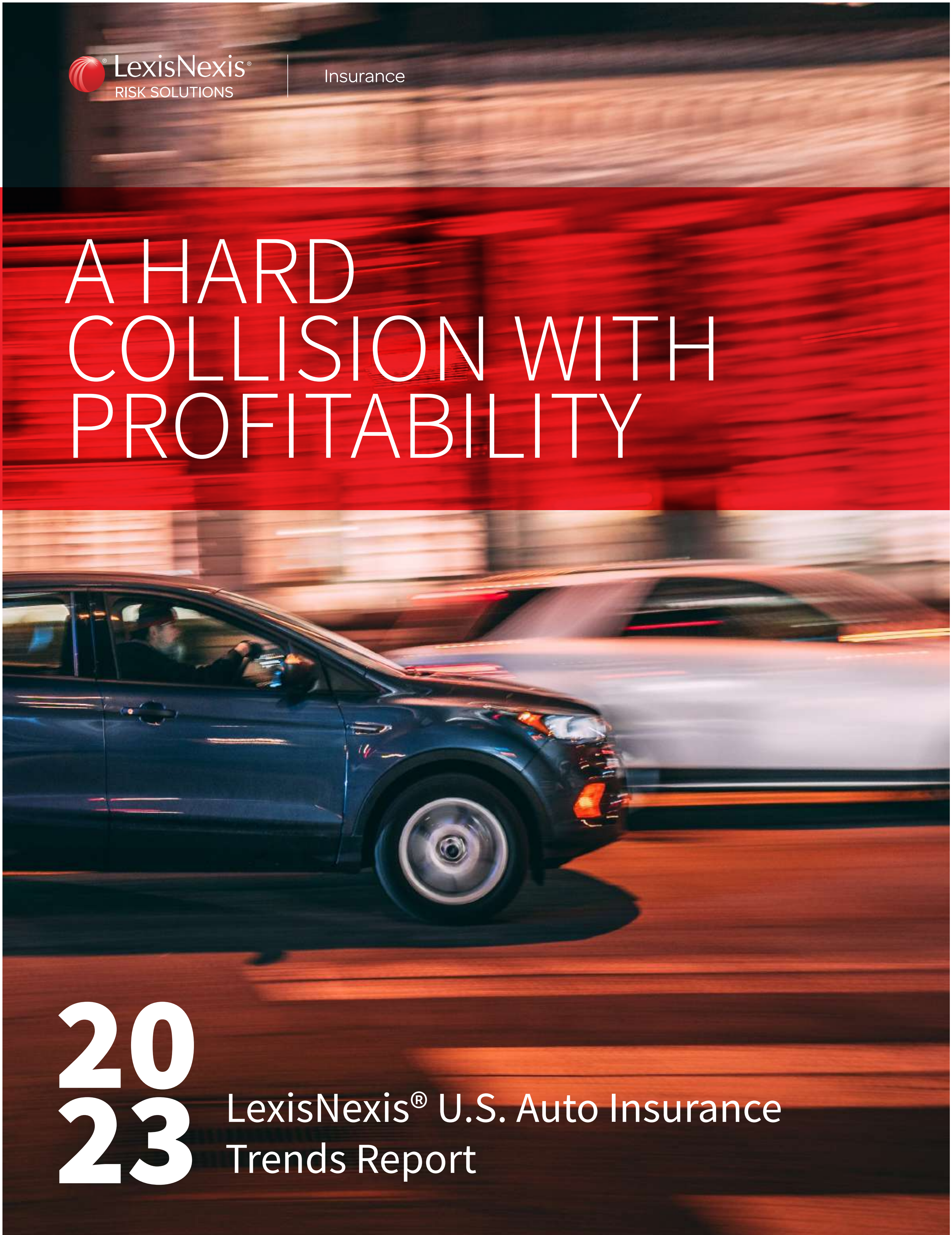
LexisNexis® RISK SOLUTIONS | Insurance

A HARD COLLISION WITH PROFITABILITY



2023 LexisNexis® U.S. Auto Insurance Trends Report

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In 2022, U.S. auto insurers continued to navigate the perfect storm we saw brewing in 2021: record levels of inflation, supply chain shortages, a shrinking talent pool and increased levels of accident severity—all exacerbated by regulatory pushback on rate increases.

This collision course transformed a difficult market into a real struggle for profitability.

Challenges escalated quarter by quarter in 2022, resulting in billions of dollars in losses.[i]

The harsh economic market forced auto insurers to closely manage costs and look for opportunities to take rate. An early drop in marketing spend reduced shopping events in the first half of the year. But as rates rose in certain markets over the course of the year, the industry saw a late-year boost in shopping and switching.

Miles driven, violations and claims severity reached near pre-pandemic levels. Vehicle sales hit 11-year lows due to restricted availability and high price points. As costs rose, appetite for risk shrunk, resulting in a hard auto insurance market.

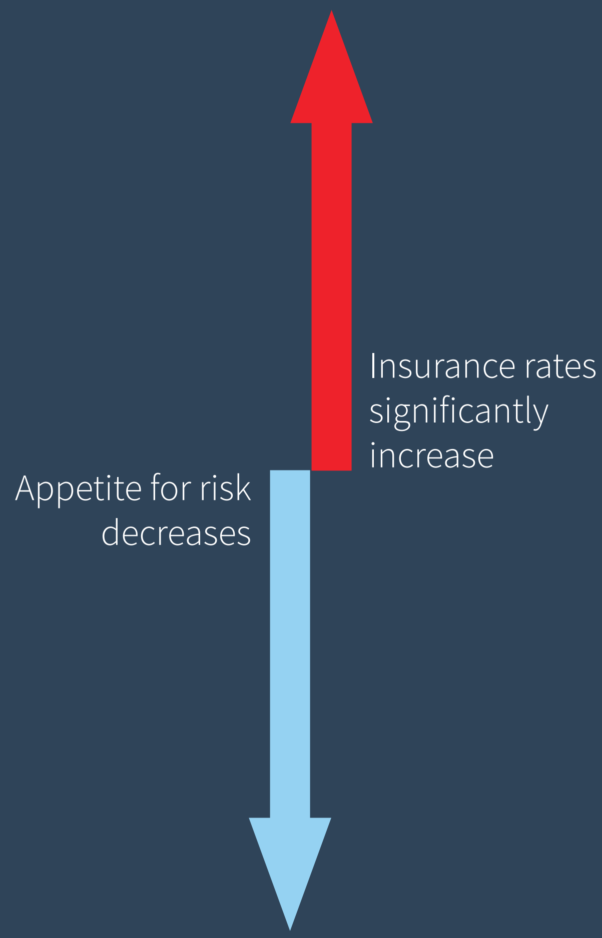
In the current hard market, you can expect to see delays as insurers attempt to restore rate adequacy (or attempt to get rates to appropriate levels), particularly in light of the variations between states.

In this report, we'll explore these trends and more, share important market developments around data and offer key insights we believe are helpful for rating and underwriting in this hard market.

What is a hard market?

In the simplest terms, a hard market is when insurance rates increase significantly while insurer appetite for risk decreases. Possible causes include a rise in claims frequency or when severity or regulatory activity runs counter to insurers' best interests.

2022 had all of this.



Claims

All claims parameters rose in 2022

Overall, claims severity has been rising ever since people returned to the roads in 2020. At that time, insurers saw an uptick in speeding, car part shortages, labor shortages and total losses. These factors all influence claims severity. As we drill down further, we see how bodily injury (BI), property damage (PD) and collision severity (CO) patterns played out last year in the wake of the current insurance climate.

Although 2022 saw less volatility in BI severity than 2021 (Figure 1), the year-over-year increase, which held between 8% and 10% for most of the year, is still cause for concern. When we look back to 2019, arguably the last "normal" year prior to the pandemic, we see that BI severity is up 35%.

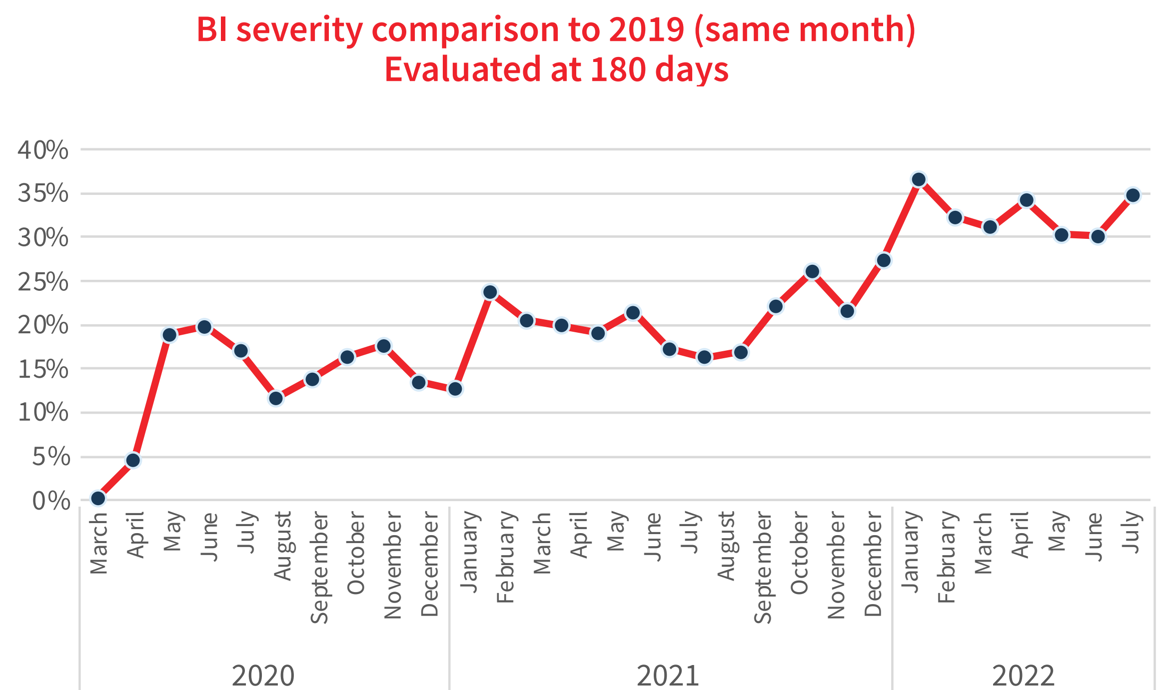


Figure 1. BI severity has generally been on an upward trajectory.

Particularly steep year-over-year increases in PD severity in the second half of 2021 continued through the first half of 2022 (Figure 2). In the second half, increases moderated somewhat, but ended the year 8.5% higher than one year prior.

Comparing 2022 to 2019, PD severity was up nearly 35% as of mid-year 2022.

PD severity comparison to 2019 (same month) Evaluated at 90 days

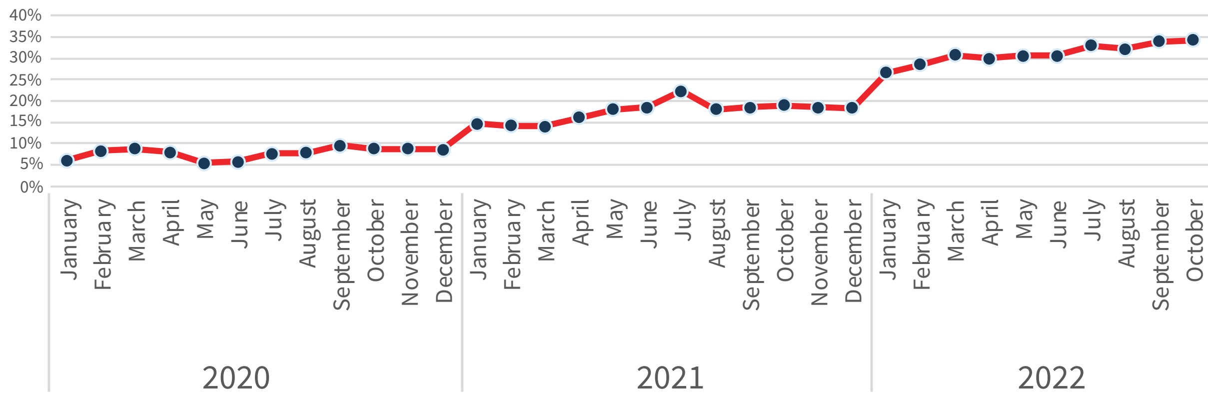


Figure 2. PD severity has increased significantly over the past two years.

Like PD severity, CO severity saw the steep, although even more extreme, year-over-year severity increases from the latter half of 2021 into the first half of 2022 (Figure 3). December 2021 ended at 9% higher than one year prior—a huge relief relative to April 2022, which was nearly 20% higher than the same month in 2021.

Comparing 2022 to 2019 illustrates that CO severity is up roughly 40%.

CO severity comparison to 2019 (same month) Evaluated at 90 days

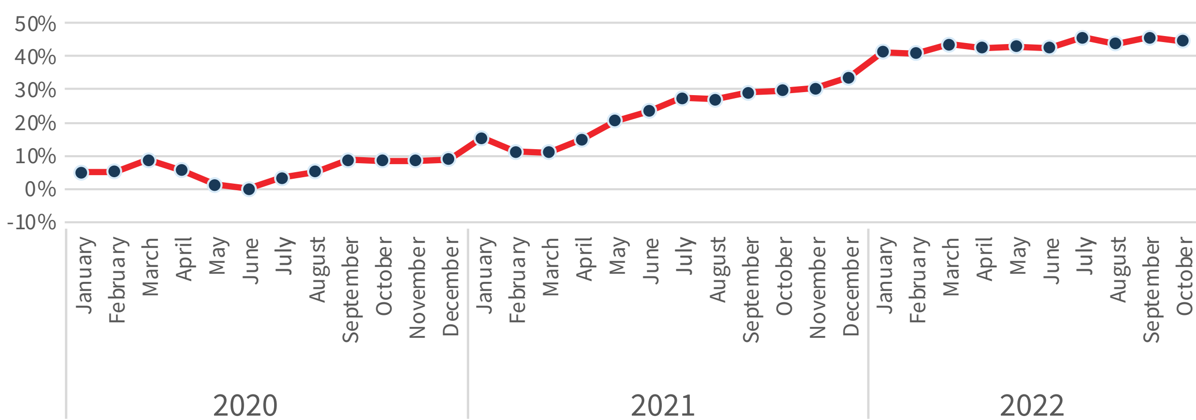


Figure 3. CO severity has increased roughly 40% compared to 2019.

There is no doubt that broader economic factors have significantly contributed to the severity dynamics we witnessed in 2022. According to the Bureau of Labor Statistics, the cost of motor vehicle parts and equipment increased 10% year over year, as did the cost of body work. Even worse, repair costs increased by 19% over the same period. The rise in hospital and related services costs was more gradual, increasing 4.6% from 2021 to 2022.[ii]

Total losses on the rise: when challenge helps create opportunity

Increased accident severity directly correlates to a rise in total losses. Our most recent internal data indicates that 27% of collision claims for 2022 were total losses, up from 24% in 2021.

This increase is significant, especially when you consider the time and effort required to settle these claims and current high vehicle costs. In most cases, adjusters are required to manually search for data and source it from multiple locations. Oftentimes, this occurs outside of the more automated areas of the claims adjuster's workflow. Manually sourcing title, lienholder details or an odometer reading isn't an efficient use of an adjuster's time—especially in light of the data integration capabilities available in the market today. When data is embedded into the workflow, adjusters have access to the information they need so they can keep the claim moving.

As you remain laser focused on creating the best customer experience, pay attention to total loss as an area ripe for improvement.

LexisNexis® Insurance Market Insights helps you identify and react to changing trends

Severity data within this report is delivered through LexisNexis® Insurance Market Insights, series of reports that delivers market-wide insights about claims, underwriting and shopping activity faster than industry averages. LexisNexis Insurance Market Insights helps insurers gain a current view of results against the industry and within sub-segments specific to their market. Insurers that are focusing on process improvement and efficiency can use this data to help test programs that mitigate increasing levels of severity and measure performance.

Get critical total loss data information more quickly and easily with LexisNexis® VINsights

LexisNexis® VINsights equips insurers with critical data for the total loss process, like title, lienholder payoff details, state taxes and fees data. The data is not only integrated into the workflow, it's also available sooner so adjusters have it earlier in the process.

Disconnects in the claims customer experience

Insurers have their sights set on creating exceptional claims experiences despite market force volatility. And in recent years, studies have shown positive strides toward this achievement. While the J.D. Power Auto Claims Satisfaction Study has reported that customer claims satisfaction is generally on the rise, the most recent edition of the report indicates satisfaction with the auto claims experience dropped seven points between 2021 and 2022.[iii] It's possible customers have grown weary of issues such as longer periods on hold or increased time in body shops—natural outcomes from today's market pressures.

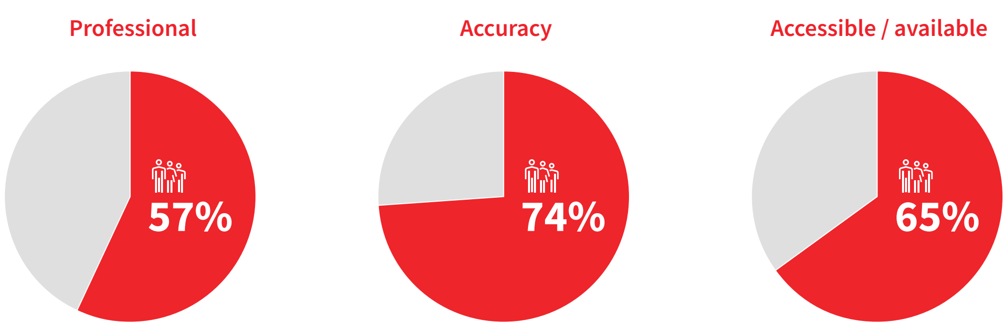
Because customer satisfaction is a significant focus for claims departments, we sought to better understand the correlation between the customer claims experience and a policy holder's decision to switch insurers—the ultimate expression of dissatisfaction.

In August of 2022, we surveyed roughly 1,400 customers who had filed a claim within the past 12 months. We asked a series of questions about the claims experience, ranging from the overall process to digital claims filing options and payments.

We discovered that a combined 94% of respondents were either very satisfied or somewhat satisfied with their claims experience—67% and 27% respectively.

While you might feel understandably encouraged by these results, what's of great concern is that 33% of respondents still switched insurers or considered switching following their claims experience.

Drilling down, we saw three areas of notable discrepancy within customer service between customers who planned to stay loyal to their insurers, and those who left their carrier or considered doing so: professionalism, accuracy and availability. Customers who planned to remain with their insurer were satisfied with professionalism 57% more often, with accuracy 74% more often and with accessibility and availability 65% more often than their counterparts.



However, both loyal and non-loyal customers agree their experience was slower than they would have liked.

Interestingly, there were differences between the groups in how they responded to the process. **Less loyal customers were:**

4X more likely to report a slow claims process

5X more likely to report confusing website instructions

5X more likely to report too many steps in the digital process

Additionally, 45% reported they spoke with three or more people to settle their claim.

Integrate key insights into your claims workflow with LexisNexis® Claims Datafill

LexisNexis® Claims Datafill is a prefill solution that helps deliver insights about people, policies and vehicles directly into the claims workflow. It helps enable a faster and more accurate claims process for adjusters so they can access the insights they need at first notice of loss and throughout the claim lifecycle to keep claims moving.

These findings help support the need for a data-driven integrated claims process that eliminates manual, confusing and unnecessary steps. This is especially important when you consider how customers report auto claims today.

When we asked customers how they prefer to report claims, their responses were split fairly evenly between traditional and self-service/digital reporting.

Traditional submissions:

- **56%** reported via a phone call
- **16%** reported via email
- **13%** submitted a claim in person to an agent
- **8%** reported their claim through a body shop
- **7%** notified the insurer via mail or fax

VS

Self-service/digital submissions

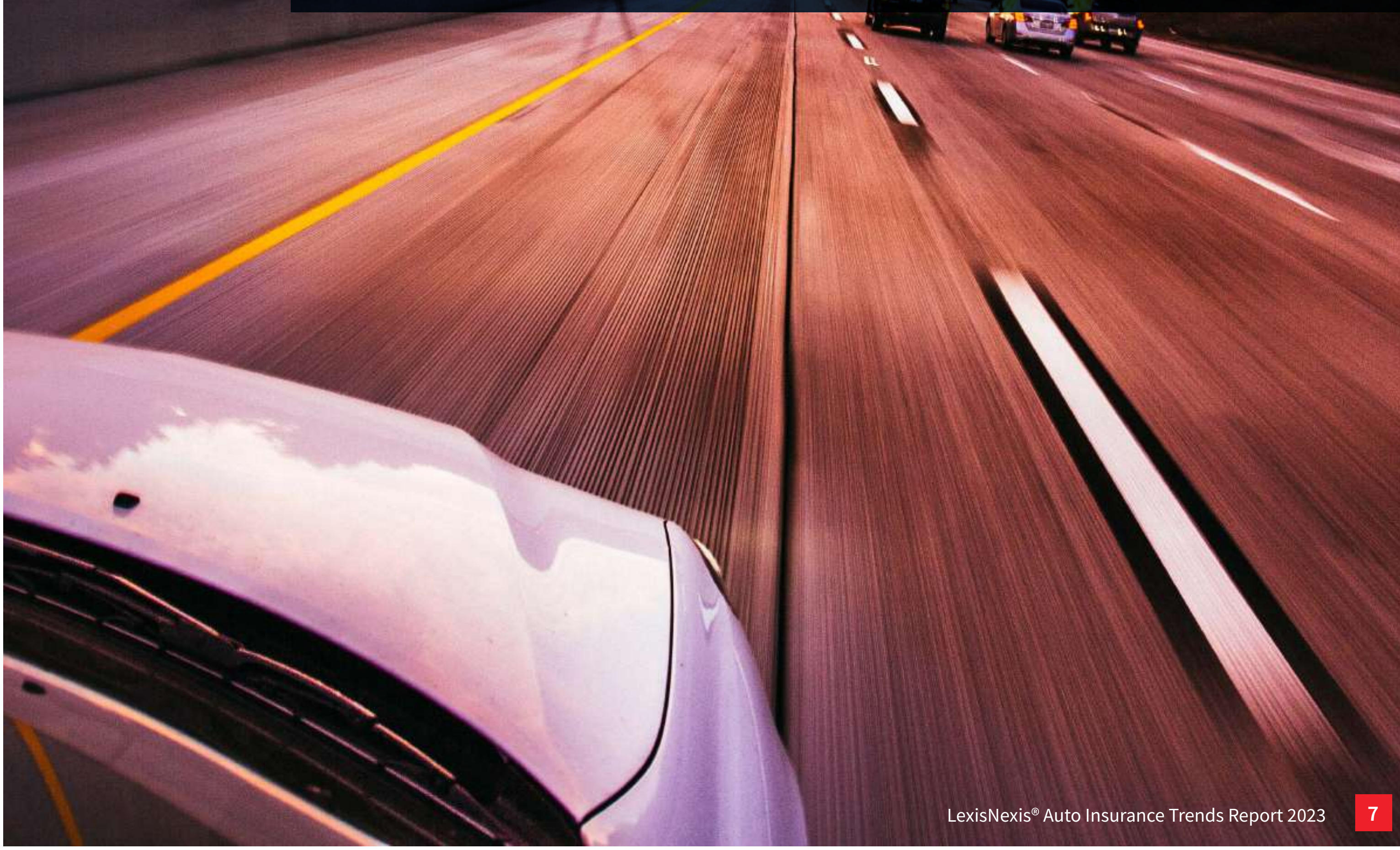
- **38%** submitted via the insurer's app
- **32%** reported through the insurer's website via an online form
- **16%** reported through the insurer's app via an online chat
- **14%** submitted the claim via a text message

Omni-channel service is important to delivering an experience on your customers' terms. Customers may not always want digital interactions where you'd think, and the same goes for human interactions. Being good at digitally-supported as well as human-supported interactions is important, and letting customers flex between them is equally important.

How to drive profitability in a hard market

In a hard insurance market, every competitive advantage counts. Excellence in claims handling can certainly be a top advantage. Opportunities for improvement abound, whether you focus on process inefficiencies that result in the loss of loss adjustment expense (LAE) dollars or the loss of customers who endure a less-than-ideal claims experience.

Integrating data into complex claims processes not only helps inform and improve workflows, it can also help take the heavy lifting out of the hands of an increasingly greener adjuster workforce. People, processes and technology are three pillars of success. Each can be fortified with the right data delivered the right way at the right time.



U.S. auto insurance shopping and policy switching

Volatility creates a ripple effect

Shopping growth slows in the first half of the year

2022 began with a slow start for U.S. consumer auto insurance policy shopping and purchasing activity. Negative growth prevailed for the first two quarters, influenced by two key factors.

First, the shortage of new and used vehicles continued to take its toll. Although new vehicle sales hit record volumes in Q1 2021, new vehicle sales were down 8% in 2022 compared to 2021[iv] and down by 20%[v] in Q2 alone. Because one out of every three car purchases results in an auto insurance shopping event, fewer sales equate to fewer consumers shopping and switching their policies.

The lack of inventory has also caused a dramatic increase in used vehicle prices, which in turn impacts claim severity—particularly for total losses. Additionally, higher claims costs fueled insurer concerns about profitability, spurring a large drop in marketing spend.[vi] This cutback on marketing is the second reason for the muted shopping activity seen in the first half of 2022. With less ad exposure, consumers were less inclined to shop. This was reflected in the year-over-year decline in shopping and new policy growth rates that averaged -3.5% and -9.2% respectively for the first half of 2022 (Figure 4).

Figure 4. Shopping and new policies have experienced ongoing volatility over the past two years.

Highest rate increases in years drives late-year shopping rebound

The sluggish shopping activity in the first part of 2022 completely reversed itself in the latter half of the year. Shopping and new policy growth came roaring back in the middle of Q3 2022, with shopping jumping from -5.2% in July to +5.3% and +3.5% in August and September (Figure 4). This continued into the fourth quarter as volumes grew by 2.8%. Shopping growth in the latter part of the year was particularly strong among 36- to 45-year-old shoppers, whose volume growth outpaced all other demographic groups. The substantial change in consumer shopping behavior aligns directly with auto insurer rate increases.

Insurers began to implement rate increases in late 2021 in response to increased claims costs. Figure 5 shows the estimated cumulative impact on the market. After dipping slightly in late 2020 and early 2021, the overall rate level has been increasing dramatically in response to the profitability issues driven by the unprecedented claims severity trends during the COVID pandemic. In fact, rates increased by more than 9% on average in 2022—twice as much as we've seen in recent calendar years. We expect that figure to continue upward in the coming months, as additional rate increases are filed.

Estimated impact of implemented rate changes

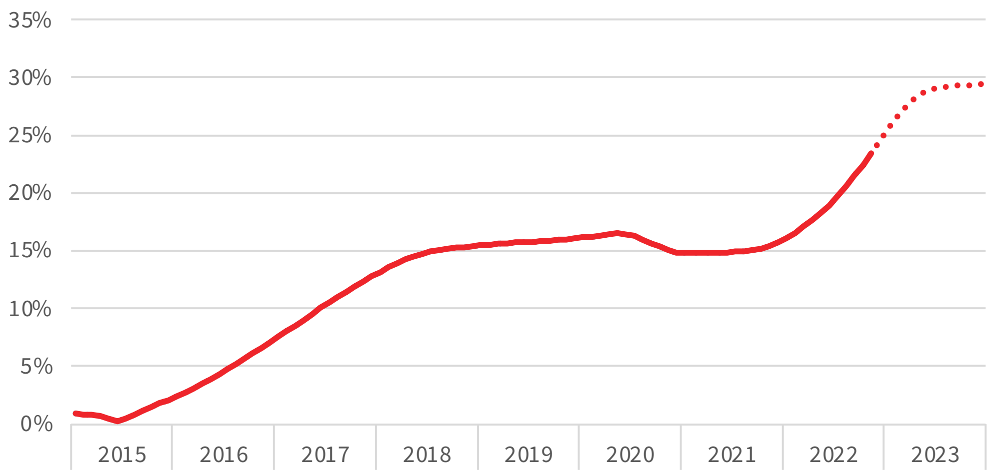


Figure 5. An upward climb in rate changes continues to have an impact on shopping behavior.

It's not only that consumers are shopping more in response to the rate increases; they're also more likely to switch their policies when they shop. In fact, we observed record new business volumes in November and December, resulting in 10.2% growth in Q4 2022.

As the impact of some of the largest rate revisions began to take effect beginning in August, new policy volumes dramatically increased from below pre-pandemic levels to align with 2020 volumes (Figure 6). We attribute this shift to the fact that:

- Not all insurers had implemented their rate revisions in all markets, so price-sensitive consumers are more likely than usual to find lower premiums when they shop.
- Much of the growth was in the independent agent shopping channel, where purchase rates have historically been higher than in other distribution channels. This likely aligns to agents shopping for insureds who received rate increases at their renewals.

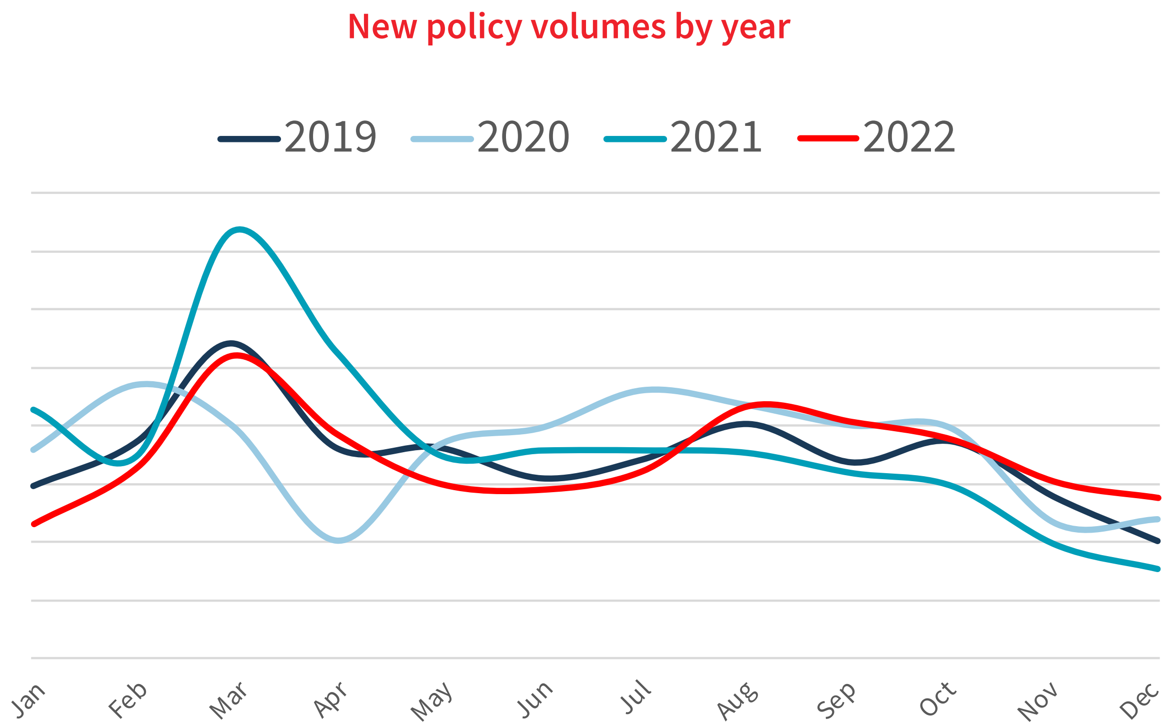
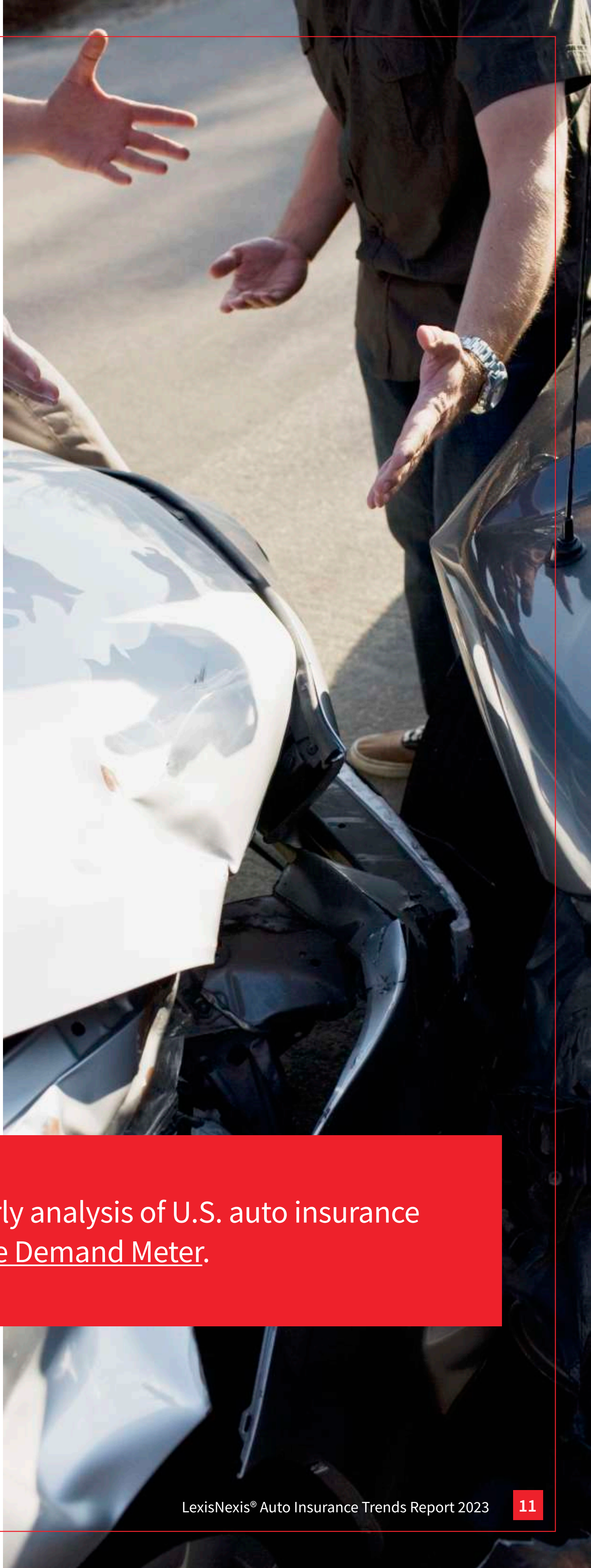


Figure 6. New policy volumes came soaring back in the second half of 2022 to bypass 2019 levels.

In 2022, the rate at which shoppers switched or purchased new coverage was up across all demographics, and mostly represented a return to pre-pandemic levels. However, there were higher than usual purchasing patterns among the 55+ age demographic, consumers with high BI limits and policy holders with long tenure with their previous insurers. These are groups that are highly desired but difficult to get to not only shop, but then to switch.

How to drive profitability in a hard market

Significant rate disruption has traditionally been a catalyst for high shopping volumes. We anticipate the rate activity trajectory shown in Figure 5 to keep rising as more and more auto insurers file rate increases in states where they have not yet adequately addressed profitability. This, in turn, could continue to encourage higher purchase rates into the first half of 2023, at a minimum.



For more in-depth insights and a quarterly analysis of U.S. auto insurance shopping, read the LexisNexis® Insurance Demand Meter.

Miles driven and violations

A symbiotic relationship

Miles driven and violations go hand-in-hand. You can't look at one without considering the implications for the other. In 2022, both miles driven and violations returned to near pre-pandemic levels.

Total miles driven in 2022 were just 5% lower than in 2019. Miles driven per week per vehicle were 92% of the 2019 baseline for December (Figure 7).

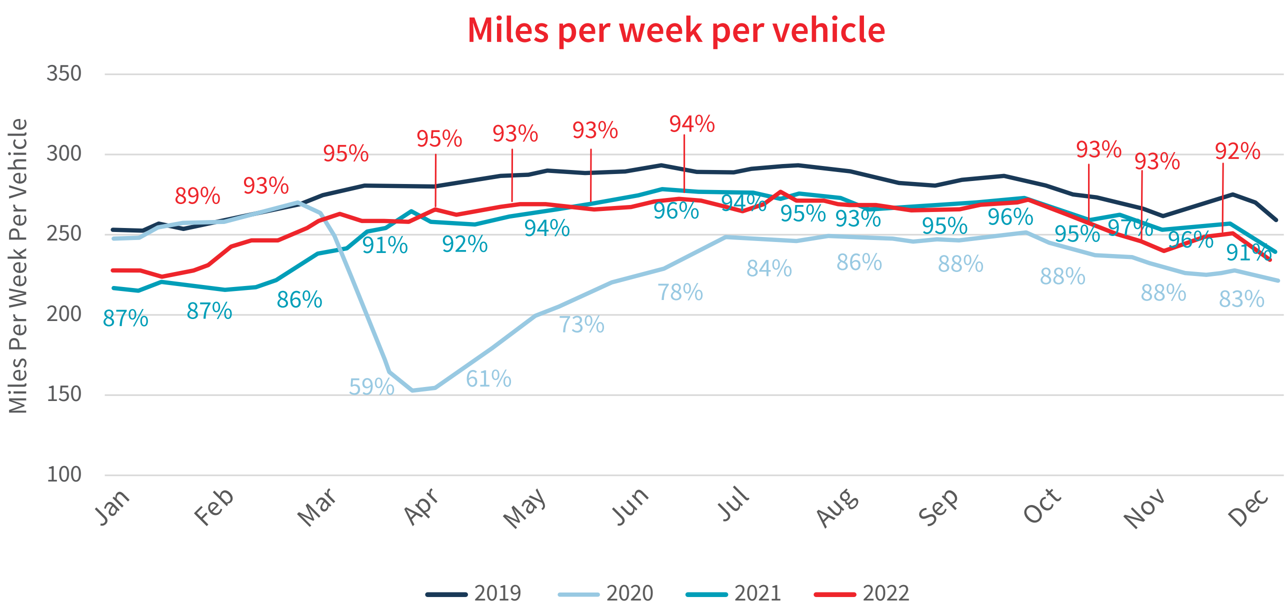


Figure 7. Miles driven is returning to "normal" levels.

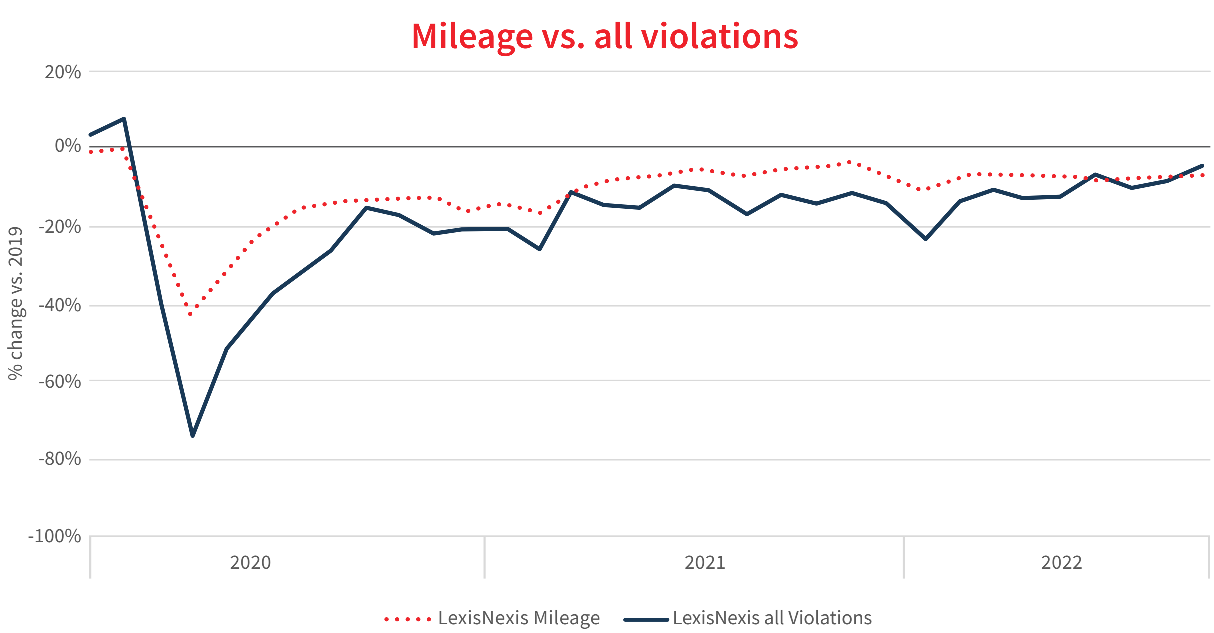


Figure 8. Violations in aggregate are returning to "normal" as well.

While the violation mix continues to evolve, some of the most dangerous violations— including speeding, DUIs and distracted driving—are close to or even exceed pre-COVID levels.

The National Highway Traffic Safety Administration (NHTSA) provides context for the impact of these shifts in its report, Traffic Deaths Third Quarter of 2022:[vii]

- An estimated 31,785 people died in traffic crashes in the first nine months of the year (representing a 0.2% decrease over 2021 fatalities).
- There was an increase in fatalities in the following areas: 12% on rural interstates, 10% in crashes involving at least one large truck, 8% among cyclists, 5% among motorcyclists, 2% among pedestrians.

Speeding

During the pandemic we tended to attribute speeding to open roads and less traffic. However, we haven't seen a significant change in volume of these events, even with miles driven returning to more normal levels. In fact, major speeding was at levels that were more than 20% above 2019 rates, largely due to increases in the northeastern states, which tend to have large population centers.

Major speeding violations through mid-2022 were predominantly attributed to males. However, by the second half of the year, females had caught up and remain closely aligned with the percentage of male violators. From an age perspective, Generation Z continues to create the greatest volume of these violations, followed by Millennials. However, since mid-2021 all generations have contributed to the increase in major speeding above 2019 levels. Minor speeding crept above 2019 levels for the first time in 2022. Although the increase is less than the relative increase in major speeding, its growth rates are just as concerning. This development is significant, as minor speeding represents the single highest category of moving violations, and is also one of the highest total volume categories.

Major vs. minor speeding violations vs. 2019

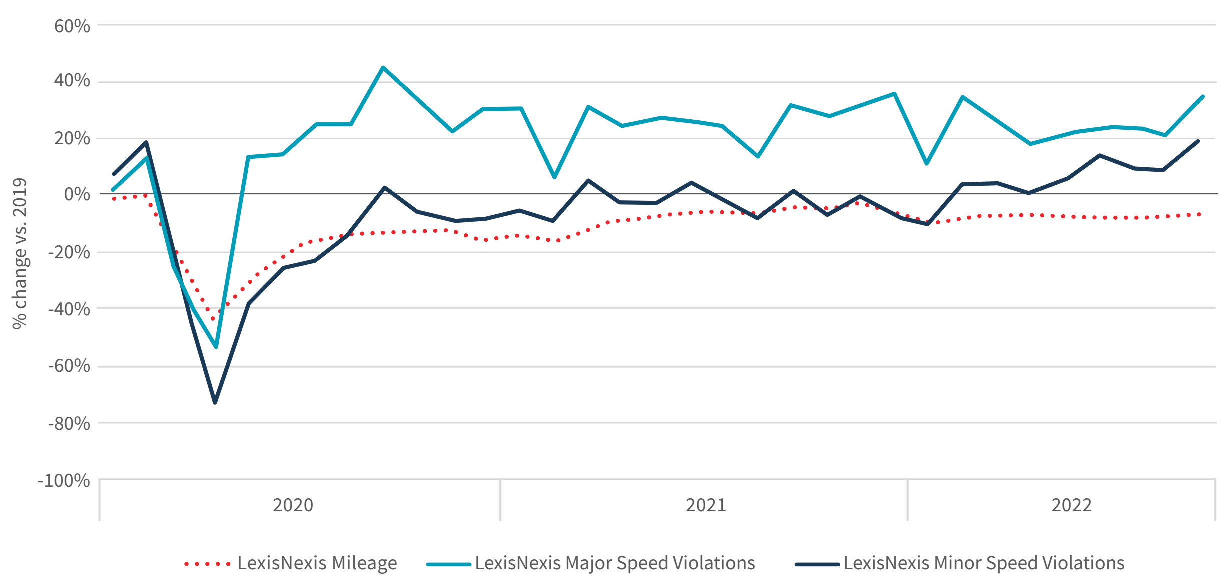


Figure 9: Speeding, both major and minor, continues to be problematic post pandemic.

We are now observing not only a significant rate of growth in the most excessive speed categories, but also a similar rate of growth in total volume of speeding. The shifts in speeding patterns may indicate law enforcement is escalating efforts to reduce the high rates of speed that have been documented on our roadways and that tie directly to the increase in traffic fatalities. Essentially, more tickets are being given today per each mile driven.

Driving under the influence (DUI)

DUI levels in 2022 continue to align very closely to 2019 levels, more so than vehicle miles traveled. However, unlike other violations, DUIs take longer to move through the court system, so they can be a lagging metric (shown by the blue bar in Figure 10). While our observation is that the incident rate for 2022 is closely in line with 2019 levels, we anticipate future reports will identify growth rates above 2019. There's also seasonality in the data. Notably, we tend to see fewer violations in the fourth quarter.

Law enforcement officials have reported seeing a steep increase in drunk driving cases since the start of the COVID pandemic that has dramatically increased each year since. Some locales have seen significant increases in DUIs, especially daytime DUIs. Anecdotally, law enforcement attributes some of the increase to increased enforcement. Considering that the NHTSA attributes one-third of vehicle fatalities to drunk drivers, this is a metric always worth watching.[viii]

While traditionally males are responsible for more DUIs than females, the percentage among the female population has been increasing since 2021. Baby Boomers and Traditionalists are the two generations that have consistently seen DUI growth above 2019 levels. On the other hand, a very positive sign is that our youngest generation, Generation Z, has experienced some reduction in DUI volume. The exception is in the second half of 2022. Another metric to watch.

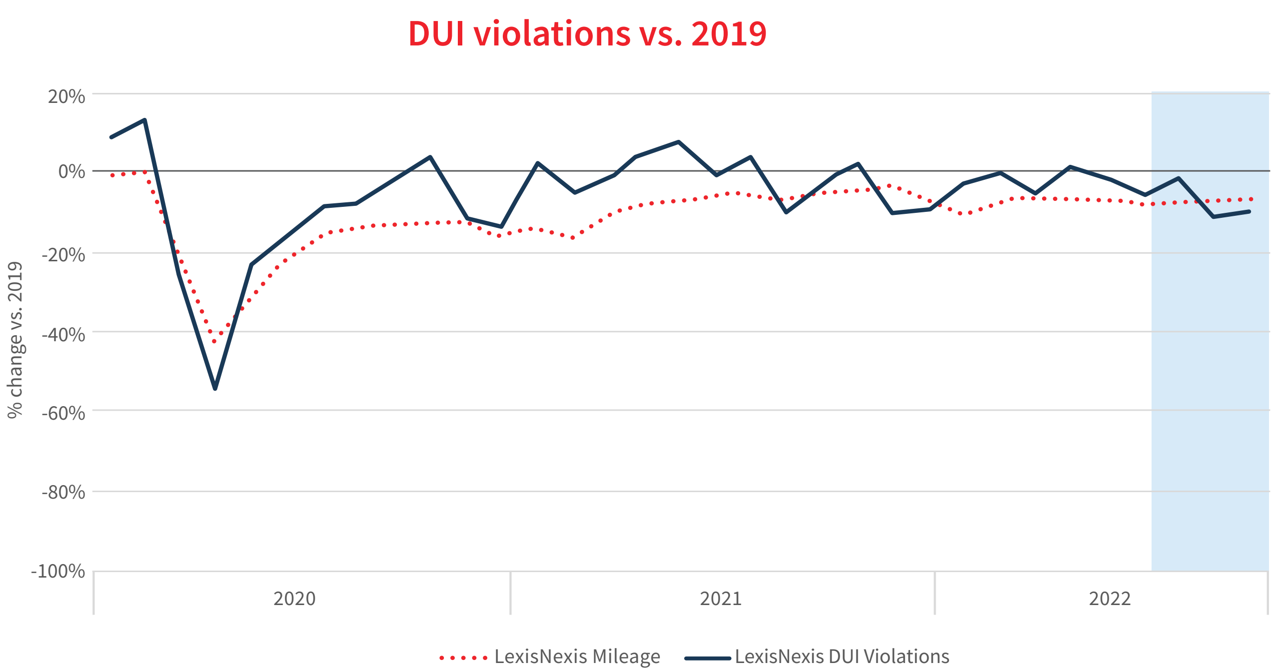
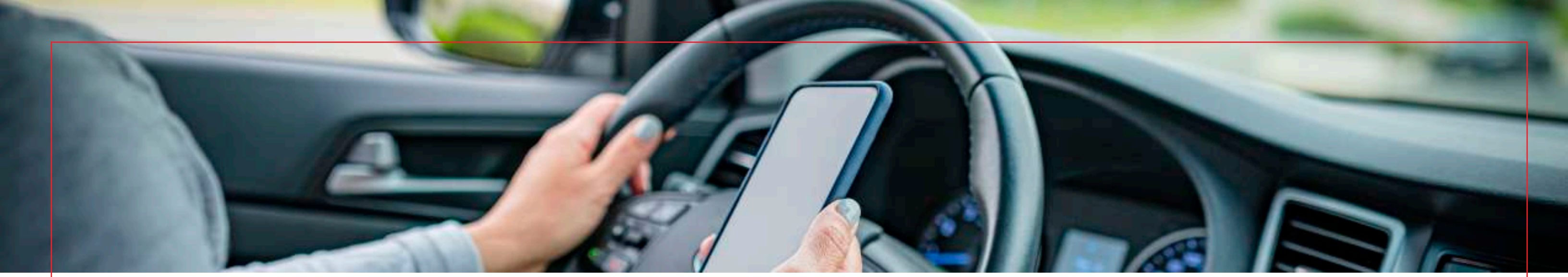


Figure 10. DUIs have for the most part returned to 2019 levels.



Distracted driving

Unlike other violations, distracted driving can be difficult to ticket, as law enforcement has to prove that there was a distraction (such as texting while driving). Post pandemic, there's been a steady uptick of distracted driving violations as compared to miles driven, especially in 2022 (Figure 11). There were three months during 2022 where volume exceeded 2019 for three generations: Baby Boomers, Generation Z and Traditionalists. Generation Z continues to be the most problematic age group when it comes to increases in distracted driving.

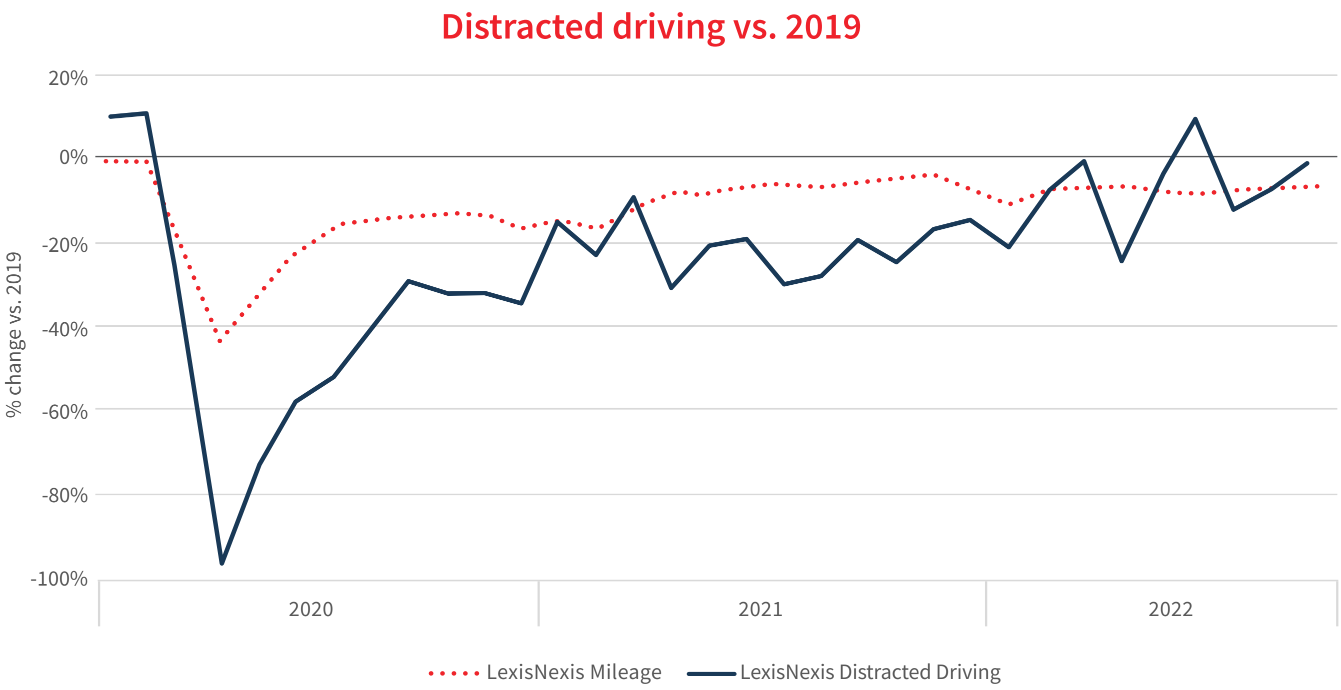


Figure 11. Distracted driving is on an upward trajectory and unchecked could consistently exceed 2019 levels.

How to drive profitability in a hard market

While individuals are responsible for their own behavior, insurers have the opportunity to influence their insureds when it comes to awareness and mitigation of distracted driving behaviors. We recommend you take advantage of this opportunity by reaching out to and educating your customers about the current state of distracted driving (cell phone use in particular), its devastating impacts, and the many ways each of us can help reduce and eventually eliminate this significant traffic safety risk. By engaging your customers in usage-based insurance (UBI) programs that help reveal crucial driving behavior insights, you can help your customers save money, reduce risk across your business and make the roads safer for all.

Telematics

From innovation to mainstream: growth expands beyond the Top 10

Investment in telematics continues to gradually expand among insurers of all sizes, with a growing number expressing interest in exchange-based solutions. That's good news for consumers of all sizes, who express a very positive sentiment about telematics. Providing the opportunity for a more personalized risk assessment based on driving behavior can only improve the relationship between insurers and customers.

As the interest in telematics-based driving behavior increases, the move toward exchange-based solutions is poised to grow even more over the next few years, according to studies commissioned by LexisNexis Risk Solutions. In fact, in our 2021 survey of the 50 top U.S. insurers,[ix] 68% of respondents said that telematics offers a competitive advantage while the remaining 32% stated that telematics is a basic requirement to remain competitive. Not a single insurer disagreed about the importance of the technology. Also, all of them indicated they are at least somewhat interested in using a telematics exchange in the next couple of years.

An exchange-based solution can benefit any insurance business. Overall, among the top 50 insurance carriers, approximately one in three (30%) already uses a telematics exchange-based solution. However, adoption varies among company sizes. As expected, the rate in the top ten tier is higher: nearly one in two (43%) uses an exchange-based product. In the top 11-20 tier, only one in five (20%) uses one. Interestingly, among the top 21-50 tier, one in four (27%) already employs an exchange-based product, surpassing the top 11-20 tier.

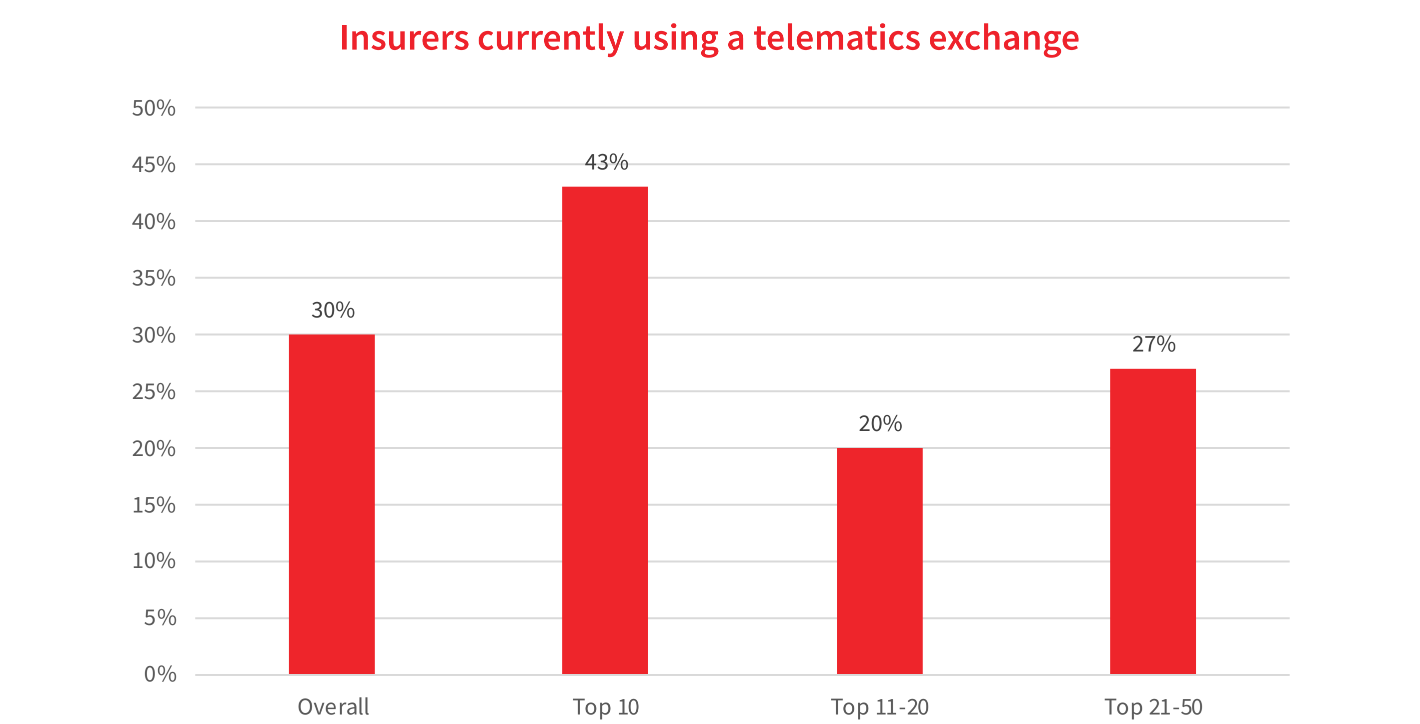


Figure 12. Thirty percent of insurers currently use a telematics exchange.

An exchange-based solution can help benefit any insurance business

For insurers with limited internal resources, a telematics exchange is understandably attractive and more cost-effective than running their own telematics program. Smaller insurers may lack enough proprietary data and capabilities to generate their own telematic scoring. While an off-the-shelf score can help them price risk with greater accuracy, empowering them to protect their book of business, a telematics exchange can do so much more.

The power behind a telematics exchange

The LexisNexis® Telematics Exchange offers the possibility of having a telematics-based driving behavior score for a new customer right at point-of-quote. Without a point-of-sale product like LexisNexis® Telematics OnDemand (ToD), you'd have to run your own telematics program and likely wait for a trial period of six months to get enough driving behavior information to generate valid scores. Only after that process would you be able to build an accurate picture, assess the risks and offer a more personalized price.

The Exchange also exponentially improves the quality of the scores. Behind this explosion in quality are the unique models a data-rich exchange allows data scientists to create.

Finally, an exchange-based solution offers an insurer the ability to combine standard rating factors, such as credit, with a telematics score—further improving risk assessment accuracy. This allows you to develop greater segmentation. With that level of granularity and control, you can attract and retain the most valuable customers, increasing your profitability.

About the LexisNexis® Telematics Exchange

- The LexisNexis® Telematics Exchange was built to ingest telematics data from automotive original equipment manufacturers (OEMs) and third-party telematics service providers (TSPs). Once a consumer opts-in to sharing their telematics data through their OEM or TSP, the data flows into the exchange, where it is standardized and normalized, and can be used to serve those participating consumers buying insurance for their vehicles. When new OEM data is integrated, there is no need to change specifications for products.
- LexisNexis® Telematics OnDemand delivers real-time driving behavior data seamlessly into the insurer's flow. The integration is set up at no cost. In addition, there are no maintenance fees and no minimum monthly charge or volume commitments.
- LexisNexis® Telematics OnDemand is designed with the Fair Credit Reporting Act in mind. It is also supported by the LexisNexis Consumer Center, which offers consumers the ability to request a copy of their LexisNexis® Consumer Disclosure Report.

How to drive profitability in a hard market

The significant majority of insurers positioned between 21st and 50th in market share told us they believe that a telematics exchange can deliver scalability, provide real-time data that informs on driving behavior and is constructed to assist with regulatory compliance. Their expectations are on the mark.

These capabilities become even more crucial in a hard market. More accurate pricing and faster turnaround time leads to a better, more personalized customer experience that helps you capture and keep valuable policy holders in a highly competitive environment. According to our study, a significant majority of insurers in the 21-50 tier envision a variety of benefits from a telematics exchange across the customer journey. They also expect that an exchange will provide relevant data that can help lower the cost of insurance, reduce claims costs and mitigate fraud risk.

Insurers who invest in telematics will have a significant edge over those who don't. Laggards could be subject to adverse selection and have only the greatest risks in the market left available to them.

Model performance by coverage

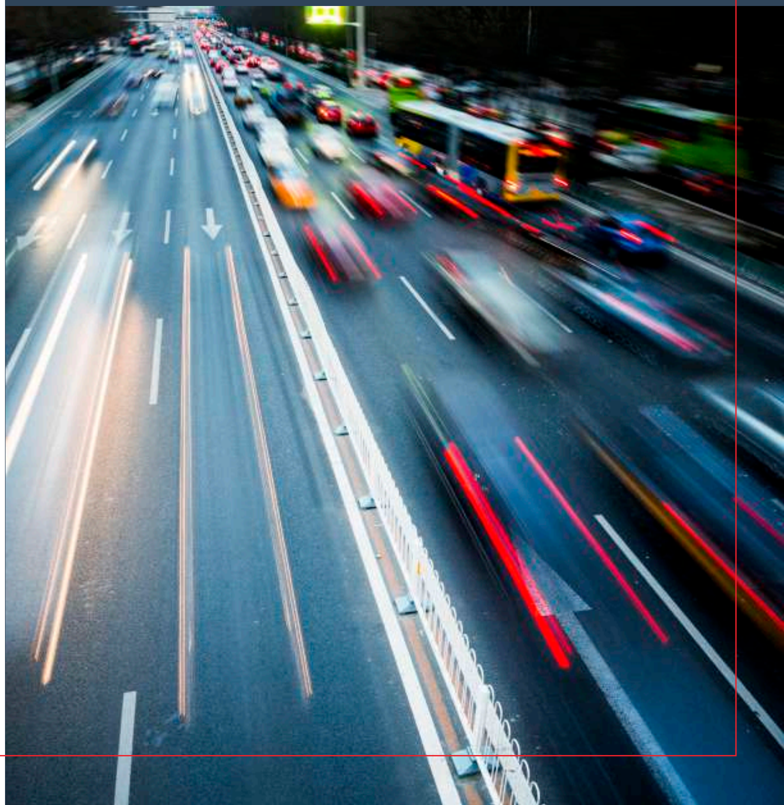
Top to Bottom 10 Bucket Lift	Claim Frequency	Loss Cost*
At fault target	8.7x	14.5x
Bodily injury	19.6x	26.9x
Property damage	8.6x	11.5x
Collision	5.5x	9.4x

*Doesn't include all payments because of lag, especially bodily injury.

Figure 13. LexisNexis® Drive Metrics model performs strongly across coverage types.

LexisNexis® Telematics OnDemand, powered by a robust telematics exchange

LexisNexis® Telematics OnDemand (ToD) delivers driving behavior attributes and scores directly into an insurers' workflow, made possible by the LexisNexis® Telematics Exchange. Our LexisNexis® Drive Metrics model, used for LexisNexis ToD, incorporates data from 3.5 million vehicles, 280 billion driven miles and 2.1 million years of driving exposure. For at-fault claims frequency, our models yield an 8.7x lift, while for BI they provide a 20x lift. In addition, our telematics models are capable of distinguishing between anomalies and risky behavior to ensure consistency.



Vehicle sales

ADAS features, EVs and connected car data could help turn the tide

The 2022 vehicle market was marked by low inventory, high prices and low sales volumes. In fact, U.S. vehicle sales for 2022 were the lowest they've been since 2011.[x] In Q4 2022, used vehicle sales were down 9% compared to 2021, but they eventually started showing some pricing stability. Undoubtedly, supply chain and inflation played major roles in shaping vehicle sales. Because new and used car purchases typically account for one third of all auto insurance shopping events, auto insurers were given fewer opportunities to win new business in 2022.

Low new vehicle inventory and high material costs led to much lower than normal depreciation on used vehicles. New vehicle inventory also catered toward high income households through more expensive model mixes and feature sets. Inventory implications and increased interest rates had adverse impacts on less affluent households' ability to purchase new or even used vehicles.

Because of the year's lack of availability and affordability of new and used vehicles, consumers held onto their cars longer. When a vehicle remains with one owner longer, that vehicle is more likely to have lower claim frequencies than a vehicle that moves from owner to owner (especially within three years or less). This situation presents a segmentation opportunity.

We expect the inventory mix to normalize toward the latter half of 2023, as supply constraints become less restrictive. As discussed throughout this report, vehicle sales have been decisively down over the past three years, so there should be considerable unrealized demand as more affordable vehicles become more readily available.

Additionally, used cars make up the bulk of retail car sales overall, with the used-to-new vehicle ratio at 2.5:1. Therefore, when insurers are quoting a risk, it's likely to be on a used vehicle. More importantly, about 40% of the time that car is a newly purchased vehicle. This phenomenon presents a unique data challenge when traditional sources of vehicle information haven't caught up to reflect a very recent vehicle ownership change. These data blind spots can lead to rating inaccuracies that you can't afford to experience in the current hard market.

Use data help to make better decisions

Due to rising costs, the market felt pressure to raise rates in 2022. While insurers always want accurate information, accuracy is especially necessary when addressing state regulatory requirements. Data-driven solutions can help you know when an applicant is quoting with a newly purchased vehicle. This is paramount to deriving accurate vehicle rating variables. The combination of claims and non-claims data supplements your view of vehicle damage, providing as much as 17% more events on which to price.

ADAS features add complexity

One factor that helps offset the impacts of higher claim costs is advanced driver assistance systems (ADAS). ADAS has proven to be very effective at preventing accidents and therefore reducing claim frequency.

Varying ADAS features have varying claims impacts. Each ADAS feature is designed for a specific function that has different implications across different types of coverages. Therefore, insurers need to understand which ADAS features are equipped at a vehicle level in order to develop a comprehensive assessment of the potential ADAS impact on claims performance.

When comparing the percentage of vehicles with core ADAS features against claim loss cost impact, it's clear that ADAS offers an opportunity for insurance rating segmentation. The loss cost impact is going to vary based on the combination of features.

While most ADAS feature combinations (34%) result in a 0-5% CO loss cost reduction, some combinations (5%) can drive as much as a 20-25% CO loss cost reduction (Figure 14). Conversely, 5% of combinations result in a 5-10% CO loss cost increase. Clearly, it's very important to understand the impact of each combination of ADAS features so you can rate accurately.

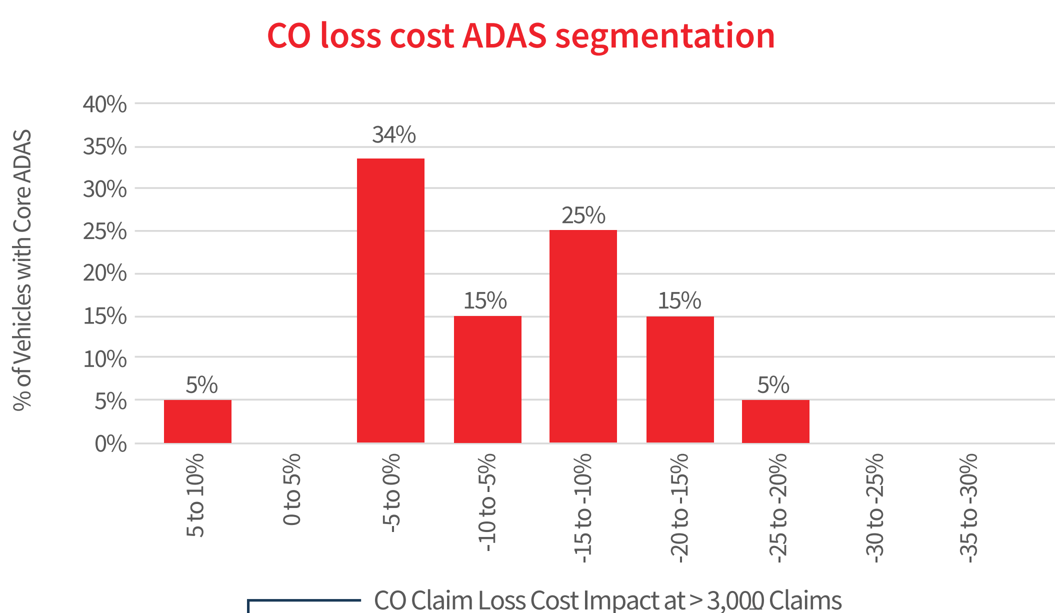


Figure 14. Various combinations of ADAS features have varied impacts on loss cost.

Similar loss cost distributions can be seen across BI and PD claims. Upon request, we can provide you with specifics showing the BI, PD and CO claim impacts on frequency, severity and loss cost for each of the 648 possible combinations of core ADAS features.

Spotlight on the future of EVs

Another trend to pay attention to is the adoption of electric vehicles (EV), as government incentives and infrastructure investments help lower the entry barriers to EV purchases. EVs accounted for 5.8% of U.S. new car sales in 2022, increasing from 3.1% the year prior.[xi] Cox Automotive predicts EV sales will surpass one million for the first time in 2023.[xii] Tesla recently announced the opening of 7,500 chargers to non-Tesla EVs.[xiii]

Claims performance will be impacted by these developments, as EVs have many ADAS features while their physics and repair costs vary. Their batteries make them heavier, which influences collisions, while repair costs are affected by ADAS calibration requirements, parts availability and the need for repair shop retooling.[xiv, xv] EVs and their ADAS features will add a layer of complexity that requires further analysis to understand potential claims performance.

How to drive profitability in a hard market

With vehicle sales stabilizing, insurance shopping on the rise and a hard market environment evolving, insurers should seek ways to collect rate outside of filings. When consumers shop for insurance on a newly purchased vehicle, insurers are exposed to misquoting and mis-rating the policy if they're solely relying on vehicle data contributed from the prior owner.

Claim information is essential to accurate rating, but viewing only the claims history of an insured can leave out a crucial piece of the loss performance puzzle. Connected car data allows you to receive more accurate information so you can better support the needs of your customers. From a customer's perspective, the harsh economic market over the past year increased the need to manage insurance costs. While miles driven have almost reached pre-pandemic levels in the aggregate (Figure 7, on page 12 of this report), we know many insureds are driving less or, at the very least, with different driving patterns.

As a result, we believe there will be sustained interest in Pay As You Drive and Pay How You Drive policies driven by telematics solutions. Offering and managing these types of policies is becoming easier and more cost-effective due to the growing availability of connected car data. In fact, we believe there were 31 million connected vehicles actively sharing data in 2022.*

LexisNexis Risk Solutions is in production or contracting with 71% of the OEM market. We expect that number to grow over the coming years. Continuing the theme of attaining accurate data for underwriting and rating, connected car data provides helpful annual mileage estimates to use in rating traditional policies as well.

*LexisNexis Risk Solutions Personal Lines Strategy Model

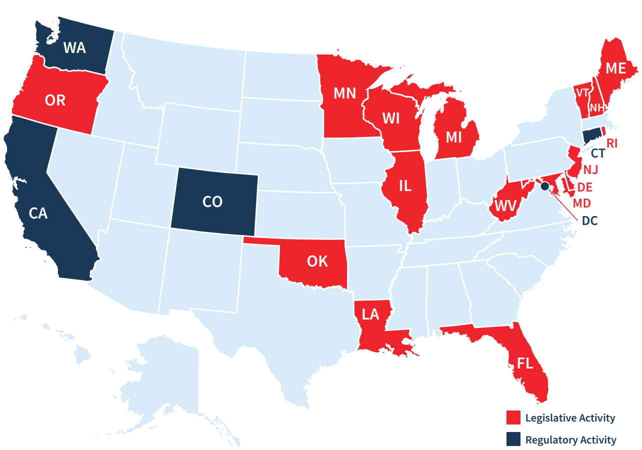
Regulatory environment

Core rating variables are under pressure

State legislative and regulatory activities related to the use of traditional rating variables such as credit-based insurance scores, gender and territory continued be a concern for insurers in 2022. While there were many bills proposed, most did not pass or move forward. However, based on our observations, the time spent by trades and insurers defending core rating variables grew exponentially.

Four states introduced a total of seven bills in 2022 banning or restricting data to be used in risk-based insurance and underwriting. One bill was passed (ME SB 624). Additional states are expected to propose legislation or regulatory actions during the 2023 sessions.

2022 Legislative and Regulatory Activity



2022 Legislative and Regulatory – Enacted or still open 12/31/22

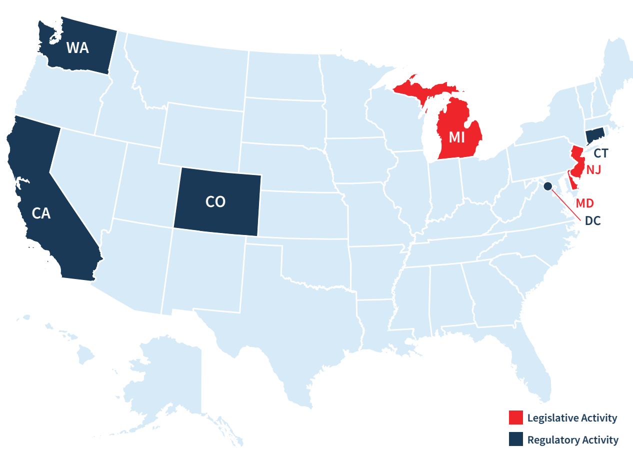


Figure 15. The regulatory landscape continues to evolve.

Given that there are so many new state legislators throughout the country, several of them without insurance expertise, organizations like ours will continue to focus on educating insurers, trade organizations, legislators, regulators and others in the industry. Regulators and legislators need to understand the difference between financial credit scores and credit-based insurance scores, how risk-based pricing works in insurance and the importance of risk-based pricing data variables that benefit consumers and help insurers profitably segment based on risk. We've also begun providing detailed information about methodologies used for testing models for racial and ethnic bias.

Additionally, to counter this trend of questioning the use of data, we'll continue to remind the industry of the benefits to consumers when multiple data points, including credit-based variables, are used for risk-based pricing. In fact, our internal data indicates 86% of new U.S. auto insurance policies issued to consumers in 2022 benefited from our contributory products.

How to drive profitability in a hard market

Not only is it important that consumers benefit from using risk-based pricing variables, it's also and equally important that insurers remain profitable to continue to offer insurance to consumers at a price based on the risk. If core rating variables continue to be under scrutiny and legislation is passed limiting the use of risk-based variables, it's likely that premiums for ALL consumers will go up which can be detrimental to the consumer. Additionally, not being able to segment the risk properly could have a significant impact on insurer profitability and solvency.

We know the importance you place on continued fairness and accuracy in the models you use for underwriting. We work closely with insurers and industry experts as we conduct analysis to help ensure that every attribute used relative to model development is consumer-focused and risk-based so that insurers are able to more accurately segment.

We use time-tested linear regression in the form of generalized linear models (GLMs) to explain the predictors. This process and its details are part of the conversations we have with regulators prior to filing.

We use artificial intelligence (AI) methodologies in our solutions, but with a focus on the benefits to the consumer as well as addressing regulatory concerns. You can learn more about our position on AI, by reading our 2022 white paper, "Responsible Artificial Intelligence Principles at RELX," available at www.relx.com.

Our top five AI principles are that we:

1. Consider the real-world impact of our solutions on people
2. Take action to prevent the creation or reinforcement of unfair bias
3. Can explain how our solutions work
4. Create accountability through human oversight
5. Respect privacy and champion robust data governance

We are committed to staying on top of these developments and sharing with our customers any impacts to our solutions as we monitor state and NAIC activity. We also recommend you get engaged with your internal Government Affairs team and join an insurance trade association.

Using data to help drive profitability

A hard market doesn't have to be unprofitable. Opportunities are embedded within each of the challenges impacting the auto insurance industry today.

Your first step? Stay up to date with the trends. They're changing quickly so you need to be as current and well-informed as possible. We hope this report helps accelerate your journey along that path.

Second, use all the data at hand to properly assign rate to risk. Renewals are an often-overlooked opportunity. Are you rating all the drivers in the household? Are you capturing all prior claims? Are you getting the most robust and accurate view of chargeable moving violations? Data is your enabler. Integrating that data into your workflows is important to helping drive the efficiency and accuracy you need to help achieve profitability in a tough market.

Third, start planning for when the market begins to soften. Examine where you stand from a market competitiveness perspective, and look for opportunities to improve. Research new ways to segment the market. Insurers who improve segmentation are more likely to identify profitable segments early and grow as the market softens.

Let us help you be in the lead to drive profitability.

Authors

[Marc Gordan]

Head of Global Telematics Product Strategy & Development, U.S. Connected Car
LexisNexis® Risk Solutions

[Tim Grant]

Senior Director, Auto Insurance
LexisNexis® Risk Solutions

[Liz Rozier Jones]

Director, Auto Insurance
LexisNexis® Risk Solutions

[John Kanet]

Senior Director, Auto Insurance
LexisNexis® Risk Solutions

[Kam Lidhar]

Director, Auto Insurance
LexisNexis® Risk Solutions

[Adam Pichon]

SVP & GM – U.S. Auto Insurance & Claims
LexisNexis® Risk Solutions

[Chris Rice]

AVP, Strategic Business Intelligence
LexisNexis® Risk Solutions

[Gary Sanginario]

AVP, Insurance Market Education
LexisNexis® Risk Solutions

[Tanner Sheehan]

VP & GM, U.S. Claims Solutions
LexisNexis® Risk Solutions

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For more information, call 800.458.9197, or email
insurance.sales@lexisnexisrisk.com

About LexisNexis® Risk Solutions

LexisNexis® Risk Solutions harnesses the power of data and advanced analytics to provide insights that help businesses and governmental entities reduce risk and improve decisions to benefit people around the globe. We provide data and technology solutions for a wide range of industries including insurance, financial services, healthcare and government. Headquartered in metro Atlanta, Georgia, we have offices throughout the world and are part of RELX (LSE: REL/NYSE: RELX), a global provider of information-based analytics and decision tools for professional and business customers. For more information, please visit www.risk.lexisnexis.com and www.relx.com.