MIKE ALBERT

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Seven Ways to Reduce Costs with Better Fleet Data

FLEET SOLUTIONS

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"The telematics industry has transitioned from 'Here's all the data that comes in, and hopefully it's of value to you' to 'How can we take this data and optimize your fleet?'."

Chad Saliba, Associate Vice President, Solution Marketing, Geotab®

Seven Ways to Reduce Costs with Better Fleet Data

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Using Fleet Data to Cut Costs

The insights that data makes available will give you unprecedented control over your fleet by providing transparency to driver behavior as well as vehicle operations and health. In short, data can meaningfully reduce your fleet costs. This white paper will show you how.

The Two Types of Cost-Cutting Data You Need	
Telematics Data	**Historical Vehicle Data**
Seat belt usage Aggressive acceleration Harsh breaking or cornering Speeding Driver fatigue Vehicle fault codes Fueling	Acquisition costs Maintenance histories and costs Insurance costs Average miles per gallon (or kW/hr) Tolling histories Accident reports Remarketing expenses

DATA POINT

Vehicles Generate Tons of Data

A connected vehicle generates up to 25 gigabytes of data every hour—the equivalent of almost 30 hours of HD video playback

Source: McKinsey & Company

Here's a sampling of what data has helped actual fleets in the real world accomplish (and that we'll detail in the pages ahead):

30% reduction in insurance premiums

59% reduction in idling costs

40% decrease in speeding incidents

36% reduction in maintenance expenses

Onboard Data is Vast and More Accessible Than Ever

A telematics system is a tracking device that collects GPS and other vehicle-specific info. It's typically embedded by the original equipment manufacturer (OEM) or provided via a third-party provider such as Geotab®. The device, which sends, receives, and stores data, connects to the vehicle via the onboard diagnostics (ODB-II) or CAN-BUS port. A modem enables communication through a wireless network.

"Part of making the sea of data manageable is determining what KPIs you want to measure. That way, you can focus on what's most important to you and your business. There's no need to try and digest it all; no one can."

Mary Perry
Manager, Partner Products and Implementation,
Mike Albert Fleet Solutions

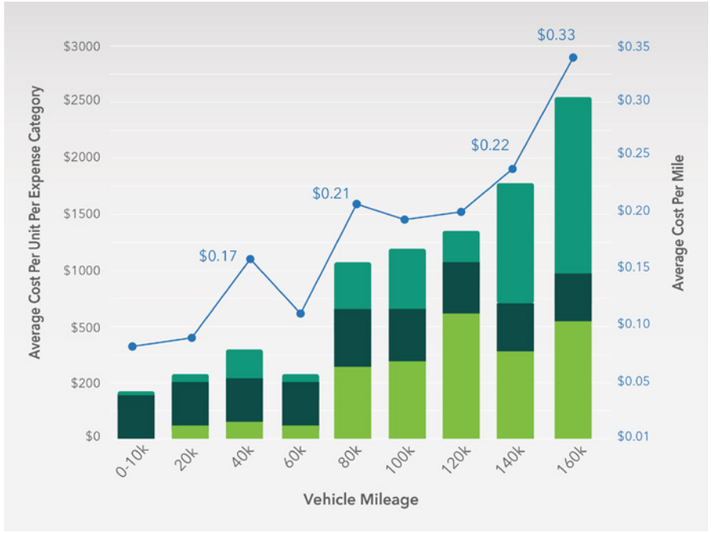
Optimizing Your Data Strategy

Align Your Data with Your Business Goals
For example, if improving fuel efficiency is your goal and a KPI you want to track, you'll want to collect and analyze such data as idling, routing, gross vehicle weight, and miles per gallon.

Make Your Data More Accurate
Well-organized, clean, and error-free data is essential to improving fleet performance. Low-quality data can lead to poor or inaccurate insights and, therefore, off-base business decisions. Poor data quality also leads to low adoption of telematics and a lack of driver behavioral changes because the data isn't trusted.

Centralize Your Data
For maximum impact, it's also imperative to centralize all your fleet data so you can compare and contrast across your entire fleet and identify best practices that can be shared across all your locations. Minimizing the number of vendors and services, such as fuel programs, across your business will help ensure the same data is being collected.

Looking Back to Look Forward: Leveraging Historical Fleet Data



Aggregating all your fleet data in one place helps you benchmark your fleet's performance against historical data. You can break down costs into categories, such as maintenance, fuel, and leasing, then ask some probing questions, such as: What should my cost for this item be based on past performance? Or: Are rising costs part of a trend or an anomaly?

Many companies analyze their data annually, but such year-over-year comparisons should be the minimum; monthly may be better based on your fleet size and the impact of market or industry fluctuations on your business. You may find material savings by monitoring your expenses monthly and then making on-the-fly adjustments to your strategy and driver behaviors.

Storytelling with Your Data

Collecting fleet data has become a significantly more achievable and affordable task. The real challenge is extracting the right insights from your data via fleet analytics to improve your fleet's overall performance and manage costs. That's the gold to be mined.

To find the best stories in your data, begin with what you believe are the key questions you need answered. The other approach is to benchmark your data against fleets with similar characteristics. When you do so, problem areas often become immediately apparent. Either way, you follow the data closely to see where it leads you; that's when the most impactful stories take shape.

"My goal for all the data I share with my clients is to make it actionable so we can identify causes of cost increases and work to avoid them."

Brent Pietroski
Director, Client Partnerships,
Mike Albert Fleet Solutions

Why Are Our Maintenance Costs Going Through the Roof?

A Mike Albert client noticed an increase in their maintenance expenses and wanted to know why. This healthcare business operates a 500-vehicle fleet of sedans and SUVs. Their vehicles endure considerable wear and tear because they're driven multiple shifts per day.

A Review of Data

Their data showed overall maintenance costs remained flat—with one significant and startling exception. Their transmission expenses rose a staggering 853% in one quarter. Viewing the transmission data at the vehicle level provided the story behind the alarming increase.

The Mike Albert team quickly determined that three specific models from two different manufacturers were responsible for virtually all the skyrocketing transmission costs. (Fig. 1)

The company used these insights to evaluate what vehicle adjustments to make in the short- and long-term based on this new understanding of the actual costs associated with the three offending models.

Actions Taken

The models with the known transmission issues were replaced with models from a different OEM. (Fig. 2)

Above Average Transmission Costs						
	UNIT 1	UNIT 2	UNIT 3	UNIT 4	UNIT 5	UNIT 6
OEM A: SUV	✓	↑				
OEM B: SUV				↑	↑	
OEM C: SUV			✓			✓

Figure 1

Transmission Costs After Replacement						
	UNIT 1	UNIT 2	UNIT 3	UNIT 4	UNIT 5	UNIT 6
OEM A: SUV						
OEM B: SUV						
OEM C: SUV	✓	✓	✓	✓	✓	✓

Figure 2

Data: The Key to Lowering Fleet Costs

Now let's explore in greater detail how telematics and historical data help you cut your fleet expenses by:

1. **Improving Fuel Efficiency:** Less Fuel Means More Business Income
2. **Eliminating Time & Fuel Theft:** Eliminating Costs for Your Business
3. **Enhancing Sustainability:** Saving the Planet while Saving Dollars
4. **Lowering Maintenance Costs:** Staying One Step Ahead of Problems
5. **Right-Sizing Your Fleet:** Spending No More than You Need To
6. **Implementing Strategic Vehicle Life Cycles:** Balancing Equity and Market Value
7. **Preventing Accidents:** Safety is Good for the Bottom Line

1

Improving Fuel Efficiency: Less Fuel Means More Business Income

Cutting fuel reduces what is typically a fleet's largest expense. So, putting a robust and proactive fuel cost reduction plan in place can help stem the bleeding when gas prices rise. Planning and eliminating wasteful fuel practices takes some work, but it pays off.

Telematics reporting—along with driver training, maintenance programs, and proper vehicle selection and cycling—can go a long way towards reducing your pain at the pump. The beauty of telematics is that you can cross-reference fuel usage data with other metrics that impair fuel economy and educate the drivers who need it. Many drivers may be unaware of the sizable impact driving behaviors have on fuel economy.

"Telematics enhanced with construction and traffic data can help drivers choose the most efficient route. Should a fleet vehicle be sidelined out in the field, telematics can help identify the backup driver in the best position to fill the void—and keep customers happy."

Heather Chambers
Solutions Engineer,
Mike Albert Fleet Solutions

DATA SUCCESS STORY: THAT PEST CALLED "IDLING"

Industry: Pest Control

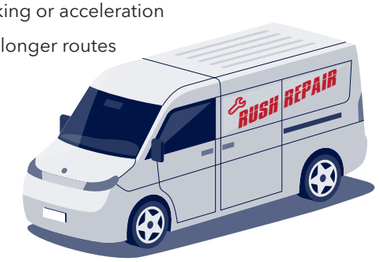
Company: Orkin

Cost-Cutting Achievement: With data and driver education, they experienced **an 8.4% reduction in total idle time over three months.** Two drivers managed to log a total idle time of only 4 minutes and 26 seconds for an entire quarter.

Negative Impacts on Fuel Economy

Driver Behaviors

- Heavy braking or acceleration
- Avoidable longer routes
- Speeding
- Idling



Vehicle Condition

- Improper or expired oil
- Tire or alignment problems
- Fuel injector or spark plug issues

DATA POINT

Fuel Theft Increasing

The financial impact of fuel theft on trucking businesses is substantial with incidents increasing 90% in 2022 and another 77% in 2023.

Source: Wex

2

Eliminating Time & Fuel Theft: Keeping What's Yours

It's unpleasant to discuss but real nonetheless. Sometimes, unscrupulous drivers will attempt to steal time or fuel from the company that employs them. Telematics can play sheriff as it can alert fleet managers if:

Time Theft
- A driver uses their vehicle outside work hours.
- The vehicle leaves its home base late or returns early.
- Someone stops for a lengthy period.
- Specific stops on a route weren't visited.

Fuel Theft
- Someone uses their fuel card away from the vehicle it's associated with.
- Someone dispensed more fuel than the vehicle needed or could accommodate.

Key Indicators of Fuel Theft

Unusual drops in fuel levels
Sudden decreases in fuel levels out of line with the distance traveled can be a red flag. Monitoring fuel gauges for unexpected drops, especially when vehicles are idle, is essential.

Inconsistencies in fuel receipts and logs
Discrepancies between the amount of fuel purchased and the amount logged can indicate fraudulent activities. Similarly, fuel receipts that don't align with the vehicle's location or route at the time of purchase should be scrutinized.

Irregular refueling patterns
Unusual refueling patterns, such as more frequent stops or purchases from non-approved locations, can signal theft or misuse of fuel cards.

Unexplained vehicle routes
Deviations from predetermined routes or unauthorized stops, especially in areas known for fuel theft, can be indicative of siphoning or other theft activities.

"In situations where time or fuel theft is suspected, telematics provides a comprehensive perspective, enabling reconciliation between the driver's account and the enterprise's observations."

Luc Boucher, Senior Product Marketing Manager, Geotab®

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Enhancing Sustainability: Saving the Planet while Saving Dollars

There's increasing pressure among companies of all types to do what they can to operate more sustainably. Many companies are embracing this challenge, wanting to do their part to limit the negative impacts of climate change and generally care for our fragile environment.

Companies that operate fleets are uniquely positioned to advance sustainability since CO_2 from vehicles is the most significant contributor to this greenhouse gas. The good news is that sustainability efforts can also lead to cost savings by using data to identify:

- Drivers with unexplained or excessive idling habits
- Vehicles that aren't getting the fuel economy they should

To EV or Not to EV, that is the Question

When it comes to CO_2 reduction, it's generally hard to beat EVs. But they aren't always the most sustainable or best choice as driver behavior can sometimes have a greater impact on sustainability than vehicle choice. For instance, someone in a hybrid can quickly drain the battery if they accelerate aggressively.

In any event, the data will guide fleets to when to electrify and with what. The data will tell you when to use hybrids versus full electric vehicles or why it might still be best to use a gas or diesel vehicle that's better rated in terms of emissions.

Geotab® and a partner recently studied more than 90,000 fleet vehicles and found that:
- 13% of them could be economically replaced by EVs today.
- Near-term electrification could achieve a total potential savings of $33 million and 194,000 tons of CO_2 emissions over four years.
- Up to 45% (approximately 42,000) of the analyzed vehicles could be electrified as EV pickups enter the market.

Thinking of fleet electrification? Take the Geotab assessment at:
https://www.geotab.com/fleet-management-solutions/evsa

"I think many people conflate sustainability with electrification, thinking sustainability needs to be delayed until they're ready to electrify their fleet. But sustainability can begin today with fuel and, therefore, CO_2 reduction."

Chad Saliba
Associate Vice President, Solution Marketing, Geotab

DATA POINT

When it Comes to CO_2, Every Gallon Counts

The burning of a gallon of gasoline results in 19.5 pounds of CO_2 emissions; a gallon of diesel results in 22.4 pounds of CO_2.

Source: Environmental Protection Agency

DATA SUCCESS STORY: IMPROVING EV RANGE

Industry: Home Grocery Delivery | **Company:** Milk & More

Cost-Cutting Achievement: Data collection, analysis, and subsequent driver education resulted in **an EV range increase of 19%**. Since Milk & More's electric fleet drives 10 million miles per year, this has saved the company over $2.5 million in annual fuel costs.

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Lowering Maintenance Costs: Staying One Step Ahead of Problems

Consider this common scenario: one of your vehicles is en route to a service call when, suddenly, it blows a gasket, leaving it—and your driver—on the side of a highway. Not only do you have an annoyed customer who now must wait longer than anticipated, but more importantly, your employee is at an increased safety risk. You've likely lost income, too.

Predictive analytics, in the form of anticipatory maintenance and breakdown planning, could have prevented this situation. That's because predictive fleet maintenance relies on usage histories, vehicle part life cycles, and other methods to identify when specific components are at risk of failure. You can proactively fix or replace them when other routine maintenance is scheduled.

A Closer Look at Technology for Predictive Maintenance – AlbertIQ®

Albert IQ®, Mike Albert's proprietary vehicle and driver monitoring solution, combines fleet telematics with the expertise of ASE-certified technicians. It detects problems well beyond what the warning lights on a dashboard reveal:

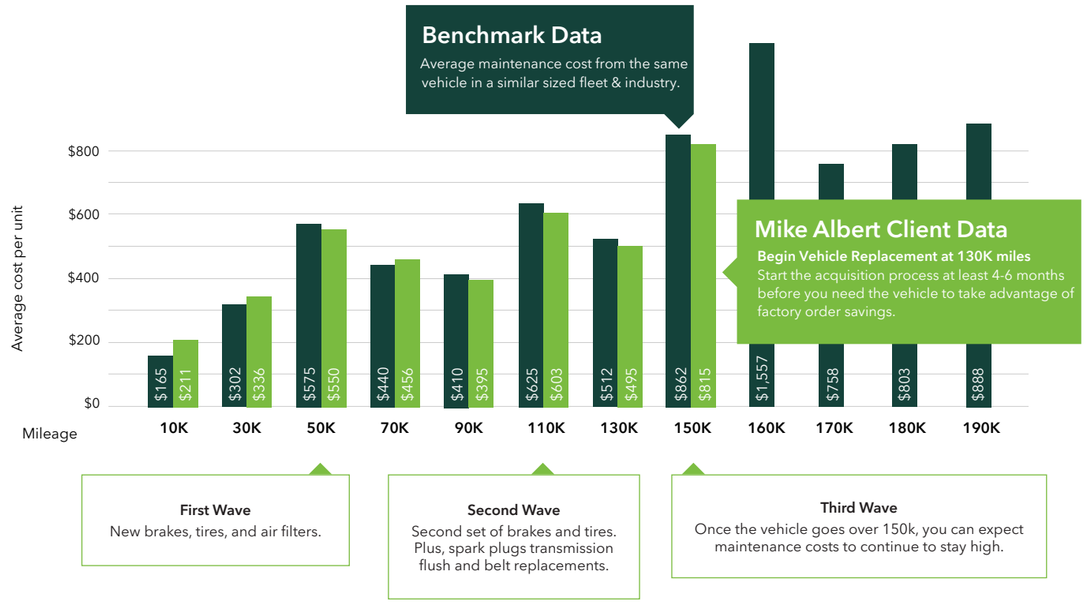
- With Albert IQ, dozens of diagnostic trouble codes (DTCs) are collected from each vehicle, interpreted, and cross-referenced with data on multiple systems within the vehicle. Then, all necessary maintenance is prioritized in order of urgency.
- In addition, Albert IQ can detect anomalies and identify drivers or vehicles that are out of compliance with established tolerances. This is key to predicting and correcting high-risk factors before they become driver safety issues.

"We can help fleet managers appreciate those diagnostic trouble codes that need immediate attention before they create more costly problems."

Lars Nielsen, Regional Vice President of Sales, Mike Albert Fleet Solutions

Maintenance Costs Based on Mileage

Maintenance and other data can tell you at what precise mileage point it's best to cycle out a vehicle.



DATA SUCCESS STORY: SLASHING MAINTENANCE COSTS

Industry: Durable Medical Equipment

Cost-Cutting Achievement: Data analysis uncovered that one specific make and model—which made up a quarter of their fleet—was incurring major repairs between 120,000 and 150,000 miles and were cycled out. This and other data-driven decisions are **saving the client more than $1.5 million annually in maintenance costs,** a 36% reduction.

5

Right-Sizing Your Fleet: Spending No More than You Need To

Given the ongoing challenge of acquiring vehicles and the cost savings that can be had from factory-ordering, predicting your business needs over the next six months can also help with right-sizing. While having too many vehicles is an issue, having too few can be even more detrimental. Consider what it will take to scale up your fleet size during high demand and how long that demand will be sustained; from there, you can determine whether ordering more vehicles or arranging a short-term rental makes sense.

Right-sizing your fleet can be complicated because the right number of vehicles for your business changes constantly. A host of variables can push that number higher or lower. If you aren't consistently monitoring your fleet and making adjustments, you could end up with unused vehicles, tying up valuable cash in depreciating assets.

Using your centralized data system to track vehicle utilization, you can identify underused vehicles and move them to other locations or sell them to free up cash for other areas of the business.

"Having a strong understanding of the demand for vehicles in the future will allow you to best right-size your fleet. While having too many vehicles is an issue, having too few can be even more detrimental."

Brent Pietroski
Director, Client Partnerships,
Mike Albert Fleet Solutions

Right-Size Your Vehicles: Questions to Ask

While several vehicles could, in theory, serve your needs, a careful analysis will lead you to which is, all things considered, the best one. Here are some questions to pose:

- How long is the vehicle out in the field? Is there sufficient cargo space to store required product tools and equipment? Is there unused space or equipment currently onboard?
- What equipment/product is required to meet client needs and enable your technicians to do their job safely and efficiently? Does the payload align with the vehicle's weight class?
- What route factors need to be considered? Site-access restrictions? Parking limitations? Geographic impact?

▶ DATA SUCCESS STORY: GETTING RID OF EXCESS VEHICLES

Industry: Banking Services | **Company:** Bancsource

Cost-Cutting Achievement: Bancsource, a growing, national ATM equipment supplier and installation provider, evaluated its data and found they had at least 25 "floater" vehicles they didn't need, which Mike Albert helped remarket to meaningfully cut Bancsource's fleet costs.

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Implementing Strategic Vehicle Life Cycles: Balancing Equity and Market Value

Predictive analytics can look back through time, examine current driving patterns, and then extrapolate what the picture will likely look like moving forward. In so doing, it can predict when a vehicle will reach its retirement criteria. Furthermore, this data can help identify the most appropriate new vehicle to acquire.

Regarding the decision when to replace a vehicle, it's not just a matter of what condition a particular vehicle is in, but also looking at it from a total cost of ownership perspective. A vehicle may have another, say, 30,000 miles in its life cycle. Still, the data may show that when you factor in another set of tires or the best time to approach the used vehicle marketplace, getting out three months earlier than planned would be better.

"The key here is being proactive; while a vehicle may not be ready for replacement for another six to 12 months, the planning for it should begin now to ensure optimal resale and acquisition terms."

Mary Perry
Manager, Partner Products
and Implementation,
Mike Albert Fleet Solutions

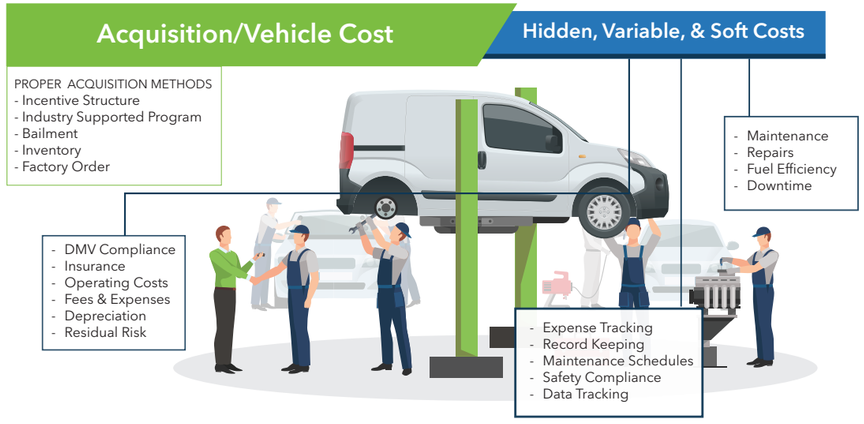
▶ DATA SUCCESS STORY: CYCLING OUT AGING VEHICLES

Industry: Beverage Delivery | **Company:** Ohio Eagle Dist.

Cost-Cutting Achievement: Beer distributor Ohio Eagle Distributing was spending $20,000 a month on repairs and maintenance. A data review led to replacing 33 vehicles and cycling out 21 old trucks. **Their maintenance expenses decreased by almost 90%.**

Driving Vehicles too Long Drives up Hidden Costs

While good mechanics may keep a vehicle running well past its prime, there are costs associated with doing so that may suggest a different approach.



DATA POINT

Gamification is a Motivator

A study of gamification in the workplace found that 90% of employees believe gamification makes them more productive at work.

Source: Zippia

7

Preventing Accidents: Safety is Good for the Bottom Line

What is the best way to reduce accidents and their associated costs? Prevention. Preventing fleet-related accidents can drastically lower operating costs and keep drivers safer. The solution resides in the data and what it tells you about seat belt usage, driver fatigue, unintended lane departures, and more.

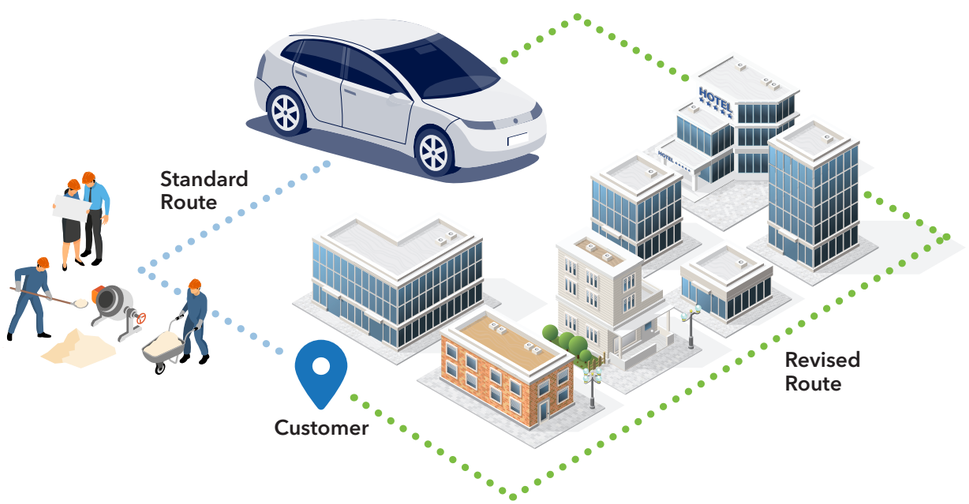
In the realm of safety, the details matter, and data can help provide the context you need to evaluate your safety situation and determine necessary adjustments.

Of course, regarding safety, it's not just the driver and the environment; it's also the vehicle itself. Is it being maintained correctly to operate safely? Data and video will tell you—and save you money. After all, it's not just the repair costs and the downtime that matter, but insurance premium increases and the potential of costly court battles.

Data and video offer protection because, in the event of an accident, telematics and video can help absolve a driver of responsibility through a process called accident recreation. For instance, video can demonstrably show that a sedan driver cut off a large commercial vehicle that was, therefore, unable to stop in time.

A Rerouting Example

Telematics uncovers that a particular driver frequently accelerates or brakes harshly. But there's more to the story. In this example, telematics also reveals that the harsh braking and accelerating happens at one particular location: a highway construction site where it's difficult to merge smoothly in a vehicle of the driver's size. A rerouting eliminates this issue, enhancing safety.



Promote Safety Through Play Not Punishment

Safety is, of course, serious business. But that doesn't mean one can't have fun with it. Driver scorecards and gamification are the paths to such fun—and improved driver engagement and better safety records.

Scorecards tell drivers how they're performing against such metrics as speeding, seat belt wearing, harsh cornering, braking, and accelerating.

One Mike Albert client gave year-end bonuses to their safe drivers. They reallocated the money they saved on insurance premiums since they monitored driver behavior and provided additional training to those who needed it.

Such a positive, reward-driven approach can help with driver recruitment and retention. In today's competitive marketplace for talent, gamification can go a long way toward enhancing morale and giving drivers another reason to stay committed to their jobs.

DATA POINT

Telematics Saves Lives and Money

Insurance companies have reported a 45% reduction in accidents and a 50% reduction in payout costs via the use of telematics.

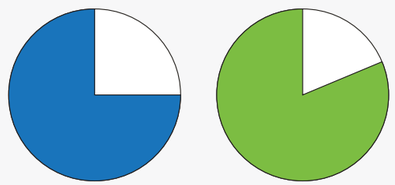
Source: Drivers Alert

Sample Safety Scorecard

Safety scorecards go a long way toward motivating drivers to embrace safer, less costly driving habits.

MILEAGE ANALYSIS
Zentrax Systems, LLC

DRIVER	DRIVE TIME	SCORE	RISK RATING
26, Dayton	22h:59m:59s	56%	High
42, Dayton	24h:12m:03s	62%	Medium
26, Springfield	22h:16m:14s	85%	Low
33, Dayton	23h:27m:52s	78%	Low
57, Springfield	24h:07m:31s	64%	Medium



"The biggest motivator for adopting telematics is typically safety. Protecting people...is at the very core of telematics."

Heather Chambers, Solutions Engineer, Mike Albert Fleet Solutions

Tap Into Data and Cut Your Costs

As hopefully is clear by now, telematics and historical vehicle data, well collected and analyzed, can help you create a more efficient, cost-effective fleet. Of course, there's never a perfect state, as there's always more data to collect and more insights to uncover. It's a journey, but the sooner you take the first or next steps, the sooner your company will benefit. That's the power and promise of telematics and data.

MIKE ALBERT FLEET SOLUTIONS

About Mike Albert Fleet Solutions

Mike Albert made our initial mark on the fleet industry in 1957 when we became one of the first companies to lease vehicles to fleets. Today, our in-depth fleet knowledge and experience have positioned us to compete nationally as a top-ten fleet management company, with 80,000 units under management across the US, parts of Canada, and Puerto Rico.

Guided by our unique Fleet Science® approach, we blend comprehensive data with insightful 'aha!' moments to significantly enhance fleet performance. Our Client Partnership Managers (CPMs) are at the forefront of this service, offering a level of personal attention that sets a new industry standard. They are the 'people behind the data,' ensuring that our fleet management services are not just effective but genuinely exceptional and rare in the industry.

To learn more, visit **www.mikealbert.com** or follow us on **LinkedIn**.

GEOTAB®

About Geotab®

Geotab is a global leader in connected transportation solutions. We provide telematics—vehicle and asset tracking—solutions to over 50,000 customers in 160 countries. For more than 20 years, we have invested in ground-breaking data research and innovation to enable partners and customers, including Fortune 500 and public sector organizations, to transform their fleets and operations. With over 4 million subscriptions and processing more than 75 billion data points a day, we help customers make better decisions, increase productivity, have safer fleets, and achieve their sustainability goals. Geotab's open platform and Marketplace offer hundreds of third-party solution options. Backed by a team of industry leading data scientists and AI experts, Geotab is unlocking the power of data to understand real-time and predictive analytics—solving for today's challenges and tomorrow's world. To learn more, visit **www.geotab.com**, follow **@GEOTAB** on X and **LinkedIn**, or visit the Geotab Blog at **https://www.geotab.com/blog**.

Ready to schedule a demo?
Contact us on mikealbert.com.