

# Improve Safety and Reduce Costs With Telematics



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**Gallagher**

Insurance | Risk Management | Consulting

Up to **4.2 million**  
drivers unnecessarily  
spend **110 hours**  
per year manually  
filling out logbooks.

## Introduction

As technology advances at an exponential pace, the transportation industry continues to evolve and adapt to the changes. Telematics is a critical component of the technology advances, and the analysis of the data is a differentiator for safety and loss control. Gallagher's Casualty and Transportation practice professionals are dedicated to advancing risk management for the industry. Our team is dedicated to providing innovative solutions to current and future concerns in order to reduce accidents and incrementally decrease total cost of risk.

## What telematics have to offer

The use of telematics is coming to every branch of the commercial auto sector, driven by advances in technology, rising insurance rates and government regulations.

While these systems can be costly to implement, companies that are quick to adopt and fully utilize telematics can see a return on investment through improved safety, lower fuel expenses and better fleet management.

Telematics can be something as simple as a smartphone or tablet being used to monitor a truck's location and speed or as complex as a fully integrated system that tracks acceleration, braking, RPMs and location, plus front-facing and dashboard cameras.

Although some drivers might be resistant to these changes, implementing telematics with the right approach can help alleviate their concerns—through the perks that technology offers and by rewarding safe and efficient driving.

## Regulations

While the use of electronic logging devices is now mandatory for recording dates, times, engine use and miles, it is estimated that 33% of the U.S. commercial fleet still uses paper records. Even fewer are using data to monitor crucial indicators like fuel consumption and maintenance.<sup>1</sup>

A reliance on paper is just one inefficiency that could be solved with the improved use of telematics, while keeping track of fuel usage and maintenance can help in better managing a fleet. For example, the redundancy of using paper logs after the ELD mandate means around 4.2 million drivers unnecessarily spend 110 hours per year filling out logbooks.<sup>2</sup>

In February 2019, the National Highway Traffic Safety Administration withdrew a proposed regulation to require event data recorders in all new cars and trucks, noting that automakers were voluntarily installing the devices in nearly all vehicles. The agency is working to update the precrash recording requirements for event data recorders as mandated by Congress in 2015.<sup>3</sup>

Onboard video systems are required for vehicles such as school buses and motor coaches. They could be required for other commercial vehicles in the future, as the National Traffic Safety Board has noted the usefulness of video equipment in enhancing driver safety through feedback programs and in helping investigators determine the cause of an accident.<sup>4,5</sup>

# Rising premiums

Some insurance carriers already require telematics—and not just among the larger fleets. For example, manufacturers with 50 vehicles in their fleet are having to adapt to and adopt this new technology.

Commercial auto insurance premiums continue to rise, outpacing all other forms of insurance for this sector. The first quarter of 2019 was the 31st consecutive quarter of increased commercial rates, with premiums for commercial auto increasing by 8.8 percent, compared with an average of 3.4 percent for all other lines of coverage.

Increased road congestion, distracted driving and a decline in road quality are producing more accidents, while claims themselves are becoming more expensive because of the higher value of modern vehicles.<sup>6</sup>

By fully implementing telematics, a company can use technology to improve safety and present a more appealing risk portfolio to the insurance carriers. It can also improve claims handling through automatic notification to the insurance company and tow truck companies.

## PREMIUM PRICING BY LINE OF BUSINESS

By-Line First Quarter 2019 Rate Changes Ranged From -3.3% to +8.8%

	Comm'l Auto	Workers' Comp	Comm'l Property	Gen'l Liability	Umbrella	Average
First Quarter 2019	8.8%	-3.3%	5.9%	2.0%	3.3%	3.4%
Fourth Quarter 2018	7.0%	-3.3%	2.9%	1.4%	2.3%	2.1%
Third Quarter 2018	7.0%	-2.6%	2.9%	0.8%	1.4%	1.9%
Second Quarter 2018	8.2%	-2.9%	3.4%	0.8%	1.5%	2.0%
First Quarter 2018	7.7%	-2.0%	3.4%	0.6%	1.0%	2.2%
High	28.6%	24.9%	45.4%	26.0%	51.9%	35.3%
Low	-11.6%	-12.3%	-15.0%	-13.6%	-13.5%	-13.2%

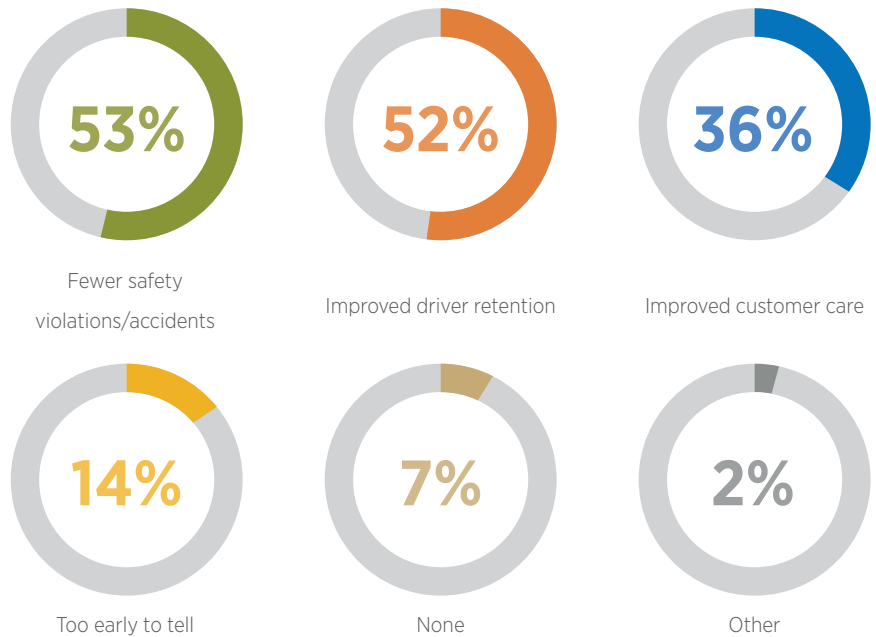
Source: The Council of Insurance Agents & Brokers. Chart prepared by Barclays Research

# Reduce costs and improved safety

Telematics is about more than just insurance, especially for companies that take advantage of everything this technology has to offer. It can help improve fuel consumption and driver safety, keep track of maintenance, improve record keeping, and reduce delivery times.

It's been reported that 43 percent of organizations that implemented telematics have seen reduced fuel costs and that 26 percent have seen fewer accidents.<sup>1</sup>

## BENEFITS OF REWARDING BETTER PERFORMANCE



Source: [https://www.theseus.fy/bitstream/handle/10024/16956/carolina\\_mikander.pdf](https://www.theseus.fy/bitstream/handle/10024/16956/carolina_mikander.pdf)

## Saving fuel

Fuel savings can be realized by monitoring driver behavior, tracking the most efficient routes and reducing the amount of vehicle idling. It's estimated that many fleet trucks idle four to eight hours per day, resulting in \$5,000 to \$12,000 in annual wasted fuel costs per truck. A fleet of 20 trucks could save more than \$25,000 per year just by reducing the idle time by one hour per day per truck.<sup>7</sup>

"Driver behavior is by far the largest single contributor to improving fuel efficiency. There can be as much as a 35 percent difference in fuel consumption between a good driver and a poor driver."<sup>8</sup>

Companies with telematics solutions have seen **53%** fewer safety violations or accidents and a **52%** improvement in driver retention.

## Improving safety

Telematics can combine onboard sensors, geotracking and web-based algorithms to identify unsafe behaviors, offer real-time feedback to drivers and provide evidence if needed for a claim. This data can include acceleration, direction, speed and braking—plus video evidence if such a system is used.

Companies that use telematics to improve safety reported that unsafe events (sudden acceleration, hard braking and sudden lane changes) decreased by nearly 50 percent among day cab and sleeper cab groups. Driving at speeds of more than 65 mph fell by more than 33 percent for day cabs and 42 percent for sleeper cabs.<sup>9</sup>

In the first six months, a reduction in risky behaviors has led to fewer and less-severe collisions while addressing key factors that can affect driver health and wellbeing, including:

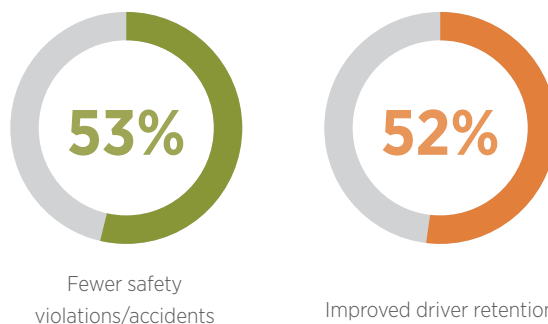
- a 69 percent reduction in unbelted drivers on residential roadways
- a 52 percent reduction in red-light traffic violations
- a 44 percent reduction in handheld cellphone use<sup>10</sup>

## Incentivizing drivers

Some telematics systems can provide a driver safety and eco-driving score that fleet managers can use to improve performance. Through feedback, training and incentives, companies can reinforce safe and fuel-efficient driving.

Managers can use telematics to reward drivers for performance rather than granting pay raises across the board. Companies might also use telematics data to have drivers participate in company-sponsored contests to incentivize safe and efficient driving.

Companies that use telematics to reward drivers for superior performance have seen 53 percent fewer safety violations or accidents and a 52 percent improvement in driver retention.<sup>1</sup>



Another way of promoting telematics among drivers is by incorporating a tablet-based ELD that can be used as a powerful work tool on the road and a communications and entertainment system during off hours. Tablets can also provide flexible training exercises that drivers can access whenever they choose.

# The camera option

Telematics systems may or may not include externally facing or inward-looking video cameras, although it's worth noting the NTSB considers them useful for investigating accidents.

While some drivers might see inward-looking dashboard cameras as an invasion of privacy, it's important to let drivers know these are event recorders—they're only triggered by accidents.

On average, they only record the 10 seconds before and 20 seconds after an event. They're not being used to spy on drivers or watch their every move. An event recorder could also be viewed as an asset by drivers looking to prove they're not at fault after an accident and can help in settling claims.<sup>11</sup>

Advancements in technology have produced systems that record all driving activity and provide detailed data and analytics. This data is used to coach drivers in real-time and develop a daily driver score based on their driving habits. Incentive based compensation, backed by detailed data will be a key component for underwriting purposes as technology continues to advance.

The NTSB recommends that companies using onboard video systems should make sure their equipment includes the following features:

- Visibility of the driver and each seating location
- Visibility in front of the vehicle
- An optimized frame rate to ensure video quality
- Low-light recording capability (night vision)<sup>5</sup>

## Implementation

A fully implemented telematics system requires installing hardware that can monitor and transmit data on vehicle fuel levels, consumption, acceleration, braking, engine diagnostics and more.

To take advantage of all that this hardware has to offer will require the right software tools to collect and analyze the data, paid through a monthly subscription fee. Many businesses find they get the most benefit from this technology by hiring a telematics manager.

The cost of implementing such a system can vary widely and depends on the level of technology installed and how it's utilized, such as how often the system sends data to the company server.

Just like with a smartphone plan, a company can choose to buy or rent the equipment, and the cost of installation can be bundled into a monthly service plan or paid upfront.

By some estimates, a fully implemented telematics solution can cost more than the fleet itself. One telematics company estimates a monthly cost of \$15 per month for asset tracking per device, and \$20 to \$30 per month for vehicle tracking.

# Return on investment

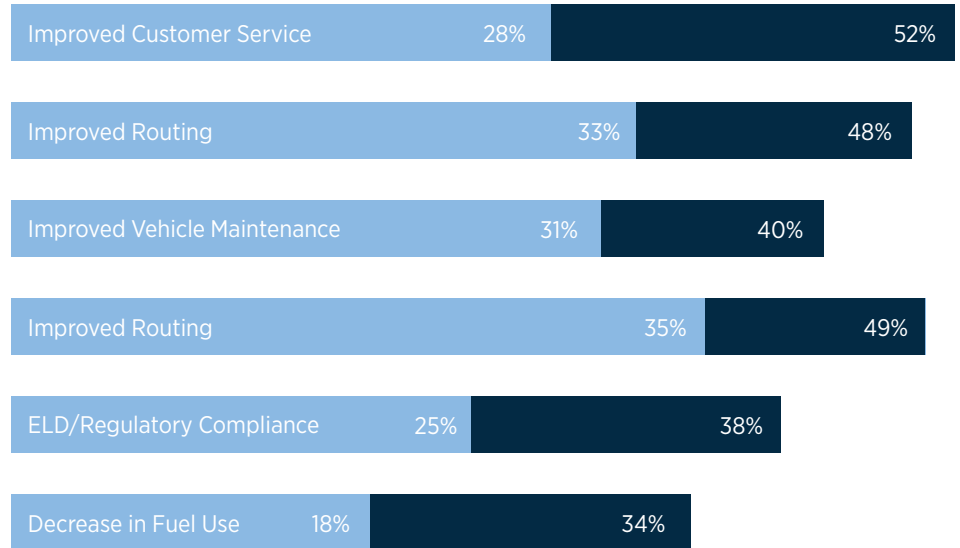
The return on investment depends on the initial cost outlay and whether a company utilizes its full savings potential. Estimates for a return on investment range from six to 12 months.<sup>8</sup>

## EXPECTATIONS

about implementing  
GPS fleet tracking

## GOALS

actually achieved after  
implementing GPS fleet tracking



Verizon Connect (2018). Fleet Tracking Trends Report: An analysis of GPS fleet management usage and its impact on the industry. 51905-US-1218, pg. 5.

By implementing telematics and taking full advantage of all that it has to offer, an organization can become more efficient through a reduction in repair costs, fuel consumption and the risk of an accident, while increasing driver retention by rewarding its most efficient drivers.

## Endnotes

1. Teletrac Navman 2018 Telematics Benchmark Report: U.S. Edition  
<https://www.teletracnavman.com/benchmark/transportation>
2. The Rise of the Global Telematics Market  
<https://www.nasdaq.com/article/the-rise-of-the-global-telematics-market-cm772652>
3. U.S. Will Not Seek to Require Event Data Recorders in Cars, Trucks  
<https://www.reuters.com/article/us-usa-autos-regulations/us-will-not-seek-to-require-event-data-recorders-in-cars-trucks-idUSKCN1PU2GK>
4. NTSB Report: 2017-2018 Most Wanted List of Transportation Safety Improvements  
Expand Recorder Use to Enhance Safety  
<https://www.nts.gov/safety/mwl/Documents/2017-18/2017MWL-FctSht-Recorders-H.pdf>
5. NTSB Safety Alert: Commercial Vehicle Onboard Video Systems  
[https://www.nts.gov/safety/safety-alerts/Documents/SA\\_043.pdf](https://www.nts.gov/safety/safety-alerts/Documents/SA_043.pdf)
6. The Council of Insurance Agents & Brokers  
Commercial Property/Casualty Market Report Fourth-Quarter 2018  
<https://www.ciab.com/resources/q4-p-c-market-survey-2018/>
7. AT&T Market Brief: Wireless Fleet Management Solutions  
[https://www.wireless.att.com/businesscenter/en\\_US/pdf/att-fleet-management-solutions-brochure-32013.pdf](https://www.wireless.att.com/businesscenter/en_US/pdf/att-fleet-management-solutions-brochure-32013.pdf)
8. U.S. Department of Transportation, Federal Motor Carrier Safety Administration  
Study of the Impact of a Telematics System on Safe and Fuel-Efficient Driving and Trucks  
April 2014  
<https://www.fmcsa.dot.gov/research-and-analysis/technology/study-impact-telematics-system-safe-and-fuel-efficient-driving>
9. Study of the Impact of a Telematics System on Safe and Fuel-Efficient Driving in Trucks  
<https://trid.trb.org/view.aspx?id=1312403>
10. <https://www.lytx.com/en-us/news-events/press-release/all-truck-transportation-selects-lytx-drivecam>
11. Telematics 'a Foregone Conclusion' in the Commercial Auto Industry  
<https://www.insurancebusinessmag.com/us/news/commercial-auto/telematics-a-foregone-conclusion-in-the-commercial-auto-industry-118703.aspx>



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Jessica Cullen joined Arthur J. Gallagher & Co. in 2005, specializing in large-account casualty insurance. Her responsibilities include handling all aspects of the insured's account, including program structure design, marketing and developing strategic solutions to manage total cost of risk.

In May of 2015, Jessica was named the managing director of the Casualty practice group, where she leads a regional team to harness the collective strength of casualty knowledge contained throughout Gallagher.

In addition to working at Arthur J. Gallagher, Jessica previously worked at another major insurance broker, where she focused on the servicing of Fortune 1000 companies' casualty insurance programs. Jessica's experience spans across multiple industries, including real estate, financial institutions, manufacturing, retail and chemicals.

Jessica has bachelor's degree in history and political science from Ramapo College of New Jersey.

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David has nearly 10 years of casualty insurance experience, placing various complex umbrella and excess liability programs. Prior to joining Gallagher, David worked for another major insurance broker with a focus on multifaceted excess casualty placements for all industries with a specialization in product liability for the life sciences/pharmaceuticals industry.

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