



DRIVERCARE CONNECT® WHITEPAPER

**CASE STUDIES ON REDUCING  
ACCIDENT RATES PER MILLION MILES**

## CASE STUDY #1: AN EVOLUTION OF FLEET SAFETY

A large sales and service fleet had been taking steps to reduce preventable collisions per million miles for several years. After a significant merger in 2018, this fleet normalized their fleet data and processes, including rolling a standardized configuration of the DriverCare Risk Manager® product across the fleet, and standardizing safety policies and procedures. This resulted in an 8% decrease in their preventable collision rate per million miles in one year.

Between 2019 and 2021 the fleet continued to improve upon their fleet safety program

and saw additional reductions in their collision rates. This included implementing new hire safety training targeting the most common accident types, adding proactive safety training for all drivers on an annual basis, and expanding the number of stakeholders involved in fleet safety reviews to gain cooperation for initiatives that needed cross-departmental support. As a result, collision rates fell another 28% over two years, for a **net total decrease of 33.9% in collision rates over three years**. This more than doubled their goal of a 15% decrease.

## FACING POST-PANDEMIC DRIVER BEHAVIORAL CHALLENGES

In 2022, however, our client saw a spike in their collision rates. Speeding was a suspected culprit in these accidents, but it was difficult to prove since most accidents did not involve a formal police investigation into crash causes. This experience was not uncommon in the industry as many fleets were experiencing higher collision rates when post-pandemic driving behaviors met a return of pre-pandemic travel volumes.

After observing a continued rise in preventable collisions over the first half of the year, our client decided to implement DriverCare Connect® as

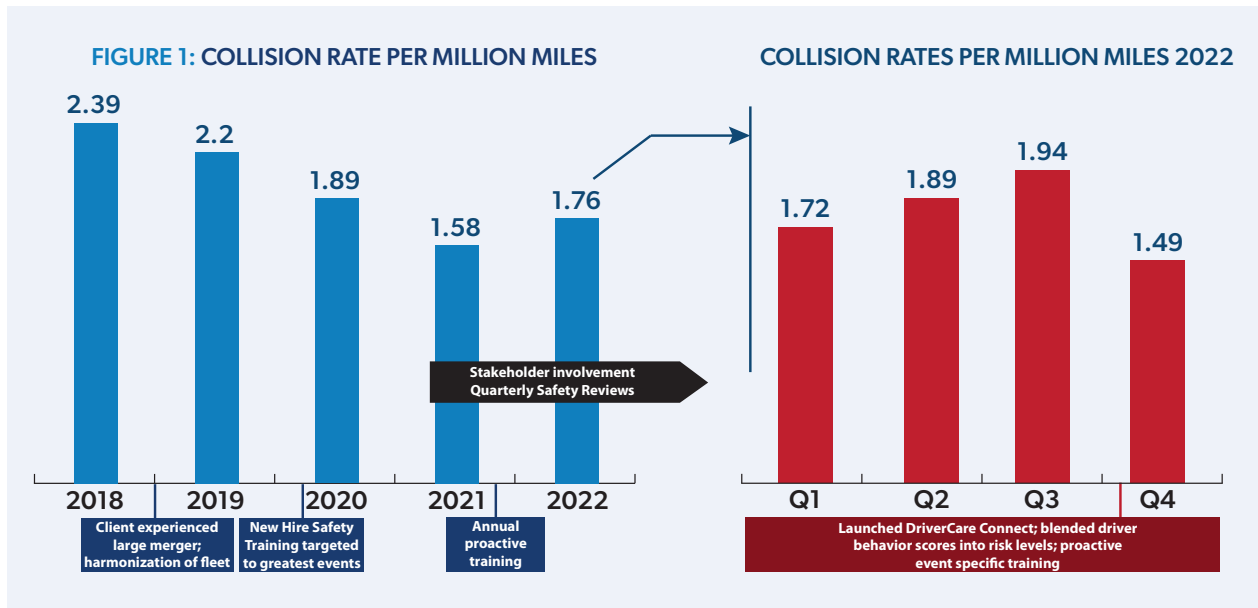
a potential solution. During the third quarter, the plan was approved by their senior leadership and implementation began, as collision rates continued to rise. In fact, by the end of the third quarter their rates were up 22.8% over the prior year.

DriverCare Connect would operate using the telematics data collected by the fleet's telematics devices, which already existed in their service fleet vehicles. It was necessary to expand data collection to all fleet vehicles, so in August 2022, telematics was deployed to their sales fleet.

## DRIVERCARE CONNECT REDUCES PREVENTABLE COLLISIONS

Drivers were introduced to DriverCare Connect in August, 2022, and the full solution was turned on before the start of the fourth quarter. The hope was that the rise in collision rates would cease, and that there would be some reduction

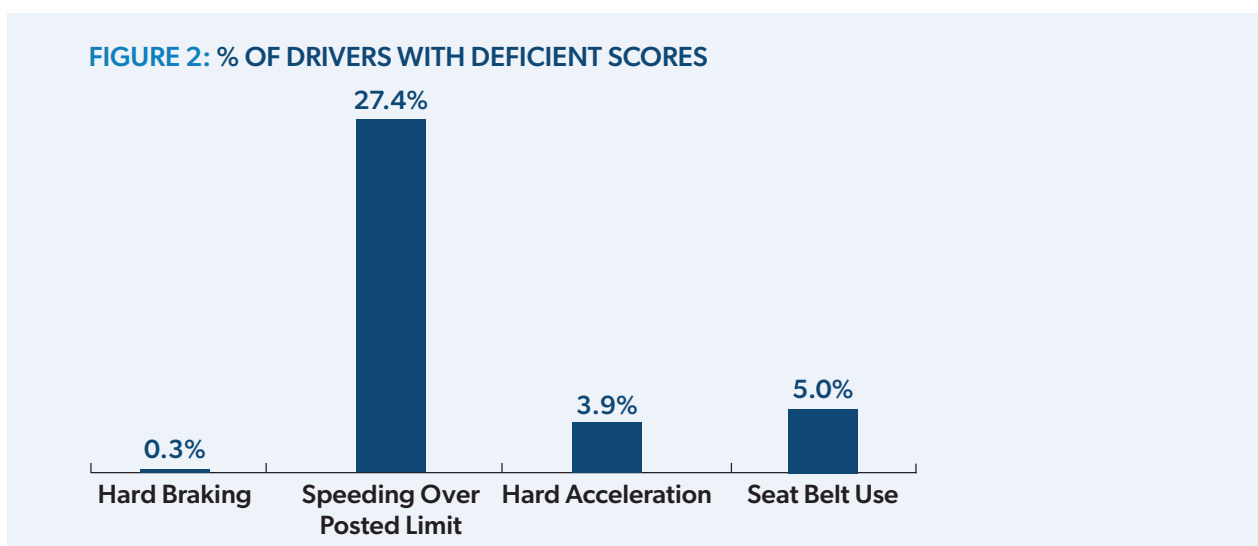
back towards prior year rates. The actual results were astounding. Fourth quarter preventable collision rates dropped over 23% to below 2021 levels!



## HOW DRIVERCARE CONNECT® REDUCED DRIVER RISK

DriverCare Connect provided this client with visibility into which behaviors were most problematic for their fleet drivers. As suspected, it was speeding, by a significant amount. In fact, nearly one third of all drivers had deficient scores

for speeding over the posted limit (Fig. 2) Armed with this information, fleet and safety managers could intervene with risky drivers and provide proactive training to change behaviors.



Drivers received an overall score for their driving behaviors, as well as scores for individually measure behaviors of speeding over the posted limit, hard braking, hard acceleration, and seat belt use. They were able to observe recent scores and trends over time to gain insight into their problem areas.

Drivers could also see where they ranked among other drivers on their team and within the fleet overall. Managers utilize these scores and ranks for safety discussions with underperforming

drivers and to recognize top performing drivers.

With these motivating factors, drivers sought to self-manage their driving behaviors and received tangible evidence of their efforts through improved driving scores. For this fleet, underperforming drivers realized significant improvements in their overall scores. This fleet set an acceptable threshold at 80 points. Figure 3 shows how deficient drivers improved their scores using DriverCare Connect® over a 3-month period.

FIGURE 3: OVERALL SCORES				
Beginning Overall Score Range	# of Drivers in Overall Score Range	Average Overall Score (Start)	Avg Overall Score (End)	Improvement
Less than 60	39	53.83	69.71	30%
60 to 69	138	64.32	76.53	19%
70 to 79	461	74.50	81.19	9%

As a result, based on an average cost of \$119,226 for collisions per million miles, (calculated using statistics from the National Highway Traffic Safety Administration (NHTSA) and the Network

of Employers for Traffic Safety (NETS)), **our client saved over \$5.6 Million** through reduced accident rates.

## CASE STUDY #2: DRIVER AWARENESS LEADS TO LOWER ACCIDENT RATES

A large service fleet was looking to build on their existing culture of safety by better engaging drivers with new safety technology. They chose to implement DriverCare Connect® to increase driver awareness into their driving behaviors.

This fleet had been monitoring driver motor vehicle records and managing their risk profiles through DriverCare Risk Manager® with involvement of first level managers, and

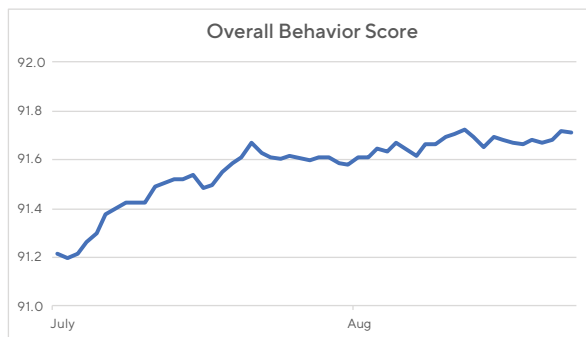
leadership throughout the organization. As a service fleet, all vehicles were operating with telematics devices for operating purposes. They could pull reports on driver behavior that was shared with first level managers monthly, but it didn't result in much behavioral improvements. They wanted a way to turn their telematics data into actionable safety information and engage drivers more actively.

## DRIVER ENGAGEMENT TOOLS BOOSTS AWARENESS OF DRIVING RISK

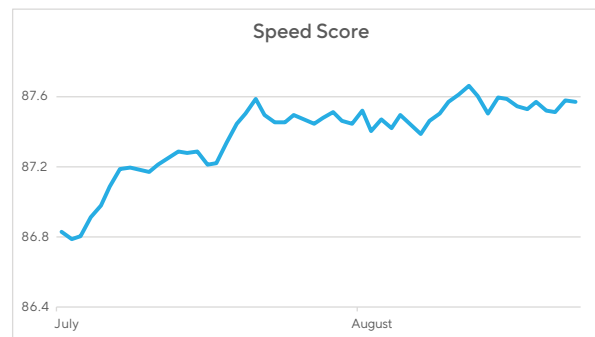
One of the common benefits of implementing a behavior measurement tool that engages drivers directly is to increase driver awareness of their driving behaviors. CEI has found that around 20% of drivers who have clean driving records, and rated as low risk by their employer, display high risk driving behaviors when actively measured. When this data is shared with them, most of these drivers will self-correct their behaviors so that their active driving matches

their clean records.

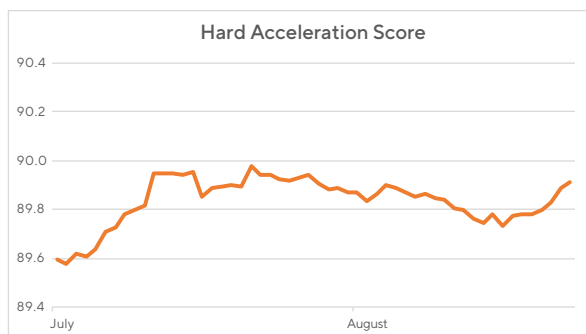
The results from implementing DriverCare Connect® shows that the drivers for this fleet did indeed have a sharp improvement in their behaviors after viewing their initial driving measurements. Improved behaviors continued an upward score trend for the first two months, as shown in Figures 4 through 9.



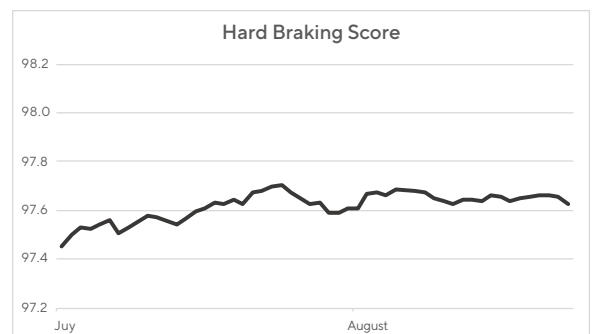
**FIGURE 4**



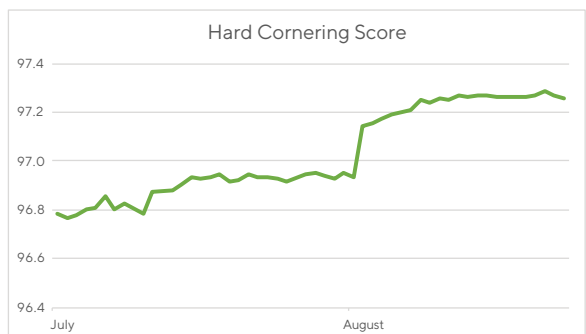
**FIGURE 5**



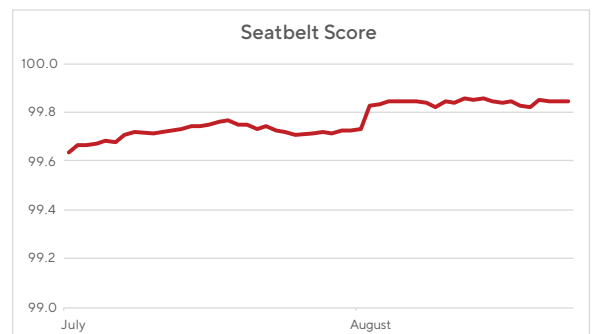
**FIGURE 6**



**FIGURE 7**



**FIGURE 8**

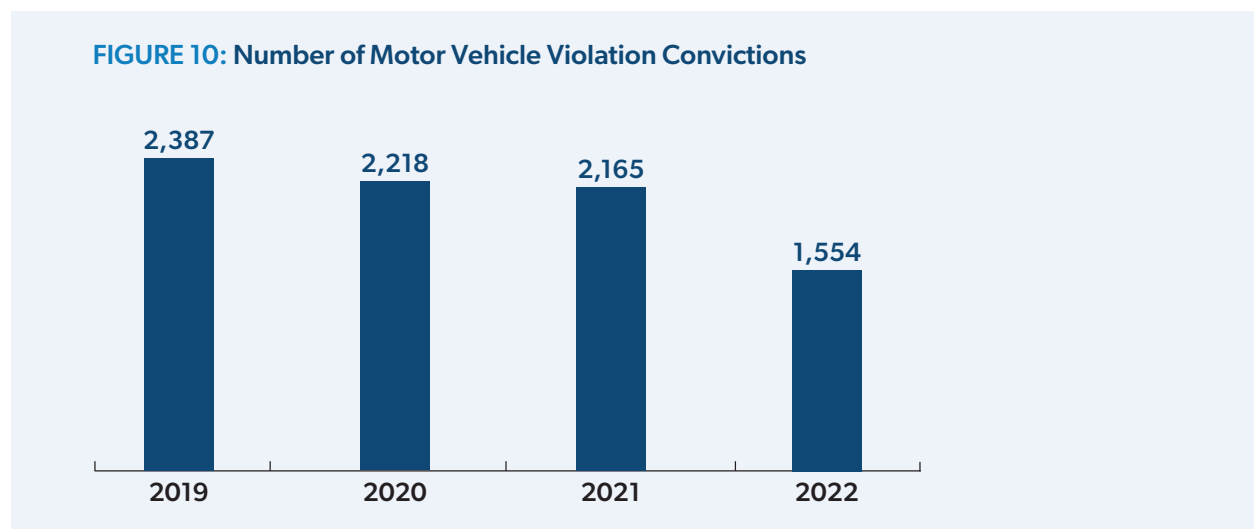


**FIGURE 9**

## RESULTS OF SUSTAINED BEHAVIORAL IMPROVEMENTS

By incorporating proactive training that targeted detected deficiencies and involving first level managers in reinforcing good driving behaviors, this fleet was able to sustain their drivers' behavioral improvements. This resulted in three significant wins for this fleet.

First, with basically the same number of drivers screened, there were over 31% fewer motor vehicle convictions in the year this fleet implemented DriverCare Connect® as compared to an average of the three prior years. (Fig. 10).



The second, and most important result, was that in the 10-month period that followed implementation of DriverCare Connect, our

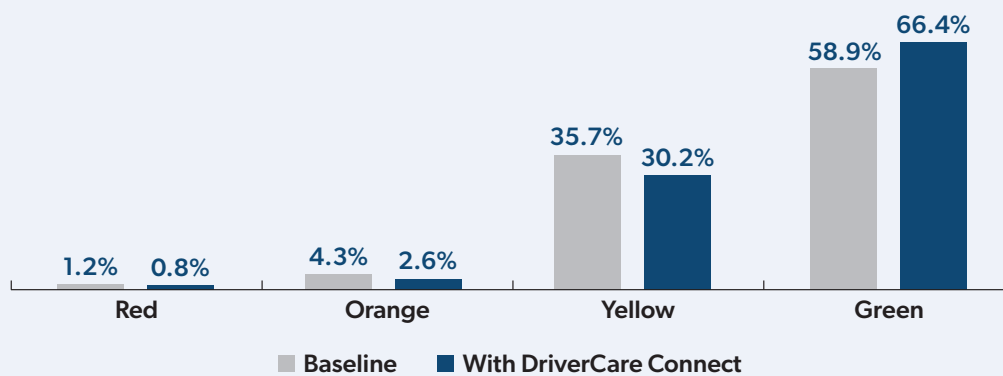
client's Collisions Per Million Miles rate dropped 8.4%, thus avoiding 56 accidents.

**Based on CEI's calculated cost per accident, averaging physical damage crashes and more serious crashes with injuries, including catastrophic injuries, this fleet saved over \$3.4 Million by implementing DriverCare Connect.**

Finally, because of improved behavior, reduced MVRs, and reduced accidents, the overall risk level of drivers improved. Our client took a baseline snapshot of the risk levels of all drivers, in categories from Level Red (the highest risk) to

Level Green (the lowest risk). After 10 months, there was a significant shift of drivers towards lower risk levels, with an increase of 12.7% of drivers in the Level Green category, and a reduction of drivers in all higher risk categories.

**FIGURE 11: PERCENT OF DRIVERS BY RISK CATEGORY**



The company’s risk and insurance team can use these results in discussions with their insurance broker at the time of their liability policy renewal.

## ABOUT DRIVERCARE CONNECT

CEI’s DriverCare platform integrates fleet safety technology into a single platform and revolutionizes the management of fleet risk. This allows for a more streamlined and comprehensive approach to identifying potential hazards, assessing driver behavior, and improving overall safety performance.

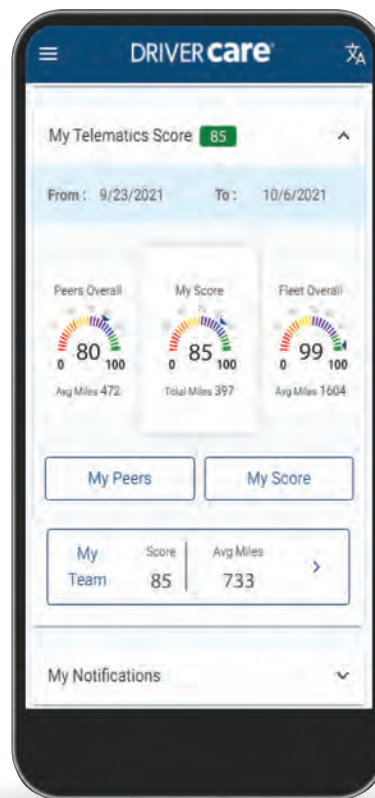
DriverCare Connect is the latest CEI innovation to be merged into this platform. It extracts the

driver behavior information from telematics data collected through OEM systems and 3rd party devices and incorporates active driving behavior data into DriverCare.

DriverCare blends this behavioral data into the overall driver risk assessment and uses it to trigger management notifications and driver training assignments according to each client’s policy parameters.

DriverCare Connect® also provides individual drivers a visualization of their own active driving behavior data in a mobile experience that is available on smart devices. This driver engagement tool increases driver awareness into their own risk and helps motivate them to self-improve through gamification and competition. Drivers receive a daily score for their recorded trips and can also see their behavior trends over time. Additionally, they see where their score ranks among other drivers on their team and the fleet overall.

First line managers can easily use the score rankings of drivers on their teams to acknowledge and reward good drivers, and most improved drivers, reinforcing desired behaviors. Corporate managers gain visibility of drivers that present the greatest risk to the organization and can take appropriate steps to remediate this risk before a serious negative event occurs.



**Contact us today to learn more about DriverCare Connect.**

[ceinetwork.com](http://ceinetwork.com) | [sales@ceinetwork.com](mailto:sales@ceinetwork.com)