

Actuaries Applying Advanced Analytics in Non-Traditional Roles

Actuaries applying advanced analytics in non-traditional insurance roles are deploying their acumen to solve business problems.



Actuaries applying advanced analytics provide a window into the profession's future.

As demonstrated in [Part II of my Actuarial Review](#) series about “the others,” actuaries applying advanced analytics are working in various industries. (“The others” are members of the [Casualty Actuarial Society](#) who *not* working in traditional insurance industry actuarial roles.)

Part II features four actuaries applying advanced analytics in very exciting ways. It provides a window into the future of the actuarial profession. Increasingly, actuaries will be serving in roles beyond pricing and reserving. As technology moves forward, advanced analytics and artificial intelligence will become more commonplace, offering new potential roles to actuaries.

The article features:

Kevin Kuo, Software Engineer, RStudio After serving as a life actuary, Kuo applied predictive analytics for direct mail credit card acquisitions for Citibank. He’s now working to enhance “R” software to offer big data and deep learning capabilities.

Aaron Fezatte, Strategy Manager, Expedia. Beginning his career as a P&C actuary for Liberty Mutual, he secured a job with Expedia to develop new ways to price and offer travel insurance.

Cathine Lam, Data Scientist, Economics & Actuarial Team, Metabiota. The former Milliman Inc. consultant works to track infectious diseases around the world and supports her company’s software product. Insurance companies and government entities are key clients.

Frank Chang, Director of Insurance and Safety Analytics, Uber. Chang wrote for *The Motley Fool* and handled pricing for Esurance before working for Google and then joining a team at Uber. His multifold role includes applying analytics to encourage risk management and insure Uber drivers.

[The first article about “the others,”](#) published in the September/October edition of *Actuarial Review*, was highly popular, attracting hundreds of visitors. This second and final article is a **must read** because it showcases how actuaries applying advanced analytics and forging new pathways for the profession.

During the past few years, I’ve written several articles about advanced analytics and the actuarial profession. If you would like to check them out, please visit the [actuarial section](#) of this blog. My next [Actuarial Review](#) article covers insurtech. Slated for early January, it explains how and why insurtech will be changing the insurance value chain - forever.

[Actuaries Forging Non-Traditional Career Paths - Part 1](#)

My latest [Actuarial Review](#) article profiles property-casualty actuaries forging non-traditional career paths.



Actuaries forging non-traditional career paths.

To write the article, I went through a list of members of the [Casualty Actuarial Society](#) who are not working for insurance companies or serving as consultants. This list features about 3 percent of the CAS's membership.

In the article, I cover four actuaries who have one thing in common: they were all inspired by their families to seek uncharted career territory. The article features:

- **Sharon Carroll** who applies her actuarial experience to improve management of hospital expenses to achieve work/family balance.
- **Bill Wilt** who started a new company that publishes unique insurance-related research.
- **Robert Anderson** who, with his wife's encouragement, became an in-house actuary to develop fresh approaches to insuring a major corporation.
- **Mike McMurray** who runs a minor league baseball team due to him and his wife's shared passion for the game.

The article also includes advice to property-casualty actuaries who also want apply their actuarial skills in non-traditional work settings.

This is part 1 of a two-part series in Actuarial Review that covers actuaries forging non-traditional career paths. The November/December issue of *Actuarial Review* will also feature more property-casualty actuaries who are taking the career path less traveled.

I hope you will check it out.

Flood Insurance Requires Vision by Congress



Encouraging private carriers to offer flood insurance requires vision.

Creating a public/private partnership for flood insurance requires vision by Congress.

That's my conclusion after writing my latest *Actuarial Review* article, [Legislative Levee](#).

Unfortunately, there is little time for overall vision when Congress must approve the reauthorization of the National Flood Insurance Program (NFIP) by September 30th. Since my article crystallizes many of the issues concerning flood insurance, my hope is it will encourage greater public policy discussion.

Right now, most homeowners and small businesses can obtain flood insurance only through NFIP. That's because, in general, private insurers could not profitably offer flood insurance when the NFIP got started in 1969.

Congress began the NFIP not only to provide flood insurance, but to meet specific congressional objectives that are sometimes contradictory. The idea behind the NFIP is to make coverage for weather-related flooding both affordable and available for homeowners, renters and small businesses. Public policy objectives also include reducing the taxpayer burden when the federal government needs to help victims suffering from flood losses.

While criticism of the NFIP abounds, keep in mind that for the past five decades, the NFIP has been better than nothing. Private insurers were also kept out of the market starting in the 1970s. That's because federally backed home mortgages require purchasing flood insurance from the NFIP when these properties are in a flood zone.

New Developments Inspire Insurers

But now, there is a sizable amount of homeowners insurers that want to offer flood insurance again. The inspiration stems from significant recent developments. Not only do new weather and insurance models show promise of revealing profitable customers, but can also improve upon the NFIP's more general approach to developing premiums. Reinsurers looking to diversify their portfolios are also willing to back insurance companies.

The implications of introducing private insurers into a market dominated by the NFIP are vast. That's why changing how consumers can obtain flood insurance requires vision. The potential of Americans being able to have coverage for flooding regardless of cause in and of itself would be a big advantage. Too many Americans simply do not realize they need flood insurance. (This fails a congressional objective of ensuring as many Americans as possible are covered for external flooding.)

One major reason for misunderstanding stems from the maps the Federal Emergency Management Agency (FEMA) produces. (FEMA is the NFIP's governing agency.) Too many Americans falsely believe their properties are safe if they are not in a FEMA flood zone. However, most homes can fall victim to external flooding for a myriad of reasons. For example, while not in a FEMA flood zone, my first home's basement flooded when too much rain saturated the ground around my house.

Too many Americans simply do not realize they need flood insurance.

In the United States, flood insurance requires vision because entry of the private market would likely change the NFIP's role. In short, the NFIP could become the market of last resort, thus limiting the agency's ability to meet congressional mandates.

Currently, the NFIP relies on "profitable" policyholders to help subsidize other customers and reduce the NFIP's \$24+ billion debt to the United States Treasury. If the NFIP loses enough of those policyholders to private insurers, the agency would be hard pressed to meet its congressional mandates.

At the same time, the benefits to customers, including paying rates truer to their actual risk of flooding and being fully covered for flood damage, are too tempting to ignore. The private insurance market could also expand the population of covered property owners. That would help meet the congressional directive of making sure Americans who need flood insurance would have it.

If the NFIP cannot meet its mandates, taxpayers are likely to pick up the costs of paying down the debt to the United States Treasury. (That would kill one congressional directive.) The insurance industry has made it clear it has no interest in subsidizing rates as they do in some states for auto insurance.

Flood Insurance Requires Vision

These are just some reasons why developing a private/public partnership for flood insurance requires vision. My article digs deeper into the public policy objectives for the NFIP, which also must be understood when contemplating a great infusion of private insurers into the external flood market.

There are also several unknowns pertaining to private insurers offering flood coverage. For starters,

the profit margins are unclear. Potentially subsidizing risks could mean lowering the profit incentive. The new weather models are largely untested by homeowners and renters insurers in the United States. If major flooding events continue, it could turn out that private insurers will have to raise rates to a point where insurance becomes unavailable once again for too many consumers.

There is also the regulatory conflict. Congress primarily controls the NFIP. Allowing politics to affect the NFIP has led to premium inequities and delay for meeting financial goals. The NFIP could also more greatly benefit from the new weather and insurance models to compete against private insurance companies. However, the agency lacks the agility that private insurers enjoy because it is dependent on congressional timing. Private insurers would be regulated by state insurance regulators, who have much more insurance experience than Congress.

Simply supporting private insurers to compete against the NFIP does not answer all the public policy considerations that led to the agency's existence in the first place. The NFIP and insurers would be playing the market game with different rules and requirements.

That's why flood insurance requires vision to ensure public policy objectives are met as private insurers enter the market. Unfortunately, given the September 30th deadline to reauthorize the NFIP, there is little time for big picture conversations. The nation will likely witness a wait-and-see approach that supports an experiment to realize how private insurers benefit policyholders and taxpayers.

This promises to be messy, but the flood insurance situation is already that way.

To read my article on Hurricane Sandy's effect on the NFIP, please click [here](#).

**[To Write Successful Marketing Content,
Think Like A Journalist](#)**



Courtesy of Mike Lincht NotionsCapital.com via flickr.com

To write successful marketing content, think like a journalist. This approach certainly works for my clients and my company.

The primary goal of content marketing is to provide “organic” content — as opposed to advertising — to boost Search Engine Optimization (SEO) to attract potential customers.

While executives can get excited about the bells and whistles of technical SEO, the truth is that content remains king. After all, if the written material does not attract search engines to your website, what’s the point?

So it’s curious to me that many companies do not make the necessary investment for unique and useful content that is more likely to garner the all-coveted higher search engine rankings.

You no doubt see the results every time you do an Internet search. Since anyone can publish on the Internet without editorial scrutiny or peer review, the cyber world is filled with a lot of distracting and frustrating written refuse. There’s too much content “noise” on the Internet: material that is too generic, doesn’t answer reader questions or even worse, is duplicative from other websites.

The explanation for Internet noise is simple. Content marketing is a form of self-publishing. And yet, much online copy is not produced by publishing professionals. That is why thinking like a reporter will help you write successful marketing content.

To write successful marketing content and become an awesome content marketer, therefore, you need to think more like a quality-minded publisher or journalist. Consider this: just as a byline is the journalist’s brand, the material your organization publishes reflects its brand. Some experts call this [brand journalism](#).

Publishers and journalists understand they must thoroughly [know their audiences](#) to offer content so compelling that busy people will sacrifice their time to read it. Yes, I mean sacrifice. By publishing a piece, you are asking the viewer to read your stuff instead of doing something else.

Frankly, I am always amazed at the marketing hype that gets published by people who don’t want to spend their precious time reading the hype of others.

***Is your company's content so awesome
that someone would actually pay
for the privilege of reading it?***

I've also been equally shocked by how many professionals are not well acquainted with their customers' needs and situations. Such information is necessary for producing quality content that will best serve customers. Investing in interviews, surveys or focus groups is a great way to know your customers better. (And by the way, you'll also get great content ideas.)

The key is to *show* - not just *tell* the customer - why your firm is unique and how that equates to better products and services. That means no direct sales material or the *blah, blah, blah* about your company's greatness. Ways to *show*, instead of *tell* are: publishing expert advice and insight, providing testimonials and case studies that solve common problems.

Professionals with publishing backgrounds understand that to make money, they must produce material that is so credible, useful and compelling that a person would buy it (through subscription) or it will attract enough readers to sell advertising.

Ask yourself a question. Is your company's content so awesome that someone would actually pay for the privilege of reading it? If so, they will keep coming to your website for more!

Your organization's content should showcase your expertise and build credibility with your potential and current clients. This is another reason why I recommend a journalistic approach. Strict journalistic standards push out the hype and sloppy content because the writer must justify every sentence. Therefore, to write successful marketing content, think like a reporter.

Such journalistic standards include:

- **Knowing the reader.** This cannot be emphasized enough!
- **Assuring accuracy.** Fact-check and double fact check when referencing other authors or sources. That means that proper nouns must always be correct or they are factual errors.
- **Clarifying** the purpose of the article, blog or other material and ensuring it answers the famous: who, what, when, where, why and how questions.
- **Being specific.** Instead of writing, "according to *a* study," you name the study, the organization that published it and provide a link.
- **Anticipating and answering reader questions** about the subject.
- **Presenting material** in its appropriate "editorial package" by considering the appropriate use of graphical elements such as bullets and art.
- **Staying concise.** That does not necessarily mean keeping material short. Search engines do reward thoughtful and longer pieces. Aim for smaller sentences, tighter and active wording (for example, overusing the phrase "of the") and phrasing that compels further reading.

Applying such standards for producing unique and high-quality content takes a lot of time and adjustment. So what are you to do?

There are several approaches. You can:

- **Buy generic material** about insurance that is pretty affordable. Since it is not original, it is more likely to be pushed down by the search rankings.
- **Produce content in-house**, making sure that you have an editor who will approach the

article journalistically.

- **Hire a freelance writer** with a journalism background. Writers with solid reputations, years of experience and who know the subject matter (or know what to ask) will likely cost more. Just think of the time it takes subject matter experts, consultants and executives to produce well-written material. Compare that to the cost of hiring a seasoned writer. Besides receiving quality and unique content, you should also benefit from ideas for re-purposing, new stories, different angles and approaches and creative ways to present material.

Conclusion

Publishing unique and quality content is more important for boosting SEO than technical SEO enhancements. By approaching a subject like a journalist, you will enhance your organization's brand to build trust and credibility that should attract potential customers.

To write successful marketing content, try a journalistic approach. For more tips regarding marketing and communication, please click [here](#).

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[The Difference Between Customer Service and Customer Experience](#)

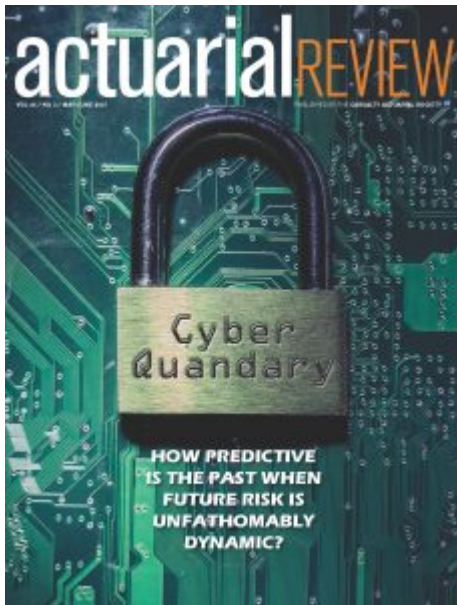


What's the difference between customer service and customer experience for personal lines insurers?

I tackle that question in a blog for one of my clients, the award-winning [SPLICE Software](#). The [fact-](#)

[based blog](#) includes research that demonstrates why customer service and customer experience is different — and why it matters. I hope you will check it out.

[New Developments in Cyber Insurance](#) [Address Growing Needs](#)



There are many new developments in cyber insurance.

Before the WannaCry worm began disrupting institutions all over the world last week, cyber insurers have been preparing for the rise in ransomware. This is among new developments in cyber insurance.

Insurers are also focusing on other cyber challenges, such as increasing risk from the connectivity of the Internet of things. As I point out in my recently published *Actuarial Review* article, [Cyber Quandary](#), actuaries developing solutions to support the growing appetite for cyber insurance.

The article focuses on the latest developments in cyber threats and insurance, including emerging risks, market changes and innovative actuarial solutions. While emerging actuarial developments continue to progress, however, underwriting judgment still rules the day.

This is not surprising. Cyber insurance modeling is still very much in its infancy. It took more than a decade for personal auto underwriters, who tend to rely on experience and judgment, to adopt results from modern analytics.

After covering new developments in cyber insurance for the past three years, I marveled at how much cyber risk and insurance have changed. Consider the following:

- Americans, **once alarmed by headline-making data breaches** from department store credit cards, have accepted the likelihood of being breached thanks to hacks to health care insurers, internet sites and the federal government. Perhaps we feel helpless that we can't do much about it.
- **Ransomware is growing more popular.** As we are seeing with the WannaCry worm, bad actors find it profitable to hold information hostage - and they prefer payment a la Bitcoin.
- The **Internet of Things**, which increases cyber vulnerability, **was not yet part of the household lexicon** three years ago. While offering convenience, every connectivity point can be a weak link hackers can exploit. Consumers and businesses must take potential vulnerabilities from the Internet of Things more seriously.
- **Cyber insurance**, which centers on addressing costs from data breaches, **includes new coverages**, including manufacturing disruption due to greater connectivity.
- Two-and-a-half years ago, cyber insurance began growing in popularity. However, predicting losses was difficult due to the lack of historical data. Even as historical data becomes available, it has limited application due to the changing nature of risks. **Actuaries are finding new methods** and using non-traditional data **to enhance predictability.**

Meanwhile, there are other areas that deserve attention. These include:

- **Lack of policy standardization.** This makes it difficult for businesses to know exactly what coverage they need and what they are getting for their premium dollar.
- **Cyber hygiene and risk management neglect.** There are still too many companies — and people — who underestimate how basic security measures, such as updating software, can make a difference.
- **Personal lines insurers are slow to offer consumer cyber coverage.** I've been clamoring for this since my first cyber insurance article. Carriers can enhance their value propositions by offering consumers this vital coverage. There's always subrogation!
- **Preventing a cyber 9-11** and dealing with it if it comes, remains a great concern. Whether cyber terrorists compromise the Internet or utilities or God knows what else, all of us should prepare.

While there are many new developments in cyber insurance, I expect more to come. In the future, there will be more cyber insurance products that address specific industry concerns, additional options for small businesses and greater dependence on analytics for pricing and market segmentation.

To read my other cyber insurance articles, please click [here](#).

[Dr. Thomas Parry, Integrated Benefits Visionary, Retires](#)



Dr. Thomas Parry, Integrated Benefits Institute Visionary

Dr. Thomas Parry, integrated benefits visionary and president of the [Integrated Benefits Institute](#) (IBI), will be retiring on April 1. IBI's new president will be [Chris McSwain](#).

I got to know Tom in 1995 when he and [Bill Molmen](#) left the [California Workers Compensation Institute](#) (a forerunner to the [Workers' Compensation Research Institute](#)) to start IBI. As a national, full-time workers' compensation reporter, I found IBI fun to cover due to its refreshing thought leadership.

To appreciate the impact of IBI, it's important to understand what was taking place when it began. In the mid-1990s, employers and insurers had not yet realized that managed care was not saving money nor effectively helping people heal faster. IBI started soon after lawmakers rejected [President Bill Clinton's "24-Hour" health care](#) coverage.

Since lawmakers lacked the appetite for 24-Hour coverage, Tom and Bill had a different idea: why not encourage employers to voluntarily integrate benefits, such as workers' compensation, non-occupational disability coverage and group health? After all, the challenges were the same: when an employee was absent, employers faced productivity challenges. Further, employees are better off financially when they heal more quickly.

The idea made a lot of sense. As Tom explained to me, the human body needs the best treatment regardless of why an injury occurred, so why should siloed benefit structures get in the way?

Tom had the vision to change the way employers think about health care and disability and the

courage to start an organization to get the ball rolling. IBI conducted some groundbreaking research in the mid-1990s offering conclusions now taken for granted. One of my favorite studies showed that people with the same injuries were treated differently on workers' comp compared to group health insurance. Since workers' compensation is concerned with disability costs and return-to-work, it offers a sports medicine approach to hasten recovery. This was certainly not the case for group health insurance.

It has been my pleasure to witness not only the growth of IBI, but also its sphere of influence. Since its inception, progressive integrated benefit experimentation has evolved into employer best practices. Benefit integration still has a way to go, but if it were not for Tom and Bill, it might have never gained traction. Today, IBI has 1,240 corporate sponsors and two-thirds of them are Fortune 100 employers.

Annamarie: Please share some personal info people do not know about you.

Tom: I have been married for 37 years and have two sons: one is responsible for all of IBI benchmarking data and programs, and the other has his Ph.D. in biochemistry/molecular biology and works at a large law firm in their intellectual property group. I have been an avid fly fisherman since my early teenage years and have had the opportunity fish all over the western United States and the world, including Russia, New Zealand, Chile, Argentina and Canada. I recently got back from Tanzania where my wife and I went on a two-week wildlife safari.

Annamarie: Why did you start IBI?

Tom: Alex Swedlow, now the President of CWCI, Bill, who was the organization's general counsel and I did some of the early work comparing medical delivery in group health and workers' compensation in California. We found that medical care delivery differs depending on if the injury or illness occurred at work or not.

That made no sense to me since, to both employers and employees, it is important to get the best care and get back to work expeditiously. At that point, my interests broadened. I wanted to address the question, "What are the best strategies to get employees care and return to work, regardless of where their condition occurs?" That led to the founding of IBI.

Annamarie: How have integrated benefits grown and evolved since you started IBI?

Tom: In the early days, the focus was on the integration of disability across occupational and non-occupational settings. From there, the conversation broadened into total absence management. Then the question of how group health fit into the equation emerged and employee "health and productivity" became the focus.

Today, much of IBI's work focuses on the relationship between workforce health and business performance — analyzing both the total bottom-line costs and the top-line value of health.

Annamarie: What challenges do employers still face when pursuing integrated benefits? How common has benefit integration become?

Tom: Initially, the discussion was about creating a single organizational unit to manage all health related benefits. Not surprisingly, there were significant roadblocks with that approach. Not the least of which was the organizational politics across programs and the very different risk financing mechanisms for each. Today the focus is far more on the integration of data and looking for leverage points to improve experience.

For example, those in risk management have always utilized safety and return to work as their leverage points to improve workers' compensation experience. However, a growing body of research tells us that the underlying health status of the employee influences incidence, duration and cost. At the same time, on the benefits side of the house, people managing wellness are looking for the payoff of what they do beyond medical care expense. They are finding that healthier employees miss less work and have fewer disability incidents.

Annmarie: What are your retirement plans?

Tom: I am blessed to have a new (and first) granddaughter; my wife and I will help take care of her on a part-time basis (at one point in my younger life I thought I might become a pediatrician, so this is perfect). I also will participate in a program sponsored by our church to tutor low-income students in the Oakland school system in reading and math. I will travel and try to get in some more fly-fishing time along the way.

Annmarie: Anything else you would like to add?

Tom: Never in my wildest dreams, when Bill Molmen and I walked into 525 Market Street in San Francisco on the first day of IBI in 1995, did I think 22 years later I would be still running this organization and have the great fortune of working with so many thought-leading companies and people. I'm proud of what we have accomplished at IBI over these decades but nothing can replace the wonderful people I have worked with and the great friends I have made over the years.

Annmarie: Thanks so much!

Tom: Thanks for all of your work over the years on our issue. You have been a great supporter.

[Trump Calls Dodd-Frank Act a Disaster](#)



Donald Trump calls the Dodd-Frank Act a disaster.

President Donald J. Trump called the Dodd-Frank Act a disaster, according to an article published at cnn.com yesterday. He pledges to take on the negative consequences of the act.

Last week I predicted that [Trump would take on the Dodd-Frank Act](#) and Trump's statement provides confirmation.

My views differed from other experts who predicted last fall that Trump would not deal with Dodd-Frank. Such "conventional wisdom" is wrong because Trump is not a conventional candidate.

My reason for believing Trump will address the Dodd-Frank Act is simple. Whether you agree with him or not, the man does what he says he is going to do. So far, his dizzying array of action demonstrates that Trump can cut through the political nonsense with decisive action.

In the current political climate, it should not be difficult for Trump to undo the provisions that affect property-casualty insurance companies. Banks — not insurance companies — are blamed for the crisis that caused the Great Recession that led to the Dodd-Frank Act. The justification for involving insurers was a far reach only possible with the political climate that created the act.

"(Trump) does what he says he is going to do."

I encourage you to look at my coverage of the Dodd-Frank Act from last Spring. Unlike most articles, my [Actuarial Review](#) article comprehensively dug into the nitty-gritty of the act and its ultimate impact on property-casualty insurers.

When I announced the article in a previous [blog](#), I gave my personal and unique take on the legislation. My bottom line: the act is supposed to protect consumers. I can't see how the act protects customers who purchase property-casualty insurance.

Trump calls the Dodd-Frank Act a disaster. When it comes to the insurance provisions, I agree.

The CNN article predicts that Trump will be up for quite a fight from those who believe the Dodd-Frank Act helps stabilize the economy. I have not seen him shrink from a challenge yet.

Will Trump Help Eliminate The Dodd-Frank Act's Insurance Provisions?



President Donald J. Trump
www.whitehouse.gov

Changing the Affordable Care Act is a top priority for President Donald J. Trump. Lobbyists that represent property-casualty insurance companies are hopeful he also will help eliminate The Dodd-Frank Act's provisions affecting their industry.

In a recently released [video](#), the Property Casualty Insurers Association of America (PCI) President David Sampson discusses its legislative goals for 2017. This includes addressing The Dodd-Frank Wall Street Reform and Consumer Protection Act.

The video made me think about the [rare, comprehensive and journalistic](#) look I took into the Dodd-Frank Act in *Actuarial Review* last spring. The act mostly covers banking regulations. However, it also includes the most far-reaching federal legislation to affect property-casualty insurers — *ever*.

The act's full title contains the words "consumer protection." As I write in a [previous blog](#), I cannot identify anything in the act that substantially benefits consumers of property-casualty insurance.

Since the post-Civil War period, state regulators have been the overseers of the insurance industry. Thanks to the dubious justification for including P/C carriers into a banking bill, Dodd-Frank has ultimately opened the door to greater federal - and even international - regulatory influence.

***(Trump's) pledge to reduce regulation shows
a favorable political climate.....***

The media tends to focus the most attention on the act's provision that qualifies a few property-casualty insurers as Systemically Important Financial Institutions (SIFIs). Insurers with the SIFI designation are regulated just as SIFI banks by the Federal Reserve Board. This, however, does not directly affect the vast majority of property-casualty insurers.

The Dodd-Frank Act's creation of the Federal Insurance Office (FIO) and its impact deserve greater attention. Sampson covers that in the video as well.

The FIO's lack of accountability is also a source of frustration. When I began working on my article, sources told me the FIO was non-responsive. In my case, I spent six weeks trying to reach a FIO spokesperson who ultimately did not answer most of my questions. So much for accountability to the media.

But I was not alone. My *Actuarial Review* article describes a congressional committee session where an Obama appointee said he could not get clear answers from the FIO. The legislators did not fare much better, which is very disconcerting.

That is just the tip of the iceberg.

Will Trump help eliminate the Dodd-Frank Act provisions that affect property-casualty insurance? His pledge to reduce regulations shows a favorable political climate for insurance company lobbyists. The challenge will be in explaining the act's effect on insurance companies without getting too deeply into the weeds. That will be tough since the act creates more regulatory layers, but I see how it can be done.

To learn more, check out my *Actuarial Review* article, [Demystifying the Regulatory Web: Dodd-Frank and Its Complex Impact](#). My previous blog also digs deeper into my conclusions. (Please note: Insurance Communicators, LLC is not affiliated with PCI.)

Do you think President Trump will work with Congress to eliminate the Dodd-Frank Act's insurance provisions? Please share a comment below.

[Adopting Predictive Models New to Property-Casualty Insurance](#)



Actuaries Are Experimenting with Predictive Models New to Property-Casualty Insurance

Actuaries are finding predictive models new to property-casualty insurance and discovering new applications for traditional analytics such as Generalized Linear Models (GLMs).

According to my recently published *Actuarial Review* article, [Predictive Modeling: Actuaries Blaze New Analytical Frontiers](#), these fresh analytical approaches offer great potential for improving the efficiency and profitability for property-casualty insurance companies.

The article is part II of my series on the latest in predictive modeling. The piece describes how GLMs and decision trees are seeing a greater use for applications including claims triage and stochastic loss reserving. Part I, [The Quest for Data Gold](#), covers how actuaries are taking advantage of greater data availability.

By reading the article, you'll also learn how decision trees are also growing in sophistication. Actuaries are applying those for finding patterns, anomalies or errors for data exploration. To improve the claims process, decision trees helpful for automating subrogation potential discovery, detecting fraud and optimizing report ordering for underwriting.

Predictive models new to property-casualty insurance include unsupervised models and machine learning analytics such as gradient-boosting methods (GBMs), genetic algorithms and random forests. Such models are already in use for fine-tuning pricing, improving market segmentation, determining the likelihood of writing and retaining clients, discovering competitive position and anticipating expected market profitability.

In most cases, choosing which type of model is optimal for a particular application remains in the experimental phase. There are hundreds of models to explore. Both predictive models new to property-casualty insurance and traditional ones offer advantages and disadvantages. All of these require careful consideration.

***...choosing which type of model is optimal
for a particular application
remains in the experimental phase.***

Predictive modeling tends to advance in personal lines such as personal auto before making their way to commercial lines. However, actuaries using models for commercial insurance coverage are finding opportunities for lines ranging from business owners policies (BOP) to workers' compensation.

While the potential of predictive models new to property-casualty insurance, traditional GLMs and decision trees is exciting, there are implementation impediments. Part III of my series in the latest of predictive modeling will describe those barriers, include a conversation on data ethics and explain the future data and analytics driven insurance business model. The article will be published in the March/April 2017 issue of *Actuarial Review*.

What advancements in predictive analytics do you find exciting? Please leave a comment below.