

UPPER PENINSULA HEAVY TRUCK/BUS INVOLVED CRASHES

These crashes involve a heavy truck/bus - defined as having a Gross Vehicle Weight Rating (GVWR) over 10,000 lbs.

Heavy truck/bus crashes differ from other vehicle crashes in a number of ways, many reflecting the size and use of these vehicles. **When compared to the overall crash picture, heavy truck/bus crashes involve:**

- More turning, backing, and avoiding vehicle as the Truck/Bus Driver Action Prior to Crash.
- More fire/explosion, cargo loss/shift, jackknife, and “other non-collisions” as the Most Harmful Event.
- Fewer single-vehicle crashes, but more sideswipe, rear-end, and angle crashes.
- Fewer truck/bus drivers indicated to be speeding or careless/negligent driving, but more truck/bus drivers indicated to be making backing and turning errors.
- More median crashes, but less shoulder crashes.
- More crashes between the hours of 6:00 AM and 5:59 PM, but fewer crashes between 6:00 PM and 5:59 AM.
- More crashes most weekdays but a drop in weekend crashes.

UPPER PENINSULA HEAVY TRUCK/BUS INVOLVED CRASHES

| DRIVER ACTION PRIOR TO CRASH | ALL CRASHES | | FATAL CRASHES | | INJURY CRASHES | |
|---------------------------------|---------------------------|------------|---------------------------|------------|---------------------------|------------|
| | Number of Heavy Trucks | % of Total | Number of Heavy Trucks | % of Total | Number of Heavy Trucks | % of Total |
| Going straight ahead | 145 | 55.8 | 2 | 66.7 | 26 | 53.1 |
| Turning left | 20 | 7.7 | 0 | 0.0 | 6 | 12.2 |
| Turning right | 21 | 8.1 | 0 | 0.0 | 2 | 4.1 |
| Stopped on roadway | 16 | 6.2 | 1 | 33.3 | 4 | 8.2 |
| In prior crash | 1 | 0.4 | 0 | 0.0 | 0 | 0.0 |
| Changing lanes | 3 | 1.2 | 0 | 0.0 | 0 | 0.0 |
| Backing | 14 | 5.4 | 0 | 0.0 | 1 | 2.0 |
| Slowing/stopping on roadway | 16 | 6.2 | 0 | 0.0 | 5 | 10.2 |
| Slowing/stopping other | 1 | 0.4 | 0 | 0.0 | 0 | 0.0 |
| Starting up on roadway | 3 | 1.2 | 0 | 0.0 | 2 | 4.1 |
| Starting up other | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Entering parking | 1 | 0.4 | 0 | 0.0 | 0 | 0.0 |
| Leaving parking | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Entering roadway | 2 | 0.8 | 0 | 0.0 | 0 | 0.0 |
| Leaving roadway | 1 | 0.4 | 0 | 0.0 | 0 | 0.0 |
| Making U-turn | 1 | 0.4 | 0 | 0.0 | 0 | 0.0 |
| Overtaking or passing | 3 | 1.2 | 0 | 0.0 | 1 | 2.0 |
| Avoiding object | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Avoiding animal | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Avoiding pedestrian | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Avoiding vehicle (front/back) | 4 | 1.5 | 0 | 0.0 | 2 | 4.1 |
| Avoiding vehicle (angle) | 1 | 0.4 | 0 | 0.0 | 0 | 0.0 |
| Driverless moving | 1 | 0.4 | 0 | 0.0 | 0 | 0.0 |
| Parked | 5 | 1.9 | 0 | 0.0 | 0 | 0.0 |
| Crossing at intersection | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Crossing not at intersection | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Getting on/off vehicle | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| In roadway with traffic | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| In roadway against traffic | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Standing or lying in roadway | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Pushing/working on vehicle | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Other working in roadway | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Playing in roadway | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| In roadway other reason | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Not in roadway | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Other | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Unknown | 1 | 0.4 | 0 | 0.0 | 0 | 0.0 |
| TOTAL | 260 | 100.0 | 3 | 100.0 | 49 | 100.0 |

UPPER PENINSULA HEAVY TRUCK/BUS INVOLVED CRASHES (CONTINUED)

| MOST HARMFUL EVENT IN A NONCOLLISION | ALL CRASHES | | FATAL CRASHES | | INJURY CRASHES | |
|---|---------------------------|-------------|---------------------------|------------|---------------------------|-------------|
| | Number of Heavy Trucks | % of Total | Number of Heavy Trucks | % of Total | Number of Heavy Trucks | % of Total |
| Loss of control | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Cross center/median | 1 | 0.4 | 0 | 0.0 | 0 | 0.0 |
| Ran off road left | 1 | 0.4 | 0 | 0.0 | 0 | 0.0 |
| Ran off road right | 1 | 0.4 | 0 | 0.0 | 0 | 0.0 |
| Re-enter road | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Overturn | 5 | 1.9 | 0 | 0.0 | 3 | 6.1 |
| Separation of units | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Fire/explosion | 1 | 0.4 | 0 | 0.0 | 0 | 0.0 |
| Immersion | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Jackknife | 2 | 0.8 | 0 | 0.0 | 0 | 0.0 |
| Downhill runaway | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Cargo loss/shift | 7 | 2.7 | 0 | 0.0 | 0 | 0.0 |
| Individual fell off | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Other noncollision | 9 | 3.5 | 0 | 0.0 | 4 | 8.2 |
| SUBTOTAL | 27 | 10.4 | 0 | 0.0 | 7 | 14.3 |

| MOST HARMFUL EVENT IN A COLLISION WITH A NONFIXED OBJECT | ALL CRASHES | | FATAL CRASHES | | INJURY CRASHES | |
|--|---------------------------|-------------|---------------------------|--------------|---------------------------|-------------|
| | Number of Heavy Trucks | % of Total | Number of Heavy Trucks | % of Total | Number of Heavy Trucks | % of Total |
| Pedestrian | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Bicycle / Pedalcycle | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Motor vehicle in transport | 150 | 57.7 | 3 | 100.0 | 39 | 79.6 |
| Parked motor vehicle | 18 | 6.9 | 0 | 0.0 | 0 | 0.0 |
| Railway train | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Animal | 27 | 10.4 | 0 | 0.0 | 0 | 0.0 |
| Other nonfixed objects | 7 | 2.7 | 0 | 0.0 | 1 | 2.0 |
| SUBTOTAL | 202 | 77.7 | 3 | 100.0 | 40 | 81.6 |

In the Upper Peninsula, the majority of heavy trucks/buses are involved in crashes with a motor vehicle in transport for all crashes (57.7%), fatal crashes (100.0%), and injury crashes (79.6%) for most harmful event in the crash.

UPPER PENINSULA HEAVY TRUCK/BUS INVOLVED CRASHES (CONTINUED)

| MOST HARMFUL EVENT IN A COLLISION WITH A FIXED OBJECT | ALL CRASHES | | FATAL CRASHES | | INJURY CRASHES | |
|---|---------------------------|-------------|---------------------------|------------|---------------------------|------------|
| | Number of Heavy Trucks | % of Total | Number of Heavy Trucks | % of Total | Number of Heavy Trucks | % of Total |
| Bridge/pier/abutment | 5 | 1.9 | 0 | 0.0 | 0 | 0.0 |
| Bridge parapet end | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Bridge rail | 1 | 0.4 | 0 | 0.0 | 0 | 0.0 |
| Guardrail face | 2 | 0.8 | 0 | 0.0 | 0 | 0.0 |
| Guardrail end | 1 | 0.4 | 0 | 0.0 | 1 | 2.0 |
| Median barrier | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Highway traffic sign post | 1 | 0.4 | 0 | 0.0 | 0 | 0.0 |
| Highway signal post | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Luminaire/light support | 3 | 1.2 | 0 | 0.0 | 0 | 0.0 |
| Utility pole | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Other pole | 1 | 0.4 | 0 | 0.0 | 0 | 0.0 |
| Culvert | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Curb | 1 | 0.4 | 0 | 0.0 | 0 | 0.0 |
| Ditch | 2 | 0.8 | 0 | 0.0 | 1 | 2.0 |
| Embankment | 2 | 0.8 | 0 | 0.0 | 0 | 0.0 |
| Fence | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Mailbox | 1 | 0.4 | 0 | 0.0 | 0 | 0.0 |
| Tree | 2 | 0.8 | 0 | 0.0 | 0 | 0.0 |
| Rail crossing signal | 1 | 0.4 | 0 | 0.0 | 0 | 0.0 |
| Building | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Traffic island | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Fire hydrant | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Impact attenuator | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Other fixed object | 5 | 1.9 | 0 | 0.0 | 0 | 0.0 |
| SUBTOTAL | 28 | 10.8 | 0 | 0.0 | 2 | 4.1 |

| | ALL CRASHES | | FATAL CRASHES | | INJURY CRASHES | |
|---------------------------------|---------------------------|--------------|---------------------------|--------------|---------------------------|--------------|
| | Number of Heavy Trucks | % of Total | Number of Heavy Trucks | % of Total | Number of Heavy Trucks | % of Total |
| Unknown Event | 3 | 1.2 | 0 | 0.0 | 0 | 0.0 |
| MOST HARMFUL EVENT TOTAL | 260 | 100.0 | 3 | 100.0 | 49 | 100.0 |

UPPER PENINSULA HEAVY TRUCK/BUS INVOLVED CRASHES (CONTINUED)

| CRASH TYPE | ALL CRASHES | | FATAL CRASHES | | INJURY CRASHES | |
|--------------------------------|------------------------|------------|------------------------|------------|------------------------|------------|
| | Number of Heavy Trucks | % of Total | Number of Heavy Trucks | % of Total | Number of Heavy Trucks | % of Total |
| Single Vehicle | 69 | 26.5 | 0 | 0.0 | 6 | 12.2 |
| Head On | 6 | 2.3 | 0 | 0.0 | 2 | 4.1 |
| Head On - Left Turn | 4 | 1.5 | 0 | 0.0 | 1 | 2.0 |
| Angle | 38 | 14.6 | 1 | 33.3 | 13 | 26.5 |
| Rear End | 54 | 20.8 | 2 | 66.7 | 15 | 30.6 |
| Rear End - Left Turn | 4 | 1.5 | 0 | 0.0 | 3 | 6.1 |
| Rear End - Right Turn | 1 | 0.4 | 0 | 0.0 | 0 | 0.0 |
| Sideswipe - Same Direction | 34 | 13.1 | 0 | 0.0 | 3 | 6.1 |
| Sideswipe - Opposite Direction | 10 | 3.8 | 0 | 0.0 | 1 | 2.0 |
| Other/Unknown | 40 | 15.4 | 0 | 0.0 | 5 | 10.2 |
| TOTAL | 260 | 100.0 | 3 | 100.0 | 49 | 100.0 |

The majority of heavy trucks/buses are involved in single vehicle crashes for all crashes (26.5%), rear end crashes for fatal crashes (66.7%), and rear end crashes for injury crashes (30.6%).

| HAZARDOUS ACTION | ALL CRASHES | | FATAL CRASHES | | INJURY CRASHES | | HAZARDOUS CITATION ISSUED | |
|--|------------------------|------------|------------------------|------------|------------------------|------------|---------------------------|------------|
| | Number of Heavy Trucks | % of Total | Number of Heavy Trucks | % of Total | Number of Heavy Trucks | % of Total | Number of Heavy Trucks | % of Total |
| None | 147 | 56.5 | 2 | 66.7 | 30 | 61.2 | 0 | 0.0 |
| Speed too fast | 11 | 4.2 | 0 | 0.0 | 2 | 4.1 | 6 | 26.1 |
| Speed too slow | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Failed to yield | 9 | 3.5 | 0 | 0.0 | 3 | 6.1 | 2 | 8.7 |
| Disregard traffic control | 2 | 0.8 | 0 | 0.0 | 2 | 4.1 | 1 | 4.3 |
| Drove wrong way | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Drove left of center | 1 | 0.4 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Improper passing | 1 | 0.4 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Improper lane use | 7 | 2.7 | 0 | 0.0 | 1 | 2.0 | 1 | 4.3 |
| Improper turn | 11 | 4.2 | 0 | 0.0 | 2 | 4.1 | 1 | 4.3 |
| Improper/no signal | 3 | 1.2 | 0 | 0.0 | 1 | 2.0 | 0 | 0.0 |
| Improper backing | 12 | 4.6 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Unable to stop in assured clear distance | 14 | 5.4 | 0 | 0.0 | 4 | 8.2 | 5 | 21.7 |
| Reckless driving | 2 | 0.8 | 1 | 33.3 | 0 | 0.0 | 1 | 4.3 |
| Careless/negligent driving | 15 | 5.8 | 0 | 0.0 | 1 | 2.0 | 4 | 17.4 |
| Other | 22 | 8.5 | 0 | 0.0 | 2 | 4.1 | 2 | 8.7 |
| Unknown | 3 | 1.2 | 0 | 0.0 | 1 | 2.0 | 0 | 0.0 |
| TOTAL | 260 | 100.0 | 3 | 100.0 | 49 | 100.0 | 23 | 100.0 |

After no hazardous action and other, in the Upper Peninsula the majority of heavy trucks/buses have a hazardous action of careless/negligent driving for all crashes (5.8%). The most common hazardous action for heavy/trucks/buses involved in injury crashes after no hazardous action is unable to stop in assured clear distance (8.2%).

UPPER PENINSULA HEAVY TRUCK/BUS INVOLVED CRASHES (CONTINUED)

| RELATIONSHIP TO ROADWAY (LOCATION OF FIRST IMPACT) | ALL CRASHES | | FATAL CRASHES | | INJURY CRASHES | |
|---|------------------------|------------|------------------------|------------|------------------------|------------|
| | Number of Heavy Trucks | % of Total | Number of Heavy Trucks | % of Total | Number of Heavy Trucks | % of Total |
| On Road | 230 | 88.5 | 3 | 100.0 | 42 | 85.7 |
| Median | 3 | 1.2 | 0 | 0.0 | 1 | 2.0 |
| Shoulder | 9 | 3.5 | 0 | 0.0 | 3 | 6.1 |
| Outside of Shoulder/Curb | 13 | 5.0 | 0 | 0.0 | 2 | 4.1 |
| Gore | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Other/Unknown | 5 | 1.9 | 0 | 0.0 | 1 | 2.0 |
| TOTAL | 260 | 100.0 | 3 | 100.0 | 49 | 100.0 |

| TIME OF DAY | ALL CRASHES | | FATAL CRASHES | | INJURY CRASHES | |
|---------------------|------------------------|------------|------------------------|------------|------------------------|------------|
| | Number of Heavy Trucks | % of Total | Number of Heavy Trucks | % of Total | Number of Heavy Trucks | % of Total |
| 12:00 AM - 02:59 AM | 4 | 1.5 | 0 | 0.0 | 0 | 0.0 |
| 03:00 AM - 05:59 AM | 19 | 7.3 | 0 | 0.0 | 2 | 4.1 |
| 06:00 AM - 08:59 AM | 43 | 16.5 | 0 | 0.0 | 10 | 20.4 |
| 09:00 AM - 11:59 AM | 50 | 19.2 | 1 | 33.3 | 10 | 20.4 |
| 12:00 PM - 02:59 PM | 62 | 23.8 | 1 | 33.3 | 9 | 18.4 |
| 03:00 PM - 05:59 PM | 48 | 18.5 | 1 | 33.3 | 13 | 26.5 |
| 06:00 PM - 08:59 PM | 24 | 9.2 | 0 | 0.0 | 3 | 6.1 |
| 09:00 PM - 11:59 PM | 10 | 3.8 | 0 | 0.0 | 2 | 4.1 |
| Unknown | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| TOTAL | 260 | 100.0 | 3 | 100.0 | 49 | 100.0 |

In the Upper Peninsula, heavy truck/bus frequencies in crashes peak in the early afternoon, then drop off steadily until 3:00 AM. The majority of heavy trucks/buses are involved in injury crashes from 3:00 to 5:59 AM (26.5%).

| ROADWAY TYPE | ALL CRASHES | | FATAL CRASHES | | INJURY CRASHES | |
|-----------------------|------------------------|------------|------------------------|------------|------------------------|------------|
| | Number of Heavy Trucks | % of Total | Number of Heavy Trucks | % of Total | Number of Heavy Trucks | % of Total |
| Interstate Routes | 13 | 5.0 | 1 | 33.3 | 2 | 4.1 |
| U.S. & Michigan Roads | 166 | 63.8 | 1 | 33.3 | 36 | 73.5 |
| County & City Roads | 81 | 31.2 | 1 | 33.3 | 11 | 22.4 |
| TOTAL | 260 | 100.0 | 3 | 100.0 | 49 | 100.0 |

In the Upper Peninsula, the majority of heavy trucks/buses are involved in crashes on U.S. and Michigan roads for all crashes (63.8%) and injury crashes (73.5%).

UPPER PENINSULA HEAVY TRUCK/BUS INVOLVED CRASHES (CONTINUED)

| DAY OF WEEK | ALL CRASHES | | FATAL CRASHES | | INJURY CRASHES | |
|-------------|------------------------|------------|------------------------|------------|------------------------|------------|
| | Number of Heavy Trucks | % of Total | Number of Heavy Trucks | % of Total | Number of Heavy Trucks | % of Total |
| Monday | 38 | 14.6 | 0 | 0.0 | 13 | 26.5 |
| Tuesday | 54 | 20.8 | 0 | 0.0 | 11 | 22.4 |
| Wednesday | 45 | 17.3 | 1 | 33.3 | 8 | 16.3 |
| Thursday | 43 | 16.5 | 1 | 33.3 | 7 | 14.3 |
| Friday | 47 | 18.1 | 1 | 33.3 | 8 | 16.3 |
| Saturday | 24 | 9.2 | 0 | 0.0 | 2 | 4.1 |
| Sunday | 9 | 3.5 | 0 | 0.0 | 0 | 0.0 |
| TOTAL | 260 | 100.0 | 3 | 100.0 | 49 | 100.0 |

In the Upper Peninsula, the majority of heavy trucks/buses are involved in all crashes (20.8%) on Tuesday and injury crashes (26.5%) on Monday.

| DRIVER GENDER | ALL CRASHES | | FATAL CRASHES | | INJURY CRASHES | |
|---------------|------------------------|------------|------------------------|------------|------------------------|------------|
| | Number of Heavy Trucks | % of Total | Number of Heavy Trucks | % of Total | Number of Heavy Trucks | % of Total |
| Male | 234 | 90.0 | 2 | 66.7 | 45 | 91.8 |
| Female | 17 | 6.5 | 1 | 33.3 | 3 | 6.1 |
| Unknown | 9 | 3.5 | 0 | 0.0 | 1 | 2.0 |
| TOTAL | 260 | 100.0 | 3 | 100.0 | 49 | 100.0 |

In the Upper Peninsula, the majority of heavy truck/bus drivers are male in all crashes (90.0%), fatal crashes (66.7%), and injury crashes (91.8%).

| NUMBER OF OCCUPANTS | ALL CRASHES | | FATAL CRASHES | | INJURY CRASHES | |
|---------------------|------------------------|------------|------------------------|------------|------------------------|------------|
| | Number of Heavy Trucks | % of Total | Number of Heavy Trucks | % of Total | Number of Heavy Trucks | % of Total |
| 1 occupant | 212 | 81.5 | 2 | 66.7 | 37 | 75.5 |
| 2 occupants | 16 | 6.2 | 0 | 0.0 | 4 | 8.2 |
| 3 occupants | 2 | 0.8 | 1 | 33.3 | 1 | 2.0 |
| 4 occupants | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| 5 occupants | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| 6 + occupants | 21 | 8.1 | 0 | 0.0 | 6 | 12.2 |
| 0 occupants | 7 | 2.7 | 0 | 0.0 | 1 | 2.0 |
| Unknown | 2 | 0.8 | 0 | 0.0 | 0 | 0.0 |
| TOTAL | 260 | 100.0 | 3 | 100.0 | 49 | 100.0 |

UPPER PENINSULA HEAVY TRUCK/BUS INVOLVED CRASHES (CONTINUED)

| VEHICLE TYPES INVOLVED IN CRASH WITH HEAVY TRUCK/BUS | ALL CRASHES | | FATAL CRASHES | | INJURY CRASHES | |
|---|--------------------|--------------|--------------------|--------------|--------------------|--------------|
| | Number of Vehicles | % of Total | Number of Vehicles | % of Total | Number of Vehicles | % of Total |
| Passenger Car and Station Wagon | 141 | 72.7 | 6 | 75.0 | 32 | 71.1 |
| Van and Motorhome | 10 | 5.2 | 1 | 12.5 | 2 | 4.4 |
| Pickup | 38 | 19.6 | 1 | 12.5 | 9 | 20.0 |
| Small Truck (under 10,000 lbs.) | 2 | 1.0 | 0 | 0.0 | 1 | 2.2 |
| Motorcycle | 1 | 0.5 | 0 | 0.0 | 0 | 0.0 |
| Moped | 1 | 0.5 | 0 | 0.0 | 1 | 2.2 |
| Go Cart | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Snowmobile | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Off Road Vehicle | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Other | 1 | 0.5 | 0 | 0.0 | 0 | 0.0 |
| Unknown | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| SUBTOTAL | 194 | 100.0 | 8 | 100.0 | 45 | 100.0 |

| HEAVY TRUCK/BUS VEHICLE TYPES | ALL CRASHES | | FATAL CRASHES | | INJURY CRASHES | |
|----------------------------------|------------------------|--------------|------------------------|--------------|------------------------|--------------|
| | Number of Heavy Trucks | % of Total | Number of Heavy Trucks | % of Total | Number of Heavy Trucks | % of Total |
| Commercial Vehicle: Group A* | 150 | 57.7 | 1 | 33.3 | 26 | 53.1 |
| Commercial Vehicle: Group B** | 53 | 20.4 | 1 | 33.3 | 13 | 26.5 |
| Commercial Vehicle: Group C*** | 7 | 2.7 | 0 | 0.0 | 3 | 6.1 |
| Other Truck | 26 | 10.0 | 1 | 33.3 | 6 | 12.2 |
| Unknown Truck | 24 | 9.2 | 0 | 0.0 | 1 | 2.0 |
| SUBTOTAL | 260 | 100.0 | 3 | 100.0 | 49 | 100.0 |

* Group "A" is any vehicle that is towing a vehicle or trailer that has a gross vehicle weight rating (GVWR) over 10,000 lbs.

** Group "B" is any single vehicle (including buses) with a GVWR of 26,001 lbs. or more. This would include a combination of vehicles with a combined GVWR over 26,000 lbs. when towing a trailer that has a GVWR of 10,000 lbs. or less.

*** Group "C" is any single vehicle with a GVWR of less than 26,001 lbs. or a combination of vehicles having a combined GVWR under 26,001 lbs. when the vehicle is required to display placards for hazardous material or designed to carry 16 passengers (including driver). Group "C" is also any vehicle carrying 15 or less people (including driver) transporting children to or from school and home on a regular basis for compensation.

| | ALL CRASHES | | FATAL CRASHES | | INJURY CRASHES | |
|---|------------------------|------------|------------------------|------------|------------------------|------------|
| | Number of Heavy Trucks | % of Total | Number of Heavy Trucks | % of Total | Number of Heavy Trucks | % of Total |
| Total Vehicle Types in Heavy Truck/Bus Crashes | 454 | --- | 11 | --- | 94 | --- |

UPPER PENINSULA HEAVY TRUCK/BUS INVOLVED CRASHES (CONTINUED)

| HEAVY TRUCK/BUS DRIVER ACTION PRIOR TO CRASH HAZARDOUS CITATION ISSUED | HEAVY TRUCK/BUS INVOLVED CRASH | | | | | | NON-HEAVY TRUCK/BUS INVOLVED CRASH | | | |
|--|--------------------------------|------------|---------------------------|------------|---|------------|------------------------------------|------------|-----------------------|------------|
| | Single Vehicle Crash | | Multi-Vehicle Crash | | | | Single Vehicle Crash | | Multi-Vehicle Crash | |
| | Number of Heavy Trucks | % of Total | Number of Heavy Trucks | % of Total | Number of Non-Heavy Truck Vehicles | % of Total | Number of Vehicles | % of Total | Number of Vehicles | % of Total |
| None | 0 | 0.0 | 0 | 0.0 | 1 | 2.8 | 3 | 0.8 | 6 | 0.8 |
| Speed too fast | 4 | 57.1 | 2 | 12.5 | 9 | 25.0 | 208 | 52.1 | 75 | 9.7 |
| Speed too slow | 0 | 0.0 | 0 | 0.0 | 1 | 2.8 | 1 | 0.3 | 0 | 0.0 |
| Failed to yield | 0 | 0.0 | 2 | 12.5 | 10 | 27.8 | 4 | 1.0 | 286 | 36.8 |
| Disregard traffic control | 0 | 0.0 | 1 | 6.3 | 1 | 2.8 | 1 | 0.3 | 70 | 9.0 |
| Drove wrong way | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 5 | 0.6 |
| Drove left of center | 0 | 0.0 | 0 | 0.0 | 2 | 5.6 | 2 | 0.5 | 13 | 1.7 |
| Improper passing | 0 | 0.0 | 0 | 0.0 | 1 | 2.8 | 0 | 0.0 | 8 | 1.0 |
| Improper lane use | 0 | 0.0 | 1 | 6.3 | 2 | 5.6 | 1 | 0.3 | 12 | 1.5 |
| Improper turn | 0 | 0.0 | 1 | 6.3 | 0 | 0.0 | 0 | 0.0 | 16 | 2.1 |
| Improper/no signal | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 5 | 0.6 |
| Improper backing | 0 | 0.0 | 0 | 0.0 | 1 | 2.8 | 1 | 0.3 | 15 | 1.9 |
| Unable to stop in assured clear distance | 0 | 0.0 | 5 | 31.3 | 4 | 11.1 | 7 | 1.8 | 188 | 24.2 |
| Reckless driving | 0 | 0.0 | 1 | 6.3 | 0 | 0.0 | 17 | 4.3 | 10 | 1.3 |
| Careless/Negligent driving | 3 | 42.9 | 1 | 6.3 | 3 | 8.3 | 118 | 29.6 | 48 | 6.2 |
| Other | 0 | 0.0 | 2 | 12.5 | 1 | 2.8 | 30 | 7.5 | 20 | 2.6 |
| Unknown | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 6 | 1.5 | 0 | 0.0 |
| CITED VEHICLES SUBTOTAL | 7 | 100.0 | 16 | 100.0 | 36 | 100.0 | 399 | 100.0 | 777 | 100.0 |

| | HEAVY TRUCK/BUS INVOLVED CRASH | | | | | | NON-HEAVY TRUCK/BUS INVOLVED CRASH | | | |
|-------------------------------------|--------------------------------|------------|---------------------------|------------|---|------------|------------------------------------|------------|-----------------------|------------|
| | Single Vehicle Crash | | Multi-Vehicle Crash | | | | Single Vehicle Crash | | Multi-Vehicle Crash | |
| | Number of Heavy Trucks | % of Total | Number of Heavy Trucks | % of Total | Number of Non-Heavy Truck Vehicles | % of Total | Number of Vehicles | % of Total | Number of Vehicles | % of Total |
| Cited Vehicles | 7 | 10.0 | 16 | 8.4 | 36 | 18.6 | 399 | 8.7 | 777 | 12.1 |
| Vehicles with No Citation Issued | 63 | 90.0 | 174 | 91.6 | 158 | 81.4 | 4,208 | 91.3 | 5,661 | 87.9 |
| TOTAL VEHICLES INVOLVED | 70 | 100.0 | 190 | 100.0 | 194 | 100.0 | 4,607 | 100.0 | 6,438 | 100.0 |