# COVERING THE BUSINESS OF LOSS

### September 2015

Volume 63 . Number 9 PropertyCasualty360.com

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## Improving SIU Through Data Analytics

#### By Jeffrey G. Rapattoni, Esq. and James Hulett

he business of insurance is constantly changing and evolving. As society grows and trends in differing directions, so too must the insurance industry read and react to what goes on around it. The industry can be a step behind if it is unable to quickly react or digest enterprise data. This delay is a vulnerability which can be exploited in the wrong hands, leaving the door open to fraud.

Data is one of an organization's most valuable resources, as CEOs, CIOs and CFOs are rapidly learning. According to recent industry studies, insurance carriers are implementing more complex technology and analytics at a faster pace than ever before. This increasing investment in technology is part of an overall insurance industry investment trend to leverage "big data" resources. Having these capabilities has fast become a top organizational priority because of how data analytics drive improvement opportunities to all aspects of business operations.

Given this environment, it's no wonder that data analytics has broken through to the mainstream so quickly. However, data is a "raw" resource and needs to be drilled, mined and processed into a useable commodity for its consumers.

Based on the nature of fraud and the speed at which it can occur, having proactive capabilities in place is an essential strategy. There are a variety of tools and solutions offering user interfaces and information that is easy to consume, thus improving the various processes for detecting fraud or claims exaggeration by objectively comparing facts and scenarios without prejudice or bias.

While no one can forecast the future, successful claim models are precipitated by calculated processes and collaborative teamwork. Simply stated, the more one has access to and understands data, the more one can be better prepared for what lies ahead.

#### **Building an SIU protocol**

The key to building a better SIU (special investigative unit) protocol is acquiring an effective technological platform of solutions and tools. Foundationally, a successful platform is built on harvesting data from a number of internal and external sources. Accessing and aggregating multiple disparate data sets into a digestible format allows SIU operations to develop more effective strategies that can speed fraud detection, identify new insights and predict emerging exposure trends.

Critical data types for fraud modeling include policy and application details; structured and unstructured claims data; investigative results; vendor data; industry watch list data; and third-party data. Most carriers invest significant resources in vendor and third-party data. An ability to leverage these raw data resources results in a much more holistic, robust view of the "internal universe." Adding sources such as ISO loss history, watch lists, public records, medical billing data, underwriting information and auto estimates can have tremendous impact on fraud modeling.

The challenge is that all of this data is often located in disparate, walled-off servers generally maintained by a number of different departments such as claims, underwriting, sales, IT and finance. Further, the data is usually in varying formats. How do you get "one version of the truth" for the data? Technology is critical to extracting, transforming and loading the data across this infrastructure so that advanced analytical processes can be applied. Data management technology and processes must be able to cleanse and enrich data, conduct entity resolution for multiple variations of the same data and improve overall quality. No matter how advanced the analytics are, results will be limited if the data management process is not robust. As the saying goes, "garbage in, garbage out."

#### **Determining data sets**

Once the critical step of aggregating data happens, the data set can be utilized by an integrated fraud detection solutions and tools platform. For investigative teams, most fraud solutions allow for automation of the fraud detection process. Multiple modeling techniques and different analytical approaches are embedded. This includes techniques such as anomaly detection, predictive modeling, link analysis, text mining and automated business rules. These analytics can be layered into decision-making engines that process a steady stream of data 24 hours a day, seven days a week.

There are common triggers or events that exist within a carrier's files spread across a universe of claims. The challenge is how to better identify these scenarios early enough to effectively manage the inventory. One method is for all claims to be scored and ranked in terms of fraud propensity based on values derived through complex algorithms and advanced mathematical techniques. These should be applied to the data associated with each claim while also assessing relativity to the entire claim population.

With technology, claim fact outliers, questionable links and suspicious loss

indicators can be identified within the data at a consistent power and speed not achievable through traditional manual detection processes. In addition to highlighting specific reasons why a claim is high-scoring, a user interface can aggregate data details that support the reasons identified through the analytic detection process. From a business perspective, this allows limited SIU resources to efficiently and effectively focus on the most egregious fraud risks. Legally, this detection approach provides significant bad faith risk mitigation through automating scientifically and mathematically-based analytical methods on a consistent basis.

#### Utilizing the information

The use of data analytics tools and the role of the data function are expanding, thereby allowing SIU to become more operationally sophisticated. Consequently, most carriers understand the importance of harvesting internal data for investigations and have created analyst positions within claims or SIU. These analysts are tasked with identifying emerging trends at the enterprise level.

Generally, they are focused on a strategic "top down" approach to identify the proverbial "needle in the haystack." Tools allow analysts to drill into and create new views from the universe of claims data, including the analytic output from fraud solutions. Based on discoveries derived through leveraging tools, analysts can create and test new fraud scenarios against enterprise data. This helps to identify emerging anomalies linked to billing trends and new schemes potentially impacting lines of business for specific geographies or the enterprise.

A further benefit to data analysis is that claims leadership can be informed in order to develop strategies, make resource decisions and more effectively collaborate throughout various departments within the organization. This goes well beyond fraud to include various business challenges such as identifying medical management and subrogation claims, determining litigation propensity and managing the life of a policy. No matter what the intended purpose, the end game of advanced data analytics is to focus the entirety of a claim environment into a single space.

## Taking fraud detection to the next level

How can an organization best operationalize a fraud detection platform? The notion of such a concept may seem daunting. It requires leadership and change management skills to execute a successful



enterprise adoption strategy. Planning needs to occur as soon as technology is acquired and consideration has to be given on how to roll out a solution across an organization. First and foremost, the end user of the platform must understand the concept that data and analytics enhance the ability to apply their subject matter expertise and quickly gain valuable insights for focused investigative leads. The messaging of this benefit must be clearly communicated throughout an organization. Most importantly, SIU personnel must be engaged in the vetting of a fraud solution and implementation process. This is critical for ultimate ownership and adoption. Effectively employing a solution into operations and subsequently evolving it may call for an iterative approach. An organization needs a starting



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point to begin the analytic journey.

Significant metrics can be derived from a platform. Analytics also allow understanding of how effective investigative efforts may be and where opportunities for improvement may exist. Operational dashboards and analytics can be developed to provide deeper insights into core SIU pillars such as processes, functions and structure to improve strategy. An effective knowledge management system is certainly a core process to capture institutional knowledge. Results from previous investigative efforts are critical for predictive modeling to improve fraud detection models. This represents a real return on investment in analytics.

In short, the integration of data analytics into the insurance industry is here. There is no doubt that technological solutions and analytics can significantly enhance SIU capabilities and effectiveness. With the growing power of fraud platforms to leverage "big data" and apply advanced analytics, new and comprehensive understanding of enterprise fraud risk is possible.

Technological advancements have created user-friendly platforms and provide a tool to assist leaders, analysts and investigators in focusing their expertise on critical issues. Attorneys can use insight from analytics to pursue affirmative litigation actions and as a shield to mitigate bad faith risks.

Analytics is not a replacement for the investigator or adjuster. Instead, it enhances the position to promote efficiency in the claim environment. The key is in understanding and embracing the power of technology and analytics when combined with insurance data.

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