



Holman

**MAINTENANCE
TRENDS | 2024**



EXECUTIVE SUMMARY

For the last two-plus years, a variety of macroeconomic trends – inflation, supply chain disruptions, parts and labor shortages, etc. – have pushed vehicle maintenance costs significantly higher. In fact, vehicle repair costs jumped by as much as 20% during the first half of 2023 across several segments of the industry. Fortunately, these conditions have stabilized in recent months and maintenance costs have leveled off slightly but many fleet operators still face lingering challenges – a trend that’s likely to continue for the foreseeable future.

Leveraging both internal data and external resources, the Holman Consulting Services team has developed a comprehensive analysis of how these macroeconomic factors are affecting maintenance expenses. This in-depth analysis provides valuable insight on these maintenance trends along with tangible advice to help you effectively navigate these challenges. This report examines key areas influencing maintenance costs including:

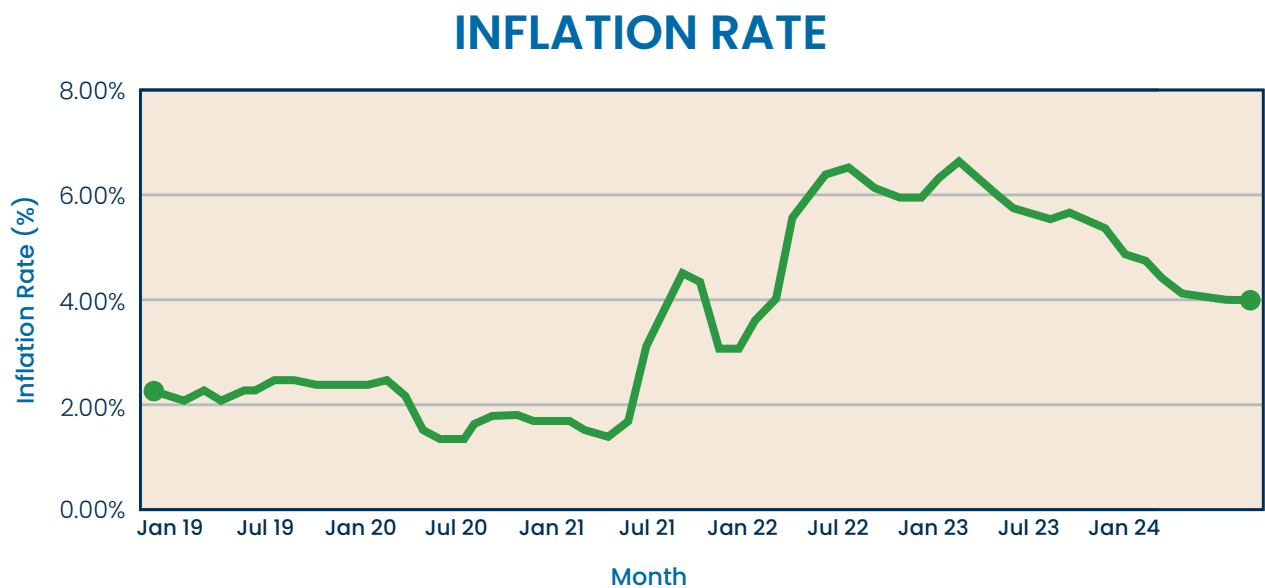
- **Inflation** – Inflation continues to impact almost every aspect of the automotive industry, but one of the areas hit the hardest by inflationary pressures is vehicle maintenance, putting tremendous strain on already stretched operating budgets.
- **Supply Constraints** – While the vehicle supply chain has rebounded from severe post-pandemic disruptions, the industry isn’t out-of-the-woods just yet. Many popular fleet models are still in short supply and acquisition costs are up across virtually every vehicle category.
- **Aging Fleet Assets** – Limited vehicle availability has resulted in many units remaining in service much longer than originally anticipated. As these older assets log more miles, they require additional maintenance and typically incur much more costly repairs.
- **Labor Shortage & Limited Parts Availability** – Rising labor rates and lingering parts shortages are having a profound impact on vehicle maintenance. As a result, fleet operators need to adjust their maintenance strategy and operating budgets to account for increased downtime and higher costs.

While these trends certainly present significant challenges, the good news is that there are a number of ways to minimize the impact on your fleet and your business. This analysis includes several recommendations and action items from Holman’s consultants that will help fleet operators adjust accordingly to optimize your maintenance strategy and mitigate the impact of increasing expenses.

Additionally, Holman and our team of fleet management experts are available to help you navigate these challenges and maximize the potential of your fleet as a strategic business asset.

TRENDS & CHALLENGES: INFLATION

Throughout much of 2022 and 2023, inflation ran red-hot, impacting virtually every aspect of fleet operations and creating significant challenges for fleet managers. While inflation has slowed in recent months, there is little relief on the horizon and inflation likely won't reach the Federal Reserve's target of 2% until 2026 at the earliest.



Inflation peaked in the latter half of 2022 and while it has declined slightly in recent months, it is still well above the 2019 benchmark average of 2.2%

That being said, maintenance and repair specific costs are expected to exceed the overall inflation rate as they are projected to sustain an average inflation rate of 7.5% in 2024. To help illustrate how this is impacting maintenance costs, here is an example of the unprecedented spike in parts pricing in recent years.

The chart below compares the costs of several common Ford F-150 and Ford Transit Van parts with these increases ranging from 10% to as much as 50% in some categories from 2020 to 2024.

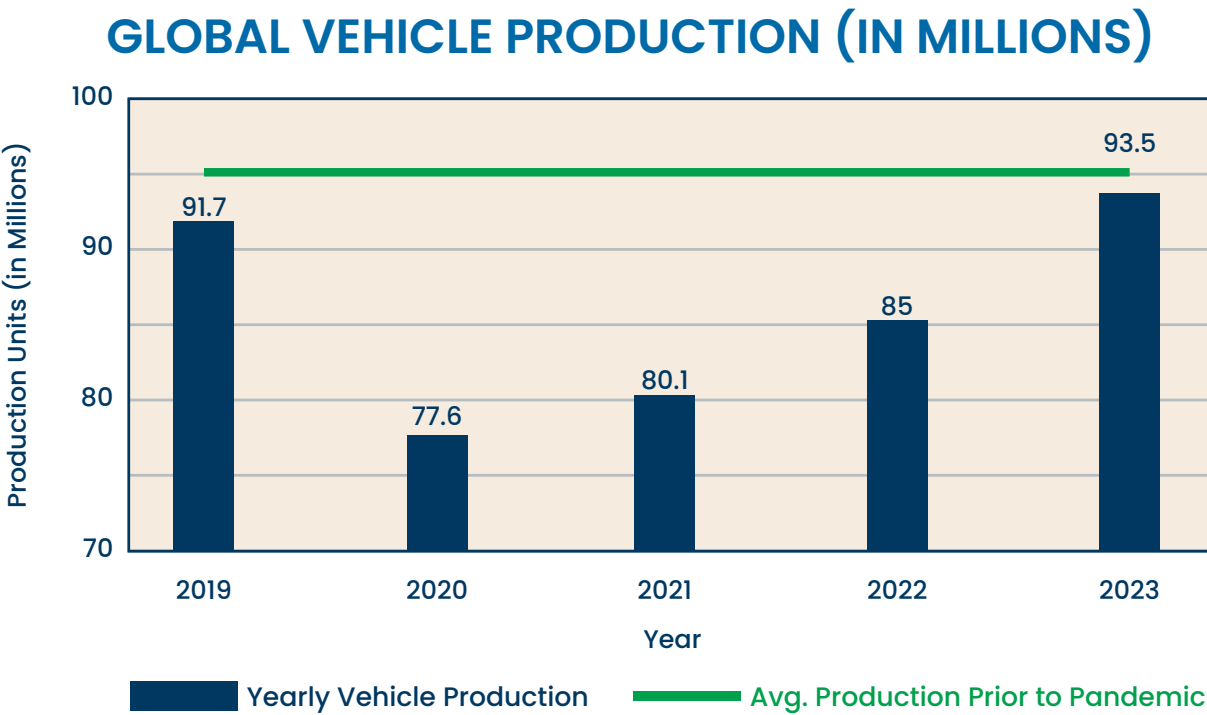
FORD F-150 & TRANSIT VAN PARTS COST (2020 vs 2024)

Ford F-150s			
Part	2020	2024	Percent Increase
Brake Pads	\$76.78	\$89.07	16%
Tires	\$189.10	\$228.15	21%
Alternators	\$373.40	\$483.18	29%
Air Filter	\$23.75	\$27.60	16%

Ford Transit Vans			
Part	2020	2024	Percent Increase
Brake Pads	\$92.71	\$101.82	9.8%
Tires	\$173.17	\$203.97	18
Alternators	\$269.53	\$370.99	38%
Air Filter	\$26.74	\$31.47	17.7%

SUPPLY CHAIN DISRUPTIONS

In 2019, the automotive industry produced more than 90 million vehicles worldwide but since then, production has dropped significantly. From 2019 to 2020, production fell by nearly 15 million vehicles as plants shuttered during the pandemic. Economic uncertainty and parts limitations – particularly the well documented microchip shortage – further slowed manufacturing facilities. While there was a volume uptick after the low of 2020, production levels still have not reached pre-pandemic levels.



Driven by vehicle price increases and surging interest rates, acquisition costs are up across virtually every segment of the industry. Monthly lease payments have increased by nearly 40% since 2020. Parts and equipment pricing has also risen dramatically, up nearly 24% since 2019. This sentiment holds true for the upfit sector as well. During that same timeframe, the cost of vehicle upfitting has spiked more than 20% due to parts shortages, higher labor rates, and increases to the cost of raw materials.

ONGOING LABOR SHORTAGE

There is a critical shortage of qualified technicians throughout North America and this shortage continues to have a profound impact on maintenance costs. As the number of technicians declines and demand grows, most maintenance vendors find themselves increasing wages to hire or retain technicians. This is driving labor rates significantly higher and amplifying the strain on maintenance budgets.

After a rather steady increase throughout 2022, labor rates peaked in January of 2023. Independent repair facilities have had to bear the brunt of labor rate increases. Independent vendors have seen labor rates increase by more than 30% since 2020 whereas national account vendors have only faced an 8% increase. This further underscores the value of establishing strategic partnerships with national account vendors (more on this later).

There’s little, if any, relief to the technician shortage on the horizon and we’re likely to see labor rates continue to climb but at a slower rate than in recent years.

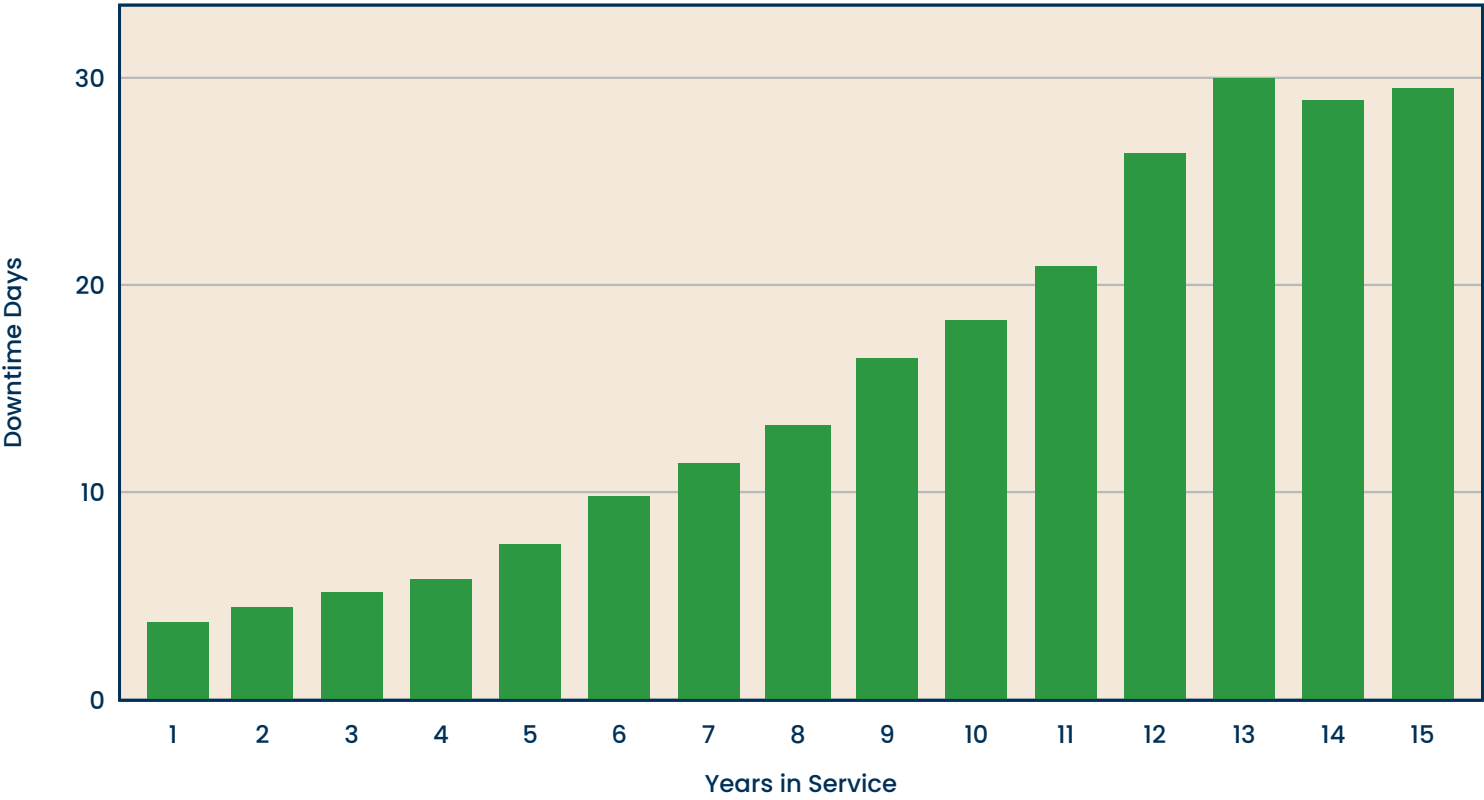
AGING ASSETS

One of the leading factors driving the rise in maintenance expenses can be attributed to the aging of fleet assets which is up across almost the entire industry.

Following several years of supply chain delays, limited availability and capital budget constraints, vehicle lifecycles have been extended well beyond their original forecast. As a result, these older assets are logging more miles and requiring additional maintenance. Also, the repairs that typically occur late in a vehicle's lifecycle are often much more significant and costly – engine replacements, transmission repairs, etc.

Beyond the increased maintenance costs themselves, aging assets also typically incur additional downtime which hinders productivity. The graph below illustrates the average downtime based on the number of years a unit is in service. Compounding the issue is the cost of rental vehicles during downtime events. Most companies cannot sit idle and wait for their vehicles to be fixed. They require a rental vehicle to keep their business moving. These costs can add up quickly if not managed properly.

AVERAGE DOWNTIME DAYS BY VEHICLE YIS



Proper replacement cycles (excluding MD and HD trucks) are typically around five years in service. As you can see, keeping vehicles in service an additional three years (about the span of the pandemic) increases the average downtime dramatically – nearly 40%.

This combination of aging fleet assets requiring additional repair and maintenance along with increasing labor rates and parts pricing has created the perfect storm of disruptions, propelling maintenance costs to near record highs.

Fortunately, there are ways to effectively navigate the trends to help minimize the impact on your fleet and your business.

RECOMMENDATIONS & ACTION ITEMS

While there has been some relief in recent months, the trends fueling the ongoing increase in maintenance expenses are poised to linger for the foreseeable future. To mitigate the impact of rising maintenance costs, fleet operators should emphasize two of the key pillars of successful fleet management:

- Establish and follow optimal replacement cycles for all fleet assets.
- Closely adhere to recommended preventative maintenance (PM) schedules (and adjust PM schedules as needed if vehicles remain in service longer than originally anticipated).

CONSISTENT VEHICLE REPLACEMENT CYCLES

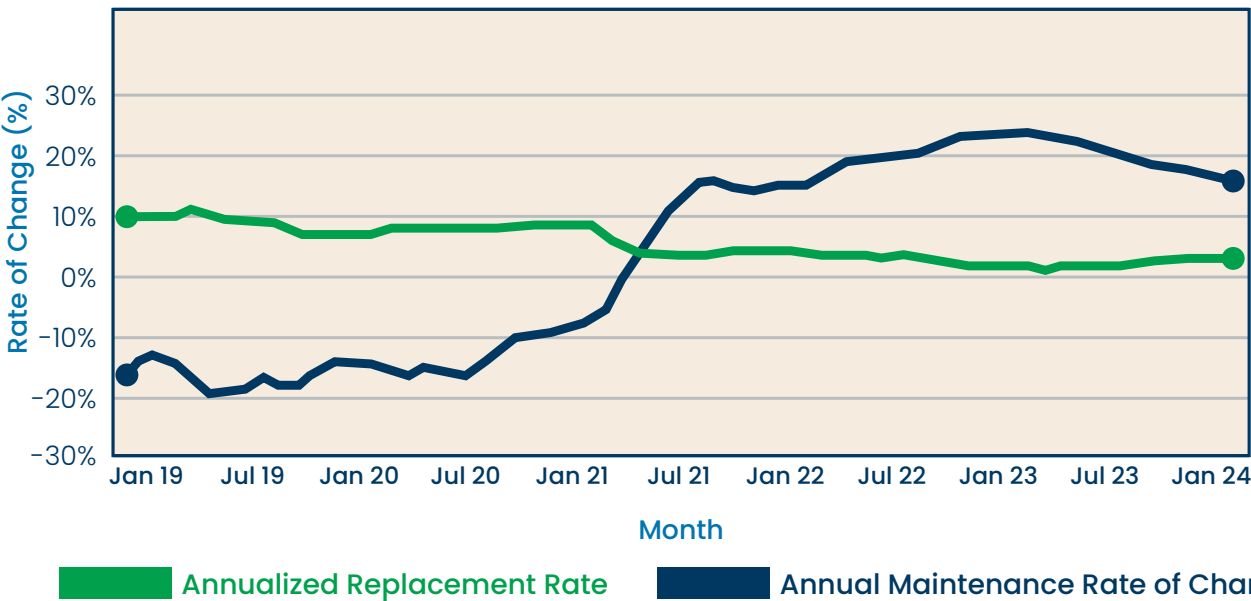
During the last several years, supply chain disruptions and economic uncertainty forced many fleet operators to stray from typical best practices. As a result, normal vehicle lifecycles have been upended for most fleet operators. Now, as units age and operating expenses climb, fleets are scrambling to normalize their vehicle lifecycles.

ACTION ITEM – REEVALUATE REPLACEMENT CYCLES

As we look ahead at the remainder of 2024 (and beyond), now’s an ideal time to re-assess your acquisition strategy to make sure your fleet is well positioned to adapt to an evolving business environment while still adhering to (or trying to return to) optimal replacement cycles.

The Holman Consulting Services team is working closely with numerous customers to leverage replacement modeling to identify the best time to replace their vehicles from a fiscal perspective. This in-depth analysis balances depreciating acquisition and resale costs with increasing maintenance and utilization expenses over time. Holman’s proprietary model highlights the specific year in service that has the lowest equivalent annual cost (EAC) to help maximize the value generated by each vehicle type. This allows customers to not only find the most cost-effective strategy for their fleet, it also ensures they cycle out old and/or under-utilized assets that are no longer efficient.

REPLACEMENT RATE vs MAINTENANCE RATE OF CHANGE



As the vehicle replacement rate declines, there is an increase in maintenance expenses. As you can see, when the replacement rate dipped in Q1 of 2021, maintenance costs spiked dramatically. While inflation certainly played a significant role in this jump, the main cost driver was aging fleet assets. To further reinforce this point, as replacement rates rose in early 2024, maintenance expenses began to decline.

This data clearly highlights that your best defense against escalating maintenance costs is strategic vehicle replacement cycling. However, you may not be able to acquire all the new vehicles your business needs to replace all your aging assets (whether due to supply and/or budget constraints). With that in mind, you'll want to be strategic about how you deploy the units you are able to acquire.

There are a variety of factors to consider and while replacing your oldest, highest mileage vehicles may be the best approach, you also need to be mindful of the role each unit plays in supporting your business. Carefully examine how the vehicles in your fleet are utilized; there may be opportunities to position your newest, most reliable vehicles in business-critical roles while shifting the units being replaced to other areas of your fleet, creating a cascade effect that cycles out these older vehicles over time.

It is also important to keep in mind that it will likely take multiple order cycles to normalize your vehicle lifecycles which have likely been severely disrupted over the course of the last few years. You'll want to develop a comprehensive, long-term strategy that gets your fleet back to optimal replacement rates over the next several years; trying to catch-up all at once will likely result in unsustainable peaks and valleys in your operating costs in subsequent years.

ACTION ITEM – FOCUS ON FLEET RIGHTSIZING

During the last several years, global economic trends have altered the way many organizations now conduct business. As a result, many companies are still adjusting to the current economic landscape, trying to find the ideal balance between employees, revenue generating activity, and a cost-effective, efficient fleet size.

Today, many fleet operators find themselves re-assessing their fleet mix and exploring opportunities to right size their fleet. Through the use of telematics and analytics, you're able to determine which units are not being utilized to their full potential. This insight can help fleet operators uncover opportunities to cycle out underutilized units and sell them to generate capital that can be reinvested into their fleet budget to help offset increased operating costs. Ensuring you are buying the correctly spec'd vehicles is important as well. Holman has found many fleets are able to use a smaller vehicle where a larger one had previously been the norm. The reduction of capital costs from using a smaller vehicle can create a large savings opportunity. Switching from vehicles that use diesel fuel to gasoline can also provide savings.

This data will also help you identify your costly underperforming assets that are a drain on your budget and can be prioritized for replacement (or simply retired if they're no longer necessary). You can also leverage operating and performance data to ensure your fleet size and productivity aligns with the forecast for your overall business.

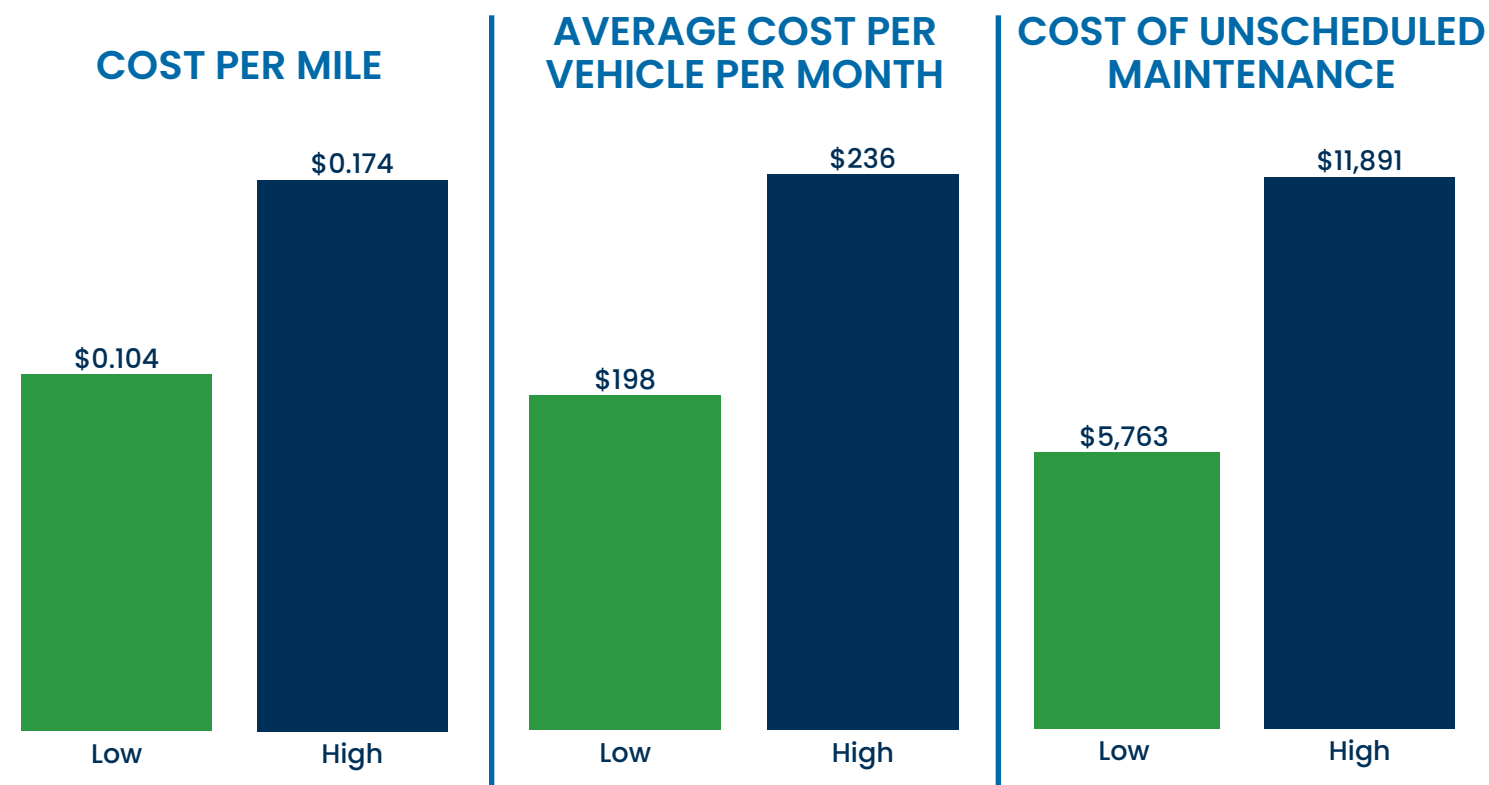
THE IMPORTANCE OF PREVENTATIVE MAINTENANCE

As you work to normalize your replacement cycles, properly maintaining your current fleet vehicles is essential. To help mitigate the impact of increased maintenance costs, the best thing you can do is adhere to the recommended preventative maintenance (PM) schedules to minimize the risk of costly catastrophic repairs. Keep in mind if a vehicle is going to be held longer than originally anticipated, the PM schedule may need to be adjusted to ensure optimal reliability.

ACTION ITEM – MINIMIZE PM VARIABILITY

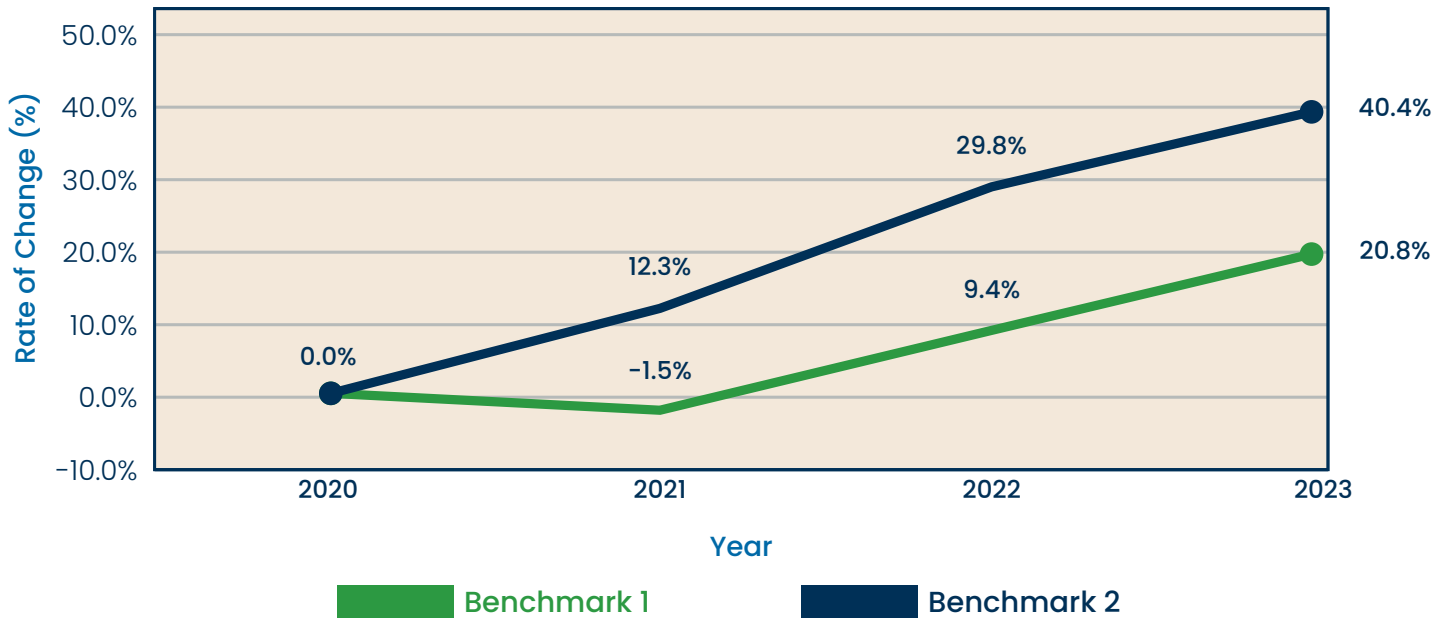
Successfully minimizing PM variability (consistently adhering to PM schedules) is among the most effective ways to improve reliability, maximize productivity, and control operating costs. Regularly completing minor PMs – oil changes, brake services, etc. – dramatically reduces the occurrence of costly, more significant component failures. When a fleet has high PM variability, it typically results in significantly higher maintenance costs and increased downtime as the vehicle ages.

The below graphs demonstrate how poor PM compliance translates to higher overall operating costs.



High PM variability (i.e., not consistently completing recommended PM services) directly correlates to higher cost per mile driven, average cost per vehicle per month, and cost of unscheduled maintenance. The next example illustrates the story of two fleets.

FLEET COMPARISON – CUMULATIVE PO COST INCREASE



Benchmark fleet 1 replaces vehicles on a consistent basis and closely adheres to recommended PM schedules. Conversely, benchmark fleet 2 is inconsistent in terms of both replacement schedules and PM compliance. While both fleets have experienced a cost increase in recent years (mainly driven by inflation), benchmark fleet 2 has seen costs escalate at a much higher rate.

ACTION ITEM – REASSESS PM SCHEDULES

With lifecycles extended, you'll also want to review the services included in your PM schedules and, if necessary, add important services that typically occur later in a unit's lifecycle. For example, if you typically cycle vehicles out at 60,000 miles, your current PM schedule may not include a transmission service, but you should add this important preventative maintenance to your schedule if your vehicle now needs to remain on the road longer.

You'll also want to thoroughly review the approval process for major repairs on your aged assets and carefully consider whether the cost is warranted for older, higher mileage vehicles.

ACTION ITEM – ALIGN WITH NATIONAL ACCOUNT VENDORS

Maintenance vendor management is another area of opportunity to control costs. Holman advises our customers to align with full-service, national account vendors to optimize their maintenance strategy. These full-service facilities perform a multi-point vehicle inspection to help identify potential issues early and avoid catastrophic component failures. Additionally, national account vendors are often more cost effective than independent repair facilities.

Displayed in the table below is a brief comparison of several common PM services including tire replacement, brake repairs, and oil changes. For these services, national account vendors are between 15-35% cheaper than independent repair facilities. While the difference may seem minimal at the vehicle level, when you scale those savings across the entire fleet, the potential cost savings adds up quickly.

COST DIFFERENCE – TIRES, BRAKES, OIL CHANGE

Cost Difference			
	Tires	Brakes	Oil Change
NA Vendor Price	\$302.52	\$511.43	\$80.00
IV Price	\$409.52	\$652.43	\$92.00
Actual Difference in Average PO Cost	\$107.00	\$141.00	\$12.00
Percent Difference in Average PO Cost	35.37%	27.57%	15.00%

*Based on a representative sample.

Additionally, through these strategic partnerships, your vendors become familiar with your vehicles and operating parameters, helping you get back on the road quickly to minimize downtime.

ACTION ITEM – DRIVER ACCOUNTABILITY

With many vehicles remaining in service longer than originally anticipated, we continue to see a growing number of fleet operators emphasizing the importance of proper maintenance and holding their drivers accountable for completing PM services in a timely manner.

We recommend having a robust driver policy that requires drivers to regularly inspect vehicles and report any issues immediately – check engine lights, irregular tire wear, odd noises, etc. Additionally, you want to ensure fleet drivers adhere to recommended PM schedules so minor repairs are proactively addressed before they balloon into a bigger issue. Whether you choose to incentivize your drivers for completing PM services or opt to discipline them for non-compliance, you simply cannot underestimate the impact your drivers have on your maintenance costs.

CONCLUSION

Rising maintenance costs driven by macroeconomic headwinds continue to present a major challenge for fleet operators. Although there has been marginal improvement in some areas, these trends are expected to linger as we look toward 2025 (and perhaps beyond).

To help mitigate the impact of these trends, Holman encourages our customers to always remember the fundamentals of effective fleet management – consistently replace your assets according to optimal lifecycle recommendations and prioritize preventative maintenance. These strategies will help you avoid unscheduled maintenance, minimize vehicle downtime, and ultimately, better control costs.

And as always, remember, you don't have to navigate these challenges alone; we're ready to help. Our team of consulting experts will ensure you stay ahead of the trends influencing your maintenance expenses so you can maximize the potential of your fleet as a strategic business asset.

To learn more about how Holman's holistic automotive solutions can help keep your business moving forward, be sure to visit [Holman.com](https://www.holman.com).