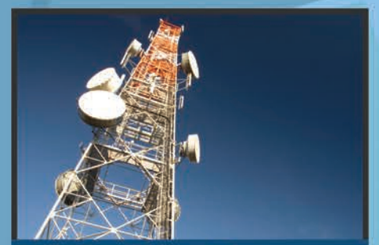
INFORMATION SERVICES INC.

CRASH COURSE 2013

TECHNOLOGY TRENDS



Telematics

Mobility and cloud have created ultimate anytime, anywhere experience

The vehicle as the rite of passage is being replaced with the desire for better/faster tech devices as a way of staying connected to friends

Mobility

Social networks have given voice to consumers and have sped the exchange of information, forcing brands to take notice.

Social Media

Desire for connectivity and engagement extends to car for infotainment and safety applications

Vehicle Complexity

Material sophistication has led to repair complexity requiring advanced tools and training

Prepare for weather patterns in 2013 that will continue to be severe

Extreme Weather

The population is aging and more people are moving into urban centers which has impacted how people commute and what, if any vehicle they purchase and repair/claims volume

Changing Demographics

Economic forecast is for continued slow growth and high unemployment

High Unemployment

Fraud accounts for 13-18% of overall auto liability payout- or $6-7B annually, with the costliest claims occurring for bodily injury claims where levels of fraud increase when economy is poor

Rising Fraud

MARKET FORCES

EXECUTIVE SUMMARY

The auto physical damage industry is traveling along a fast course of change as macro-economic, consumer and technology trends are converging to impact our industry and how collision claims and repairs are managed and completed. In previous editions of Crash Course we've explored these factors individually, drawing connections from each back to what they mean for insurance carries and repairers. This year, we'll be looking at the intersection of broad market forces, new and enabling technologies and the consumers' now-established position as the lead influencer of your business and brand, and offer some perspective on how to work within these trends to satisfy your customers, prepare for the unpredictable and use technology to your advantage.

As always, we'll dig into the details of claim and repair frequency and all of the factors that contribute to the rise or decline of each. The new- and used vehicle marketplace, total loss trends, parts costs and usage trends are addressed and put into context at a both a national and regional level. And, for the first time, Crash Course will look at bodily injury claims and related fraud trends.

Buckle up. Change is here and how you map your course forward is more important than ever.

CURRENT STATE OF CLAIMS TECHNOLOGY

Advancements in insurance and collision repair technologies have been instrumental in restructuring the way auto claims are handled. Electronic appraisal reviews and shared guidelines ensure business partners have the information needed to fulfill work in a transparent, compliant, and complete manner. Management dashboards facilitate claims performance review in a concise, targeted manner, enabling managers to address specific areas of performance, adjust levers, and evaluate the impact in real time. And when pre-fill and predictive analytics are incorporated into the overall process, unnecessary steps can be avoided at FNOL and at other points in the claims process to ensure the proper resources are not only assigned, but are equipped with information to ensure the fastest , most satisfactory claim settlement for all parties.

The collision repair industry too has benefited from greater use of technology – whether through the ability to update the vehicle owner automatically of the status of a repair, or through the ability to automatically update the repair production stages via an iPhone or Android device. These changes have shaved time off of the claim and repair process and have worked to streamline communication between all parties. As consumer's expectations and service demands continue to grow, more will need to be done to deliver a positive auto claim and repair experience.

So what can the industry do to improve the claimant experience?

FUTURE STATE OF CLAIMS TECHNOLOGY – EXTENDING CONSUMER INTERACTION

A great deal has been written about four key technology trends that have had significant impact in the marketplace over the last several years: the cloud, social media, predictive analytics or big data, and mobility. Analysts now believe it will be the convergence of these trends - the backbone of the SoLoMo (social-local-mobile) that will define companies' success in the future. The integration of customer sentiment from social media, mobile functionality, and the ability to target messaging to specific customers has allowed companies to provide the right message at the right time on the right device, leading to higher levels of customer satisfaction with the experience. How each company decides to craft their own recipe of these four ingredients will be what sets them apart from their peers. These technologies enable companies to get closer to their customers than ever before. However, when and how they do engage, companies are expected to provide products that are relevant to each customer and accessible anytime, anywhere, on any device.

Repairers and insurers today have been using email and text to communicate the status of vehicle repairs with their consumers for some time now. Pro-active communication throughout the course of a claim has been shown to be a key factor behind customer satisfaction, particularly when that communication occurs in the desired medium selected by the customer. Extending the relationship created via regular status updates, the industry is now also using text messaging to receive customer feedback at the close of a repair To date, response rates are significantly higher than phone or mail surveys, and subsequently response to negative feedback can be taken far faster as well. The ability to take feedback from customers' text messages and mine the text for key words also allows the repairer to potentially take action immediately so when contact is made with the customer progress towards problem resolution can already be shown. A recent survey of consumer use of online reviews by PeopleClaim.com reveals 63 percent of consumers are more likely to purchase from a site if it has product ratings and reviews, and that reviews drive 18 percent higher loyalty and 21 percent higher purchase satisfaction. As more and more data is collected and mined, companies will have improved insight into situations that have higher probability of low customer satisfaction, and can be more pro-active from the start. The ability to feed this data back into a tool that can predict best outcome at first notice of loss will ultimately lead to the best customer experience.

"MOBILITY CONTINUES TO DRIVE CUSTOMER INTERACTION"

Analysts project global adoption of mobile devices will lead to one billion consumers equipped with smartphones by 2016, with over one quarter of them in the U.S. [1] *Cisco predicts the number of devices connected to IP addresses will be almost three times as many as the number of humans across the globe by 2016.* [2] *As of Q3 2012, smartphone owners accounted for 56 percent of all U.S. mobile phone subscribers, up from 49 percent in Q1 2012.* [3]

Forecasts from market research firm IDC predicts that smartphones and tablets will account for 70 percent of the 1.2 billion 'smart connected devices' shipped in 2012, with desktop and laptop computers accounting for the remaining 30 percent. [4]

*And while most consumers still use their mobile devices to do basic things like send email, get mapped directions, or take photos, mobile devices will quickly become the primary device where consumers interact with the world around them. As more high-tech features and sensors such as microphones, gyroscopes, accelerometers, and digital cameras are incorporated into mobile devices of , demand for mobile devices will continue. Compare the time it took for these different technologies to reach an audience of 50 million people: radio took 38 years; television took 13 years; the Internet four years; Facebook took 3.5 years, and Instagram took only 1.3 years (**see Callout 1**).* [5] *With the introduction of its iPad in April 2010, Apple kicked off the tablet race, which has seen an even faster adoption rate than the smartphone, with tablets owned by 13 percent of U.S. Consumers within its first two years in the market.* [6]

Survey data from the Pew Research Center reveals that as of November 2012, 85 percent of U.S. people now have a cell phone, and 80 percent of them send or receive text messages via that phone. [7] *Among teens, text messaging is the dominant daily mode of communication, with 63 percent using text to communicate with others every day versus only 39 percent for the second most frequent mode - voice calls.* [8] *Text messaging turned 20 in December 2012, with some 7.4 trillion SMS texts sent globally in 2011. One of the key benefits of text messages is that they can reach consumers when they are traditionally not at their computers, including commuting hours, social hours, weekends, and holidays. Because of their brevity, consumers are more likely to read a text message: historically email marketing has a 30 to 40 percent read rate versus text message marketing that has a 95 to 97 percent read rate.*

Perhaps one of the more interesting uses of text messaging technology is its use by Swiss dairy farmers. These farmers have implanted sensors in cows to detect when the cows are in heat. A second sensor with a SIM card in the cow's neck sends a text message to the farmer, who can then inseminate the animal. [9]

Callout 1: Technology Review: Time (in years) from consumer availability to 10% penetration of U.S. market

Source: DeGusta, Michael. "Are Smart Phones Spreading Faster than Any Technology in Human History?" Technology Review, Wednesday, May 9, 2012.

STATE OF THE INDUSTRY

THE ECONOMY

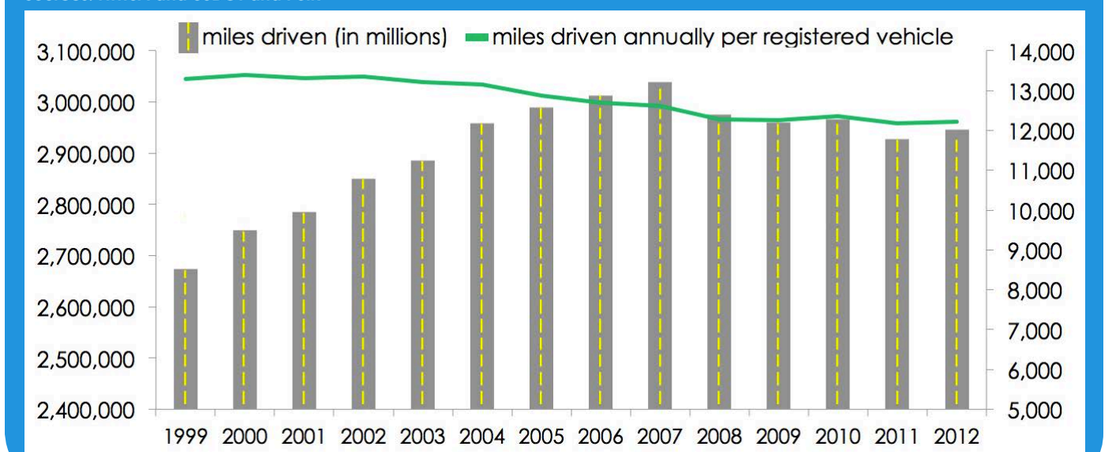
The U.S. economy saw Real GDP growth of 2.2 percent in 2012. While this was a moderate improvement from 2011 (1.8 percent), it was down from 2010 (3.0 percent) and the growth rate in 2006 (2.9 percent). Economists believe that growth in the U.S. will be slightly slower still in 2013, as the U.S. begins to address its looming long-term debt crisis.

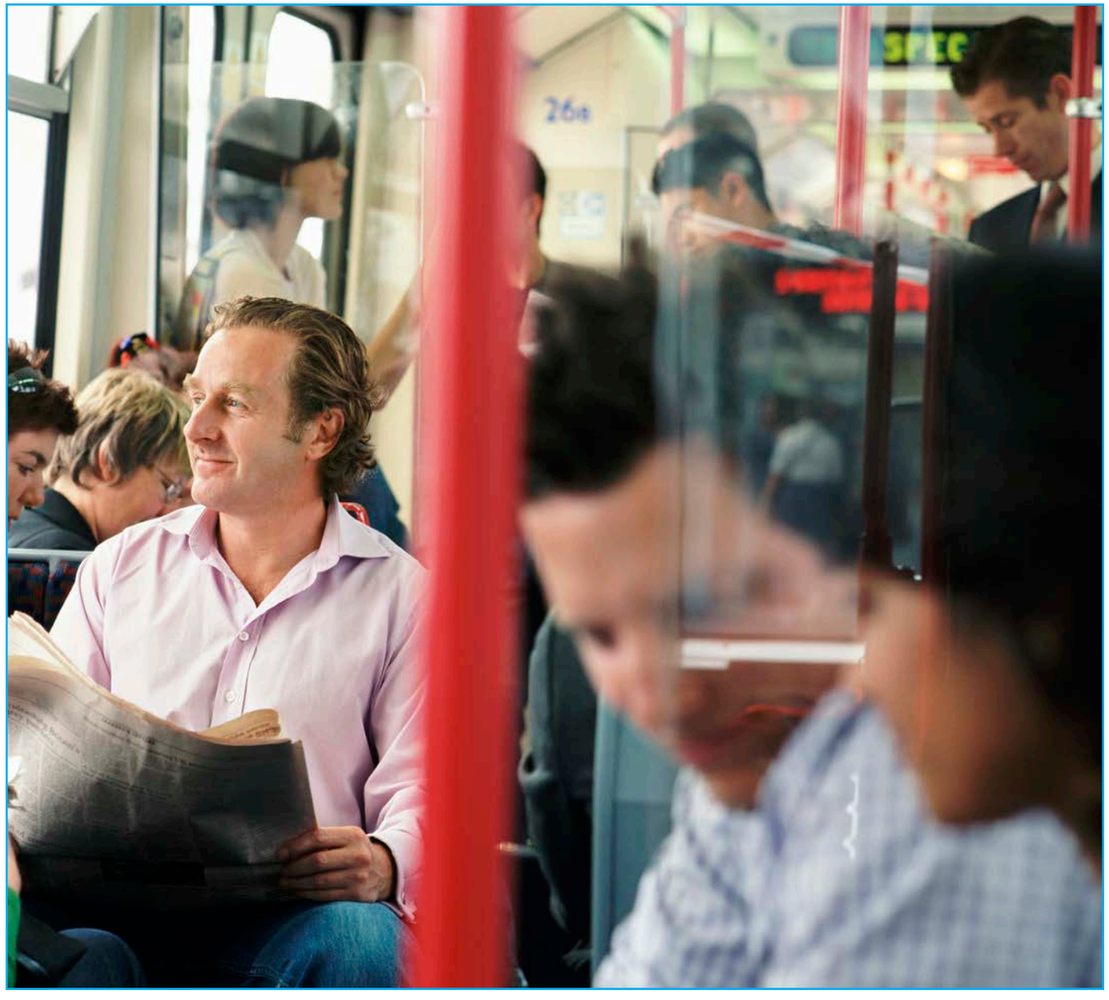
The overall unemployment rate for the U.S. closed out the year at 7.8 percent; down from 8.5 percent in December 2011. The average number of new jobs added monthly in the U.S. was 181,000 in 2012, although the total number of unemployed persons in the U.S. is still over 12 million. With economic growth expected to remain tepid in 2013, job growth in 2013 is also expected to remain slow, with hiring levels similar to those seen in 2011 and 2012.

With so many individuals in the U.S. still unemployed, it is not surprising that the overall number of miles driven annually in the U.S. remains nearly three percent below where it peaked in 2007. And while improving new vehicle sales have helped to moderately increase the total vehicles in operation in the U.S. (after several years of VIO decline), the miles driven by individual vehicle is still trending more-or-less flat (**see Figure 1**). Until unemployment levels drop substantially, miles driven annually in the U.S. will not see any large increases in 2013, and may even see some further decline. This will have an impact on already slower rates of automotive claim frequency.

Figure 1: Miles Driven in U.S. Annually Overall and Per Registered Vehicle 1999- 2012 (annual figures for miles driven are based on the rolling 12 months ended DECEMBER within each calendar year)

Sources: NHTSA and USDOT and Polk





AUTOMOTIVE CLAIM FREQUENCY

Private passenger auto insurance experienced declining claim frequency over the last decade. A variety of factors have been identified as contributors to the decline, including an aging population, fewer miles driven, graduated licensing for teenagers, higher deductibles and more vehicles than drivers. Several additional factors came into play with the recession, including higher unemployment and consumers modifying auto insurance policies to include only mandatory coverage.

Data from the third quarter 2012 Fast Track Plus™ reports continue to show that outside of normal seasonality patterns across all lines of coverage and the erratic frequency for comprehensive losses, individual quarterly collision and property damage frequency are flat or seeing small increases (***see Figure 2***). When comparing the year-over-year change in frequency for the rolling 12 months ended each quarter, property damage liability loss frequency continues to see larger increases than collision which moved into positive territory for the first time in 2012 (***see Figure 3***).

Figure 2: Private Passenger Auto Quarterly Paid Claim Frequency (Ratio of Number of Paid Claims to Earned Vehicle Years)

Source: Independent Statistical Service, FastTrack Reports Private Passenger Auto

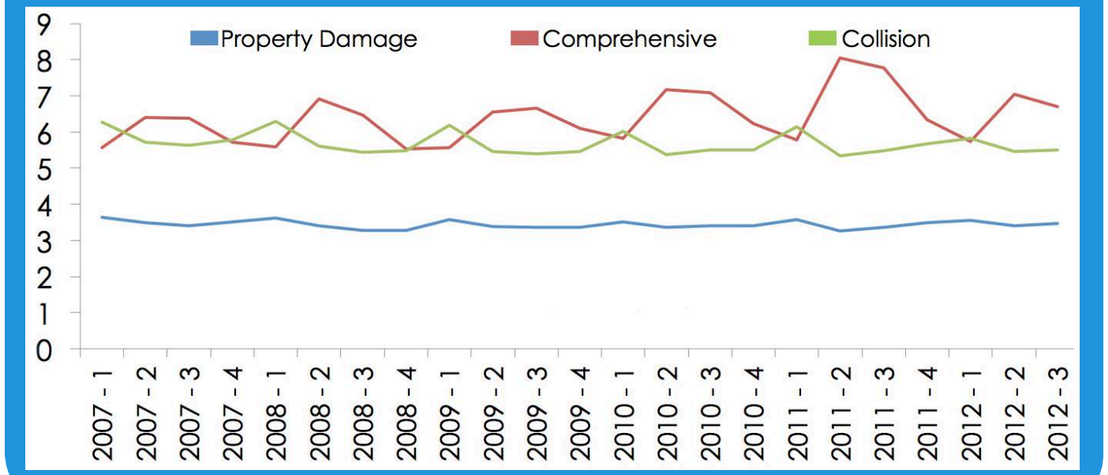
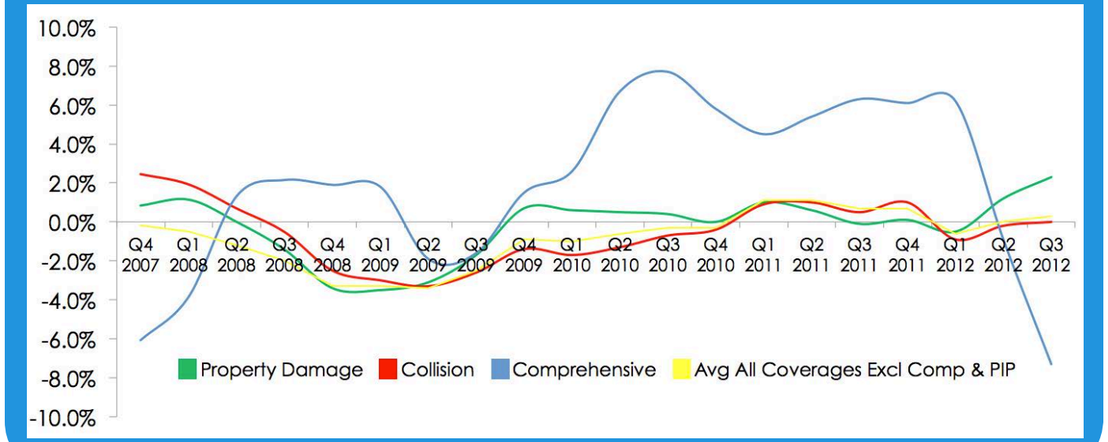


Figure 3: Claim Frequency - Change from Same Quarter Prior Year (Where 'quarter' is the rolling 12 months ended that quarter)

Source: Independent Statistical Service, FastTrack Reports Private Passenger Auto

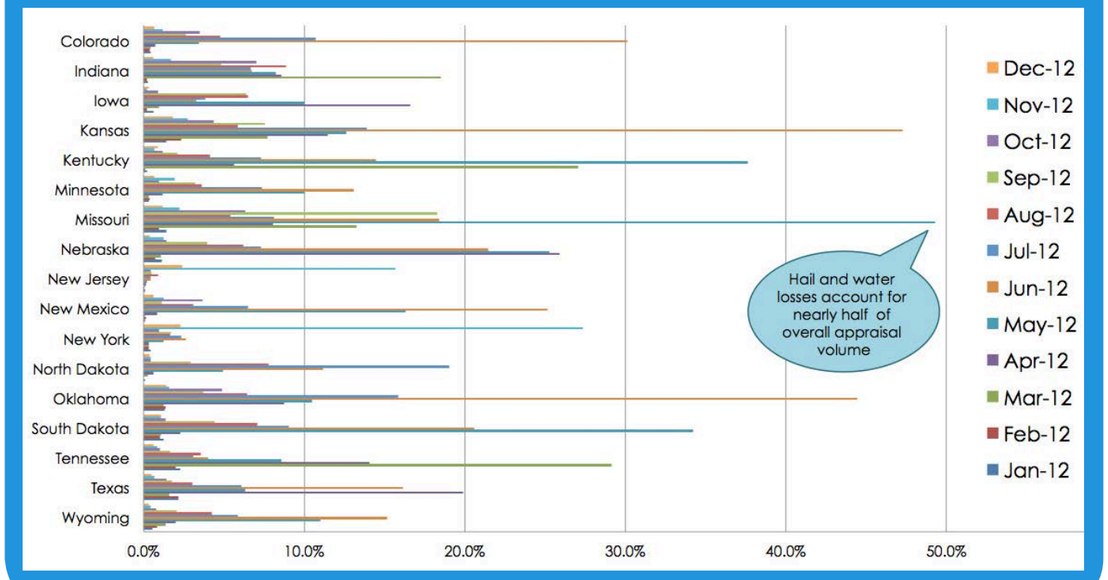


EXTREME WEATHER DRIVES FREQUENCY

According to MunichRe, insured losses for 2012 were $57.9 billion from 184 natural catastrophe events. As of mid-year 2012 there were $10 billion in CAT losses, dominated by thunderstorm, wildfire and tornado activity. The severe weather activity topped the list, incurring $8.8 billion of the half-year's total of $9.3 billion dollars in insured losses. CCC conducted analysis of claims data available through its data warehouse, which stores more than 140 million claims' worth of information, looking at vehicles damaged in 2012 by state, which helps to illustrate the impact of storms on auto claim frequency. For example, there were a number of states where nearly 50 percent of the overall appraisal volume for a given calendar month had the loss vehicle's primary point of impact as hail, salt water, or fresh water. Historically hail and water losses account for just over 1 percent of the overall annual volume nationally; in 2011 and 2012 these losses grew by 300 percent. (*see Figure 4*).

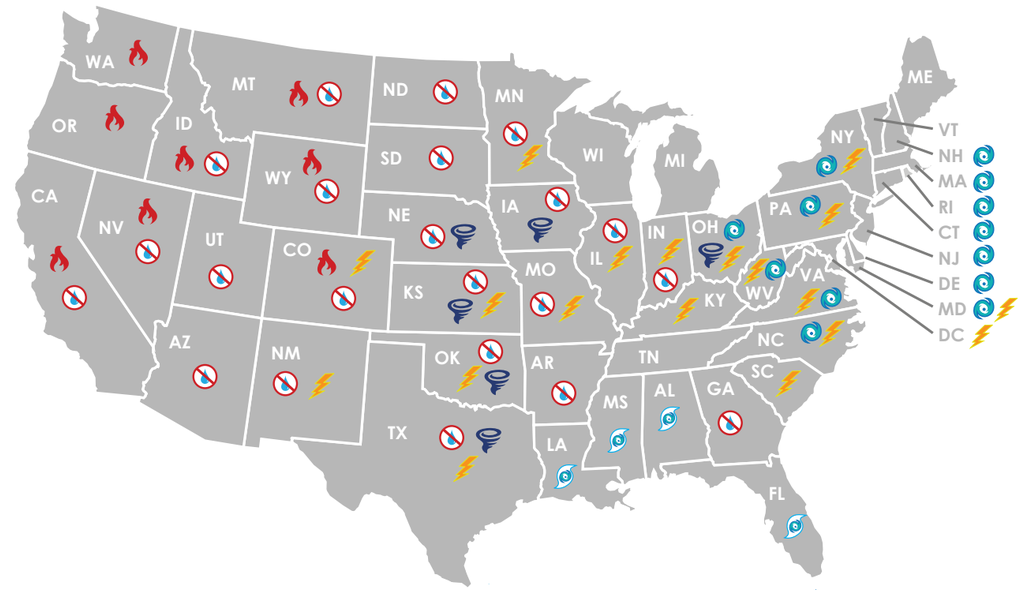
Figure 4: Hail and Water Losses as Percent of CCC National Industry Overall Appraisal Count (Jan '12 – Dec '12)

Source: CCC Information Services Inc.



Billion-Dollar U.S. Weather/Climate Disasters 2012 National Climatic Data Center Asheville, NC

Source: http://www.ncdc.noaa.gov/billions/



U.S. DROUGHT/HEATWAVE - 2012
CA, NV, ID, MT, WY, UT, CO, AZ, NM, TX, ND, SD, NE, KS, OK, AR, MO, IA, MN, IL, IN, GA

WESTERN WILDFIRES - SUMMER-FALL, 2012
CO, ID, WY, MT, CA, NV, OR, WA

SANDY - OCTOBER 2012
MD, DE, NJ, NY, CT, MA, RI, NC, VA, WV, OH, PA, NH

HURRICANE ISAAC - AUGUST 2012
LA, MS, AL, FL

PLAINS/EAST/NORTHEAST SEVERE WEATHER - JUNE 29- JULY 2 2012
ROCKIES/SOUTHWEST SEVERE WEATHER - JUNE 6-12 2012
SOUTHERN PLAINS/MIDWEST/NORTHEAST SEVERE WEATHER - MAY 25-30 2012
MIDWEST/OHIO VALLEY SEVERE WEATHER - APRIL 28-MAY 1 2012:
IL, IN, KY, OH, WV, SC, NC, VA, MD, DC, NJ, CO, NM, TX, OK, KS, MN, PA, NY, MO

MIDWEST TORNADOES - APRIL 13-14 2012
TEXAS TORNADOES - APRIL 2-3 2012
SOUTHEAST/OHIO VALLEY TORNADOES - MARCH 2-3 2012:
OK, KS, NE, IA, OH, TX

And in late October, Superstorm Sandy hit the east coast, leading to 1.38 million privately insured claims for an estimated $10 to $25 billion in insured losses. The industry saw approximately 230,000 auto losses, with 56 percent from New York, 26 percent from New Jersey, and the remaining 18 percent of the losses in other states. A very large share of the auto losses ended up being totaled vehicles, with the large volume and heavy concentration of high dollar vehicles driving up overall national total loss vehicle costs substantially.

When historically there has been a significant weather event – i.e. Hurricane Katrina in Sept 2005; the Florida Hurricanes in 2008; Hurricane Irene in 2011; overall U.S. total loss values have seen a spike (***see Figure 5***). The volume of comprehensive total loss vehicles nationally rose 500% for November 2012 versus the monthly volume for November 2009, November 2010, and November 2011. So while NY and NJ saw majority of losses, the impact on national total loss valuation statistics is significant. When we compare past events to Sandy we see the significant magnitude of this storm compared to the past. The data in ***Figure 6*** provides a comparison of the vehicles totaled in NY and NJ to those from other major events, and shows the Sandy vehicles were higher value, newer model year and more frequently a luxury model, which increased vehicle values dramatically across the board.

Figure 5: CCC National Industry Total Loss Vehicle Valuation Amount Average Jan 2003-Dec 2012

Source: CCC Information Services Inc.

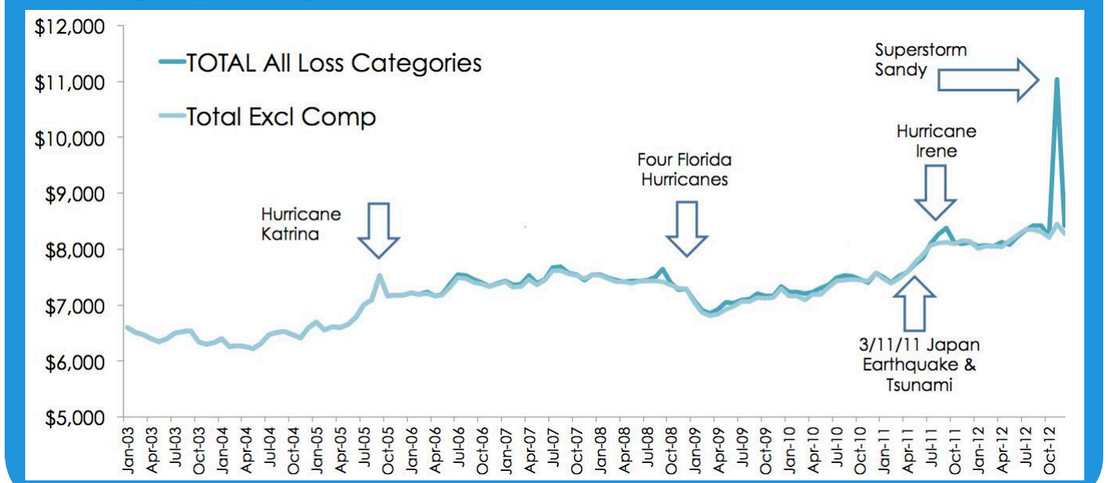


Figure 6: Comparison of Total Loss Vehicle Mix Distribution by Major Weather Events

Source: CCC Information Services Inc.

	% of Valuation Cnt											
	All Claims				Comprehensive				Excluding Comprehensive			
	Hurricane Katrina Sept 2005	4 FL Hurricanes Sept 2008	Hurricane Irene Sept 2011	Superstorm Sandy Nov 2011	Hurricane Katrina Sept 2005	4 FL Hurricanes Sept 2008	Hurricane Irene Sept 2011	Superstorm Sandy Nov 2011	Hurricane Katrina Sept 2005	4 FL Hurricanes Sept 2008	Hurricane Irene Sept 2011	Superstorm Sandy Nov 2011
Current Yr	4.4%	3.3%	2.4%	6.9%	n/a	3.4%	2.8%	10.8%	4.4%	3.3%	2.3%	3.5%
1-3 Yrs	15.8%	15.5%	9.9%	16.5%	n/a	18.6%	10.9%	24.2%	15.8%	15.0%	9.7%	9.7%
4-6 Yrs	23.0%	20.8%	19.2%	19.6%	n/a	23.1%	19.9%	20.8%	23.0%	20.5%	19.0%	18.5%
7 Yrs Plus	56.9%	60.4%	68.6%	57.0%	n/a	54.9%	66.4%	44.1%	56.9%	61.3%	69.0%	68.2%
Asian	33.7%	37.2%	40.4%	46.8%	n/a	29.0%	34.2%	50.2%	33.7%	38.5%	41.6%	43.8%
Domestic	61.3%	56.0%	51.3%	42.5%	n/a	62.9%	53.7%	35.6%	61.3%	55.0%	50.9%	48.4%
European	5.1%	6.7%	8.3%	10.8%	n/a	8.1%	12.1%	14.2%	5.1%	6.5%	7.5%	7.8%

CLIMATE CHANGE TOPS INSURERS CONCERNS FOR THE FUTURE

A study conducted by Berkeley Lab's Environmental Energy Technologies Division shows insurance losses related to weather and climate now average $50 billion a year – a figure that has doubled each decade since the 1980's (adjusted for inflation). [10] The National Oceanic and Atmospheric Administration (NOAA) recorded 11 weather related events that resulted in over $1 billion in losses in the U.S. in 2012: seven severe weather/tornado events; two tropical storm/hurricane events; and the yearlong drought and associated wildfires. [11] North America saw a total of 19 tropical storms in 2012, nearly double than what is historically seen during a tropical season, and 10 of which morphed into full-fledged hurricanes. [12]

Weather patterns anticipated for 2013 include continued drought conditions in the Great Plains, and more tornado activity than seen in 2012. [13] Additionally, with current weather patterns indicate the Atlantic will report the the warmest water ever recorded, any storm that does hit will likely be stronger and longer, according to climatologist Evelyn Browning-Garriss. [14] Much of the heavily populated Atlantic and Gulf coastlines lie less than 10 feet above sea level, and are increasingly at risk for storm surges such as during Sandy. [15] As populations have grown in these areas, the cost of storms has also risen.

FUTURE STATE OF CLAIMS HANDLING IN VOLATILE ENVIRONMENT

The ability to handle the large fluctuations in claims volume related to significant weather events will continue to be a challenge for insurers. Insurers are finding they must cater their claims service options to new consumer demands and demographics, and also be able to put in place processes and procedures than can be ramped up and down easily post-catastrophe. With Superstorm Sandy, a number of carriers were able to quickly relocate staff adjusters to the northeast, and shift the standard volume of claims from other parts of the country to an 'open shop' model, where customers could be referred to an extended group of repairers. New technology made it possible for non-DRP shops to communicate with carriers, offering similar capability to upload appraisals, validate business guidelines, and provide status updates as shops that do particapte in that carrier's direct repair program. The result was shared visibility in the repair process and outcome, and a high quality experience for the consumer.

By extending the choice of shop to the consumer through open shop, repairers also potentially see additional repair orders that they might not have seen otherwise. With overall repair counts still seeing only moderate increases if any, and a high percentage of vehicles still being totaled, repairers benefit from the extension of channels potentially bringing work to their door.

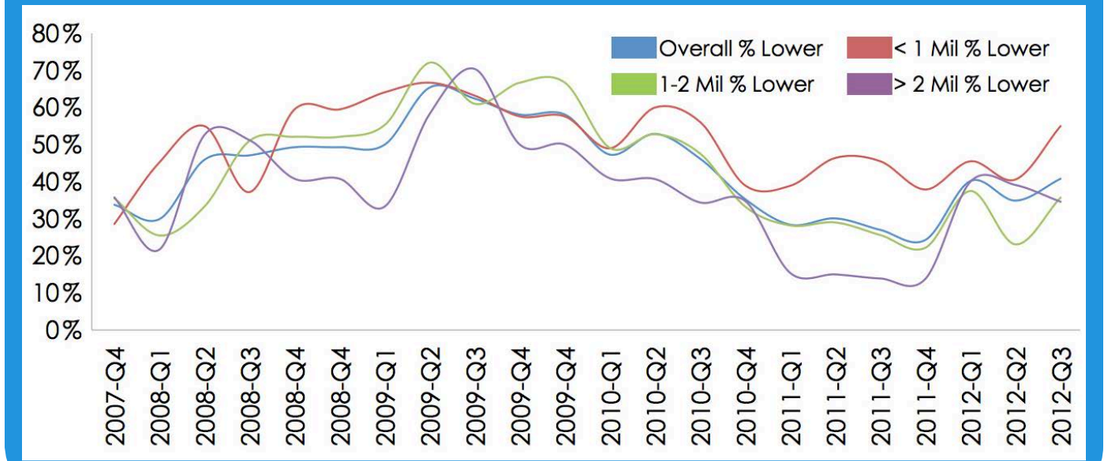
COLLISION REPAIR MARKET CONTINUED TRANSFORMATION

The collision repair industry has experienced a great deal of change over the last several years. The recession helped drive already flat-to-declining vehicle accident frequency down further, and more customers were opting not to have minor damage repaired. The percent repair orders that were customer-pay dropped from 20 percent in 2009 to 16 percent by mid-year 2012. Additionally, technology advances in vehicles continue to drive up the cost of operating a collision repair business. According to data from the Automotive Aftermarket Industry Association, the number of U.S. shops specializing in collision repair in the U.S. has declined nearly every year between 2002 and 2011, with the largest drop occurring in 2010, and the final tally as of 2011 at just over 34K shops. [16]

CollisionWeek's quarterly survey of collision repairers' business conditions shows the percentage of repairers reporting that their sales were lower in the current quarter than in the same quarter prior year peaked at 65 percent in Q2 2009. By Q4 2011, only 24 percent of repairers were reporting lower sales; however with milder winter weather in many parts of the country, the number rose to 40 percent by Q1 2012. A comparison of this same metric by shop size shows that the largest shops (those with more than $2 million annual revenue) have reported the lowest share with lower sales in 15 of the last 22 quarters between Q4 2007 and Q3 2012 (*see Figure 7*).

Figure 7: CollisionWeek's "Collision Repair Facility Business Conditions" Percent of Shops Reporting Lower Sales versus Same Period Prior Year by Shop Size (annual revenue)

Source: CollisionWeek



Scale may also be a factor behind the increase in the share of overall DRP appraisal counts at national multi-store operators over the last ten years. Between 2003 and 2012, national MSO's have seen their share of overall DRP appraisal counts rise to 17 percent from 9 percent in 2003, with the most volume share lost by independents (*see Figure 8*). National and regional MSO's also had the highest average number of insurer direct repair programs in which they participated – nearly seven on average for national MSO's and five for regional MSO's versus slightly less than three for independents. The Romans Group attributes the growth of the largest multiple location operators (MLO's) to factors such as access to capital from sources such as private equity funding, ability to market and sell to insurers and consumers across multiple markets, brand recognition, and operational improvements. [17]

As repairers of all sizes have adopted technology that streamlines the appraisal process and the repair process, the industry has benefited from a reduction in the overall time it takes from the assignment to the uploaded appraisal for DRP appraisals (*see Figure 9*). Additionally, data released by J.D. Power and Associates in its 2013 U.S. Auto Claims Satisfaction Study-Wave 1 report shows a growing gap in the average number of repair days for DRP versus non-DRP work: 16 days for non-DRP versus 13.1 days for DRP – a gap that has increased from 1.8 days for the same period in 2011. [18]

Figure 8: Annual Share of Uploaded DRP Appraisal Counts by Shop Type

Source: CCC Information Services Inc.

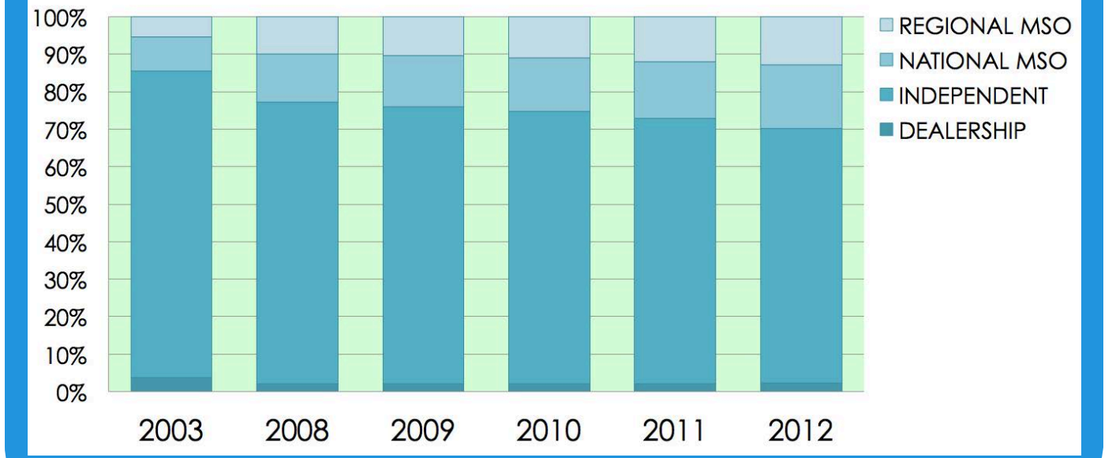


Figure 9: DRP Appraisal Cycle Time Improvements for Collision Repair Appraisals Q1 2010 to Q1 2012

Source: CCC Information Services Inc.

	Driveable					Non-Driveable				
	1st Qtr 2010	1st Qtr 2011	1st Qtr 2012	Chg '11 vs '10	Chg '12 vs '11	1st Qtr 2010	1st Qtr 2011	1st Qtr 2012	Chg '11 vs '10	Chg '12 vs '11
% Same Day Last Estimate Assignment Sent to EstSent	17.2%	19.0%	21.4%	1.8%	2.4%	12.1%	12.8%	14.6%	0.7%	1.7%
Last Estimate Assignment Sent to Estimate Sent % <= 12 Hrs	10.3%	12.1%	15.6%	1.8%	3.5%	7.5%	8.5%	11.5%	1.0%	3.1%
Last Estimate Assignment Sent to Estimate Sent % 12-48 Hrs	31.4%	31.1%	27.8%	-0.2%	-3.3%	30.7%	31.5%	30.3%	0.7%	-1.2%
Last Estimate Assignment Sent to Estimate Sent % 48-120 Hrs	23.8%	23.0%	22.8%	-0.8%	-0.3%	33.2%	33.0%	32.6%	-0.2%	-0.4%
Last Estimate Assignment Sent to Estimate Sent % > 120 Hrs	34.5%	33.8%	33.8%	-0.7%	0.0%	28.6%	27.1%	25.6%	-1.6%	-1.4%

Note: Q1 2010 - CCC ONE™ rolled out to 0% of collision repair customers / Q1 2011 - CCC ONE™ rolled out to 24% of all collision repair customers / Q1 2012 - CCC ONE™ rolled out to 96.1% of all collision repair customers

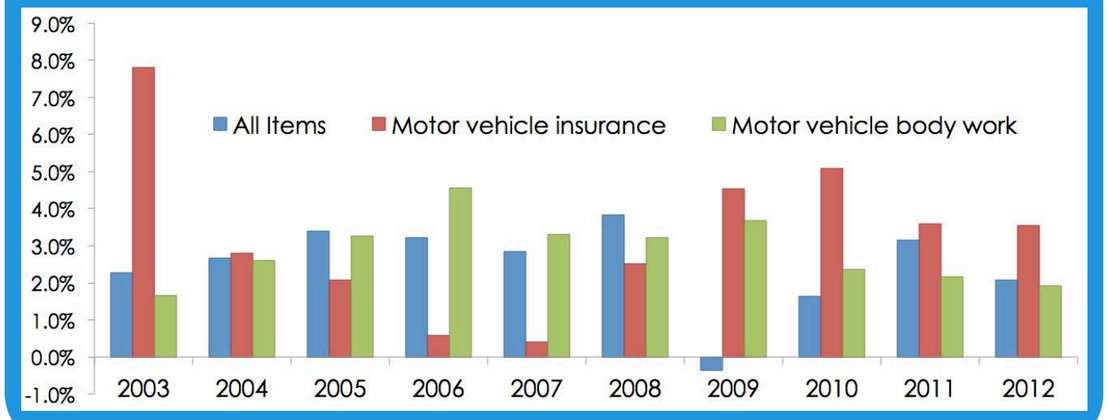
The sharp drop-off in new vehicle sales that occurred with the last recession also slowed the pace at which new automotive technology has hit the street. With new vehicle sales increasing more than 10 percent annually over the last three years, new vehicle sales in the U.S. are slowly returning to pre-recession levels. Many of the new vehicles sold incorporate materials and technologies to reduce weight or include the features consumers increasingly demand in their vehicles. For example, the market for factory-installed tech features in vehicles is expected to grow 11 percent in 2013 to $8.7 billion according to the Consumer Electronics Association. [19] And while CCC research has shown that the impact to the overall automotive claims industry annually is moderate in terms of the overall share of appraisals impacted, on an individual repair basis, the addition of multiple material types can add a great deal of complexity and potentially cost to the repair. Collision repairers must also make the leap of faith that they will see enough of these vehicle repairs to support the significant investment in the training for how to handle new or special materials.

PROPERTY CASUALTY INSURANCE FINANCIAL RESULTS HAMPERED BY BAD WEATHER

Financial results for the property casualty insurance industry in the first nine months of 2012 show marked improvement over the same period in 2011, with the industry's combined ratio dropping to 100.9 versus 109.8. [20] Most of the improvement came from fewer catastrophe losses, leaving insurers well positioned to absorb the major hit from Superstorm Sandy. When the estimated $15-$25 billion of insured losses from Superstorm Sandy are factored in, most analysts are estimating the industry's combined ratio will fall somewhere between 104 and 108 for the full year 2012.[21] The independent reinsurance-brokerage firm Holborn projects Sandy will have caused $6 billion to $10 billion for the property and auto wind line segment, and $2 billion to $3 billion in auto flood. [22]

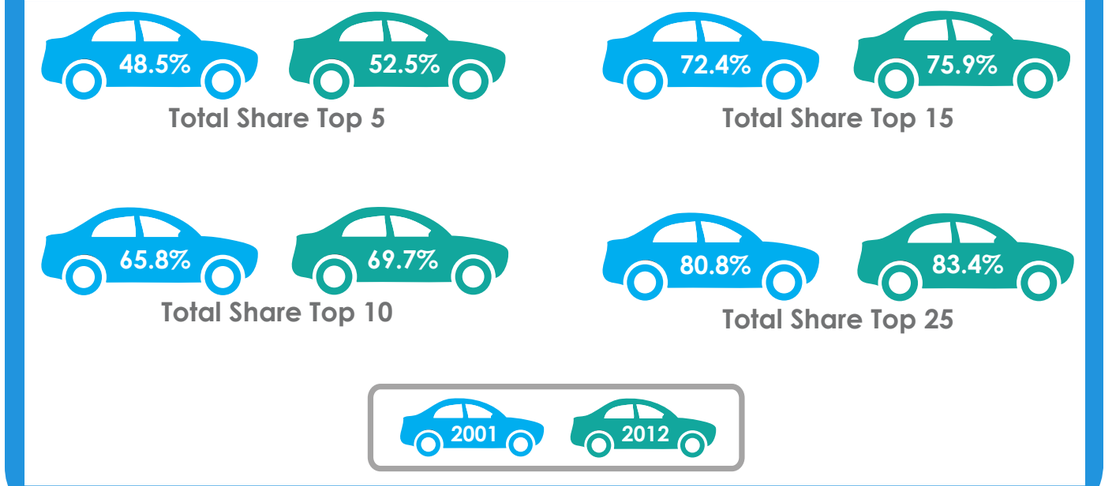
Low interest rates continue to hamper insurers' investment returns, and will continue to do so, as long as the Federal Reserve keeps interest rates linked to U.S. unemployment levels, which are unlikely to drop much in 2013. This will place renewed pressure on carriers' underwriting profitability, which has been aided in 2012 by moderate increases in premium for both commercial and personal lines. Insured losses from weather damage is one of the reasons analysts expect the cost of insurance to also see moderate increases in 2013. ***Figure 10*** shows a comparison of the annual change in the consumer price index for motor vehicle insurance to all items and motor vehicle body work. The cost of motor vehicle insurance rose 4.5 percent in 2009, but has since seen smaller year-over-year increases.

Figure 10: Consumer Price Index - All Urban Consumers Percent Change from Prior Year Annual Index (Not Seasonally Adjusted 2002-2012)
Source: www.bls.gov



Competition within the auto insurance sector remains high, with insurers spending record amounts of money on advertising to attract new customers. According to McKinsey's report "Beyond Price: The Rise of Customer-Centric Marketing in Insurance", insurers' spend on advertising has grown to $5.9 billion in 2011 from $1.7 billion in 2001.[23] With only 27 percent of auto policyholders actively shopping for another policy in 2011 however, that points to fairly low return on investment, as the remaining 73 percent of the total $170 billion market were not shopping.[24] And while there may be some data that raises questions on the ROI of the large advertising spend, the gain in market share of the top carriers suggests otherwise. Between 2001 and 2011, the share of private passenger auto net premiums written has grown by nearly 8 percent for the top five carriers; 6 percent for the top 10 carriers; 5 percent for the top 15 carriers; and 3 percent for the top 25 (***see Figure 11***).

Figure 11: Private Passenger Auto Share of Net Premiums Written
Source: A.M. Best



Analysts for the property casualty insurance industry point to underwriting precision per individual risk as a key component that will help insurers combat rising costs. This will be more effective in matching risk to premium, and will potentially be less controversial with regulators than universal market-wide premium increases. Carriers are also looking to expand their product suite to include coverage such as cyber insurance, that have the potential to help drive premium growth overall.

CLAIM COSTS SEE MODERATE INCREASES

Private passenger auto claim costs for collision and property damage losses have returned to their pre-recession rates of annual increase, with the average claim amount increasing just below 3 percent in 2012 from 2011. ***Figure 12*** shows how claim costs have tracked to the overall U.S. consumer price index, with the exception of comprehensive losses which increased 18 percent in 2012 alone.

For collision and property damage losses, much of the overall claim cost has been driven up by an increase in both the frequency and cost of total loss claims. Repair costs have seen more moderate increases, having returned to their pre-recession historic pattern of annual increases in the neighborhood of 2 to 3 percent annually. Posing potential challenges for insurers is what an older vehicle population can mean from a premium perspective: as vehicles age, premiums typically decline, and many customers opt out of all but the compulsory coverages. And while potentially fewer premium dollars are coming in for these older vehicles, more of them are likely to be total loss claims, should they be in an accident, and typically have higher claim cost and lower customer satisfaction. Claims data would also suggest that a greater share of customers making claims now have higher deductibles, which might mean some of the lower dollar losses that fall below the deductible are no longer being claimed, and therefore helping lift the overall average claim amount (***see Figure 13***).

Figure 12: Annual Percent Change Average Paid Claim Amount
Source: ISO/PCI Fast Track data; Insurance Information Institute; www.bls.gov.

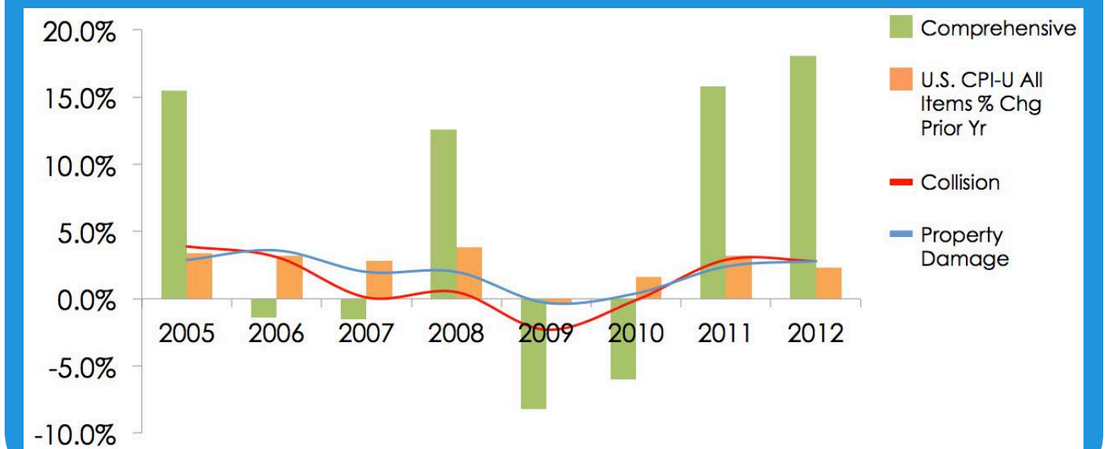


Figure 13: Volume Distribution of Collision Losses by Deductible Amt Dollar Range
Source: CCC Information Services Inc.

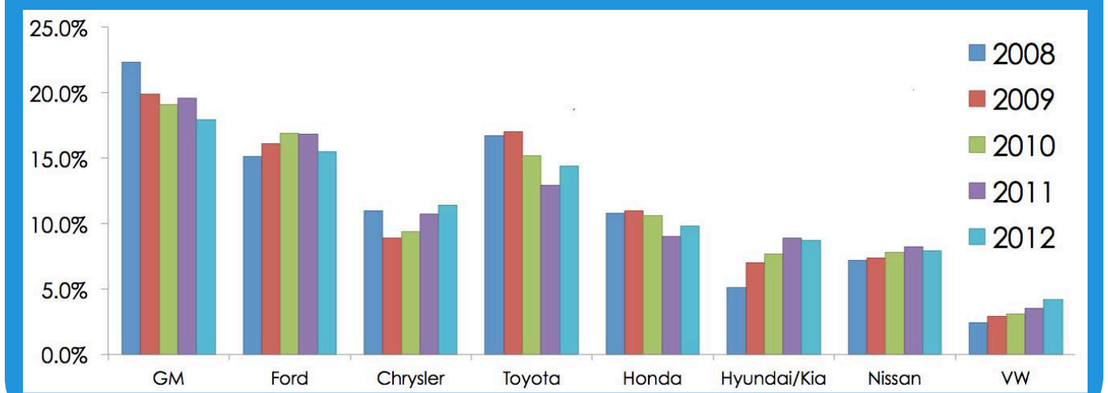
Calendar Year	$0.01 to $249.99	$250.00 to $499.99	$500.00 to $749.99	$750.00 & Up
2003	15.2%	28.7%	51.0%	5.1%
2012	8.6%	19.1%	59.0%	13.3%
10 Yr Change	*-6.6%*	*-9.5%*	*8.0%*	*8.1%*

NEW VEHICLE MARKETPLACE

Total U.S. new vehicle sales climbed 13 percent to 14.49 million in 2012, up from 2011's 12.8 million, and 2010's total of 11.6 million and the 27-year low of 10.4 million in 2009. This represents the third consecutive annual increase in sales of at least 10 percent; something that has not happened since 1973. [25] Among manufacturers, the Asian and European automakers have continued to see their share of annual sales increase (***see Figure 14***). Car sales grew by 18 percent in 2012, versus only nine percent growth for light trucks in 2012. Looking forward in 2013, most analysts are predicting the rate of sales growth will slow, growing only by single digits to between 15 and 15.5 million.

Continued low interest rates, an improving economy, older vehicle fleet, and the large number of new model redesigns and introductions over the next 18-24 months are all factors that analysts at Polk cite in support of their projection for an increase of 6.6 percent in new vehicle registrations in 2013 to 15.3 vehicles. [26]

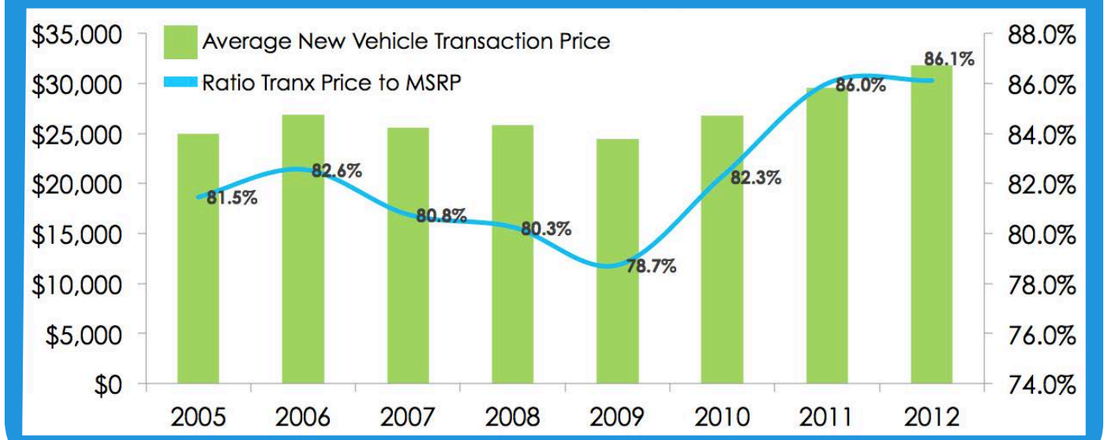
Figure 14: Annual Share of U.S. New Light Vehicles by Automaker 2008 - 2012
Source: Automotive News



The desire of new vehicle shoppers to have advanced technologies and amenities has also helped raise the average new vehicle transaction price since 2007, from $27,917 to $30,550, at a time when incentives were actually down about 6 percent. [27] Data from CNW Marketing Research Inc. also shows that the average new vehicle transaction price as a percent of the MSRP (average sticker price of vehicles sold) hit an eight-year high in 2012 (*see Figure 15*). With economic growth still slow and unemployment rates still high, many consumers that are purchasing a vehicle are opting for used versus new.

Figure 15: U.S. New Vehicle Sales - Ratio of Transaction Price to MSRP CY 2005-2012

Source: CCC Information Services Inc. Projection, in part using CNW Research data.



USED VEHICLE MARKETPLACE

The last several years have seen an unprecedented level of volatility within the used vehicle market. Overall used vehicle sales grew by 4.5 percent in 2012 with an estimated 40.53 million sales. This was the first time since 2007 that used vehicle sales have exceeded the 40 million mark. While new vehicle sales fell 18 percent in 2008, and another 22 percent in 2009, used vehicle sales fell only 12 percent in 2008 and only 3 percent in 2009 (*see Figure 16*). This drop-off in both new and used sales led to a disruption in the supply of used vehicles available in the market, fewer trade-ins by consumers and fleet companies, and fewer leases and subsequent lease returns were available. With typically 60 percent of all new vehicle sales historically including a trade-in, the drop-off in new sales alone meant at least 12.5 million fewer vehicles entered the market as used inventory between 2008 and 2012.

Historically in the U.S., the ratio of used vehicle sales to new sales averaged 2.5 between 1998 and 2007 (i.e. 2.5 used vehicles were sold in the U.S. for every one new vehicle

Figure 16: U.S. New and Used Vehicle Sales CY 1998 to 2012

Source: CCC Information Services Inc. Projection, in part using CNW Research data

CY	New Sales	Used Sales	Total Sales
1998	15.5	40.8	56.4
1999	16.8	40.7	57.5
2000	17.4	41.6	59
2001	17.2	42.6	59.8
2002	16.9	43	59.9
2003	16.7	43.6	60.2
2004	16.8	42.7	59.5
2005	17	44.1	61.1
2006	16.5	42.6	59.1
2007	16.2	41.6	57.8
10-Year Average	***16.7***	***42.3***	***59***
2008	13.3	36.5	49.9
2009	10.4	35.5	45.9
2010	11.6	36.9	48.5
2011	12.8	38.8	51.6
2012	14.5	40.5	55
Lost sales vs prior 10-yr avg	***20.9***	***23.5***	***44.4***

annually). When the U.S. entered the recession, that ratio jumped as high as 3.4 in 2009, as consumers that were able to purchase a vehicle opted for used versus new (***see Figure 17***). Subsequently soaring demand at a time of tight inventoryled to higher used vehicle prices. Wholesale used vehicle price data from Manheim and ADESA show sharp increases in used prices beginning in early 2009, with retail used vehicle prices as measured by the Bureau of Labor's CPI for Used Cars and Trucks following suit (***see Figure 18***). From the lowest to highest points measured by each of these sources, used prices experienced an increase between 25 and 30 percent from late 2008 to 2012. And while increases in wholesale used vehicle prices have begun to slow and even taper, average wholesale prices are still up approximately 20 percent from their low-point in late 2008. Other external factors beyond the reduced supply were also instrumental in driving up used vehicle prices in the last several years. The federal cash-for-clunkers program in the summer of 2009 took about 750,000 used vehicles out of the market. Soaring gas prices in 2008 and again in 2011 drove demand for fuel-efficient vehicles, and the disruption of new vehicle production from the 3/11/2011 Japan earthquake and tsunami led to a surge in demand for used vehicles from dealers racing to get vehicles to fill their lots.

Figure 17: Ratio Used Vehicle Sales to New Vehicle Sales by Calendar Year

Source: CCC Information Services Inc. Projection, in part using CNW Research data.

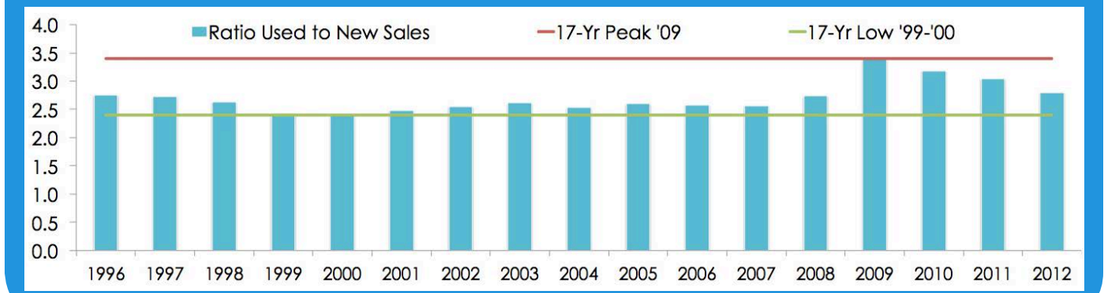
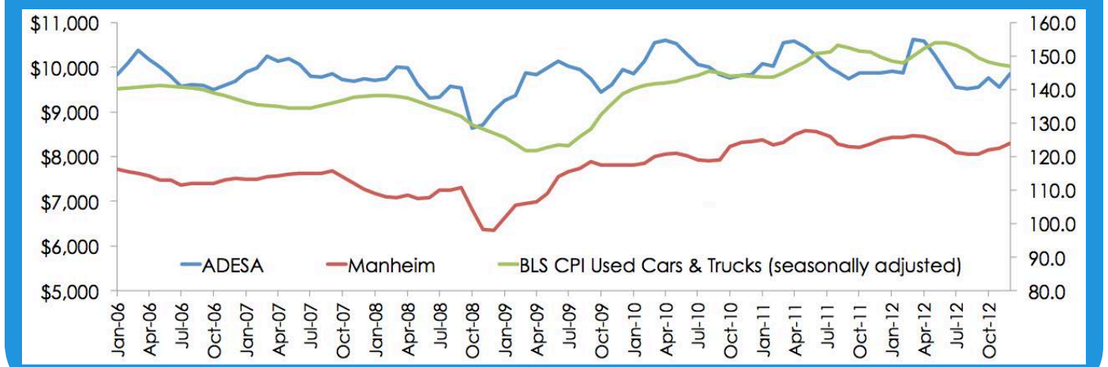


Figure 18: Wholesale Used Vehicle Values (ADESA & Manheim) and Bureau of Labor Consumer Price Index for Used Cars and Trucks (Jan '06-Dec'12)

Sources: Manheim, ADESA, www.bls.gov

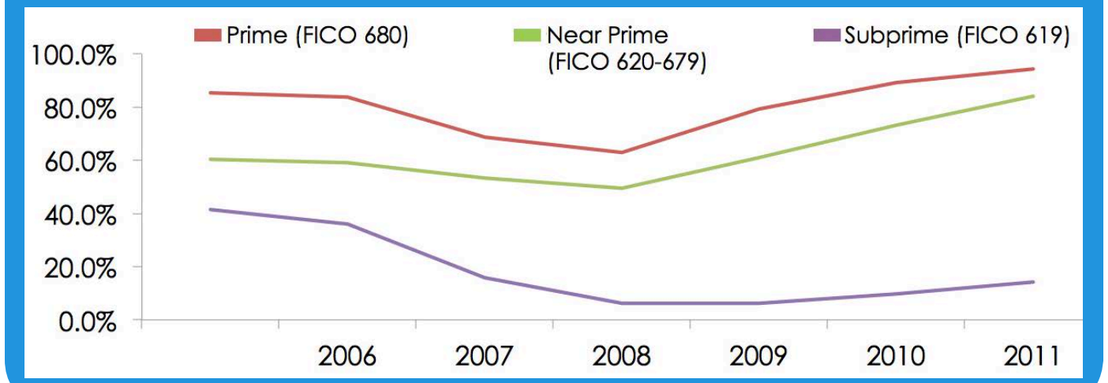


Analysts believe that used vehicle inventories will finally begin to improve in 2013. Lease returns, new vehicle purchases with trade-ins, and repossessions have all seen moderate increases and are expected to grow throughout the year. The typical sell-off of rental vehicles that historically occurs in the fourth quarter was delayed in 2012 as many rental companies have been holding onto their vehicles longer than usual due to Superstorm Sandy. Analysts believe rental companies will begin selling off these vehicles in the February-March 2013 timeframe, which will also provide a boost to inventory levels. [28]

Favorable credit conditions will also continue to drive both new and used sales in 2013. Availability of low-cost credit helped lift sales in 2012 for both prime and subprime buyers. After dropping off sharply during the recession, loan approval rates for prime, near-prime and subprime all rose (***see Figure 19***). On a percentage increase basis, the approval rating for subprime borrowers more than doubled – a factor contributing to the increase in share of dealer and of overall sales that were Buy-Here Pay-Here (BHPH). Data from Experian Automotive showed an increase in the share of used-vehicle buyers that fell into the subprime credit tiers in 2012. [29] Analysts point to increases in subprime loans and BHPH purchases as key market drivers that kept demand for used vehicles in the $8000 to $11,000 range in the last several years.

Figure 19: Loan Approval Rates by Calendar Year

Source: CCC Information Services Inc. Projection, in part using CNW Research data.



Analysts in the used marketplace often refer to a 'waterfall' pricing effect for used vehicles: when prices of new vehicles trickle down to drive prices for used vehicles. At the same time the oldest vehicles, which are always in high demand due to availability and price stability, create a reverse waterfall or the low point from which all other used vehicle pricing also is determined. [30] So while newer model year used vehicle prices are expected to see some further tapering in 2013, as inventories from lease returns and rental-company trade-ins begin to rise, the market may see continued firm pricing for older model-year vehicles, which ultimately sets the basement for used vehicle pricing. And although the supply of the older model year used vehicles may see some moderate lifts as consumers trade-in older model year vehicles; continued growth of subprime loan approval rates may drive demand for older, less expensive vehicles and may keep their prices elevated through 2013. With economic growth still slow, and unemployment rates high, many consumers are still unable to afford a new car, and will opt to purchase a used vehicle instead, which could contribute to keeping demand high.

While the dynamics that occur in the marketplace in terms of used vehicle prices certainly impact the costs incurred for total loss claims, there is an important distinction that must be considered. Many of the broader automotive industry indices that look at wholesale or retail used vehicle price data focus predominantly on vehicles that are aged seven years and younger. Total loss vehicle costs however are driven by a much different mix of vehicles – 72 percent of all total loss vehicles are aged seven years and older. In fact, the share of total loss valuations for newer model year vehicles has dropped nearly every year since 2000, as vehicles on the road in the U.S. last longer and consumers hold onto them longer. Additionally, total loss vehicle costs are also impacted by claim frequency patterns such as catastrophes that can lead to a dramatic shift in vehicle mix and subsequently drive up average values.

FEWER NEW SALES DRIVE VEHICLE AGE

The drop-off in new vehicle sales that began in 2008 helped push the median age of registered vehicles in the U.S. to 11.2 years by midyear 2012. During the recession, new vehicle sales had plummeted, and while new sales have begun to ramp back up, the slowdown in sales led to a historically older vehicle population (***see Figure 20***). Data from KBB.com also suggests that consumers have extended the number of years they anticipate holding onto a vehicle: among consumers considering a vehicle purchase, the average duration of vehicle ownership in 2010 was approximately six years compared to seven and a half years in 2012. [31] Recent research from Polk suggests that Americans on average will buy almost four fewer new cars by the time each of us hits 76 years old, the age when Polk believes most people are done buying new vehicles. [32]

Within automotive claims data, a similar pattern of aging vehicles also appears: the average age of repairable appraised vehicles grew from 5 years in 2007 to 6.1 years in 2012, while the average age for total loss vehicles grew from 8.5 years in 2007 to 9.8 years in 2012.

Figure 20: Polk Average Age of U.S. Passenger Cars and Light Trucks 1995-2011

Source: Polk (figures are from July 1 each year)

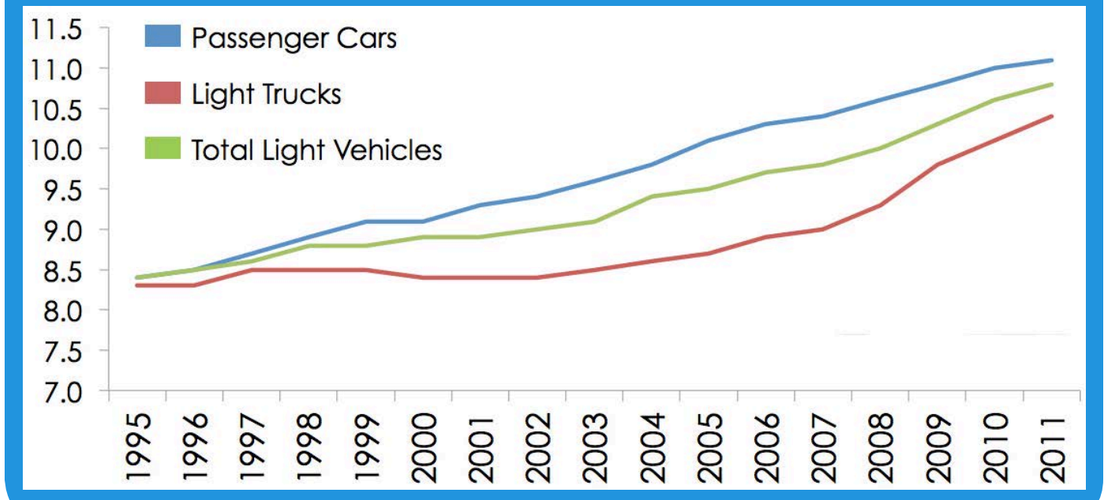
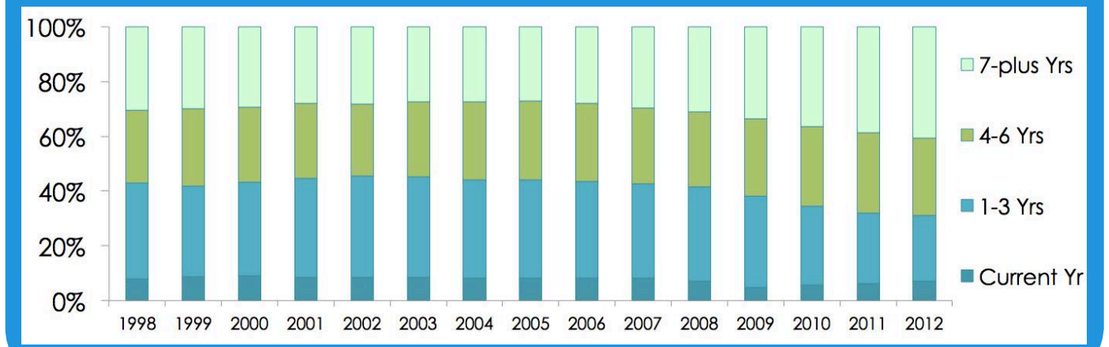


Figure 21: CCC National Industry Repairable Appraisal Volume Share by Vehicle Age CY 1998 to 2012

Source: CCC Information Services Inc.



The breakout of repairable vehicle appraisal data by the age of the loss vehicle underscores the shift that has occurred in the last five years to a markedly older mix (***see Figure 21***). Over 40 percent of all repairable appraisals were for vehicles aged seven years and older in 2012 – the highest ever recorded in the last fifteen years, and over 13 percentage points higher than in 2005. Over the last three years of recovering auto sales, new vehicles' share of the repairable appraisal volume has grown – as sales ramp up further in 2013, it will continue to grow. The implications of a newer fleet are essentially the reverse of what we have discussed in the past regarding an aging fleet: more replace versus repair, lower non-OE parts utilization, and more labor hours per appraisal, which all lead to higher repair costs.

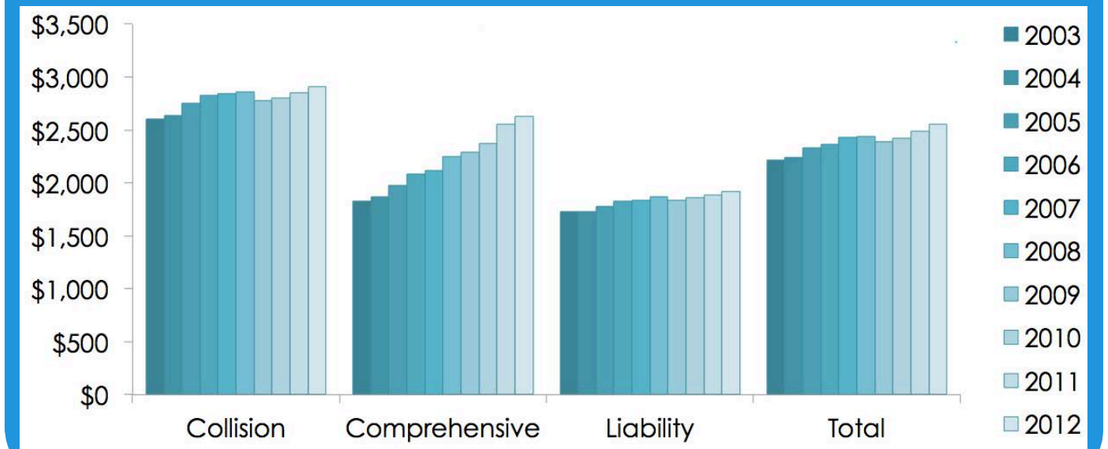
Additionally, as newer model year vehicles are now of increasingly higher content/ higher cost/ more complex material makeup, the market may see a lift in repair costs – and in those instances when accident avoidance systems are not present or do not help avoid or mitigate the accident, vehicle repair may be overall more costly, and for heavily hit vehicles may even result in total loss.

REPAIR COSTS RECOVER POST-RECESSION

The average total cost of repair for vehicle appraisals in 2012 was $2,550, up 1.7 percent from 2011. The numbers continue to build on the moderate increases seen year-over-year since mid-year 2009 when repair costs hit bottom. Comprehensive losses have seen the largest increase in average costs over the last several years, followed by liability losses (*see Figure 22*). To better understand the dynamics behind the change in average repair cost, consider the primary components contributing to overall repair costs: – parts and labor, and an analysis of the changes within the population of repaired vehicles in terms of vehicle age, manufacturer and type (*see Figure 23*).

Figure 22: Average Total Cost of Repairs by Loss Category

Source: CCC Information Services Inc.



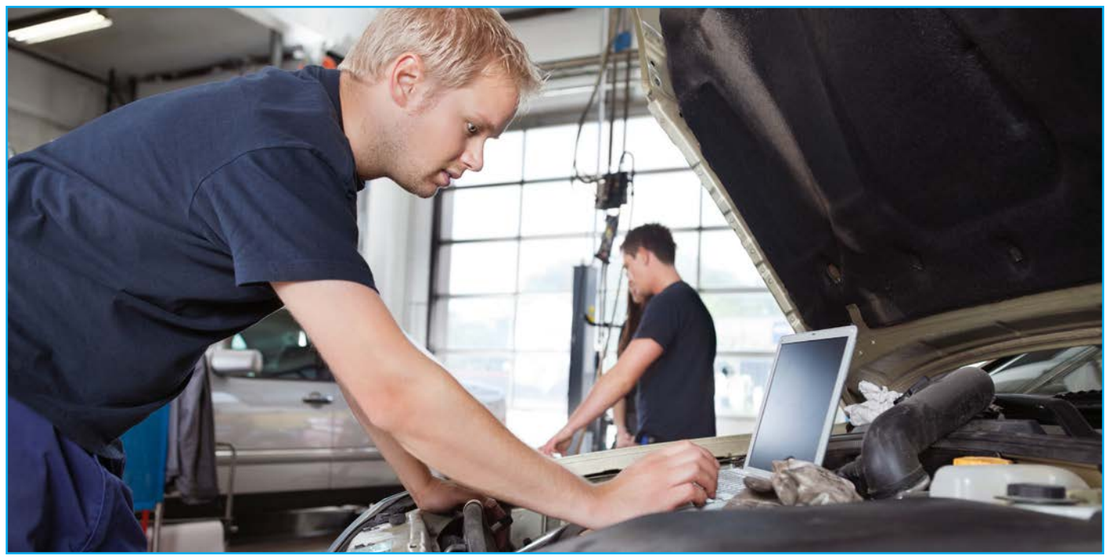
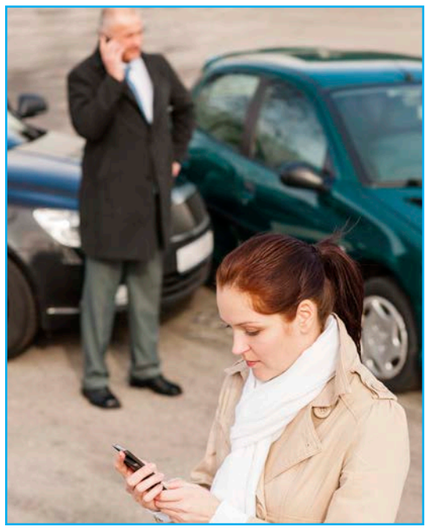


Figure 23: Repairable Vehicle Damage Appraisals - Vehicle Mix Statistics by Calendar Year

Source: CCC Information Services Inc.

	2007	2008	2009	2010	2011	2012
Avg Repair Cost	$2,427	$2,441	$2,405	$2,434	$2,507	$2,551
% Chg from prior calendar year	1.3%	0.6%	-1.5%	1.2%	3.0%	1.8%
Avg Repair Cost - Driveable	$1,730	$1,790	$1,788	$1,812	$1,903	$1,925
% Chg from prior calendar year	0.4%	3.5%	-0.1%	1.3%	5.0%	1.2%
Avg Repair Cost - NonDriveable	$4,632	$4,602	$4,544	$4,532	$4,619	$4,756
% Chg from prior calendar year	-0.3%	-0.6%	-1.3%	-0.3%	1.9%	3.0%
Non-Driveable %	23.2%	23.1%	22.4%	22.8%	22.0%	21.9%
% of Claims with Suppl(s)	51.3%	49.8%	47.5%	46.9%	46.8%	46.4%
Suppl % of Total Repair Cost	11.7%	11.3%	10.5%	10.4%	10.7%	10.9%
Avg Vehicle Age	4.99	5.14	5.47	5.79	6.00	6.12
Avg CCC Regional Value Amt	n/a	$13,791	$12,441	$12,844	$13,126	$14,271
Avg Odometer	72,520	73,415	76,678	80,380	82,616	83,820
Avg Mileage per Vehicle Year	14,542	14,284	14,021	13,882	13,769	13,696
Parts % Total Repair Cost	39.1%	38.2%	38.1%	38.2%	37.7%	38.3%
Avg # Parts Repl per Claim	8.2	8.1	7.8	7.9	8.0	8.3
OEM % of Total Part Amt	68.8%	68.1%	64.9%	63.6%	63.5%	63.2%
Labor % Total Repair Cost	42.1%	42.4%	42.6%	42.5%	42.6%	42.2%
Avg Labor Hrs per Claim	23.5	23.2	22.4	22.2	22.3	22.4
Avg Hourly Body Rate	$42.28	$43.07	$44.01	$44.68	$45.10	$45.60
% Chg from prior calendar year	2.1%	1.9%	2.2%	1.5%	0.9%	1.1%
Repair % Total Labor Amt	39.0%	40.2%	40.8%	40.8%	42.1%	41.8%
Total Loss % Vol	13.5%	14.0%	14.2%	13.9%	13.9%	14.4%
Collision Losses % Vol	55.1%	52.8%	52.9%	52.8%	51.8%	52.4%
Comprehensive Losses % Vol	15.6%	17.5%	16.5%	16.2%	18.4%	17.6%
Liability Losses % Vol	29.3%	29.7%	30.6%	31.0%	29.8%	30.0%
Front Impacts % Vol	46.1%	45.2%	45.0%	44.8%	43.1%	42.0%
Luxury % Vol	14.6%	15.0%	15.3%	15.6%	15.6%	15.8%



REPAIR COST DOLLAR DISTRIBUTION – THE PARTS THAT HAVE CHANGED

The distribution of repair cost dollars has been little changed over the last fifteen-plus years that this has been tracked by CCC. The most significant change during this time has been the share of overall dollars spent on replacement parts. Replacement parts still make up about 40 percent of overall repair dollars, but the distribution of overall parts dollars by part type has shifted towards greater non-OE utilization, specifically for aftermarket, reconditioned, and optional OE parts (*see Figure 24*). At the close of 2012, the industry's share of replacement part dollars was split at 63 percent OEM versus 37 percent non-OEM (*see Figure 25*). Between 2011 and 2012 the average number of replacement parts increased by 0.3 parts to 8.3; yet the average price paid per replacement part fell by 0.3 percent. Average price paid per replacement part varied by part type, with reconditioned parts increasing 2percent, aftermarket parts decreasing by 2.4 percent, and recycled parts increasing 0.8 percent (*see Figure 26*).

Figure 24: Repair Dollars Distribution by Category (CY 1998-2012)

Source: CCC Information Services Inc.

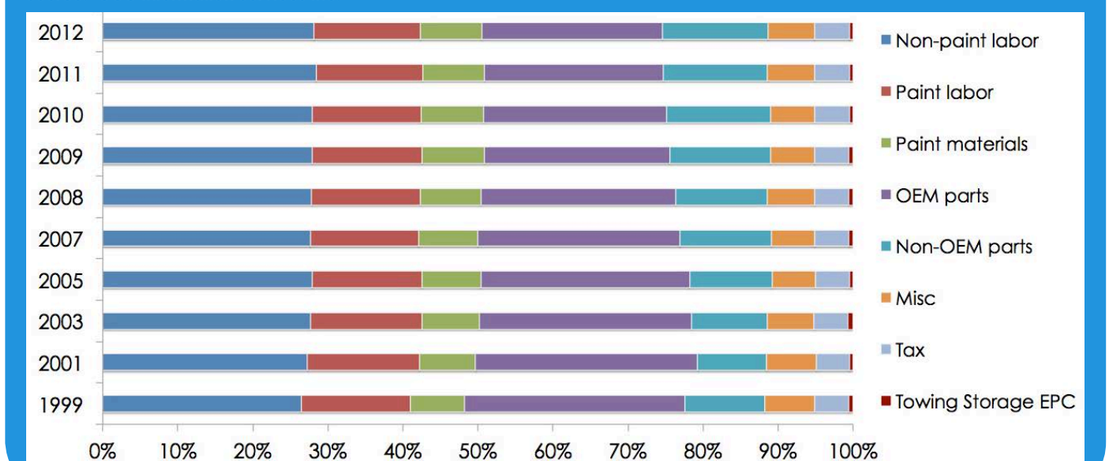


Figure 25: CCC National Industry - Percent of Total Part Replacement Dollars by Part type (CY 1998 to 2012)

Source: CCC Information Services Inc.

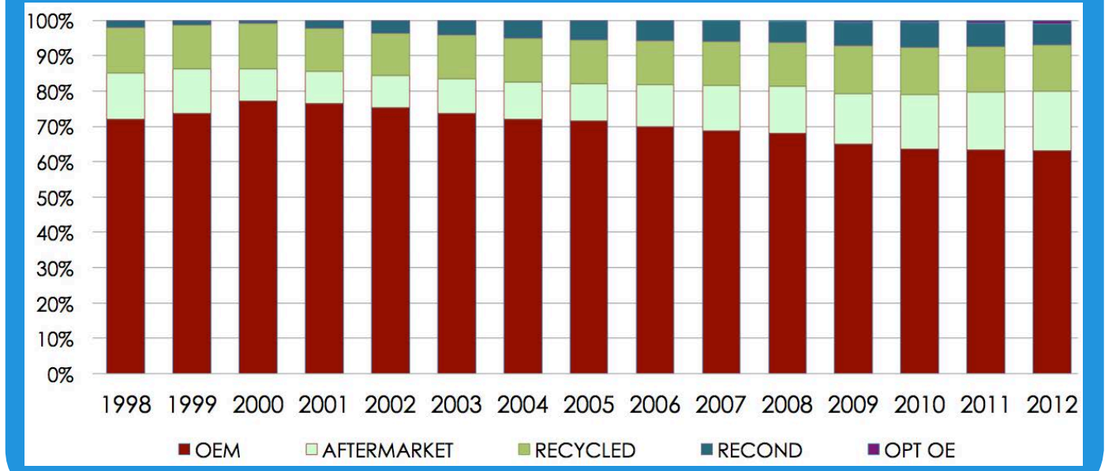


Figure 26: National Industry 2011-2012 Year-over-Year Percent Change Average Part Price by Part Type and Vehicle Age Group

Source: CCC Information Services Inc.

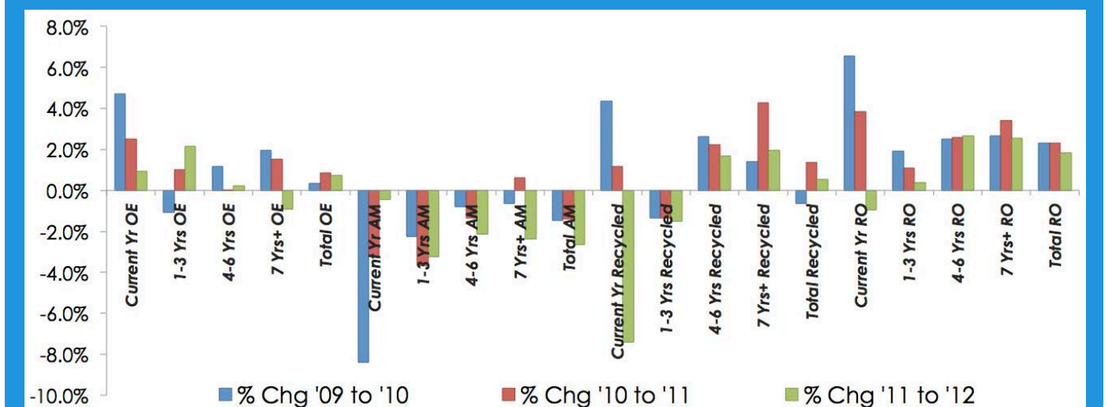
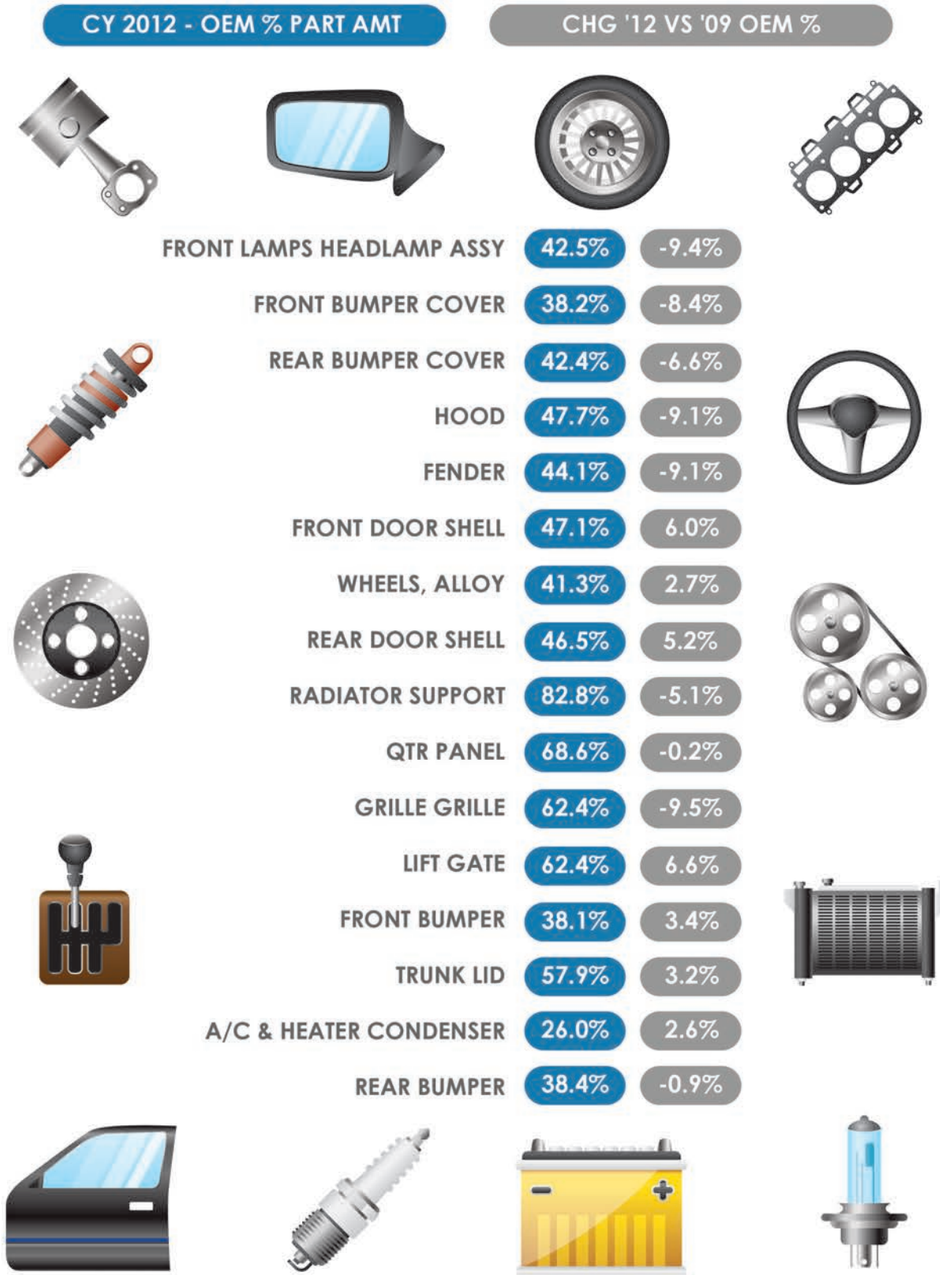


Figure 27: OEM Part Utilization for Top 15 Most Frequently Replaced Parts

Source: CCC Information Services Inc.



The most frequently replaced parts in 2012 were consistent with prior years, and included Front and Rear Bumper Covers, Headlamp Assemblies, Hoods, Fenders, Front and Rear Door Shells, Wheels, Grilles, and Radiator Supports. Combined, these parts accounted for over 50 percent of the total dollars spent on replacement parts. With their significant share of overall part dollars, it's not a surprise that these are the parts where the OE manufacturers face their stiffest competition (*see Figure 27*). Overall part sales are also impacted by what share of the parts with damage can be repaired versus replaced. *Figure 28* illustrates the percent of the overall most frequently damaged part components that were repaired versus replaced, and how that has changed over the last four years.

Figure 28: Repair Part Cnt % of Total of Repaired and Replaced Parts

Source: CCC Information Services Inc.

	CY 2009	CY 2010	CY 2011	CY 2012	Chg '12 vs '09
Fender	48.4%	48.5%	49.4%	48.7%	0.3%
Front Bumper Cover	28.8%	29.0%	28.7%	29.7%	0.9%
Rear Bumper Cover	39.9%	40.5%	40.8%	41.9%	2.0%
Front Door Door Panel	77.5%	78.6%	80.4%	78.8%	1.3%
Rear Door Door Panel	75.8%	76.8%	77.5%	76.9%	1.1%
Front Door Door Shell	54.4%	53.2%	53.6%	51.6%	-2.8%
Rear Door Door Shell	55.5%	54.2%	54.8%	52.7%	-2.8%
Quarter Panel	86.2%	86.8%	87.5%	87.6%	1.4%
Hood	41.6%	41.9%	40.8%	41.2%	-0.4%
Lift Gate	59.2%	59.2%	60.0%	59.3%	0.0%
Radiator Support	41.0%	38.5%	35.5%	32.8%	-8.2%

LABORING AWAY

When combined, overall non-paint and paint labor accounted for just below 43 percent of the total cost of repairs in 2012, which has changed little over the last fifteen-plus years. The average number of labor hours per appraisal uploaded to CCC in 2012 was down by over one full hour, and with the average hourly rate nationally at $45 per hour, this would be a factor explaining the smaller increase in average repair costs overall. The hourly labor rates have seen moderate increases year-over-year during the recession, closing out 2012 up just over one percent (*see Figure 29*).

Figure 29: Average Labor Rates per Labor Category CY 2007 to CY 2011

Source: CCC Information Services Inc.

	Average Hourly Rate (weighted average)					% Change from Prior Year				
Calendar Year	Body (Sheet Metal) Labor	Frame Labor	Mechanical Labor	Paint Labor	Paint Materials	Body (Sheet Metal) Labor	Frame Labor	Mech anical Labor	Paint Labor	Paint Materials
2007	$42.28	$48.41	$69.02	$42.19	$23.06	2.1%	1.7%	2.2%	2.1%	3.1%
2008	$43.07	$49.30	$70.90	$42.98	$23.80	1.9%	1.8%	2.7%	1.9%	3.2%
2009	$44.01	$50.39	$72.80	$43.88	$24.74	2.2%	2.2%	2.7%	2.1%	4.0%
2010	$44.68	$51.19	$73.39	$44.51	$25.36	1.5%	1.6%	0.8%	1.5%	2.5%
2011	$45.09	$51.78	$74.47	$44.97	$25.70	0.9%	1.1%	1.5%	1.0%	1.3%
				5-Year Average		1.9%	1.8%	2.1%	1.9%	3.2%

TOTAL LOSS FREQUENCY SEES CONTINUED SLOW ASCENT

Total loss frequency for insurance claims has been the topic of much discussion over the last decade because the non-repairable rate has been increasing while overall claim frequency rate has declined. In 2000, about 9 percent of all vehicles for which an appraisal was written were flagged as a total loss; by 2012, this number had grown to just under 14.4 percent (Taking into account obvious totals where no appraisal is written, the industry-wide total loss percentage trends about 3-4 percent higher [14 percent in 2000 to nearly 19 percent in 2012]). Essentially, this equates to a 5 percent total loss frequency increase over the last decade.

Figure 30 shows how total loss frequency by age of the vehicle has trended over the last ten years. Within each vehicle age group there has been only moderate variability from the 10 year average. The most significant driver of increasing total loss frequency has been the aging vehicle fleet: in 2003, 27 percent of all repairable appraisals were for vehicles aged 7-years-plus; by 2012 this grew to 40.7 percent. Further evidence pointing to aging fleet as the predominant driver of total loss frequency is the trend in volume share by the extent to which a vehicle is damaged. Grouping all appraisals by distinct ranges of the 'repair cost as a percent of the loss vehicle's ACV', illustrates that over the last four years, there has been no sharp increase in the higher brackets that would suggest more heavily damaged vehicles (see share of overall appraisal count in *Figure 31*); and at the same time there has been essentially no change in the percent of appraisals flagged as non-driveable. Despite an older mix, the lift in used vehicle prices that buoyed vehicle ACV's was certainly a contributing factor. Despite the increase in average age, the average repairable loss vehicle ACV increased from $13K to $14K between 2011 and 2012; as a growing share of appraisal volume comes from newer models (increasing as new vehicle sales grow), this will continue to raise that average ACV for repaired vehicles.

Figure 30: Percent of Repairable Appraisal Volume Flagged Total Loss and Percent that were Vehicle Aged 7 Years Plus (2003-2012)

Source: CCC Information Services Inc.

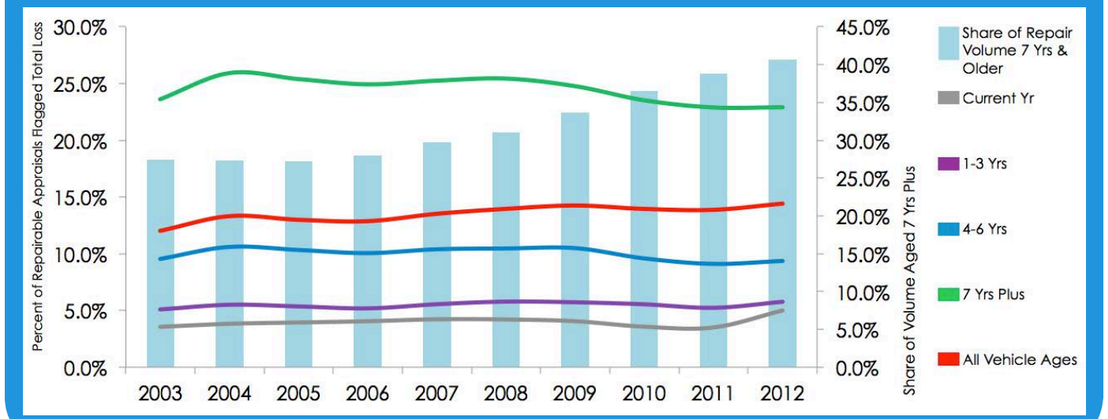


Figure 31: All Appraisals Grouped by Repair Cost as Percent of Loss Vehicle ACV - Total Loss Frequency and Age Statistics CY 2009-2012

Source: CCC Information Services Inc.

Ranges based on appraisal's total cost of repair as a percent of the loss vehicle's market value (ACV)	Share of Overall Appraisal Count		% of Overall Appraisals Flagged Total Loss		% Overall Appraisals Flagged Non-Driveable		% of Overall Appraisals that were for Vehicles Ages 7 Yrs Plus	
	CY 2012	Chg CY '12 vs CY '09	CY 2012	Chg CY '12 vs CY '09	CY 2012	Chg CY '12 vs CY '09	CY 2012	Chg CY '12 vs CY '09
>0% and <30%	62.1%	2.9%	0.5%	0.2%	12.6%	0.6%	33.8%	9.0%
>=30% and <50%	14.2%	-0.5%	2.3%	0.8%	38.2%	1.7%	60.1%	9.9%
>=50% and <70%	8.5%	-0.6%	22.3%	6.7%	56.6%	3.3%	66.1%	8.6%
>=70% and <75%	1.8%	-0.2%	53.8%	8.7%	69.8%	3.8%	65.6%	8.1%
>=75% and <80%	1.8%	-0.2%	64.0%	5.4%	72.8%	2.0%	66.4%	9.1%
>=80%	11.6%	-1.6%	84.7%	5.4%	82.0%	3.4%	78.9%	5.2%
Total	100.0%	0.0%	14.5%	0.2%	30.3%	0.0%	46.7%	7.5%

VEHICLE VALUES RISE

The average value of a vehicle for which CCC provided a total loss valuation in 2012 rose 4.2 percent from 2011. In that same time period, the average age of a total loss vehicle grew from 9.6 years to 9.8 years, and the share of total losses that were seven years and older grew to 72 percent. During this same period the industry saw an increase in several vehicle categories that have historically had higher values: light trucks (specifically SUVs), Asian and European vehicles, current model year vehicles, and luxury vehicles (*see Figure 32*).

Figure 32: Total Loss Valuations - Vehicle Mix Statistics by Calendar Year

Source: CCC Information Services Inc.

	All Total Loss Valuations					Less Sandy Claims
	2008	2009	2010	2011	2012	2012
Final Valuation Amt Avg	$7,632	$7,263	$7,591	$8,127	$8,869	$8,464
% Chg from prior year	-0.8%	-4.8%	4.5%	7.1%	9.1%	4.2%
Avg Vehicle Age	8.60	8.88	9.29	9.58	9.60	9.80
Avg Odometer	103,436	106,742	111,006	113,846	112,615	115,436
Light Trucks % Vol	34.70%	35.50%	34.70%	35.07%	35.69%	35.43%
SUV's % Vol	15.10%	16.14%	16.07%	16.79%	18.15%	17.54%
Car Final Val Amt Avg	$6,944	$6,662	$6,889	$7,479	$8,212	$7,871
% Chg from prior year	1.7%	-4.1%	3.4%	8.6%	9.8%	5.2%
Truck Final Val Amt Avg	$8,880	$8,307	$8,881	$9,322	$10,069	$9,552
% Chg from prior year	-4.8%	-6.5%	6.9%	5.0%	8.0%	2.5%
Asian Vehicles % Vol	37.1%	37.6%	39.3%	40.3%	42.1%	41.6%
Domestic Vehicles % Vol	56.7%	55.7%	53.5%	52.1%	49.8%	50.6%
European Vehicles % Vol	6.3%	6.7%	7.2%	7.6%	8.2%	7.8%
Asian Veh Final Val Amt Avg	$8,195	$7,850	$8,098	$8,676	$9,397	$8,968
% Chg from prior year	0.5%	-4.2%	3.2%	7.1%	8.3%	3.4%
Domestic Veh Final Val Amt Avg	$6,807	$6,451	$6,761	$7,210	$7,714	$7,512
% Chg from prior year	-1.9%	-5.2%	4.8%	6.6%	7.0%	4.2%
European Veh Final Val Amt Avg	$11,574	$10,583	$10,861	$11,433	$13,117	$11,895
% Chg from prior year	-3.9%	-8.6%	2.6%	5.3%	14.7%	4.0%
Theft % Vol	3.39%	2.74%	2.40%	2.14%	2.02%	2.12%
Vehicles Current Yr & Newer %	2.5%	1.6%	1.5%	1.7%	2.6%	2.1%
Vehicles 1-3 Years %	14.1%	13.1%	11.0%	9.2%	9.2%	8.3%
Vehicles 4-6 Years %	20.2%	20.2%	19.3%	18.6%	17.8%	17.6%
Vehicles 7 Years & Older %	63.3%	65.1%	68.2%	70.5%	70.4%	71.9%
Collision %	61.0%	62.2%	60.8%	59.5%	57.7%	60.5%
Comprehensive %	11.1%	10.9%	11.1%	13.3%	16.4%	12.3%
Liability %	27.8%	26.9%	28.1%	27.3%	25.9%	27.2%
Luxury % Vol	9.9%	10.4%	10.9%	11.3%	11.9%	11.4%

To identify what share of the overall increase in total loss vehicle values could be attributed to changing vehicle mix versus just simply higher market values for used vehicles, CCC conducted a multivariate regression analysis against non-comprehensive total loss vehicle valuations completed for its customers over the last five years, with a focus on the last 12 quarters. The goal of this regression analysis was to determine what the increase in non-comprehensive total loss vehicle values would have been if the difference in key variables such as vehicle age, model, odometer, state, and time indicator were controlled across the industry data. Using SAS to perform this multivariate regression, a random sampling of valuations from each calendar year was selected. The 'actual' average final valuation amount of the data set for each calendar year is shown in the graph alongside the average value when all variables were controlled (see Figure 33) The data table in Figure 33 shows the difference in the quarterly and annual increases between the actual values, and the values when all variables were controlled. This analysis also provided perspective on which variables contributed most to the change in final valuation amount, ranking vehicle model and vehicle age as the top two most important variables. What this suggests therefore, is that carriers should be evaluating their book of

business and segmenting by vehicle model and vehicle age to assess both the probability of total loss when a claim is made, and its associated total loss costs. Analysis of claims data reveals that over the last several years, the industry has seen not only an increase in its frequency of total losses as the age of the vehicle fleet has grown; but in an environment of strong used vehicle prices, total losses as a share of the overall claim cost has accelerated even faster (see Figure 34).

Figure 33: CCC National Industry Non-Comprehensive Total Loss Vehicle Valuations Percent Change in Final Valuation Amount / CCC Natl Industry Non-Comprehensive Total Loss Vehicle Values - Regression Analysis

Source: CCC Information Services Inc.

	ACTUAL		ALL FACTORS CONTROLLED	
	% Change from Prior Quarter	% Change from Same Quarter Prior Year	% change from last quarter	% Change from Same Quarter Prior Year
2010Q1				
2010Q2	1.8%		0.2%	
2010Q3	2.5%		0.1%	
2010Q4	1.3%		-0.5%	
2011Q1	-0.1%	5.5%	-1.4%	-1.6%
2011Q2	3.3%	7.0%	1.9%	0.1%
2011Q3	4.5%	9.2%	2.4%	2.4%
2011Q4	0.2%	8.0%	-1.0%	1.9%
2012Q1	-1.3%	6.8%	-1.3%	1.9%
2012Q2	1.5%	4.9%	0.2%	0.2%
2012Q3	2.5%	2.9%	0.1%	-2.0%
2012Q4	-0.3%	2.4%	-1.8%	-2.7%

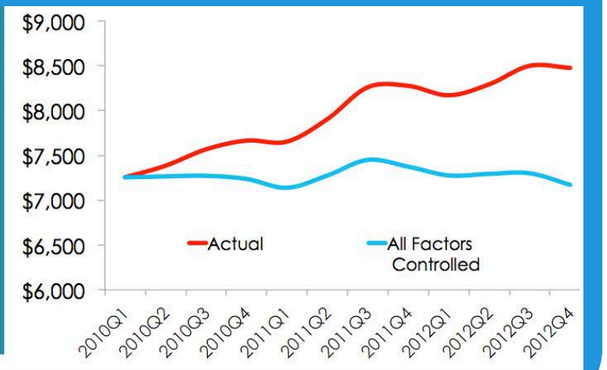
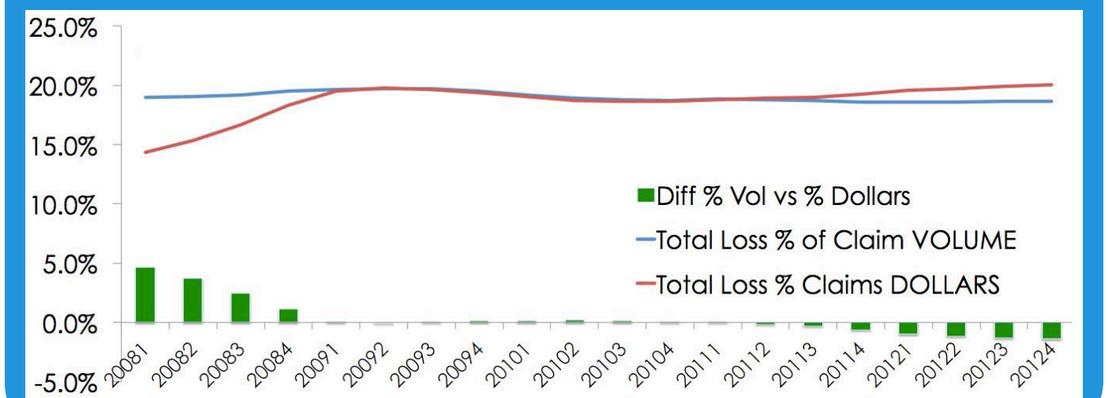


Figure 34: CCC National Industry -First Party Collision Total Loss Vehicle Losses Share of Overall Claim Volume and Dollars - Rolling 12 Months Ended Each Calendar Quarter

Source: CCC Information Services Inc.



REGIONAL RESULTS

The average age of vehicles for which a repairable appraisal was written was oldest in the Western region in 2012; while the northeast New England and NY/NJ regions had the oldest age of total loss vehicles (*see Figure 35*). [33] The impact of Superstorm Sandy can be seen in the significantly higher total loss frequency in NY/NJ region, which in the three prior years actually saw a lower rate of total loss frequency. And while Sandy lifted repair costs and total loss costs in NY/NJ in 2012, this region had the highest costs in the three full prior calendar years as well, largely driven by the younger and more expensive vehicle mix. Average hourly sheet metal labor rates were highest in the Western region, followed by Mountain-Plains and NY/NJ regions.

Comparing average mileage and average age reveals vehicles from the Southwest have the most number of miles per individual vehicle year, at 14,941 versus only 12,863 in the Western region, reflecting in part differences in share of miles driven that were urban versus rural. Nationally, two-thirds of miles driven in the U.S. in 2012 through November were miles driven on urban road systems. For Southwest region, urban miles accounted for only 51 percent of miles driven, versus 65 percent in the Western region.

Another factor that must be considered is the speed at which different parts of the country have recovered from the last recession. States such as Nevada and Rhode Island continue to struggle with unemployment rates over 10 percent as of December 2012; while states such as North Dakota and Nebraska are at 3.2 percent and 3.7 percent respectively (*see Figure 36*). Economic growth is accelerating faster in states such as Texas, Oregon and Michigan, while states such as Mississippi, Louisiana, and New Jersey see flat to declining growth. Finally, demographic shifts continue to lead to marked changes in the average age and makeup of the population in different parts of the U.S. that ultimately impact purchasing patterns of their consumers.

Figure 35: 2012 Repairable Appraisal and Total Loss Vehicle Valuation Statistics by BLS Region
Source: CCC Information Services Inc.

	Mid-Atlantic	Midwest	Mountain-Plains	New England	New York - New Jersey	Southeast	Southwest	Western
Vehicle Age Avg	6.1	6.0	6.6	5.9	5.0	6.4	5.5	6.8
Vehicle Odometer Avg	80,365	81,557	89,317	79,931	64,479	92,071	82,691	87,949
Avg Odometer per Yr of Vehicle	13,165	13,643	13,595	13,438	12,871	14,446	14,941	12,863
Avg ACV of Loss Vehicle	$13,626	$13,931	$14,211	$14,249	$16,071	$13,371	$15,139	$14,668
% of Claims flagged Total Loss	12.3%	13.0%	15.9%	13.6%	18.6%	14.3%	14.7%	14.9%
Avg Total Cost of Repairs	$2,375	$2,515	$2,617	$2,561	$3,101	$2,380	$2,580	$2,549
Labor % of Total Repair Cost	42.1%	43.0%	45.4%	42.5%	39.8%	40.6%	41.5%	45.3%
Repair % of Total Labor Amt	40.3%	42.0%	45.6%	39.6%	38.6%	42.7%	45.1%	40.7%
Avg Labor Hrs per Claim	22.1	22.3	20.9	24.3	26.5	21.6	22.4	21.8
Avg Sheet Metal Labor Rate	$43.72	$45.79	$49.36	$44.42	$46.21	$41.90	$42.91	$51.82
Parts % of Total Repair Cost	39.6%	38.1%	34.7%	39.4%	37.7%	39.6%	39.1%	35.9%
Avg # of Parts Replaced per Claim	8.6	8.0	7.7	10.3	10.3	7.5	7.9	8.5
OEM % of Part Amt	63.6%	59.2%	60.8%	65.2%	69.6%	60.0%	63.4%	63.9%
TL Final Valuation Amt Avg	$8,238	$7,470	$7,940	$8,224	$12,106	$8,177	$9,237	$8,915
TL Vehicle Age Avg	9.6	9.9	10.4	9.6	7.8	9.7	8.9	10.8

Figure 36: Unemployment rates by State, seasonally adjusted December 2012
Source: www.bls.gov.

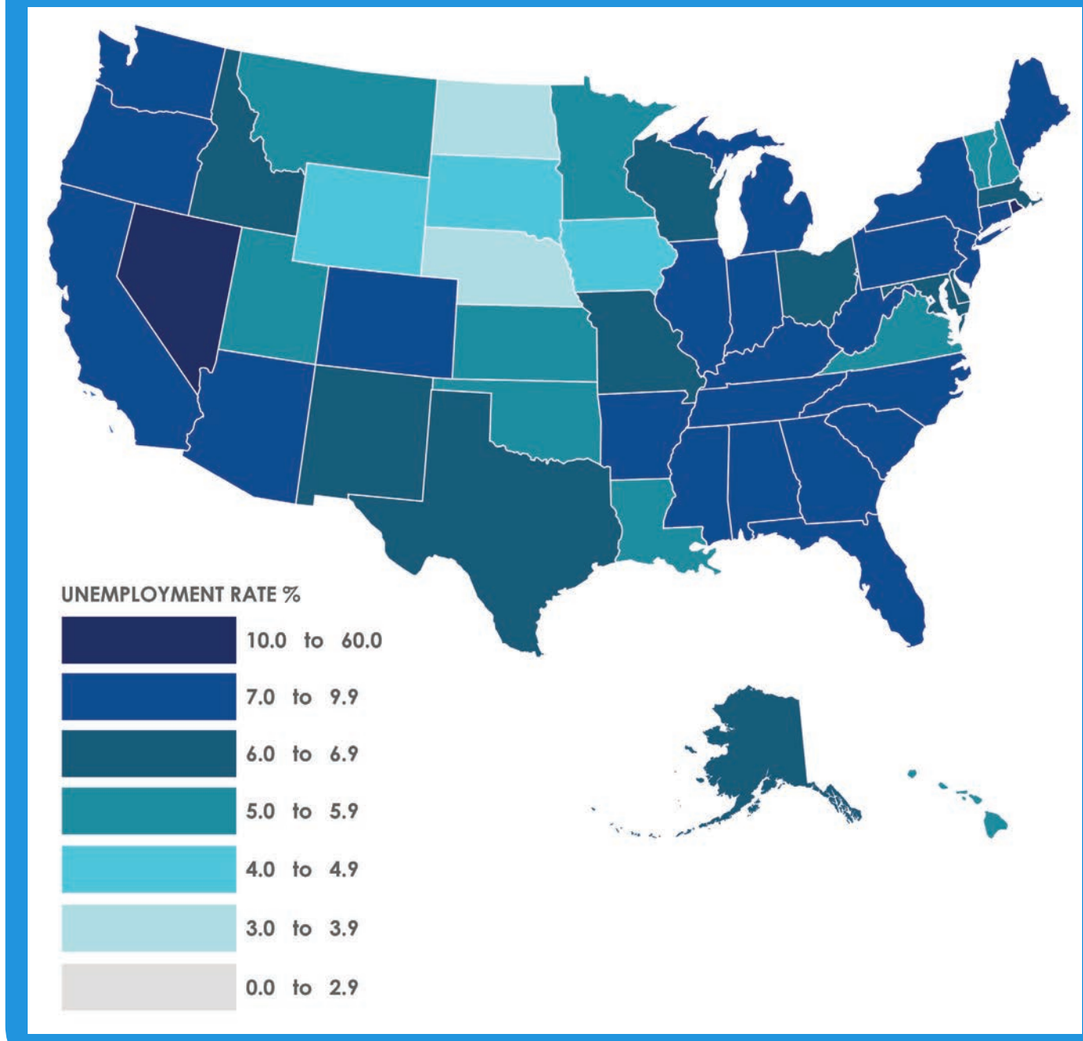
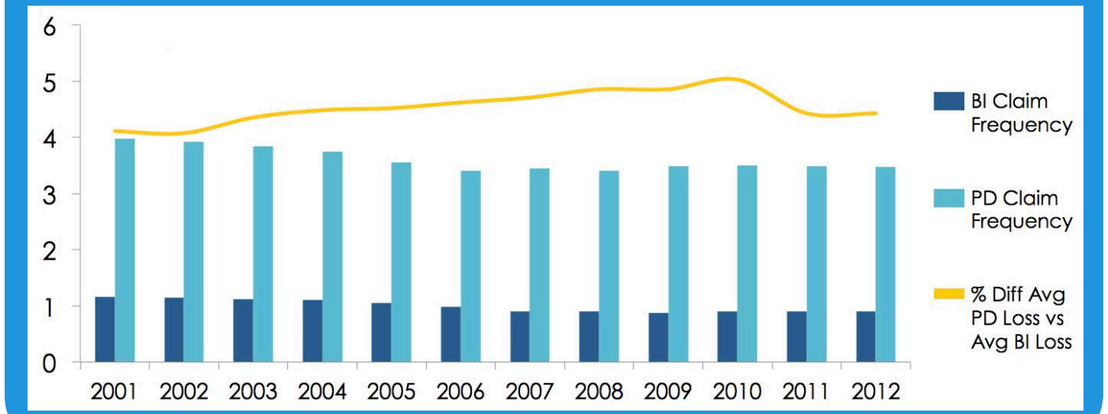


Figure 37: Private Passenger Auto Insurance - Liability Losses 2001-2012
Source: Independent Statistical Service, FastTrack Reports Private Passenger Auto



THE CASUALTY IN PROPERTY & CASUALTY INSURANCE

Nearly $40 billion annually is paid out for auto liability claims in the U.S. Losses paid cover the damage to claimant vehicles' and in traditional tort liability states, damage to injured claimants. From a frequency standpoint, property-damage losses occur nearly four times more often than a bodily injury claim; however the claim payout trends over four times more costly for bodily injury claims (*see Figure 37*).

McKinsey estimates 13-18 percent of the overall auto liability payout, or $6 to $7 billion annually, is for some degree of fraudulent behavior in the U.S. today, such as inflation of extent of injury incurred, of services provided, staged events, and invented claims.

Over 80 percent of injury claims in the U.S. are soft tissue injury (STI) claims and determination of injury cause is often difficult to accurately evaluate. Soft tissue injuries have high rates of opportunistic fraud, where the event does occur but is exaggerated. To combat this type of fraud, objective data that offers a better explanation of what really happened during a collision event, and whether the science of the loss could in fact have caused the claimed injury is needed.

USING TECHNOLOGY TO UNDERSTAND THE SCIENCE OF AN ACCIDENT

Claims executives today are increasingly challenged to deliver stellar customer service, to determine fair and accurate settlements, and to do so with the least overall cost possible. On the auto physical damage side, technology has been brought to bear to streamline the process from first notice of loss through settlement and subrogation. Within the casualty side of the business however, most claims executives agree that there is opportunity to improve the process, and reduce overpayment of fraudulent claims.

The traditional claims process places the evaluation of the medical information at the conclusion of the treatment. Medical data usually available to the auto insurance industry is accumulated from injury claims presented by a claimant, their attorney or their medical care provider. This information is often audited for reasonableness and appropriateness, in both first and third party injury claims. The entire process of collecting the data assumes that the basis for the claim, specifically the auto accident, actually caused the claimed injury and the need for treatment. Medical treatments are often not prescribed or subsequently evaluated in light of the physical events required to produce the need for them.[34] This is one of several important reasons why such data bases of medical treatment can overstate treatment

necessity for a given accident event. A more compelling reason is that such medical data bases do not reflect the high frequency of accident events that do not result in any injury. For example, a review of approximately 4,000 human crash test outcomes found that there was no injury produced in over 75 percent of the low speed crash tests conducted. [35]

A scientific analysis of the accident event of accident energy and the effects to the occupant can yield a more accurate assessment. From a scientific perspective, injuries are actually caused by a very specific physical stress or strain, or specific combinations of stresses and strains, which are unique to the injury. [36] These requisite stresses and strains can be found to exist or not exist based on an analysis of the physics of the accident, position of the occupant in the vehicle, use of restraint systems and other factors. Additionally, when requisite stresses and strains exist, they still must exceed an individual's tolerance to same, before the injury can be caused. [37]

By bringing technology that scientifically evaluates whether the injury could have been caused by the accident earlier into the claims process, carriers can more accurately assess whether or not they are liable for the reported injury claim, and have better information about the injuries to assess the necessary medical treatment.

THE ROAD AHEAD

The recession led to a drop-off in driving, reduction in claim and fatality frequency, and a larger number of consumers opting to cash-out versus actually repair their car. As consumers begin to ramp up new vehicle purchases, and see moderate upticks in employment, the industry will gradually return to an environment that more closely resembles the market pre-recession.
With the exception of storm or catastrophe-driven claims activity, it is unlikely the market will see any dramatic change in the current patterns of claim frequency and severity over the next 18 to 24 months.

FACTOR	TREND

U.S. ECONOMIC GROWTH

Economic growth is expected to slow further in 2013. Unemployment levels still high due to recession and broader shifts within the U.S. labor markets. Federal and state governments will continue to slash jobs, so employment growth will have to come from the private sector.

CCC INSIGHT: The auto sector in the U.S. helped drive economic growth in 2012. New vehicle sales are expected to fall between 15 and 15.5 million in 2013; and used sales have returned to their pre-recession levels. Stronger sales should help drive private passenger auto premium, and with a slowdown in the aging of vehicles, repairers may begin to see a slight uptick in repair volumes in 2013.

AUTO CLAIM FREQUENCY AND SEVERITY

From a claim cost perspective, outside of the changes in comprehensive losses tied to erratic weather patterns, loss costs for liability and collision appear to be returning to their pre-recession levels of year-over-year increases of approximately one to three percent. The recession had extended the length of the downward turn historically seen every two years to more than four years.

CCC INSIGHT: The recession led to a drop-off in driving and reduction in claim frequency. As consumers begin to ramp up new vehicle purchases, and see moderate upticks in employment, the industry will gradually return to an environment that more closely resembles the market pre-recession although the gradual infusion of crash avoidance technologies in new vehicles will likely flatten-out any inflections in accident/claim frequency. With the exception of storm or catastrophe-related claims activity, it is unlikely the market will see any dramatic change in the current patterns of claim frequency over the next 18 to 24 months.

VEHICLE REPAIR COSTS

Parts and labor costs (which account for 85 percent of repair cost) have been consistently trending up at or below the rate of overall inflation in the U.S.

CCC INSIGHT: Outside of the increases in comprehensive losses tied to erratic weather patterns and catastrophes, loss costs for liability and collision are returning to their pre-recession pattern of year-over-year increases between one and three percent. Inflation in replacement parts and labor have accelerated slightly as the U.S. emerges from the recession, but still point to overall increases in repair costs of one to three percent. As new vehicle sales grow and ultimately show up in claims, repair costs will see some inherent lift. The juxtaposition of greater vehicle complexity in terms of electronics and materials with greater prevalence of crash avoidance systems may ultimately result in fewer but more expensive repairs in the future.

FACTOR	TREND

TOTAL LOSS VEHICLE VALUES

A combination of higher demand and lower supply for used vehicles lifted used vehicle prices in the U.S. over the last several years. The high volume of total losses stemming from storm and catastrophe activity drove up comprehensive losses' share of volume in 2012, which subsequently helped increase overall total loss costs.

CCC INSIGHT: Newer model year used vehicle prices are expected to see some further tapering in 2013, as inventories from lease returns and rental-company trade-ins begin to rise. Continued tight supply of older model year vehicles – still in high demand for subprime buyers moving back into the market, will drive continued firm pricing for older model-year vehicles, and ultimately set the basement for used vehicle pricing. With more than 70 percent of total losses for vehicles aged 7-years plus, total loss costs will remain high in 2013.

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TOTAL LOSS FREQUENCY

Higher vehicle values have raised the 'threshold' used in the economics of the repair versus total decision. However, as vehicles age, there is a natural depreciation that occurs, and in 2012 the industry saw a slight uptick in total loss frequency which will likely remain high until new vehicle purchases help drive down the average age of vehicles on the road in the U.S.

CCC INSIGHT: With customer satisfaction levels typically lower for total loss claims, it becomes increasingly important for insurers to insert themselves earlier in the claim lifecycle to potentially prepare policyholders for the higher likelihood of total losses as the vehicle ages and to offer products or services that can help restore customers to the pre-disruption of a total loss claim.

CCC CRASH COURSE 2013

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