

Auto Physical Damage Edition



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Industry Trends Report

FEATURED IN THIS ISSUE

▶ Total Loss Trends: What You Can and Can't Control

By Nate Raskin

Senior Manager, APD Analytics, Mitchell



Industry Trends Report

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A Message from the CEO

P&C Conference Trends

Welcome to the Q4 edition of the 2016 Mitchell Auto Physical Damage *Industry Trends Report*. As you may know, we held our annual Property & Casualty Conference in mid-October. I enjoyed the opportunity to engage with many of our customers about how the industry is evolving as well as share my own insights for where I see it heading. In this issue we're excited to share some of the top trends from the conference covering everything from augmented reality to information security. I hope you enjoy reading how technology and social trends are changing the way we do business and how they may affect your own organization.

In our feature article, *Total Loss Trends: What You Can and Can't Control*, author Nate Raskin shares what's causing market values to trend up. Nate explains how wholesale used vehicle prices are a key indicator of this upward trend and a combination of factors has been contributing to higher used car retail values. While you can't control the market, there are steps available for better managing total loss accuracy.

As we close out our 70th anniversary year, I'm grateful for all we've been able to achieve and the part you've played in helping us reach this milestone. It was an honor seeing so many of you at our conference, and I thank you for your continued partnership. I wish you all a safe and enjoyable holiday season.



Alex Sun
President and CEO
Mitchell



Alex Sun
President and CEO, Mitchell

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**TOP 10
TRENDS
FROM THE
MITCHELL
2016 P&C
CONFERENCE**

At the 2016 Mitchell Property and Casualty Conference, keynotes, breakouts and everything in between were focused on technology and social trends that are changing the way we interact with one another and do business.

From augmented reality to information security, here are 10 of the many trends that were top of mind at the conference.



VIRTUAL AND AUGMENTED REALITY ARE LITERALLY SHOWING US THE WAY

This summer's Pokémon Go craze reminded us that augmented reality can be really engaging and fun—but it also has incredible practical applications for the P&C and collision repair industries. For instance, Los Angeles-based Daqri makes a smart helmet that projects information to guide the wearer through complex repair scenarios. Technology like this could be a boon to auto insurers and collision repairers looking to ensure increasingly complex repairs are done correctly. It could also help prevent injuries in high-risk jobs, ultimately reducing workers' compensation claims.

Meanwhile, at Cedars Sinai Medical Center, a trial is underway that uses inexpensive virtual reality headsets to ease patient pain. Early results suggest an average 24 percent decrease—similar to the pain reduction they see when administering narcotics.



“Collision repairers are under incredible pressure to train their staff and ensure repairs can be certified. It’s easy to see how augmented reality solutions could be helpful.”

Alex Sun, President and CEO, Mitchell

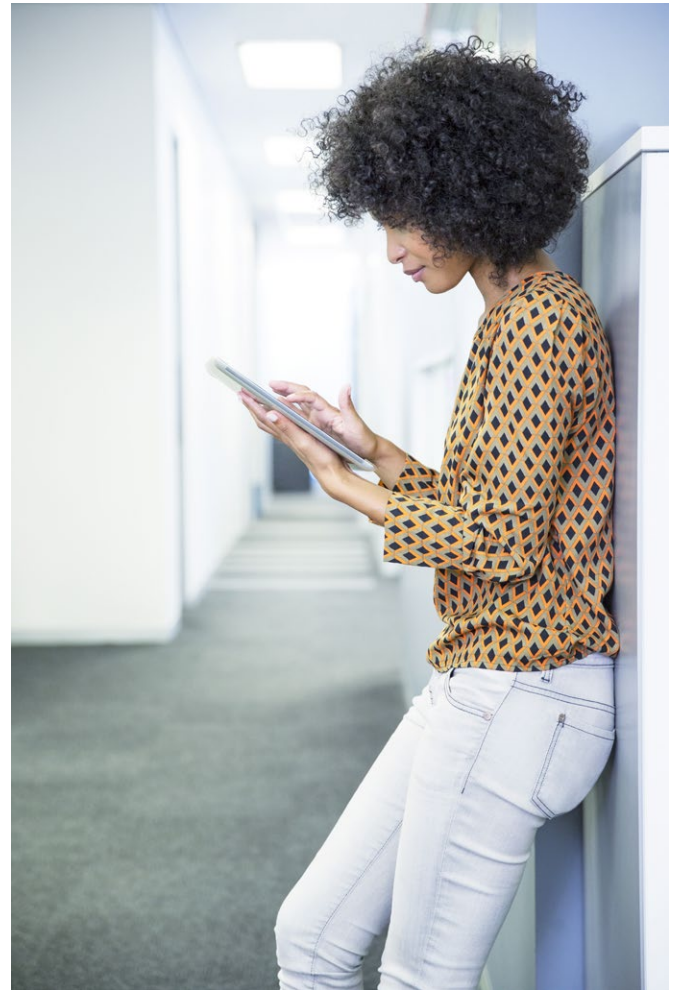
CONSUMER SELF SERVICE IS THE WAY OF THE FUTURE

Driven by the ubiquity of mobile devices and a growing preference among consumers, particularly Gen Y and Gen Xers, to communicate exclusively through digital self-service, Mitchell believes that consumer self-service interactions will grow from five percent today to 20 percent by 2020.

Since a positive first notice of loss (FNOL) experience is the second largest contributor to customer satisfaction—only settlement has a greater influence—insurers seeking to tap into this growing audience would do well to invest in technology that facilitates this process.

Further, when FNOL is submitted via a mobile app and incorporates images, cycle time is significantly reduced. An expeditious claims resolution process benefits both insurance companies, with less hands-on case-management time, and the insured, with a more user-friendly process.

Mitchell believes consumer self-service interactions will grow from five percent today to 20 percent by 2020.



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HUMAN LEADERSHIP IS THE FUTURE OF BUSINESS



83 percent of millennials want businesses to get more involved in solving today's issues.

In his keynote address, *Soft Power: The Software Engineering Humanity into Leadership*, social strategist John Gerzema spoke about how people—millennials in particular—are seeking human business leadership in which companies get more involved in solving today's issues. In fact, 72 percent of them would take a \$7,600 pay cut to work for a company with a culture and values they admire.

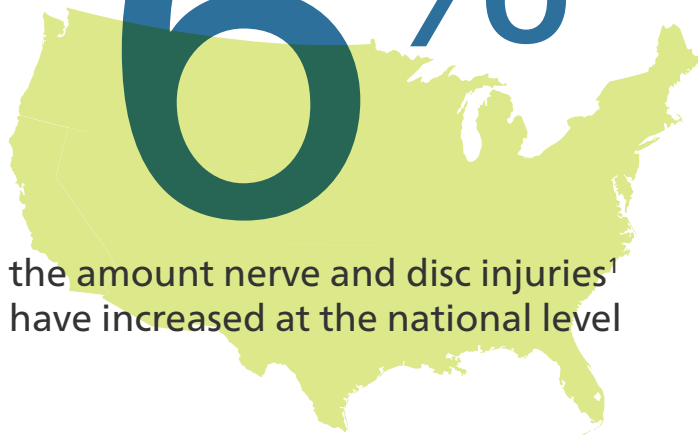
Why does this matter to the P&C industry? According to Gerzema, insurers can build trust with this important buying group by using AI interfaces and automating processes to reduce transaction time and claims costs.

John Gerzema, Chairman & CEO, BAV Consulting



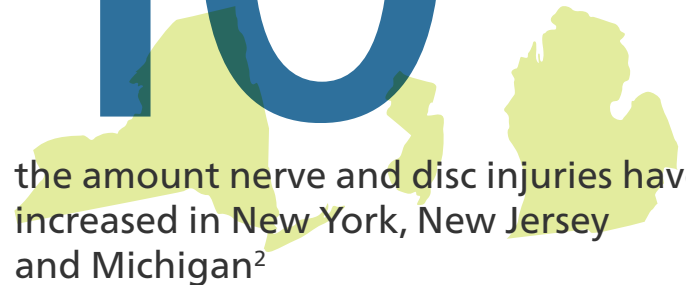
FIRST PARTY AUTO CASUALTY: NERVE AND DISC INJURIES ARE ON THE RISE

6%



the amount nerve and disc injuries¹ have increased at the national level

10%



the amount nerve and disc injuries have increased in New York, New Jersey and Michigan²

While charge severity has remained flat in first party auto casualty—influenced, in part, by policy limits—overall severity is on the rise. This time, the culprit is an increase in nerve and disc injuries over the typically more common—and less expensive—soft tissue injuries. Certain states are seeing a higher incidence than others—in New York, New Jersey and Michigan diagnoses of nerve and disc injuries have increased by 10 percent². At the national level, the increase is approximately 6 percent¹.

Third party auto and workers' compensation insurers should also take heed—regardless of coverage type, the introduction of a nerve and disc-related diagnosis is generally at least twice as costly as soft tissue damage.

¹ Mitchell data

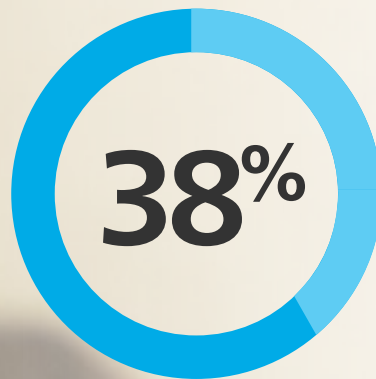
² Mitchell data

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INFORMATION SECURITY MATTERS MORE THAN EVER

“ Companies that experience a data breach have more to lose than money—reputation and customer trust are hard to win back. ”

Erez Nir, Mitchell, Executive Vice President and CTO



the amount security incidents increased between 2014 and 2015

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In 2015, there was a 38 percent increase in security incidents over 2014. And at an average cost of \$1.2 million to contain an incident—out of the average \$3 million security budget¹—there is a lot at stake. Companies that experience a data breach have more to lose than money—reputation and customer trust are hard to win back.

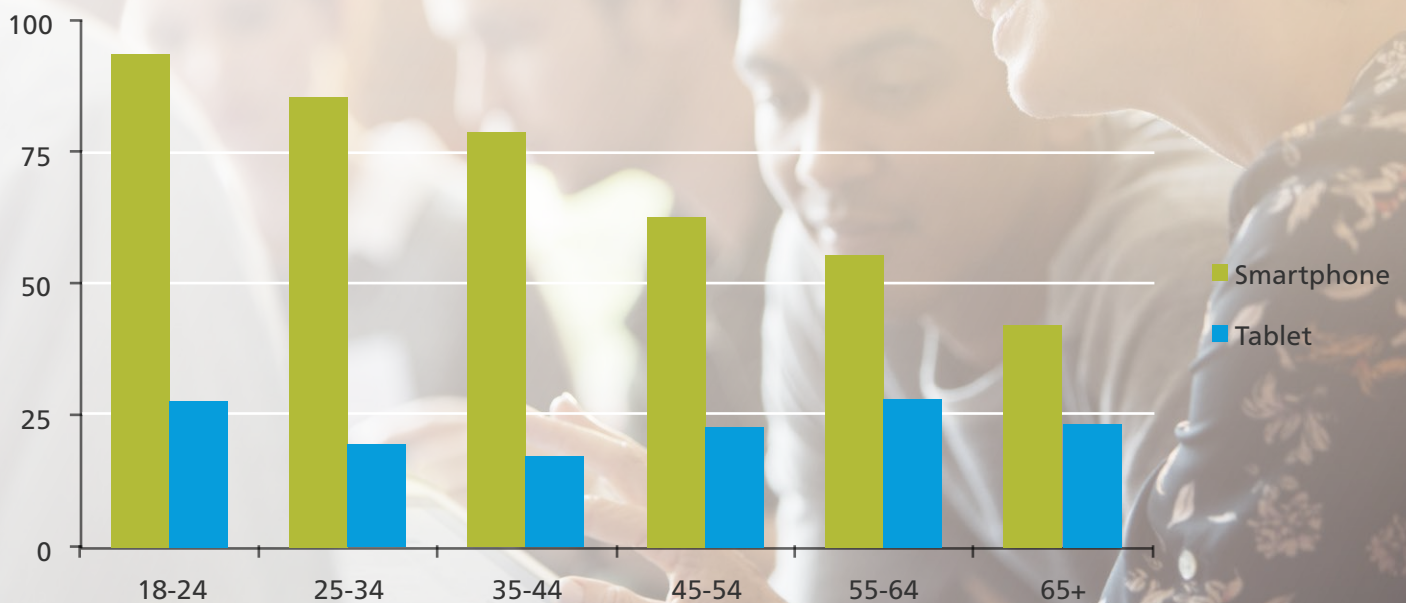
So what's a business to do? According to Verizon's 2016 Data Breach Investigations Report, there's no easy answer. However, two tactics that could prove to be particularly useful are web app patching and multifactor authentication. Together, these could have prevented almost half the 2015 incidents.

¹ PWC Global State of Information Security® Survey 2016

MOBILE IS A MUST

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Hours Spent Using Mobile Apps Each Month by Age Range¹



According to comScore’s 2016 Mobile App report, “digital media time in the U.S. continues to increase—growing more than 50 percent in the past three years, with nearly 90 percent of that growth directly attributable to the mobile app.”

For insurance companies, mobile applications help improve customer relationships and build satisfaction in a number of ways: delivering information to prevent claims, allowing them to submit claims information like first notice of loss, and providing real-time updates of claims status.

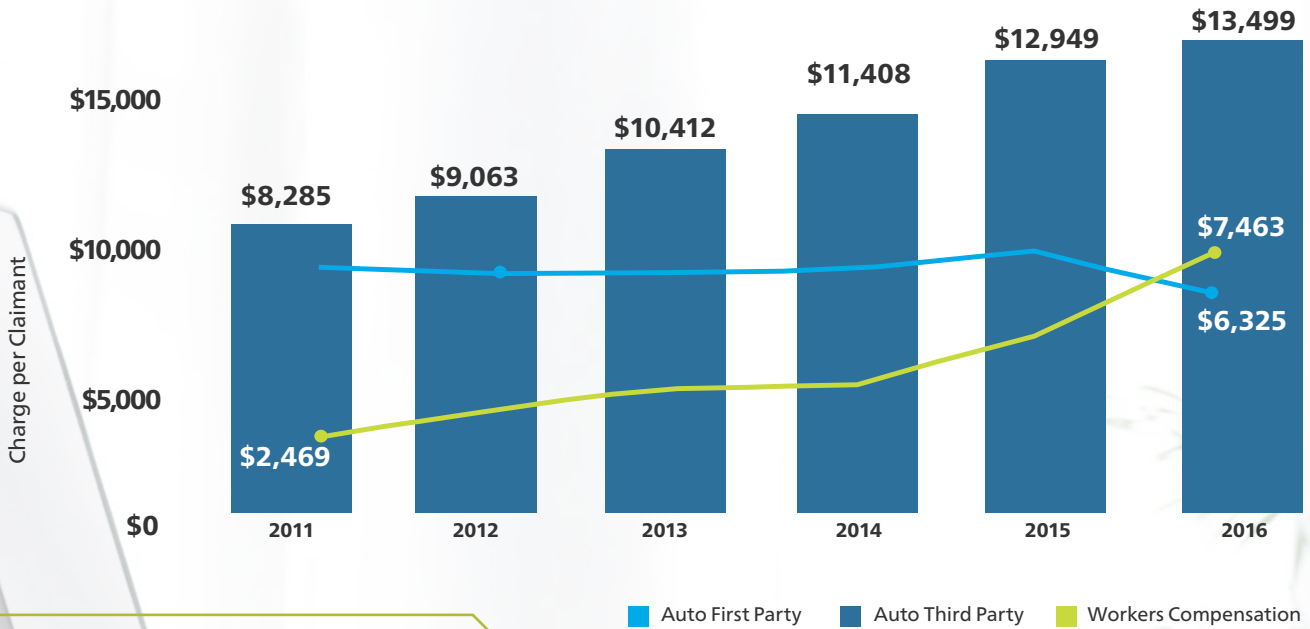
Companies like Lemonade, recently licensed in New York, and Spixii, soon to be licensed in the U.K., are even using artificial intelligence-driven chat bots to power 100 percent digital interactions with customers.

¹ ComScore, 2016 Mobile App Report

THIRD PARTY AUTO CASUALTY AND WORKERS' COMPENSATION: CHARGE SEVERITY IS RISING

Charge severity is on the rise for third party auto and workers' compensation insurers. In third party auto, average charge per claimant in 2011 was \$8,285. Through the third quarter of 2016, it was \$13,499—that's a 62 percent increase¹. Workers' compensation is seeing an even more dramatic increase over 2011—a whopping 202 percent². The third party charge severity increase is being driven by a combination of increased unit cost and utilization, while the workers' compensation increase is primarily due to increased utilization.

Interestingly, first party auto charge severity has stayed relatively flat, influenced, in part, by policy limits.



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¹ Mitchell data
² Mitchell data

DATA IS DELIVERING ON ITS PROMISE

The insurance industry as a whole is seeing technology transformations of all types—and making use of data is at the forefront of their investments. In fact, a recent study by Strategy Meets Action indicates 82 percent of insurers are focusing on strategic projects related to data analytics. This expenditure is second only to customer experience projects.

So how do companies go from Big Data to actionable insights? One good place to start is by understanding claims analytics personas. What a claims executive is looking for is not necessary what an adjuster needs to know. Further, where and when that information is available makes a difference—while dashboards and reports are cornerstones of any analytics program, it's important that access to information that informs decision making is embedded throughout claims workflows.

82 percent of insurers are focusing on strategic projects related to data analytics.

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“While dashboards and reports are cornerstones of any analytics program, it’s important that access to information that informs decision making is embedded throughout claims workflows.

Shahin Hatamian, Vice President of Product Management, Mitchell

”

OPIOID ABUSE IS AN INSURANCE PAIN POINT



spent in workers' compensation on prescription drugs¹



is spent on pain management drugs¹



of those are opioids¹

Mitch Freeman, Pharm. D., Vice President and Chief Clinical Officer, Mitchell

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Opioid abuse has reached epidemic proportions—in fact, every 19 minutes, someone in the U.S. dies from an opioid overdose. With \$1.5 billion in opioid-related expenditures, the P&C industry has a lot at stake. Earlier this year, the CDC released their official Guideline for Prescribing Opioids for Chronic Pain that offers specific steps physicians can take to curb the problem.

There are also some actions insurers can take, including using formularies with built-in controls; putting first-fill restrictions in place; monitoring total morphine equivalent doses by patient; ensuring their PBM solution has built-in risk calculation alerts; and implementing managed care solutions.

¹ Prescription Drug Management in Workers' Compensation, The Twelfth Annual Survey Report (2014 data)

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MILLENNIALS ARE DRIVING ADOPTION OF USAGE BASED INSURANCE

93% of millennials in the U.S. would buy a usage-based insurance policy if the rates didn't increase



72% of millennials in the U.S. believe it's a better way to calculate rates



80% of millennials in the U.S. would pay more than \$45 a month for options like theft tracking or automated emergency calls



A recent Towers Watson study indicates that to succeed, insurers will need to adapt to meet the needs of the next generation of customers. In fact, in the U.S., 93 percent of millennials would buy a usage-based insurance (UBI) policy if the rates didn't increase, while 72 percent believe it's a better way to calculate rates. UBI presents additional opportunity with value-added services: 80 percent of millennials would pay more than \$45 a month for options like theft tracking or automated emergency calls.

While the trend toward UBI is just getting off the ground in the U.S.—Towers Watson anticipates 17 million people will have tried it by the end of 2016—it's gaining ground in other countries. It's achieved double-digit market share in Italy and markets are maturing in Germany, Spain and France.

Total Loss Trends: What You Can and Can't Control

By Nate Raskin

Senior Manager, APD Analytics, Mitchell



While you can't control the market, there are steps you can take to better manage total loss accuracy.

Ah, the holidays are upon us. For me, this brings to mind all the sentiments of the season, like large family gatherings, in-laws, and the occasional antipsychotic. Over the years, I've found that the path to maintaining sanity (holidays or otherwise) is having a good sense of what you can and can't control. And when it comes to total loss, what you definitely can't control are market forces.

At the close of Q3 2016, the average year-to-date base value climbed to \$8,669, compared to \$8,477 for all of 2015. Along those lines, fully-baked market values are trending upward, showing an increase of about 1.5 percent compared to last September.

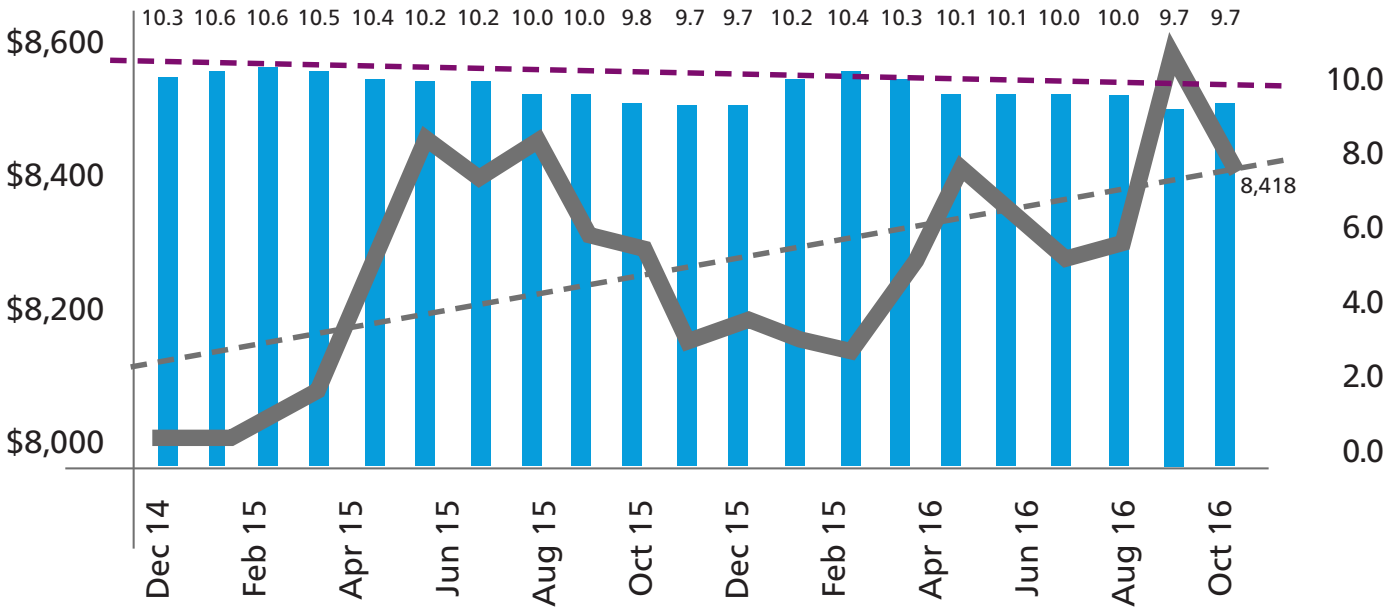
While the average vehicle age for total losses is trending newer, it isn't the sole culprit to the rise in values (see Figure 1). In addition, analyzing past-to-present total loss volumes by vehicle type, origin, vintage, class, and even mileage group doesn't reveal any substantive shifts. So what's causing values to trend up? As it turns out, a key indicator is wholesale used vehicle prices.

According to ADESA Analytical Services, wholesale used vehicle prices in September are up 5.1 percent relative to September 2015. Along those lines, Manheim's Used Vehicle Value Index, which has been tracking used vehicle values since 1995, also

shows an increase in wholesale values, although their results are less stirring at 1.7 percent when comparing this September to a year ago. However, Manheim’s data reinforces that prices are high (see Figure 2). With exceptional credit conditions (think low interest and extended financing terms), greater employment levels, and record job stability, conditions have been ripe for higher used vehicle retail values. And higher used vehicle prices translate to higher comps and valuation amounts.

While you can’t control the market, there are steps you can take to better manage total loss accuracy. Consider this—when valuations undergo a revision, and those revisions are made by the original submitter, the average market value increases \$65. However, when revisions are made by someone other than the original submitter, the average market value increases \$249.

Figure 1 – Total Loss Market Values over Time with Average Vehicle Year Overlay



About the author...**Nate Raskin**

Senior Manager, APD Analytics,
Mitchell

We are pleased to welcome our new contributor, Nate Raskin, Senior Manager for APD Analytics, who has over 17 years of experience in the auto physical damage sector. Nate began his career in claims, learning the ropes as an estimator and team leader with Progressive before serving as the National Property Damage Manager at Unitrin Direct Insurance. Prior to his current role leading the analytics team, Nate was a Senior Business Consultant in Mitchell's APD division, performing workflow visioning, SAAS solution design, and ad-hoc efficiency studies for partner carriers across North America. Nate is originally from the Pacific Northwest and earned his BA in English and Communications from Willamette University in Salem, OR. When he isn't (loudly) expressing his passion for the Seahawks, you'll find Nate focused on simplifying data and making analytics accessible for everyday business leaders.

In further comparing revision activity between original-submitters and different-submitters, the disparities are across the board, with different-submitters making greater additions to equipment, conditioning, and aftermarket/refurbishment categories (see Figure 3). Any market value increases that occur during the revision process may well be justified. At the same time, this difference is noteworthy when you consider that the original submitter is usually an estimator that physically inspected the loss vehicle, versus a different submitter who may not have seen the vehicle (and may be more susceptible to inaccurate post-inspection adjustments).

Case in point—for different-submitters, what stands out most are equipment adjustments, which represents the largest original-to-final valuation increase at \$157. This is where build-sheet data can play an important role—carriers that don't apply build-sheet data to the loss vehicle spend \$238 on equipment revisions when different-submitters are involved. Compare that to \$138 for carriers that leverage build-sheet (which takes into account that build-sheet isn't available across all makes yet).

Market conditions may be driving higher total loss values, but achieving better accuracy is always within reach. If you haven't done so already, consider activating build-sheet data. And if nothing else, use analytics to track revision activity—having a clear sense of who is changing what is a great prescription for managing accurate outcomes (and maintaining your professional sanity). As for the assortment of in-laws that come with the holidays, there's always Xanax.

Note –References to revision dollar figures are based on an industry sample of 123,330 Mitchell total loss valuations (U.S) that underwent revisions; figures are year-to-date (January 2016 – October 2016).

Figure 2—Manheim Used Vehicle Value Index (October 2016)

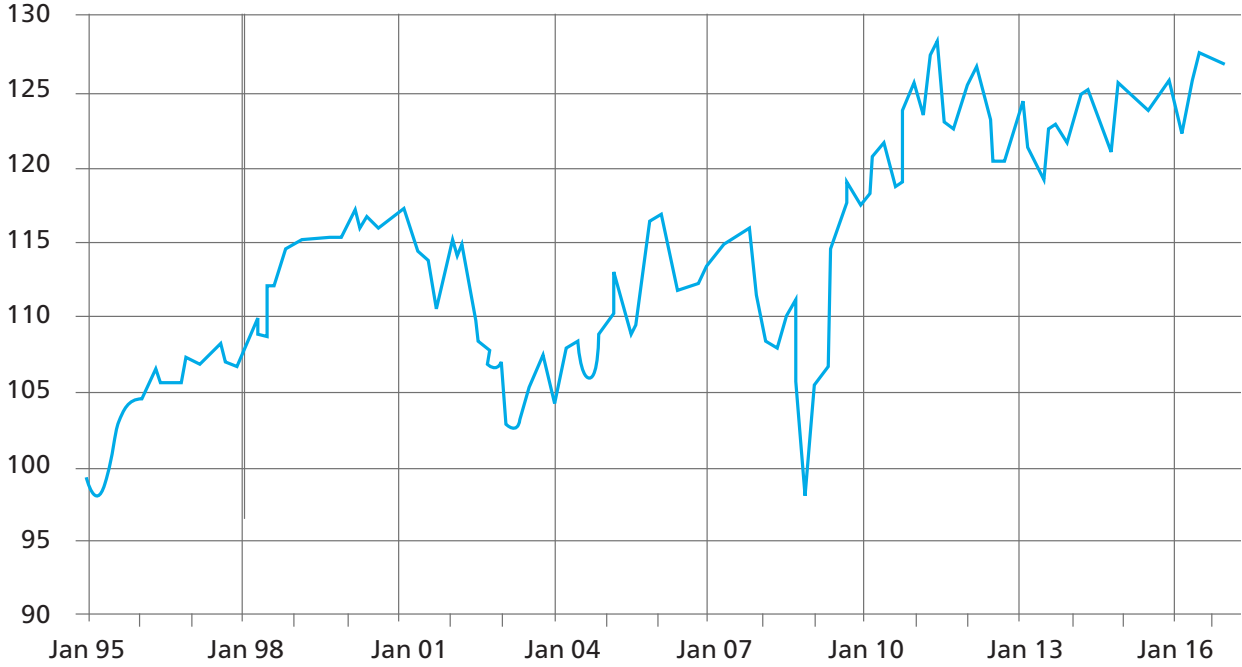
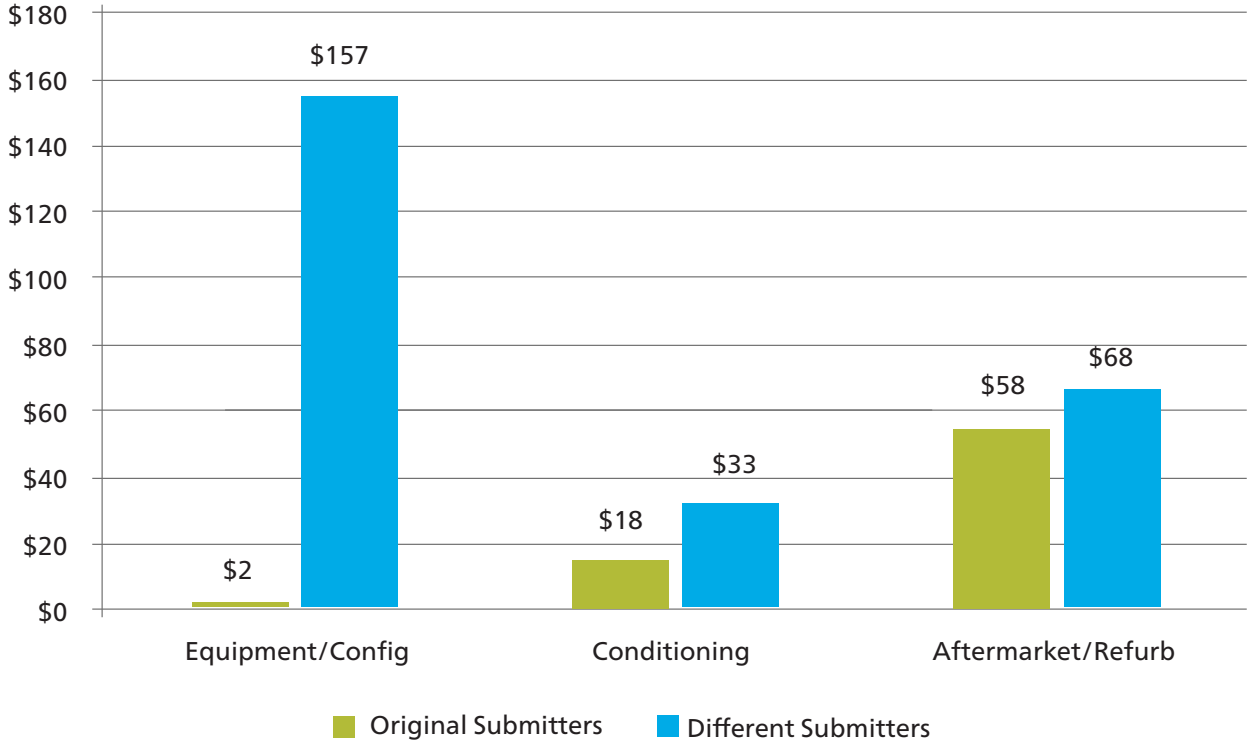


Figure 3—Original-to-Final Valuation Revision Costs by Category



U.S. Length of Rental Trend Continues for Q3 2016

By Dan Friedman

Assistant Vice President, Collision Industry Relations and Sales, Enterprise Rent-A-Car



In each state and region, there is a significant delta between the top and bottom quartiles which indicates the opportunity for shops to drive results by focusing on the elements they are able to control.

Continuing a recent trend, U.S. Length of Rental (LOR) increased by .5 days in the third quarter versus the same period the previous year (11.4 to 11.9) powered by a surge in claims frequency and an escalation of complex repairs. The regional results are very similar to those from the second quarter with the Southwest nearly two days longer than the U.S. average at 13.8 days, an increase of 1.3. While the Northeast generated the second longest LOR, it was flat versus 2016, the only region to avoid a jump. The California, Mountain and the Northwest regions each posted significant increases as well.

Nearly every state in the Southwest increased. However Texas was the primary driver of the region's performance after surging by 1.6 days as

it continues to deal with the impact of this spring's devastating hail storms. Arizona also experienced a significant jump of .8 days while Oklahoma was flat, and the only state in the region to not experience an increase.

Every state on the West Coast experienced an increase with California and Oregon at .8 days. The Mountain region exceeded the U.S. average with a .7 day increase generated by relatively consistent moves across each of the states. Montana was the lone outlier with an increase of one day. The other two western states, Alaska and Hawaii were essentially flat.

U.S. Average Length of Rental (LOR) by State Q3 2016

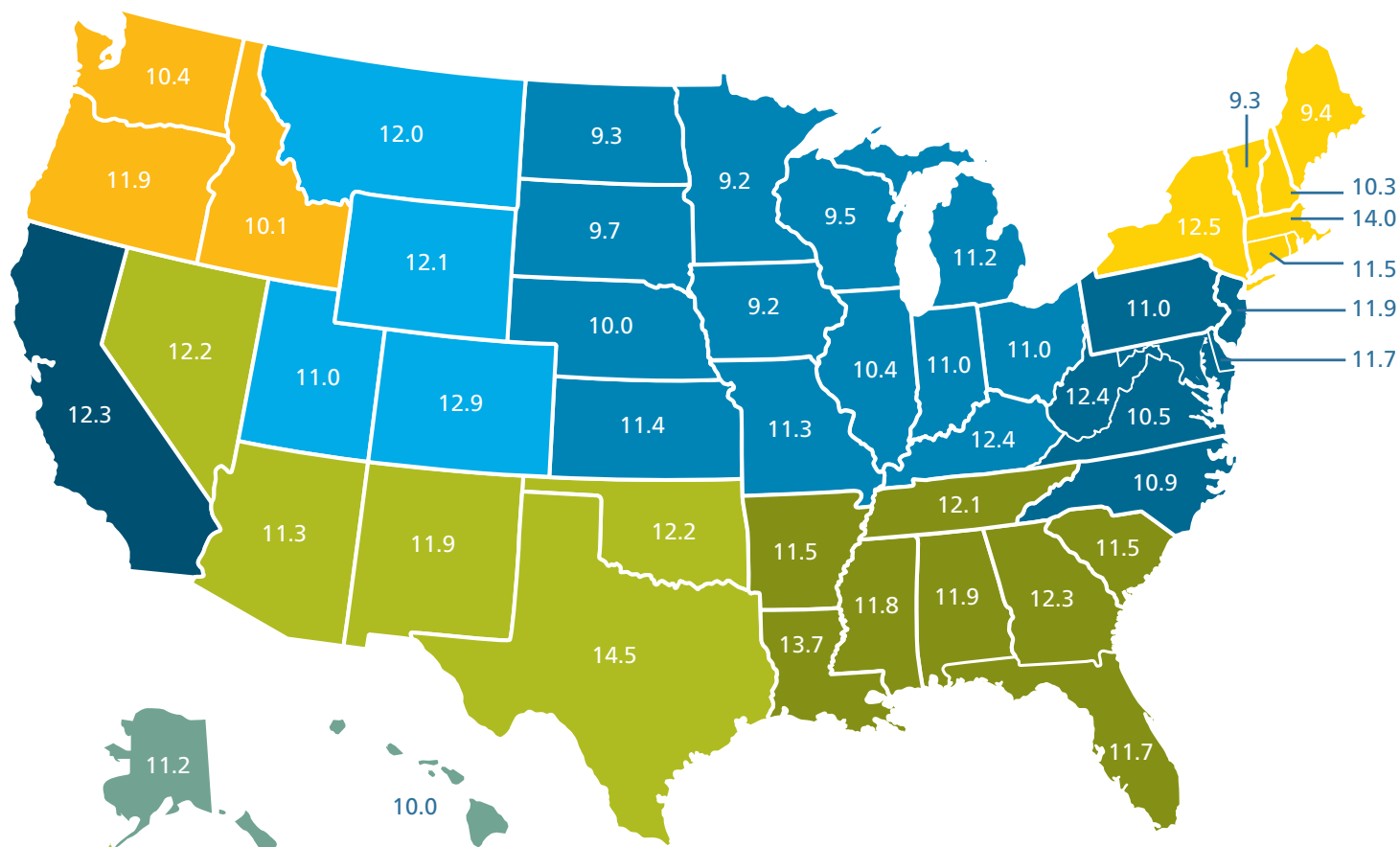


Figure 1

Average Billed Days for U.S.	
11.9	

Every state on the West Coast experienced an increase with California and Oregon at .8 days. The Mountain region exceeded the U.S. average with a .7 day increase generated by relatively consistent moves across each of the states.

Region	LOR
California	12.3
Mid-Atlantic	11.2
Midwest	10.7
Mountain	12.3
Northeast	12.5
Northwest	10.9
Pacific	10.2
Southeast	12.0
Southwest	13.8

Average Length of Rental for Repairable Vehicles

The Midwest and Mid-Atlantic regions produced increases of .4 days each with most states close to the average, however there were a few outliers. Kansas and Missouri jumped by 1.1 and .8 days, respectively, while South Dakota was the lone state to decline, falling .2 days.

The Northeast stayed flat making it the only region not to increase. While some of the states experienced modest climbs, Connecticut, Maine, Massachusetts, New Hampshire and Vermont each generated slight improvements.

In each state and region, there is a significant delta between the top and bottom quartiles which indicates the opportunity for shops to drive results by focusing on the elements they are able to control. The three most impactful pieces, based on data and feedback from best in class operations, are formal training (I-Car Gold shops outperform the market by approximately 1.3 days), utilization of the ARMS Data Manager (approximately 1 day better) and a robust scheduling strategy.

Canada

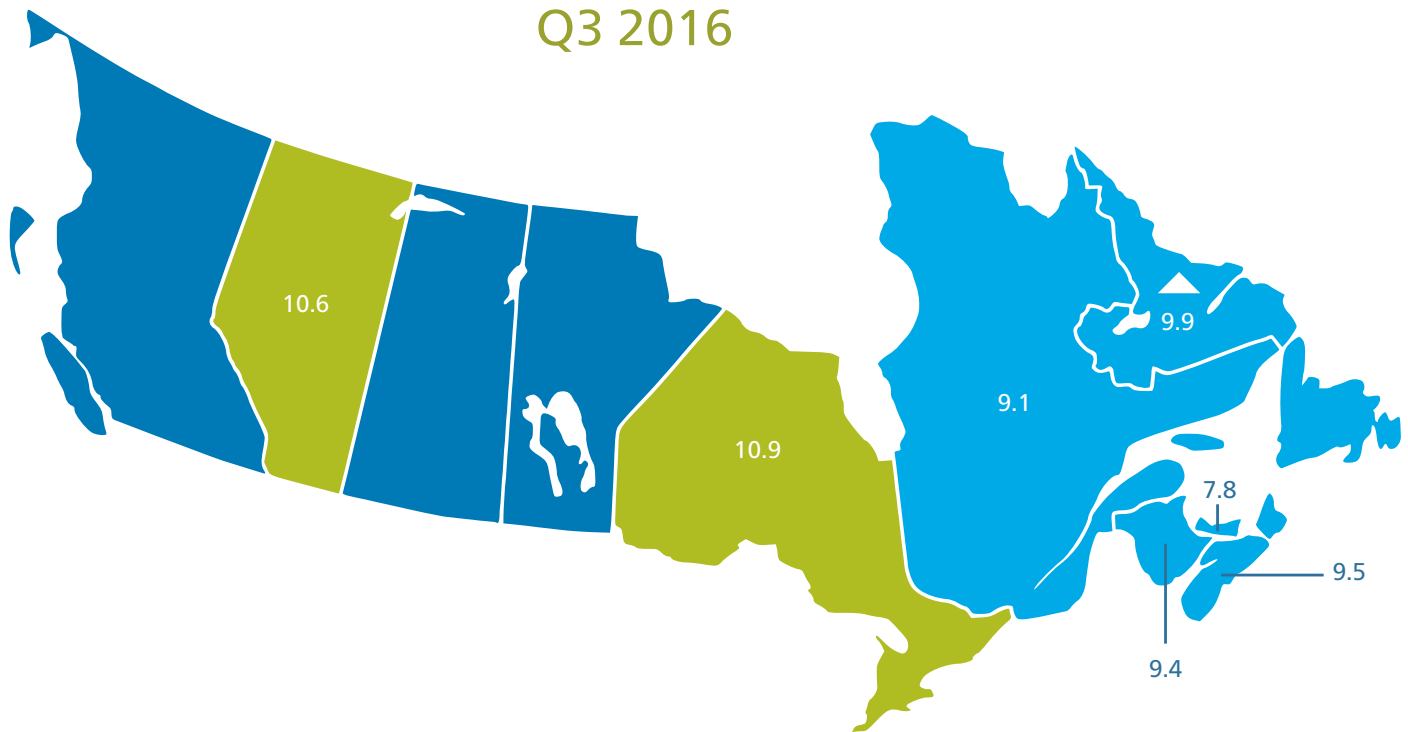
Witnessing a similar trend of the U.S., Canadian Length of Rental (LOR) increased .1 days to 10.5 in 2016 versus 2015 for the quarter ending Sept. 30 (Q3). It is worth noting that despite this result vis-à-vis the U.S., Canadian LOR was more than a full day lower than the U.S. (10.5 days in Canada vs. 11.9 days in the U.S.).

Provincial differences were significant, with Prince Edward Island delivering the best and lowest result at 7.8 days, while Ontario saw the highest LOR at 10.9 days. Alberta continues to see its LOR results improve (decrease), posting a .1 day improvement to 10.6 days. Ontario, meanwhile, saw a 0.4 increase in its LOR over the same quarter in 2015 to 10.9 days. Quebec tied Newfoundland for the best improvement in Canada, shaving 0.7 days over the 2015 Q3 result and moving to 9.1 days.

Excluding PEI, the remaining Atlantic provinces posted results within 1.1 days of the Canadian average. Interestingly, all Atlantic provinces still managed to outperform the Canadian average, and with the exclusion of PEI, all Atlantic provinces showed LOR improvement (reduction) over 2015. After PEI, New Brunswick led Atlantic Canada with a 9.4 day LOR (down .1 day from 2015), followed by Nova Scotia at 9.5 days (down .3 days from 2015), and then Newfoundland at 9.9 days (down from .7 days from 2015). British Columbia, Saskatchewan and Manitoba are excluded due to the presence of government insurers ICBC, MPI and SGI.

Similar to the U.S., there is a connection between the use of the ARMS® Data Manager and lower LOR results at the body shop level.

Canadian Average Length of Rental by Province Q3 2016



Year-Over-Year Change

Source: Enterprise Rent-A-Car. Includes ARMS® Insurance Company Direct Billed Rentals; Excludes Total Loss Vehicles.

The quarterly LOR summary is produced by Dan Friedman, Assistant Vice President Collision Industry Relations and Sales at Enterprise Rent-A-Car. Dan has 21 years of experience with Enterprise working within the collision repair industry. Through its ARMS® Automotive Suite of Products, Enterprise provides collision repair facilities with free cycle time reporting with market comparisons, free text/email capability to update their customers on vehicle repair status, and online reservations. More information is available at armsautosuite.com or by contacting Dan Friedman at Daniel.Friedman@ehi.com.

Figure 2

Average Billed Days for Canada		
Q3 2015	Q3 2016	Change
10.4	10.5	Down

Average Billed Days for Canada			
Province	Q3 2015 LOR	Q3 2016 LOR	Change
Alberta	10.7	10.6	DOWN
Ontario	10.5	10.9	UP
Quebec	9.8	9.1	DOWN
Newfoundland and Labrador	10.6	9.9	DOWN
New Brunswick	9.8	8.6	DOWN
Nova Scotia	9.8	9.5	DOWN
Prince Edward Island	7.7	7.8	UP

Collision Claims, Frequency and Losses Grew in the Second Quarter

By Russell Thrall III
Published by *CollisionWeek*



The number of collision claims has grown in every quarter since 2013 compared to the same quarter in the previous year.

Major auto physical damage indicators influencing the collision repair industry continued to increase across the board but at rates below the first quarter. Losses on collision claims are up 9.6 percent for the year ending in the second quarter.

According to the latest available Fast Track Monitoring system data from the Independent Statistical Service Inc. (ISS), private passenger collision claims and losses continued to grow in the U.S. during the second quarter of 2016 compared to 2015. The number of collision claims has grown in every quarter since 2013 compared to the same quarter in the previous year.

Data through the end of the second quarter of 2016 shows that collision claims frequency has increased to 5.96 claims per 100 earned car years up 7.8

percent compared to the most recent low of 5.53 claims for the year ended in the fourth quarter of 2012. Collision claim frequency for the year ending in the second quarter was 0.7 percent higher than in 2015.

Paid losses for private passenger collision claims have increased substantially, surpassing the previous high set in the first quarter of 2008. The data shows collision losses at \$22.4 billion for the 12-month period ended in the second quarter of 2016, this represents a 9.6 percent increase above the \$20.5 billion in collision claim losses for the 12 months ending in the second quarter of 2015.

The average paid collision claim cost stood at \$3,536 in the for the 12 month period ending in the second quarter of 2016, up 5.87 percent compared

to \$3,340 for the 12 months ending in the second quarter of 2015. While paid claim cost is higher than repaired claim costs due to the impact of total losses, the claims cost provides an indication on the growth trend in severity.

As our chart indicates, the number of collision claims, on a year-ending basis, has been rising steadily since 2012 after four years of sideways movement that ran in concert with the recession. There were just under 217,000 more collision claims in the 12 month period ending in the second quarter of 2016 versus the previous year, an increase of 3.5 percent over the previous year.

The rate of growth has declined compared to the first quarter when there were over 248,000 more collision claims for the year ending in the first quarter of 2016 versus the previous year, an increase of 4.1 percent. The rate of growth in the number

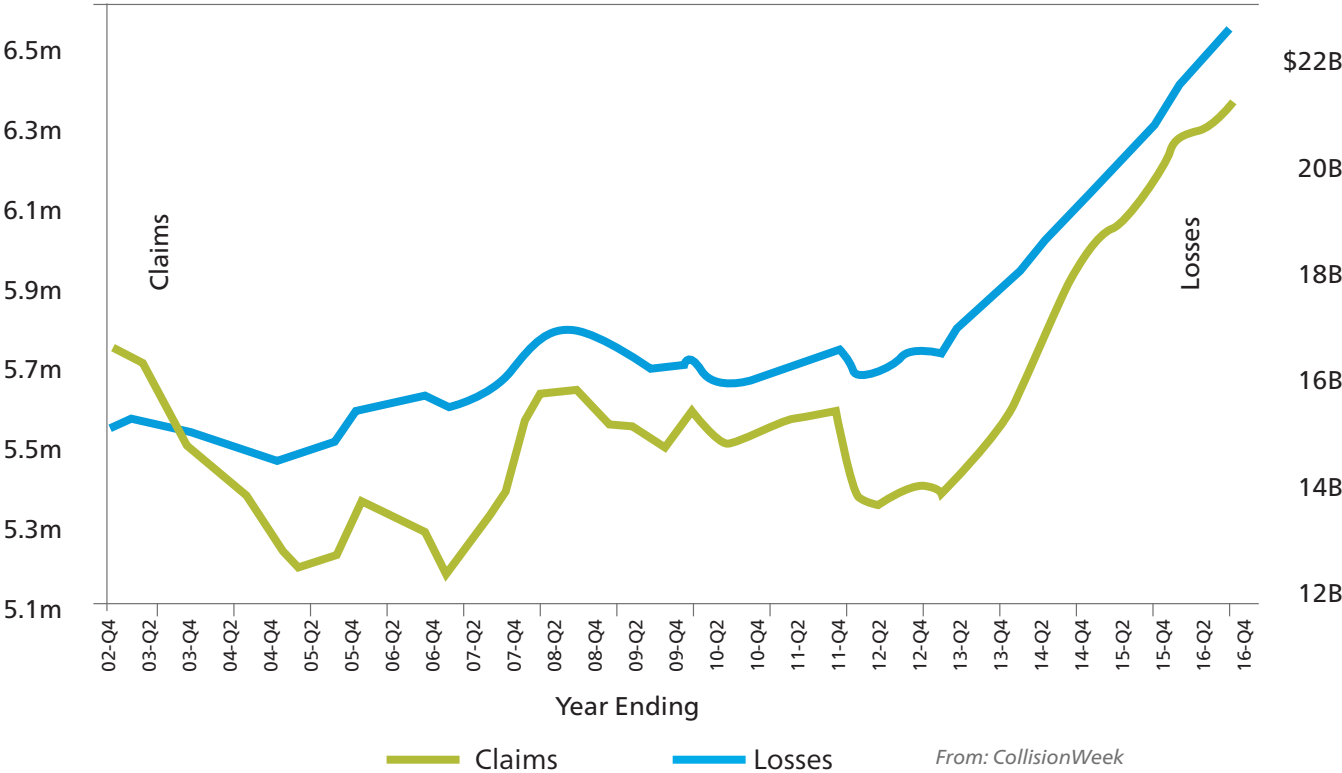
of claims declined compared to the over 7 percent growth recorded during three out of four quarters in 2014.

Looking back to 2002, the number of claims declined until the fourth quarter of 2006, when claims clocked six consecutive quarters of growth until starting to decline for the year ending in the third quarter of 2009.

More recently, the number of claims on a 12 month basis has risen each quarter since the first quarter of 2013, 13 straight quarters of growth versus the previous year.

Continued strength in new vehicle sales should continue to increase the pool of vehicles covered for collision losses, buoying both collision claim and loss trends into the foreseeable future.

Private Passenger Collision Claims & Losses



From: CollisionWeek

Collision Repair Industry Production Down in June

By Russell Thrall III
Published by *CollisionWeek*



Both production employment and hours worked declined in June compared to May. Production remains above 2015 levels.

Both production employment and hours worked declined in June compared to May. Production remains above 2015 levels.

An analysis of the latest data released from the U.S. Department of Labor Bureau of Labor Statistics (BLS), shows that total production for the collision repair industry was down in June versus the previous month, but was up from June 2015. Production has declined below the prior peak of March 2008.

The industry's total production, which we define as the total average weekly hours per month multiplied by the total number of production and

non-supervisory workers employed each month, was 7.14 million man hours per week in June. This is down from the 7.29 million man hours per week during the month of May.

Production in June, however, was 1.4 percent above June 2015.

The production statistic for the month was down due to an decrease in both production employment and average hours worked compared to May. Average weekly hours worked in June were 37.7, down from 38.1 in May. Production and non-supervisory employment decreased 0.9 percent

to 189,500 in June compared to 191.2 in May. Production employment in June was up 2.7 percent from 184,400 in June 2015.

The chart below illustrates the total number of production employees multiplied by their average weekly hours worked in each month. This combination creates a view into the total number of production hours amassed each week by the collision repair population as a whole.

Added together, the average weekly production per month over the previous twelve months through June 2016 now totals 86.1 million man hours. That figure is 2.5 percent higher than the previous 12 month total ending June 2015.

Looking at the first six months of 2016 versus 2015 looks somewhat better than the 12 month figure. For the first six months of 2016, the total is 3.4 percent higher than the first six months of 2015.

The average weekly wages for production employees in June increased 0.5 percent compared to a year ago coming in at \$777.00 compared to \$772.79 in 2015. According to the BLS, each worker

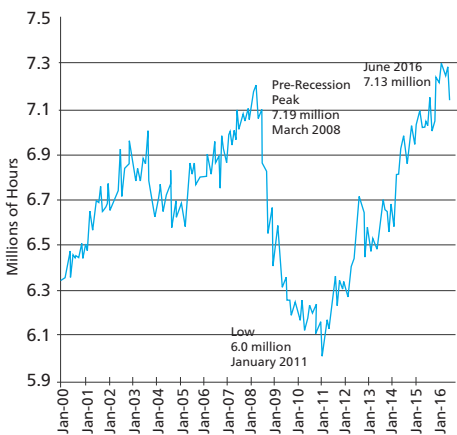
earned an average \$20.61 per hour, down 1 cent or 0.05 percent from \$20.62 in May and 38 cents, or 1.9 percent, higher than June 2015.

Average weekly wages for all employees, including management and supervisory positions, in June came in at \$858.05, up \$24.91 or 3 percent, from \$833.14 a year earlier. The average hourly wage in June was \$22.76, up 30 cents, or 1.3 percent, from May and up 95 cents, or 4.4 percent, compared to June 2015.

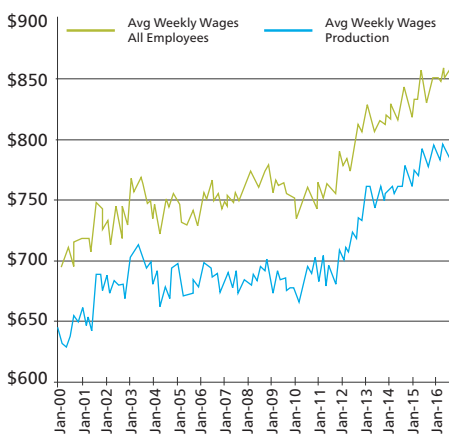
Total employment in June, including management and supervisory employees, stood at 235,300, down from 236,400 in May, but up 6,900 versus June 2015.

Preliminary results for July 2016 indicate a decrease in production employment and an increase in hours worked during the month. This preliminary result indicates a decrease in overall collision repair production in July to 7.13 million hours per week at 0.1 percent below June and a 1.5 percent increase from July 2015.

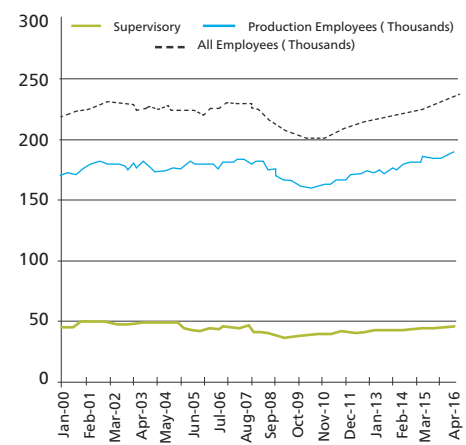
Collision Repair Industry Production Total Average Weekly Hours by Month



Average Weekly Wages



Collision Repair Employment 2000-2016



Traffic Volume Jumps 3.2% in June

The growth in traffic rebounds in June. All regions reported higher traffic volume in June versus 2015.

By Russell Thrall III
Published by *CollisionWeek*



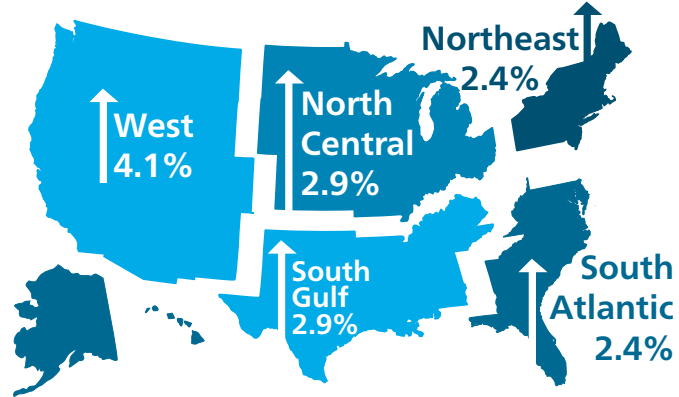
June's traffic volume represents an increase of 3.2 percent, or 8.6 billion vehicle miles, above June 2015.

Travel for the month of June is estimated at 282.3 billion vehicle miles nationwide according to the most recent data released by the Federal Highway Administration. The June result continues the trend of increased driving that had led to the growth in both auto physical damage insurance claims and collision repair industry volume.

June's traffic volume represents an increase of 3.2 percent, or 8.6 billion vehicle miles, above June 2015. This is an improvement over May's traffic volume increase of 2.0 percent, or 5.5 billion vehicle miles, compared to May 2015. It is also above the 2.6 percent, or 6.8 billion vehicle miles increase reported in April,

but below the 5.0 percent, or 13.0 billion vehicle miles, increase in March compared to 2015.

For the first half of 2016, driving totaled 1580.2 billion vehicle miles, up 3.3 percent from 2015.



Regional Results

All five regions in the U.S. saw increased driving during June. The West reported the largest percentage increase, up 4.1 percent in June versus the same month in 2015. The South Atlantic came in with the next largest increase at 3.2 percent above June 2015. The North Central and South Gulf were next at 2.9 percent higher than June 2015. The Northeast reported an increase of 2.4 percent in June versus 2015. In May, the Northeast region was the only one to report decreased driving, down 0.5 percent in May versus 2015.

Looking at the more populated states, New York was up by 2.5 percent compared to June 2015. New Jersey was up by 2.1 percent, Pennsylvania was up by 2.1 percent and Massachusetts was up 2.0 percent in June compared to 2015.

In the South Atlantic, Florida increased 3.2 percent and Georgia increased 3.0 percent compared to June 2015. In the North Central region, Illinois increased by 4.0 percent, Indiana increased 1.9 percent and Michigan increased by 3.0 percent.

Texas increased by 4.8 percent, California increased 5.0 percent and Arizona increased by 2.3 percent.

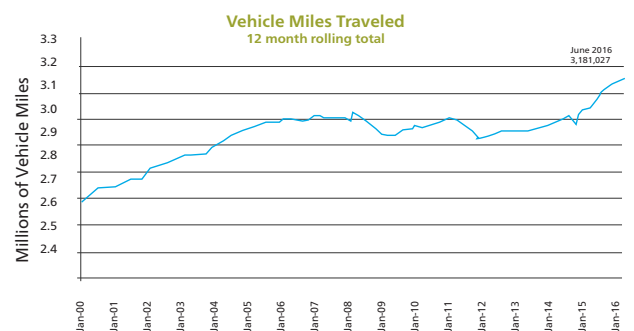
Only North Dakota reported a decline in June, down 2.4 percent from June 2015.

On a percentage basis, the state with the largest increase continues to be Hawaii at 8.6 percent above June 2015. Idaho and Utah reported the next largest percentage increase at 5.1 percent above 2015.

Gasoline prices increased in June compared to May but remained below year ago levels. The average retail price of \$2.37 per gallon of regular unleaded gasoline for the month was up 10 cents from May, or 4.3 percent. However, the price of gasoline in June was 44 cents, or 15.6 percent, below June 2015.

Millions Vehicle Miles

Region	Jun 16	Jun 15	% Change
Northeast			
Connecticut	2,813	2,748	2.4
Maine	1,267	1,312	4.2
Massachusetts	5,192	5,089	2
New Hampshire	1,241	1,192	4.1
New Jersey	6,530	6,398	2.1
New York	11,866	11,581	2.5
Pennsylvania	9,039	8,855	2.1
Rhode Island	703	679	3.4
Vermont	620	608	2
Subtotal	39,371	38,462	2.4
South Atlantic			
Delaware	1,020	983	3.8
District of Columbia	341	332	2.6
Florida	18,031	17,480	3.2
Georgia	10,191	9,895	3
Maryland	5,327	5,141	3.6
North Carolina	9,931	9,684	2.5
South Carolina	4,767	4,544	4.9
Virginia	7,437	7,184	3.5
West Virginia	1,550	1,549	0.1
Subtotal	58,595	56,792	3.2
North Central			
Illinois	10,765	10,349	4
Indiana	6,955	6,825	1.9
Iowa	2,999	2,905	3.2
Kansas	2,827	2,783	1.6
Michigan	9,143	8,879	3
Minnesota	5,514	5,406	2
Missouri	6,533	6,325	3.3
Nebraska	1,876	1,828	2.6
North Dakota	931	954	-2.4
Ohio	10,542	10,155	3.8
South Dakota	918	908	1
Wisconsin	5,770	5,657	2
Subtotal	64,773	62,974	2.9
South Gulf			
Alabama	6,180	6,069	1.8
Arkansas	3,244	3,235	0.3
Kentucky	4,514	4,401	2.6
Louisiana	4,520	4,519	0
Mississippi	3,802	3,669	3.6
Oklahoma	4,064	4,053	0.3
Tennessee	7,016	6,819	2.9
Texas	22,140	21,125	4.8
Subtotal	55,480	53,890	3.0
West			
Alaska	461	461	0
Arizona	6,068	5,934	2.3
California	32,365	30,831	5
Colorado	4,337	4,180	3.7
Hawaii	981	903	8.6
Idaho	1,622	1,543	5.1
Montana	1,373	1,318	4.2
Nevada	2,201	2,118	3.9
New Mexico	2,152	2,123	1.3
Oregon	3,378	3,259	3.7
Utah	2,561	2,437	5.1
Washington	5,737	5,613	2.2
Wyoming	893	882	1.3
Subtotal	64,129	61,602	4.1
TOTALS	282,348	273,722	3.2



Collision Claims, Frequency and Losses Grew in First Quarter

By Russell Thrall III
Published by *CollisionWeek*



Collision claim frequency for the year ending in the first quarter was 0.85 percent higher than in 2015.

Major auto physical damage indicators influencing the collision repair industry continued to increase across the board. Losses on collision claims are up 9.9 percent for the year ending in first quarter.

According to the latest available Fast Track Monitoring system data from the Independent Statistical Service Inc. (ISS), private passenger collision claims and losses continued to grow in the first quarter of 2016 compared to 2015. The number of collision claims has grown in every quarter since 2013 compared to the same quarter in the previous year.

Data through the end of the first quarter of 2016 shows that collision claims frequency has increased to 5.95 claims per 100 earned car years up 7.6 percent compared to the most recent low of 5.53 claims for the year ended in the fourth quarter of 2012. Collision claims frequency for the year ending in the first quarter was 0.85 percent higher than in 2015.

Paid losses for private passenger collision claims have increased substantially, surpassing the previous high set in the first quarter of 2008. The data shows collision losses at \$21.9 billion for the 12-month

period ended in the first quarter of 2016. That represents a 9.9 percent increase above the \$19.9 billion in collision claim losses for the 12 months ending in the first quarter of 2015.

The average paid collision claim cost stood at \$3,478 in the first quarter of 2016, up 5.655 percent compared to \$3,295 in the first quarter of 2015. While paid claim cost is higher than repaired claim costs due to the impact of total losses, it provides an indication on the growth trend in severity.

As our chart indicates, the number of collision claims, on a year-ending basis, has been rising steadily since 2012 after four years of sideways movement that ran in concert with the recession. There were over 248,000 more collision claims for the year ending in the first quarter of 2016 versus the previous year, an increase of 4.1 percent.

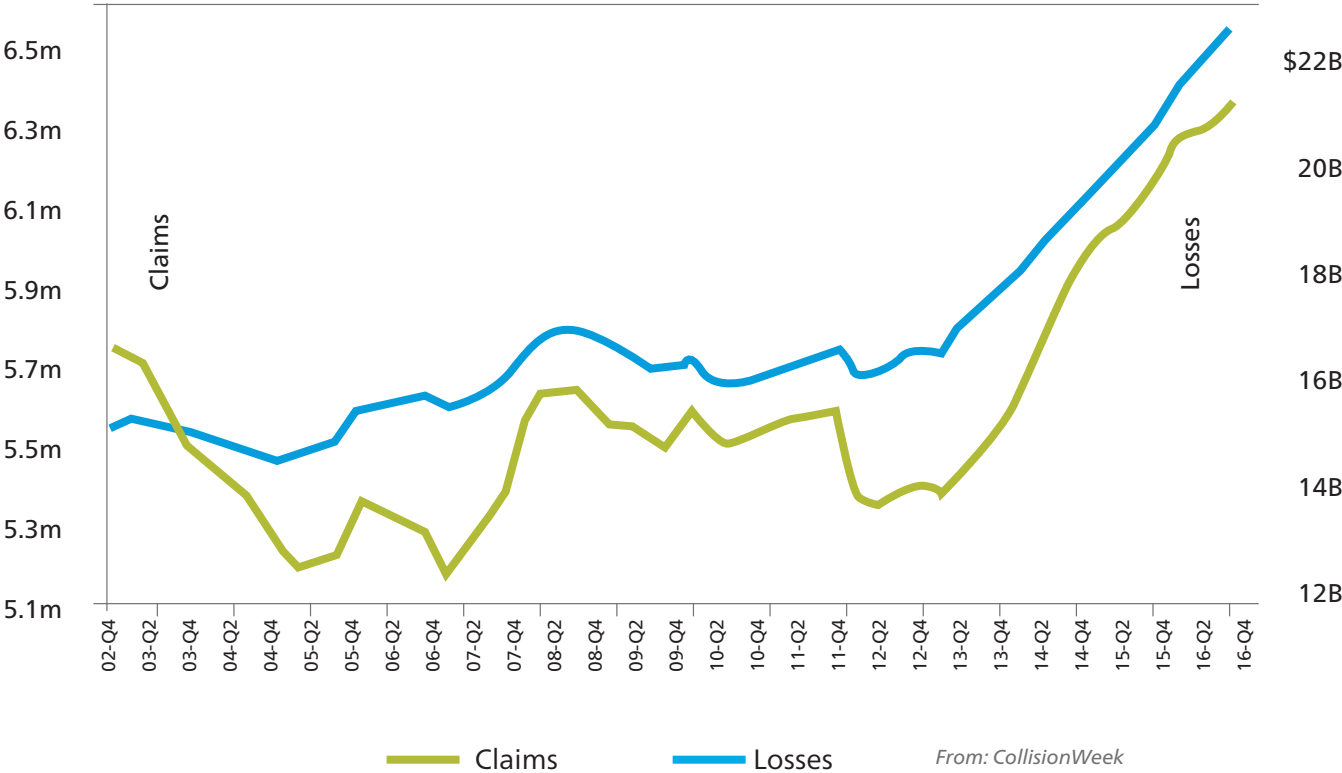
The rate of growth in the number of claims declined compared to the over 7 percent growth recorded during three out of four quarters in 2014.

Looking back to 2002, the number of claims declined until the fourth quarter of 2006, when claims clocked six consecutive quarters of growth until starting to decline for the year ending in the third quarter of 2009.

More recently, the number of claims on a 12 month basis has risen each quarter since the first quarter of 2013, 13 straight quarters of growth versus the previous year.

Continued strength in new vehicle sales should continue to increase the pool of vehicles covered for collision losses, buoying both collision claim and loss trends into the foreseeable future.

Private Passenger Collision Claims & Losses



From: CollisionWeek

New Vehicle Sales

Figure 6—WardsAuto 10 Best-Selling U.S. Cars and Trucks

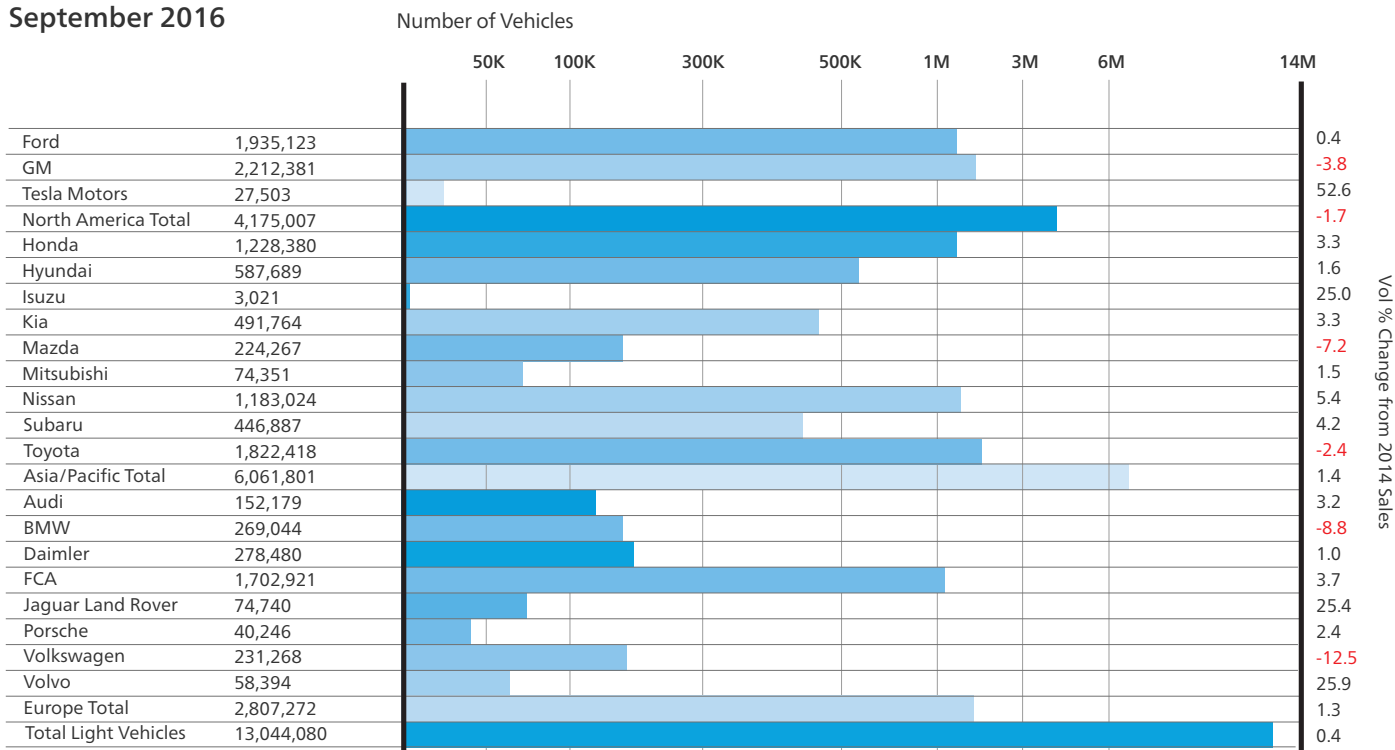
As of September 2016

Cars		Trucks/Vans/SUVs	
Camry	297,453	F-Series	553,486
Civic	283,783	Silverado	425,556
Corolla	275,818	Ram Pickup	349,647
Accord	258,619	CR-V	263,493
Altima	242,321	RAV4	260,380
Fusion	210,462	Rogue	241,619
Malibu	170,389	Escape	234,764
Sentra	169,476	Explorer	188,425
Elantra	157,050	Equinox	173,736
Sonata	155,271	Sierra	164,440

Source: WardsAuto InfoBank

Figure 7—WardsAuto U.S. Light Vehicle Sales by Company

September 2016



Light vehicles are cars and light trucks (GVW Classes 1-3, under 14,001 lbs.). DSR is daily sales rate. Tesla Motors monthly sales estimated.

Source: WardsAuto InfoBank

Current Used Vehicle Market Conditions

September 2016 Kontos Commentary

By Tom Kontos

Executive Vice President,
ADESA Analytical Services

The following commentary is produced monthly by Tom Kontos, Executive Vice-President, ADESA Analytical Services. ADESA is a leading provider of wholesale used vehicle auctions and ancillary remarketing services.

As part of the KAR Auction Services family, ADESA works in collaboration with its sister company, Insurance Auto Auctions, a leading salvage auto auction company, to provide insights, trends and highlights of the entire automotive auction industry.

Figure 8—Wholesale Used Vehicle Price Trends

	Average Prices (\$/Unit)			Latest Month Versus	
	Sep-16	Aug-16	Sept-15	Prior Month	Prior Year
Total All Vehicles	\$10,734	\$10,738	\$10,218	0.0%	5.1%
Total Cars	\$8,666	\$8,675	\$8,638	-0.1%	0.3%
Compact Car	\$6,497	\$6,597	\$6,575	-1.5%	-1.2%
Midsized Car	\$7,520	\$7,748	\$7,580	-2.9%	-0.8%
Fullsize Car	\$7,605	\$7,651	\$7,553	-0.6%	0.7%
Luxury Car	\$13,773	\$13,356	\$13,651	3.1%	0.9%
Sporty Car	\$13,365	\$13,605	\$12,892	-1.8%	3.7%
Total Trucks	\$12,740	\$12,751	\$11,878	-0.1%	7.3%
Mini Van	\$8,386	\$8,183	\$7,450	2.5%	12.6%
Fullsize Van	\$13,551	\$13,350	\$13,384	1.5%	1.2%
Compact SUV/CUV	\$10,539	\$10,673	\$10,257	-1.3%	2.8%
Midsized SUV/CUV	\$11,650	\$11,448	\$10,266	1.8%	13.5%
Fullsize SUV/CUV	\$13,268	\$13,292	\$12,222	-0.2%	8.6%
Luxury SUV/CUV	\$18,595	\$18,610	\$18,318	-0.1%	1.5%
Compact Pickup	\$8,606	\$8,485	\$8,006	1.4%	7.5%
Fullsize Pickup	\$15,887	\$16,141	\$14,847	-1.6%	7.0%

Source: ADESA Analytical Services

Summary

Average wholesale values were flat in September but remained up on a year-over-year basis primarily on the strength of truck prices and a higher proportion of pricier off-lease units. Retail used vehicle sales, including CPO sales, were relatively weak, though both remain up for the year.

Details

According to ADESA Analytical Services' monthly analysis of Wholesale Used Vehicle Prices by Vehicle Model Class¹, wholesale used vehicle prices in September averaged \$10,734—flat at 0.0 percent compared to August but up 5.1 percent relative to September 2015. Average prices for cars were up modestly on a year-over-year basis (0.3 percent), while truck prices were up significantly (7.3 percent), driving the overall year-over-year increase. Particularly hard-hit during the month were mid-size cars, while luxury cars had a nice bounce. Mini-vans also saw solid price growth during the month.

Average wholesale prices for used vehicles remarketed by manufacturers were up 1.6 percent month-over-month and up 7.1 percent year-over-year. Prices for fleet/lease consignors were down 1.0 percent sequentially but up 1.0 percent annually. Dealer consignors registered a 2.0 percent average price decrease versus August but a 4.3 percent increase relative to September 2015.

According to NADA data, franchised dealers saw a 9.4 percent month-over-month decrease in retail used vehicle sales, while independent dealers registered a 3.1 percent sales loss. For the year, however, retail used vehicle sales are up 5.0 percent. September CPO sales were down 1.4 percent year-over-year and down 10.8 percent month-over-month, according to figures from Autodata. For the year, however, sales have already topped the two million mark and are up 3.7 percent.

¹The analysis is based on over seven million annual sales transactions from over 150 of the largest U.S. wholesale auto auctions, including those of ADESA as well as other auction companies. ADESA Analytical Services segregates these transactions to study trends by vehicle model class, sale type, model year, etc. The views and analysis provided herein relate to the vehicle remarketing industry as a whole and may not relate directly to KAR Auction Services, Inc. The views and analysis are not the views of KAR Auction Services, its management or its subsidiaries, and their accuracy is not warranted. The statements contained in this report and statements that the company may make orally in connection with this report that are not historical facts are forward-looking statements. Words such as "should," "may," "will," "anticipates," "expects," "intends," "plans," "believes," "seeks," "estimates," "bode," "promises," "likely to" and similar expressions identify forward-looking statements. Forward-looking statements are subject to risks and uncertainties that could cause actual results to differ materially from the results projected, expressed or implied by the forward-looking statements. Factors that could cause or contribute to such differences include those matters disclosed in the company's Securities and Exchange Commission filings. The company does not undertake any obligation to update any forward-looking statements.

EDITOR'S NOTE

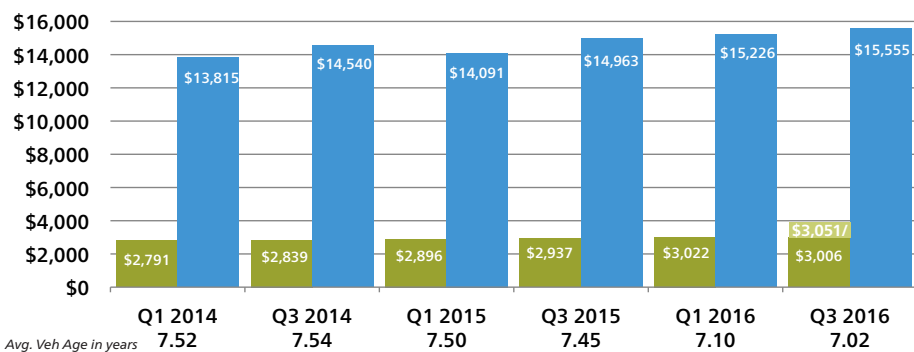
Due to this issue's late publication cycle, Q3 2016 figures already incorporate October development; as a result, we adjusted our development factoring to take this into account.

Appraisal Values

The initial average appraisal value, calculated by combining data from all first and third-party repairable vehicle appraisals uploaded through Mitchell systems in Q3 2016, was \$3,006, \$69 higher than the previous year's Q3 2015 appraisal average of \$2,937.

Factoring for development produces an anticipated average appraisal value of \$3,051. Of note, the average Actual Cash Value (ACV) of the vehicles was the highest of charted values at \$15,555.

Fig.9—Average Appraisal Values, ACVs and Age | All APD Line Coverages*



* Values provided from Guidebook benchmark averages, furnished through Mitchell Estimating.

■ Appraisals ■ ACV's



MITCHELL SOLUTION:

Mitchell Estimating™

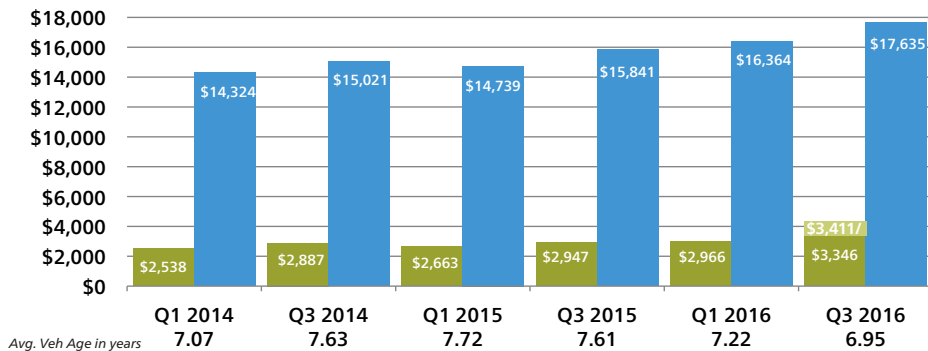
Mitchell Estimating is an advanced estimating system, combining database accuracy, automated calculations, and repair procedure pages to produce estimates that are comprehensive, verifiable, and accepted throughout the collision industry. Mitchell Estimating is an integral part of Mitchell's appraisal workflow solutions.

Visit Mitchell's website at www.mitchell.com

Comprehensive Losses

In Q3 2016, the average initial gross appraisal value for comprehensive coverage estimates processed through our servers was \$3,411, compared to \$2,947 in Q3 2015. Factoring for development produces an increase in the adjusted value to \$3,411.

Fig.10—Average Appraisal Values, ACVs and Age Comprehensive Losses*



* Values provided from Guidebook benchmark averages, furnished through Mitchell Estimating.

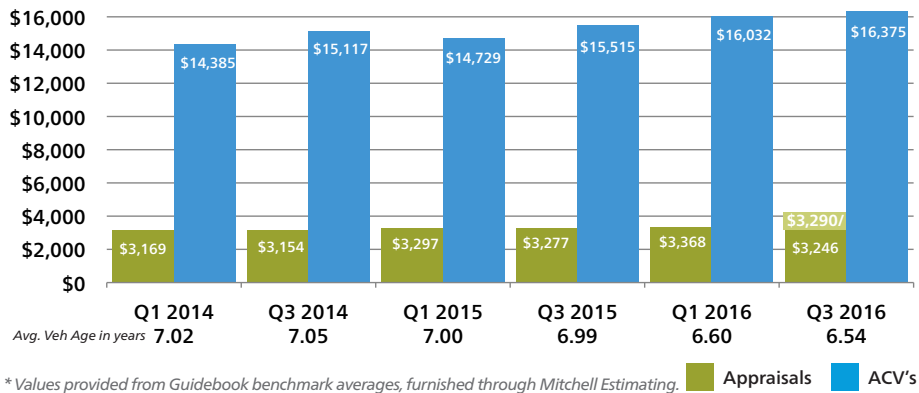
■ Appraisals ■ ACV's

Collision Losses

Mitchell’s Q3 2016 data reflects an initial average gross collision appraisal value of \$3,246, \$31 less than this same period last year. However, continued development suggests a final Q3 2016 average gross collision appraisal value of \$3,290, which represents an increase over the same quarter last year.

The average Actual Cash Value (ACV) of vehicles appraised for collision losses during Q3 2016 was \$16,375, the highest value of the quarters measured.

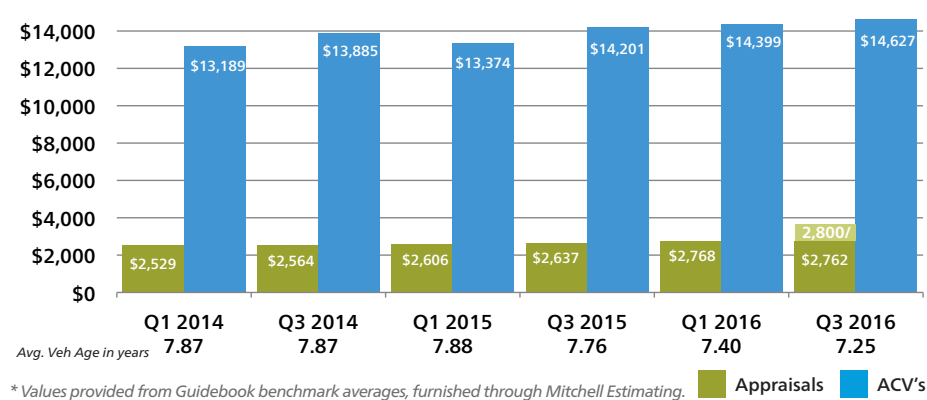
Fig. 11 – Average Appraisal Values, ACVs and Age Collision Coverage*



Third-Party Property Damage

In Q3 2016, our initial average gross third-party property damage appraisal was \$2,762 compared to \$2,637 in Q3 2015, reflecting a \$125 initial increase between these respective periods. Factoring for development yields an anticipated Q3 2016 adjusted appraisal value of \$2,800, a \$163 increase in average severity over Q3 2015.

Fig. 12 – Average Appraisal Values, ACVs and Age Auto Physical Damage*



[View the Casualty Edition](#)



Supplements

EDITOR'S NOTE

As it generally takes at least three months following the original date of appraisal to accumulate most supplements against an original estimate of repair, we report (and recommend viewing supplement information) three months after the fact to obtain the most accurate view of this data.

In Q3 2016, 38.39 percent of all original estimates prepared by Mitchell-equipped estimators were supplemented one or more times. In this same period, the pure supplement frequency (supplements to estimates) was 58.44 percent, reflecting an 8.33 point increase from that same period in 2015. The average combined supplement variance for this quarter was \$852.22, \$20.96 lower than in Q3 2015.

Fig. 13—Average Supplement Frequency and Severity

Date	Q1/14	Q3/14	Q1/15	Q3/15	Q1/16	Q3/16	Pt. Change	% Change
% Est. Supplement	36.41	34.04	36.78	34.71	40.63	38.39	3.68	11%
% Supplement	52.02	48.74	52.93	50.11	62.17	58.44	8.33	17%
Avg. Combined Supp. Variance \$	737.81	792.64	817.79	873.18	871.59	852.22	-20.96	-2%
% Supplement \$	26.44	27.92	28.24	29.73	28.84	28.35	-1.38	-5%

Average Appraisal Makeup

This chart compares the average appraisal makeup as a percentage of dollars, constructed by Mitchell-equipped estimators. These data points reflect a 'trade off'; while paint/materials showed a 3 percent downward shift, there was only minimal shifting between parts and labor.

Fig. 14—% Average Appraisal Dollars by Type

Date	Q1/14	Q3/14	Q1/15	Q3/15	Q1/16	Q3/16	Pt. Change	% Change
% Average Part \$	45.31	42.93	45.76	43.72	45.49	43.64	-0.08	0%
% Average Labor \$	43.11	45.69	42.77	44.99	43.17	45.1	0.11	0%
% Paint Material \$	10.47	10.59	10.45	10.5	10.24	10.18	-0.32	-3%

Parts Analysis

Parts Type Definitions

Original Equipment Manufacturer (OEM)

Parts produced directly by the vehicle manufacturer or their authorized supplier, and delivered through the manufacturer's designated and approved supply channels. This category covers all automotive parts, including sheet metal and mechanical parts.

Aftermarket

Parts produced and/or supplied by firms other than the Original Equipment Manufacturer's designated supply channel. This may also include those parts originally manufactured by endorsed OEM suppliers, which have later followed alternative distribution and sales processes. While this part category is often only associated with crash replacement parts, the automotive aftermarket also includes a large variety of mechanical and custom parts.

Non-New/Remanufactured

Parts removed from an existing vehicle that are cleaned, inspected, repaired and/or rebuilt, usually back to the original equipment manufacturer's specifications, and re-marketed through either the OEM or alternative supply chains. While commonly associated with mechanical hard parts such as alternators, starters and engines, remanufactured parts may also include select crash parts such as urethane and TPO bumpers, radiators and wheels

Recycled

Parts removed from a salvaged vehicle and re-marketed through private or consolidated auto parts recyclers. This category commonly includes all types of parts and assemblies, especially body, interior and mechanical parts.

EDITOR'S NOTE

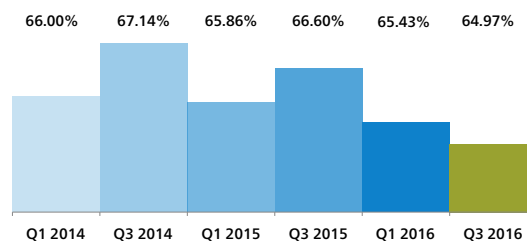
While there isn't a perfect correlation between the types of parts specified by estimators and those actually used during the course of repairs, we feel that the following observations are directionally accurate for both the insurance and auto body repair industries. This section illustrates the percentage of dollars allocated to each unique part-type.

As a general observation, recent data show that parts make up 46 percent of the average value per repairable vehicle appraisal, which represents nearly \$1,400 in average spend per estimate.

Original Equipment Manufacturer (OEM) Parts Use in Dollars

In Q3 2016, OEM parts represented 64.97 percent of all parts dollars specified by Mitchell-equipped estimators. This represents a 1.63 percent relative decrease from Q3 2015.

Fig. 15—Parts-New



MITCHELL SOLUTION:

Mitchell QRP™

Mitchell's Quality Recycled Parts (QRP) program is the most comprehensive source for finding recycled parts, providing online access to a parts database compiled from a growing network of more than 800 of the highest quality recyclers in North America and Canada. QRP is fully integrated with UltraMate / UltraMate Premier Suite for total ease-of-use.

For more information on QRP, visit Mitchell's website at www.mitchell.com



MITCHELL SOLUTION:

Mitchell MAPP™

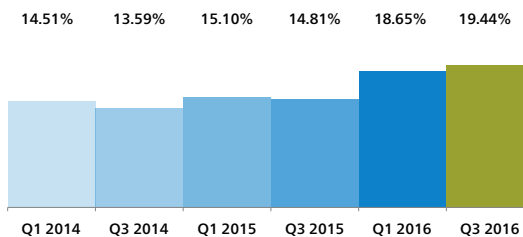
Mitchell Alternate Parts Program (MAPP) offers automated access to nearly 100 Remanufactured and Aftermarket part types from over 700 suppliers ensuring shops get the parts they need from their preferred vendors. MAPP is fully integrated with UltraMate / UltraMate Premier Suite for total ease-of-use.

For more information on MAPP, visit Mitchell's website at www.mitchell.com

Aftermarket Parts Use in Dollars

In Q3 2016, 19.44 percent of all parts dollars recorded on Mitchell appraisals were attributed to Aftermarket sources, up 4.63 points from Q3 2015.

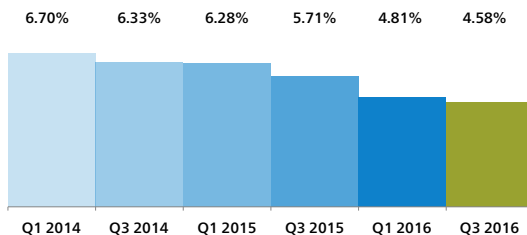
Fig. 16—Parts-Aftermarket



Remanufactured Parts Use in Dollars

Currently listed as "Non-New" parts in our estimating platform and reporting products, Remanufactured parts currently represent 4.58 percent of the average gross parts dollars used in Mitchell appraisals during Q3 2016. This reflects a 1.13 percent relative decrease over this same period in 2015.

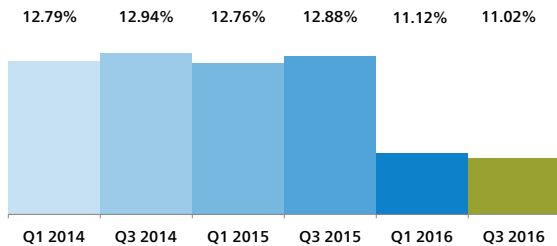
Fig. 17—Parts-Remanufactured



Recycled Parts Use in Dollars

Recycled parts constituted 11.02 percent of the average parts dollars used per appraisal during Q3 2016, reflecting a 1.86 percent decrease from Q3 2015.

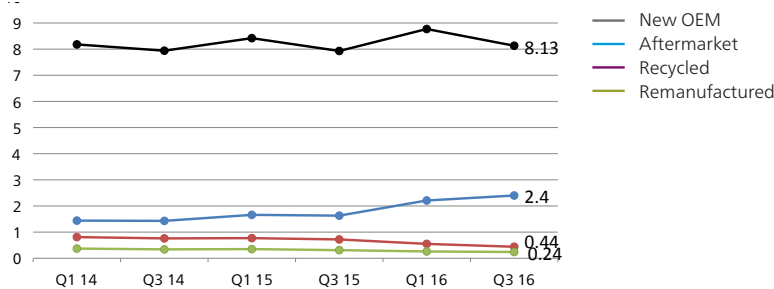
Fig. 18—Parts-Recycled



The Number of Parts by Part Type

In order to capture another aspect of parts use, we calculate the number of parts used by part type on a repairable estimate. In comparing Q3 2016 to the same quarter in 2015, aftermarket parts usage experienced a substantive increase to an average 2.4 parts per estimate. At the same time, new OEM parts usage increased slightly while recycled parts usage declined.

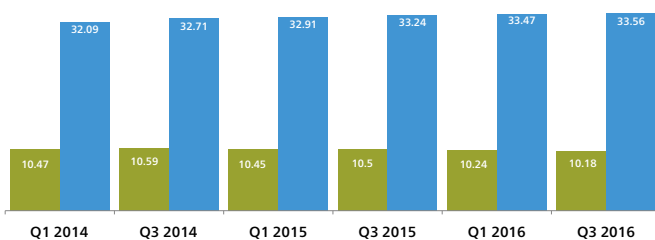
Fig. 19—Number of Parts by Part Type



Paint and Materials

During Q3 2016, Paint and Materials made up 10.18 percent of our average appraisal value, representing a 0.32% relative decrease from Q3 2015. Represented differently, the average paint and materials rate—achieved by dividing the average paint and materials allowance per estimate by the average estimate refinish hours—yielded a rate of \$33.56 per refinish hour in this period, compared to \$33.24 in Q3 2015.

Fig. 20—Paint And Materials, By Quarter



EDITOR'S NOTE

It is commonly understood within the collision repair and insurance industries that a very large number of recycled “parts” are actually “parts-assemblies” (such as doors, which in fact include numerous attached parts and pieces). Thus, attempting to make discrete comparisons between the average number of recycled and any other parts types used per estimate may be difficult and inaccurate.



MITCHELL SOLUTION:
Mitchell RMC™

Mitchell's Refinishing Materials Calculator (RMC) provides accurate calculations for refinishing materials costs by incorporating a database of more than 8,500 paint codes from eight paint manufacturers. It provides job-specific materials costing according to color and type of paint, plus access to the only automated, accurate, field-tested, and industry-accepted breakdown of actual costs of primers, colors, clear coats, additives and other materials needed to restore vehicles to pre-accident condition. For more information on RMC, visit Mitchell's website at www.mitchell.com

Adjustments

In Q3 2016, the percentage of adjustments made to estimates was flat compared to the same period last year. The frequency of betterment taken decreased by 6 percent, while the average dollar amount of the betterment taken increased by 13 percent to \$142.08. Appearance allowance frequency increased by 18 percent, and the dollar amount of that appearance allowance increased to \$224.21.

Fig. 21 — Adjustment \$ and %s

Date	Q1/14	Q3/14	Q1/15	Q3/15	Q1/16	Q3/16	Pt/\$ Change	% Change
% Adjustments Est	2.89	2.93	2.95	2.96	3.03	2.96	0	0%
% Betterment Est	2.37	2.34	2.4	2.39	2.37	2.24	-0.15	-6%
% Appear Allow Est	0.42	0.44	0.43	0.44	0.52	0.52	0.08	18%
% Prior Damage Est	2.84	2.99	2.87	2.87	2.51	2.34	-0.53	-18%
Avg. Betterment \$	114.14	131.63	124.21	128.96	132.18	142.08	13.12	10%
Avg. Appear Allow \$	209.92	215.58	210.71	213.81	221.46	224.21	10.4	5%

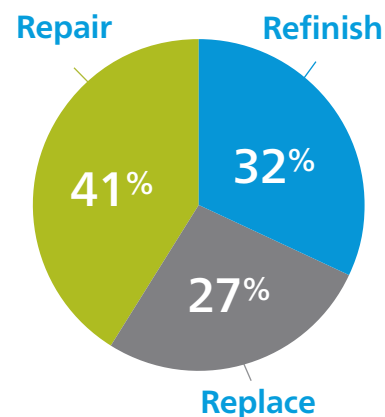
Labor Analysis

For 2016 year-to-date, average body labor rates rose in less than half of survey states compared to 2015.

Fig. 22 — Average Body Labor Rates and Change by State

	2015	2016 YTD	\$ Change	% Change
Arizona	49.86	51.03	\$ 1.17	2%
California	55.67	55.44	\$ (0.23)	0%
Florida	42.83	42.94	\$ 0.11	0%
Hawaii	48.82	50.03	\$ 1.21	2%
Illinois	51.38	51.92	\$ 0.54	1%
Michigan	45.54	46.2	\$ 0.66	1%
New Jersey	48.07	47.91	\$ (0.16)	0%
New York	48.6	49.03	\$ 0.43	1%
Ohio	45.8	45.84	\$ 0.04	0%
Rhode Island	45.62	45.78	\$ 0.16	0%
Texas	45.72	45.72	\$ -	0%

Fig. 23 — Percent of average labor hours by type



Total Loss

The chart below illustrates the total loss data for both vehicle age and actual cash value of total loss vehicles processed through Mitchell servers. Low fuel prices, along with favorable financing, are contributing to stronger demand and pricing for used trucks and SUVs.

Fig. 24—Average Vehicle Age in Years

Vehicles	Q1/14	Q3/14	Q1/15	Q3/15	Q1/16	Q3/16
	Average Vehicle Age in Years					
Convertible	11.98	12.62	12.71	13.01	12.7	13.05
Coupe	11.9	12.14	12.02	12.37	12.1	12.35
Hatchback	8.68	8.56	8.26	8.18	8	8.07
Sedan	10.43	10.49	10.37	10.43	10.19	10.29
Wagon	9.62	9.98	10.1	10.42	10.65	10.82
Other Passenger	12.2	13.06	12.02	12.82	10.99	7.11
Pickup	12.03	12.46	12.41	12.96	12.92	13.09
Van	11.16	11.31	11.37	11.57	11.55	11.74
SUV	10.28	10.31	10.42	10.42	10.36	10.36

Fig. 25—Average Vehicle Total Loss Actual Cash Value

Vehicles	Q1/14	Q3/14	Q1/15	Q3/15	Q1/16	Q3/16
	Average Actual Cash Value					
Convertible	9,629.03	10,146.85	9,507.76	10,292.54	9,931.11	10,102.94
Coupe	7,152.97	7,533.04	7,497.37	7,974.89	8,032.50	8,070.62
Hatchback	7,962.19	8,458.86	8,208.48	8,740.67	8,534.83	8,305.21
Sedan	7,209.71	7,721.12	7,426.76	7,931.41	7,691.77	7,645.15
Wagon	6,961.64	7,046.74	6,623.72	6,833.21	6,699.17	6,563.64
Other Passenger	16,668.16	13,722.77	16,196.74	15,170.59	19,673.40	18,370.27
Pickup	10,105.82	10,428.99	10,868.37	11,124.16	11,662.25	11,959.79
Van	5,676.85	6,123.50	5,994.83	6,448.19	6,450.06	6,747.88
SUV	8,847.89	9,544.26	9,301.24	10,086.55	10,076.09	10,244.26



MITCHELL SOLUTION:

Mitchell WorkCenter™ Total Loss

Mitchell WorkCenter™ Total Loss gives your claims organization a statistically-driven, fully-automated, web-based total loss valuation system that generates fair, market-driven values for loss vehicles. It combines J.D. Power and Associates' data analysis and pricing techniques with Mitchell's recognized leadership in physical damage claims processing solutions. Mitchell WorkCenter™ Total Loss helps you reduce settlement time and improve customer satisfaction. www.mitchell.com.



EDITOR'S NOTE

Due to this issue's late publication cycle, Q3 2016 figures already incorporate October development; as a result, we adjusted our development factoring to take this into account.

At the request of our customers and friends in Canada, we are pleased to provide the following Canada-specific statistics, observations, and trends. **All dollar figures appearing in this section are in CDN\$.** As a point of clarification, this data is the product of upload activities from body shops, independent appraisers, and insurance personnel, more accurately depicting insurance-paid loss activity, rather than consumer direct or retail market pricing.

Canadian Appraisal Severity

Fig. 26—Average Appraisal Values Severity Overall

The average gross initial appraisal value, calculated by combining data from all first and third party repairable vehicle appraisals uploaded through Mitchell Canadian systems in Q3 2016, was \$4,128—a \$183 increase from Q3 2015. Factoring for development yields an anticipated increase to \$4,185.

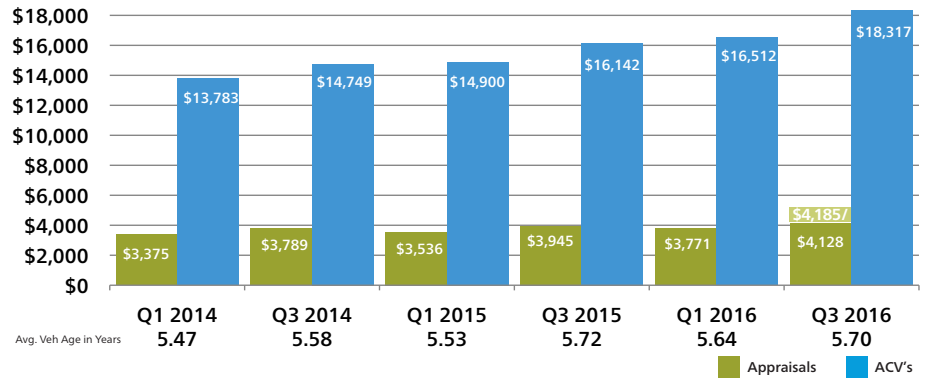
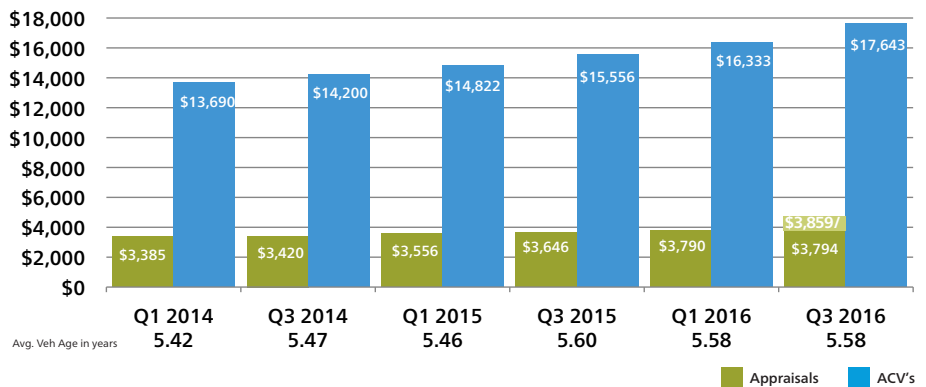


Fig. 27—Collision Losses

The average initial gross collision appraisal value uploaded through Mitchell Canadian systems in Q3 2016 was \$3,794, a \$148 increase from Q3 2015. Factoring for development yields an anticipated increase to \$3,859, which represents a \$213 increase from Q3 2015.



Canadian Average Appraisal Makeup

Fig. 28

This chart compares the average appraisal makeup as a percentage of dollars. These data points reflect an increase in labour, with slight decreases in parts and paint.

Date	Q1/14	Q3/14	Q1/15	Q3/15	Q1/16	Q3/16	Pt/\$ Change	% Change
% Average Part \$	44.81	38.23	46.18	39.16	46.27	38.17	-0.99	-3%
% Average Labour \$	43.51	50.63	42.36	49.42	42.24	50.65	1.23	2%
% Paint Material \$	8.6	8.16	8.42	8.07	8.31	7.95	-0.12	-1%



Fig. 29—Comprehensive Losses

In Q3 2016, the average initial gross Canadian appraisal value for comprehensive coverage estimates processed through our servers was \$4,865, which represents an increase of \$186 compared to Q3 2015. Factoring for development, the anticipated final average appraisal value will be \$4,932.

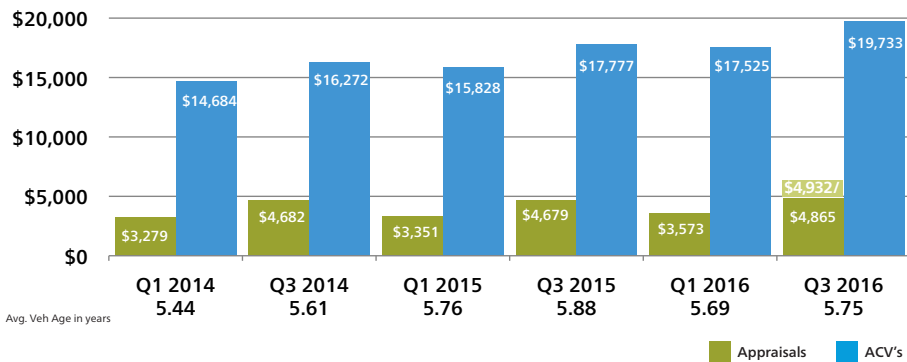
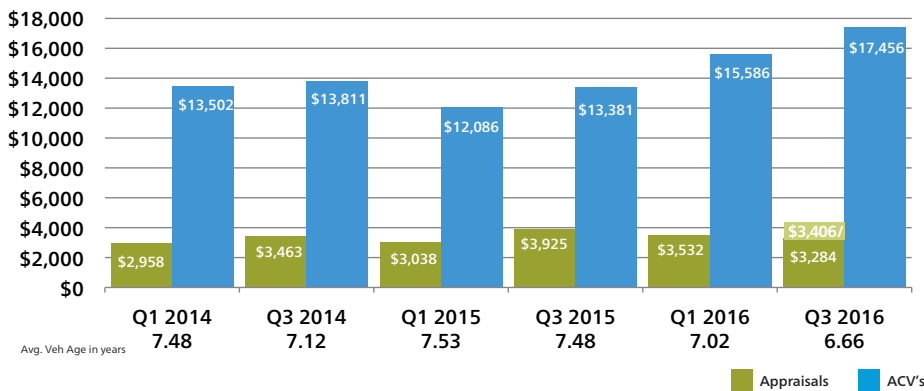


Fig. 30—Third-Party Property Damage

In Q2 2016, our Canadian industry initial average gross third-party property damage appraisal was \$3,284, which represents a decrease of \$641 from Q3 2015 on vehicles that were newer. Factoring for development, we anticipate a final value of \$3,406.



Canadian Supplements

Fig. 31

In Q3 2016, 41.96 percent of all original estimates prepared by Mitchell-equipped Canadian estimators were supplemented one or more times. In this same period, the pure supplement frequency (supplements to estimates) was 61.89 percent, reflecting a decrease from Q3 2015. The average combined supplement variance for this quarter was \$935.82, \$116.33 higher than in Q3 2015.

Date	Q1/14	Q3/14	Q1/15	Q3/15	Q1/16	Q3/16	Pt/\$ Change	% Change
% Est Supplements	52.60	46.32	52.17	49.26	55.04	41.96	-7.30	-15%
% Supplements	75.02	61.77	75.51	67.37	88.75	61.89	-5.48	-8%
Avg Combined Supp Variance	616.04	917.21	777.75	819.49	821.32	935.82	116.33	14%
% Supplement \$	18.25	24.21	22.00	20.77	21.78	22.67	1.90	9%

About Mitchell in Canada...

For more than 20 years, Mitchell’s dedicated Canadian operations have focused specifically and entirely on the unique needs of collision repairers and insurers operating in the Canadian marketplace. Our Canadian team is known for making itself readily available, for being flexible in its approach to improving claims and repair processes, and for its ‘second to none’ commitment to customer support. Headquartered in Toronto, with offices across Canada, Mitchell Canada delivers state-of-the-art, multi-lingual collision estimating and claims workflow solutions (including hardware, networks, training, and more), world-class service, and localized support.



Canadian Adjustments

Fig. 32

In Q3 2016, the average frequency of betterment taken on estimates decreased by 2 percent, while the dollar amount of that betterment increased by 18 percent. Appearance allowances were also up, and the dollar amount of those allowances increased by 37 percent.

Date	Q1/14	Q3/14	Q1/15	Q3/15	Q1/16	Q3/16	Pt/\$ Change	% Change
% Adjustments Est	1.53	2.38	1.56	2.52	1.72	2.49	-0.03	-1%
% Betterment Est	1.36	2.06	1.34	2.17	1.43	2.12	-0.05	-2%
% Appear Allow Est	0.18	0.31	0.21	0.34	0.26	0.39	0.05	15%
% Prior Damage Est	0.05	0.09	0.15	0.22	0.24	0.23	0.01	5%
Avg. Betterment \$	226.71	270.01	235.15	289.84	335.19	341.03	51.19	18%
Avg. Appear Allow \$	238.35	268.37	231.37	284.4	274.04	388.63	104.23	37%

Canadian Labour Analysis

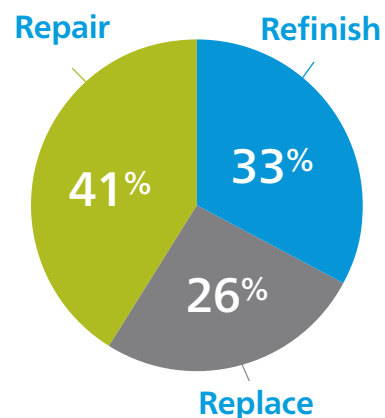
Fig. 33

This data reflects the percentage of labor dollars utilized in the creation of Mitchell appraisals by Canadian estimators. Labor rates increased across all provinces and territories.

Average Body Labour Rates and Change by Province

	2015	YTD 2016	\$ Change	% Change
Alberta	75.11	76.17	\$1.06	1%
Newfoundland & Labrador	62.62	63.27	\$0.65	1%
Northwest Territories	90.47	93.96	\$3.49	4%
Nova Scotia	59.32	59.51	\$0.19	0%
Ontario	56.89	57.59	\$0.70	1%
Quebec	51.69	52.66	\$0.97	2%
Yukon Territory	95.24	95.38	\$0.14	0%

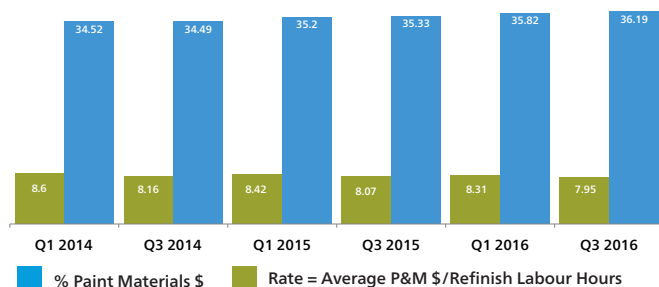
Fig. 34—Labour Operations



Canadian Paint and Materials

Fig. 35

For Q3 2016, Paint and Materials made up 7.95 percent of our average appraisal value. Represented differently, the average paint and materials hourly rate rose to \$36.19 per hour.

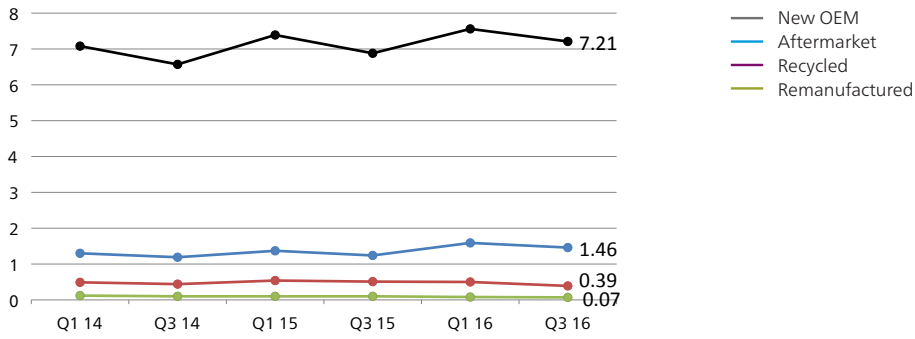




Canadian Number of Parts by Part Type

Fig. 36

In comparing Q3 2016 to the same quarter in 2015, aftermarket parts usage experienced a slight increase to an average of 1.46 parts per estimate. At the same time, OEM parts increased slightly while Recycled parts usage declined.



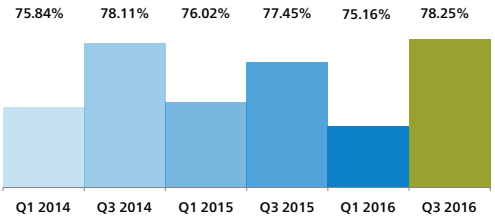
Canadian Parts Utilization

All data reflects the percentage of part-type dollars utilized in the construction of Mitchell appraisals by Canadian estimators.

Original Equipment Manufacturer (OEM) Parts Use in Dollars In Q4 2015 Canadian OEM parts

In Q3 2016, OEM parts use increased slightly compared to Q3 2015.

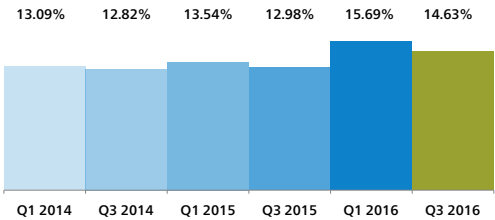
Fig. 37 – Parts-New



Aftermarket Parts Use in Dollars

Aftermarket parts use in Q3 2016 increased by 1.65 percent compared to the same period last year, coming in at 14.63 percent.

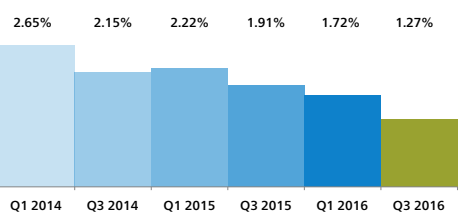
Fig. 38 – Parts-Aftermarket



Remanufactured Parts Use in Dollars

Remanufactured parts use in Canada dropped to 1.27 percent for Q3 2016, which represents the lowest percentage of part dollars in the charted quarters.

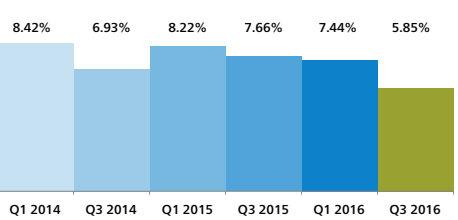
Fig. 39 – Parts-Non-New



Recycled Parts Use in Dollars

In Q3 2016, recycled parts use in Canada decreased as a percentage of part dollars and is now the lowest percentage of parts dollars in the charted quarters.

Fig. 40 – Parts-Recycled



About Mitchell



mitchell

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Headquarters**

**6220 Greenwich Dr.
San Diego, CA 92122**



Mitchell empowers clients to achieve measurably better outcomes. Providing unparalleled breadth of technology, connectivity and information solutions to the Property & Casualty claims and Collision Repair industries, Mitchell is uniquely able to simplify and accelerate the claims management and collision repair processes.

As a leading provider of Property & Casualty claims technology

solutions, Mitchell processes over 50 million transactions annually for over 300 insurance companies/claims payers and over 30,000 collision repair facilities throughout North America. Founded in 1946, Mitchell is headquartered in San Diego, California, and has approximately 2,000 employees. The company is privately owned primarily by KKR, a leading global investment firm.

For more information on Mitchell, visit www.mitchell.com.

Mitchell in the News



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Jack Rozint joins Mitchell to lead North American sales and service initiatives in the collision repair industry and related segments.

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New Mitchell executive excited to help lead the industry through "significant changes"

Jack Rozint talks about his new role, past experience and plans for Mitchell. Topics include consolidation within the insurance and collision industries, the renewed involvement of OEMs in the aftermarket and the introduction of newer technologies to the business.

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Collision Repair Costs are Rising Faster Than Inflation

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NACE CARS Expo and Conference kicks off in Anaheim

Greg Horn discusses the immediate future of the collision repair industry in the US and Canada.

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Mitchell's Answer to Simplified Workflow

Steve Hansen and Brian Elmi highlight features of Mitchell Connect and Mitchell RepairCenter Mobile.

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Industry Trends Report

The Industry Trends Report is a quarterly snapshot of the auto physical damage collision and casualty industries. Just inside—the economy, industry highlights, plus illuminating statistics and measures, and more. Stay informed on ongoing and emerging trends impacting the industry, and you, with the Industry Trends Report!

Questions or comments about the Industry Trends Report may be directed to:

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