

Embark Safety | White Paper 2019-2020

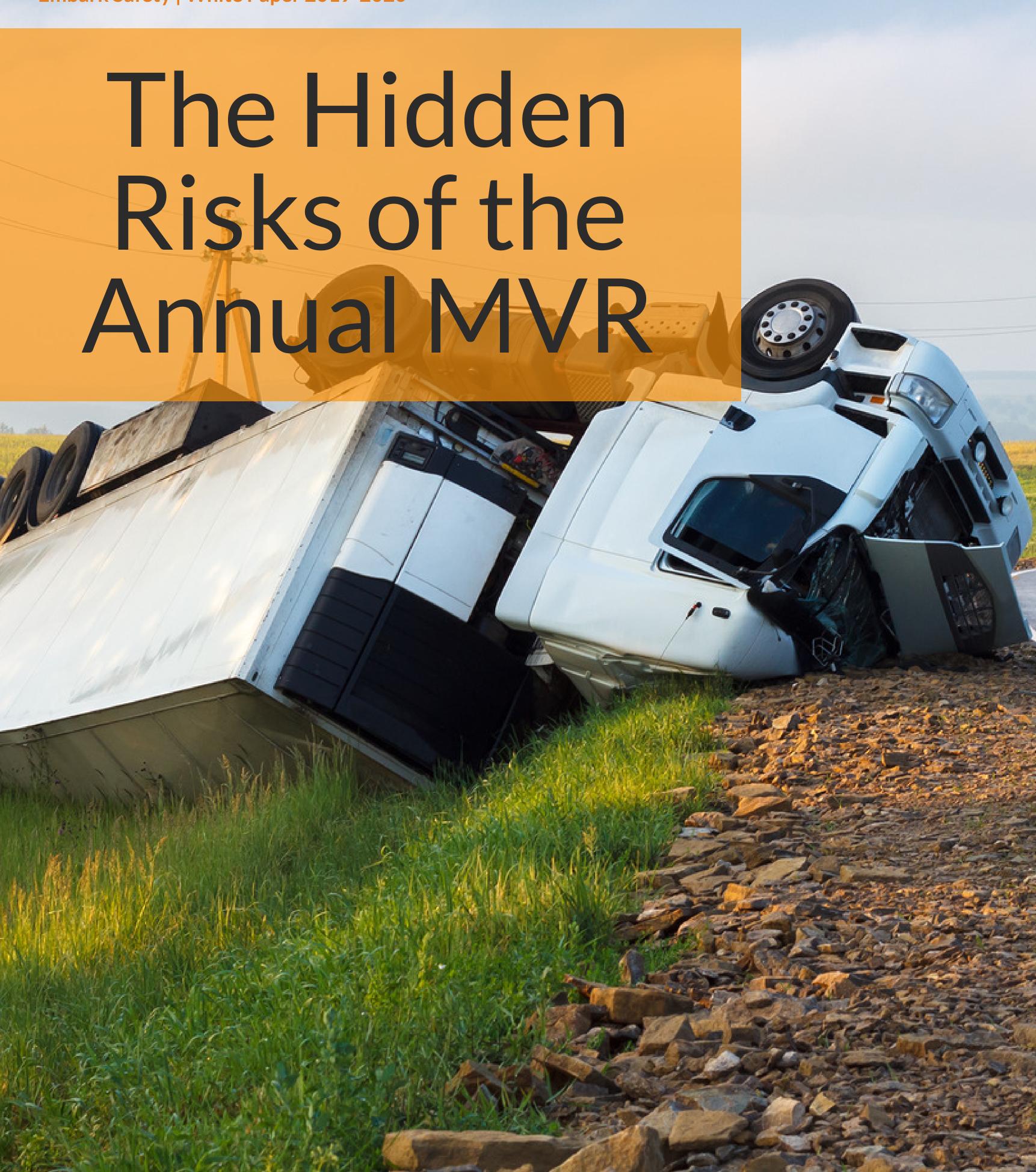
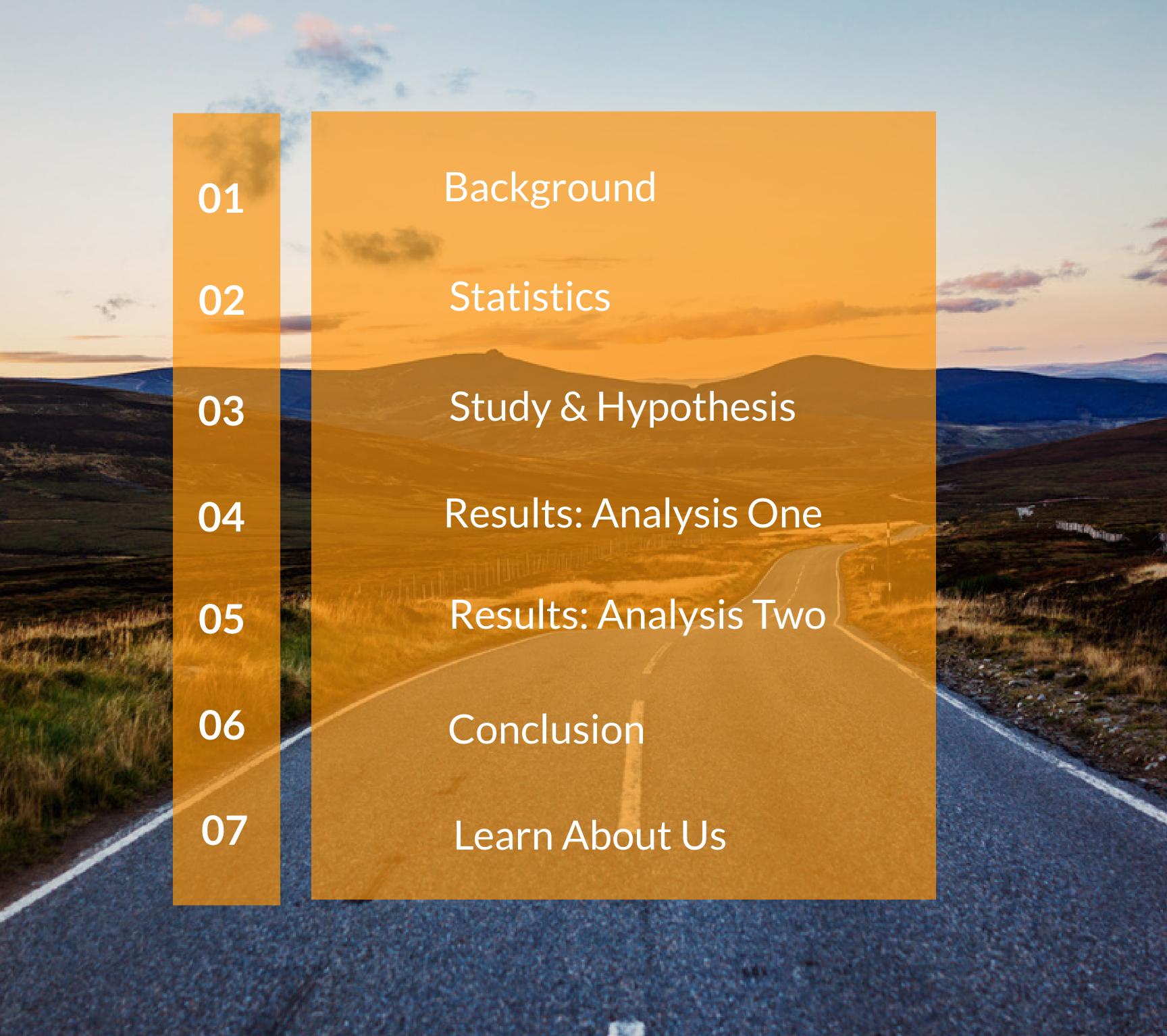




Table of Content:



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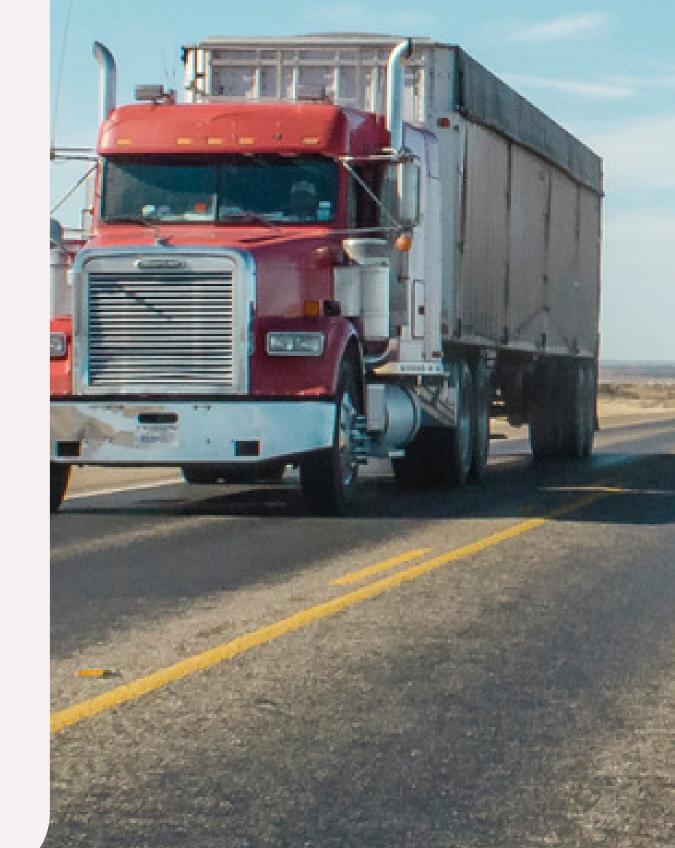
Background



The Commercial Motor Vehicle Safety Act of 1986 requires that drivers self-report a conviction for any traffic violation to their employer within 30 days of the conviction. If the driver's commercial driver's license (CDL) is suspended, revoked, canceled, or if he/she is disqualified from driving, the employer must be notified within one business day.

Companies are only required to check the motor vehicle record (MVR) of their CDL drivers annually (49 CFR 391.25). As a result, if a driver does not self-report, it could be up to 364 days before a company obtains this information. In the interim, the driver may have been operating illegally on the roadways.

Employers are not always notified about drivers' convictions on a timely manner (between 20%-50% employers [1]); thus, employers are unable to take immediate and appropriate corrective action since there is no way to identify any changes to the driving record until the annual MVR pull. This represents a significant potential highway safety hazard, since across all vehicle types, suspended drivers have a crash rate that is 14 times higher than other driver[2].





Statistics



Drivers with two convictions had 2.9 times as many accidents as the no-conviction group.

9

Drivers with three convictions had 4.3 times as many accidents.

3

Drivers with suspended licenses are three times more likely to kill or seriously injure others in collisions.

4

Lawsuits are piling up against companies whose employees - often unknown to their employer - had a track record of reckless, dangerous driving.

1 out 5 traffic fatalities involve a driver without a proper license.

Drivers with one traffic conviction during the previous two years had two times as many accidents as a corresponding group having no convictions during the previous two years.



3 Study&Hypothesis



2005

Federal Motor Carrier Safety Administration (FMCSA) sponsored a study conducted by the Science Applications **International Corporation (SAIC)**

Purpose

- To understand how reducing the time between a driver's conviction and notification (Benefit Window) can provide opportunities for employers to take action and reduce consequences.
- The study also looked at the feasibility and safety benefits of a Driver Violation Notification program (also known as Employee Pull Notice or MVR Monitoring). In these programs, states work with third-parties or motor carriers to automatically notify of changes in their drivers' CDL records due to violations and convictions.

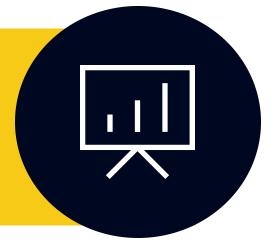


Hypothesis

The study's hypothesis is that if conviction history is related to the likelihood of a crash, then eliminating or reducing the timeframe of the benefits window will result in fewer crashes and associated injuries and fatalities. A driver record notification system can reduce the timeframe during which an employer is notified, which then reduces public exposure to poor driver behavior. This difference in notification time, combined with the differential in crash risk for drivers with convictions, can result in reduced crashes, injuries, and fatalities.



Results



Hypothesis



Poor driving behavior as demonstrated by prior convictions and involvement in crashes increase the risks of involvement in future crashes.

Sample Size

This result was obtained by examining **14,491** fatal accidents reported in the Fatal Accident Reporting System (FARS) for the calendar years 2000 through 2002.

- The **first analysis** examined the occurrence of previous serious driver convictions or crashes for incidents involving two driver populations:
- Those with a crash or serious driving conviction within 1 year prior to involvement in a fatal crash.
- Those without a crash or serious driving within 1 year of their involvement in a fatal crash.

This analysis shows that among drivers involved in fatal crashes, those with convictions, suspensions, or crashes within the 12 months prior to the fatal crash had overall driving records that were significantly worse than the drivers with no convictions, suspensions, or crashes within the prior 12 months.

Driver History Versus Last Crash, Suspension, or Conviction

Last Crash, Suspensions, Convictions within 1 Year of Fatal Cash	Observations	Previous DUI/DWI Convictions	Previous Other Harmful Convictions	Previous Recorded Accidents	Previous DUI/DWI Convictions	Previous Recorded Suspensions & Revocations
Yes	5,007 (35%)	3.2%	49.2%	34.0%	54.1%	15.8%
No	9,484 (65%)	0.5%	9.6%	8.3%	11.3%	3.1%
Ratio		6.7	5.1	4.1	4.8	5.2



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Results



A second analysis examined:

- 1 Relationship between prior conviction severity and severity of subsequent crashes
- Relationship between crash risk given a conviction within 1 year of a crash event, versus crash risk when there were no convictions during the year prior to the crash
- The distribution of crash events over a 12-month period following the last conviction prior to a crash occurrence.

Data for the entire sample of **129,306** drivers used in this analysis were examined for convictions occurring between April 2001 and March 2002 and 1 year of crashes, April 2002 to March 2003. This analysis shows a relationship between convictions and the likelihood that a driver experiences a crash during the subsequent 12 months.

No Convictions



For those drivers with no convictions between April 2001 and March 2002, 2.17 % had one or more crashes.

Convictions



For those drivers who had one or more convictions, 2.99 % had one or more crashes, indicating that drivers with convictions have crashes at a rate that is about 37% higher than those without convictions.

To confirm these results, this same analysis was completed with the 129,306 drivers, using the 1-year period of convictions from April 2000 to March 2001 and the 1-year period of crashes from April 2001 to March 2002. Again, the analysis shows a relationship between convictions and the likelihood that a driver experiences a crash during the subsequent 12 months.



6 Conclusion



The current requirement of self-reporting by drivers and annual checks by motor carriers results in a safety vulnerability in terms of having unqualified drivers (i.e., loss of driving privileges following certain convictions for traffic offenses) operating on the roadways longer without the company's knowledge.

The study validates the relationship between a conviction and the likelihood that a driver is involved in one or more crashes in the 12 months subsequent to the conviction. In addition, it established potential risk factors for the assumed maximum exposure window of 12 months, the maximum time period between a motor carrier's annual driver record pull as required by regulation

Solution

Driver record monitoring can assist companies with eliminating the potential 11-month window during which an annual driver record pull reveals a previously undiscovered conviction.

In addition, MVR monitoring can assist motor carriers in maintaining a higher CSA score by remaining alert to any changes in a driver's MVR. These alerts provide a critical "heads up" when a violation could potentially impact a carrier's CSA score. Since motor carriers cannot use the Pre-Employment Screening (PSP) report for current drivers, driver monitoring can serve as a predictor for how a carrier's score might change as a result of the violations, once the carrier establishes a scoring baseline

About Us

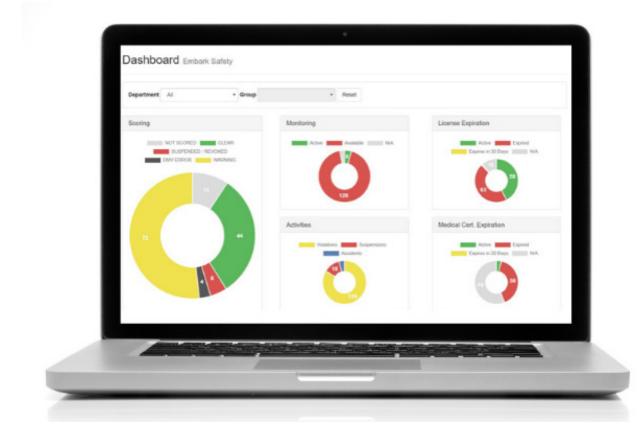




The safety of your company is our goal

At Embark Safety, we develop innovative driver risk management solutions to reduce the likelihood of vehicle crashes, improve road safety and protect companies' bottom line. We are committed to driving results by delivering insights and ensuring our clients receive superior customer service.

System links directly with state licensing agencies (DMV) to monitor changes in driver licenses and find adverse actions that may expose your organization to liability and accident risk.



- Nationwide driving record instant access
- Driver and MVR Scoring
- CDL medical certificate expiration notifications
- Driver qualification management
- Auto insurance expiration notifications
- Custom reports

Questions? Give us a call
1-855-362-2758

Request a Demo or Contact us

Initial driving record is processed for all drivers. System automatically scores all drivers using our MVR scoring criteria. Drivers with suspended/revoked licenses are flagged

How it Works



2

Drivers are enrolled into driver record monitoring with each state licensing agency (DMV). Our customer support team will provide unlimited training on how to use the system.



www.embarksafety.com

3

System automatically sends email alerts to supervisors when new information shows up in a driver's record. Changes may include: new moving violations, suspensions, DUI/DWI.