Draft Pending Adoption

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Workers' Compensation (C) Task Force
Virtual meeting (*in lieu of meeting at the 2023 Summer National meeting*)
July 20, 2023

The Workers' Compensation (C) Task Force met July 20, 2023. The following Task Force members participated: Alan McClain, Chair, and Jimmy Harris (AR); John F. King, Vice Chair, and Steve Manders and Paula Shamburger (GA); Mark Fowler represented by Jimmy Gunn, Yada Horace, and Erick Wright (AL); Ricardo Lara represented by Yvonne Hauscarriague, Margaret Hosel, Giovanni Muzzarelli, Mitra Sanandajifar, and Sarah Ye (CA); Michael Yaworsky represented by Greg Jaynes (FL); Doug Ommen represented by Matthew Cunningham and Travis Grassel (IA); Dean L. Cameron represented by Maria Delvillar and Randy Pipal (ID); Vicki Schmidt represented by Chris Hollenbeck, Julie Holmes, and Sara Hurtado (KS); Sharon P. Clark and Sue Hicks (KY); James J. Donelon represented by Charles Hansberry (LA); Gary D. Anderson represented by Jackie Horigan and Matthew Mancini (MA); Timothy N. Schott represented by Brock Bubar, Sandra Darby, and Robert Wake (ME); Grace Arnold represented by Connor Meyer, and Phil Vigliaturo (MN); Chlora Lindley-Myers represented by Julie Lederer and Jo LeDuc (MO); Mike Causey represented by Sharon Thornton-Hall (NC); Scott Kipper represented by Anna Krylova and Gennady Stolyarov (NV); Glen Mulready represented by Cuc Nguyen (OK); Andrew R. Stolfi represented by TK Keen (OR); Michael Humphreys represented by Michael McKenney (PA); Elizabeth Kelleher Dwyer represented by Beth Vollucci (RI); Michael Wise represented by Will Davis and Melissa Manning (SC); Larry D. Deiter represented by Tony Dorschner (SD); and Kevin Gaffney, Rosemary Raszka, Zachary Rothammer, and Shane Silverman (VT). Also participating were: Tom Zuppan (AZ); Lucretia Prince (DE); Reid McClintock and Julie Rachford (IL); Linda Grant (IN); Paige Dickerson, and Tina Nacy, (MI); Christian Citarella (NH); Carl Sornson (NJ); Marianne Baker (TX); Rebecca Nichols, Lee Ann Robertson, and Zuhairah Tillinghast (VA); and David Haushalter (WI).

1. Adopted its Spring National Meeting Minutes

Commissioner King made a motion, seconded by Commissioner Clark, to adopt the Task Force's Spring National Meeting minutes (*see NAIC Proceedings – Spring 2022, Workers' Compensation (C) Task Force*). The motion passed unanimously.

2. Heard a Presentation from Lewis & Ellis on Workers' Compensation Rating

The Task Force heard a presentation from Katie Koch (Lewis & Ellis) on workers' compensation ratemaking. Workers' compensation laws, by design, protect workers by providing financial compensation. Workers' compensation payments include medical benefits for work-related injuries or illness, regardless of fault.

Workers' compensation insurance emerged in the early 20th century, and by mid-1900, most states had some form of legislation for workers' compensation. The National Council on Compensation Insurance (NCCI) and regional bureaus developed advisory rates that insurers widely adopted. The introduction of open competition in the workers' compensation market led to a reevaluation of pricing procedures.

The NCCI and other state rating bureaus typically provide loss costs instead of advisory rates today. Insurers must independently justify various components of the premium rate, including profit and contingency provisions, expense loads, investment income offsets, and other loss cost deviations. The loss cost variations include experience rating modifications and schedule rating, allowing insurers to deviate from bureau rates or loss costs.

Insurers consider the expense costs of participation in involuntary pools and special fund assessments. Additionally, insurers evaluate the cost implications of workers' compensation reforms enacted in state legislatures.

Pricing actuaries are often involved in determining rates that cover expected losses and expenses during the policy period while allowing the insurer to make a reasonable profit. Actuaries use two methods for determining rates. The first method is the loss ratio method, which quantifies needed revisions from current rates. The second method is the pure premium method, which quantifies the required rate per exposure unit and can be used in the deviation of rating factor relativities. Actuaries use the loss ratio methodology for an overall state rate indication and the pure premium methodology for classification ratemaking.

There are challenges when comparing workers' compensation rates across states. Experience rating, schedule rating, large deductible policies, and retrospective rating can significantly affect the final premium a policyholder pays under the existing overarching rating regime.

Experience rating involves identifying and collecting individual employers' payroll and loss information. It permits employer-specific deviations from manual rates with a foundation in a particular employer's historical loss experience.

Retrospective rating involves an endorsed insurance policy such that the final premium adjusts according to the losses experienced by the insured employer rather than according to industry-wide loss experience. This method takes actual losses during the policy period to modify the initial premium to one that more accurately reflects the loss experience of the individual employer.

Schedule rating refers to modifying manual rates either upward or downward to reflect the individual risk characteristics of the insured, generally done at the employer level.

The published loss costs of the state rating bureau (bureau), or NCCI, by industry code, are foundational to today's process. Typically, loss costs are reviewed and revised yearly. Insurers are permitted to use their own loss cost multipliers (LCMs), including a company-specific expense provision. Insurers may also use a loss cost modification factor (LCMF), which adjusts the rate level considering company-specific loss experience. There are often limitations on the degree to which an LCMF in a specific program is permitted to deviate.

Most states permit rating and schedule rating, which facilitates additional rate segmentation, but there may be some differences in specific rules. Some states are administrative pricing states, which may be the most restrictive in permitting insurers to deviate from a bureau filing. A workers' compensation model in a rate filing would likely not be allowed. Anyone can find state differences regarding laws and benefits by visiting the Workers Compensation Research Institute's (WCRI's) web page.

Workers' compensation rating laws can vary by state regarding the specific regulations and methodologies used to determine premium rates. Insurers use classification systems to establish the level of risk associated with each occupation. Classification systems influence premium rates. While many states have similar classification systems, some may have unique or more detailed classifications.

Many states permit insurers to use an experience modification factor, or an experience rating system, to adjust an employer's premium based on their historical claim experience. The experience modification factor compares an employer's actual claims history with the expected claims for companies in the same industry. A factor above 1.0 indicates higher-than-average claims, resulting in higher premiums. A factor below 1.0 indicates lower-than-average claims, leading to reduced premiums.

Some states have a competitive market where multiple insurers can provide workers' compensation insurance, allowing insurers to compete for business. Other states operate in a monopolistic system, where a state fund, or agency, is the sole provider of workers' compensation insurance.

Benefit levels provided under workers' compensation insurance, like medical coverage, disability payments, and vocational rehabilitation, can vary by state. Factors like average wage levels, cost of living, and specific state regulations may influence benefit levels.

Workers' compensation rating formulas consider factors such as industry classification, claims history, payroll, and other factors believed to be relevant. Although many states have similar risk classification plans, these formulas' specific components and weighting can differ.

IBM defines a predictive model as a statistical tool or algorithm that leverages patterns and relationships in historical data to make predictions or forecasts about future events. It involves training a model on a dataset and then using that model to make predictions about new, unseen data.

Insurers commonly use predictive models in personal lines products. The purpose of using the models is to promote more accurate risk segmentation, which correlates with expected costs. Predictive models must use a robust historical dataset. Using modeling approaches allows more formal control that eliminates some of the guesswork.

The use of workers' compensation models is lagging behind the use of personal lines models. The NCCI and rate bureau methods are sophisticated but not typically interpreted as applying a true "model" definition. Model usage is less prevalent in workers' compensation than in personal lines.

According to studies conducted by Robert Hartwig (University of South Carolina), there has been no statistically discernible relationship between workers' compensation underwriting performance and periods of recession over the past century. Workers' compensation rates have also been flat or decreased in recent years.

One hurdle to model rollouts in workers' compensation includes internal resource constraints and prioritization compared to other lines of insurance. Additionally, there may be pushback on regulatory or company management acceptance.

Workers' compensation has experience ratings and scheduled ratings built in. However, these components must be managed in a modeling process. The management of these components might increase the complexity of a model due to the extent there are differences by state.

There are some impacts of model usage on workers' compensation. One effect might be that if the regulatory framework permits models, insurers can conceivably use models to deviate from bureau loss cost plans and the current rating structure. Additionally, insurers could modify risk segmentation based on cost expectations. Due to state differences, there will likely be unique complexities in workers' compensation models that differ from personal lines pricing. However, workers' compensation modes could offer risk management and pricing insights.

A good pricing model needs to comply with state laws and regulations. When used on a dataset not used in building the model, the model should predict the target variable, such as claim severity, claim frequency, pure premium, and loss ratio. A good model considers the dataset size; a more extensive dataset may permit a more complex model structure than a smaller dataset. Acknowledging that different data set sizes offer different credible insights is necessary. Finally, a good model uses appropriate input characteristics that meaningfully contribute to a model's ability to predict the target variable. For example, the input variable can be demonstrated to have statistical significance or influence on the model results and improve the predictions of the target variable.

A good pricing model has appropriate control and offset variables to mitigate the risk of predictions without influencing a particular variable's model contributions (e.g., policy year and state). Sometimes an insurer will put a policy year in for a control variable when using multiple years of data because they do not want to distort their model results. Another control variable would be the state because each state likely has differences. The control variable is the variable that the modeler does not want to influence their target variable predictions.

Another factor that makes a good pricing model is integrating it into the model process. Insurers will have a current rating plan, but introducing a model into the rating plan requires an approach to control how the model gets integrated. For example, this will ensure there is no double counting.

When stakeholders, like regulatory communities, and consumers are concerned about the black box aspect of pricing models, it is important to ensure they:

- Understand the data underlying the model.
- Understand how the model validation works.
- Have some model memorandum or write-up.
- Get intuitive results.
- Have measured reliance (i.e., how the model improves a situation and why building a model is important).

Insurers may have concerns about protecting their proprietary information. Additionally, there are concerns regarding the time and speed-to-market, as well as compliance costs.

Commissioner McClain said everyone wants good data and analytics, and predictive modeling speaks to this. He said he has heard from stakeholders that they like the methods in place for years, as they have proved reliable. Commissioner McClain also heard that some insurers apply the models differently. He has heard from Arkansas' local industry concerns about the uniform applicability of models.

McKenney said he thought the presentation was helpful and liked how it touched on state insurance regulator concerns and state-by-state differences. He said Pennsylvania has had some workers' compensation insurers try to come in with predictive models, and Pennsylvania does not think their law allows it. McKenney said their workers' compact uses words like a uniform classification system, a uniform experience rating plan, and exclusive means. He said bringing in something that is essentially another way of classifying risk provides prospective pricing that deviates from what is supposed to be the exclusive means of providing prospective pricing in Pennsylvania's Act. McKenney said he understands that state-by-state laws vary. However, predictive models are not used as often in workers' compensation as in other lines of business.

Grassel said the workers' compensation industry has thrived for five to 10 years. He asked Koch if the workers' compensation market would deteriorate if she thought there might be more pressure on predictive modeling products. Grassel said workers' compensation insurance was a line of insurance needing improvement, say 25 years ago, and now it is the one that is performing the best.

Koch said she believes if the risk segmentation abilities deteriorate and the experience starts to deteriorate, there will be more efforts to use modeling. She said if insurers see ways predictive modeling could improve results, they would do so in jurisdictions that permit it.

Wake said he questions whether the improved performance in workers' compensation is due to improved performance. Instead, he wonders if the improved performance is a different inflation and investment environment in recent decades.

Wake asked if insurers need lower combined ratios to sustain the same level of performance. He said that combined ratios are not the only thing determining success or failure in workers' compensation because it is a long tail line; so much of the probability depends on investment return. Wake asked if the structure of investment return changes in low inflation and if a low nominal return economy needs more profitability from underwriting than investment. Koch said that if the investment returns are coming in lower than expected, that will put upward pressure on rates and pricing.

3. Discussed Other Matters

Commissioner McClain said the Task Force would meet in a couple of months to hear a presentation regarding the unintended consequences of the legalization of cannabis on workers' compensation.

Having no further business, the Workers' Compensation (C) Task Force adjourned.

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