

110 William Street, New York, NY 10038 212.346.5500 www.iii.org



## Personal Automobile Insurance

# More Accidents, Larger Claims Drive Costs Higher

October 2016

Robert P. Hartwig, Ph.D., CPCU Moore School of Business, University of South Carolina; Special Consultant, Insurance Information Institute bobh@iii.org James Lynch, FCAS, MAAA *Vice President, Chief Actuary* 212.346.5533 jamesl@iii.org

Steven Weisbart, Ph.D., CLU Senior Vice President, Chief Economist 212.346.5540 stevenw@iii.org



# TABLE OF CONTENTS

	Page
Executive Summary	3
Rising Claim Costs	4
Reasons for Increasing Costs	6
Rising Accident Rates	6
Impact of Weather	11
Distracted Driving	11
Increase in Average Size of Claim	12
Falling Investment Income	14
Efforts Made by Insurers to Keep Costs Down	16
What Consumers Can Do to Lower Their Rates	17
Conclusion	18
Appendix A: Automobile Insurance Coverages	19
Endnotes	21



# EXECUTIVE SUMMARY

Over the past year, several forces have coincided to place considerable upward pressure on personal automobile insurance costs. Insurer actions in response have drawn considerable media and regulatory scrutiny.

This paper examines recent trends in the largest component of the cost of auto insurance—the cost of accidents.

The dollar amount of claims per vehicle per year\*—known in insurance as the loss cost—is rising. Loss costs are the largest component of the price of auto insurance. They are also the most volatile. Whatever direction they move, rates will eventually follow. In recent years, total loss costs have been moving considerably higher—rising 13 percent in the two years ending March 2016—more than 10 times the inflation rate.

Loss costs have two parts, the number of claims per vehicle, known as frequency or more colloquially the accident rate; and the average size of the claim, known as severity.

a. Claim frequency has been rising. In the last two years (first quarter 2014 to first quarter 2016), collision claim frequency—a good proxy for the overall accident rate—increased 2.6 percent.<sup>3</sup> The frequency for other coverages rose as well. This appears directly linked to an increase in the number of miles people are driving, which itself is a function of the increasing number of people employed.

 b. Claim severity has also been rising after several relatively flat years. In the past two years, collision claim severity rose 8.2 percent. Other coverages show similar increases

This information is summarized in Fig. 1:

Fig. 1

# Auto Accidents Growing in Size and Frequency

Change in Frequency, Severity, 2014–2016\*\*

	Severity	Frequency
Bodily Injury <sup>†</sup>	7.0%	2.2%
Property Damage	11.5	2.9
Personal Injury Protection	7.7	10.2
Collision	8.2	2.6
Comprehensive	8.3	2.6

<sup>\*\*</sup>Four quarters ended in March. \*Bodily injury, property damage, personal injury protection, collision and comprehensive are the five standard coverages in a personal automobile policy. They are defined and described further in the Appendix.

This paper documents the increase in loss costs and resulting pressure on auto insurance rates. The reasons for the increase are complex, but this paper examines some of the reasons that both the rate of accidents and their size are growing. It discusses what insurance companies are doing to attempt to keep costs in check. It gives consumers advice on how to reduce the cost of their own insurance.

\*A vehicle year is equal to 365 days of insured coverage for a single vehicle. It is the standard measurement of automobile exposures.

Source: Fast Track Monitoring System.

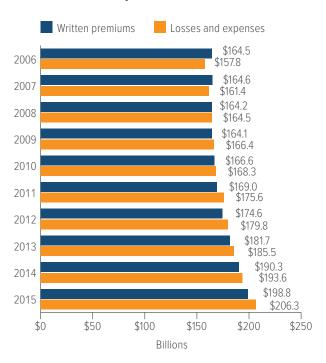


# RISING CLAIM COSTS

**Fig. 2** shows that auto insurance losses and expenses have exceeded premium for every year since 2007. Losses and expenses exceeded premiums by \$7.5 billion in 2015, up from \$3.3 billion a year earlier.<sup>4</sup>

Fig. 2

# Private Passenger Auto: Premiums vs. Losses and Expenses, 2006–2015



Source: NAIC data, sourced from S&P Market Intelligence, Insurance Information Institute.

**Fig. 3** shows that insurers have seen losses grow much faster than expenses. Losses grew 37.1 percent since 2006, while expenses grew 13.9 percent.<sup>5</sup>

The increases have been steep across all of the many protections that auto policies offer.

An auto insurance policy is actually a bundle of several coverages. There are five standard coverages:

- Bodily Injury Liability coverage constituted 24 percent of auto insurance premium in 2012, according to the most recent data from the National Association of Insurance Commissioners (NAIC). It is required in every state.
- Property Damage Liability constituted 18 percent of auto insurance premium in 2012, according to the most recent NAIC data. It is required in every state.
- Personal Injury Protection constituted 8 percent of auto insurance premium in 2012, according to NAIC data. It is required in some states but is not written in others.
- Collision coverage constituted 26 percent of auto insurance premium in 2012. It is not required by law, but more than 70 percent of drivers purchase the coverage.
- Comprehensive coverage constituted 12 percent of 2012 auto insurance premium. It is also not required by law but more than 70 percent of drivers purchase it.
- Miscellaneous coverages make up the remaining 12 percent of premium. This paper will not address them.<sup>6</sup>

Each of the five standard coverages have seen losses from accidents spike over the past two years, as shown in **Fig. 4**. By contrast, consumer prices overall rose 0.9 percent during the same period, indicating that accident costs are rising more than 10 times faster than inflation overall.



Fig. 3

Private Passenger Auto: Losses and Expenses, 2006–2015



Source: NAIC data via S&P Global Market Intelligence, Insurance Information Institute.

Fig. 4

Auto Insurance Increase in Loss Costs, 2014:Q1–2016:Q1



By contrast, consumer prices overall rose 1.7 percent during 2014 and 2015. Source: Fast Track Monitoring System.



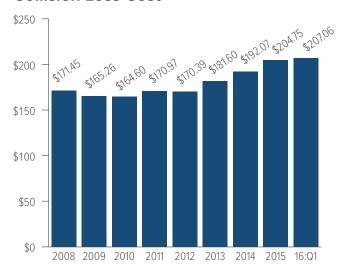
# REASONS FOR INCREASING COSTS

It is clear that insurance costs are rising. Less obvious is why. This paper will focus on what affects collision coverage. The situation is similar in other coverages.

**Fig. 5** shows the rise in the collision losses per vehicleyear, a measure known as the loss cost. Insurers monitor loss costs carefully. They are the most variable component of an insurance company's business.

Fig. 5

#### **Collision Loss Cost**



Sources: Fast Track Monitoring System.

The figure shows that loss costs remained within a tight band (approximately \$165–\$170) from 2008 through 2012. They begin to rise sharply thereafter—6.6 percent in 2013, 5.8 percent in 2014 and 6.6 percent in 2015. Other standard coverages show similar increases.

Loss costs can be broken down into two components—frequency and severity. Doing so allows more precise analysis of what is driving rates higher. Frequency is

the number of claims per 100 vehicle-years. It is sometimes referred to as the accident rate. Severity is the average size of a claim.

A simple formula links loss costs to frequency and severity:

#### Loss cost = frequency x severity $\div$ 100.

For example, in 2015 there were 5.96 collision claims per 100 vehicle-years, so frequency was 5.96 per 100. The average collision claim was \$3,434. So for collision claims that year, the loss cost was \$204.75, being  $5.96 \times \$3,434 \div 100$ .

## Rising accident rates

Historically, the rate at which accidents occur—frequency—falls over time. Vehicles incorporate safety improvements such as electronic stability control and antilock brakes. As more and more cars on the road adopt an improvement, more accidents, injuries and deaths are prevented.

Highway design contributes as well. Newly constructed roads have wider lanes and fewer sharp turns than in the past, making driving easier and preventing accidents.

Public policy changes are another reason. Graduated driving licenses help young drivers (the most crash-prone class) learn to drive in stages. Social norms and tougher laws have reduced the threat of drunk drivers.

Improvements such as these have pushed claim frequency lower. For some coverages, frequency has fallen by more than half across the past five decades.<sup>7</sup>



Falling frequency helps hold down auto insurance costs. Think back to the equation

#### Loss cost = frequency x severity $\div$ 100.

If frequency is lower, then loss costs will be lower, all else being equal. Loss costs are the key component to rates; lower frequency will reduce claim costs.

However, as can be seen in **Fig. 6**, collision frequency has been rising the past three years, climbing 2.4 percent in 2013, 4.4 percent in 2014 and 0.8 percent in 2015. This increase of more than 7 percent over the past three years places an unusual upward pressure on claim costs.

It appears the immediate reason claim frequency is rising is that people are driving more miles. **Fig. 7** is the Federal Highway Administration's estimate of miles driven annually by people. There has been a noticeable spike since 2013 in miles driven, coinciding with the increase in claim frequency.

**Fig. 8** makes the point more clearly. It charts the annual moving averages of collision claim frequency vs. miles driven.

The figure demonstrates that as miles driven declined with the recession, claims frequency did as well. When miles driven rose, so did claim frequency.

The number of miles people drive also appears to be closely linked to the number of people employed. As Fig. 9 shows, the number of miles driven tracks closely with the number of people employed.

This again makes sense. Most people drive to work and home again. When they lose their jobs, they don't drive to work. In addition, they have less discretionary income, so they would seem less likely to drive to movie theaters, restaurants and other entertainment venues or to take vacations. As the economy recovers and they find work again, they drive to their jobs and to spend their newly won discretionary income.

Fig. 6

Collision Claims: Frequency Trending Higher in 2015



Source: Fast Track Monitoring System, Insurance Information Institute.



Fig. 7

America Is Driving More Again: 2000–2016

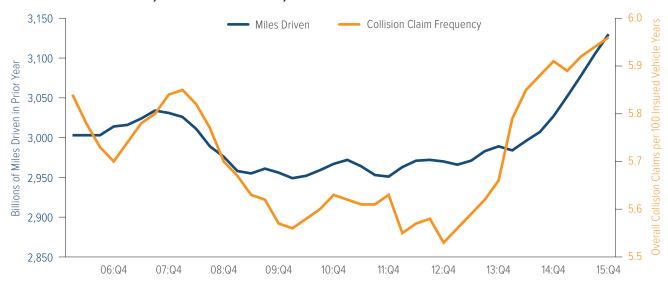


\*Moving 12-month total.

Source: Federal Highway Administration, Insurance Information Institute.

Fig. 8

More Miles Driven, More Collisions, 2006–2015



Source: <u>Federal Highway Administration</u>; Rolling Four-Qtr Avg. Frequency from Fast Track Monitoring System, Insurance Institute for Highway Safety, Insurance Information Institute.



The final chart in this sequence, **Fig. 10**, shows how closely auto claim frequency and employment have been linked in recent years. As the number of employed people fell, claim frequency fell, and as employment rose, frequency did as well.

A number of industry observers, including the authors, have commented on the possibility of a link between gasoline prices and both the number of miles driven and claim frequency. The logic: People were driving more because gasoline prices were falling. But **Fig. 11** shows a much more tenuous link between the price of gasoline and miles driven. There was a period in late 2014 and early 2015 in which miles driven rose as gasoline prices fell. Over the past few years though, the link seems weaker, as the figure demonstrates.<sup>9</sup>

This reinforces other research that shows a weak relationship between gasoline prices and miles

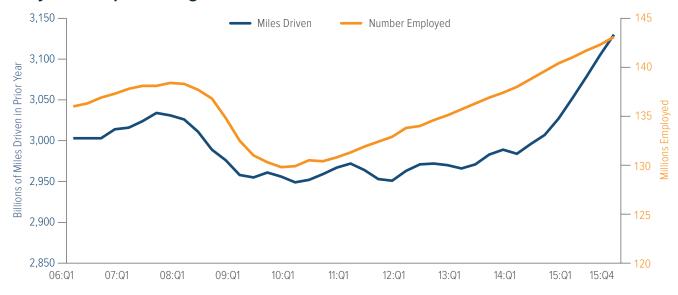
driven. By extension, the relationship between gasoline prices and claim frequency would be similarly weak. Rising gas prices seem unlikely to force claim frequency to decline.

#### Impact of weather

Severe weather events can certainly have an impact on auto accidents and insurance claims. Snowstorms, ice/sleet, heavy rain, high winds, or heavy fog can impair visibility when driving and affect driver capabilities, vehicle performance (i.e., traction, stability and maneuverability), pavement friction, roadway infrastructure and crash risk.

Weather can have an impact on auto insurance in two significant ways. Poor weather often leads to more crashes. It can also result in flooding, fallen trees and other off-road claims.

Fig. 9
Why Are People Driving More Miles? Jobs?



Source: Federal Highway Administration; Seasonally Adjusted Employed from Bureau of Labor Statistics, Insurance Institute for Highway Safety, Insurance Information Institute.



Fig. 10

More People Working and Driving => More Collisions, 2006–2016



Source: Seasonally adjusted employed from Bureau of Labor Statistics, rolling four-quarter average frequency from Fast Track Monitoring System, Insurance Information Institute.

Fig. 11
Why Are People Driving More Miles? Cheap Gas?



Source: Federal Highway Administration, Energy Information Administration, Insurance Institute for Highway Safety, Insurance Information Institute.



Based on 2005–2014 data from the National Highway Traffic Safety Administration, approximately 22 percent of crashes are related to weather. On average, nearly 6,000 people are killed and over 445,000 people are injured in weather-related crashes each year. The vast majority of these crashes happen on wet pavement (73 percent), while nearly half occur during rainfall (46 percent). During the wintry months, 17 percent of weather-related crashes occur during snow or sleet, 14 percent result from driving on snowy or slushy pavement and 13 percent from driving on icy payment. Fog is present in 3 percent of weather-related crashes.<sup>10</sup>

Weather effects are highly localized and can vary considerably from year to year. Insurance data show rising claims experience in regions with more severe winter weather conditions. On average, some New England and Mid-Atlantic states saw an 8.0 percent growth in first quarter collision claim frequency from 2012 to 2013 and another 12 percent increase in 2014.

Not only do severe rainy conditions cause more accidents, but thousands of cars are damaged or totaled from significant flooding due to heavy rainfall; these losses are reported under the comprehensive insurance coverage.

Insurance rates are built to sustain a certain level of catastrophe claims, but if that is exceeded, a rate increase may follow. Over the past year, for example, Arkansas, Louisiana, Oklahoma and Texas, have seen inordinate amounts of flooding. The Weather Channel noted significant storms in March, April, May, June, July, August, October, November and December 2015, and March, April and May 2016. Texas also had a record 240 tornadoes in 2015.

Hail storms can also cause a significant number of auto insurance claims, again affecting comprehensive coverage. In early 2016, for example, Texas was struck by a series of significant hailstorms. Three April storms around San Antonio resulted in 136,000 damaged vehicles. March hailstorms in Fort Worth and Plano resulted in \$1.3 billion in claims, and an April 11 storm in Wylie caused \$300 million in insured claims, much of it to insured vehicles.<sup>13</sup>

## Distracted driving

There has been a great deal of media coverage suggesting that an increase in distracted driving—driving while doing another activity that takes your attention away from driving—may be causing an increase in the accident rate. For example, CNN presented "Driving While Distracted," a series of more than a dozen video reports.<sup>14</sup>

Distracted driving contributes to both the number of accidents and their seriousness. The National Highway Traffic Safety Administration reported that more than 3,000 persons were killed and 431,000 injured in distracted driving accidents in 2014, the most recent data available. That year 10 percent of fatal crashes, 18 percent of crashes with injuries and 15 percent of property damage only accidents involved distracted drivers, percentages that have remained consistent since 2010.<sup>15</sup>

As smartphones have become ubiquitous, concerns have grown. A National Safety Council survey found that 74 percent of drivers surveyed used Facebook while driving. That survey was conducted before the release of Pokemon Go, an app that lets users capture virtual monsters that appear in the environment as viewed through a smartphone. Pokemon Go was an instant hit upon its July 2016 release, but there were reports of drivers playing the game behind the wheel. 17



Forty-six states and the District of Columbia have banned texting while driving. Fourteen states and the District of Columbia ban drivers from using handheld cell phones. New Jersey legislators have proposed fining distracted drivers; the proposal was received skeptically. 19

## Increase in size of average claim

The other element in driving loss cost per vehicle higher is claim severity.

Recall the equation,

#### Loss cost = frequency x severity $\div$ 100.

If severity rises, all else equal, loss costs will rise and put pressure on rates to rise as well. Normally claim severity exceeds the rate of inflation. Between 1963 and 2013, for example, claim severity for property damage claims rose 5.9 percent per year on average.<sup>20</sup> The inflation rate over that period averaged 4.1 percent annually.<sup>21</sup> This has put consistent upward pressure on insurance rates and is the reason that auto insurance rates exceed the overall inflation rate despite the long-term decline in claim frequency.

Most observers point to two reasons that claim severity increases faster than the inflation rate: the cost of body work and the cost of medical treatment.

For collision and property damage claims, they point to increases in the cost of repairs. The logic: Collision coverage addresses the cost of repairing a damaged vehicle, which is a function of the cost of body work. As the repair costs rise, collision severity will as well. Inflation in the cost of body work consistently exceeds the overall inflation rate, particularly since 2008. Since 2005 the cost of body work has risen nearly 40 percent more than prices overall, as **Fig. 12** shows.<sup>22</sup>

During and immediately after the Great Recession, collision claim severity did not rise as it normally does. As **Fig. 13** shows, collision claim severity rose less than one-half of 1 percent in each year between 2007 and 2010. It is not immediately clear why this occurred, though it was observed across several insurance lines, including homeowners insurance and workers compensation.<sup>23</sup>

The figure also shows that claim severity has returned to its traditional position—exceeding the inflation rate consistently from 2011 to 2015. Claim severity is again applying upward pressure to claim costs.

The reason bodily injury and personal injury protection claims grow faster than inflation overall is because medical inflation rises faster than inflation overall. The amounts that these claims settle for is generally some function of the severity of injuries a crash victim receives. As medical inflation rises, claim severity in these coverages will rise as well.

Fig. 14 shows trends over the past decade for bodily injury coverage. (PIP claim severity had similar trends.)

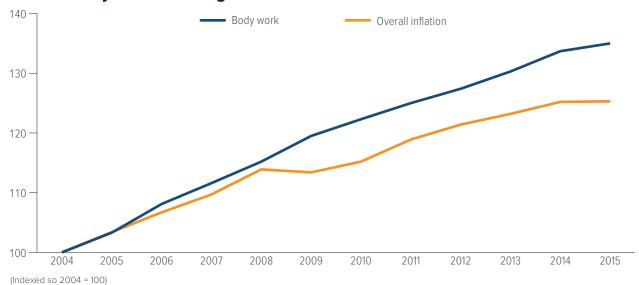
From 2006 to 2008, BI claim severity rose more than 5 percent per year, vs. a 3.31 percent average increase in the Consumer Price Index over that span. From 2009 to 2012 the trend abated, though not to the same degree as in collision claims. Severity rose a bit more than 2 percent per year. In the past three years claim severity has resumed its above-inflation trend, rising more than 3 percent per year.

The dynamics of what is causing claim severity to rise are complex and definitive conclusions are much harder to reach. One trend to note: the recent increase in traffic fatalities. Fatalities are, tragically, the most severe auto accidents. Injury claims often settle



Fig. 12

## **Cost of Body Work Is Rising Faster Than Costs Overall**



Source: Insurance Information Institute, Bureau of Labor Statistics.

Fig. 13





Source: Fast Track Monitoring System, Insurance Information Institute.



at policy limits, and vehicles are either total losses or expensive to repair. An increase in fatalities is likely to pressure claim severity upward.

In 2015 the nation saw a sudden spike in traffic fatalities. **Fig. 15** shows that the number of fatalities in 2015 rose approximately 8 percent, according to the National Safety Council.<sup>24</sup> In the first half of 2016, they have risen another 9 percent compared with the same period a year earlier.<sup>25</sup>

Some analysts note that the number of traffic deaths rises when lawmakers raise speed limits. Texas now has the highest speed limit, 85 mph, on some roads (enacted in 2012). In the last few years, Idaho, Montana, Nevada, South Dakota and Utah raised their maximum limits to 80 mph. Other states that had fairly recent changes to 70 mph include Georgia, Illinois, Maryland, Ohio, Oregon, Pennsylvania and Wisconsin.

More recently, an analysis of Ohio's increase in speed limit (in July 2013) found that crashes jumped by 19 percent, from about 8,600 in the two years pre-change to about 10,200 in the two years post-change. Fatal crashes dropped about 10 percent, but all others spiked.<sup>26</sup>

After a comprehensive study on the impact of raising speed limits in 41 states during 1993–2013, the IIHS recently released its findings. Three key conclusions are:

- Higher speeds resulted in at least 33,000 additional fatalities in the 20-year period. This nearly offsets the 43,000 lives saved by frontal airbags.
- Although the proportion of traffic deaths involving speed has been falling, from 32 percent of crashes in 2010 to 28 percent in 2014, fatality rates would have been much lower if speed limits had not been raised in certain states.

After taking into account factors that could affect the fatality rate (e.g., alcohol consumption, changes in unemployment and the number of young drivers), the number of deaths climbed slightly more than 4 percent with each 5 mph increase in the maximum speed limit. The increase in deaths is more than 8 percent on interstates and freeways.<sup>27</sup>

Summing up, both frequency and severity have been climbing faster in recent years. These two facts have applied considerable upward pressure to auto insurance rates.

#### Falling investment income

Auto insurers generate profits from two sources: underwriting profits and investment income. The company generates underwriting profits when its premium exceeds the sum of losses and expenses. The company generates investment income by investing the funds it is holding. It invests the premium it receives as it waits to pay its expenses and settle claims. It also invests the surplus, or cushion, that it holds in case it does not collect enough premium to cover its costs.

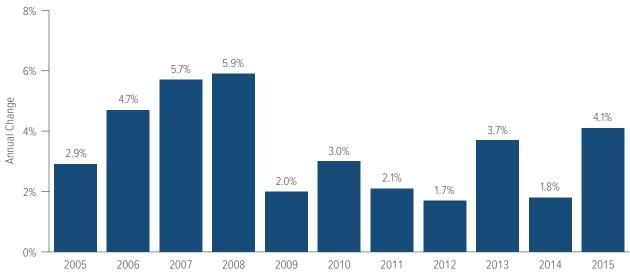
Even as claim costs have been rising, insurers have been constrained by nearly a decade of low interest rates in the wake of the Great Recession. The return on insurers' portfolio has declined by nearly one-third, with insurers' return falling to 3.18 percent in 2015, down from 4.49 percent in 2007.

Interest rates seem unlikely to climb significantly soon. Economists project that interest rates will begin rising this year, but slowly. Their forecast indicates that insurers are unlikely to achieve rates of return on investment similar to those in 2007 until well past 2021. Thus insurers find themselves in a difficult marketplace, stuck with rising losses and declining investment yields.



Fig. 14

Bodily Injury: Severity Rising Every Year in the Past Decade, 2005–2015



Source: Fast Track Monitoring System, Insurance Information Institute.

Fig. 15



Source: National Safety Council, Insurance Information Institute.



# EFFORTS MADE BY INSURERS TO KEEP COSTS DOWN

Insurers are continually working to promote traffic safety, reduce costs and make auto insurance more affordable for their customers. Over the years, they have been successful in working with industry partners to get stricter seatbelt and drunk driving laws enforced and the adoption of graduated drivers' license programs across the country. Insurers also support the implementation of medical fee schedules to control rising health care costs and pro-competitive measures that result in more efficient and cost-effective body shop repairs. They continue to promote anti-fraud legislation and encourage campaigns to educate the public on the adverse consequences of fraud. Conversely, insurers oppose legislative measures such as increasing state financial responsibility limits that result in inflated costs.

Insurers are also developing new tools and technologies for greater access to online repair service information to reduce costs, settle claims more efficiently and improve customer service. With access to "big data" and advanced predictive analytics, insurers can better understand their customers' driving risks and behaviors so that more accurate pricing can be achieved.



# WHAT CONSUMERS CAN DO TO LOWER THEIR RATES

There are many ways that insurance customers can help keep their auto insurance rates down. An obvious one is to drive more safely, be alert and avoid reckless or careless behavior. After analyzing more than 2 million crashes, the National Highway Traffic Safety Administration states that drivers are the critical reason (i.e., the last event in the causal chain) behind 94 percent of crashes. Recognition error, which includes drivers' inattention and internal and external distractions, is the most common cause (41 percent). About 33 percent of crashes are due to decision errors that include driving too fast for conditions, illegal maneuvering and incorrect judgments. Other kinds of careless driving include performance errors such as poor directional control (11 percent) and nonperformance errors such as sleep (7 percent).<sup>28</sup>

Consumers should also make sure their vehicles are properly maintained. Vehicles are the critical reason behind 2 percent of crashes, due primarily to tire problems followed by brake-related problems and steering/suspension/transmission/engine-related problems.

Other steps that consumers can take to save on auto insurance include the following:

 Shop around and compare different insurance companies' prices. Most, if not all, state insurance departments have rate comparison guides to help consumers.

- Compare insurance costs before buying a car.
   The premium is based in part on the car's sticker price, the cost to repair it, its overall safety record and the likelihood of theft.
- Make sure to inquire about all discounts.
   Companies offer discounts to policyholders who have not had any accidents or moving violations over a period to time. Other discount options may include those for good students, recent graduates and veterans; for installing anti-theft devices; having multiple cars; for taking a defensive driving course; or for being a long-term customer.
- Bundle auto insurance with a homeowners insurance policy. Many insurers will provide discounts if the policyholder purchases two or more types of insurance from them.
- Lower coverage limits or raise deductibles to get potentially substantial cost savings.
- Consider dropping the collision and/or comprehensive coverage. If a car is an older one, perhaps physical damage coverage is not necessary.
- Take advantage of low-mileage discounts. Some companies offer discounts to motorists who drive a lower-than-average number of miles per year. Low mileage discounts can also apply to drivers who car pool to work.



- Consider usage-based insurance (i.e., install a telematics device in the car so that mileage and driving behavior can be tracked). The use of telematics helps insurers more accurately estimate accident damages and reduce fraud, potentially providing cost savings to their customers.
- Ask about group insurance. Some companies offer reductions to drivers who get insurance through a group plan from their employers, through professional, business and alumni groups or from other associations. Consumers should ask their employer and inquire with groups or clubs of which they are a member to see if this is possible.

As a positive correlation exists between one's credit history and the likelihood of filing a claim, policyholders should maintain a good credit record.

## CONCLUSION

Until recently, auto insurance rates were fairly stable due to falling or stable accident rates that kept insured costs down. There has been an alarming increase in crashes and claims reported—the upward trend in claims combined with the cost of claims that is rising faster than inflation has led to a dramatic rise in the overall loss cost, causing underwriting performance to deteriorate.

Insurers will continue to be active in an effort to contain the number of auto accidents and related costs. Customers can also take certain steps to help lower their own costs. Such steps include shopping around, taking advantage of available discounts, bundling their auto insurance with homeowners insurance, maintaining a good credit score and practicing safe driving habits.



### Appendix A

## Automobile insurance coverages

Insurers offer different types of auto insurance coverages to pay for injuries and damage to vehicles and other property when accidents, thefts or other events happen. A general description of these coverages is provided below. Some coverages are required, and others are optional. All are priced individually to let policyholders customize coverage amounts to suit their needs and budget.

#### **Mandatory Coverages**

Nearly every state requires car owners to carry the following auto liability coverages:

- **Bodily Injury (BI) Liability**—This covers costs associated with injuries and deaths caused by a policyholder or another individual while driving the policyholder's car.
- Property Damage (PD) Liability—This coverage reimburses others for damage to another vehicle or other
  property, such as a fence, building or utility pole, caused by the policyholder or another driver operating the
  policyholder's car.

#### **Frequently Required Coverages**

Many states require one or more of the following coverages:

- Medical Payments (MP) or Personal Injury Protection (PIP)—These coverages provide reimbursement
  for medical expenses for injuries to driver or the car's passengers. It will also cover lost wages and other
  related expenses.
- Uninsured Motorist (UM) and Underinsured (UIM) Coverage—UM coverage reimburses the policyholder when an accident is caused by an uninsured motorist or a hit-and-run driver. UIM coverage may also be purchased to cover costs when another driver responsible for an accident lacks adequate liability coverage.

Most states are required to offer UM-Bodily Injury coverage, although the insured can reject it in some states. UIM-BI coverage may be required, either combined with UM-BI or as a separate coverage. Insurers in many states also offer UM-Property Damage and UIM-PD coverages.



### **Optional Coverages**

While basic, legally mandated auto insurance covers the cost of damages to other vehicles that are caused by the insured while driving, it does not cover damage to the insured's own car. To cover this, the following optional auto insurance coverages need to be purchased:

- **Collision**—This optional coverage reimburses a policyholder for damage to his or her car that occurs as a result of a collision with another vehicle or other object—e.g., a tree or guardrail—when the policyholder is at fault. While collision coverage will not reimburse the driver for mechanical failure or normal wear-and-tear on the vehicle, it will cover damage from potholes or from the car rolling.
- **Comprehensive**—This provides coverage against theft and damage caused by an incident other than a collision, such as fire, flood, vandalism, hail, falling rocks or trees and other hazards—even getting hit by an asteroid.
- Glass Coverage—Windshield damage is common, and some auto policies include no-deductible glass coverage, which also includes side windows, rear windows and glass sunroofs. Supplemental glass coverage may also be purchased.



## Endnotes

- 1. In this paper we make a clear distinction between rates and premiums. A rate is the amount an insurer charges per vehicle-year of insurance, with a car-year being one vehicle insured for 12 months. The premium is the amount that policyholders pay, which is the rate adjusted for the number and type of vehicles insured and each policyholder's risk profile. Typical adjustments, where permitted by law, include age, gender and driving record. The premium can change if policyholders grow older or purchase a new vehicle, but such changes are not within the scope of this paper.
- See for example, Ed Leefeldt, "The deadly math behind rising auto insurance rates," CBS Marketwatch,
  February 18, 2016; Jeff Daniels, "Auto insurance rates rising at fastest rate in almost 13 years," CNBC,
  May 27, 2016; Insurance Journal, "Georgia to Investigate Allstate Auto Rate Increase," April 12, 2016; and
  Therese Apel, "Drive in Mississippi? Brace for auto insurance hikes," The Clarion-Ledger, May 26, 2016.
- 3. Statistics on claim frequency, claim severity and loss costs are based on data obtained from the quarterly industry *Fast Track* report prepared by ISO, a Verisk Analytics company, the most recent edition of which was published April 19, 2016.
- 4. National Association of Insurance Commissioners data, sourced from S&P Global Market Intelligence.
- 5. Ibid.
- Insurance Information Institute calculations from data in National Association of Insurance Commissioners, <u>Auto Insurance Database Report 2012/2013</u>, December 2015, pp. 49, 65, 89, 109, 125, 149, 183, 199.
   Other coverages included in this calculation are Combined Single Limit Liability (2 percent), Medical Payments (2 percent) and Uninsured/Underinsured Motorist (8 percent).
- 7. James Lynch, "Not So Fast: Autonomous vehicles will challenge auto insurers, but they won't obliterate them," Contingencies, March/April 2015, p. 38.
- 8. Federal Highway Administration, "Traffic Volume Trends," March 2016, Figure 1.
- 9. U.S. Energy Information Administration, "U.S. All Grades All Formulations Retail Gasoline Prices," accessed May 23, 2016.
- 10. Federal Highway Administration, "How Do Weather Events Impact Roads?" accessed May 31, 2016.
- 11. Jon Erdman, "The Major Flash Floods That Have Hit Texas, Louisiana, Oklahoma, Arkansas Since March 2015," The Weather Channel, May 27, 2016.
- 12. Insurance Council of Texas, "Large Hail Strikes North Texas Cities Again," news release, April 12, 2016.
- 13. Insurance Council of Texas, "San Antonio Storm becomes Costliest Hailstorm in Texas History," news release, April 20, 2016.
- 14. CNN, "Driving While Distracted," August 2016.
- 15. National Highway Traffic Safety Administration, "Distracted Driving 2014," Traffic Safety Facts, April 2016.
- 16. National Safety Council, "Distracted Driving Public Opinion Poll," March 2016.



- 17. Tanya Mendis, "Pokemon Go—another distraction for drivers," WCNC.com, July 14, 2016.
- 18. Governors Highway Safety Association, "Distracted Driving Laws," August 2016.
- 19. Vivian Yee, "A Distracted-Driving Ban in New Jersey? Some Say It Threatens A Way of Life," New York Times, August 17, 2016, Page 19.
- 20. Lynch, p. 38.
- 21. Insurance Information Institute calculation from Bureau of Labor Statistics, "CPI Inflation Calculator," accessed May 30, 2016.
- 22. Dr. Steven N. Weisbart, "Inflation Watch April 2016," Insurance Information Institute, May 18, 2016.
- 23. Kathy Antonello, "State of the Workers Compensation Line 2016," presentation at the National Council of Compensation Insurance Annual Issues Symposium, May 13, 2016; Dr. Steven N. Weisbart and James Lynch, "Inflation From All Sides," presentation at the Spring Meeting of the Casualty Actuarial Society, Colorado Springs, Colorado, May 18, 2015.
- 24. National Safety Council, NSC Motor Vehicle Fatality Estimates, 2016, Table 1.
- 25. Beckie Strum, "U.S. Traffic Fatalities Continued to Surge in First Half of 2016," *The Wall Street Journal*, August 23, 2016.
- 26. American Journal of Public Health, Sept. 2009, "Long-Term Effects of Repealing the National Maximum Speed Limit in the United States," Vol. 99(9), pp. 1626-1631, and *The Columbus Dispatch*, April 17, 2016, "More crashes, fewer tickets as Ohio's speed limits rose."
- 27. Insurance Institute for Highway Safety/Highway Loss Data Institute, "Speed limit increases cause 33,000 deaths in 20 years," Status Report, Vol. 51, No. 4, April 12, 2016.
- 28. NHTSA, "Critical Reasons for Crashes Investigated in the National Motor Vehicle Crash Causation Survey," February 2015.