race & Ethnicity Distribution (2022)



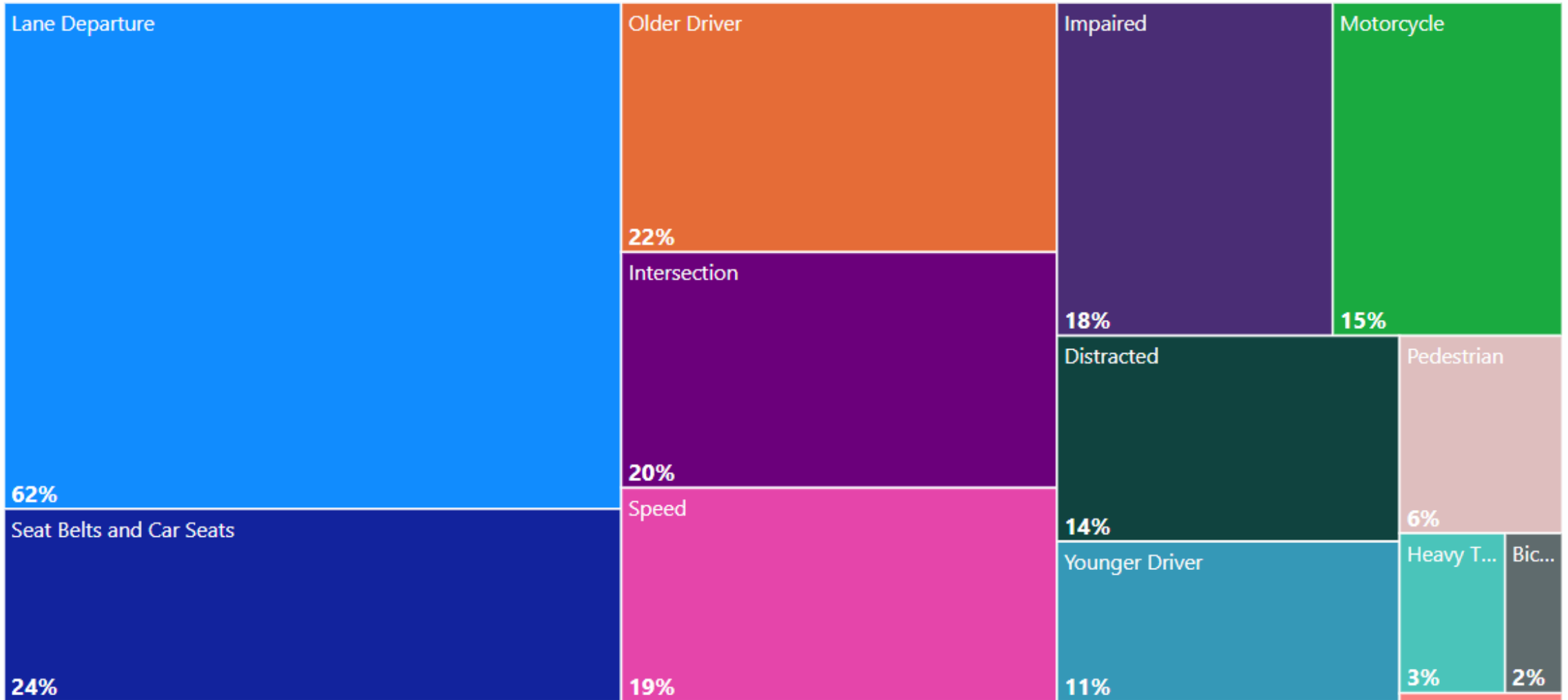
Caldwell Crashes by Emphasis Area

All Crashes by Emphasis Area



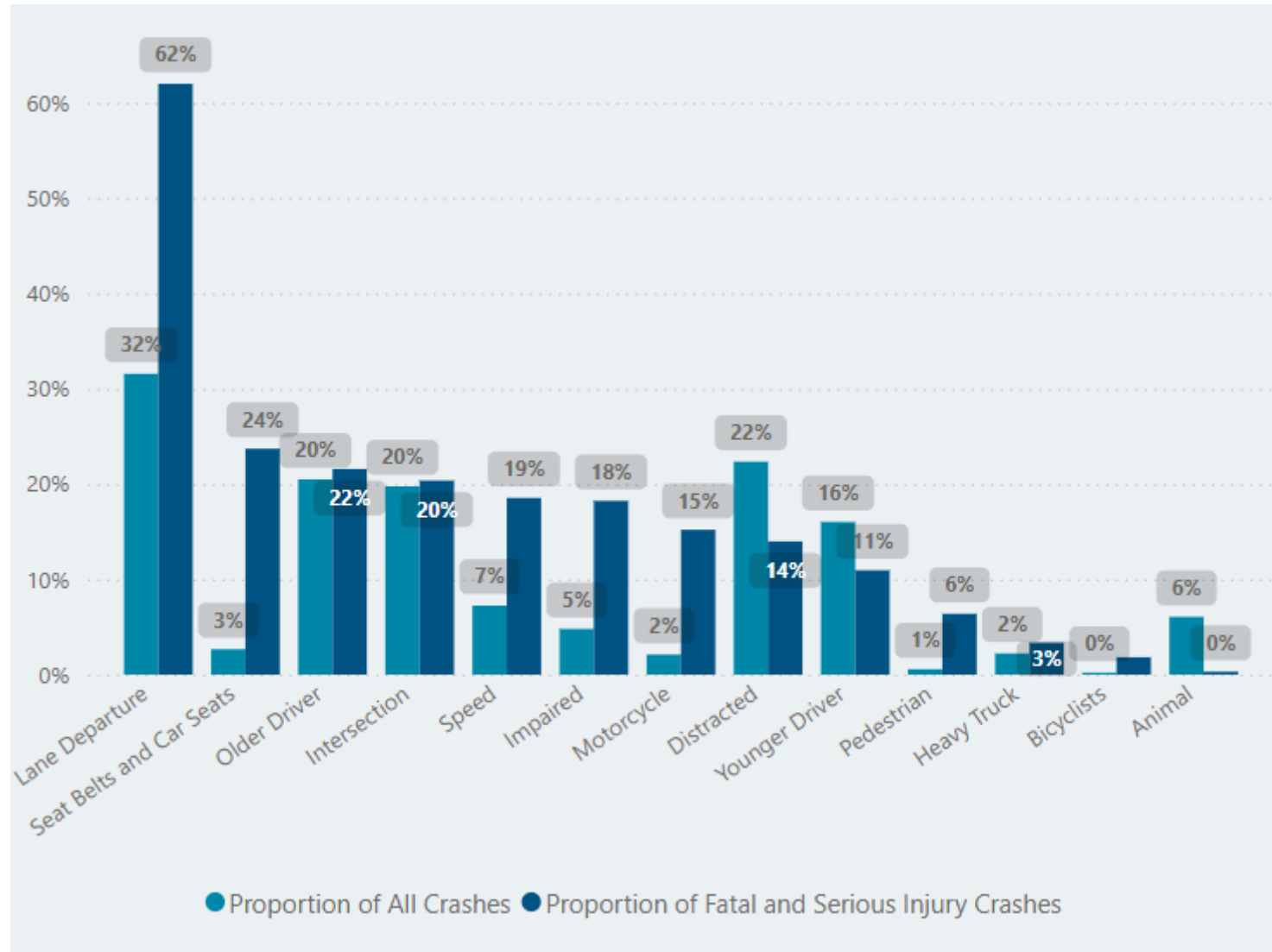
Caldwell Fatal and Serious Crashes by Emphasis Area

Fatal and Serious Injury Crashes by Emphasis Area



● Lane Departure
 ● Seat Belts and Car Seats
 ● Older Driver
 ● Intersection
 ● Speed
 ● Impaired
 ● Motorcycle
 ● Distracted
 ● Younger Driver
 ● Pedestrian
 ● Heavy Truck
 ● Bicyclists
 ● Animal

Proportion of Caldwell Crashes by Emphasis Area

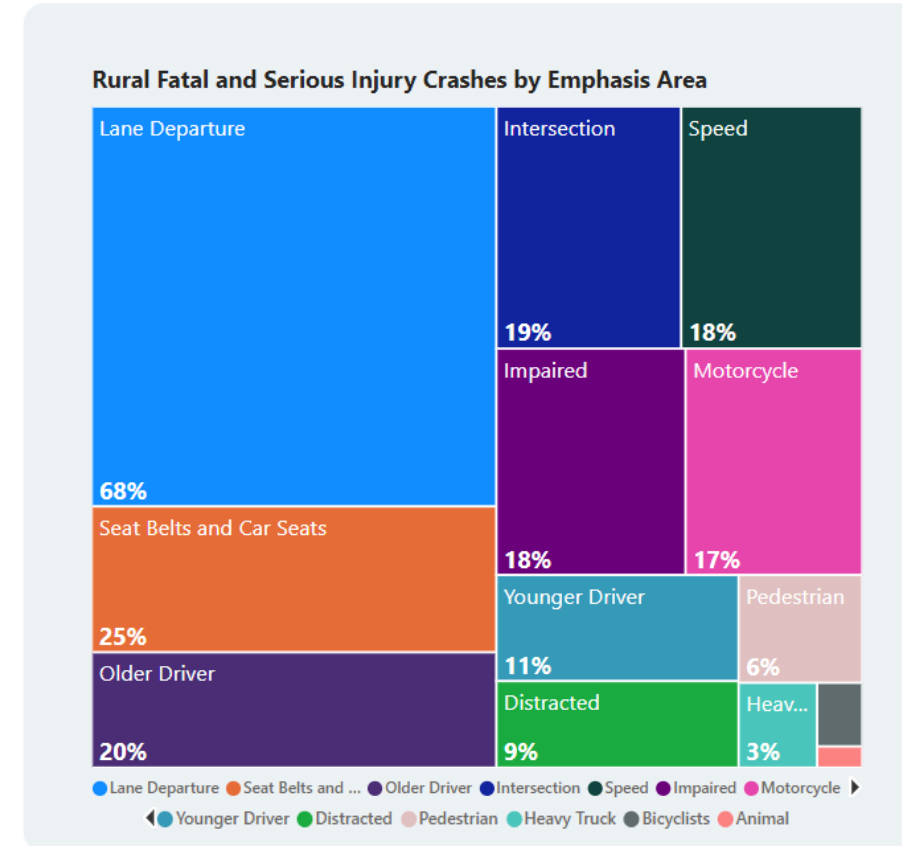
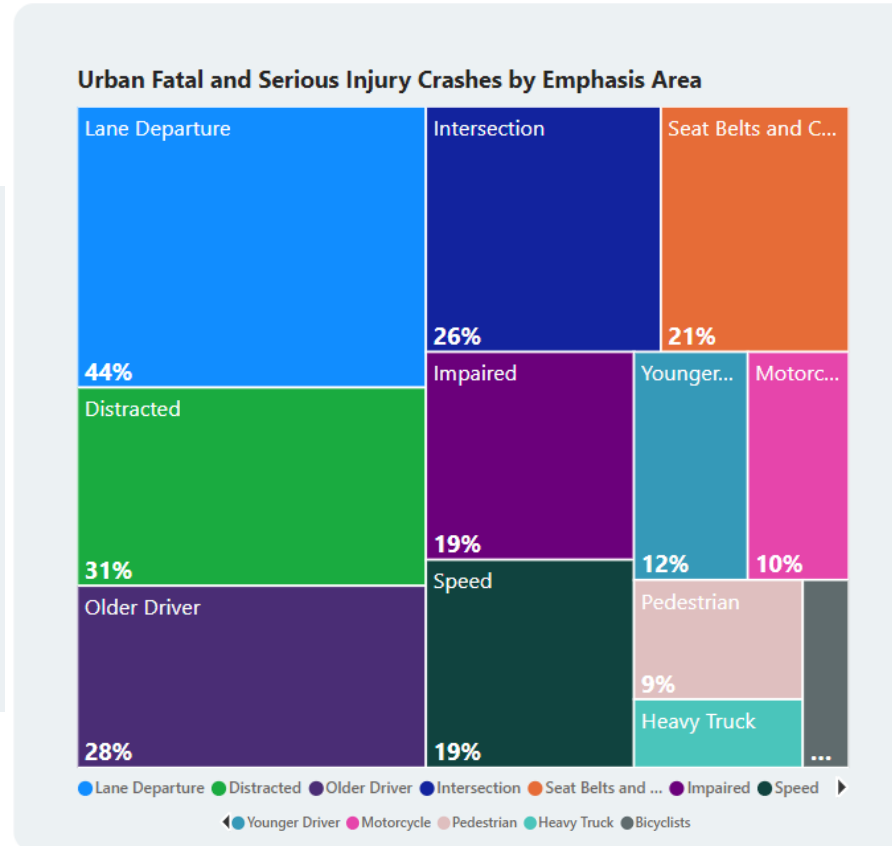
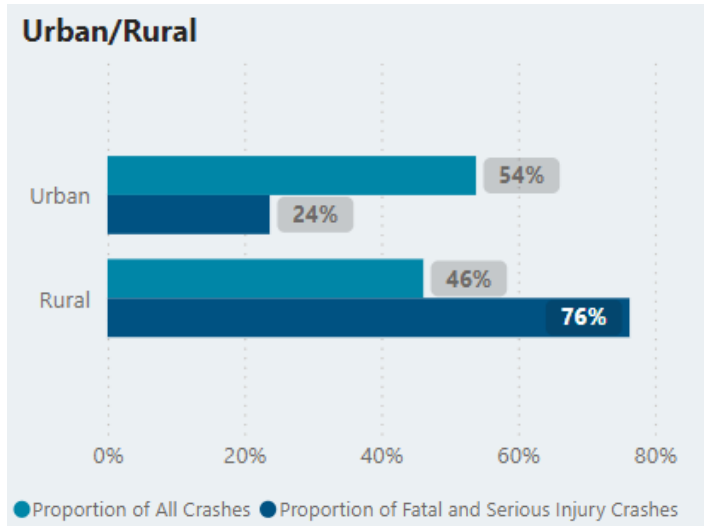


Caldwell Crashes Emphasis Area Comparison Table

Proportion of Fatal and Serious Injury Crashes by County

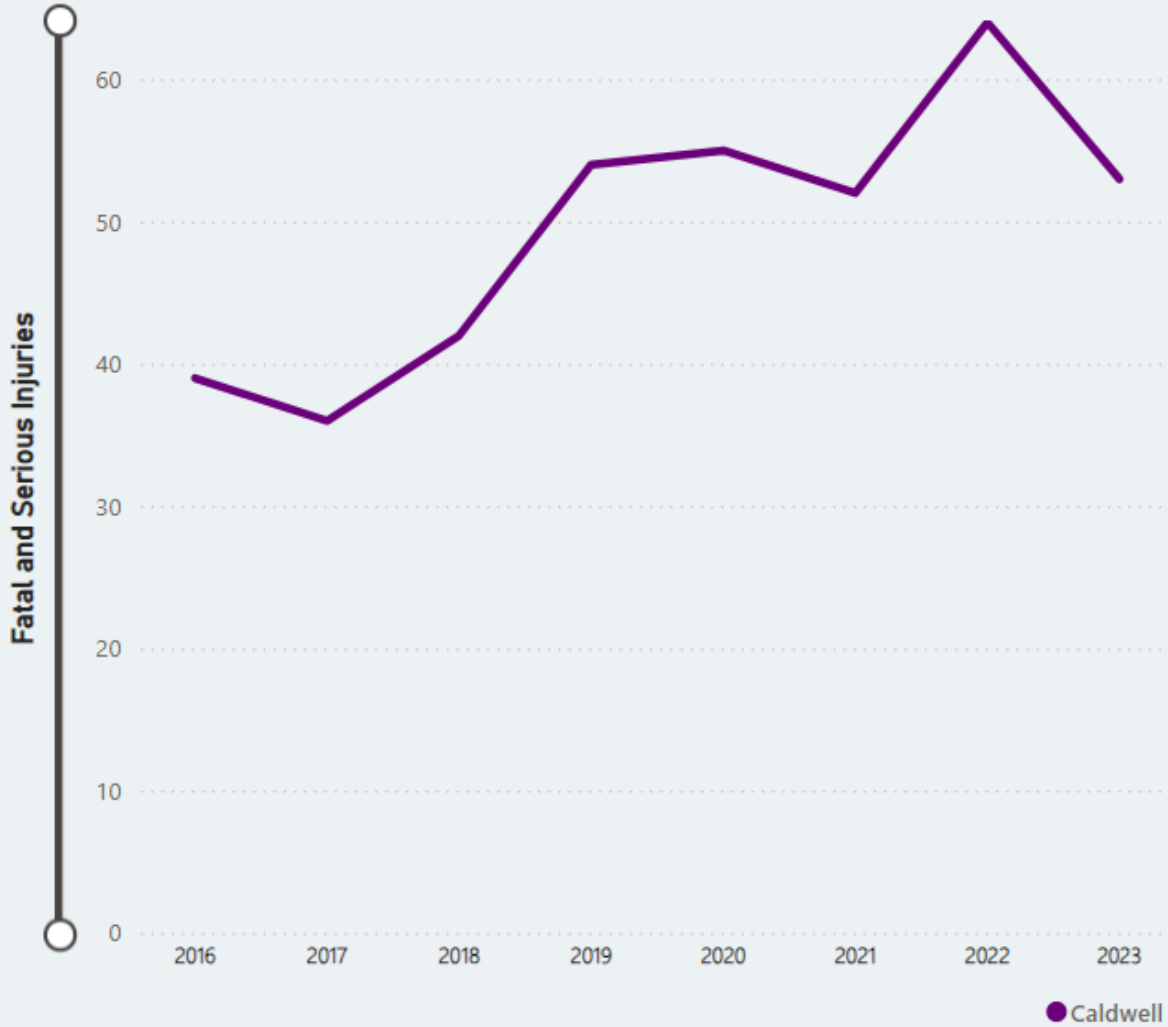
Emphasis Areas	Alexander	Burke	Caldwell	Catawba	Statewide
Animal	1%	0%	0%	1%	1%
Bicyclists		2%	2%	2%	2%
Distracted	14%	20%	14%	12%	12%
Heavy Truck	1%	5%	3%	5%	5%
Impaired	21%	21%	18%	21%	23%
Intersection	21%	16%	20%	24%	22%
Lane Departure	69%	65%	62%	54%	53%
Motorcycle	18%	23%	15%	20%	14%
Older Driver	17%	15%	22%	19%	17%
Pedestrian	4%	7%	6%	8%	10%
Seat Belts and Car Seats	25%	25%	24%	22%	27%
Speed	17%	16%	19%	11%	18%
Younger Driver	15%	11%	11%	11%	11%

Caldwell Urban and Rural Crashes

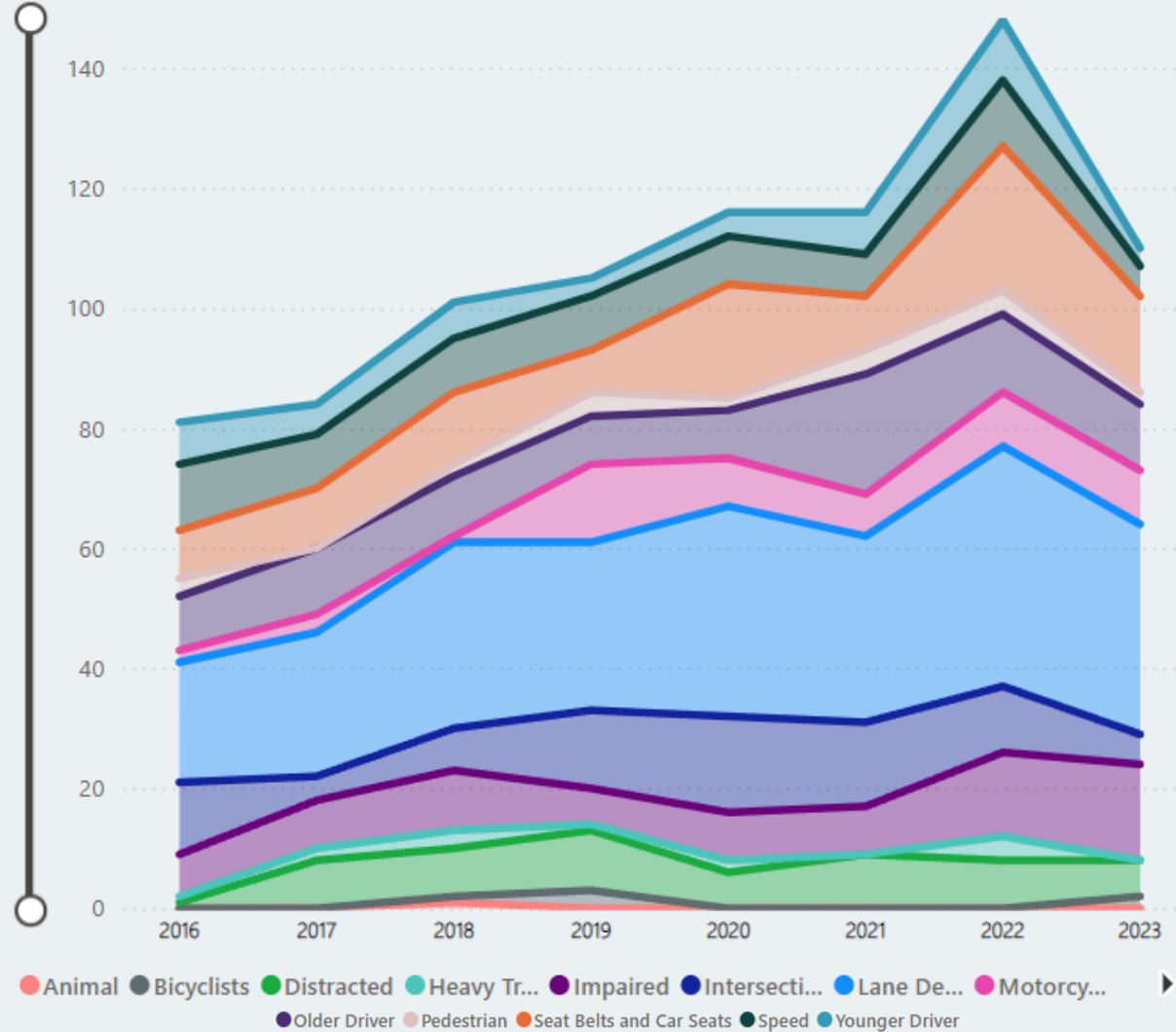


Caldwell County

Fatal and Serious Injuries by County



Fatal and Serious Injuries by Emphasis Area



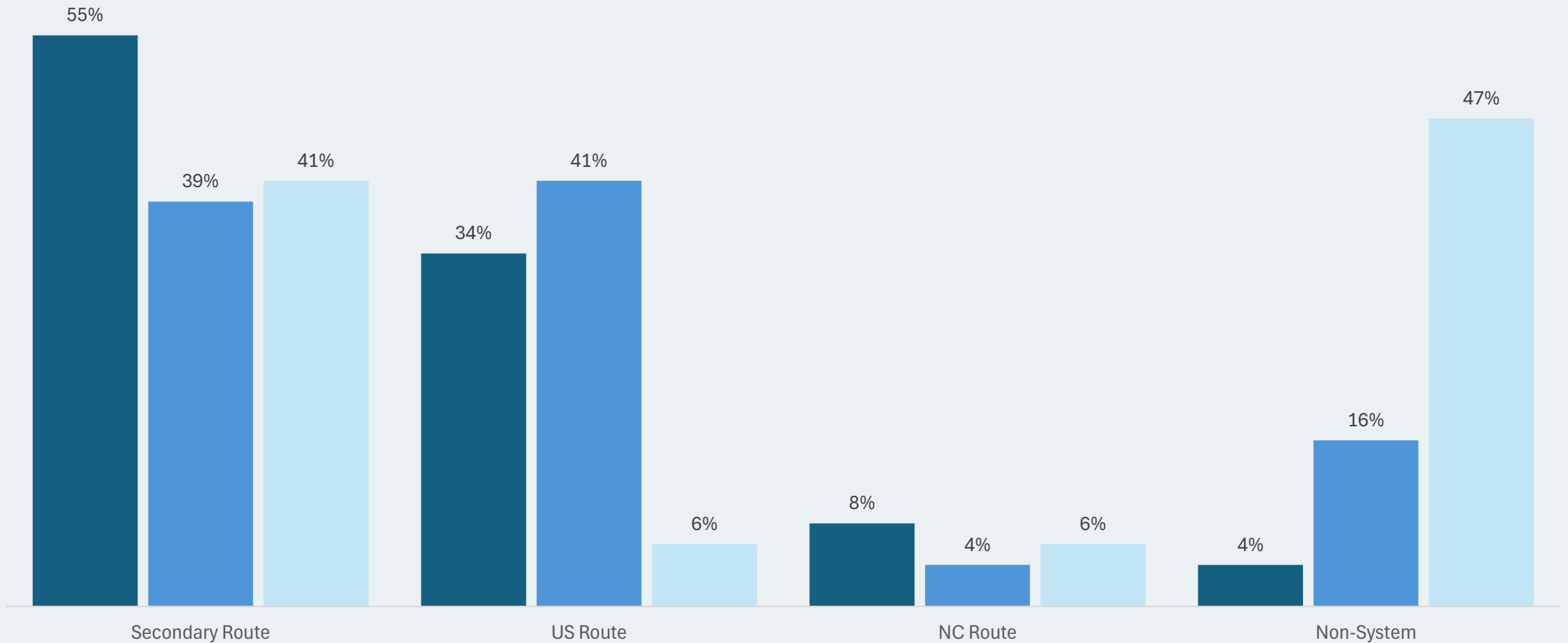
Caldwell County

Crashes and Roadway Mileage by Route Class

■ Proportion of Fatal and Serious Injury Crashes

■ Proportion of All Crashes

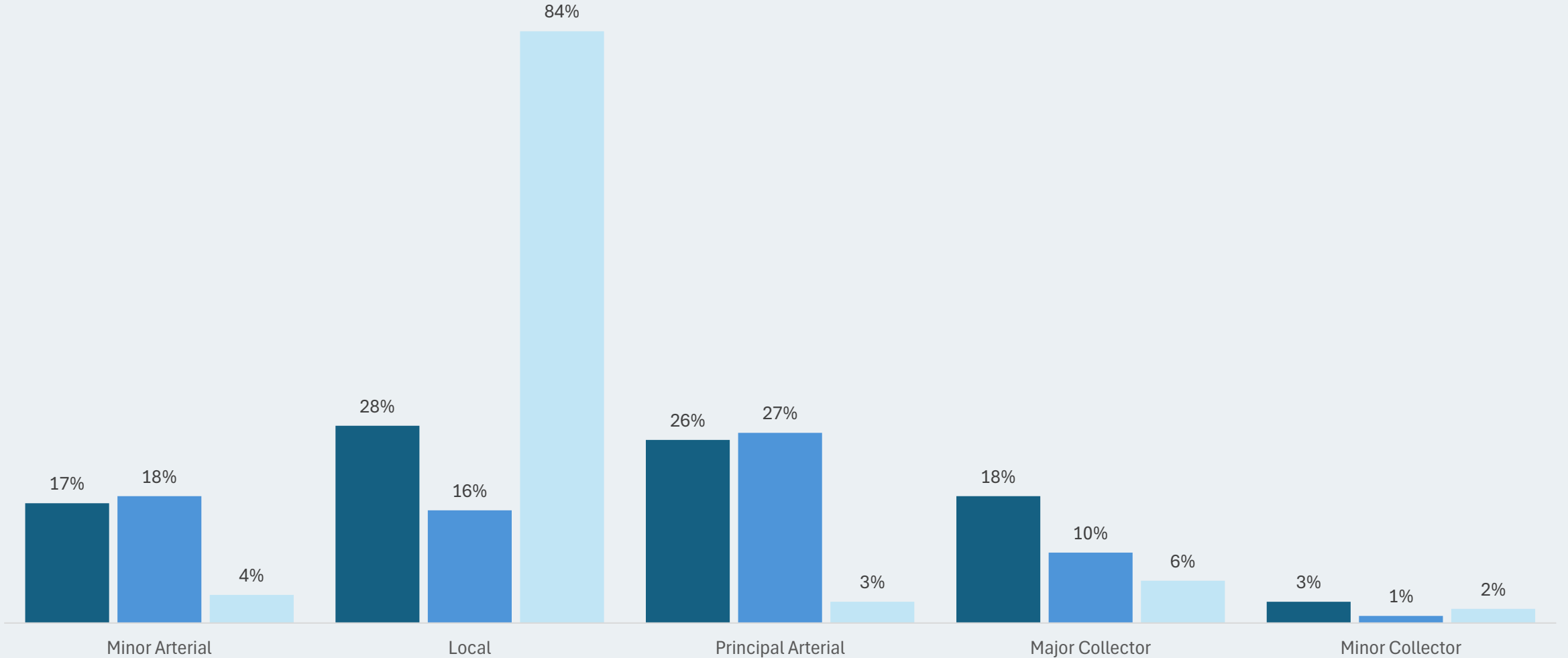
■ Proportion of Mileage



Caldwell County

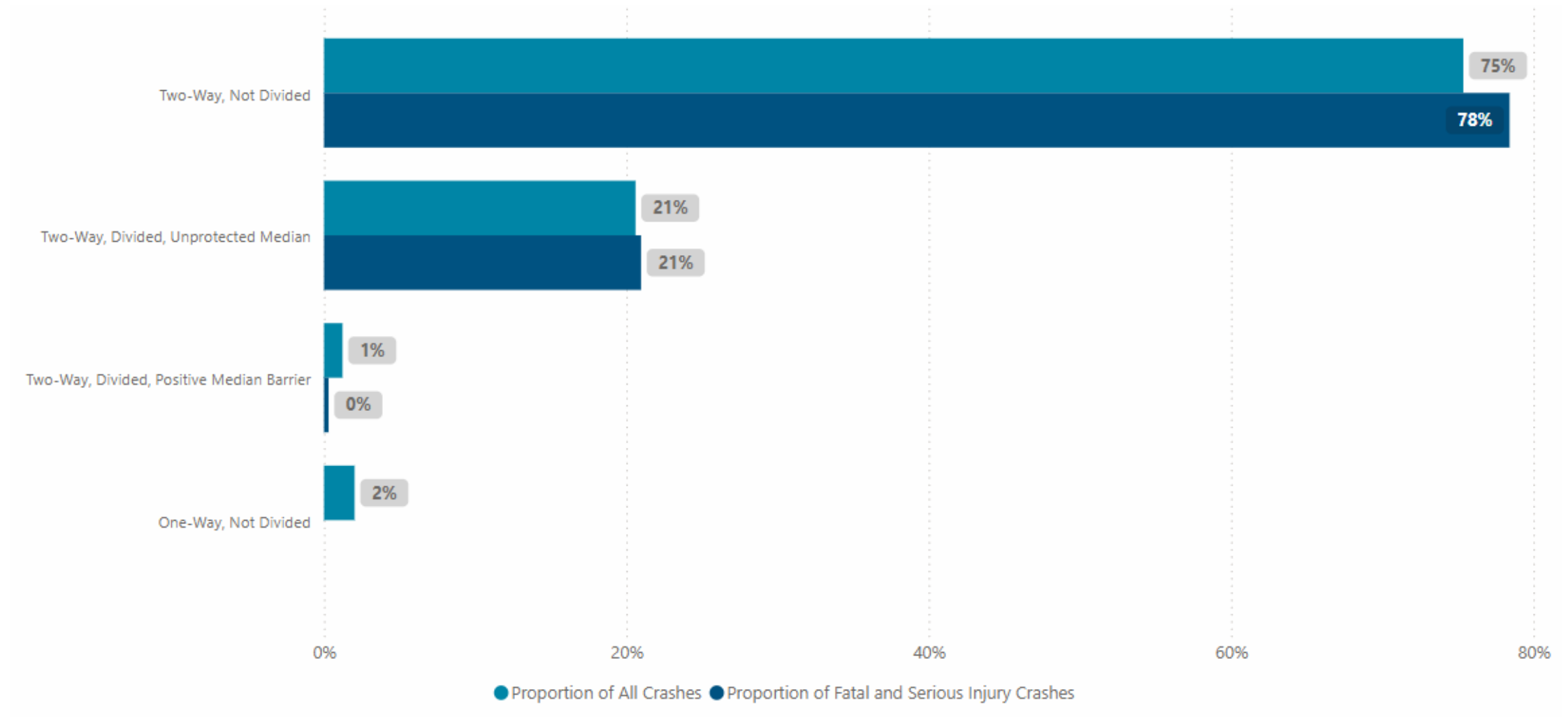
Crashes and Roadway Mileage by Functional Class

■ Proportion of Fatal and Serious Injury Crashes ■ Proportion of All Crashes ■ Proportion of Mileage



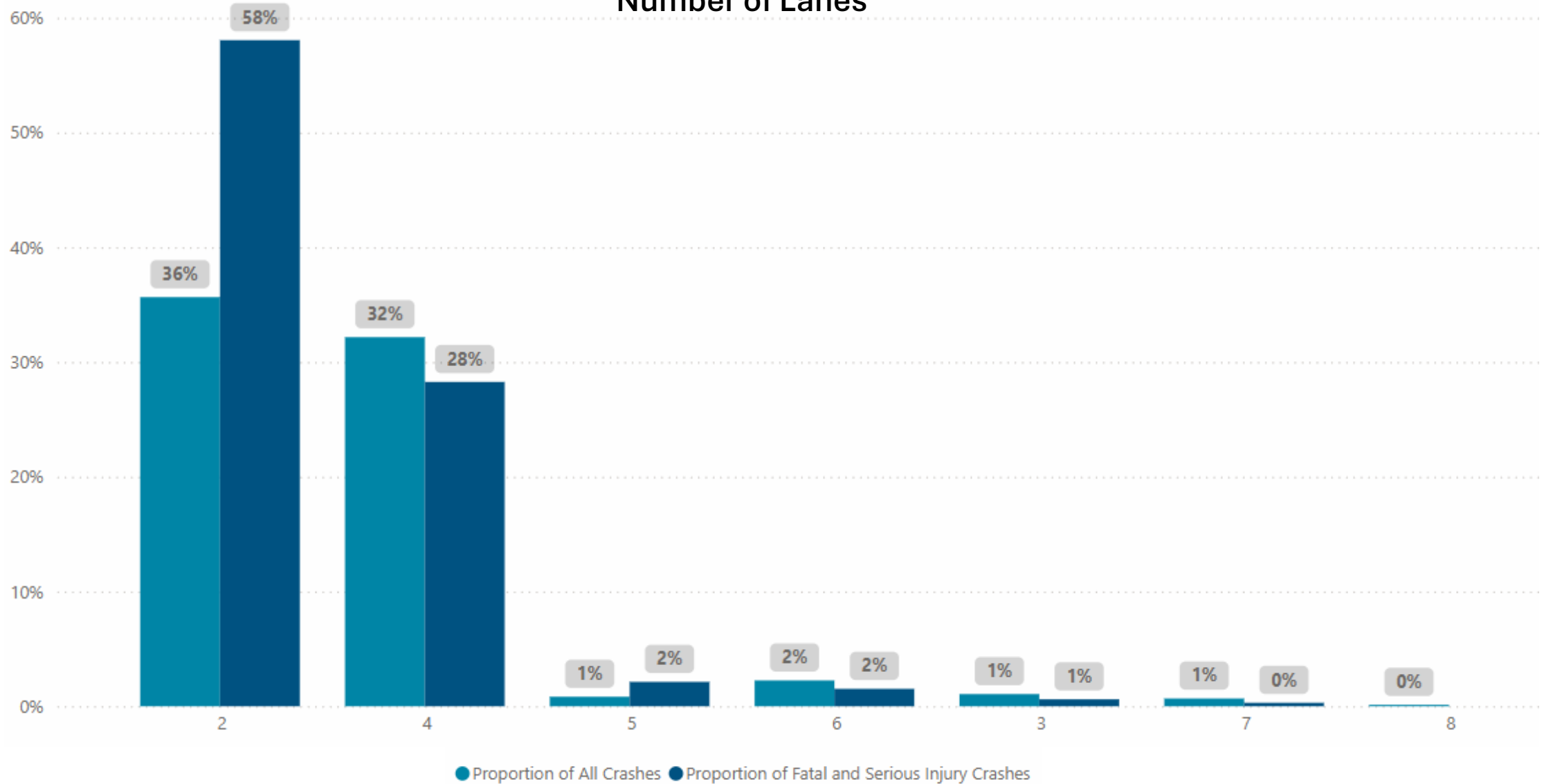
Caldwell County

Roadway Configuration



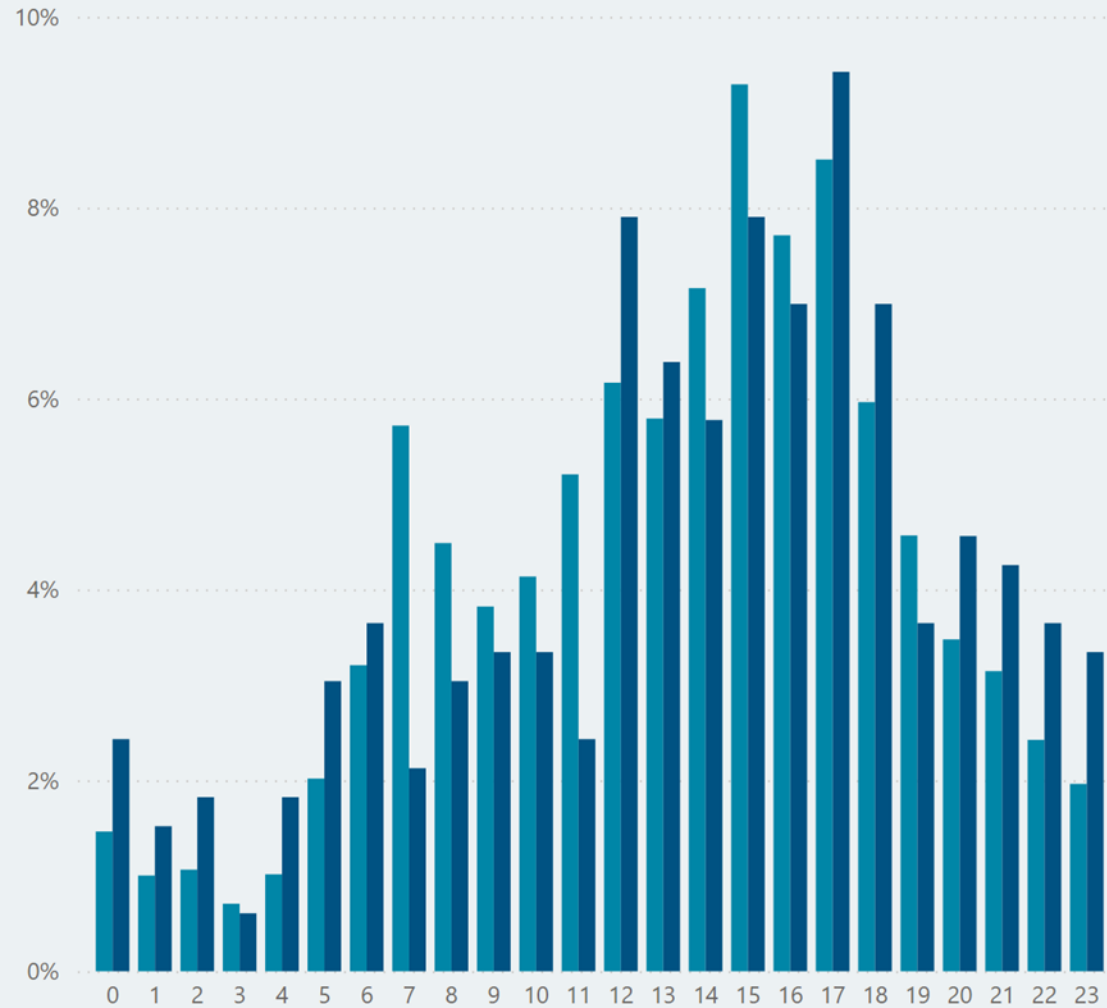
Caldwell County

Number of Lanes

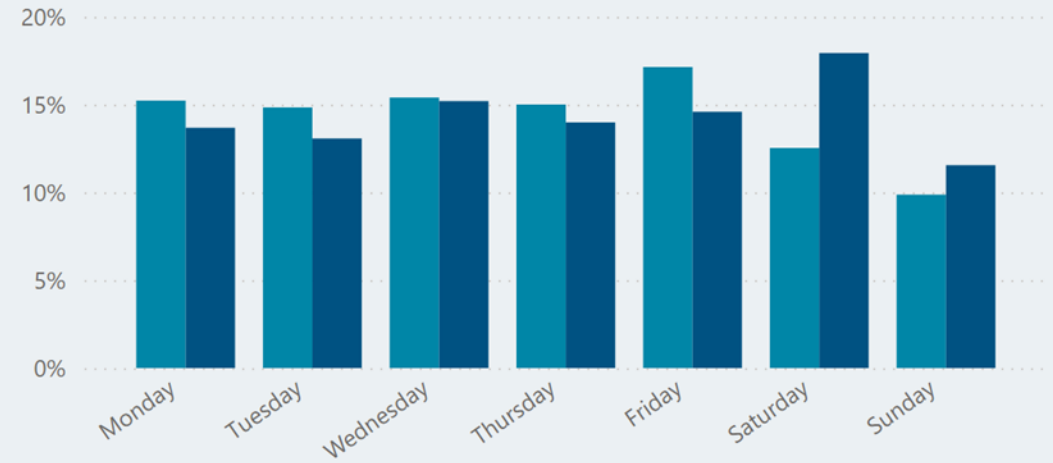


Caldwell County

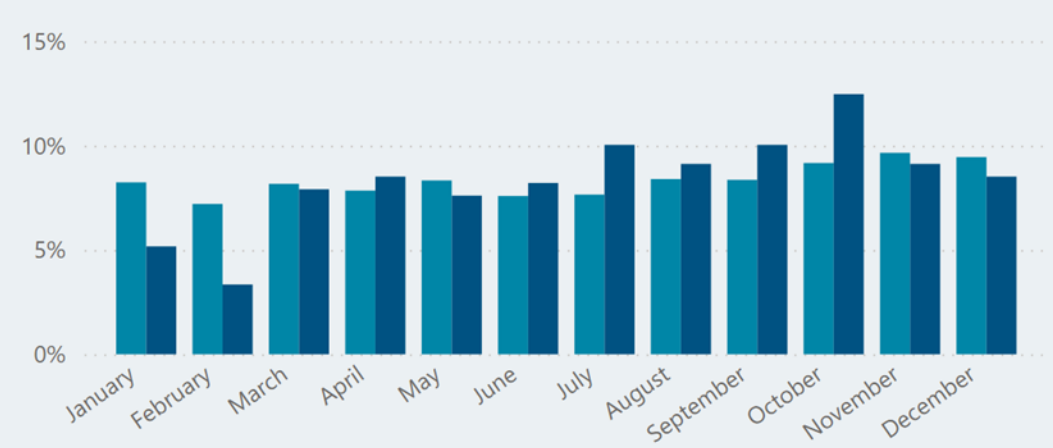
Comparison of Crash Outcomes by Hour



Day of Week

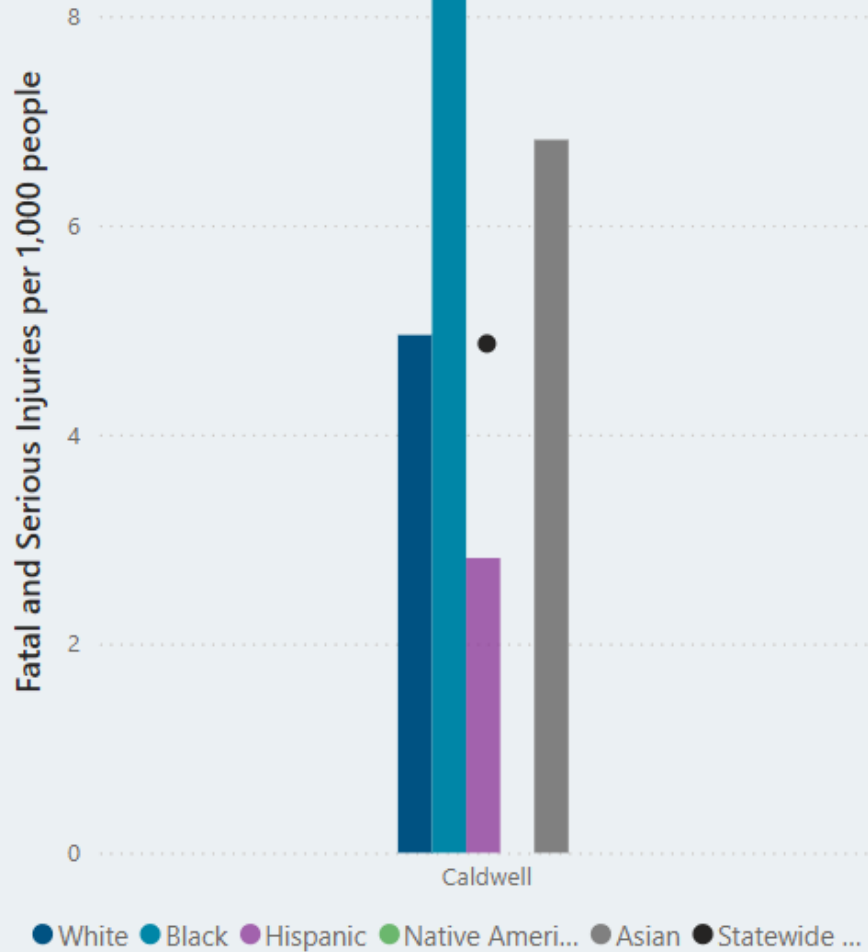


Month

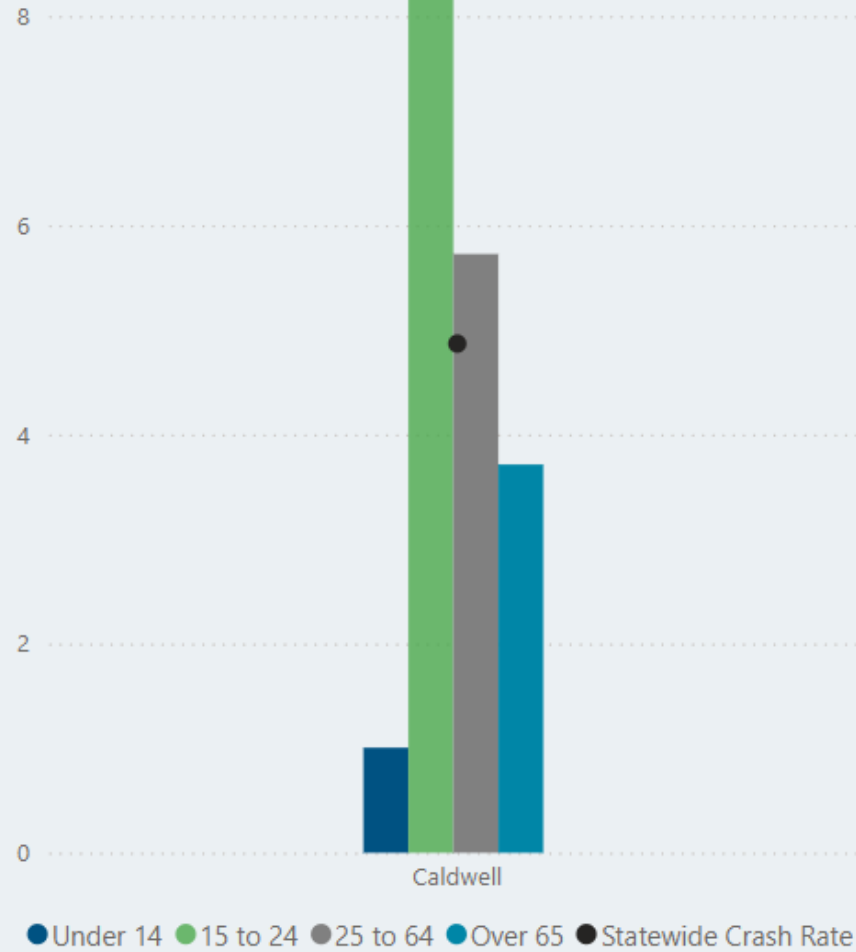


Caldwell County

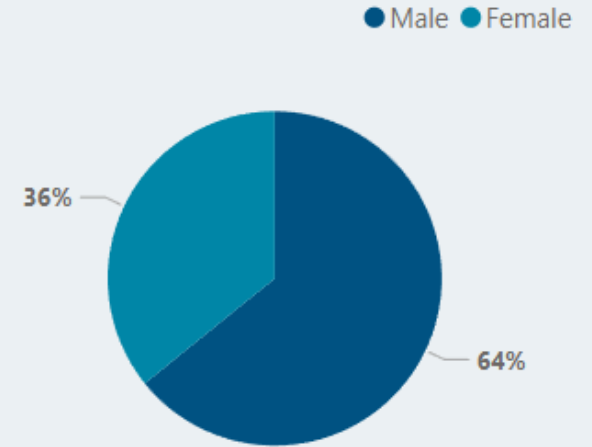
Crash Rates by Race and Ethnicity



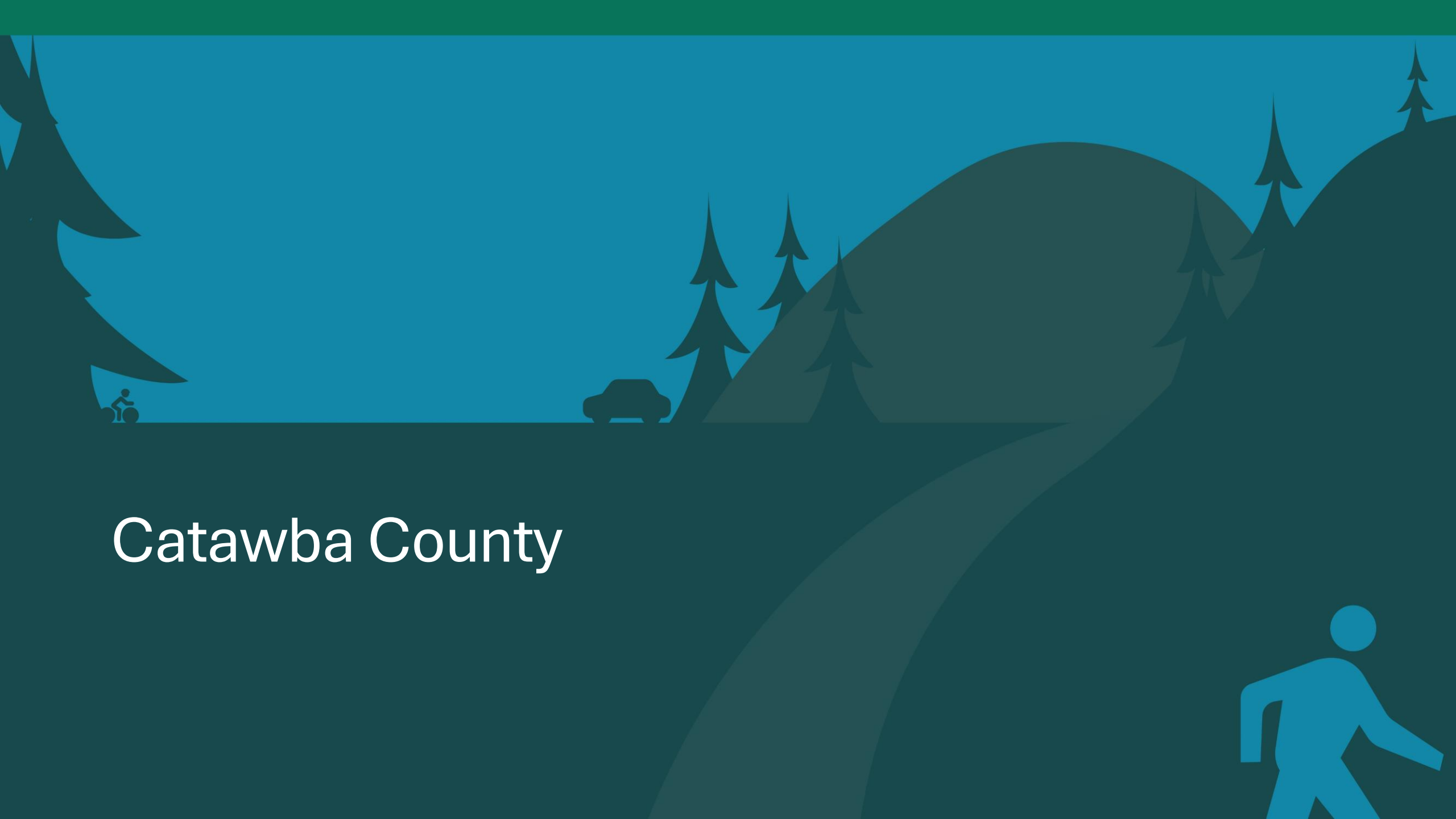
Crash Rates by Age Group



Crash Rates by Sex



Catawba County



Catawba County

2016
—
2023

44,613

Total Crashes

195

Fatalities

468

Serious Injuries

Fatal and Serious Injuries

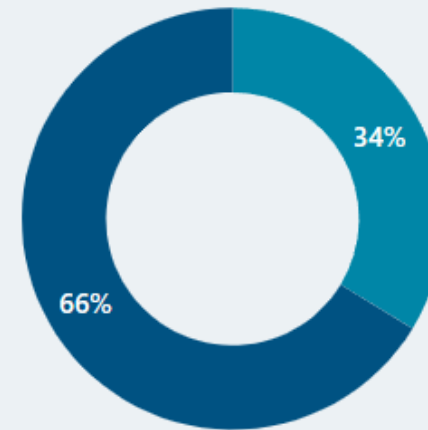


● Serious Injuries ● Fatalities

Urban vs Rural Crashes

29,583
Urban

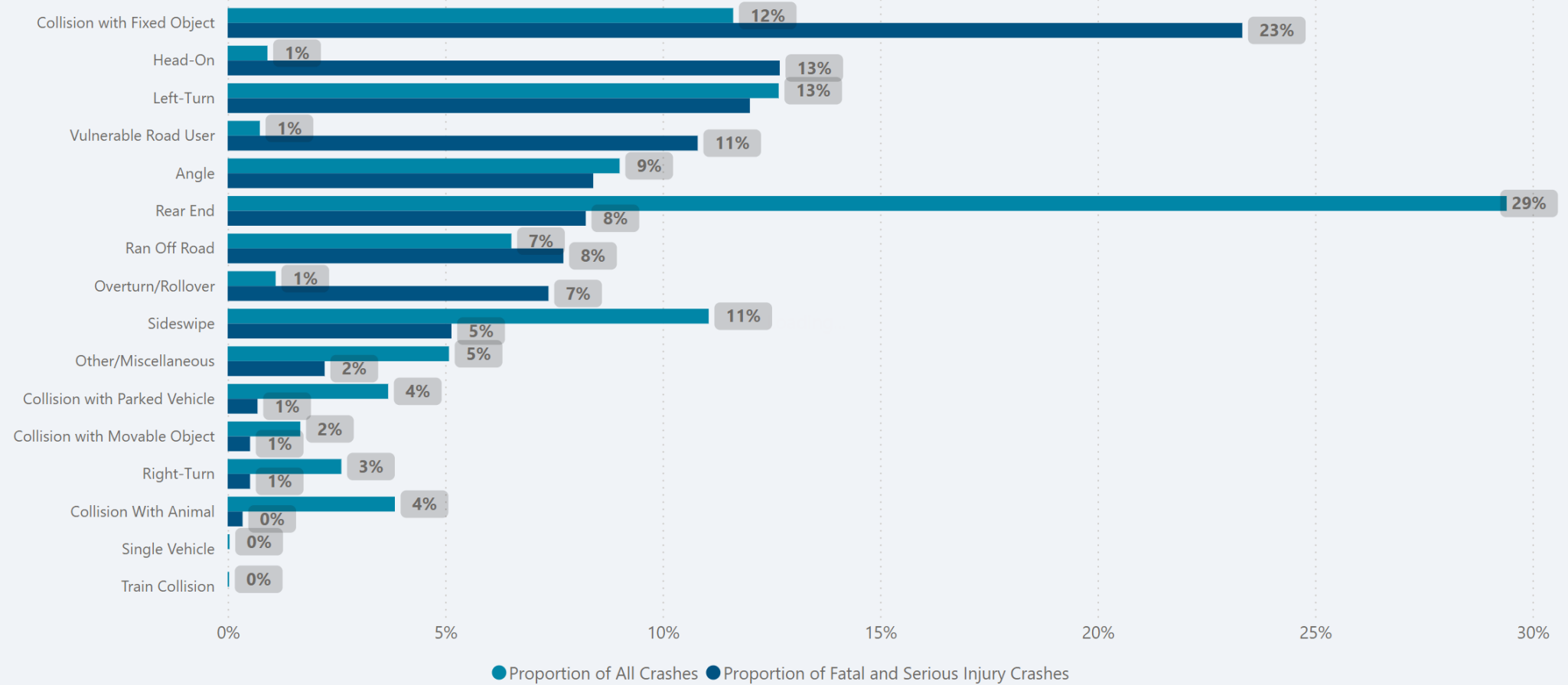
15,030
Rural



● Rural ● Urban

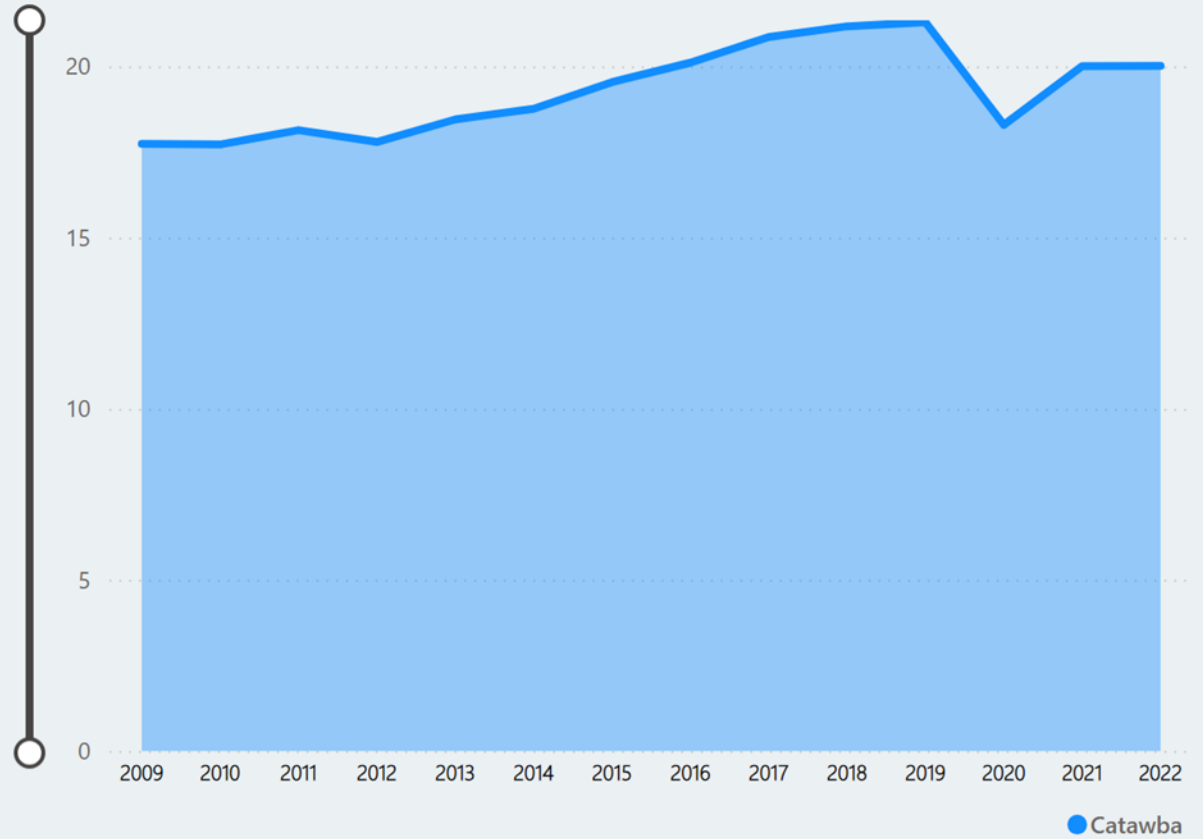
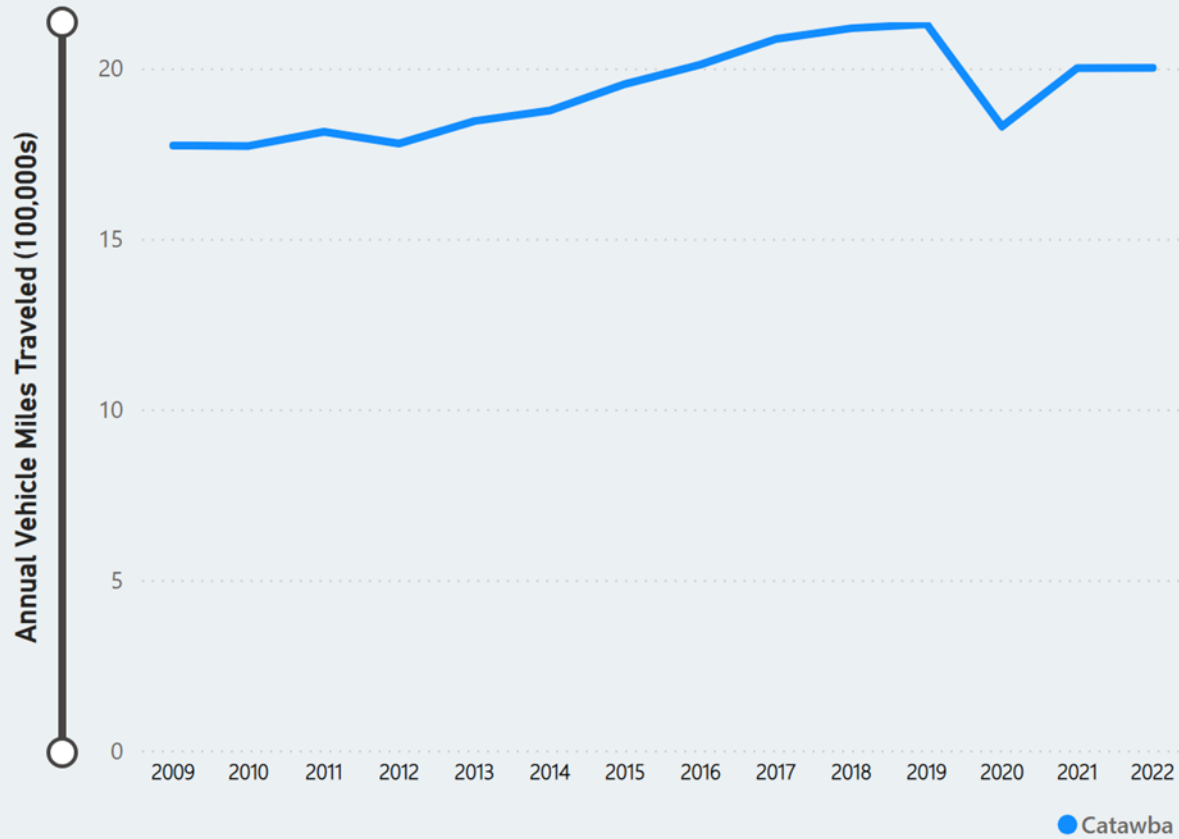
Catawba County

Crash Type Proportion



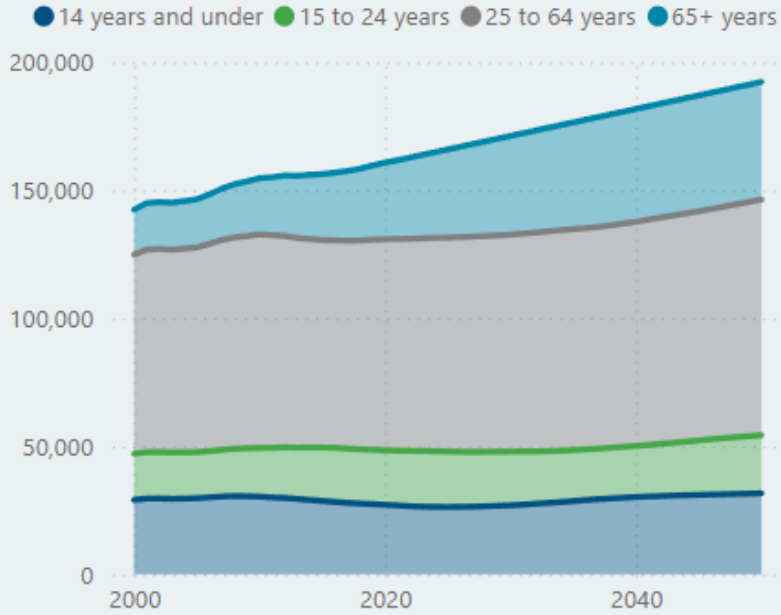
Catawba County

Between 2009 and 2022 Annual VMT changed by 12.8 % for all selected geography



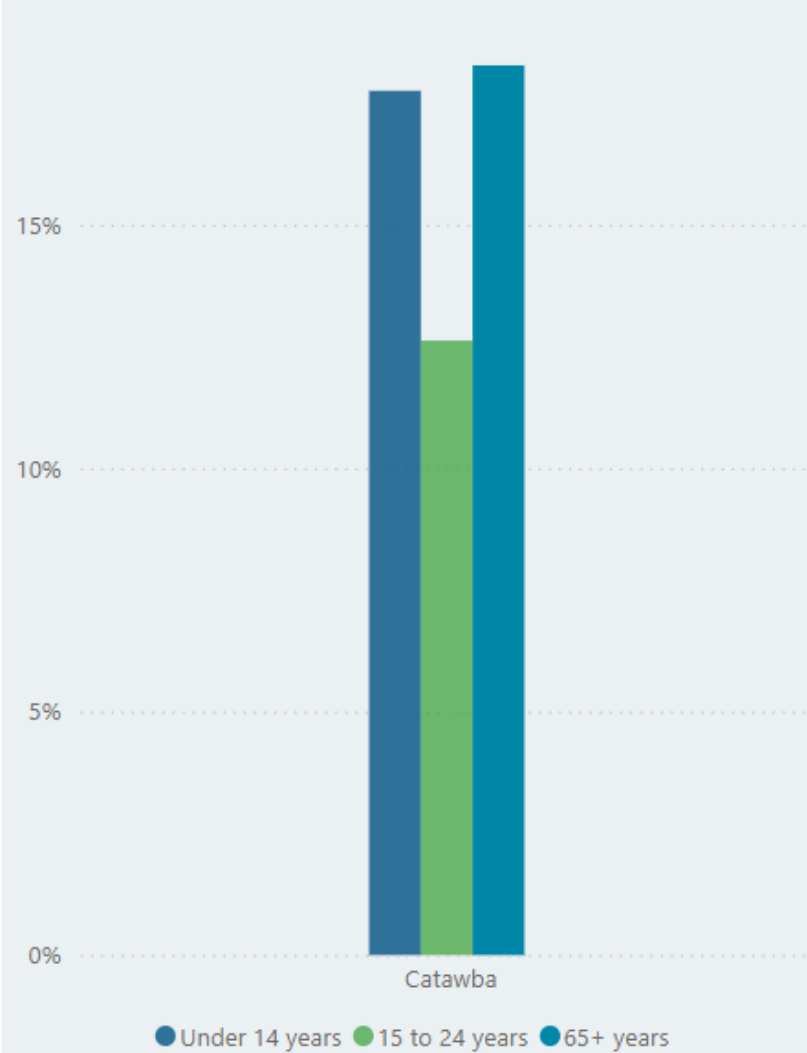
Catawba County

Population Growth

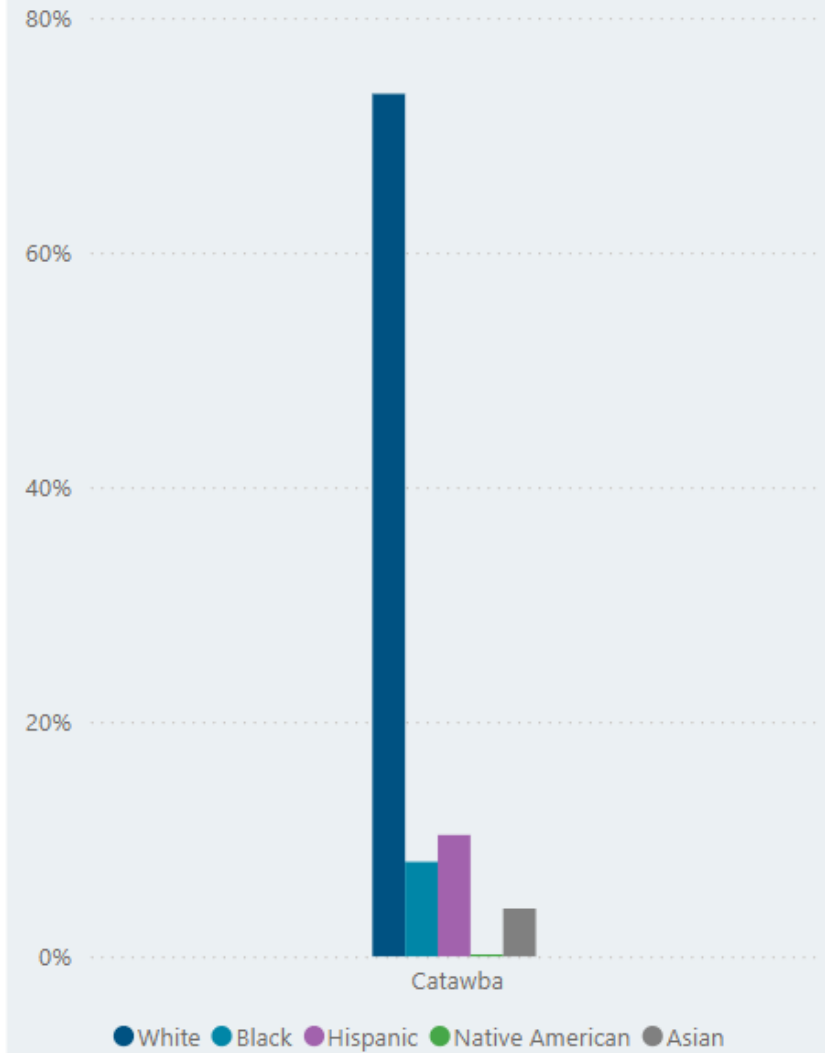


Age Group	2000 Population	2050 Population	Percent Change
14 years and under	29,126	31,646	9%
15 to 24 years	17,995	22,684	26%
25 to 64 years	77,774	92,040	18%
65+ years	17,548	45,933	162%
Total	142,443	192,303	35%

Census Estimate, Age Distribution (2022)

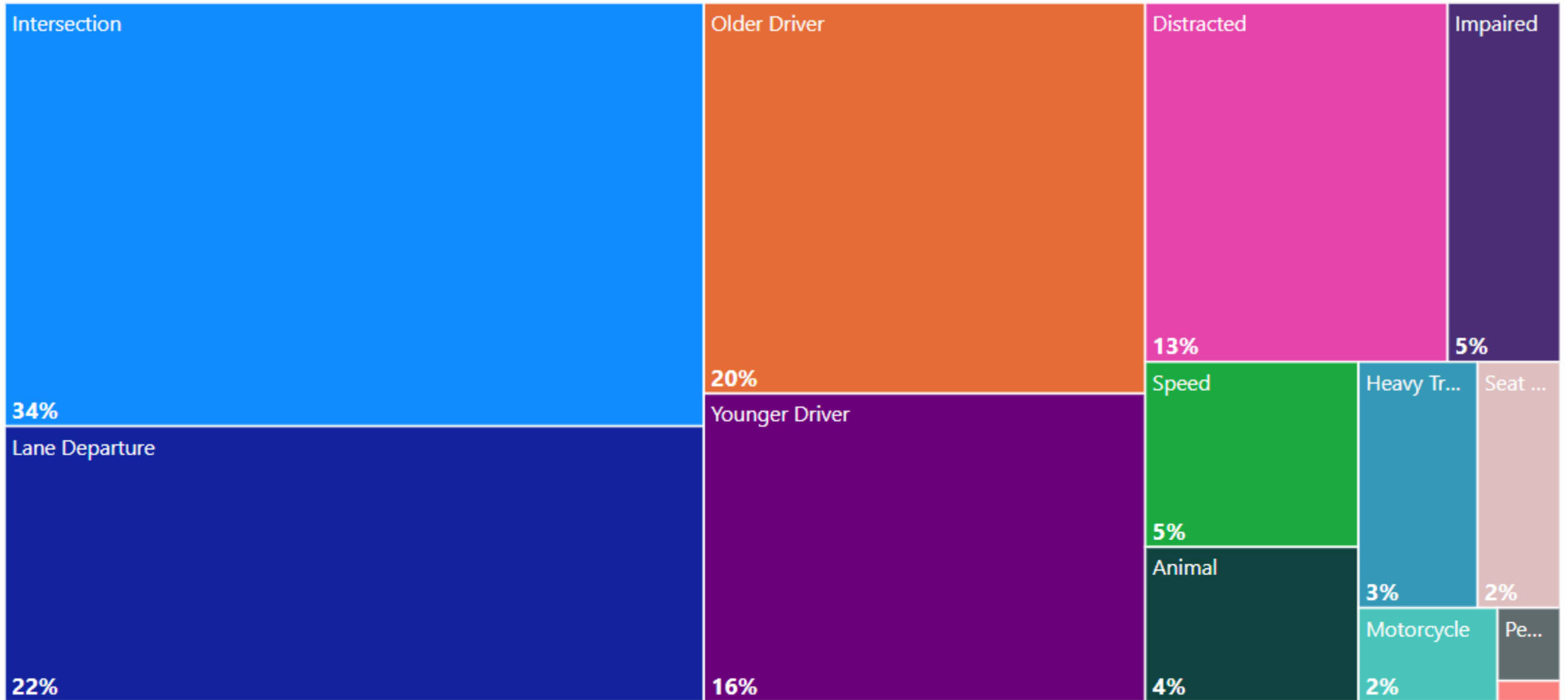


Census Estimate, Race & Ethnicity Distribution (2022)



Catawba County

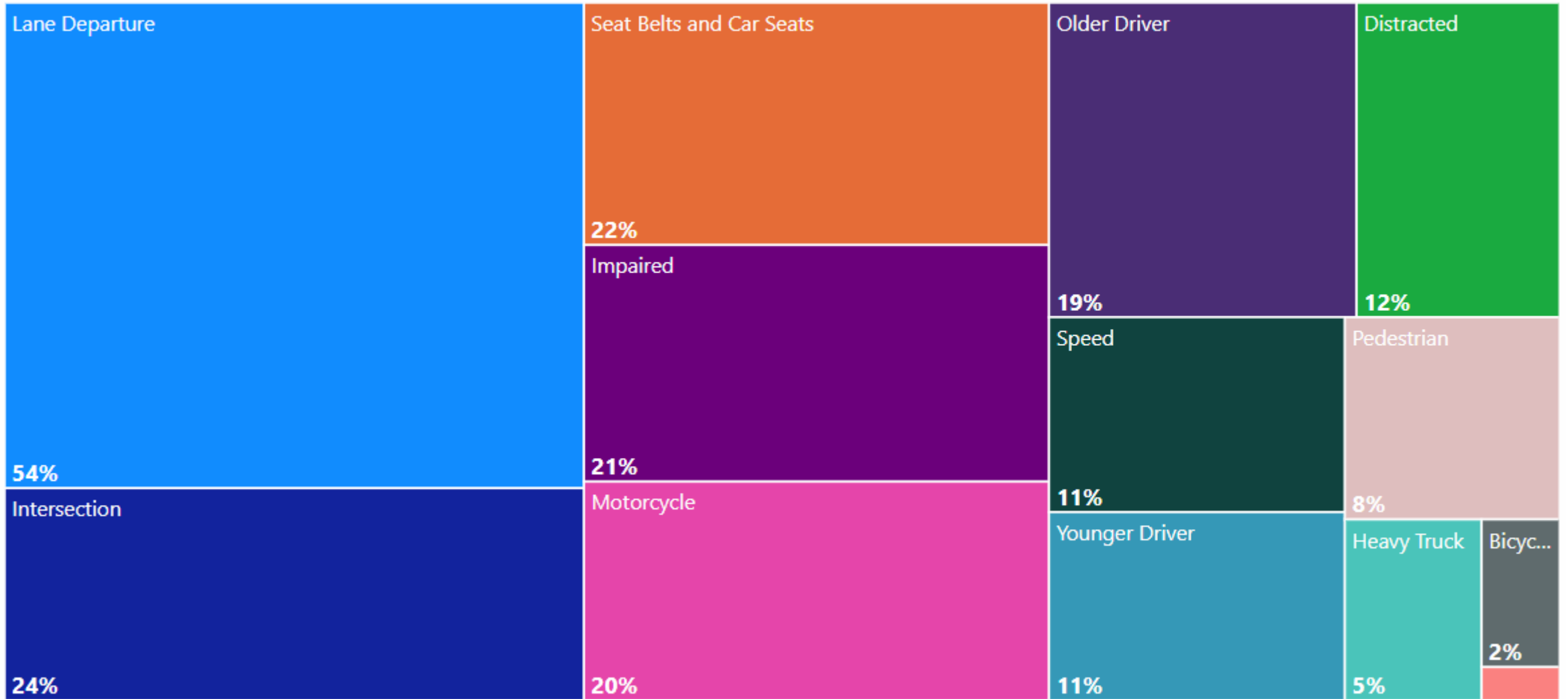
All Crashes by Emphasis Area



● Intersection ● Lane Departure ● Older Driver ● Younger Driver ● Distracted ● Impaired ● Speed ● Animal ● Heavy Truck ● Seat Belts and Car Seats ● Motorcycle ● Pedestrian ● Bicyclists

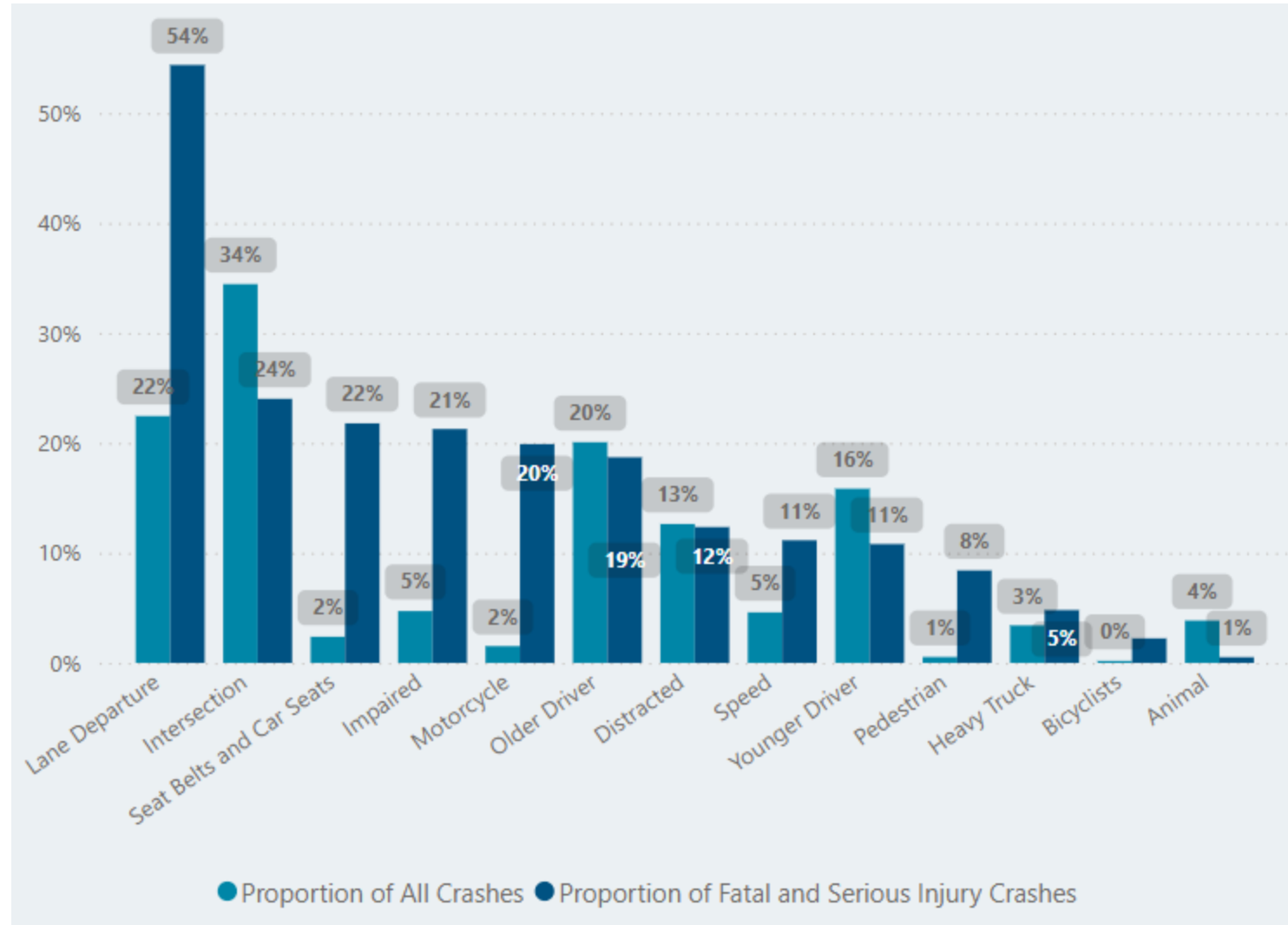
Catawba County

Fatal and Serious Injury Crashes by Emphasis Area



● Lane Departure
 ● Intersection
 ● Seat Belts and Car Seats
 ● Impaired
 ● Motorcycle
 ● Older Driver
 ● Distracted
 ● Speed
 ● Younger Driver
 ● Pedestrian
 ● Heavy Truck
 ● Bicyclists
 ● Animal

Proportion of Catawba Crashes by Emphasis Area

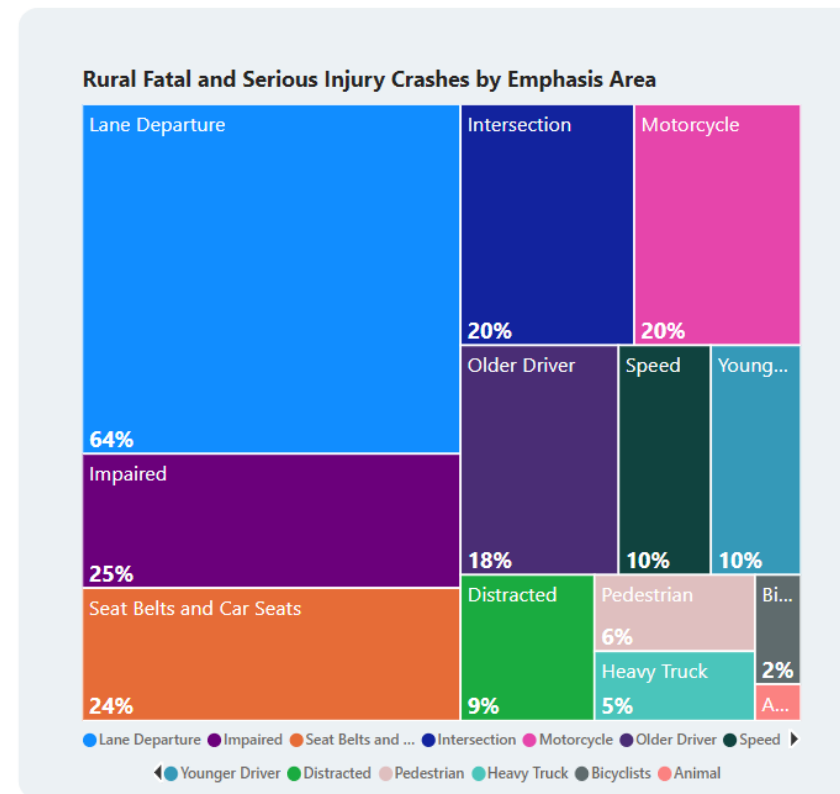
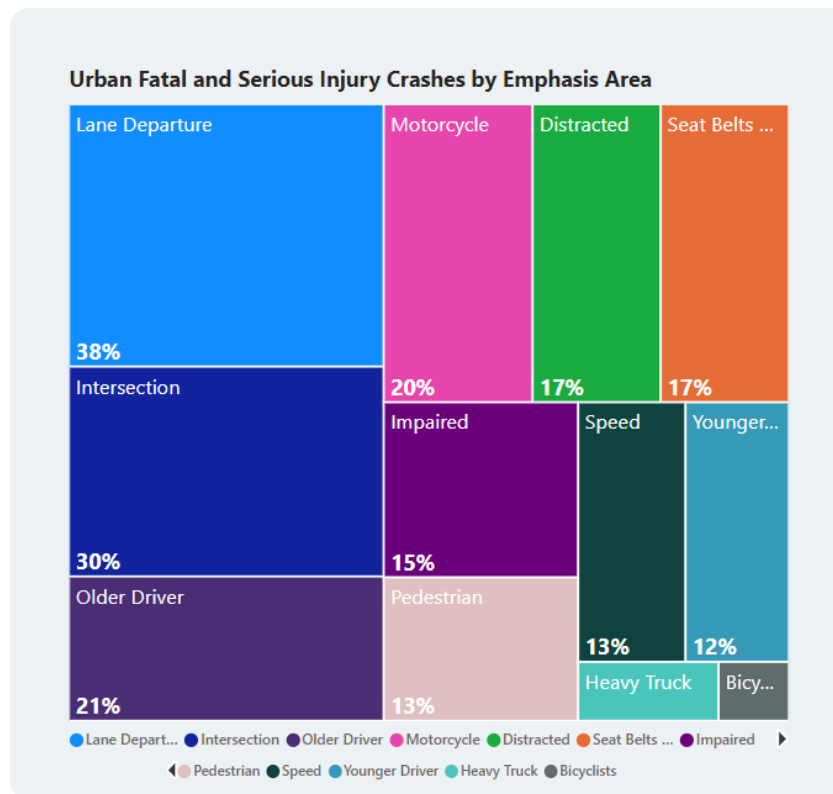
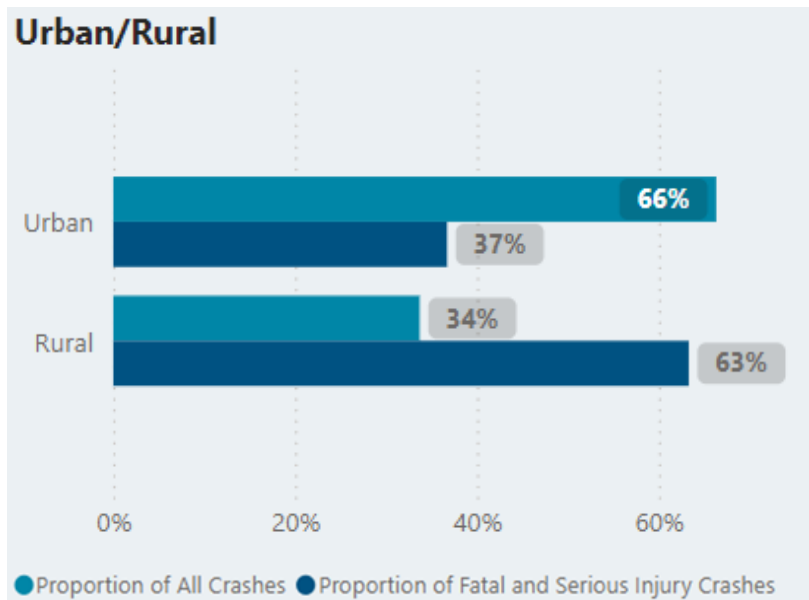


Catawba Crashes Emphasis Area Comparison Table

Proportion of Fatal and Serious Injury Crashes by County

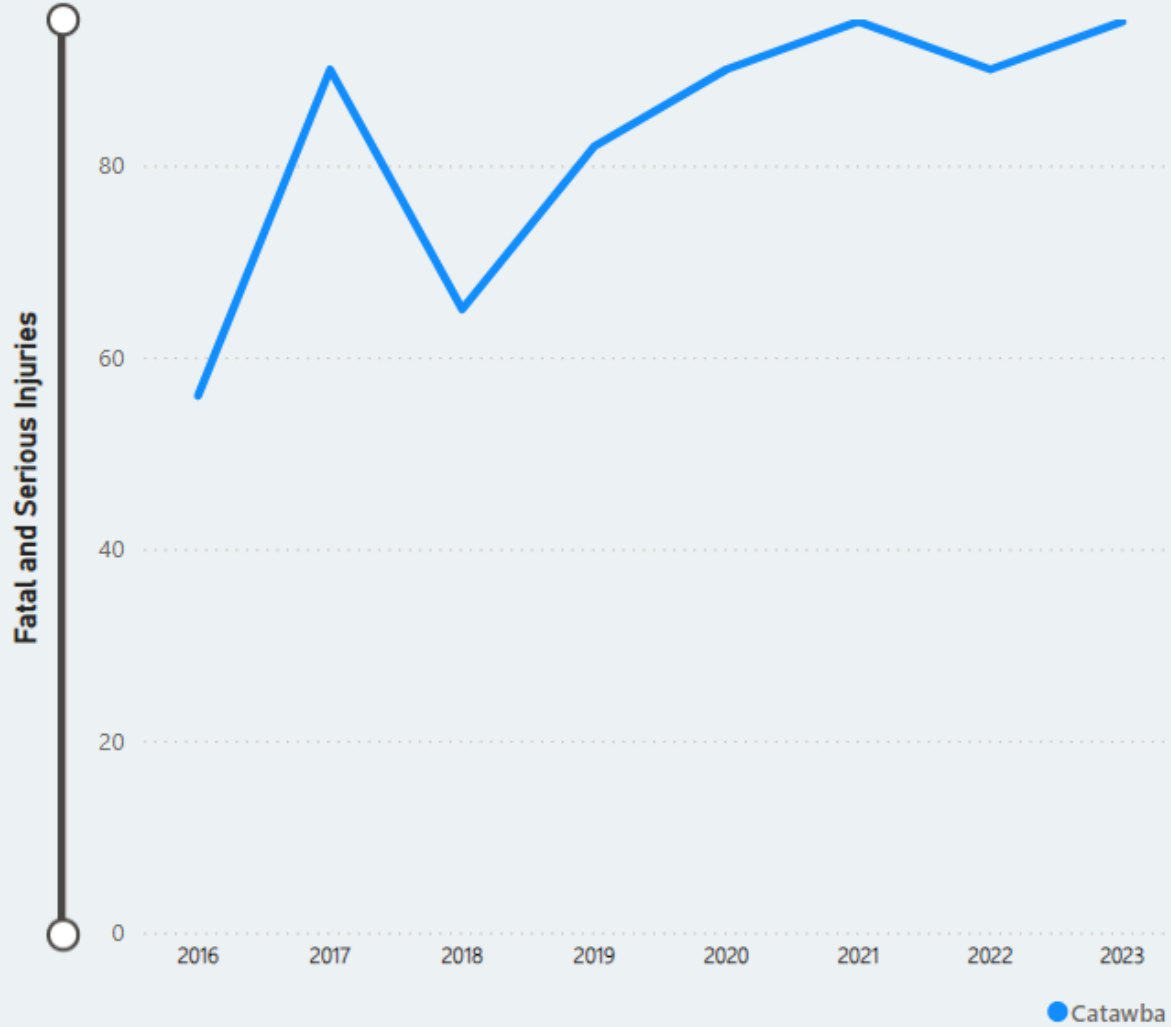
Emphasis Areas	Alexander	Burke	Caldwell	Catawba	Statewide
Animal	1%	0%	0%	1%	1%
Bicyclists		2%	2%	2%	2%
Distracted	14%	20%	14%	12%	12%
Heavy Truck	1%	5%	3%	5%	5%
Impaired	21%	21%	18%	21%	23%
Intersection	21%	16%	20%	24%	22%
Lane Departure	69%	65%	62%	54%	53%
Motorcycle	18%	23%	15%	20%	14%
Older Driver	17%	15%	22%	19%	17%
Pedestrian	4%	7%	6%	8%	10%
Seat Belts and Car Seats	25%	25%	24%	22%	27%
Speed	17%	16%	19%	11%	18%
Younger Driver	15%	11%	11%	11%	11%

Catawba Urban and Rural Crashes

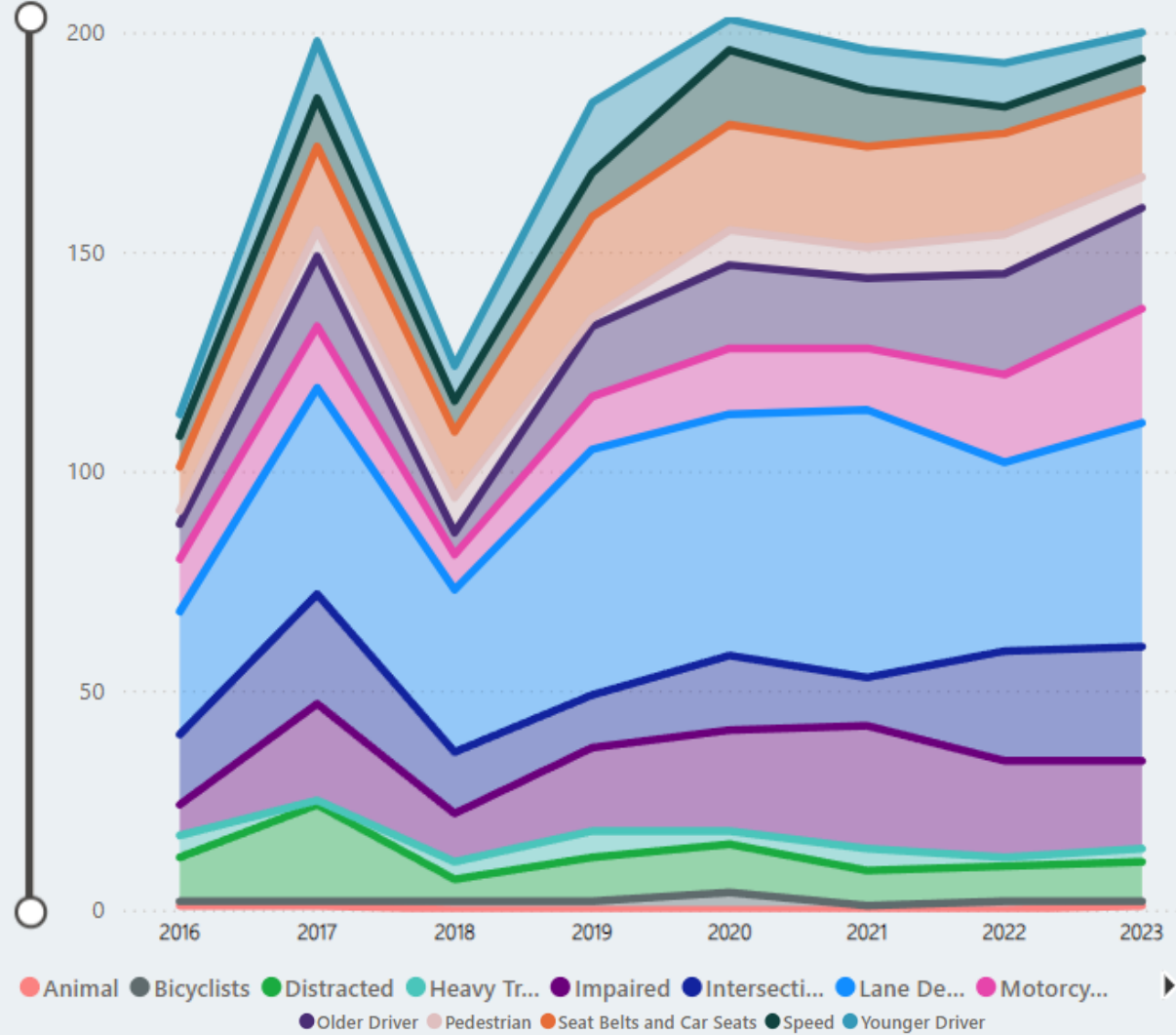


Catawba County

Fatal and Serious Injuries by County

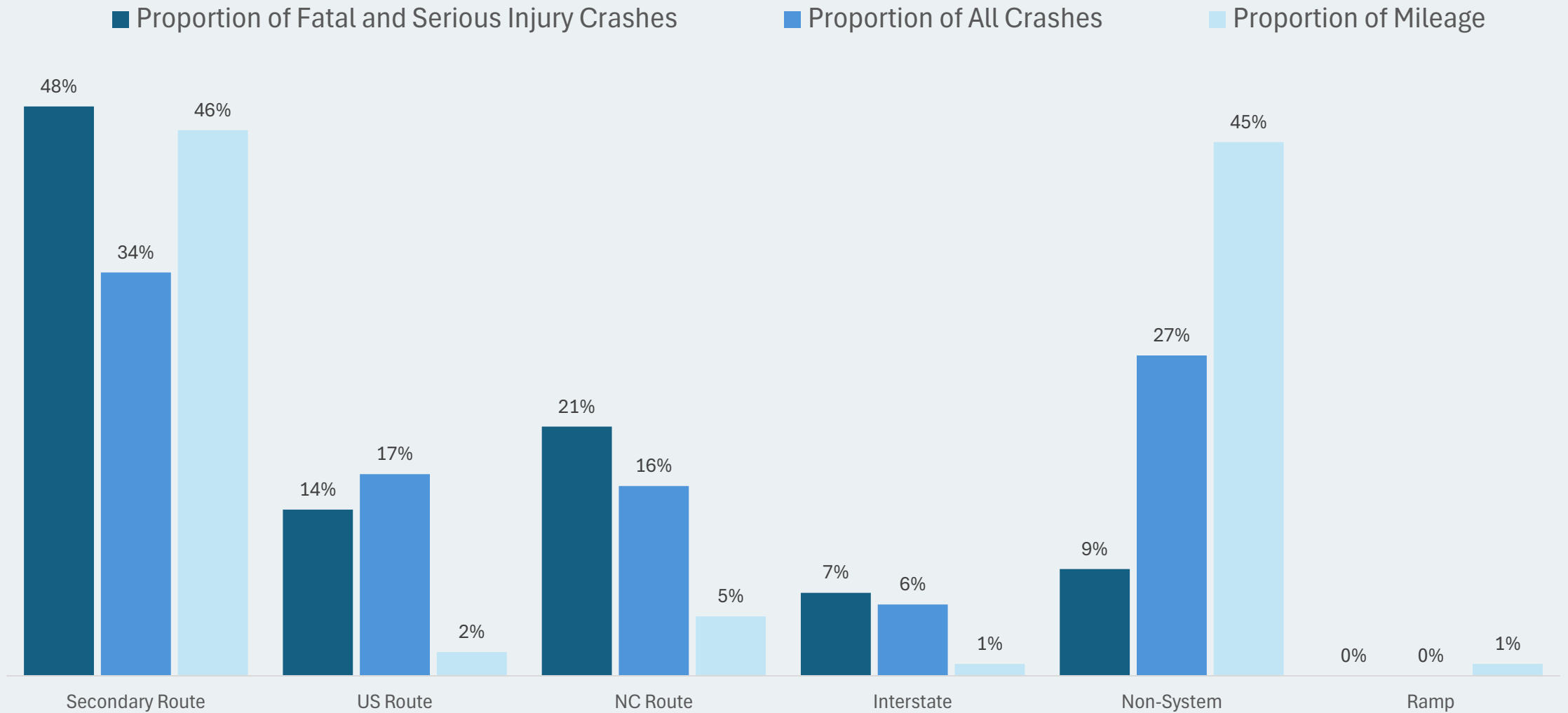


Fatal and Serious Injuries by Emphasis Area



Catawba County

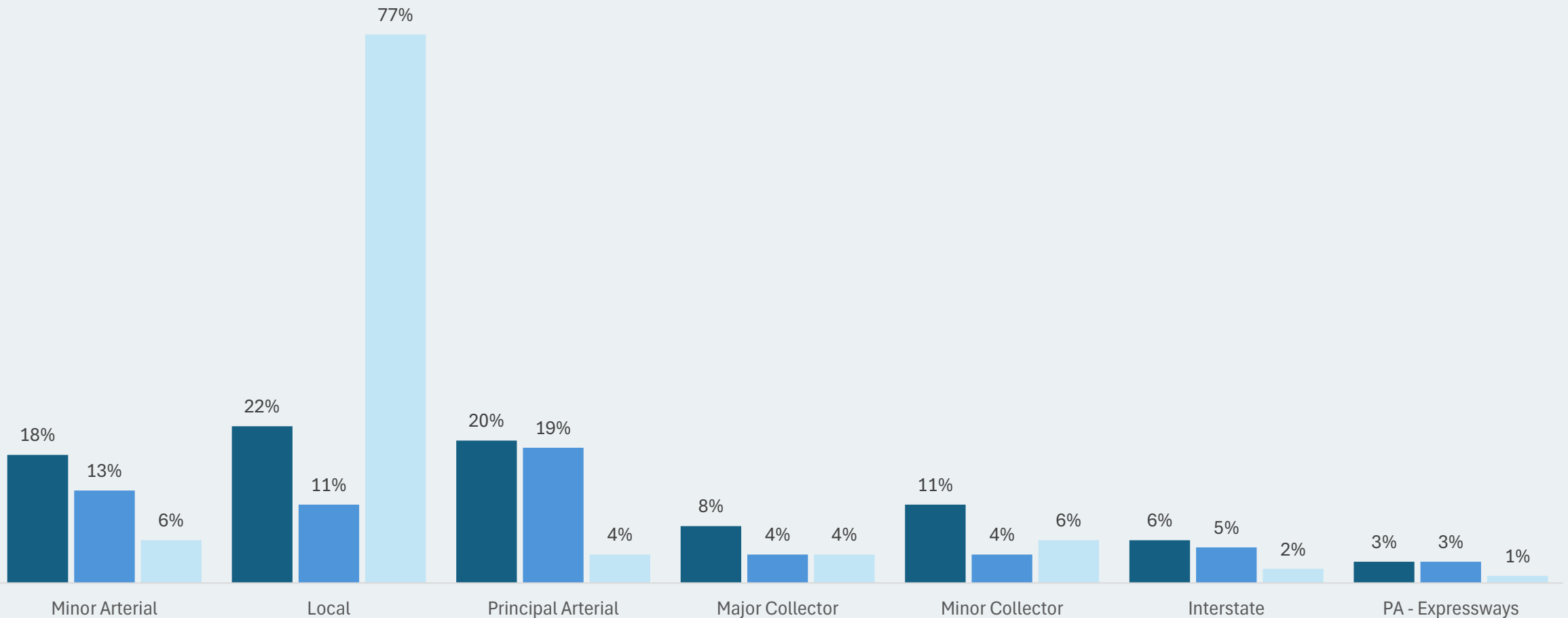
Crashes and Roadway Mileage by Route Class (Catawba)



Catawba County

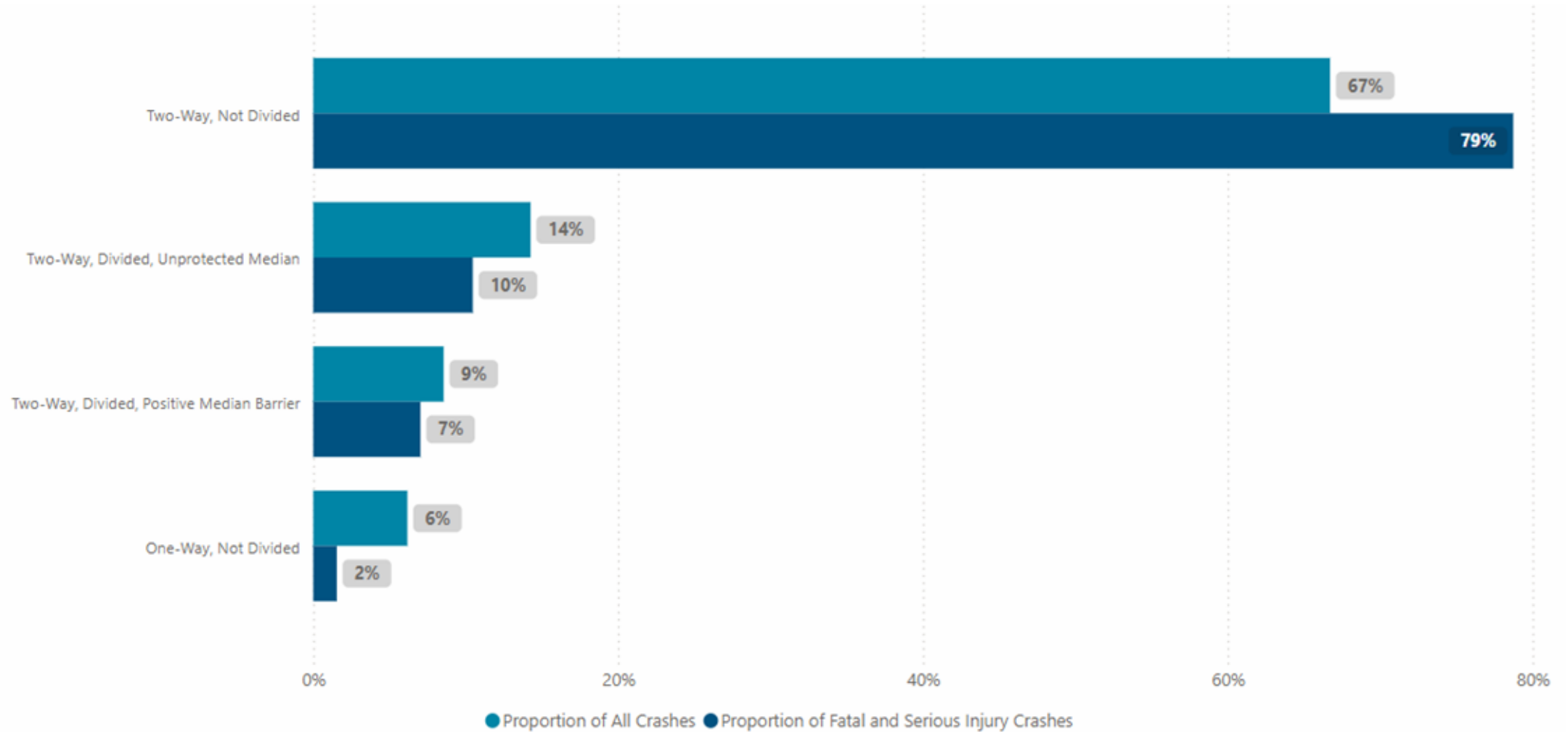
Crashes and Roadway Mileage by Functional Class (Catawba)

■ Proportion of Fatal and Serious Injury Crashes ■ Proportion of All Crashes ■ Proportion of Mileage



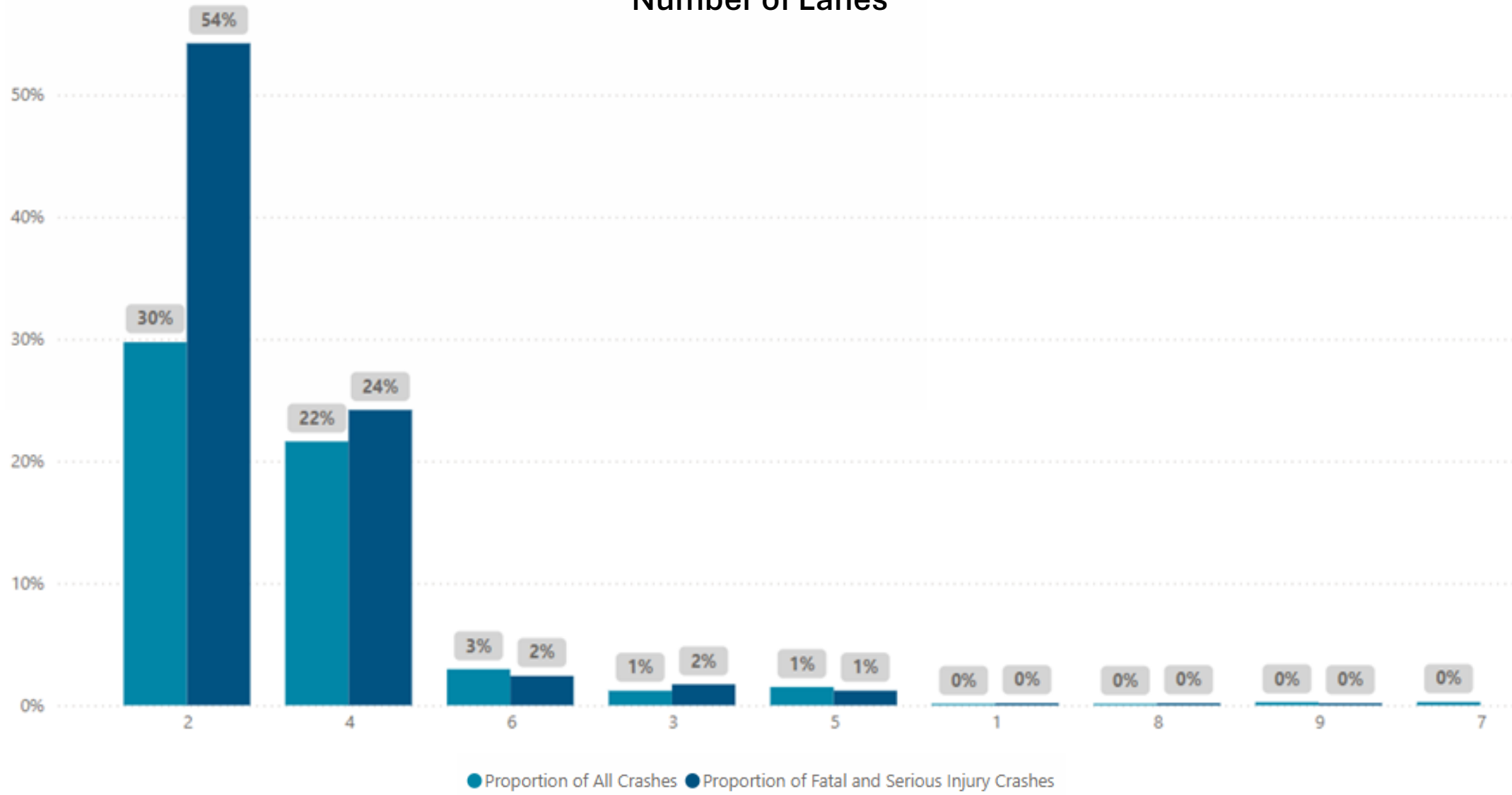
Catawba County

Roadway Configuration



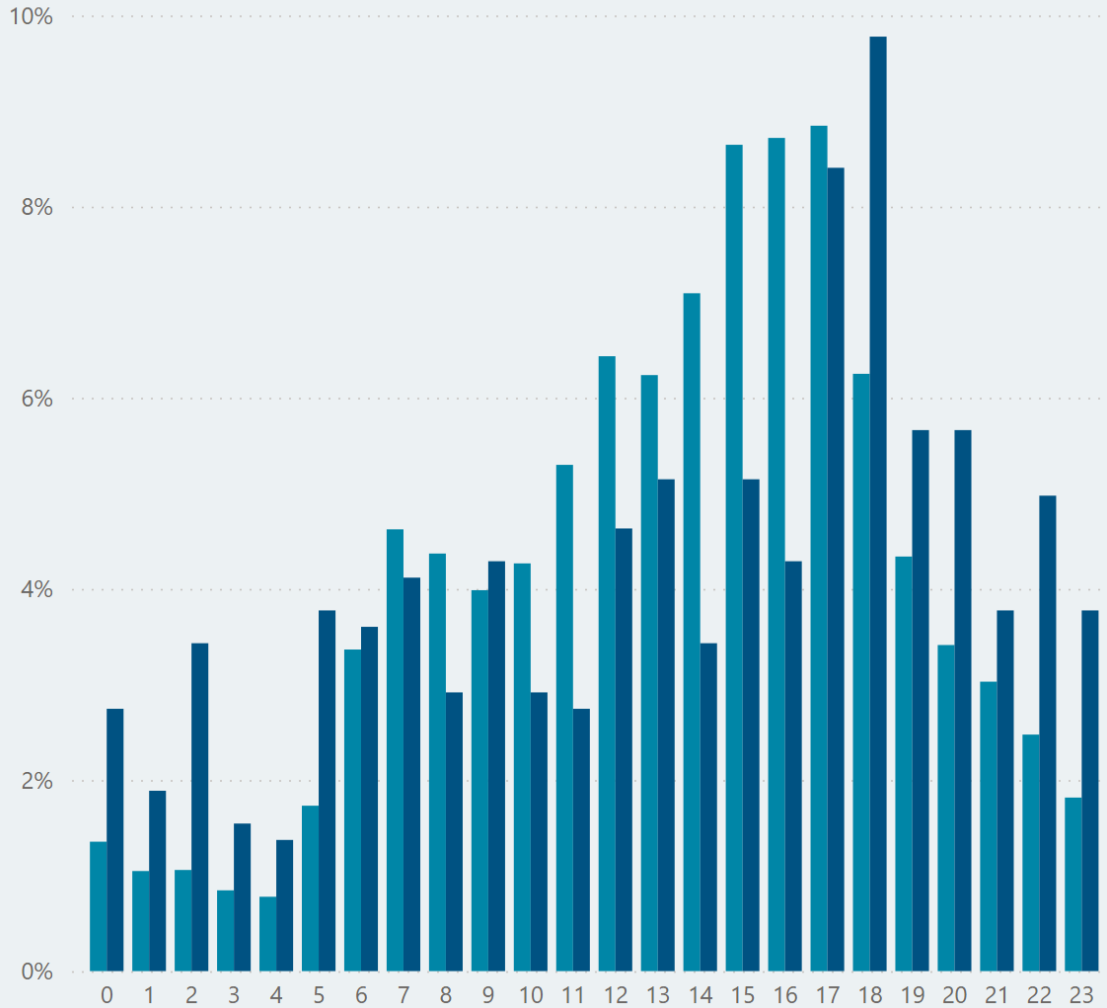
Catawba County

Number of Lanes

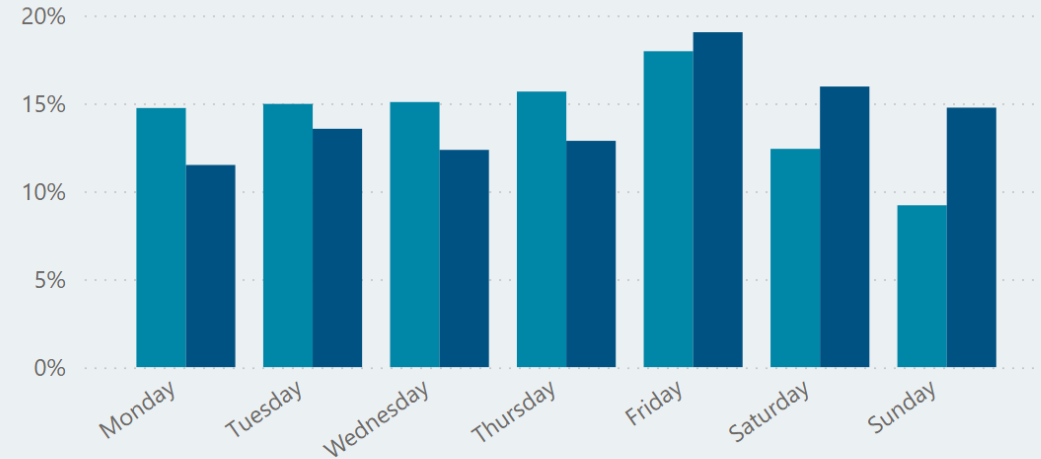


Catawba County

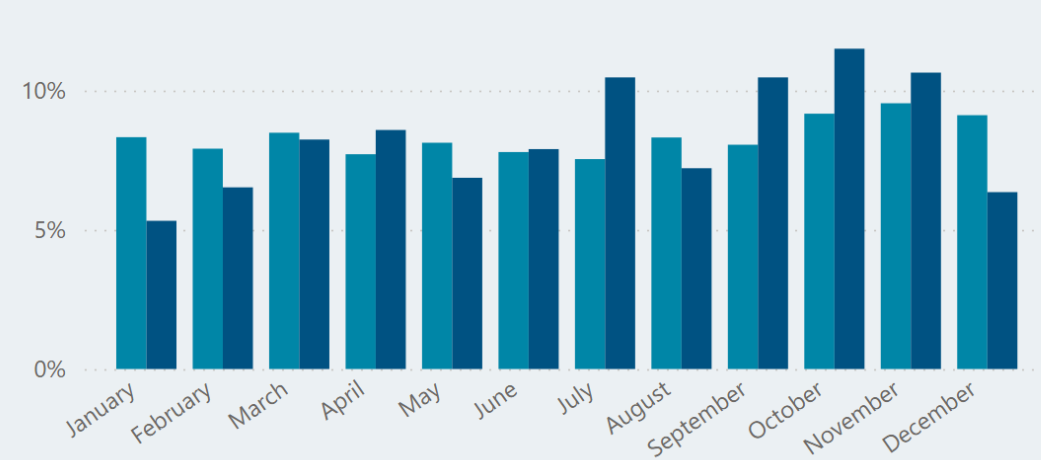
Comparison of Crash Outcomes by Hour



Day of Week

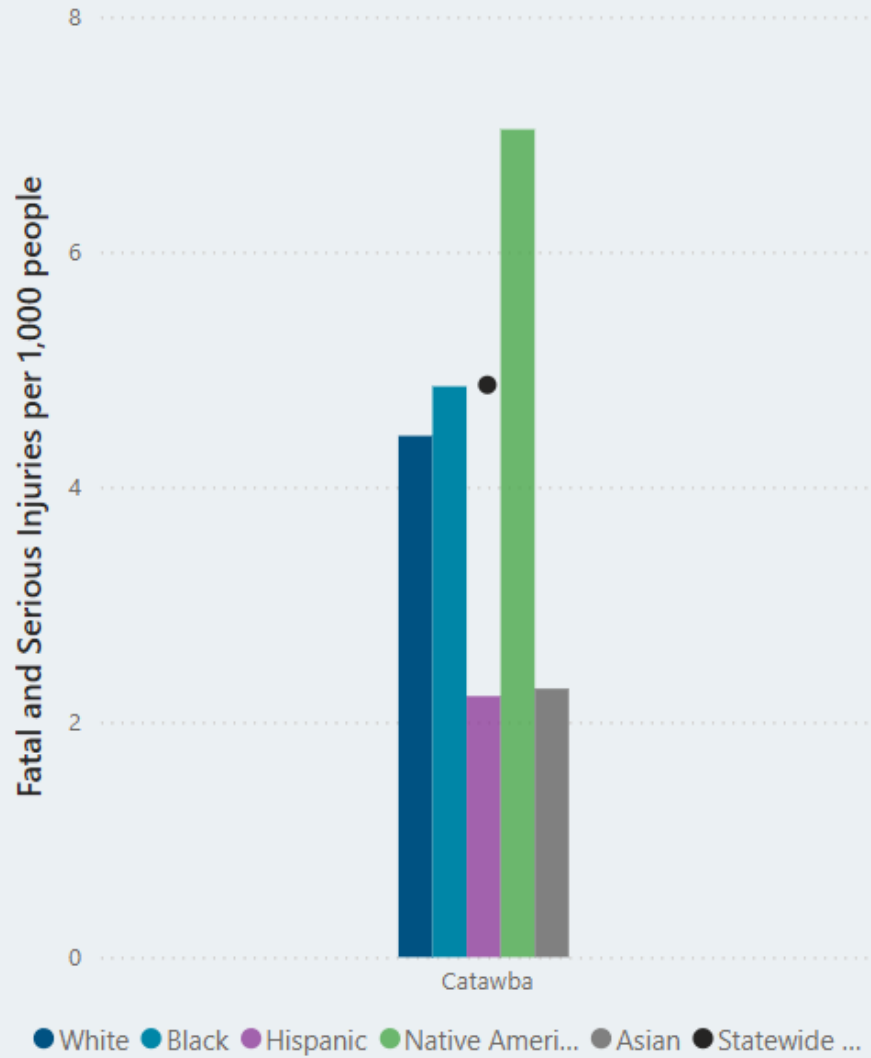


Month

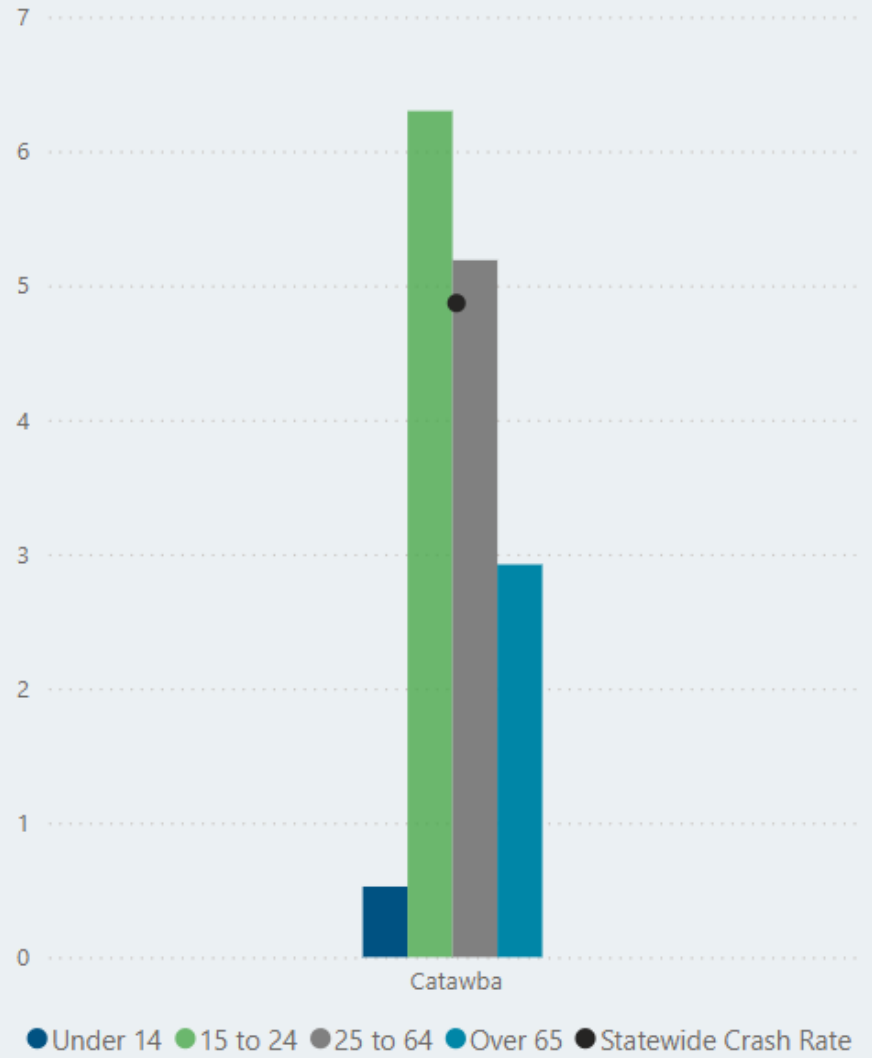


Catawba County

Crash Rates by Race and Ethnicity



Crash Rates by Age Group



Crash Rates by Sex

