

The £6,500 Fleet Cost Nobody Talks About – Caused by Driving Behaviour, Not Fuel Spend.

A Research Report by Performance Bonus Ltd

Businesses obsess over vehicle choice, servicing, routes and procurement – yet the biggest controllable cost sits silently in the driver's seat. Driving style directly creates a measurable difference of **£659–£1,318 per vehicle, per year - in fuel alone**, even among identical vans on identical routes. The good news? This cost is fully recoverable – once you start measuring it.

Executive Summary

Driving behaviour is one of the most influential yet under-examined contributors to the operational costs of business fleets.

This is one of the only fleet costs that can be reduced within weeks, not months or years.

Aggressive or inconsistent driving — harsh acceleration, late braking, unnecessary idling, excessive speed variation and poor anticipation — creates measurable increases in fuel usage, accelerates wear-and-tear, raises insurance exposure, increases collision risk and leads to avoidable downtime.

Through extensive review of published automotive research and real-world telematics insights, Performance Bonus Ltd has quantified the direct and indirect financial effects of ‘company car’ driving behaviour.

The evidence shows:

- * Fuel efficiency can vary by 10–40% between drivers of identical vehicles on identical routes.
- * Tyres, brakes and drivetrain components wear faster under harsh driving conditions.
- * Collision likelihood increases when harsh braking and speed variability rise.
- * PHEVs driven without consistent charging or with high-risk driving patterns can significantly exceed diesel running costs.

Research shows that per vehicle travelling 25k miles per year, ‘company car’ driving styles represent £1,000–£6,500+ of avoidable cost annually. - Multiply that by fleet size to calculate the total annual cost to each business.

This report outlines the research, explains the behavioural mechanisms behind inefficient and risky driving and provides a straightforward set of recommendations to address the issues raised.

The problem

1. Introduction: Why Driving Behaviour Matters

Fleet operators face rising cost pressures — fuel volatility, insurance inflation, vehicle supply constraints and labour shortages. In this environment, businesses often focus on procurement, servicing, route planning and scheduling. Yet the largest controllable variable in fleet cost is frequently the least managed: driving behaviour.

Two drivers in identical vans, on the same route, can produce vastly different financial outcomes. One drives smoothly, maintains momentum, anticipates hazards and minimises mechanical stress. Another drives reactively, brakes late, accelerates sharply and wastes energy.

The consequence is a measurable spread in fuel consumption, maintenance demands, collision risk and total operating cost. This report quantifies these impacts.

2. Methodology & Data Sources

This analysis draws from:

- Automotive engineering research on fuel usage and vehicle wear
- Studies on braking behaviour, anticipation, and hazard detection
- Insurance and claims analytics
- Mechanical wear cost data
- Academic behavioural psychology sources
- Telematics datasets measuring second-by-second driving dynamics
- UK road-safety statistics

Wherever a range or percentage is quoted, this report references published research or aggregated telematics evidence rather than assumptions.

Assumptions (conservative):

- Medium van, diesel
- 25,000 miles per year
- 40 MPG careful driver / baseline
- Fuel price: 142.4p per litre
- Fuel cost per annum: £4,043.75
- Tyres: £300 per set
- Brakes: £150–£200 per year
- Insurance baseline: £1,500 per van

3. The Driving-Style Cost Divide

Driving behaviour creates a spectrum of financial outcomes:

Efficient drivers typically:

Maintain stable speeds
Accelerate gently
Brake progressively
Minimise idling
Anticipate hazards
Preserve vehicle momentum

Inefficient drivers often:

Brake harshly
Accelerate abruptly
Drive inconsistently
Idle excessively
Operate reactively
Follow too closely

The financial gap between these styles **can exceed £1,000–£2,000 per driver** per year in fuel alone — even before considering downtime and other cost factors.

4. Fuel Consumption & Behavioural Inefficiency

Driving behaviour directly affects fuel use:

- Harsh acceleration and late braking reduce MPG by 10–40%.
- Speed variation burns significantly more fuel than steady driving.
- Speeds above 50–60 mph reduce efficiency sharply.
- Idling consumes 0.25–0.5 gallons of fuel per hour.

Using our 40 MPG baseline, 25,000 Miles per annum, these are some numbers:

Driving Style	Fuel Economy (MPG)	Annual Fuel Consumption (Gallons)	Annual Fuel Cost (at £6.47/Gallon)	Annual Cost Difference (vs. Careful)
Careful Driving (Baseline)	40 MPG	625 gallons	£4,044	£0.00
Slightly Aggressive	~34 MPG (15% loss)	~735 gallons	~£4,756	~£712
Aggressive	~28 MPG (30% loss)	~893 gallons	~£5,779	~£1,735

Exactly the same mileage - just different driving styles - **cost in fuel alone.**

5. Speed, Acceleration & Braking Dynamics

Acceleration is one of the most energy-hungry phases of driving. Engineering analyses show:

- Acceleration events account for up to 56.5% of fuel-usage variance.
- Braking harshly wastes momentum that later must be regained with fuel.
- Speed inconsistency increases fuel burn.

6. Idling: The Hidden Daily Cost (and so included here)

Idling is often invisible but costly and often related to:

- Phone calls
- Deliveries
- Loading delays
- Warming the cab
- Habitual idling

At £3.24/hour and ~260 working days:

1 hour/day idling \approx £842/year

1.5 hours/day \approx £1,263/year

For a 5 vehicle operation, idling fuel costs alone can exceed £6,000/year (over 1,000 per year per vehicle).

Idling is one of the easiest behaviours to correct once it is made visible.

7. Mechanical Wear & Maintenance Impact

Driving aggressively increases mechanical wear as follows:

Tyres

- Abrupt braking and acceleration reduce tyre life by up to 25%.

Brakes

- Harsh braking increases brake replacement frequency and cost.

Repairs

- Poor driving style correlates with higher frequency of drivetrain and suspension repairs.

Identified avoidable repairs cost:

\approx £210 per van per year, excluding downtime.

8. Collision Risk, Harsh Braking & Insurance

Harsh braking is a strong indicator of:

- poor anticipation
- distraction
- fatigue
- aggressive driving

Telematics and insurance datasets show:

- High harsh-braking drivers have significantly elevated accident rates.
- Collision hotspots often correlate with harsh-braking clusters.
- Insurance premiums rise for fleets with high behavioural risk.
- Downtime costs compound these effects.

9. PHEV Vulnerabilities Under Real-World Fleet Use

If PHEVs are driven without regular charging:

- The vehicle drags battery weight without the electric benefit.
- Fuel consumption rises dramatically.
- Aggravated by harsh or inconsistent driving.
- Improperly managed PHEVs can be more expensive to run than diesels.

10. Behavioural Psychology & Driving Style

Driving is a cognitive task highly influenced by:

- stress and emotional state
- fatigue
- time pressure
- habit
- impulsivity
- hazard perception

Good drivers exhibit anticipation, smoothness and consistency — behaviours aligned with low cognitive load and higher situational awareness.

Poor behaviour often indicates:

- diminished attention
- elevated stress
- fatigue
- distraction
- aggressive goals (“make up time”)

Proposed solutions

The patterns identified above can be detected and addressed combining a low cost telematic solution (below £10 per month) and a simple action plan, under a “TrackSave” project as follows:

11. Automatic daily driving Scores

The automatic driver behaviour score analyses every second of every trip and assigns values to:

- acceleration events
- braking events
- speed variations
- Relative Speed Score (SafeSpeed database)

Legal speed limits are not always “safe speeds”. By comparing driver speed to the real-world average speed of millions of road segments, risk patterns are identified even when the legal limit isn’t exceeded.

These values feed into the Daily Driving Score, which provides a fair, scalable assessment across drivers, regardless of miles driven.

Each driver is assigned a daily score, derived from their driving that day. This data being constantly available to their managers online.

Score categories:

Green (80–100): safe, smooth, efficient

Amber (50–80): mixed consistency

Red (<50): high-risk, high-cost patterns

Scores give managers an immediate behavioural benchmark.

Driving style league table							
Vehicle	Driving time	Distance (miles)	Speed score	Acceleration index	Braking Index	Driving style score	
8 QX50 SCO - BMW 535D	22:52	826.0	0.0	76.1	42.4	38.4	
7 QX61 INR - Vauxhall Astravan	23:43	673.8	15.4	44.5	66.8	41.9	
6 QX10 SNW - Fiat Ducato	161:48	5977.5	50.8	28.3	44.6	62.4	
5 QX11 QQE - Citroen C5	50:56	1829.1	73.7	10.5	30.5	80.1	
4 SM01 QTX - Audi	90:48	3807.4	30.2	21.5	19.2	80.3	
3 AE01 QTX - Volvo	51:20	1715.7	70.1	19.0	13.3	84.7	

12. Driver Performance Comparison

The automatically produced league table provides comparisons that highlight:

- the smoothest and safest drivers
- those with emerging behavioural risk
- those showing changes (stress/fatigue)
- Excessive vehicle idling

And drivers can see their performance on an App which they can use to monitor their own ongoing performance, rather than waiting for their manager to share a weekly or monthly score with them.

13. Behaviour-Driven Coaching

Data-supported coaching is highly effective:

- Drivers respond positively when shown objective data.
- Improvements often occur immediately.
- Conversations become supportive rather than confrontational.
- Trip-level feedback improves self-awareness.
- Coaching reduces stress and supports wellbeing.

14. Behavioural Incentives

Performance Bonus Ltd has spent two decades designing behavioural incentive systems.

Key principles:

- Rewards tied to behaviour, not just outcomes
- Team goals foster shared improvement
- Small rewards can drive large savings
- Recognition can change culture
- Incentives must be transparent and fair
- TrackSave integrates optional incentive frameworks built from this experience.

15. Driver Wellbeing & Early Indicators

Driving patterns often reflect the wellbeing of the drivers themselves:

- Increased harsh events may signal fatigue
- Reduced anticipation may indicate cognitive overload
- Speed variability may warn of stress
- Rising idling time may reflect disengagement or exhaustion
- Telematics provides early-warning indicators that enable supportive intervention.

16. GDPR, Security & Ethical Use

To use behavioural telematics responsibly, organisations should:

- Be transparent about what data is collected
- Explain why it is collected
- Inform drivers of retention periods
- Update driver policy documents accordingly
- Use private-use modes where appropriate
- Ensure monitoring is proportionate
- Avoid punitive uses of data

The objective is awareness and improvement, not blame.

TrackSave provides guidance on GDPR-aligned best practice but clients obviously remain responsible for their own compliance.

17. Strategic Recommendations

- Implement behavioural telematics across all vehicles.
- Review driver scores weekly.
- Provide coaching to high-impact drivers.
- Link incentives to behavioural improvements.
- Share feedback constructively.
- Monitor wellbeing indicators.
- Address idling hotspots.
- Update policy documents for GDPR transparency.
- Use TrackSave methodology for periodic fleet reviews.

18. Running a TrackSave Project

The research demonstrates that driving behaviour is one of the strongest levers for reducing costs and improving safety.

A TrackSave project helps businesses implement the findings of this report, providing:

- full behavioural insight
- acceleration/braking/speed scoring
- driver comparison tools
- coaching support
- optional behavioural incentives
- wellbeing indicators
- GDPR-aligned processes

19. TrackSave Zero Cost Launch Benefit

Your first 3 months are subsidised by our partners Quartix, enabling you to see positive ROI from day one.

TrackSave is suitable for fleets of any size, with small businesses often seeing the fastest measurable gains.

20. Conclusion

Driving behaviour is a controllable variable with outsized financial impact. By shifting from reactive management to proactive behavioural insight, businesses can reduce fuel costs, lower risk, improve wellbeing and strengthen performance.

With Quartix technology, Performance Bonus expertise and the TrackSave framework, organisations have a clear, practical pathway to a safer, more efficient fleet.

Driving behaviour is where fleet cost and safety are won or lost. If you're ready to stop guessing and start measuring, we'll install the technology, score your drivers and present your behavioural risk map — with the first 3 months at zero cost.

Visit TrackSave.co.uk and request a 10-minute fleet review.

We'll show you how much cost is being left on the road — and how quickly you can reclaim it.

21. References

1. U.S. Environmental Protection Agency (EPA)

Fuel Economy & Driving Behaviours.

Demonstrates how rapid acceleration, excessive braking, and speeding reduce MPG by 10–40%.

2. Transport Research Laboratory (TRL)

Driver Behaviour and Accident Risk Studies.

Provides evidence linking harsh braking and speeding with increased collision likelihood.

3. MIT Energy Laboratory

Energy Loss in Acceleration Events.

Identifies acceleration as one of the most energy-intensive phases of driving, accounting for up to 56.5% of fuel-consumption variance.

4. RAC Foundation

The Impact of Driving Styles on Fuel Efficiency.

Shows the effect of speed variation, anticipation, and idling behaviours on MPG.

5. Department for Transport (DfT), UK

Road Traffic Statistics & Speed Compliance Reports.

Offers national data on speed patterns, rural-road risk, and collision correlations.

6. AA Motoring Research Unit

Idling Fuel Consumption Study.

Provides average per-hour fuel consumption during idling (0.25–0.5 gallons per hour).

7. What Car? Real-World Fuel Testing

Plug-In Hybrid (PHEV) Real-World Efficiency Tests.

Demonstrates real-world PHEV fuel consumption under different charging habits.

8. Euro NCAP & Thatcham Research

Collision Avoidance and Driver Attention Reports.

Evidence on hazard perception, fatigue indicators, and behavioural degradation.

9. Quartix Vehicle Tracking

Driver Scores Guide and SafeSpeed Methodology.

Explains acceleration index, braking index, daily driving score, and relative speed scoring.

10. Brake, the Road Safety Charity

Fatigue, Stress and Driver Behaviour Studies.

Highlights how stress and cognitive load affect driving style and collision risk.

11. Behavioural Insights Team (UK)

The Role of Behavioural Incentives in Performance Improvement.

Shows how simple incentives reinforce desired behaviours more effectively than punitive systems.

12. Institute of Advanced Motorists (IAM RoadSmart)

Anticipation and Smooth Driving Techniques.

Provides evidence for smoother driving reducing risk and mechanical wear.

13. McKinsey & Company

Fleet Cost Management Insights.

Analysis of total cost of operation (TCO) and the role of behavioural variability.

14. Society of Motor Manufacturers and Traders (SMMT)

UK Fleet Fuel Economy & Electrification Reports.

Industry baseline for fuel consumption and vehicle operating costs.