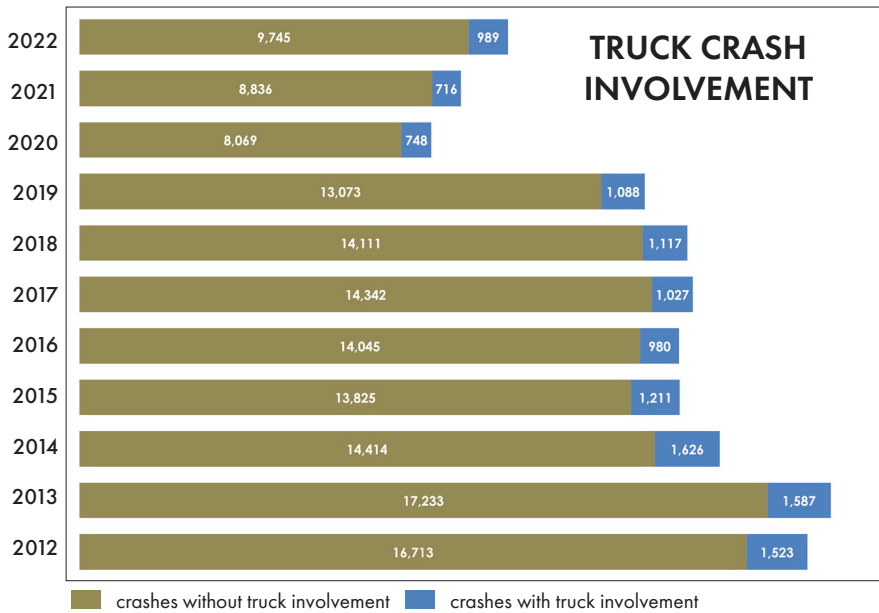


# TRAFFIC SAFETY FACTS • 2023

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## TRUCK CRASH FACTS • ND CRASH SUMMARY

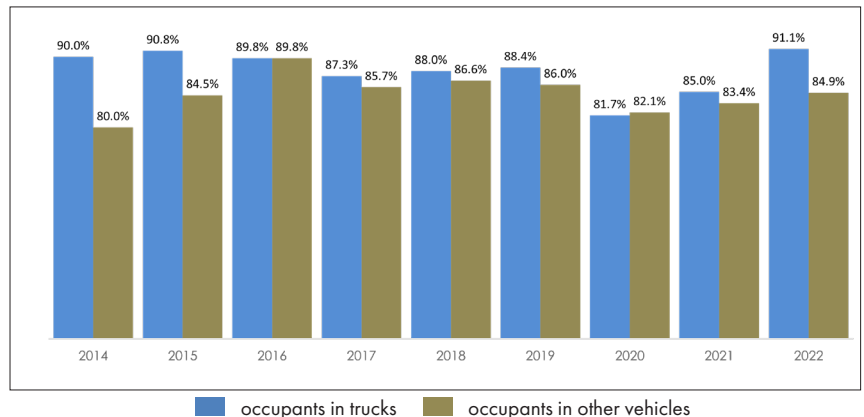


Trucks are an important mode of economic connectivity in rural states like North Dakota. The size/mass difference between 80,000-pound trucks and 4,000-pound passenger vehicles, along with operational differences such as acceleration/deceleration times and turning radiuses, heighten risk for crash events. Therefore, as changes in traffic volumes and patterns are recognized, it is important to monitor levels and effects of increased safety-related interactions between trucks and passenger vehicles.

The number of truck-involved injury crashes has declined over the past decade. The 2022 data reflect a 46% overall reduction from the high shown in 2012. Comparing road types crashes for all crash events, trucks were involved in about 18% of rural road injury crashes compared to 3% on urban roads.

Land use is an important factor in understanding risk for truck-involved crash injury risk. About 72% of these crashes were on rural interstates and other rural roads over the past decade. Only about 28% of truck-involved injury crashes were located in urban areas.

### TRUCK-INVOLVED INJURY CRASHES ON RURAL ROADS



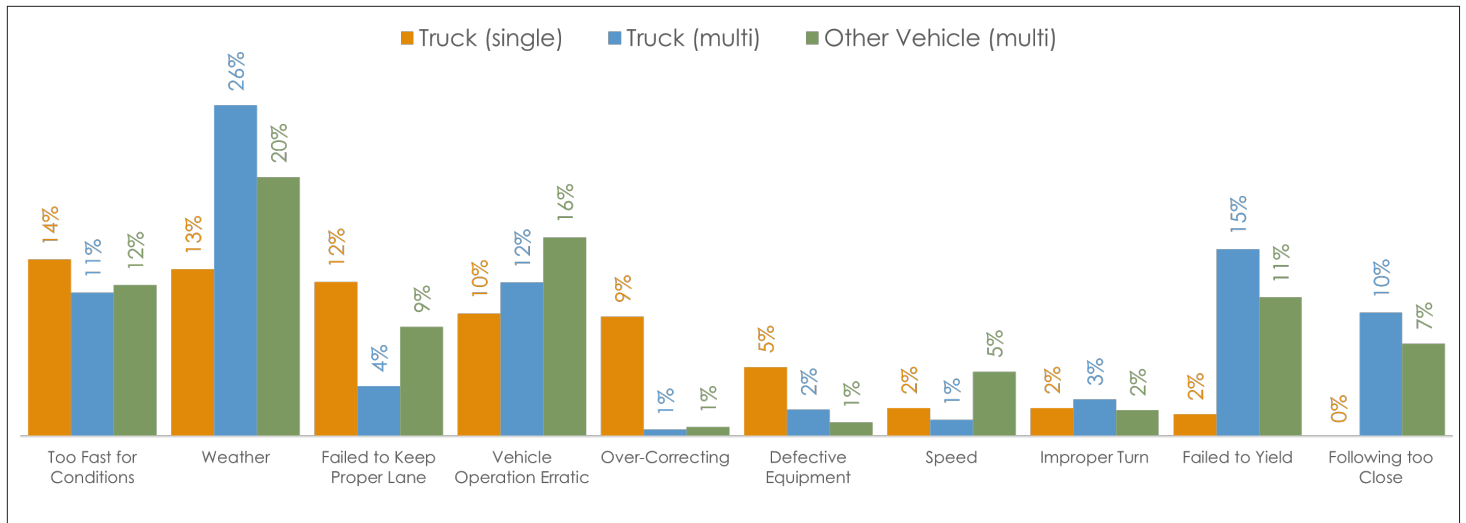
### TOP CITATIONS (High to Low by Single Truck Crash)

	Single Vehicle	Multi-Vehicle	
	Trucks	Trucks	Other Vehicles
Care Required	65%	25%	26%
DUI (Alcohol)	5%	1%	8%
Failed to Yield	3%	25%	16%
Failed to Stop	2%	8%	6%
Drivers License	2%	1%	2%
Careless Driving	1%	1%	1%
Following too Close	0%	15%	8%
Overtaking	0%	1%	1%

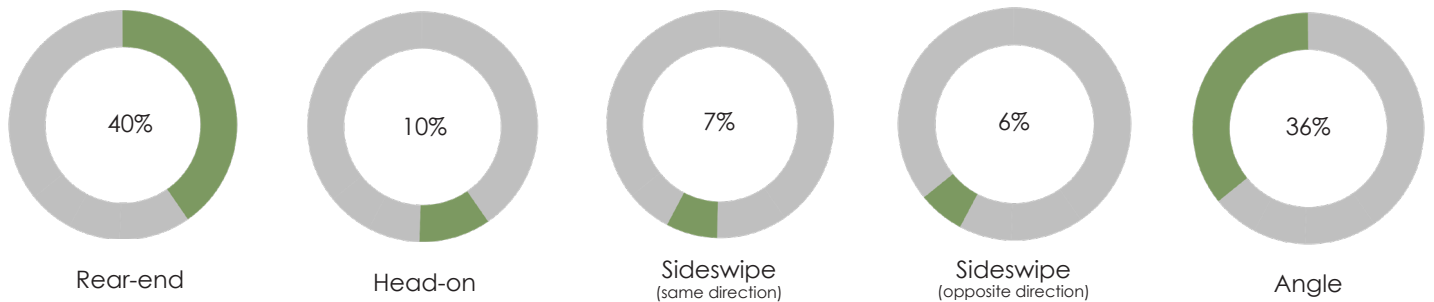
Care required was the most commonly issued citation in all crash categories, but was considerably higher in single versus multi-vehicle truck crashes, 65% and 25%, respectively. DUI was cited more often in other vehicle crashes (8%) than in crashes with truck involvement. Failure to yield held a 25% share in multi-vehicle truck crashes compared to 16% of crashes involving other vehicles. Following too close was a factor in 15% of multi-vehicle truck crashes. Citations were issued in 44% of single-vehicle truck crashes. In the multi-vehicle, citations were issued to truck drivers in only 23% of cases and to other drivers in 36% of the crashes.

Weather was the largest contributing factor in truck-involved crashes involving injuries, whether single- or multi-vehicle, or other vehicles since 2012. Failure to yield held a 15% share in multi-vehicle crashes. Speed, along with too fast for conditions, was more commonly reported as a factor in 16% of truck single vehicle events, compared to 12% and 17% for the trucks and other vehicle involved crashes, respectively. Truck injury crashes involved multiple vehicles in 66% of occurrences. Angle and rear-end crashes made up 76% of multiple vehicle injury crashes when a truck was involved.

### COMMON CONTRIBUTING FACTORS IN INJURY CRASHES

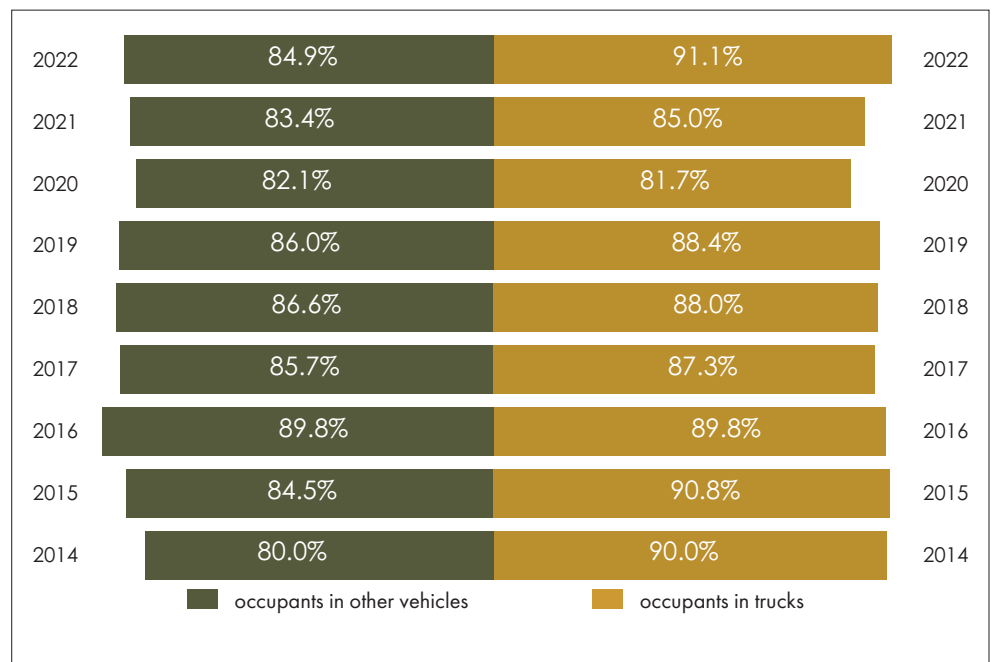


### MANNER OF COLLISION, MULTI-VEHICLE



### RESTRAINT USE IN SERIOUS TRUCK CRASHES

Restraint use by truck occupants in crashes generally exceeded use by other vehicle occupants although the disparity is less noticeable in recent years. Use by truck occupants increased to its highest rate in fatal and disabling injury crashes in 2022 after a drop in 2020.

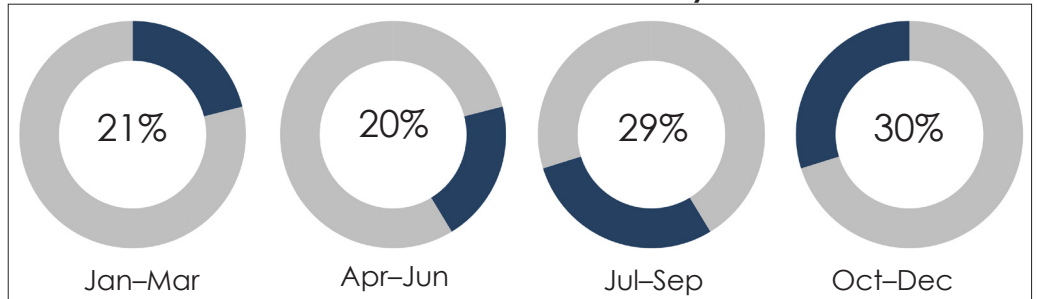


Crash data based on the most recent five years shows more serious injury crashes (59%) occur during the second half of the calendar year; are more prevalent during workday hours between 6:00 a.m. and 4:00 p.m.; and decline on weekends.

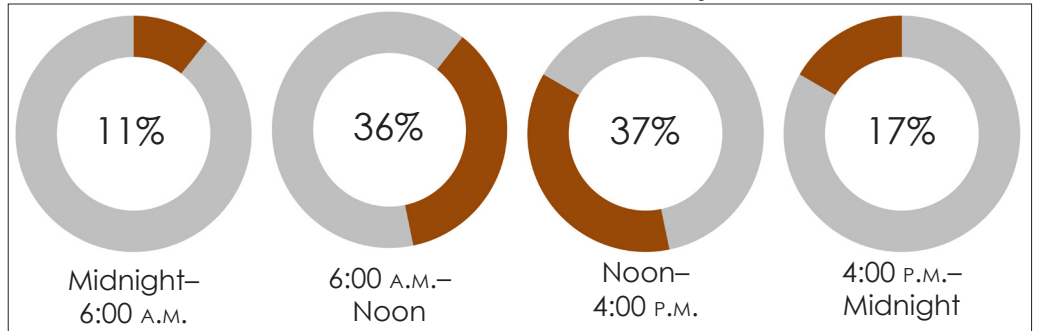
Other crash characteristics indicate:

- 42% of truck crashes occur at intersections or are intersection-related. Half of crashes are non-junction – 51%.
- Crashes occurring on hills measures 13.4%.
- The incidence of truck crashes on curves for single trucks is 25% compared to 9% of multi-vehicle.
- Rollovers were the most harmful event in 21% of crashes.
- On gravel roads the number of truck-involved injury crashes is significantly higher than injury crashes not involving trucks. The current rate of 10% is down from a high of 19% in 2012. The incidence of crashes on other road surfaces includes rates between 15%–36% on concrete surfaces, and 51%–68% on asphalt surfaces.
- Truck crashes in the NW Region, which includes the core oil production, are reduced to 30% in 2022 from a high of about 56% between 2012 and 2014. A crash map of North Dakota identifying injury crashes by severity is found on the following page.

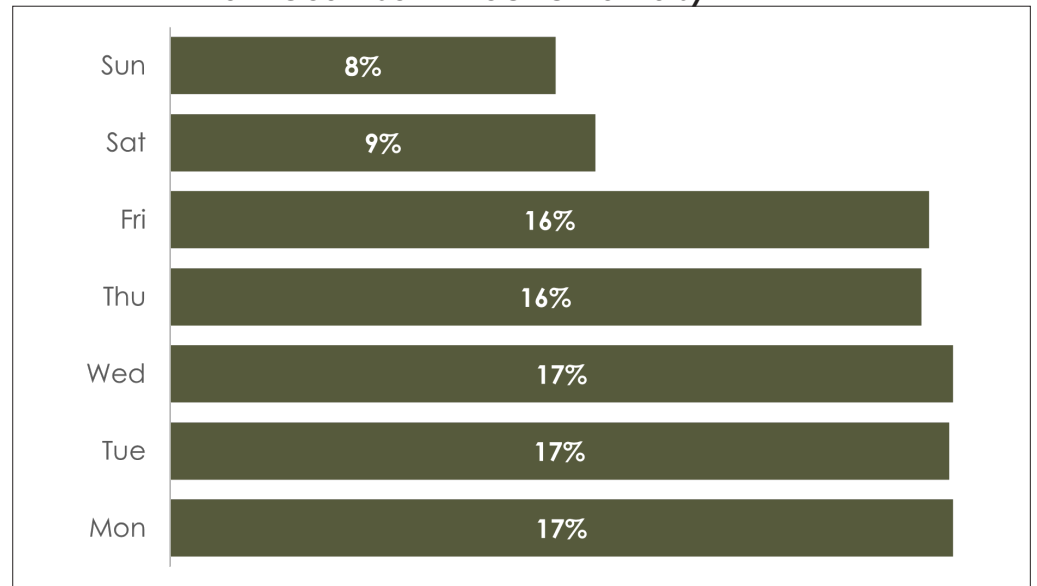
### SERIOUS INJURY TRUCK CRASHES by MONTH



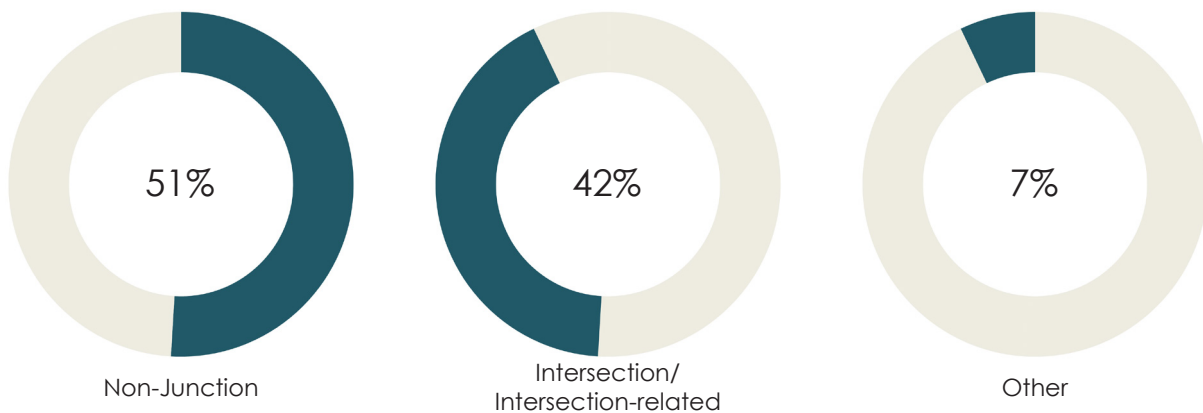
### SERIOUS INJURY TRUCK CRASHES by HOUR



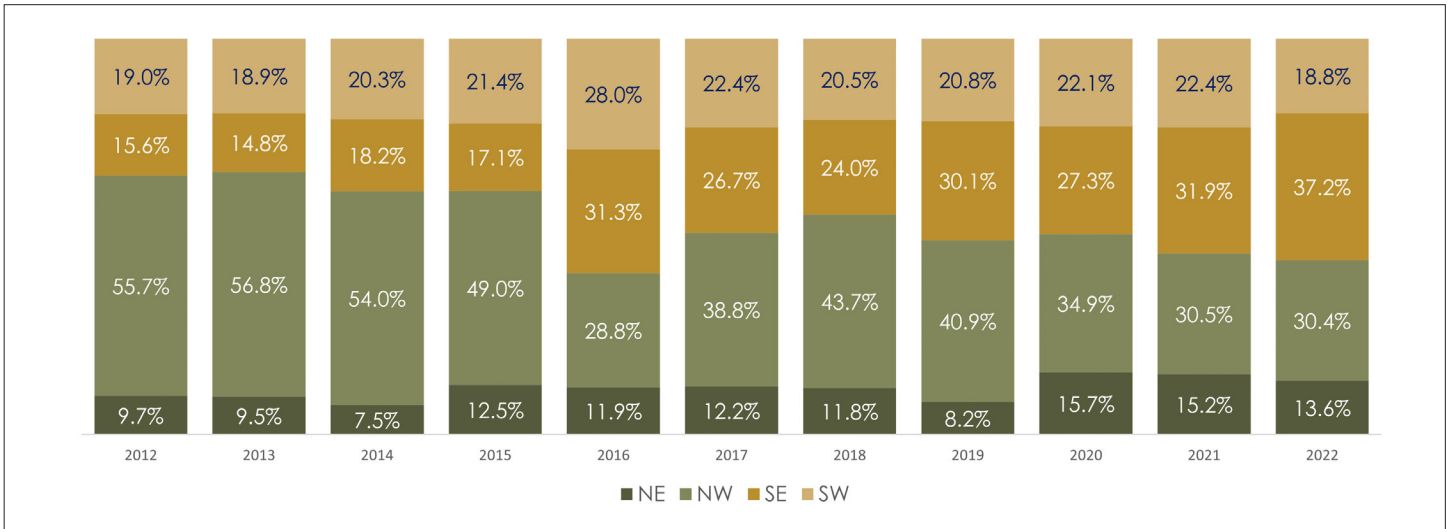
### SERIOUS INJURY TRUCK CRASHES by WEEK



### CRASHES by JUNCTION



## TRUCK CRASHES by REGIONAL QUADRANT



The crash map below shows a continued prevalence of truck-involved injury crashes in the oil-producing region. McKenzie, Williams, and Mountrail counties represented 35% of truck-involved fatal and injury crashes in the state. The ND County Crash Dashboard at the following website allows users to toggle for specific crash features.

<https://ndsu.maps.arcgis.com/apps/dashboards/93a0ca93e706476f89e927a84e247155>

