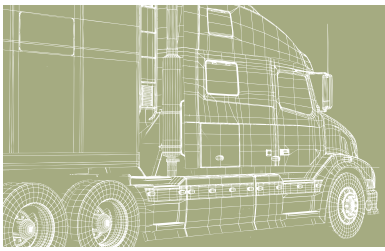

# TRAFFIC SAFETY FACTS • 2024

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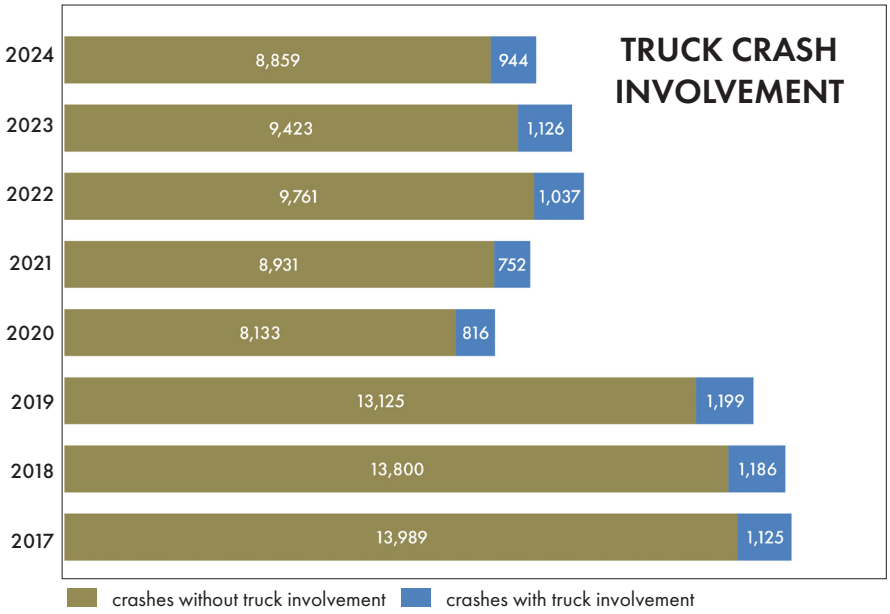
## TRUCK CRASH FACTS • ND CRASH SUMMARY

### TRUCK CRASH INVOLVEMENT

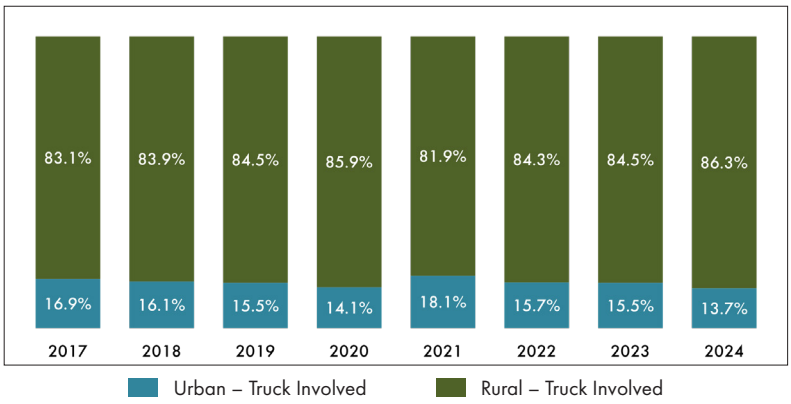



Trucks are an important mode of economic connectivity in rural states like North Dakota. The size/mass difference between 80,000-pound trucks and 4,000-pound passenger vehicles, along with operational differences such as acceleration/deceleration times and turning radiuses, heighten risk for crash events. 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 2024 data reflects a 35% overall reduction from 2017. Comparing road types crashes for all crash events, trucks were involved in about 19% 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 84% of these crashes were on rural interstates and other rural roads over the past decade. Only about 16% of truck-involved injury crashes were located in urban areas.

### TRUCK-INVOLVED INJURY CRASHES ON RURAL ROADS



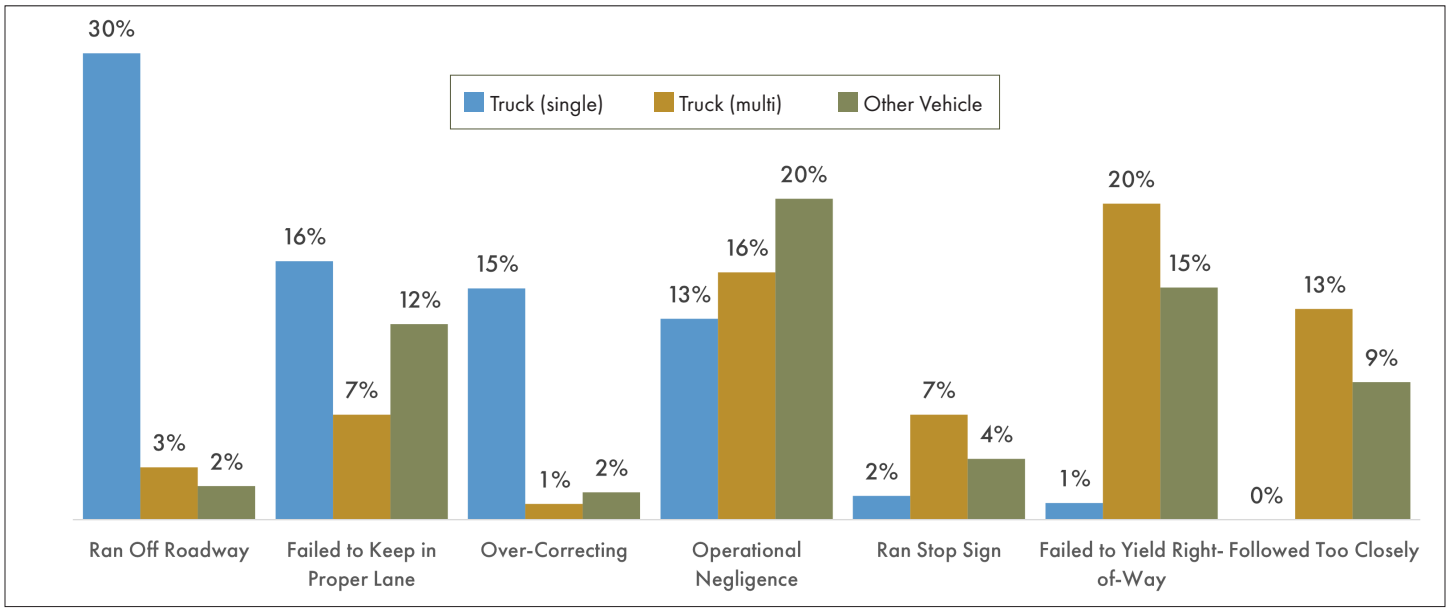

### TOP CITATIONS (High to Low by Single Truck Crash)

| | Single Vehicle | Multi-Vehicle | |
|---|---|---|---|
| | Trucks | Trucks | Other Vehicles |
| Care Required | 64% | 22% | 24% |
| DUI (Alcohol) | 4% | 1% | 9% |
| Failed to Yield | 3% | 22% | 16% |
| Failed to Stop | 2% | 10% | 6% |
| Drivers License | 2% | 2% | 3% |
| Careless Driving | 2% | 2% | 3% |
| Following too Close | 1% | 11% | 6% |
| Overtaking | 0% | 2% | 4% |
| **No Citation** | **62%** | **78%** | **63%** |

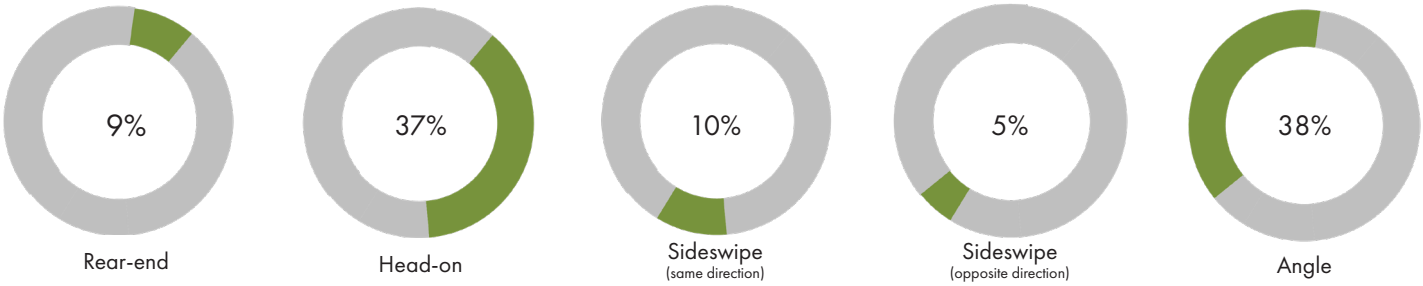
Care required was the most commonly issued citation in all crash categories, but was considerably higher in single versus multi-vehicle truck crashes, 64% and 22%, respectively. DUI was cited more often in other vehicle crashes (9%) than in crashes with truck involvement. Failure to yield held a 22% share in multi-vehicle truck crashes compared to 16% of crashes involving other vehicles. Following too close was a factor in 11% of multi-vehicle truck crashes. Citations were issued in38% of single-vehicle truck crashes. In the multi-vehicle, citations were issued to truck drivers in only 22% of cases and to other drivers in 37% of the crashes.

Ran off roadway was the largest driver action contributing to injury crashes (30%) with single truck vehicles since 2017. Operational negligence was the largest driver action contributing to crashes for other vehicle crashes at 20%, and failure to yield right-of-way was the largest driver action for multi-vehicle crashes at 20% as well. Failure to keep in proper lane (16%), over-correcting (15%), and operational negligence (13%) were also notable contributing driver actions represented with single truck vehicle crashes. Truck injury crashes involved multiple vehicles in 67% of occurrences. Angle and rear-end crashes made up 75% of multiple vehicle injury crashes when a truck was involved while sideswipes and front-to-front crashes made up nearly 25%, respectively.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 2020 and has remained nearly steady in every year following through 2024.

## DRIVER ACTIONS CONTRIBUTING TO INJURY CRASHES

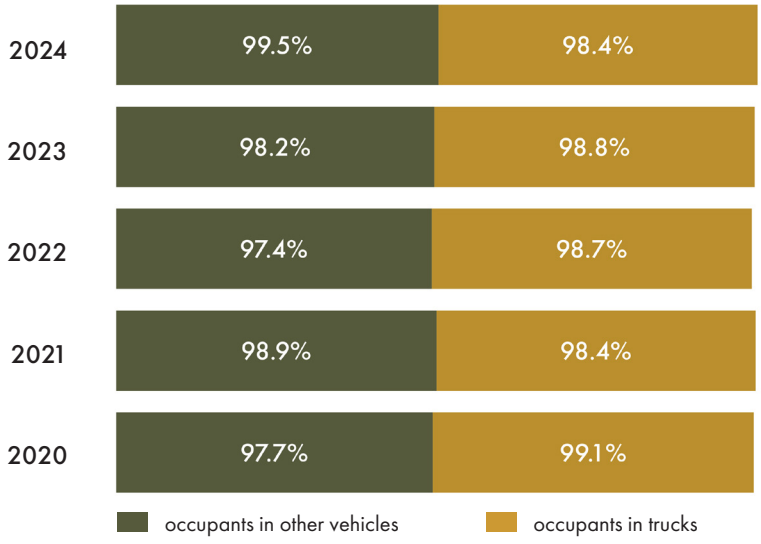



## MANNER OF COLLISION, MULTI-VEHICLE




## 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 2020 and has remained nearly steady in every year following through 2024.

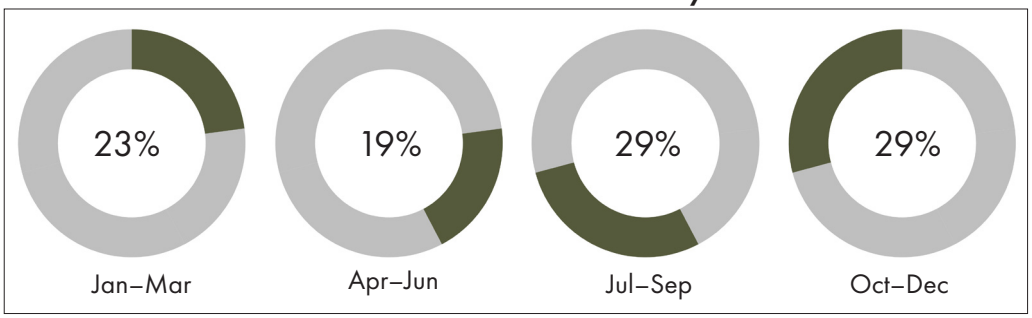


Crash data based on the most recent five years shows more serious injury crashes (58%) occur during the second half of the calendar year; are more prevalent during workday hours between 6:00 a.m. and 4:00 p.m.; and decline on weekends.

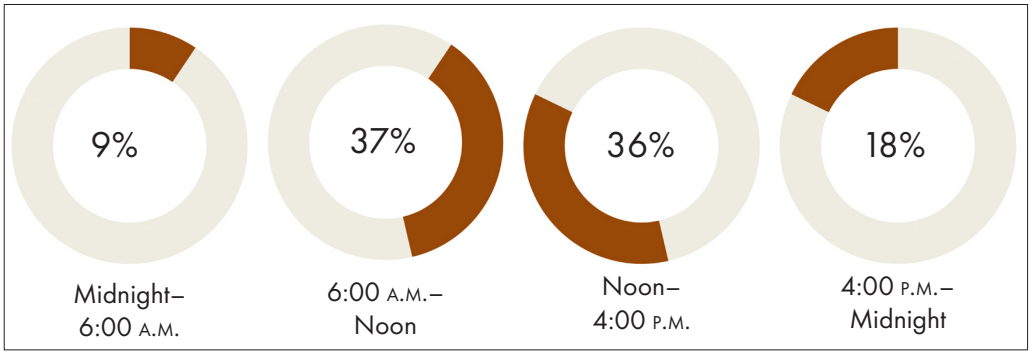
Other crash characteristics indicate:

- 39% of truck crashes occur at intersections or are intersection-related. Sixty-one percent of crashes are non-junction.
- 40% of crashes occurring on hills were multi-vehicle.
- The incidence of truck crashes on curves for single trucks is 17% compared to 11% of multi-vehicle.
- On gravel roads the number of truck-involved injury crashes is significantly higher than injury crashes not involving trucks. The current rate of 6% is down from a high of 9% in 2020. The incidence of crashes on other road surfaces includes rates between 37%—43% on concrete surfaces, and 50%—54% on asphalt surfaces.
- Truck crashes in the NW Region, which includes the core oil production, have ranged from 30% in 2021 to nearly 44% in 2018. Truck crashes in the SE Region were the second most prevalent ranging from 24% in 2018 to 34% in 2022. A crash map of North Dakota identifying injury crashes by severity is found on the following page.

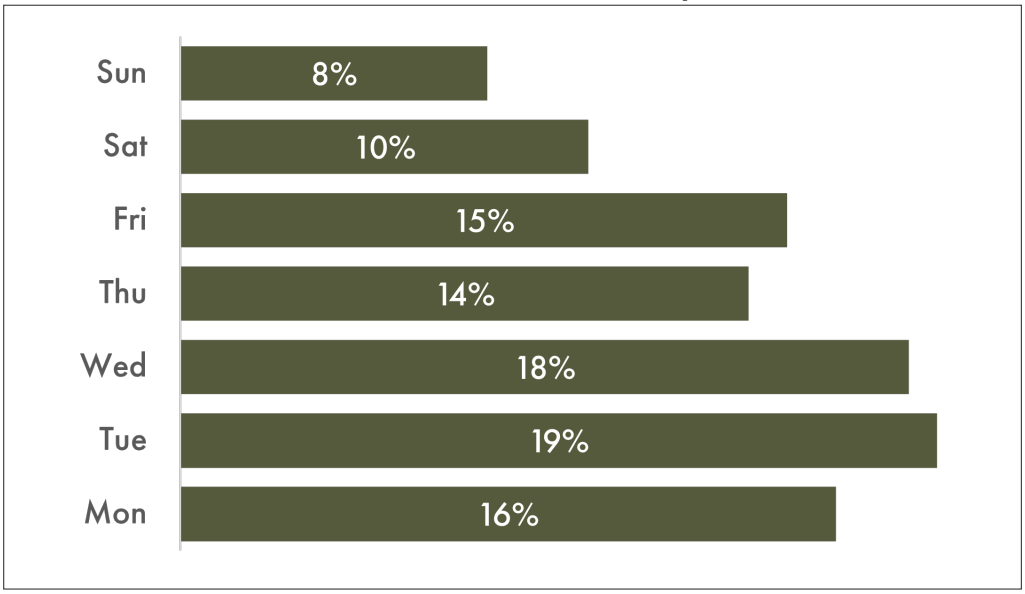
## SERIOUS INJURY TRUCK CRASHES by MONTH



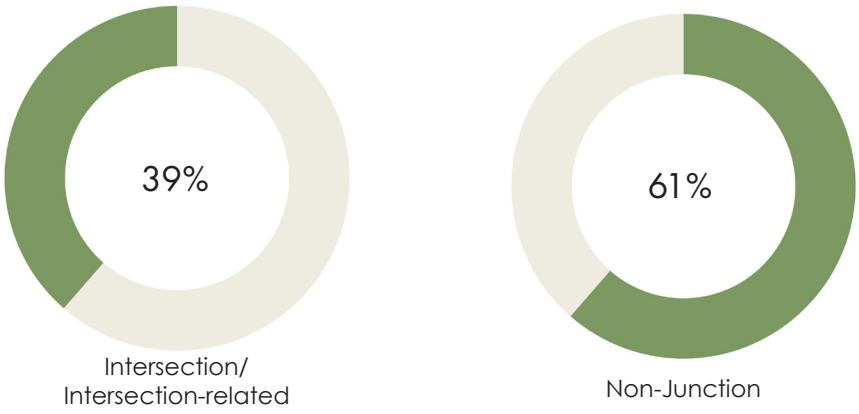

## SERIOUS INJURY TRUCK CRASHES by HOUR



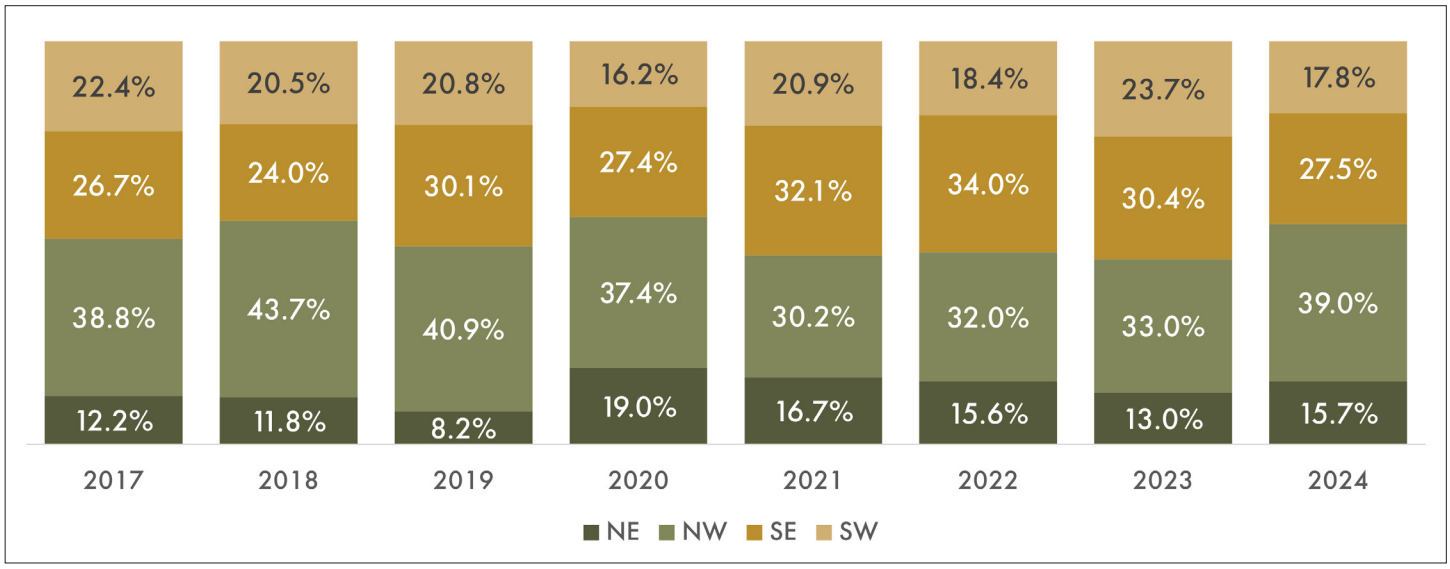

## SERIOUS INJURY TRUCK CRASHES by WEEK

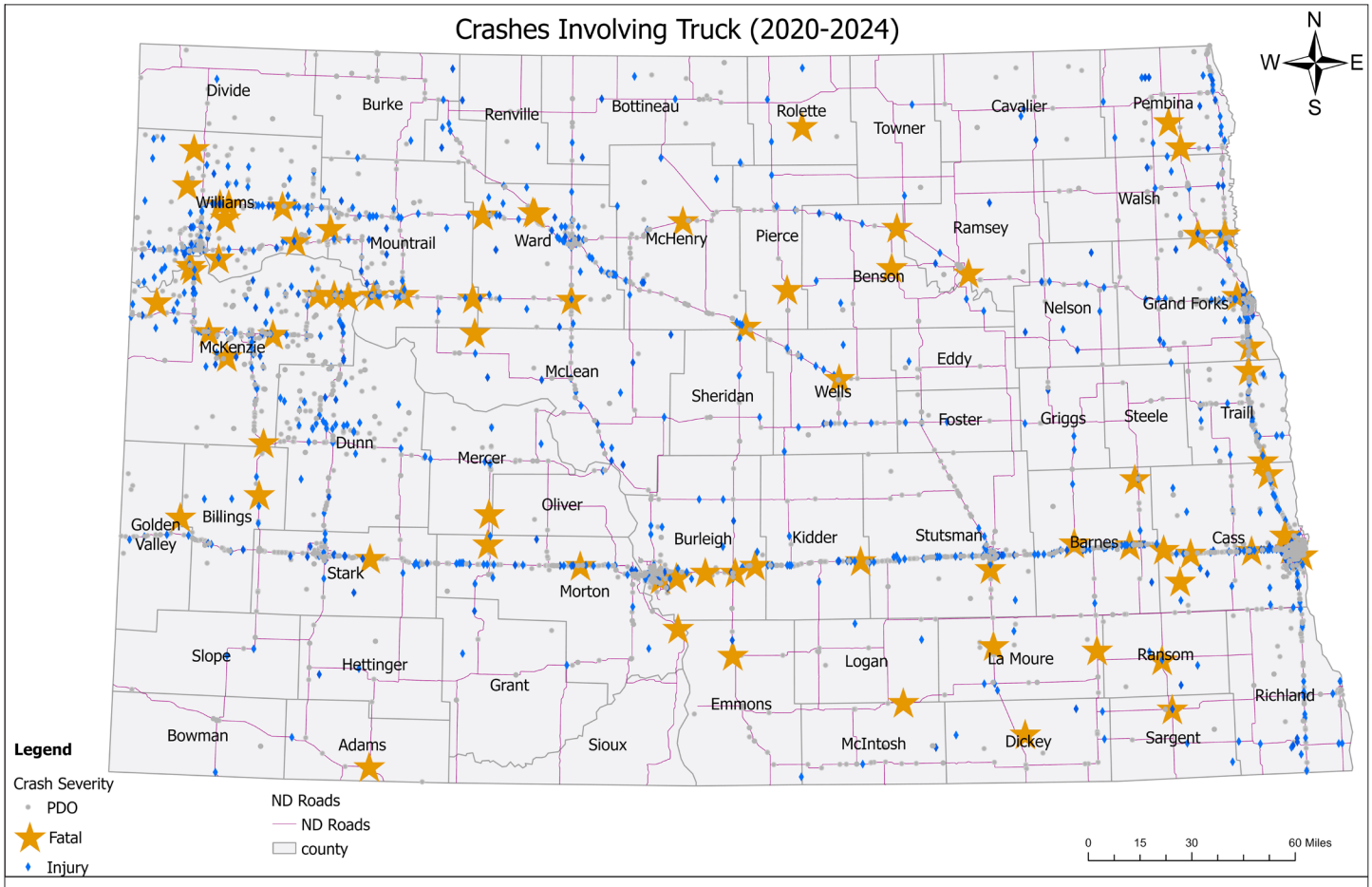



## CRASHES by JUNCTION



## TRUCK CRASHES by REGIONAL QUADRANT




**ND Crashes Involving Commercial Vehicles (2020-2024)**
**Date: 8/21/2025**

Prepared By: NDSU UPPER GREAT PLAINS TRANSPORTATION INSTITUTE

**Data Source: NDDOT Crash Data**