FALL 2020
White Paper Contest Winners

1st Place:
Gina Gilkey
Arizona State University
How will Insurtech Change the Future of Insurance?

2nd Place:
Lydia Gabric
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Social Inflation in the Excess and Surplus Lines Industry

3rd Place:
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COVID-19, the Remote Worker and the Impact of Workers' Compensation

InsurTech: THE FUTUROLOGY OF INSURANCE

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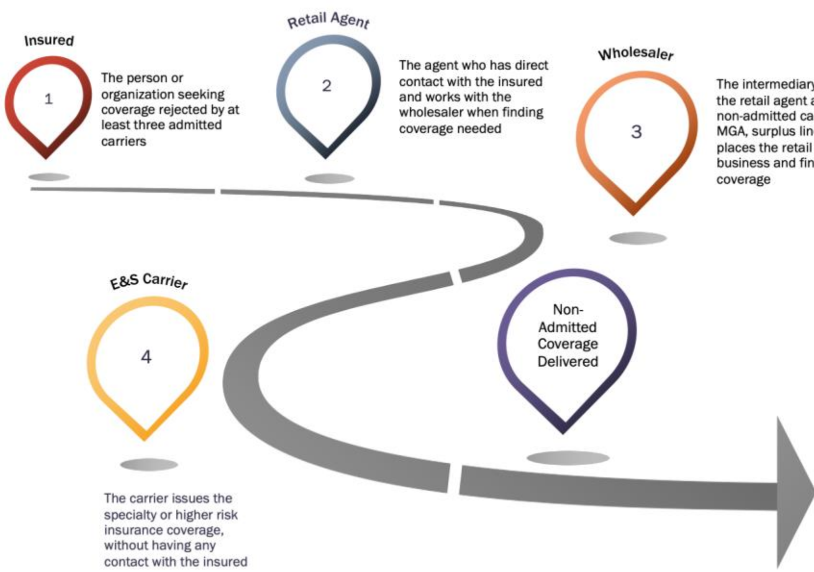
Introduction

Where could a 300-year-old insurance company and a 20th century technology startup find common ground? Starting gradually in 2010, modern startups called InsurTechs have capitalized on the shortcomings of incumbent insurance companies to make the insurance industry model more efficient and competitive through technological advancements (Hargrave, 2020). Similar to FinTech's introduction of mobile banking and investing, InsurTechs are making similar progress with insurance companies' methods through application programming interfaces (API), big data analytics such as artificial intelligence (AI), machine learning, predictive analytics, and many other technologies. From the purchasing and underwriting of insurance policies to the settlement of claims, these technologies are reforming the broader insurance value chain and distribution channel.

Both admitted carriers and non-admitted carriers in the excess and surplus lines industry (E&S) were initially hesitant and slow to implement InsurTech and make significant changes to their existing business models. This was demonstrated by extremely poor carrier attendance at InsureTech Connect, the first annual InsurTech conference in 2016. Nowadays, carriers take over these conferences and often have venture capital arms for investing in InsurTech. Significant growth in deploying new technology among non-admitted carriers began in 2017 (Lerner & Cavaliere, 2018). Furthermore, in 2020, the COVID-19 landscape has been a catalyst for digital innovation across all financial sectors to practice safe protocols during the pandemic. For the insurance industry, this is an important long-term investment, as there are inarguably a wealth of opportunities once carriers embark on digital transformation (King, 2020).

To seek out this wealth of opportunities, the main challenge that InsurTech firms tied to E&S must overcome is removing the friction along the long E&S distribution channel. Illustrated in **Figure 1**, this channel must connect the insured (Step 1) to the retail agent (Step 2) to the wholesaler (Step 3) and finally to an E&S carrier (Step 4) in order to deliver non-admitted insurance coverage. Within this chain, there are diligent search requirements and advertising regulations that cause friction and inefficiency (Lerner & Cavaliere, 2018).

Figure 1: The E&S Distribution Channel



Two more challenges for InsurTech in the E&S space include improving adequacy and efficiency in pricing and underwriting and adjusting hard-to-reach claims. Nonetheless, complementing these challenges are opportunities in using API to improve cross-system communication along the E&S distribution channel, using big data analytics to extract information and analysis from imagery to improve underwriting processes, and using drones and smartphone applications to improve claims adjustment. To summarize these main opportunities:

I. API and web-based applications provide a feasible solution to the challenge of removing friction along the E&S distribution channel. This is crucial because all parties must communicate efficiently in order to deliver policies to customers effectively.

II. AI and machine learning applications on imagery for advanced data analytics are making pricing and underwriting more efficient. These applications supplement human experience and judgement with data analysis.

III. While also helpful in pricing and underwriting, drone and smartphone application imagery is key to improving claims handling processes. This is important for E&S carriers to remain in business and to keep insureds satisfied with their coverage.

Removing Friction from the Distribution Channel

Challenges

The diligent search requirement is one challenge in taking friction out of the E&S distribution channel at the wholesaler level. Under this requirement, each time a potential insured requests non-admitted coverage, wholesalers must search the admitted market and verify that the requested coverage has been denied by a number of admitted carriers (Lerner & Cavaliere, 2018). This verification process can traditionally take up to two weeks. Therefore, it becomes an obstacle as InsurTech introduces digital platforms that push for instant purchase of E&S coverage (Attia, 2012). Also, the specifics of the diligent search vary greatly by state, making it difficult to streamline its fulfillment to a uniform process for all wholesalers. However, to make it easier for wholesalers, 16 states, as of 2018, have created an “export list” of coverages that are typically denied by admitted carriers and thus are allowed to bypass the diligent search (Lerner & Cavaliere, 2018). Furthermore, some states like Louisiana have abolished the requirement altogether (Lerner & Cavaliere, 2018). Henceforth, more states might address InsurTech's demand for quicker coverage delivery by expanding their export list or eliminating their diligent search requirement entirely; meanwhile, E&S wholesalers must be creative and proactive in fulfilling the requirement while it exists without allowing inefficiency in non-admitted coverage delivery.

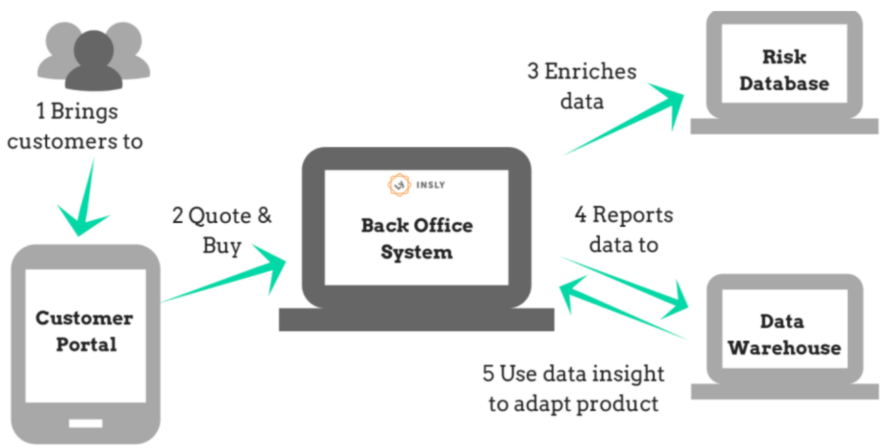
There is also friction beyond the fulfillment of the diligent search requirement. Retail agents must seek quotes for requested coverage by submitting the risk to a wholesaler who then transfers it to E&S carriers. The final result after flowing through the value chain is an E&S quote for the potential insured. All parties in the distribution channel must collaborate, and traditionally, this communication was carried out through time-consuming phone calls and emails. This method could take up to four to five weeks, creating an environment for efficiency improvements (Attia, 2012).

When enhancing the customer experience by creating digital platforms for easy insurance coverage purchase, both E&S carriers and brokers face another unique challenge of advertising requirements. E&S carriers must ensure their web-based application is not seen as an advertisement that could cause regulatory issues (Lerner & Cavaliere, 2018). Meanwhile, E&S brokers can advertise general non-admitted products, but not specific E&S carriers; customers should not conclude a certain product from a certain carrier is offered through the E&S broker's platform (Lerner & Cavaliere, 2018). Both parties must prioritize compliance throughout InsurTech deployment.

Opportunities

The greatest opportunity to remove friction throughout the E&S distribution channel lies in the use of API, the software that not only connects different IT systems or applications, but also enables them to “use each other’s functionality.” (Murumäe, 2018). Previously, insurance carriers stored all policy and claims information in different core systems that could not communicate with each other. API allows the web-based application in which customers purchase insurance to communicate with the “back-end system” that stores policy data, computes premiums, and produces policy documents, illustrated in **Figure 2** (Murumäe, 2018).

Figure 2: Insly Insurance Software’s Lead Generation Platform (Murumäe, 2018)



For the E&S industry, API significantly improves electronic data transfer and communication between all parties in the distribution channel. API can also connect InsurTech companies’ systems with insurance companies’ systems if both have open API architecture (Lochy, 2019). To illustrate, an InsurTech company develops a system in API format, and if an E&S carrier has API architecture, it can rapidly implement the InsurTech’s system’s capabilities into its own API. This allows companies to innovate off of InsurTech’s work and implement new services more quickly than starting from scratch (Lochy, 2019). Additionally, it would be difficult and expensive for E&S carriers to invest in all of the digital technologies available, so partnering with an InsurTech through open API architecture to take advantage of their specialization also makes API a significant opportunity for the E&S industry (Lochy, 2019).

Another InsurTech advancement surrounding this challenge involves digital wholesalers that allow for instant, online quoting and binding of coverage. One digital wholesaler called Pathpoint has been delivering non-admitted coverage since 2017 at no cost to retail agents (https://www.pathpoint.com). The agent submits the risk on Pathpoint and receives multiple E&S quotes via API within minutes. Once the agent requests a bind of coverage, Pathpoint acts as the licensed surplus lines broker to handle any affidavit, diligent search, surplus lines tax, or stamping fee requirements. Finally, while some coverages can receive policy documents within hours, most non-admitted coverages will need a few days to be issued (https://www.pathpoint.com). This streamlined, digital E&S distribution channel allows retail agents to discover available coverages and their prices within minutes through an all-inclusive platform while also receiving a commission for binding business.

Pricing and Underwriting

<u>Challenges</u>

Typically, the more data available to the carrier, the more accurate the pricing and underwriting can be. The risks E&S carriers cover are unique, unusual, and uninsurable in the admitted market; therefore, there can sometimes be a lack of data for pricing and underwriting (Ingraham, 2019). However, the digital transformation of insurance has opened doors to a plethora of data to improve pricing and underwriting, and the challenge has shifted towards deciding which data sources to use and how to standardize them when received in different forms like PDF file, image, and paper (Dwyer, 2019). In terms of which sources to use, Lochy suggests that carriers “integrate a maximum with external providers to get the most accurate view on the insurance risk” (Lochy, 2019).

Opportunities

Applying big data analytics to imagery produces groundbreaking opportunities for underwriting, and API can help with integrating massive data. To illustrate, Betterview and HazardHub are two InsurTechs that have capitalized on these opportunities. Betterview uses aerial and satellite imagery of properties of any size and adds big data analytics technology to assess property risk from the imagery (https://www.betterview.com). This can make the underwriting process more efficient and automated than analyzing collected data from scratch. Similarly, E&S carriers can also attain risk scores efficiently from HazardHub, the company that produces large geospatial hazard data sets (https://hazardhub.com). Finally, both Betterview and HazardHub use API to allow E&S carriers to efficiently integrate the data into their own systems for pricing and underwriting. In summary, adding automation to underwriting by utilizing big data analytics technology to analyze imagery and flag certain images for high or low risk scores presents E&S carriers with significant opportunity. E&S carriers also have an advantage in implementing InsurTech due to their pricing procedures being relatively less regulated; bypassing the admitted carriers’ burden of rate filings, non-admitted carriers can immediately implement price changes from risk assessments.

Another opportunity includes the agreement to a pooling of data between participating E&S carriers for mutual benefit (Ingraham, 2019). The data would be aggregated to protect confidentiality of each carrier and would only be accessible to participating carriers. Altogether, this would help them analyze and price risks and utilize trend data for unusual E&S risks (Ingraham, 2019). Technology can also be used to find consistencies among risks to save time for underwriters, enabling more resources to be dedicated for brokers to reach out to clients and open doors to more business (Moorcraft, 2019).

Claims Handling

Challenges

Considering catastrophes like hurricanes and wildfires that present millions of claims in a short span of time, claims handling becomes difficult. For example, after Hurricane Katrina of 2005, claims adjusters in Louisiana faced lawsuits as they failed to meet claims adjusting deadlines due to the lack of electricity and cell service where the claims were present, the displacement of adjusters and business owners, and many more complications (Cooper, 2006). A more recent example, the COVID-19 pandemic of 2020 adds physical distancing requirements between adjusters and insureds to this issue, not only for future natural disasters, but also for property damage inspections (Johansmeyer, 2020). Having claims adjusters enter multiple homes a day to inspect damage could contribute to the spread of the virus (Johansmeyer, 2020). This creates ample room for InsurTech solutions in claims processing procedures.

Opportunities

For difficult-to-reach damage like Hurricane Katrina, drones are an exciting advancement in claims adjusting. E&S carriers send drones out to do inspections for them, allowing them to adjust claims efficiently to meet deadlines and avoid lawsuits. Drones capture aerial images over disaster areas to determine the level of damage and verify information submitted by the policyholder in a claim. Although an advancement, the use of drones still has room for improvement. To explain, recent feedback on the drones indicates that, while they are beneficial in certain situations, visiting the site in-person remains invaluable for other situations like identifying specific sources of damage (Johansmeyer, 2020). Further advancements might be made like using advanced pictometry to seek more detailed imagery to replace the need of inspecting damage in person; pictometry involves aerial imagery that captures all angles of buildings including its placement on the ground.

For first-party property damage, the use of “remote adjusting apps” on smartphones allows claimants to walk around and videotape or photograph damage for insurance carriers to adjust; if an image is able to be captured of the damage, InsurTech is able to process it (Johansmeyer, 2020). This completely removes human contact and viral spread from the picture and also allows claims to be paid faster. For some first-party damage claims, this method allows for repayment in a matter of minutes. However, InsurTech is far from being able to settle lawsuits within minutes, so claims for complex E&S products like management liability insurance involving litigation issues will likely not be handled by InsurTech; their claims settlement procedures will remain relatively traditional.

Not only does efficient claims handling increase customer satisfaction, it may also increase revenue for E&S carriers; often, the sooner claims are settled, the lower the loss amount of the claims. Another potential increase in revenue may come from loss-prevention technologies like moisture detection systems that send alerts before a leakage causes a claim, weather trackers that send alerts to move people or property before a natural disaster, and car activity trackers that induce responsible driving (Dwyer, 2019). Once these are implemented, claims frequency and severity should be reduced. Finally, potential issues that can be addressed include the discomfort older populations may feel in using smartphone applications to capture damage, and as always, the risk of insurance fraud. In response, E&S carriers and InsurTechs might make accommodations for the elderly to adjust claims as well as invest in more advanced fraud-detection measures.

Conclusion

InsurTech in the E&S space is taking on the main challenges of streamlining the distribution channel as well as improving pricing, underwriting, and claims handling. Electronic communication along the E&S distribution channel through API presents exciting possibilities for more E&S coverage to be quoted, bound, and issued rapidly. Implementing automation in the underwriting process by combining imagery with big data analytics to assess risks will achieve great adequacy and efficiency improvements. In addition, drones and smartphone applications introduce the ability to adjust claims more efficiently.

Insurance carriers are already starting to enter unchartered territories by investing in and implementing InsurTech applications. InsurTech carriers have the potential to become the next leaders in the industry. Inevitably, once InsurTech becomes commonplace, the carriers who do not invest will fall out of competition. That said, rather than being reactive and waiting for others, E&S carriers should be proactive by starting to pioneer InsurTech solutions into their systems now. This would not only help the carriers, but also all individuals and businesses seeking insurance solutions. Gone are the days of completing myriads of paper documents and waiting weeks for a structured policy or claim repayment; the possibility of a digital, flexible, and timely customer experience in the insurance industry is now, finally, within reach.

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The Implications of Social Inflation

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Introduction

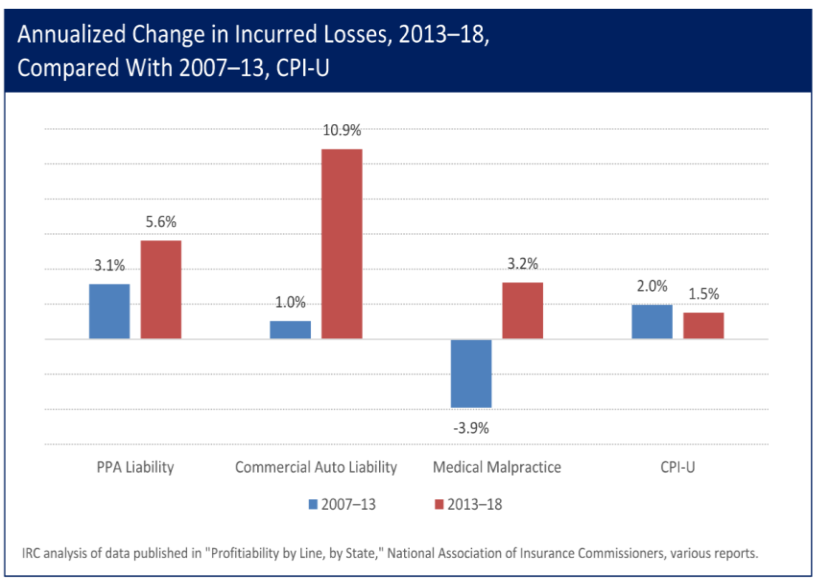
To determine actuarial present value of a life, an actuary calculates the present value of the individual's future income streams using standard discounts and life tables. However, that does not account for the non-economic losses associated with the loss of a loved one. For example, on September 14, 2020, the Louisville Metro Government settled a civil wrongful death lawsuit filed by the family of Breonna Taylor for $12 million that included an agreement to implement reform-based measures (Palmer v. Hankison, et. al, 2020). On February 6, 2018, the New Mexico Court of Appeals affirmed a jury verdict of $165 million in a wrongful death case brought by Alfredo Morga after his wife and children were struck and killed by a FedEx Truck (Morga v. FedEx Ground Package Sys., 2018). While such settlements and awards seem to be the result of unique tragic events, they are just two examples of nuclear verdicts, which are a consequence of social inflation.

Social inflation was originally coined in 1977 by Warren Buffet to describe the expected rising insurance costs that were directly influenced by "a broadening definition by society and juries of what is covered by insurance policies" (Baribeau, 2020, p. 21). While the idea of social inflation is not new to insurance, its impact on the industry has evolved over time.

Nuclear verdicts can be defined as a jury award of $5 million and above (Baribeau, 2020, p. 21) and typically result from the jury being overly influenced by the emotional elements of a case. Claims that confront socially relevant issues create an environment where jurors can empathize with the plaintiff when awarding verdicts. In recent years, the number of litigated claims has increased. This may be a result of the financial support of third-party litigation funding (TPLF), which allows individuals who could not afford legal counsel to pursue action. However, recent discoveries have unveiled different investment techniques, unethical behavior, and manipulation by TPLF. Excess and surplus (E&S) carriers must identify risks that are influenced by social inflation, which can be classified as extensions of current risks and the evolution of new risks. E&S carriers must focus on jury behavior, TPLF, and emerging risks to control social inflation and its impact on the frequency and severity of claims. While daunting, the industry has the opportunity to proactively confront social inflation with actuarial innovation, legislation reform, and risk management.

Frequency and Severity of Claims

Figure 1: Annualized Change in Incurred Losses, 2013-18, Compared with 2007-13, CPI-U



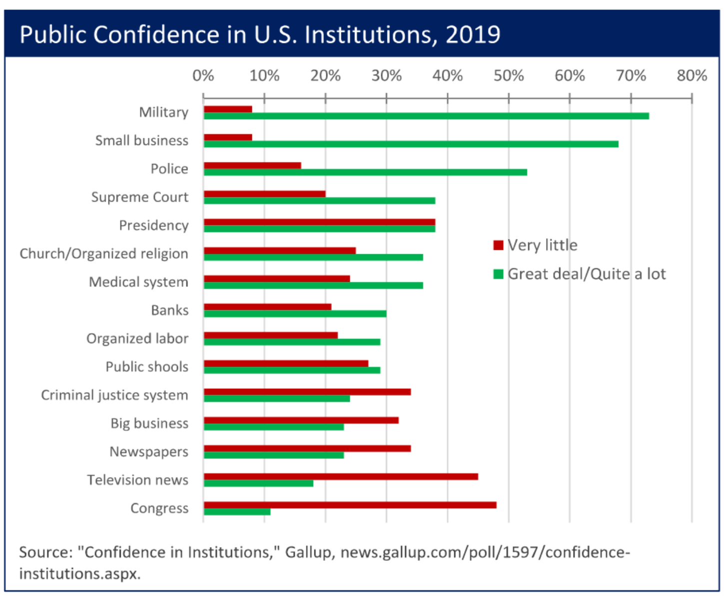
While lines of business may be affected differently by social inflation, volatility caused by social inflation results in an uncertain future for insurers within both the admitted and non-admitted markets. Without a cost-driver based-allocation method, the impact on claims cost may possibly lead to higher insurance costs for all consumers (The Institutes Insurance Research Council, 2020). The increased insured losses, as seen in **Figure 1**, may adversely affect the financial health of E&S carriers, potentially leading to increased rates and, in extreme loss situations, the carrier declaring bankruptcy. While price increases may be a short-term solution for some E&S carriers, carriers must proactively manage and plan for the long-term effects of social inflation on the E&S carrier and the industry.

As insured losses surpass historical trends, there is concern that current modeling techniques do not adequately address the volatility that social inflation introduces. The credibility of historical claims data to accurately predict future claims is under scrutiny.

To quantify the implications of and proactively account for social inflation, E&S carriers can identify trends within litigated claims and predict future policies that may have increased claims.

The Jury Consideration

Figure 2: Public Confidence in U.S. Institutions, 2019



The lack of public confidence in many different institutions seen in **Figure 2** can impact many policies provided by E&S carriers. For a variety of reasons (e.g., the increasing wealth gap), society has become increasingly angry and distrusting of many institutions ranging from the federal government to private companies (Baribeau, 2020). The frustrated members of society may display this attitude while serving on juries. Attitudes toward big business have gotten increasingly worse over the last twenty years (The Institutes Insurance Research Council, 2020).

While jurors may attempt to be impartial, plaintiffs' attorneys use 'reptile theory', evoke an emotional response in jurors, to improperly influence a juror to decide a case based on emotions and sympathy instead of the facts (Baribeau, 2020, pg. 22). A 2019 survey by Sound Jury Consulting found that "75% of respondents indicated they would disregard the judge's instructions and [decide] a case on their own personal beliefs of right and wrong" (Baribeau, 2020, p. 23). O'Toole describes emotionally charged decisions that are not supported by the rational application of information as jury economics (Baribeau, 2020). Since many nuclear verdicts may have an emotional influence, jury economics can describe the relationship between social inflation and the increased severity of litigated claims. The opportunity for juries to deliver nuclear verdicts increases due to the increased amount of litigated claims. Thus, the increased frequency and severity of future insured losses has the potential to significantly impact the E&S carriers claim loss distribution.

Application of Jury Economics

While juries may act 'irrationally', E&S carriers can identify factors and trends within jury economics to predict increased insured losses within litigated claims. This would allow E&S carriers to price, reserve, and mitigate the risk of future nuclear verdicts. Using recent historical data by state or jurisdictions within a state to identify trends, E&S carrier may be more willing to settle if a case is filed in a jurisdiction where juries more frequently award nuclear verdicts rather than risk a trial and a nuclear verdict.

The Bronx jury phenomenon may also identify policies that are susceptible to increased claims cost due to social inflation. The Bronx jury phenomenon states that "tort plaintiffs bringing suit in counties with high proportions of low-income or minority residents are more likely to prevail and to recover higher than average damages." (Kohler-Hausmann, 2011, p. 413). Kohler-Hausmann found that there was a positive correlation between damage awards and poverty rate and low-income inequality. This study also acknowledged that income-inequality may be associated with community attitudes regarding the standards of specific tort liability or damages within a case. Thus, the venue of the tort litigation may influence the severity of the insured loss.

The impact of social inflation and potential for nuclear verdicts likely lead to cases being settled before trial. However, due to the confidentiality of many settlements, there may not be sufficient public historical data that E&S carriers can use for analysis to incorporate settlement trends into pricing and reserving models. Nevertheless, trends within publicly available verdicts, some of which may be nuclear and influenced by jury economics, can be incorporated into the modeling in evaluating the risk associated with and the settlement value of a claim within a given jurisdiction or venue (The Institutes Insurance Research Council, 2020).

Analysis of jury economics within litigated claims can be applied as a predictive analytics tool to better understand the frequency and severity trend effects of nuclear verdicts and increased settlements for the insured. Trends within policies can be further identified and applied to E&S carriers' future reserving and pricing models to adequately prepare for the impact of social inflation on insured losses.

Third-Party Litigation Funding (TPLF)

TPLF facilitates companies to invest in cases by paying the upfront costs or legal fees in return for a portion of the settlement amount or verdict award. On the surface, TPLF seems to promote equity by increasing accessibility. However, the increased accessibility does not increase justice (Beisner et al., 2009).

When the U.S. Chamber Institute for Legal Reform first published their concerns regarding TPLF growth in America in 2009, they described litigation gone awry in other countries. In 2018, TPLF was an estimated $10 billion industry (Goldstein, M., &, Silver-greenberg, J, 2018). In 2020, the US Chamber Institute for Legal Reform acknowledged that TPLF has grown and the funding models have evolved. For example, a portfolio investing model allows funders to invest “in an entire portfolio of cases at a given firm” (Later, 2020, p. 12). This strategy allows the funder to optimize profit by spreading the risk across multiple cases resulting in TPLF presence in different types of lawsuits. TPLF is typically “claim monetization [that] is non-recourse in nature, which means that the funder is only repaid in the event that the client prevails in the underlying litigation.” (Later 2020, p. 13). With a larger financial ability than an average plaintiff, the funder can increase the burden and cost of the litigation to the carrier in an effort to either extort a higher settlement or put the carrier at risk of an adverse jury verdict.

TPLF, to increase profits, may also advise plaintiffs to make decisions that may not be in their best personal interest. For example, in a mass tort case involving mesh implants, a New York Times article reported the funders had instructed plaintiff law firms to advise women to undergo surgery to remove the implant. The intent: to increase the claim amount after the law firm discovered women who had the mesh removed received larger awards although “...studies have shown that up to 15 percent of women with mesh implants will encounter problems, removing the mesh is not always recommended.” (Goldstein, M., &, Silver-greenberg, J, 2018).

TPLF encouraged women to receive unnecessary surgery that, in some cases, would consequently lead to other procedures.

Third-Party Litigation Funding Solutions

E&S carriers should acknowledge that TPLF is not solely a blind investor, but also may influence legal strategies to increase a return on investment. Similarly, funders use different investing strategies that may impact different policies provided by the E&S carrier. TPLF increases the frequency and severity of claims experienced by many E&S carriers.

There are currently no federal laws requiring disclosure of TPLF involvement in a case or the terms of any agreement with a funder. These agreements with funders typically describe the financial terms and the extent of control that the TPLF has over the case. However, some state courts have ordered disclosure of TPLF involvement and "certain litigation funding agreements have been declared unenforceable…based on provisions purporting to vest the funder with control over key litigation decisions" (Later, 2020, p. 19). Legislation must be implemented to regulate TPLF and establish transparency to.

Disclosing the existence and terms of these agreements adds clarity to the relationship between the funder, litigation team, and plaintiff. E&S carriers could benefit from the transparency to establish trend differences in litigated claims with and without TPLF and thus mitigate conflicts of interest that may lead to higher settlements. Which could mitigate risks of increased claims cost experienced by the E&S carrier.

Emerging Risks

Extensions of current risks can be identified by legislation changes or trials that set precedents that change the expected loss for a policy. The time frame in which an individual may file a lawsuit has a direct impact on the number of claims experienced by E&S carriers. Recently, multiple state legislators have introduced attempts to extend the statute of limitations. As a result, additional claims are now covered that can create a deficit since this information was not considered during the initial pricing of policies (The Institutes Insurance Research Council, 2020). Similarly, tort reform instituted in 38 states in 2019 implemented limits on non-economic damages to control tort liability costs; however, at least eight states' supreme courts have overturned these reforms (The Institutes Insurance Research Council, 2020). This allows juries to quantify the non-economic losses without any upper limit, which may increase losses that were historically capped.

The evolution of new risks that are influenced by social inflation may be controversial or a trending topic. Social media has increased the accessibility to news, including recent nuclear verdicts or settlements in previous headlined stories. Potential jurors may obtain information from the media that was not presented in court, which may influence their decisions. A survey in 2019 reported, 57% of potential jurors may pursue research on the internet, if deemed important, thus ignoring the judge’s instructions to only use the information presented in court (Baribeau, 2020). With the quick turnover rate of headlines, there are many opportunities for a trending topic to evolve into a mass tort and impede jurors from being unbiased. This results in increased opportunities for claims to evolve into frequent and severe losses, which leads to uncertainty in losses for E&S carriers.

Emerging Risks Mitigation

E&S carriers must be aware of trending topics to proactively price and reserve for policies that could be impacted. These topics may assist in identifying potential changes in legislation that would more accurately align with the shift in societal attitudes. Heavily debated subjects may reveal possible future juror attitudes. E&S carriers must identify external factors and macro factors that may influence current risk mitigation strategies (Taking a team approach: Munich Re, 2020).

E&S carriers must identify key aspects of social inflation that may influence volatility within a policy. With increasing communication between underwriters, actuaries, and legal teams, E&S carriers may more accurately identify costs imposed by social inflation. Mock juries can be conducted on a routine basis to anticipate emerging trends and their impact on litigated claims losses more accurately, (Taking a team approach: Munich Re, 2020). Mock juries' opinions can also be used to evaluate the cost-benefit analysis before hiring different trial attorneys for litigated claims cases (Baribeau, 2020). E&S carriers may improve the assessments and costs of emerging risks by initiating the conversation between different expert teams. As a result, E&S carriers should identify policies that may need pricing, and forecasting, alterations and policies that may be at risk of complications due to social inflation.

Conclusion

Social inflation has not only impacted E&S carriers by increasing the frequency and severity of claims, but also presents challenges in pricing policies, managing risk, and quantifying future exposure. Nevertheless, these challenges are not insurmountable. E&S carriers should actively promote communication between trial lawyers, underwriters, and actuaries to develop models that quantify the impact of social inflation. These models could identify the policy types that are most likely to be impacted by social inflation, as well as the financial impact of social inflation on the number and size of future claims, which will assist the carrier in more accurately forecast likely future insured loss trends. Models may also provide insight into the opportunities for insureds to adopt practices (i.e., "best practices") to mitigate the risk of a lawsuit that the models have identified as likely to invoke jury passion and a nuclear verdict. Simultaneous with these efforts, the industry should also push for legislative reform that will create more transparency in TPLF practices and create enforceable standards that restrict the amount and to which that TPLF's influence case management and settlement decisions. By pursuing legislative reforms, implementing "best practices" programs, and adopting innovative modeling techniques, the E&S companies and their clients will be better equipped to manage the risks and the costs associated with social inflation.

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Effects of COVID-19:

Workers' Compensation and the Shift to Telecommuting

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Executive Summary

COVID-19, the novel coronavirus, has brought numerous fresh challenges to our world. Mandatory shelter-in-place orders have caused our fast-paced societies to abruptly halt. Workers' compensation insurance will see the trickle-down implications of COVID-19, as active claims are prolonged. Additionally, the unemployment rate has spiked in a short period of time because of business closures, which may lead to a downward trend in premiums. Though, many organizations were able to remain open by having their employees work remotely. Telecommuters face risk exposures that may lead to workers' compensation claims, however, it is difficult to prove that incidents arose out of the course of employment. Home isolation can have an impact on an employee's mental health. This can lead to an increase in workers' compensation mental health claims, in states where these claims are applicable. Insurers, employers, and employees can work together to reduce risk exposures to remote workers and ensure that employees stay safe and healthy, therefore, reducing the impact to workers' compensation.

Introduction

Imagine for a moment that you are a factory worker employed at ABC Company Inc. and you were having a fantastic day. Until you trip over a rug, fall, and break your arm while carrying boxes at your employer's request. What do you do now? The hospital bills are piling up, you are unable to work while you recover, and there is a chance you will need to attend physical therapy. Since your injury occurred while at work and performing work-related activities, you should be covered by workers' compensation insurance.

Monetary compensation for injuries arising out of the course of employment is an idea that can be traced back to approximately 2050 B.C. in ancient Sumeria (Guyton, 1999). The concept of workers' compensation was adopted in the U.S. when Congress passed the Employers' Liability Act of 1906 and 1908 (Guyton, 1999). Shortly after the Employers' Liability Act, states, such as New York and Wisconsin, began enacting workers' compensation statutes. From there, workers' compensation insurance has continued to evolve to meet the needs of workers and their employers. Recently, the novel coronavirus has presented many new challenges to workers' compensation insurance.

COVID-19 has ravaged throughout the globe, causing numerous implications that go beyond just health related. Worldwide, the number of COVID-19 cases is around 57,855,824 with over 12 million in the U.S. alone (Worldometer, n.d.). When the initial wave of COVID-19 struck the United States, in March 2020, states began enacting mandatory stay-at-home orders. Stay-at-home orders, also referred to as shelter-in-place orders, were authorized to slow the spread of COVID-19. These mandates changed the face of employment virtually overnight forcing many employees to work remotely. A survey of 800 global HR executives, conducted by Gartner Inc., found that 88% of organizations supported employees to telecommute, even if they did not show symptoms of COVID-19 (Gartner Inc., 2020). Telecommuting is not a new idea. Nevertheless, as COVID-19 cases increase rapidly, telecommuting may become the new norm which will affect how workers' compensation claims look in the future. This paper will delve into how COVID-19 has impacted workers' compensation, specifically, the mass movement to telecommuting. While also exploring solutions that may be implemented to reduce risk exposures to telecommuters and support remote employee's mental health and well-being.

COVID-19 and the impact to workers compensation

Effects of COVID-19 on workers' compensation can be seen in the form of economic impacts as businesses close because of mandatory stay-at-home orders. Also, COVID-19 is affecting workers' compensation on a financial level as the number of unemployed individuals fluctuates and achieving accurate rates becomes difficult.

Economic Impacts

As COVID-19 continues to be a threat, the number of businesses affected continues to grow. While a variety of businesses have been affected, a major area of concern for workers' compensation insurance is active cases. Closures have been extended to medical facilities and a decrease in hospital treatments could mean an overall increase in medical expenses for active claims (Herk, 2020). Procedures were also halted for a time, and while they are slowly starting to come back, the delay in procedures could mean extended recovery time for individuals and prolonged claims.

Business closures, due to stay-at-home orders, have caused a significant increase in the unemployment rate in the United States. According to the National Council on Compensation Insurance (NCCI) Quarterly Economics Briefing [Q1], there were "22 million new unemployment claims for the four weeks ending April 11" (Herk, 2020, para.2). In March, when COVID-19 first struck the U.S., the unemployment rate was 4.4% and by April it had more than tripled to 14.7% (Friedman & Gokhale, 2020). The dramatic increase in the unemployment rate can be seen in figure 1 below. This increase in unemployment may lead to a drop in workers' compensation premiums, as renumeration is widely used as the premium base. In order to slow the spread of COVID-19, many organizations have implemented safety measures. However, numerous businesses have closed their doors forever, unable to survive the economic impacts of a global pandemic.

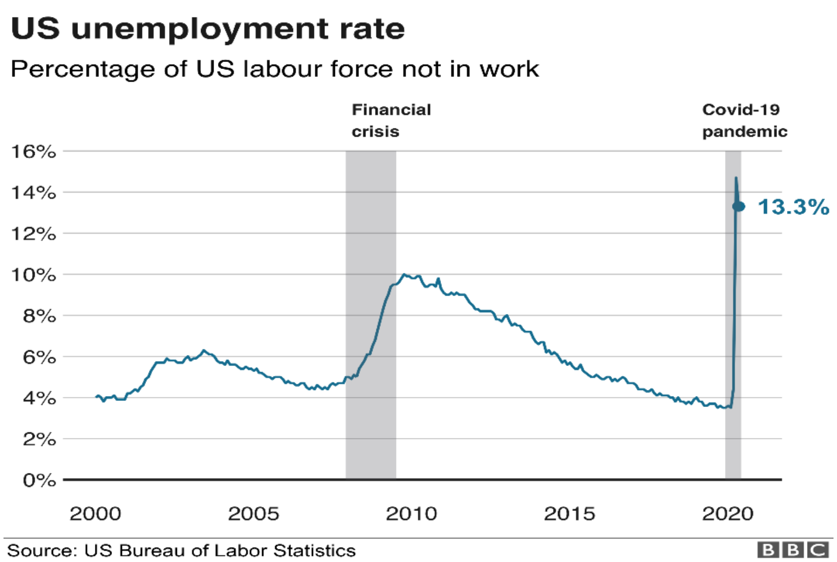

Figure 1: US unemployment rate as a percentage of the US labour force not in work. Image taken from bbc.com

Financial Impact

Although the economic impact of COVID-19 forced many businesses to close, the financial impact is seen in the number of individuals employed. Premiums for workers' compensation rely on exactly how many individuals are employed, and a decrease in workers will result in a decrease in premiums. In addition, jobs that generate higher workers' compensation premiums, such as construction, transportation, and contracting, have seen a substantial amount of job loss (Friedman & Gokhale, 2020). Figure 2 shows a model of three projected scenarios baseline, no end in sight, and fast bounceback, created by Deloitte Center for Financial Services, that anticipate net premiums for each scenario written by workers' compensation for 2020 until 2022 (Shilling et al., 2020).

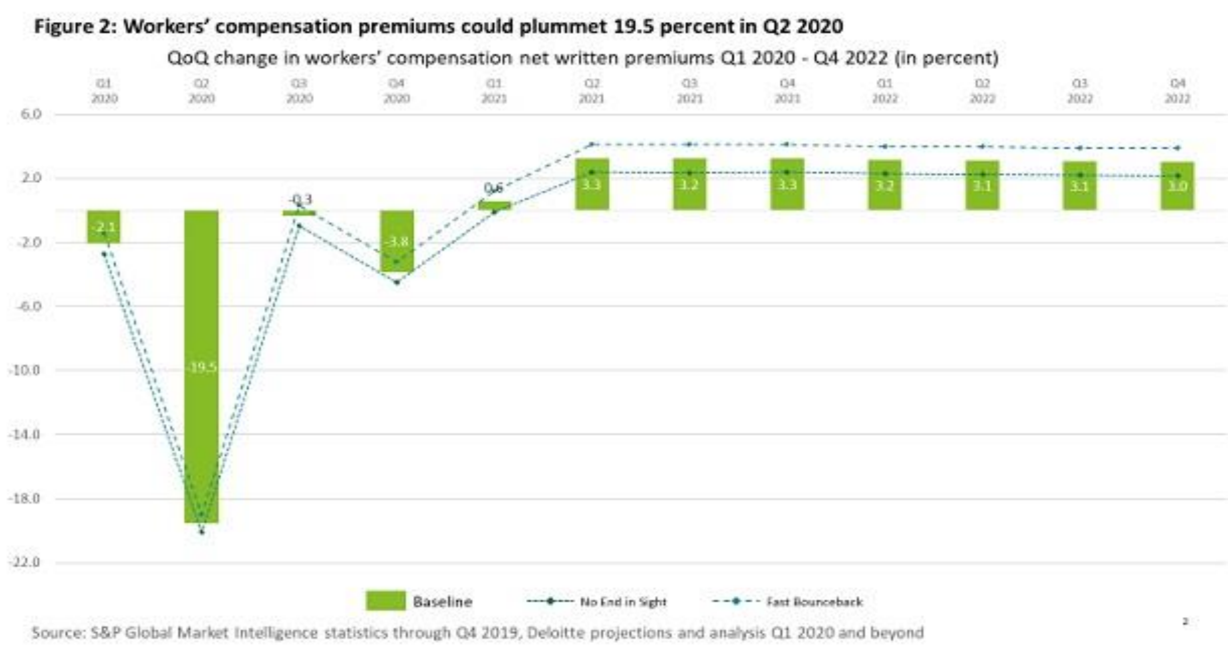

Figure 2: Workers' compensation premiums could plummet 19.5 percent in Q2. Image taken from Deloitte (as cited in Shilling et al., 2020)

Rates for workers' compensation vary depending on the classification of each employee. With the mass move to remote working, rates that were generated a year ago will not accurately reflect the current employment situation for newly telecommuting employees. Steven N. Weisbart, senior vice president and chief economist for the Insurance Information Institute, mentioned during an insurance industry webcast, "carriers did not factor in the cost of COVID-19 claims when they filed this year's rates because the disease did not exist" (Sams, 2020, para. 2). While the workers' compensation line has been profitable for the last six years, the uncertainty of the COVID-19 pandemic may put a strain on any profitability that the line would have produced (Sams, 2020). Currently, the imprecise classification of employees and rates do not accurately project the current pandemic will affect the future profitability of workers' compensation.

COVID-19, telecommuting and Workers' comp

The unanticipated mass movement to telecommuting, has presented numerous challenges for workers' compensation. Some of those challenges include, risk exposures that a remote worker may face, injuries sustained while in the course of employment can be difficult for the remote worker to prove, and possible mental health claims as individuals adjust to a new work environment.

Risk Exposure

Remote workers face a variety of new risk exposures as they become accustom to working from home. Many individuals are trading an office space with fellow employees to a home full of obstacles. Sharing a space with kids, a spouse, roommates, or pets can present a unique set of challenges for a remote employee. School closures have forced parents to juggle a home life and a work life simultaneously and obstacles around the house can present additional hazards for remote workers. In fact, common workers' compensation claims for remote workers arise from wet floor accidents, stairway accidents, chair related injuries, and furniture corners within or around the home (Moore, 2020). An employer, within the scope of the organization, is able to implement safety procedures and protocols. However, it is more challenging to monitor employee's safety when the employer does not regulate the work environment, such as at an employee's home.

Another area of concern is poor ergonomics which can lead to injuries and workers' compensation claims in the long run. "The Occupational Safety and Health Administration (OSHA) has determined that almost a third of dollars spent on workers' comp costs come from claims involving ergonomic injuries" (Grzadkowska, 2020, para.5). Figure 3 shows a representation of the percentage of MSD (musculoskeletal disorders) related injuries cost, compared to all other workers compensation costs. The hastiness in the move to remote working could result in workers' compensation claims from slips on wet floors, improper office equipment contributing to MSDs, and injuries resulting from sharing a space with others.

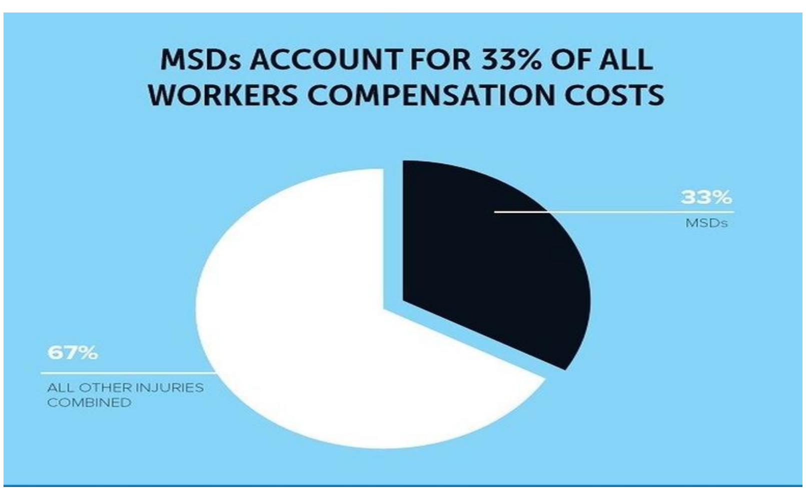

Figure 3: MSDs account for 33% of all workers compensation costs. Image provided by Ergonomics Plus (techrepublic.com, 2017).

Proving an injury occurred

There is a clear line for compensable injuries arising out of the course of employment within an organization but, injuries occurring at a home office are more complicated to prove. When a remote worker is injured at their home office, there are generally no witnesses to corroborate that the events surrounding the incident arose out of the scope of employment.

In the case of Tammitha Valcourt-Williams, a Florida employee for Sedgwick CMS, who was working from home when she reached for a cup of coffee and tripped over her dog. Tammitha filed a workers' compensation claim stating that she sustained her injuries during working hours. The Judge of Compensation Claims ruled that Tammitha's injuries were compensable, however, Sedgwick appealed the claim. In *Sedgwick CMS v. Valcourt-Williams*, 271 So.3d 1133 (Fla. App.), the Court of Appeals questioned whether the employment "necessarily exposes an employee to conditions which substantially contribute to the risk of injury…The court said the relevant risk was that the employee might trip over her dog while reaching for a coffee cup in her kitchen" (as cited in Wickert, 2020, para.13). It was decided that this is a legitimate risk that exists regardless of where the employee is working from. It was later decided by the Court of Appeals that Tammitha's injury did not arise out of the course of employment (Wickert, 2020).

Claims alleging injuries, that arose from remote workers, will have to be investigated on a case-by-case basis. Without co-workers or managers to validify an incident report, a thorough investigation into the incident is necessary to ensure that the employee was in fact injured while in the course of employment.

Remote worker and mental health

The uncertainty surrounding COVID-19 has led to an increase in depression and anxiety in many individuals. The number of depressed adults in the U.S. has risen to 27.8% compared to 8.5% before the COVID-19 pandemic (Berman, 2020). Social distancing guidelines and stay-at-home orders have isolated numerous people. Isolation can put mental strain on individuals, especially those with lower income. Telecommuters may not adhere to normal work hours which can place additional stress or fatigue on the employee (Grzadkowska, 2020). The employee may decide to work through lunch or other breaks, to complete their work earlier, causing avoidable fatigue.

Several states including, California, Oregon, Illinois, and Virginia have workers' compensation coverage for mental-only injuries, meaning no physical injury is necessary for compensation to be granted (Work-Related PTSD, n.d.). Other states such as Colorado, Utah, New York, and Florida have coverage for mental injuries but only in narrow situations. For instance, in 2018 the Colorado Worker's Comp Act was put into law, regulating when a mental health claim is compensable. Colorado's Worker's Comp Act mentions that in order for a mental injury only to exist, there must be "a psychologically traumatic event that is generally outside of a worker's usual experience and would evoke significant symptoms of distress in a worker in similar circumstances" (Work-Related PTSD, n.d.).

COVID-19 and the mass move to telecommuting may add more stress to employees which could lead to mental health related workers' compensation claim in states where it is applicable. However, employers and insurers can unite together to provide support to employees and ensure that each employee works in a safe and secure environment.

Solutions to ensuring a safe work environment

Employers have a responsibility to their employees regarding their safety. Likewise, insurers have a responsibility to their clients to ensure they are properly covered for perils. Employers have a responsibility to their employees regarding their safety. In an effort to reduce the frequency and severity of workers’ compensation claims, employers can establish guidelines outlining clear working hours, expectations, proper ergonomics, and safety measures. To reduce claims involving back injuries, employers should confirm that employees have proper equipment at home. Setting allotted breaks may reduce an employee’s fatigue, decrease the likelihood of back injuries, and carpal tunnel issues (Grzadkowska, 2020). Developing risk reducing measures including safety policies will decrease workers’ compensation claims as employees adjust to their new work environment. Furthermore, keeping in contact with telecommuters can help employers stay aware of their employee’s mental health. Employers should encourage communication between employees via zoom meetings, skype, or other video platforms and promote the benefits of staying active. When individuals are active, endorphins are released, which can boost mood and morale (American Psychiatric Association, n.d.). Organizations’ should encourage employees to get fresh air, take walks, or offer employees app-based workouts. Employees need motivation and support as do employers.

Insurers can support employers that are clients by refreshing risk management techniques. Insurers can also help clients review their policies to ensure proper classification of employees for workers’ compensation rates and ensuring that any new risks associated with remote workers is covered (Bruno et al., 2020). Insurers can support their clients further by making certain that their coverage territory includes everywhere that their client’s workers are located. While COVID-19 continues to spread, it is obvious, more than ever, that an understanding and supportive relationship is needed from all parts of humanity.

Summary

The novel coronavirus continues to spread like wildfire throughout the globe. The virus has caused devastation on a multitude of levels, ranging from health implications to economic impacts. Workers' compensation insurance, like most of the world, has begun to feel the trickle-down effects of the economic impacts of COVID-19. As businesses continue to close, and mandatory stay-at-home orders force the majority of the population to work remotely, workers' compensation will be unable to accurately obtain rates and may see a downward trend in premiums as the unemployment rate reaches new heights. The virtual overnight mass move to telecommuting will likely lead to workers' compensation claims that will need thorough investigating. Telecommuters are not in an office setting and when accidents happen, they do not have witnesses around to corroborate their version of the incident. However, insurers, employers, and employees can work together to ensure that risk management techniques are implemented by providing telecommuters a safe work environment during the global pandemic of 2020.

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