How Do Roadside Breakdowns Impact Efficiency and Retention?

A WHITE PAPER IN PARTNERSHIP WITH

Trimble × FREIGHTWAVES

Contents

Overview

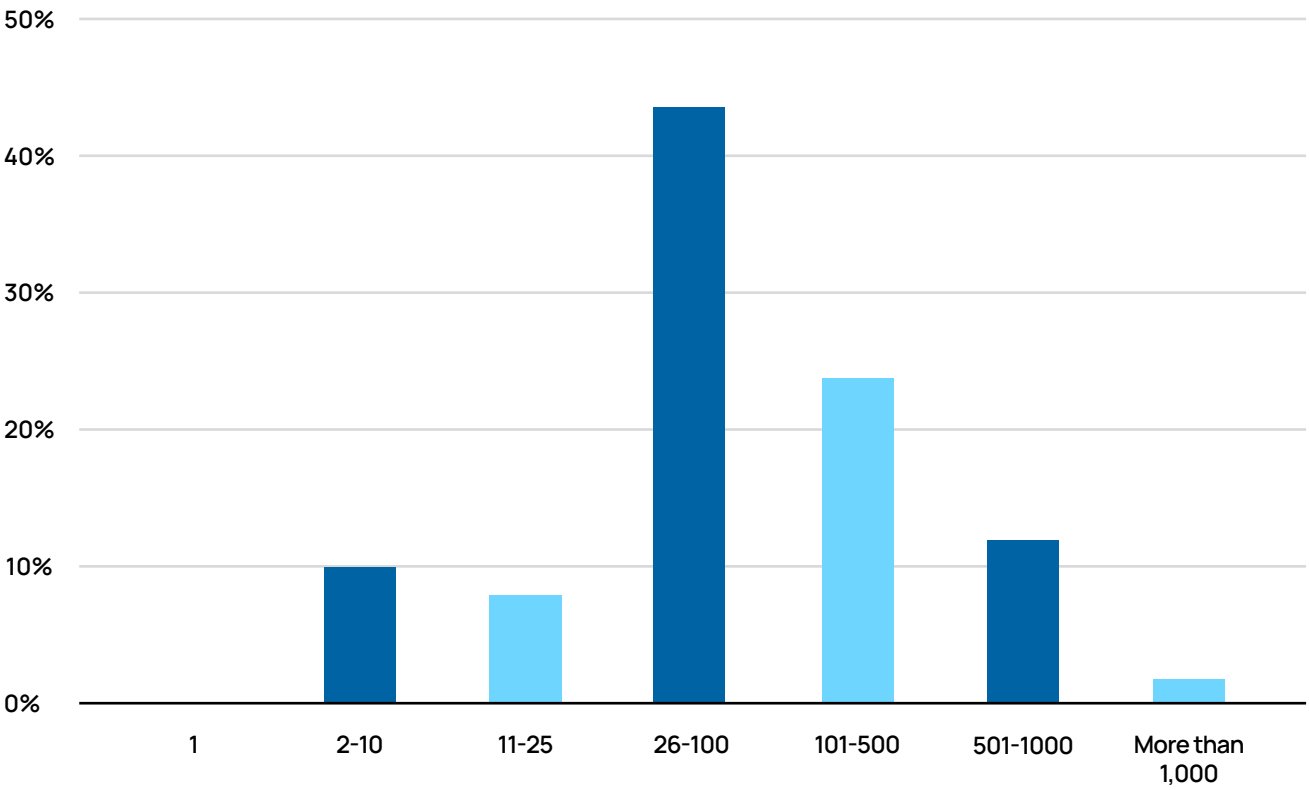
In a fast-paced and competitive freight environment, operational efficiency is paramount. Every vehicle breakdown disrupts schedules, increases costs and inconveniences drivers.

In order to mitigate the far-reaching consequences associated with roadside breakdowns and unscheduled maintenance, it is important for fleets to understand how their current approaches to these incidents are (or aren't) working.

FreightWaves teamed up with Trimble to identify the prevalence of roadside breakdowns and explore how these breakdowns affect efficiency, retention and overall bottom lines. A survey of fleets was conducted to gather information about their experiences with these incidents.

Surveyed participants represent a diverse range of fleet sizes. This variety helps ensure the survey is representative of the industry as a whole, not just carriers that fall into one specific bucket.

How many vehicles are in your fleet?



The single largest group – representing 44% of respondents – operates fleets with 26 to 100 vehicles, highlighting a significant presence of mid-sized fleets in the sample. Smaller fleets (2–10 vehicles) accounted for 10% of respondents, while larger operations with over 100 vehicles made up 38%.

This distribution ensures the data speaks to the experiences of fleets across the size spectrum, emphasizing common themes and pain points that impact operations industry-wide.

Overall, survey data reveals key trends in breakdown response strategies and their broader implications for efficiency and driver retention.

By addressing breakdown-related challenges, fleets can reduce costs, improve on-time delivery metrics and create a more satisfied workforce.

Frequency of Breakdowns

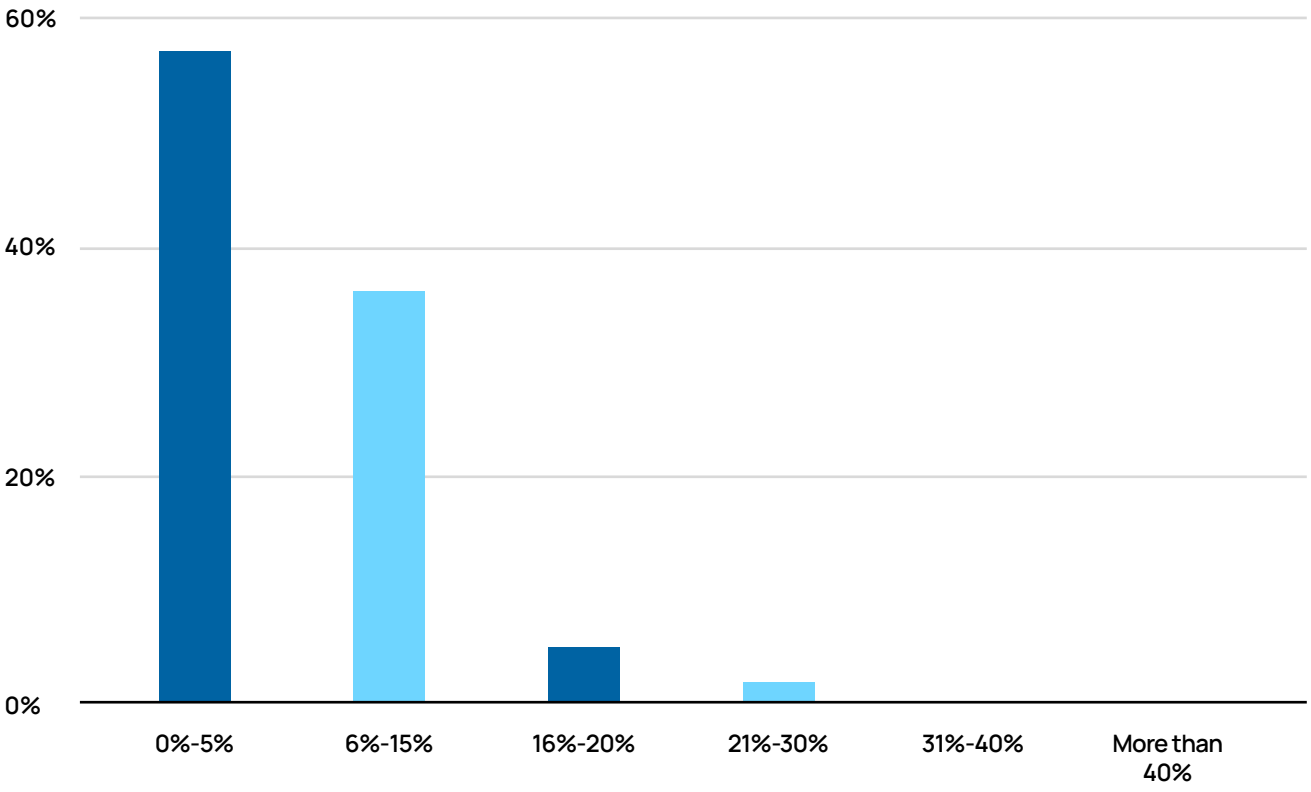
Breakdowns are, unfortunately, an inevitable part of trucking. Their frequency and impact, however, vary significantly from fleet to fleet.

Most fleets (56%) maintain low out-of-service rates, with just 0–5% of vehicles typically down at any time. This reflects strong maintenance practices among these operators and largely safeguards them against the most severe impacts of roadside breakdowns.

A significant minority of respondents (36%), however, report downtime rates of 6–15%, signaling more pronounced operational challenges. These carriers are likely to experience the negative consequences associated with downtime, like lost revenue and reduced efficiency.

While only 8% of respondents experience even higher out-of-service rates (16–30%), this showcases a critical need for improved maintenance strategies. This group has the most to gain by implementing improved maintenance protocols – and the most to lose by ignoring the problem.

What percentage of vehicles are typically out of service at any given time?

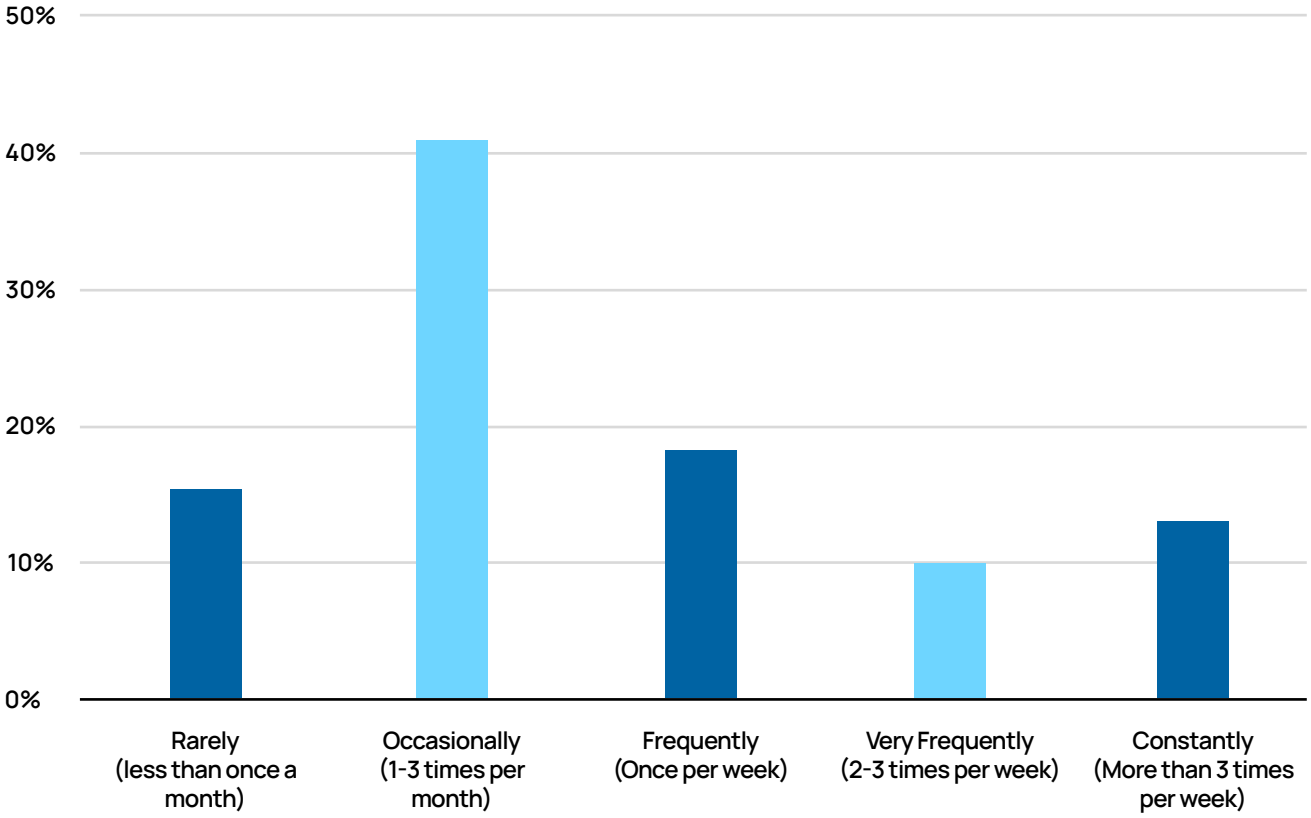


Overall, this data shows that most fleets maintain high levels of operational readiness, but a significant percentage still experience impactful downtime. These breakdowns can hurt a carrier's efficiency, profits, and driver morale.

The survey results indicate that roadside breakdowns and on-road maintenance needs are a common problem for many fleets, although the frequency varies.

While 42% of respondents report experiencing these issues occasionally (one to three times per month), only 16% categorized them as rare (less than once a month). This means that the large majority could benefit from solutions to reduce breakdowns and improve response times.

How frequently does your fleet experience roadside breakdowns or require maintenance while on the road?



Another combined 42% of respondents report experiencing breakdowns frequently (once per week) or more often, with 14% reporting constant occurrences (more than three times per week). These fleets are likely experiencing a severe negative impact on operations.

Overall, the data makes it clear that breakdowns are a routine concern for most fleets. By addressing this issue, carriers can significantly improve operational efficiency.

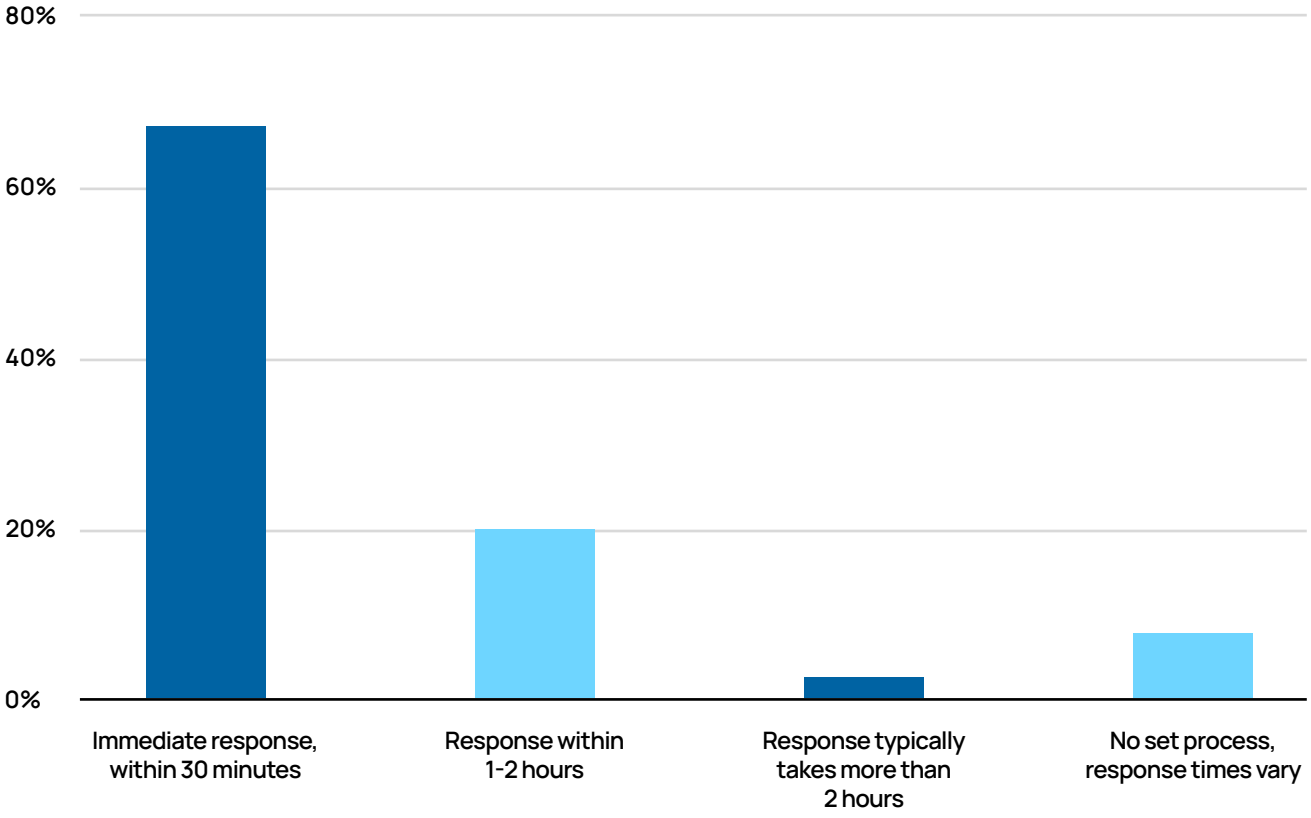
Ripple Effects of Downtime

Swift and effective responses to breakdowns are essential to minimizing downtime and its associated costs.

The majority of fleets (68%) take action within 30 minutes of a breakdown, demonstrating a strong commitment to efficiency. This penchant for immediate action likely pays off for these carriers in multiple ways, including by minimizing delivery delays and strengthening driver relationships.

A significant minority of respondents (20%), however, require one to two hours to respond, while about 4% take even longer. Delays in initiating repairs compound the disruption caused by breakdowns, increasing costs and straining relationships with drivers and customers alike.

When a vehicle breaks down or has an accident, what is your timeline for responding to incidents?



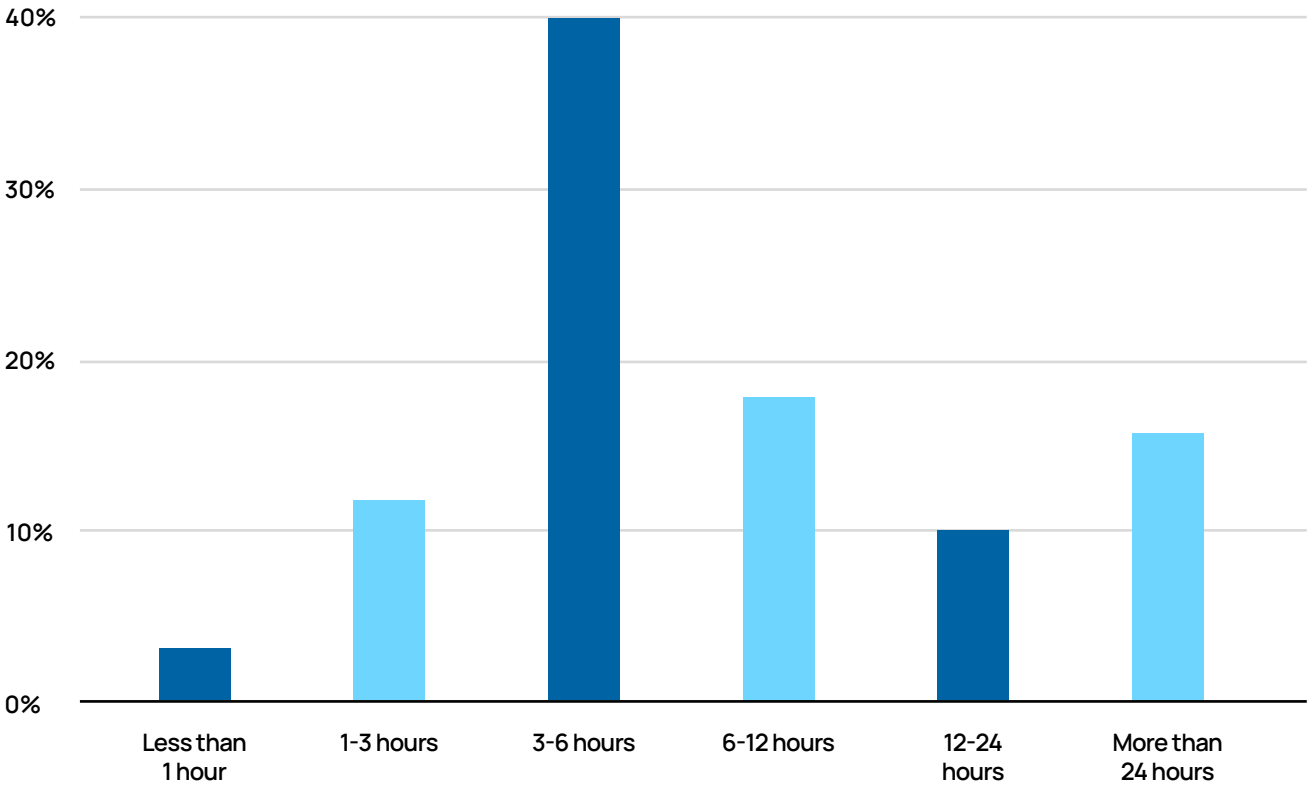
A concerning 8% of responding fleets said they do not have a set process in place for responding to breakdowns, leading to inconsistent response times. The lack of predictability is likely to lead to increased frustration for drivers and fleet managers.

These results suggest that while many fleets have efficient incident management systems, there is still room for improvement in ensuring swift and standardized responses across all operations.

Just like incident response times, expected downtime resulting from roadside breakdowns varies significantly among respondents.

Only 4% of respondents anticipate the most rapid repairs, with vehicles back in service within an hour. A plurality (40%) of respondents report moderate delays of 3–6 hours. This is long enough to cause disruption, delays and frustration.

How long do you expect your vehicle to be out of service if impacted by roadside breakdown event?



A combined 44% of respondents face even longer disruptions. Of these, 16% experience downtimes exceeding 24 hours, which can seriously derail schedules and damage customer trust.

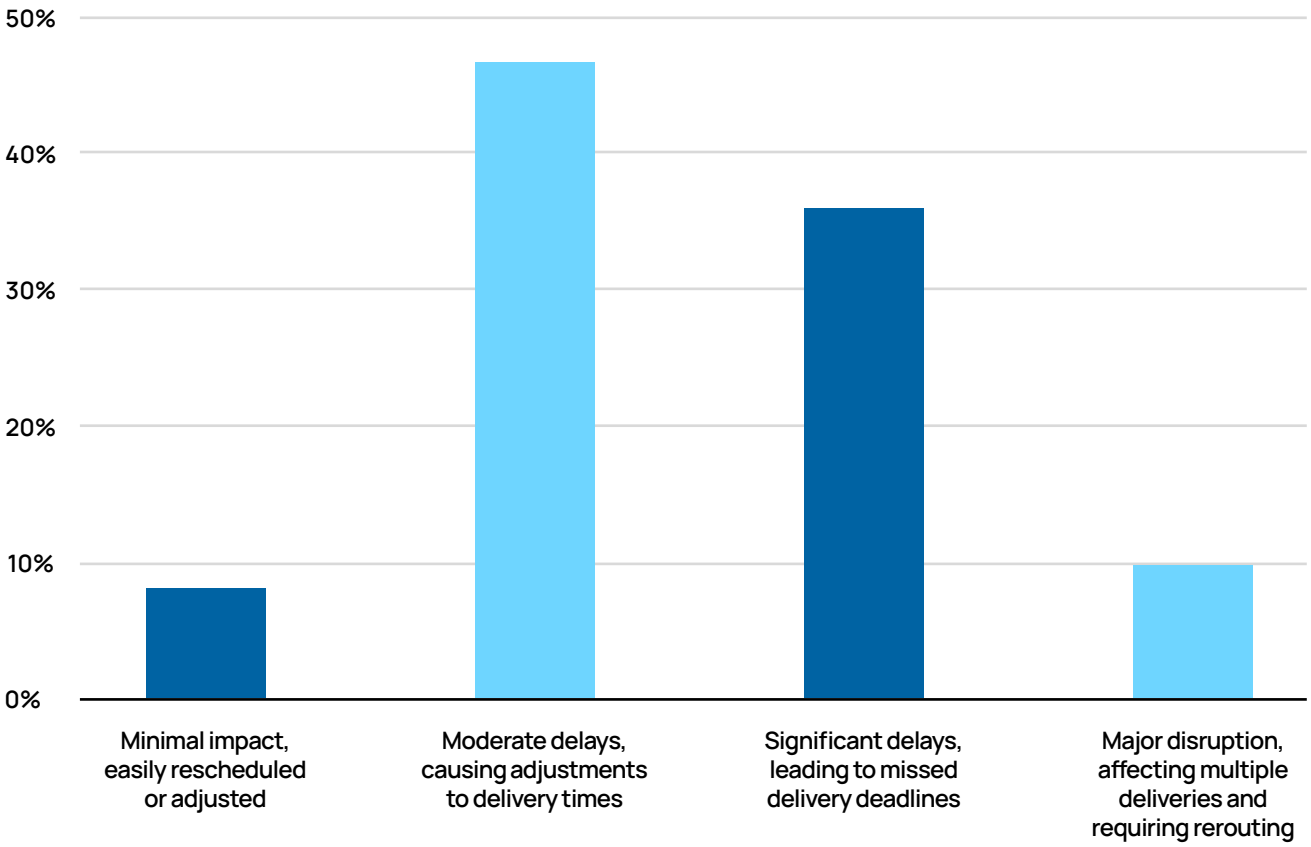
These results indicate that many fleets experience significant downtime due to breakdowns, which can hurt their operations and bottom line. Fleets that can minimize downtime gain a competitive advantage by maintaining higher levels of reliability and improving driver retention.

The impact of roadside breakdowns on drivers' schedules and overall operations is considerable for many fleets.

Only 8% of respondents report minimal impact, suggesting that for most fleets, roadside breakdowns create significant logistical challenges.

A plurality of respondents (46%) report moderate delays, which cause adjustments to delivery times but are generally manageable.

How does a roadside breakdown impact your drivers' schedule, driving time, and overall operation?



A significant minority (36%), however, experience significant delays, often resulting in missed delivery deadlines. This can have a more serious impact on customer satisfaction and fleet efficiency.

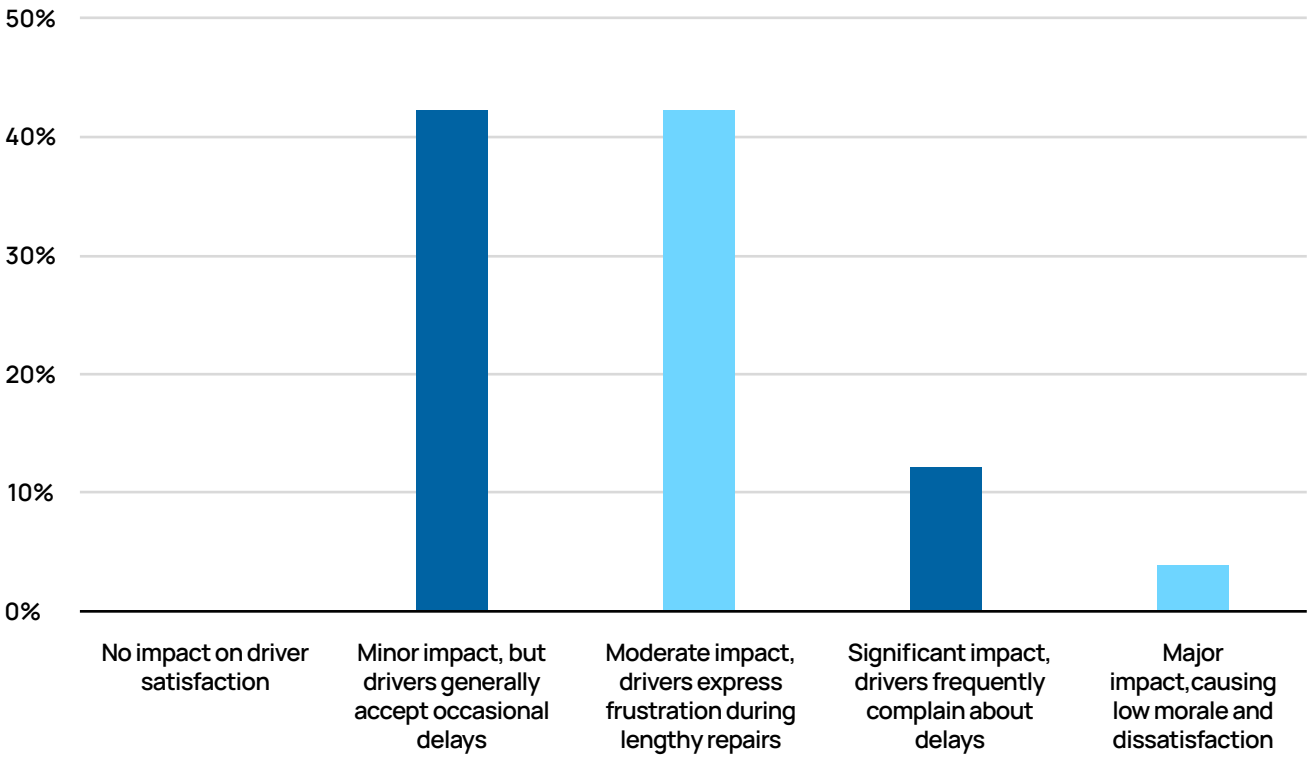
Additionally, 10% face major disruptions that affect multiple deliveries and necessitate rerouting, further complicating operations.

It is clear that drivers often bear the brunt of breakdown-related challenges. Prolonged downtime can significantly erode driver morale,damaging the relationship between drivers and carriers.

The data indicates that breakdowns and their resolution times do have a noticeable impact on driver satisfaction and retention. For fleets, this underscores the importance of addressing these issues effectively to maintain operations and keep drivers satisfied.

For a fortunate 42% of respondents, breakdowns seem to cause only minor frustration for their drivers. According to these respondents, drivers generally accept occasional delays. This group likely represents fleets that experience less frequent breakdowns and have quick incident response times.

How do breakdowns and the time it takes to resolve them affect driver satisfaction or retention in your fleet?



Another 42% of respondents, however, report moderate impacts on driver satisfaction and retention. These respondents said drivers tend to express frustration during lengthy repairs. This is where relationship strain can start coming into play.

A smaller group of respondents (12%) experiences significant impacts, with frequent driver complaints about delays and 4% report major impacts, resulting in low morale and overall dissatisfaction.

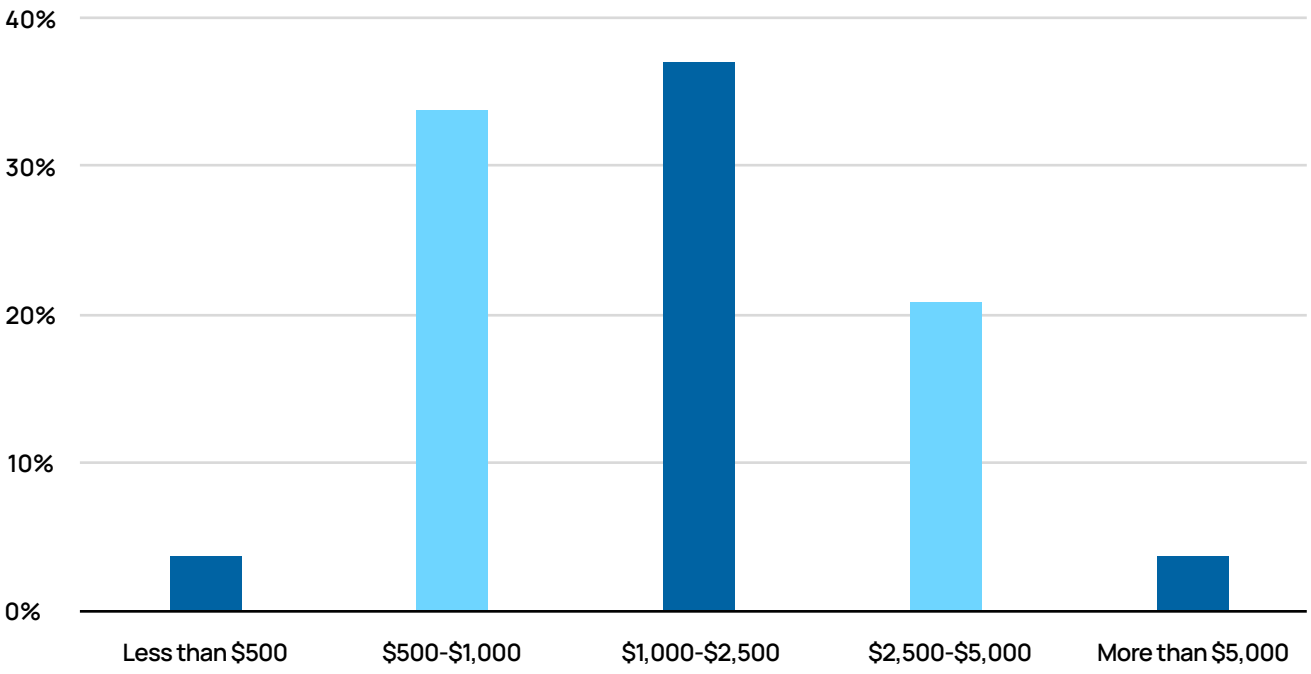
Notably, no respondents indicated that breakdowns have no impact on driver satisfaction, highlighting the importance of minimizing downtime to maintain driver engagement and retention.

The Financial Impact

Breakdowns are not just an operational challenge — they represent a significant financial burden for fleets. Financial consequences can stem from delayed deliveries and lost productivity, as well as from maintenance costs.

The majority of respondents (71.42%) reported costs ranging from $500 to $2,500 per incident. The most common cost bracket – cited by 37% of survey takers – is $1,000 to $2,500, indicating that even routine breakdowns represent a substantial expense for many fleets.

What is the average cost to your company when one of your vehicles breaks down unexpectedly?

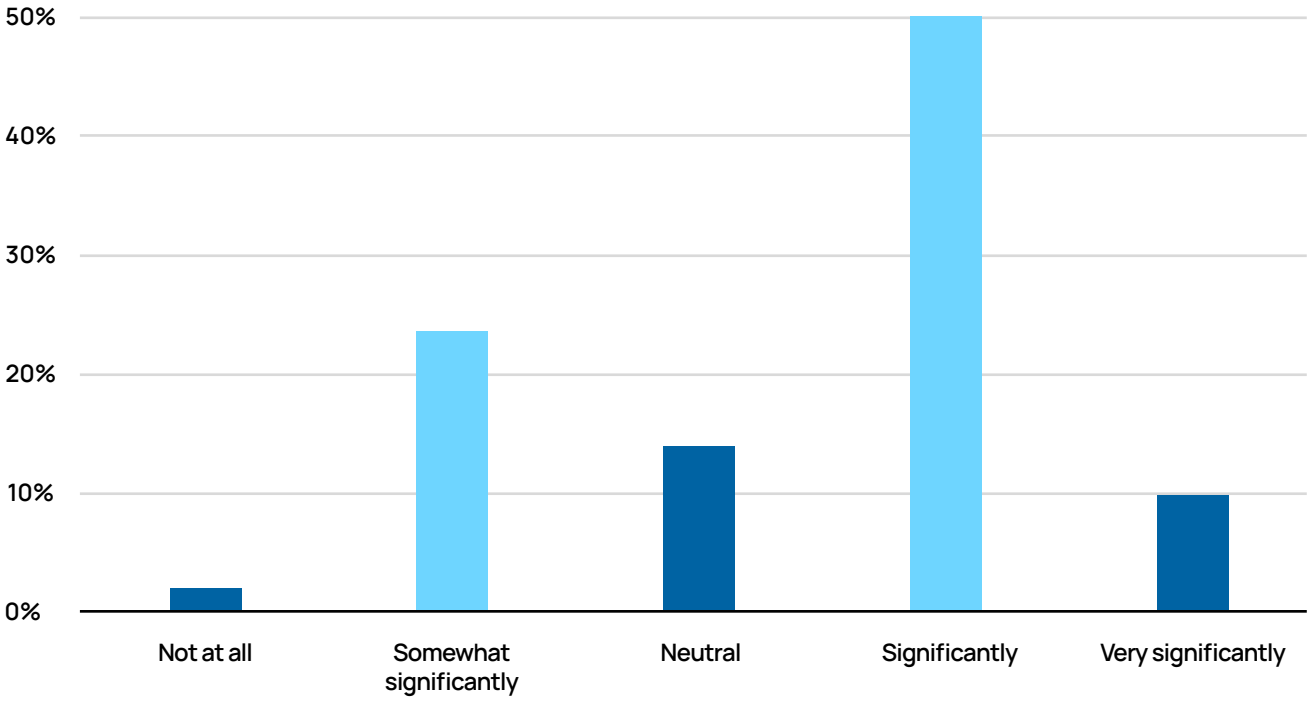


Additionally, 24% of respondents reported higher-than-average costs. For these carriers, the financial burden from a breakdown can exceed $2,500 per breakdown, with 4% facing expenses greater than $5,000.

As noted above, the financial impact of breakdowns extends beyond repair costs to include lost revenue, driver downtime and missed delivery penalties.

Half of the respondents (50%) report that breakdowns affect their operational costs "significantly," with another 24% indicating a "somewhat significant" impact. A smaller portion (10%) reported a "very significant" impact, suggesting that for some fleets, the financial burden of breakdowns is even more severe.

How do unexpected breakdowns affect your operational costs (e.g., repairs, driver downtime, lost revenue)?



Only 14% felt the impact was neutral, and a minimal 2% said it had no effect at all, highlighting the widespread financial strain caused by unexpected vehicle issues.

Repeated breakdowns force fleets to divert funds from strategic initiatives like technology upgrades, training, or vehicle expansion. Over time, this can erode competitiveness, particularly for smaller operators with tighter margins.

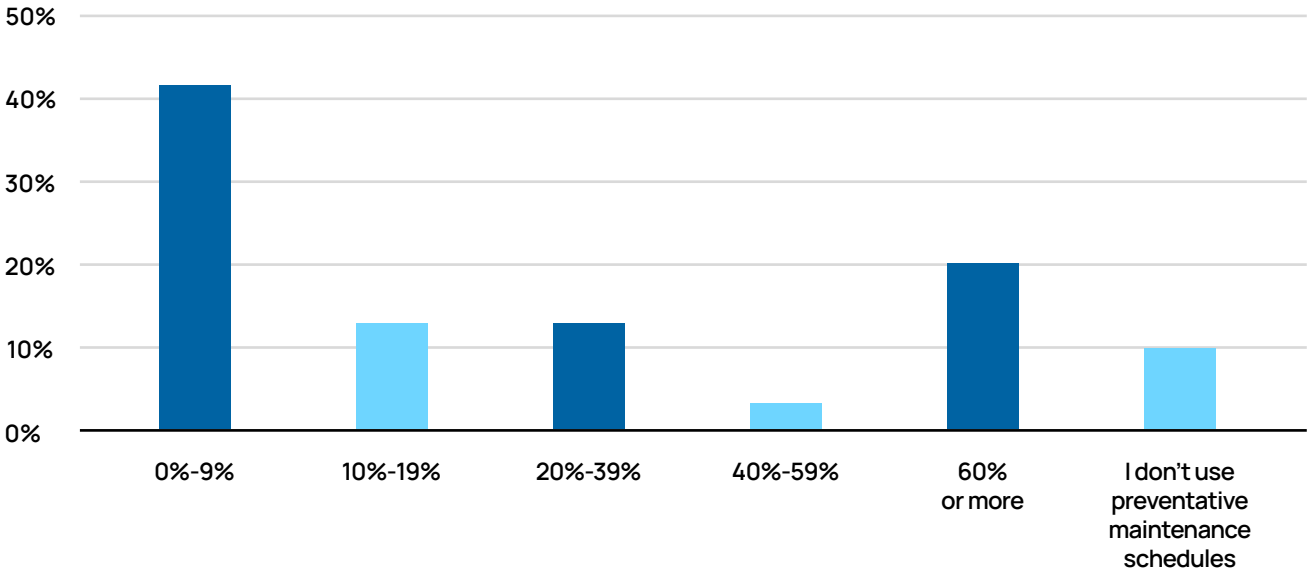
The Ideal Roadside Solution

Preventive maintenance software is a crucial component of stopping roadside breakdowns at the source, and reliable roadside assistance programs are important for responding to incidents when they do occur. Carriers should focus on improving these two areas of their operations first to see a significant reduction in disruptive roadside issues.

While preventative maintenance is widely practiced, its effectiveness varies. For 42% of respondents, fewer than 10% of breakdowns occur despite maintenance efforts. However, 36% experience higher rates (10–59%), and 20% report that over 60% of breakdowns happen even with regular upkeep.

These findings highlight the limitations of traditional maintenance schedules in preventing unforeseen incidents.

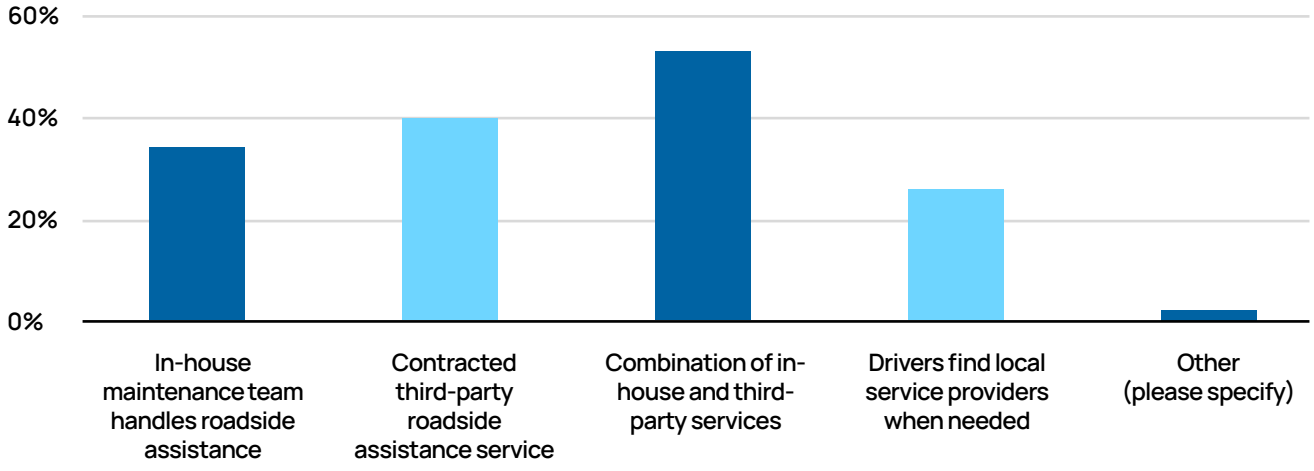
What percentage of your breakdowns occur despite following a preventative maintenance schedule?



Additionally, another 10% of respondents do not follow preventative maintenance schedules at all, increasing their vulnerability to costly and disruptive breakdowns. This contingent should focus on getting preventative measures in place as soon as possible.

When it comes to roadside assistance programs, the majority of respondents (52%) use a combination of in-house and third-party services for roadside assistance and on-road maintenance. This illustrates a flexible approach to managing breakdowns.

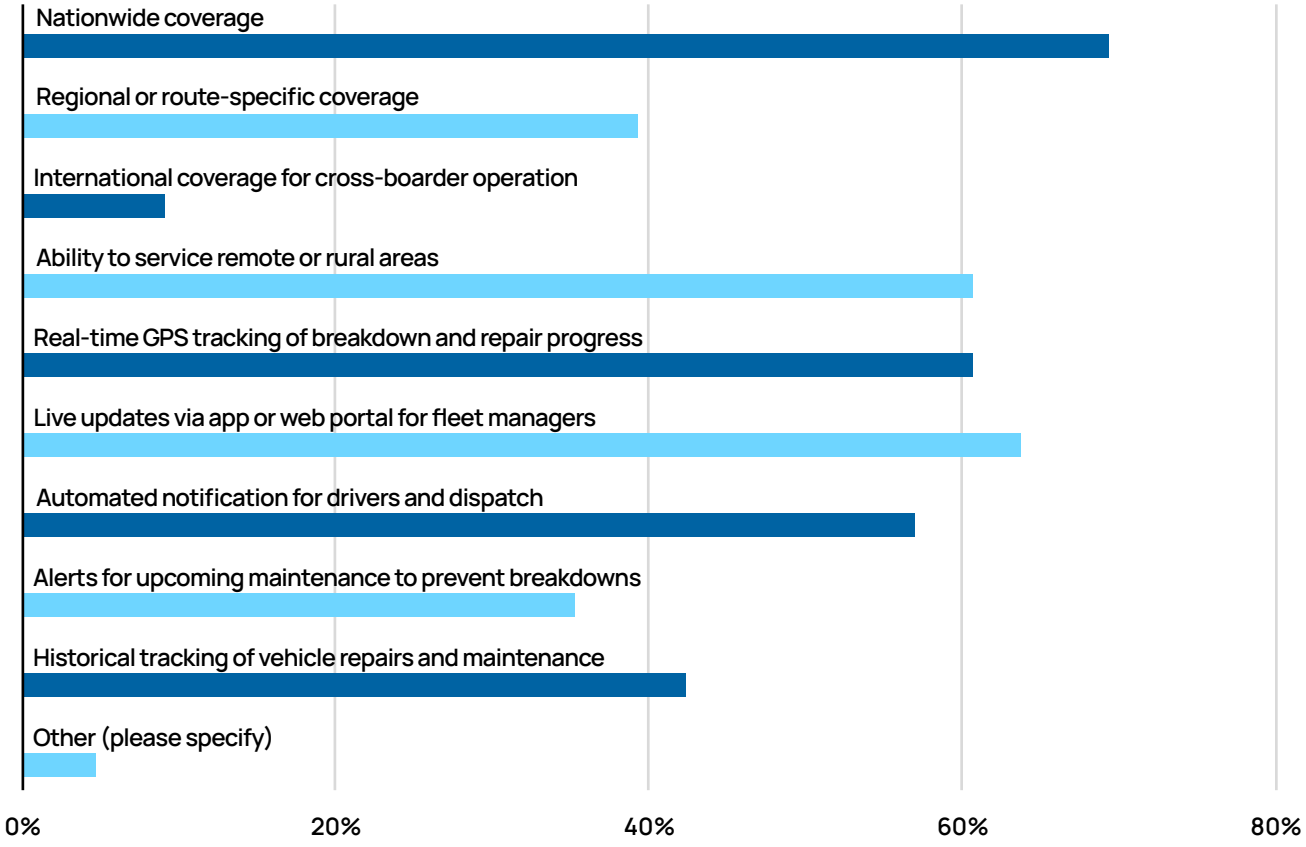
What solutions do you currently use for roadside assistance and on-road maintenance calls? (Select all that apply)



Another significant portion (40%) rely solely on contracted third-party services, while 34% handle roadside assistance completely with an in-house maintenance team. Additionally, 26% of fleets allow drivers to find local service providers as needed, indicating a more decentralized approach.

While a variety of methods are in place, third-party and hybrid models are the most common choices for managing on-road maintenance. This is likely due to their scalability, flexibility and efficiency.

What features would you like for in an ideal roadside assistance and maintenance solution? (Select all that apply)



When choosing a roadside assistance solution, survey respondents tend to prioritize features that enhance efficiency and transparency, including:

Nationwide coverage: 69% emphasize the importance of broad service networks.

Real-time updates: GPS tracking (61%) and live notifications (65%) to coordinate repairs and inform stakeholders.

Proactive tools: Automated maintenance alerts (33%) and historical repair tracking (45%) for better planning and reduced downtime.

Carriers likely prioritize these features in the hopes of improving fleet performance and reducing the long-term costs of breakdowns.

Conclusion

Roadside breakdowns aren't just a nuisance, they directly affect your fleet's efficiency, retention, and bottom line. Their impacts, however, can be mitigated through a combination of prevention and effective response strategies.

Survey data reinforces the importance of robust maintenance programs, swift incident response times and advanced roadside assistance solutions. Investing in maintenance technology can significantly reduce breakdowns, minimize downtime, and boost your overall operational efficiency.

Take control of your fleet operations and ensure your trucks are always moving. Trimble's asset maintenance solutions can help you get ahead of potential issues and keep your fleet running smoothly.