



Highway Safety Report



FAST FACTS

Wyoming crash data from 2016-2020 report that:

- ✓ 31% of Wyoming residents live in rural areas but crashes on rural roads account for 80% of all fatal crashes.
- ✓ 63% of urban critical crashes involve a collision with a person, motor vehicle, or non-fixed object as the first harmful event (FHE).
- ✓ 37% of rural critical crashes involve an overturn or rollover as a FHE.
- ✓ Motorcycle-involved critical crashes are more likely to occur on roads within a city/town than on rural roads (23% vs.14%).

Cities/Towns & Rural Defined:

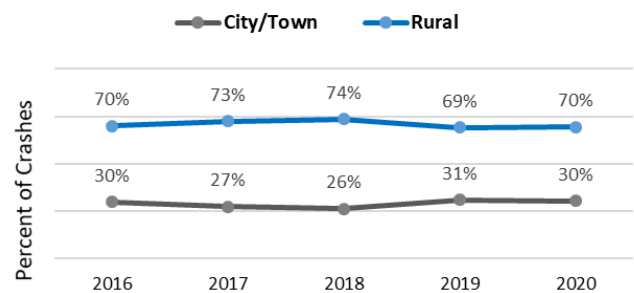
This document will define critical crashes within cities and towns as those occurring in the geographic boundaries of Wyoming's incorporated communities. Rural is defined as critical crashes occurring outside of these geographic boundaries.

City/Town and Rural Critical Crashes

The Wyoming Economic Analysis Division's 2020 County Profiles¹ reports that with total land area of 97,810 square miles and an estimated population of 578,759 in 2020, Wyoming is second only to Alaska for lowest population density among states at 5.9 residents per square mile. While nearly all of Wyoming land area is considered rural or frontier, a recent study by the Economic Analysis Division² reported that as of July 1, 2018, 68.8% of residents lived within the boundaries of an incorporated city or town. Only 31.2% of Wyoming's population lived in rural areas.

Yet Wyoming's rural areas experience a disproportionate number of critical crashes. From 2016 to 2020, an average of 71% (1461/2062) of all critical crashes occurred on rural roads (Figure 1). Fatal crashes show an even wider gap, with nearly 80% of all fatal crashes occurring in rural areas.³

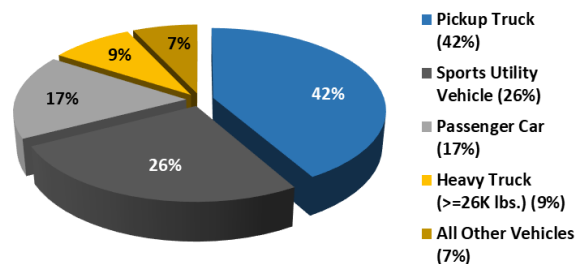
Figure 1. Trends in Wyoming City/Town and Rural Critical Crashes (2016-2020)



Rural Critical Crashes: 2016-2020 data revealed that nearly half (46%) of rural crashes involved a non-collision first harmful event (FHE) such as overturn/rollover, jackknife, and cargo or equipment loss or shift.

Overturn/rollover was the FHE in 37% of rural crashes, as compared to 10% of city/town crashes. The vehicle type most likely to be involved in an overturn/rollover was a pick-up truck followed by a sports utility vehicle (Figure 2).

Figure 2. Vehicle Type in Rural Overturn/Rollover Critical Crashes (2016-2020)



1. Wyoming Administration & Information Economic Analysis Division: *Wyoming and County Profiles 2020*. Accessed 08/04/2021 at http://eadiv.state.wy.us/demog_data/County_Profile.html
2. Ibid. (2019). *Cheyenne Gained the Most Residents in 2018*. Accessed 08/04/2021 at <http://eadiv.state.wy.us/pop/Place-18est.pdf>.
3. Most of Wyoming's interstate and state highways are rural roads. Higher traffic volumes and speeds on these roads are likely to result in more critical crashes.

By the Numbers

WYDOT Crash Data August 1, 2021 vs. (August 1, 2020)

Fatalities: 52 (64)

Serious Injuries: 258 (226)

**Alcohol-Involved
Fatalities: 17 (23)**

**Bicycle-Involved
Fatalities: 0 (0)**

**CMV-Involved
Fatalities: 7 (15)**

**Drug-Involved
Fatalities: 11 (14)**

**Motorcycle-Involved
Fatalities: 7 (9)**

**Pedestrian-Involved
Fatalities: 5 (2)**

**Speed-Related
Fatalities: 22 (23)**

Data current as of 08/17/2021



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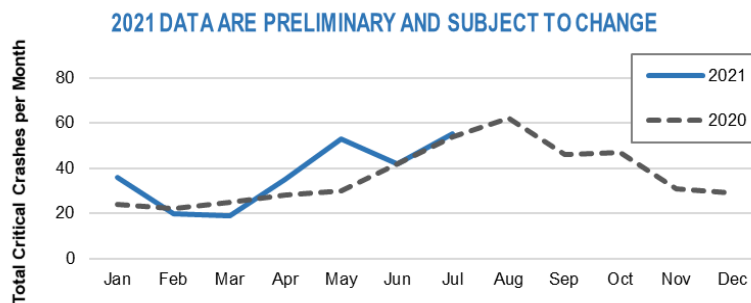
City/Town and Rural Critical Crashes (continued)

Animal collisions as a FHE were more likely to be reported in rural Wyoming (4% vs.1%) but comprised a small proportion of critical crashes overall. Horizontal curve critical crashes were also significantly more likely to occur on rural roads (53% vs. 29%).

City/Town Critical Crashes: 2016-2020 data revealed that 63% of city/town critical crashes involved a collision with a person, motor vehicle, or non-fixed object as a FHE as compared to about a third (31%) of rural crashes. Intersection crashes were more common in Wyoming communities, with the majority of critical crashes at four-way intersections (64%) and t-intersections (26%). Critical crashes involving motorcycles were also more likely to occur in cities/towns (23% vs.14%). Of the 139 city/town motorcycle-involved crashes during the five-year period, over half (57%) involved collision with a person, motor vehicle, or non-fixed object as a FHE and one third (32%) were non-collision crashes.

No Difference: While no difference was found in speed-involved critical crashes overall, rural crashes were more likely to involve speeding too fast for conditions (18% vs. 7%). In both categories, the majority (62%) of critical crashes occurred during daylight hours but more rural crashes took place in unlighted darkness (31% vs.14%). With the exception of drivers 75 years and older (who were more likely to be involved in a crash in a cities/towns), no difference was observed in driver age categories. No differences were observed for alcohol-involved crashes or properly-used safety equipment restraints between the two categories.

Monthly Critical Crash Comparison:
2020 and 2021



Total as of 08/17/21

WYDOT Completed Safety Treatment Locations (Active)
as of August 17, 2021

District	Count	Annual Lifecycle Cost	Average Benefit to Cost	Annual Critical Crash Reduction
1	186	\$ 67,756.00	226.92	7.26
2	201	\$ 79,003.00	20.22	3.87
3	462	\$ 229,166.00	63.97	6.49
4	348	\$ 66,348.00	93.36	4.03
5	82	\$ 25,478.00	292.66	1.13
State	1,279	\$ 467,751.00	103.45	22.77