New Reserving Practices Made Possible by Modern Technology, Methods

Proper reserving ensures insurance companies have the financial strength to pay claims and other expenses.

Thanks to modern technology supporting sophisticated models and richer data, some forward-thinking actuaries are unearthing new approaches to fine-tune reserving. Specifically, they are looking to develop reserves on a per claim rather than an aggregate basis.

My Actuarial Review article, Beyond Triangles: Capturing Insights From New Analytic Technology, is garnering much attention. The story also describes new reserving approaches that should improve the insurance value chain from developing rates to unearthing or quantifying unnecessary claim costs.

Actuaries have different ideas on the best tools and models for reserving. Until best practices emerge, there will be much discussion.

I hope my article serves as a springboard for moving the discussion forward.

Cyber Coverage Is Unprofitable, Now What?

Cyber coverage was once very profitable.

But that is no longer.

As I report in my recent article, [Cyber Challenges](), the growth of ransomware attacks and undisciplined underwriting practices are pressuring a line already considered too risky for most insurers.

The line's overall unprofitability was bound to happen. Sooner or later, profitability challenges hit every insurance line. That can be positive in the long term. Low returns on investment can motivate necessary soul searching that leads to growth and development.

To be clear, a line's overall profitability is not indicative of an individual insurer's experience. Some insurers are still making a decent buck selling cyber insurance. To stay in the cyber game, however, less profitable competitors are likely looking to reduce what they cover or quit offering coverage altogether.

Cyber insurance has always been risky business. Pricing coverage is challenging amid ever-changing risks. Since I began covering cyber insurance in 2014, data breaches were insurers' main concern.

But that changed.

Changing Risk

In 2018, data breaches continued to be the top concern. Ransomware was beginning to raise its ugly head. Back then, cyber coverage was also quite profitable. With losses at only 40% of expenses, there was plenty of room for double-digit profitability.

Now, cyber actuaries, charged with developing rates with little past or present data, are finally getting enough information to anticipate losses associated with data breaches. Actuaries have also become more sophisticated with scenario planning.

Despite these improvements, pricing cyber remains a delicate matter. Since cyber insurance was profitable, underwriters had some wiggle room for pricing coverage. But not anymore. Tighter underwriting, it is hoped, will result in organizations "getting religion" on risk mitigation. Recent harrowing ransomware attacks, such as the Colonial Pipeline's, should serve as a wake-up call as well.

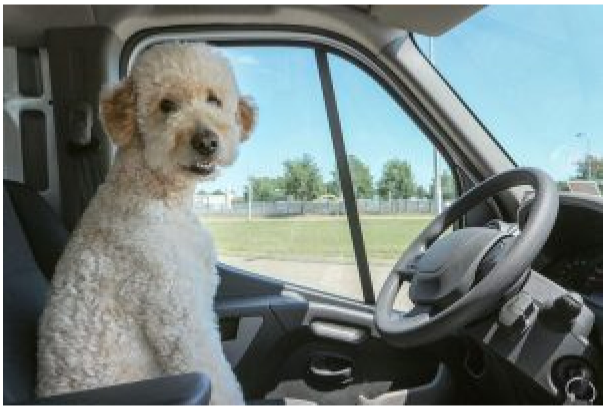
Battling cyberbullies is part of the price we pay for digital dependence.

Monitoring cyber insurance continues to be a challenge. Yes, there is plenty of data about cyber security. That, however, is only the risk side of the insurance equation.

While writing this article, I was surprised that after a three-year hiatus from covering cyber insurance, only one organization provided an estimate for the combined ratio — the insurance industry's go-to profitability barometer. The little publicly data available was laden in grains of salt or caveats as with sources warned the information does not paint a full picture.

Cyber insurance is important for protecting organizations when if a cyber attack occurs. Improving cyber security is vital, but so is building stronger partnerships between insurers and their customers. That critical piece could turn out to be the most important.

Driverless Commercial Trucks Wait at the Intersection of Insurance



Driverless commercial trucks are evolving much like their private-passenger counterparts. There are basically two paths. Vehicle manufacturers are either moving to near-autonomous vehicles practically whole cloth or are evolving trucks and cars piece by piece. Both approaches make sense for different markets.

The innovators expect the insurance industry to get on board. Insurers, however, are not exactly excited about covering unknown risks. My Leader's Edge article, Coming to a Highway Near You, explores the intersection of commercial automated vehicles and the business of insuring them.

As the article explains, brokering insurance depends on which path the driverless vehicle is developing. Conventional trucks with some automation — whether fresh off the assembly line or installed aftermarket add ons — are covered by traditional commercial auto policies. The more advanced the technology, the fewer insurance company options are available.

Manufacturers and owners of more advanced autonomous trucks, some of which are practically driverless, are obtaining coverage through technology brokers. This represents a significant shift, where trucks are viewed through the lens of software more than grease and gears.

Another huge challenge is finding insurance companies willing to cover unchartered technology with their eyes half shut.

When I wrote my first driverless vehicle article six years ago, the insurance industry identified concerns yet to be resolved. First, the safety of driverless cars was initially overhyped. The promise that driverless cars would eliminate about 90% of accidents was based on a study that had nothing to do with driverless vehicles. The actuarial community also showed the risks that driverless vehicles introduce, a reality that receives little attention. Manufacturers heretofore have been unwilling to share their data. This does not exactly build trust between the manufacturers and insurers expected to absorb mostly unquantifiable risk.

Another huge challenge is finding insurance companies willing to cover unchartered technology with their eyes half shut.

Some insurance industry professionals raise concerns that if the insurance industry does not start covering semi or more fully commercial autonomous trucks, manufacturers will, in effect, self-insure. It is already happening. And it is not just Tesla offering coverage to their California drivers. Commercial trucking manufacturers are doing so as well. Then there is also the question of what insurance will look like as automation puts the burden of liability more on the manufacturer than the driver.

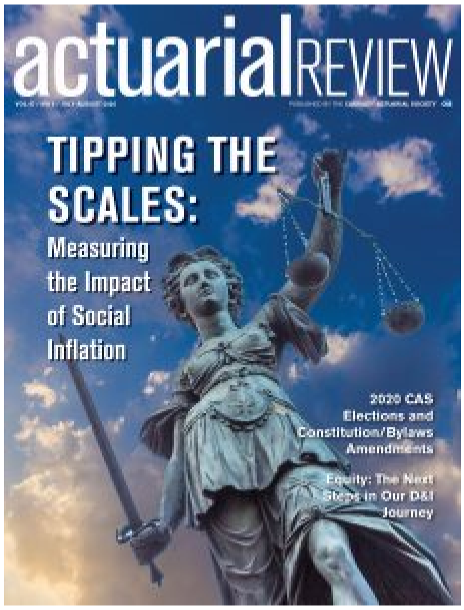
On a personal note, I believe automated commercial trucks and vehicles will continue appearing on American roads at a faster clip than private passenger vehicles. Unless there is a tax break or other financial incentive — or the United States economy rebounds rapidly — most Americans will find semi-autonomous vehicles difficult unaffordable in the near term. I discuss this in my well-received piece, ADAS Go For a Ride.

My article explores these issues in more detail. Hopefully, it will inspire more dialogue between manufacturers and the insurance industry.

P.S. For more information, check out my award-winning piece, Driverless Utopia.

Social Inflation Impact Begs for Quantification

Social inflation was attracting a lot of attention before COVID-19 hit the scene. Search the internet for buzz words like “nuclear verdicts” and “reptile theory” and you’ll see what I mean.



Before COVID-19, insurance company presidents and experts pointed to the phenomenon as a force behind rising premiums for most commercial insurance lines. But I was skeptical. After 30 years in the property/casualty insurance world, this was not the first time I heard social inflation was rearing its ugly head and pressuring insurance premium costs.

What is social inflation? To oversimplify, its essence is that Americans unhappy with the nation’s economic and social conditions are more likely to be sympathetic to plaintiffs who sue companies. Of course, there is a lot more to this, including legal strategy, jurisdictional differences and so forth.

My recent Actuarial Review cover story, **Tipping the Scales: Measuring the Impact of Social Inflation,** reviews its evidence, its impact on losses and ultimately, rates. Although there is proof that social inflation is a thing, it is not showing up in industry data. Therefore, it is difficult to know its real impact and frankly, how much attention it deserves.

…the insurance industry should invest in quantifying social inflation’s impact

That is why I believe the insurance industry should invest in quantifying social inflation’s impact on coverage costs. This could eliminate a lot of confusion and facilitate a more informed dialogue about the impact of legal costs in general.

If social inflation is linked to American satisfaction, which was not great before the coronavirus crisis, there are certainly more economic and social reasons for so-called “angry” juries to be in a worse mood now. In fact, the industry could have a stronger case for the impact of social inflation than before.

Perhaps the phenomenon is a symptom of deeper problems. Why are Americans angry? My suspicion is we expect more today than our ancestors. If we expected as much from ourselves as we do our institutions, everyone would be better off.

The article also provides evidence that juries are losing impartiality by giving more weight to feelings than facts. In that regard, social inflation should concern us all.

If we expected as much from ourselves as we do our institutions, everyone would be better off.

How COVID-19 Will Impact Health and P&C Insurance

Copyright Insurance Communicators, LLC

COVID-19 will have vast implications on both health and property and casualty insurance lines. Two of my articles, which are cover stories for two award-winning insurance industry magazines, offer the details.

The May 2020 issue of Leader's Edge covers the impact that the coronavirus will have on health care. Actuarial Review's May/June 2020 issue looks at the COVID-19 effect on property-casualty insurance including workers' compensation and personal auto. Writing about both requires an understanding of how health and P&C insurance work. Each are vastly different but does influence one other.

Keeping a subject fresh for the far-in-advance print publishing deadline when information is changing multiple times a day is tough. Once an article is published, there is no correcting, changing or manipulating it. Producing printed articles requires a commitment to thoughtfulness and accuracy that cannot be changed and updated online. This necessitates old-fashioned shoe-leather journalism that showcases the experts and insists they tell the story.

It also means having the knowledge to carefully find useful information by sorting through a barrage of biased news reporting, knee-jerk comments, horn-tooting news releases and dizzying technical reports. (My inbox in March and April could have been a story of its own.)

MORE COVID-19

I've been a COVID-19 follower since the third week in January. Actuarial Review editor Elizabeth Smith asked me to run a piece on the coronavirus in the March/April issue. I've been watching it ever since.

Just as my first article was coming online, the reality of COVID-19 hit the nation. As I began the COVID-19 cover stories, the lockdown began. During the first couple of weeks, the so-called "new normal" began. My husband moved into my home office. My daughter returned from college and cooped up in her library-quiet bedroom through finals. My other daughter, a senior in high school, waited for the school system to start online learning. It never worked out well.

Those weeks were eerie and confusing. We were waiting to learn if anyone in the family had caught COVID-19. While trying to finish interviews just in case sources got sick, my inner mother-bear/domestic goddess came out. Between interviews and research, I was making homemade chicken soup and sewing masks for that once-a-week visit to unpredictable empty store shelves.

There is still time to positively influence the future outcomes of COVID-19, but it requires vigilance and thoughtfulness in a me-first culture.

While the lockdown was challenging at home, it was nothing compared to the ordeals of others. Over time, the stories from friends and colleagues kept coming in. People died. Others lost jobs. Medical personnel was overwhelmed and exhausted. The fear was palatable. Nobody knew what was coming around the corner.

It reminded me a little bit of 9/11 when I lived three miles from The Pentagon. The next few days were suspended as we waited to see what was next. The messaging was clear. We were a country united. I had not felt so much patriotism since America's bicentennial.

Not with COVID-19. It's hard to consistently message about a moving target amid the fear and chaos ensuing from a potentially deadly virus. At first, we were told not to wear masks. Once the rate of the curve began to slow — and there were enough masks for everyone to wear — we are now to wear them. As states began to "open up," the disease started to spread.

But too many people let down their COVID-19 guard. The virus had not changed, it has remained a threat. I just shook my head when the beaches began to open. Did we learn nothing from Spring Break?

When I think about everything I have heard, learned and written about COVID-19, it frustrates me that too many are forgetting that virus's spread and its long-term impact are far from over. There is still time to positively influence the future outcomes of COVID-19, but it requires vigilance and thoughtfulness in a me-first culture. To protect the country, we *must* be united.

How well we protect the vulnerable says everything about who we are as people. There will be hard choices. Do we bring back jobs to the United States when goods are likely to cost more? How can we find ways to retrain people for jobs when the automated future is also at our doorstep? How can we encourage Americans to live healthier to reduce the demand on a limited health care system?

How well we protect the vulnerable says everything about who we are as people.

In the meantime, my commitment to covering COVID-19 remains. Besides working on future articles, I am also keeping a journal for Shenandoah County, Virginia as part of a project to record history for future generations. It is my way of giving back to the county's diarists who recorded daily life during the Civil War. Their now historic words have provided insight for a book I am writing about a war far too complex to be generalized in sound bites. It is an honor to give back.

Eventually, the time of COVID-19 will pass. But for now, we are all in this together. My hope is each of us will find ways to protect and support each other.

Climate Change Pressures Higher Property Insurance Premiums

Climate change is already pressuring premiums for homeowners, commercial and other types of insurance coverage. California homeowners in wildfire-prone areas are being turned down for coverage. The National Flood Insurance Program

(NFIP) will be increasing premiums this spring.

My article in the January issue of Leader's Edge, Climate Appetite, explains why businesses should consider the change in climate seriously to mitigate future risk. The piece also covers the important role insurance agents and brokers will play to support their clients.

There is also an overview of catastrophic losses and their impact on insurers.

Whether you believe global warming will cause serious changes to the earth's environment — or not — the story should be a wake-up call. Businesses need to take a harder look at their properties. Being sustainable could mean relocating, reinforcing buildings or taking maintenance and repair more seriously.

Making these investments now is a good idea. Besides protecting business personnel and property, it could keep insurance premiums in check.

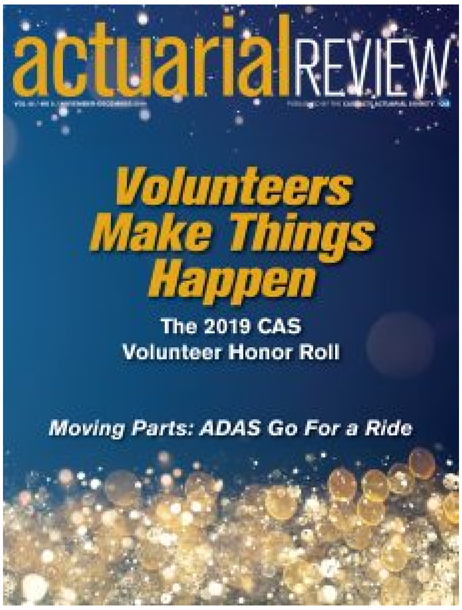
After reading my latest Leader's Edge article, please check out my Actuarial Review articles relating to weather and insurance.

- Risky Business explains why climate change has become the top risk of concern for actuaries and risk managers.
- 2017: The Year of the CATs, discusses how extreme weather made 2017 the highest loss year for losses, bypassing 2005 of Hurricane Katrina fame.
- The SLR Factor covers why sea levels are on the rise. It also explains why actuaries should consider the impact of rising sea levels when developing rates for pricing property insurance.

The Truth about Advanced Driver Assistance Systems (ADAS)

Advanced driver assistance systems (ADAS) are helping drivers with reducing auto accidents and will impact the future of driverless cars, but there are limitations.

"My latest article in Actuarial Review is a must-read for consumers and the insurance industry that serves them. Moving Parts: ADAS Go For a Ride moves beyond the generalizations to help readers understand the advantages and the multiple limitations of automatic safety parts.



My article also provides a one-of-a-kind sidebar that provides at-a-glance information per ADAS feature based on multiple sources. Trust me, it was not easy to assemble, so do enjoy!

Key ADAS Take-Aways

- As evolving features, the safety-encouraging parts are not perfect. There a few situations when they can cause accidents.

- Vehicles with ADAS features are unaffordable for the majority of Americans. The cost of a new car, never mind the ADAS features, is more than half the average American family's income. Used cars average $20,000.

- It will take several years, if not more than a decade, for ADAS to be commonplace on American roads. Why? Americans are keeping their older cars longer than ever because they are well-built and car payment free.
- Repair costs are expensive and technicians can be hard to find.

- Unless insurers see a marketing opportunity, do not expect discounts for having ADAS in your vehicle. The safety features can help prevent accidents, but repairs are costly.
- Due to a lack of data, insurers are still getting up to speed on the impact of ADAS, which varies by vehicle make and model.

- Manufacturers know the most about their ADAS systems but they are not sharing data with insurers. Tesla's executives believe there is adequate data to offer competitive auto insurance, but its introduction has been a bumpy ride.

ADAS and Driverless Cars

The article also offers a more realistic consideration of the future of driverless car safety. The evolution of safety technology for conventional vehicles is not much different than for driverless cars.

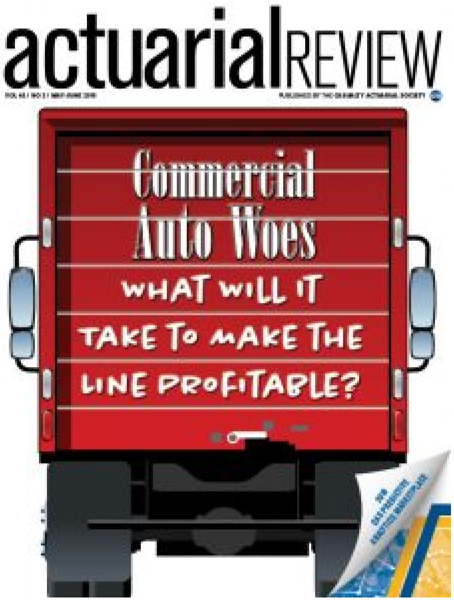
This is a big deal. For the past five years, driverless car enthusiasts have stressed the future safety advantages of automated vehicles. It was backed up with faulty logic presuming that since most accidents are caused by humans, another misnomer, driverless cars would make the roads safer. (Please read my award-winning article about driverless cars for further explanation.)

It would have been better if driverless car advocates empathized convenience rather than safety. But here again, as both conventional vehicles and driverless cars evolve, their differences will probably be few over time. There is also a growing acknowledgment that drive-free cars might never come to fruition, requiring drivers as the final safety, ironically, when technology finds its limits.

The Bottom Line

ADAS is showing its mettle for preventing accidents. Any automation should be viewed as *tools for drivers*, rather than the *replacement of drivers*. After all, humans do not just cause accidents. They prevent accidents too.

Commercial Auto Unprofitability Not All That It Seems



Why the commercial auto line is a mess

Commercial auto insurance is an unprofitable mess. It's putting some companies out of business. Among the other commercial lines, commercial auto sticks out like a sore thumb. Unprofitable for eight years, the line is making life difficult for insurance agents, brokers and their clients.

My article, "*Commerical Auto Woes*", takes an in-depth and rare look into what is *really* going on with commercial auto insurance. I went beyond the standard explanation that premiums are higher due to rising costs. Actually, that is a small piece of the story.

Why is the line in crisis? The article gets into much greater detail, but here are two hints: market changes and technological innovation. And of course, an unprofitable line does not mean that all insurers are suffering. Some are doing quite well, thank you very much.

Improving Commercial Auto

Upon completing the article, it became clear to me that there are several areas to improve. Insurers and the companies they cover need to get religion on workplace safety. That happened 25 years ago in workers' compensation and it put the line on a more solid foundation.

Further, there is a lot more to study about work-related transportation. Traffic, personal auto insurance and workers' compensation studies offer limited application commercial auto insurance. There are other factors involved in commercial auto that range from vehicle size to the impact of federal regulations and employee training.

I went beyond the standard explanation

that premiums are higher due to rising costs.

Meaningful granular data is tough to come by, which makes it especially challenging to evaluate the health of an insurance line. For insurers that cover a variety of risks, including trucks, it can be tough to go granular. To better compete, carriers need to know more.

Marijuana Industry Insurance Options Grow, But Practical and Moral Issues Remain

The marijuana industry is attracting more attention from business insurance agents and brokers. As I explain in my Leader's Edge article, Budding Business, the burgeoning legal pot industry is calling for more insurance options.

However, insurance companies selling business insurance are not exactly jumping at the chance to offer the full array of coverages enjoyed by other industries. Excess and surplus carriers, which thrive in high-risk insurance markets, are providing coverage to an extent. However, admitted insurers, which are subject to state regulation, are not jumping at the opportunity.

My article digs into the marijuana industry's growing pains, the coverage gaps it is facing and some of the reasons why. Experts point to federal laws and regulations causing difficulty for financial institutions, including insurance companies. However, covering marijuana remains quite risky and unpredictable. The liability considerations alone are enough to discourage insurers. Think Big Tobacco and play it forward.

Think Big Tobacco and play it forward.

Speaking of the effects of tobacco on society, there are also insurance executives who see the moral and ethical implications of supporting a substance with a checkered past that marijuana legalization does not address. And despite the general media's general positive coverage of pot, it remains as harmful as it always was.

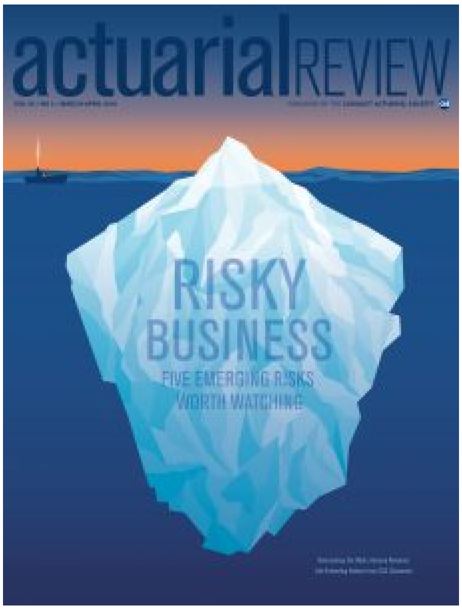
Thankfully, you will find balanced reporting in both my Leader's Edge and Actuarial Review articles about marijuana. Both of which are published by insurance industry associations willing to support thoughtful journalism.

A read of both articles shows that in the property & casualty insurance arena, different types of insurance are at odds with each other. Business insurance, which covers the marijuana industry, collides with personal and commercial auto coverage, which pay for the accidents caused by the drug. Workers' comp insurers face covering injuries from both the production and the use of pot at the workplace.

My hope is that this article will be shared with a wider audience. In my view, marijuana should be treated with respect as any other drug. That means regulating it through the U.S. Food and Drug Administration. This would also ensure greater research and product dosage consistency. While the FDA is imperfect, it is better than treating a drug known to cause impairment as an herbal supplement.

[Emerging Risks Insurers Are Watching — and So Should You]

Emerging risks are a mixture of perception and reality. If you asked executives in 1999 to name one of their top



The experts weigh in on emerging risks.

concerns, many would have answered Y2K. It turned out Y2K caused a lot of hysteria and a lot of computer consultants made a ton in the process.

Then there are the risks that people don't perceive but insurers do. Auto insurers know most accidents take place within a five-mile radius of the home. Drivers do not think about that when getting on the road.

Insurers, actuaries, risk managers and world leaders see emerging risks from the broader perspective. Insurers have to think ahead to figure out which emerging risks they can cover and the cost.

My most recent *Actuarial Review* article considers three recent surveys to break down five emerging risks from the insurance and business perspective. Consumers can benefit from the article as well.

Climate change bypassed cyber risk as the largest emerging risk of concern. One source said off the record that this is largely due to news coverage on climate change that showcases the evidence of rising sea levels. (Yeah, I covered that too.)

The insurance industry has to anticipate what is possible to make contingencies. Unfortunately, fear-mongering politicians are muddying the public climate change conversation. I am thinking of two in particular. They warn of doom in 12 years if we do not act now. Thankfully, the Associated Press fact-checked the 12-year claim and wrote, "There is no scientific consensus, much less unanimity, that the planet only has 12 years to fix the problem."

All nations should be doing their part to take care of the planet. But my largest concern relates to cyber risk and unintended consequences of emerging technologies. Insurance executives do as well, ranking cyber risk second among emerging risks. (Covered cyber too.)

An Emerging Risk for Consumers

From a consumer standpoint, I see one big risk: data privacy. We unwittingly gave away a lot of personal information by participating in social media, "trusted" websites, DNA testing…the list goes on. Suppose personal data lands in the "wrong hands." Just look back at history, assume it repeats itself, add in personal data and play it forward.

I am hopeful about the California version of Europe's General Data Protection Regulation, which is to go into effect next year. However, if the Silicon Valley companies (I won't say who they are I will just point) can successfully lobby lawmakers, it might lose some teeth.

Which emerging risks concern you and why?