Non-Fatal Work-Related Injuries from Motor Vehicle Crashes

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Virtual

BACKGROUND:

Motor vehicle crashes (MVC) are a leading cause of injuries with about three million non-fatal injuries per year. We previously reported work-related MVCs from 2017 that resulted in non-fatal injuries. We have expanded on this previous report by including data from 2018 and 2019 and added new analysis on the locations of MVCs.

METHODS:

Michigan law requires the investigating police officer for all MVCs complete a UD-10 Traffic Crash Report (UD-10), which is included in the Michigan State Police Traffic Crash Reporting System (TCRS) database. Work-related collisions involving injuries were identified as definite or possible by selecting crashes where the primary vehicle use code was: commercial/business, farm, government, school/education, in pursuit/on emergency, utility, road construction and military vehicles, as well as vehicles with a hazardous material placard displayed at the time of the crash. Additional criteria based on driver vs. passenger, time of day and time of year were also used. High traffic crash areas were identified by latitude and longitude and street intersection.

RESULTS:

Between 2017 and 2019, there were 942,095 MVCs in Michigan: 2,744 (0.3%) were fatal, 167,142 (17.7%) involved non-fatal injuries and 772,209 (82.0%) were property damage only. Three percent of fatal and 3.7% of non-fatal injury MVCs were work-related; 6,235 work-related injury MVCs involved 6,370 vehicles and 6,651 injured workers. Fifty-two percent (3,342) of vehicles were passenger cars/SUVs, followed by 1,760 (27.6%) trucks/busses and 671 (10.5%) pickup trucks. Most MVCs occurred in the fall (1,618; 26.0%), in the daylight (4,584; 73.5%), in clear weather (3,420; 54.9%) and with dry road conditions (4,106; 65.9%). The injured were predominately men (75.1%). Mean and median age was 42; 13.6% were <25 and 22.3% were ≥55 years old. Four hundred and ninety-four (7.4%) workers sustained serious injuries. The most common crash types were

Rear End (1,772; 28.4%), Single Motor Vehicle (1,557; 25.0%) and Angle (1,394; 11.4%). Information on drug and alcohol test results was largely missing (<5% of MVCs). There were 421 intersections with ≥ two MVCs, some with as many as eight. Additional analyses by the definite and possible work-related classification, location of crash, severity of the injury and association between the various factors will be presented.

CONCLUSIONS:

UD-10 crash reports were used to identify work-related MVCs. Analysis of the data can be used to identify risk factors, including high traffic crash areas and support the development and evaluation of highway and vehicle safety countermeasures.

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