Saving Lives, Time and Resources
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Driver Behaviors

Driver fatigue is a top contributing behavior factor in at-fault CMV crashes. Knowing how driver behaviors contribute to at-fault CMV crashes can help carriers develop policies and training strategies to reduce those crashes. In addition to driver fatigue, driving behaviors that had the most impact on CMV at-fault crashes include:

- Stopping problems (e.g., failure to stop)
- Failure to yield right-of-way
- Using the wrong lane
- Speeding

In training, CMV carriers should emphasize driver awareness of these behaviors, as well as how to avoid them.

What’s Happening Out There?

Commercial motor vehicle (CMV) crashes happen every day. Most involve human error, sometimes on the part of the CMV driver. Many are preventable. As in all driving situations, awareness is a first step toward preventing these crashes from ever happening. Technology can also help reduce crash risk. Both are something CMV carriers can do something about.

In single vehicle, non-intersection crashes, driver fatigue...

- was a contributing factor in 15% of crashes
- resulted in 30%+ higher estimated cost per crash
- resulted in 70% higher injury/fatality risk per crash

In multi-vehicle, non-intersection crashes, driver fatigue...

- was a contributing factor in 4% of crashes
- resulted in 130%+ higher estimated cost per crash
- resulted in 270% higher injury/fatality risk per crash

*compared with crashes where driver fatigue not a contributing factor.

What Did We Look At?

Texas A&M Transportation Institute (TTI) looked at nearly 2,800 CMV crashes in 20 counties across the state of Texas. We used statistical tools to identify the top factors associated with increased crash severity when the CMV driver was at fault. The Federal Motor Carrier Safety Administration and TTI’s Center for Transportation Safety funded the project.

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Technology Solutions

Advanced vehicle technologies—such as collision-avoidance and stability control technologies—can help reduce situations such as run-off-the-road crashes, roadway collisions with other vehicles or objects, and overturns/rollovers. All these situations are important factors in at-fault CMV crashes.

What About Oilfield Crashes?

Are CMV crashes more severe near oilfields? When TTI compared crashes inside and outside oilfield areas, we found no significant difference in at-fault CMV crash severity. Crashes might be more frequent in oilfield areas, but when they happen, they are just as severe outside the oilfield as they are inside the oilfield.

Why Speeding Matters

Speeding was a factor in more than 20 percent of at-fault CMV intersection crashes. When speeding was a contributing factor, estimated crash costs were 20 percent higher than crashes where speeding was not a contributing factor. Crashes with speeding citations had a 170 percent greater injury/fatality risk per crash.

Crashes Are Preventable

CMV carriers have tools to help prevent at-fault CMV driver crashes. Training and setting policies to encourage CMV operators to drive awake, aware, and avoiding improper driving behaviors is the first step to preventing injury, saving lives, and reducing liability costs. And by outfitting trucks with stability-control and collision-avoidance technologies, carriers can reduce situations where drivers lose control of their rigs.

Collision Avoidance and Stability Control Technologies Can Help Reduce Crash Costs

At-Fault CMV Crashes Involving Multiple Vehicles...

resulted in nearly 50% higher estimated costs compared to single-vehicle crashes

OVERTURNS/ROLLOVERS in At-Fault, CMV, Single-Vehicle Crashes...

were a contributing factor in 40% of crashes

resulted in 80% higher estimated cost per crash

resulted in 110% higher injury/fatality risk per crash

*compared with crashes where overturns/rollovers did not occur.

IMPROPER STOPPING Impacts on At-Fault CMV Crashes

In intersection crashes, stopping problems...

were a contributing factor in 18% of crashes

resulted in 60%+ higher estimated cost* per crash

resulted in 170% higher injury/fatality risk* per crash

*compared with crashes where stopping problems were not a contributing factor.

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