DCRB
DELAWARE
Compensation Rating Bureau, Inc.

TO: The Honorable Trinidad Navarro
Delaware Insurance Commissioner

FROM: Brent Otto, FCAS, MAAA
Vice President of Actuarial Services and Chief Actuary

DATE: August 9, 2024

RE: DCRB Filing No. 2403
Workers Compensation Residual Market Rate and Voluntary Market Loss Cost Filing
Proposed Effective December 1, 2024 (Selected Portions Effective June 1, 2025)

This actuarial memorandum discusses the analysis performed by the Delaware Compensation Rating Bureau, Inc. (DCRB) that results in proposed changes in Residual Market Rates, Voluntary Market Loss Costs, rating values, and supplementary rate information for Workers Compensation insurance in Delaware.

SUMMARY OF THE PROPOSED FILING

This filing proposes an overall change in Residual Market Rates and Voluntary Market Loss Costs. The changes vary by class. Associated rating values will also be revised.

Indicated and Proposed Changes	
Residual Market Rates	Voluntary Market Loss Costs
-4.83%	-3.98%

Underlying losses continue to be adjusted to reflect Delaware law after House Bill 373 of 2014 (HB373) (a "post-HB373" basis). The full impact of HB373 contemplated in the law is reflected in this filing. This is discussed further in this memorandum's Technical Discussion and Supporting Information section.

The DCRB received approval for filed changes to the Experience Rating Plan (ERP) in Filing No. 2402. These changes were contemplated in this filing and necessary adjustments were made to maintain revenue neutrality for that filing.

The filing included several considerations related to the COVID-19 pandemic. Regarding the treatment of COVID-19 claims, consistent with last year's filing, the claims were excluded from the December 1, 2023 indications. Also, the analysis took into consideration the unusual economic impacts due to the pandemic primarily during Calendar Years 2020 and 2021. The primary factors influencing this decision were:

1.) COVID-19 claims are not a reliable predictor of future losses, given that COVID-19 is viewed as an unusual event that will not re-occur annually or regularly.

2.) While economic uncertainty due to the event has lessened, some uncertainty of ultimate costs still exists.

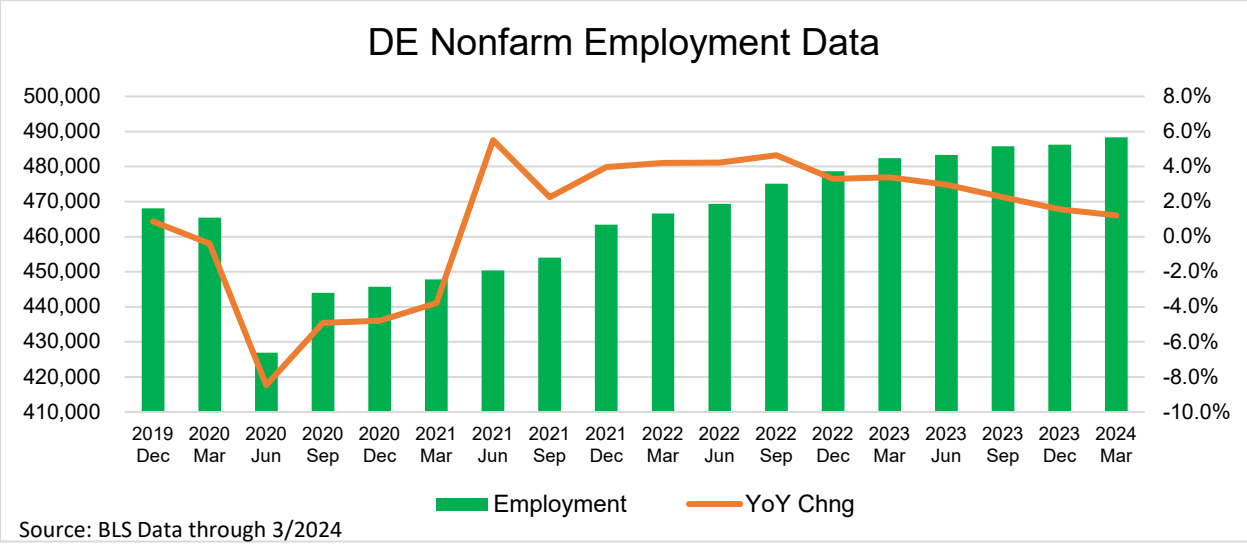
3.) This provides consistent handling between claims and economic impacts of the event by not allowing these items to impact the analysis unfairly.

4.) Pandemic considerations made in this filing are similar to ones made last year as well as in other jurisdictions.

Four COVID-19 claims from Policy Year 2019 totaling $998,122, 28 claims from Policy Year 2020 totaling $99,634, two claims from Policy Year 2021 totaling $3,993, and one claim from Policy Year 2022 totaling $1,306 were excluded. These claims were reported in Delaware Financial Call #15 as of December 31, 2023. Adjustments were also made to the corresponding Policy Years' Unit Statistical data used in the Filing. Given the limited number and amount of these claims, the decision to include or exclude these claims in this year's filing was not material.

The filing included a few COVID-19 economic-related adjustments due to the unusual nature of the economic shutdowns resulting in some abnormal data patterns that are not expected to continue into future periods. Similar to last year, the filing considered adjustments for indemnity and medical severity, policy year weights, and the average wage projections.

As shown by the drop in the employment level due to the pandemic in the graph below, Policy Years 2020 and 2021 are being abnormally skewed as a result of the economic shutdowns from the pandemic. Therefore, special considerations were necessary relating to a few pieces of the analysis.



Source: BLS Data through 3/2024

First, unlike the last filing, the indemnity and medical severity years affected by COVID-19 were included in the trend fits. By ending on the 2022 loss ratio, the years affected by the pandemic don't have an outsized effect on the trend fit this year. Also, a 4-point fit was selected rather than a 9-point fit used in the prior filing. The longer trend used last year worked because we excluded the pandemic years. Now, the shorter trend is a more reliable indicator of future loss ratios based on the four years used in our indication and results in consistent selections compared to last year. Also, for medical, the 6-point Consumer Price Index Urban (CPI-U) trend fit was used with the same post-reform starting point that coincides to the start of the fee schedule changes. In the

cases of both medical and indemnity severity picks, these adjustments did not have a meaningful impact on the indication, as they were numerically comparable to selections made in previous years. Third, also due to anomalies in the Policy Year 2020 and 2021 data, we continued to place 10% weight on these years, with the remaining weight split evenly between the other Policy Years (2019 and 2022) used in the indications. Since some of the effects related to the pandemic are expected to continue into the future (i.e., workplace trends that support telecommuting workers), these years continue to receive meaningful weight in the indications. The treatment of weights for the pandemic years used in the filing is intended to reflect future expectations and is consistent with the treatment used in last year's filing.

Like last year, consideration was given to adjust the increase in SAWW when estimating the effect of the 2025 benefit level and frequency calculations due to the unusual on-time jump related to the shift in employment by sector.

The DCRB feels these adjustments are reasonable and necessary to limit the unusual nature of the pandemic from impacting the projection of future rate and loss cost levels in a manner inconsistent with future conditions and expectations.

This year's filing does not include any proposed methodology changes that impact the indications.

The supporting exhibits and other attachments accompanying this actuarial memorandum comprise the balance of the filing and provide pertinent information regarding the proposed residual market rates, voluntary market loss costs, rating values, supplementary rate information, and supporting information for this filing. An index of exhibits appears at the end of this memorandum.

ADHERENCE TO ACTUARIAL PRINCIPLES AND STANDARDS OF PRACTICE

This filing has been developed using actuarial methods consistent with applicable actuarial principles and standards of practice. As developed, filed and distributed by the DCRB, rates and loss costs, represent estimates of future costs. These estimates rely on projections of loss experience (claim costs) to the prospective time period during which they will be in effect. That is, they are estimates of the costs of claims for workers compensation insurance policies to be in effect from December 1, 2024, to November 30, 2025. These claims' ultimate true value is uncertain and will not be known until they have all closed, several decades from now. As a result, estimates of future costs must be used. Adherence to actuarial principles and standards of practice ensures the reasonableness of the estimates, along with their compliance with regulatory requirements.

Four principles are provided in the Casualty Actuarial Society's Statement of Principles Regarding Property and Casualty Insurance Ratemaking. The fourth principle states:

> "A rate is reasonable and not excessive, inadequate, or unfairly discriminatory if it is an actuarially sound estimate of the expected value of all future costs associated with an individual risk transfer."

Actuarial Standards of Practice (ASOPs) apply to this filing. These documents set forth the standards, including appropriate considerations, that guide an actuary to develop and present the methods and calculations in this filing. These include ASOPs regarding data quality (ASOP 23), credibility (ASOP 25), trend (ASOP 13), risk classification (ASOP 12), communications (ASOP 41). and unpaid claim estimates (ASOP 43) which states:

> "The actuary should assess the reasonableness of the unpaid claim estimate, using appropriate indicators or tests that, in the actuary's professional judgment, provide a validation that the unpaid claim estimate is reasonable. The reasonableness of an unpaid claim estimate should be determined based on facts known to, and circumstances known to or reasonably foreseeable by, the actuary at the time of estimation."

This filing relies on data provided by our member companies; however, in accordance with ASOP 23 Data Quality, the data has been reviewed for reasonableness and consistency. Some examples of review include but are not limited to: identifying and investigating questionable data from the 16 largest carrier groups in Delaware as well as in total for all carriers; comparing the current premium and loss data to the data used in the prior analysis; comparing loss development patterns and several reserving diagnostic triangles.

DISCUSSION OF THIS FILING'S METHODS, ANALYSIS AND FINDINGS

The proposed residual market rates, voluntary market loss costs, and minimum premiums by classification submitted in this filing reflect the DCRB's actuarial analysis of all available experience data, enacted legislation, and other relevant factors to establish appropriate and lawful rating values for the policy period beginning December 1, 2024.

Delaware Workers Compensation Insurance Plan - Residual Market Rates

Delaware law requires that a "residual market plan" be filed with the Insurance Commissioner by the advisory organization. Residual market coverage is provided under the auspices of the Delaware Workers Compensation Insurance Plan (Plan). Employers unable to obtain workers compensation insurance in the voluntary market may apply to the Plan. An insurance carrier is then assigned to administer coverage for that employer, either as a servicing carrier, on behalf of the Plan, or on a direct assignment basis.

In this filing, as in filings since the inception of the surcharge program (discussed below in Exhibit 19), the expected amounts of the Plan surcharges are accounted for in the form of offsets to voluntary market loss costs. The average change in collectible rate level for the residual market, prior to the effect of Plan surcharges proposed in this filing, is a change of -4.83%.

The components of the proposed overall change in residual market rates are shown below with their impact on the filing indication.

Components of Indicated Change in Residual Market Rates		
	Component	Impact on Indication
1	Limited Medical Loss	-4.45%
2	Limited Medical Trend	+0.14%
3	Medical Excess Loss	-0.21%
	SUBTOTAL: MEDICAL LOSS	-4.52%
4	Limited Indemnity Loss	-1.64%
5	Indemnity Excess Loss	-0.37%
6	Limited Indemnity Trend	+1.24%
	SUBTOTAL: INDEMNITY LOSS	-0.02%

7	Loss Adjustment Expense	-0.89%
8	Loss-Based Assessments	+1.41%
9	July 1, 2025 Benefit Level Change	+0.17%
10	Underwriting Expense	-0.98%
	SUBTOTAL: OTHER	-0.29%
	OVERALL INDICATED RATE CHANGE	-4.83%
Note that the total results from converting the percentages to factors (e.g., -4.45% is 0.9555, in factor form) and calculating the product of the 10 factors.		

Voluntary Market Loss Costs

Since the enactment of House Bill 241 in 1993, Delaware law has applied a "loss cost" approach to pricing of workers compensation insurance written in the voluntary market. Under this system, the advisory organization (i.e. the DCRB) filings are limited to prospective loss costs, which reflect loss and loss adjustment expense, policy forms, uniform classification and experience rating plans and rules, and supporting information. Advisory organization filings specifically exclude provisions for profit and expenses other than loss adjustment expenses and loss-based assessments. Provisions for profit and expenses, other than loss adjustment expenses and loss-based assessments, are incorporated into voluntary market workers compensation rates by competitive filings made by each insurer. Insurer expense filings may adopt loss costs filed by the advisory organization, or the rates and supplementary information filed by another insurer, by reference, with or without deviation.

Consistent with past practice, in this filing, the DCRB has derived indicated changes in voluntary market loss costs directly from the proposed residual market rate change discussed above. This derivation is accomplished by removing from those rate proposals the combined effects of all provisions for profit and expenses, other than loss adjustment expenses and loss-based assessments. As a result, like the proposed changes in Plan rates, these revisions in overall voluntary market loss costs are based on statewide experience.

The relationship between collectible residual market rates and voluntary market loss costs is based on a loss cost multiplier (LCM) derived from industry underwriting expenses (Exhibit 11), including the underwriting profit provision from the internal rate of return analysis (Exhibit 9). Under Delaware law, loss adjustment expenses and loss-based assessments are included in the loss costs filed by the DCRB. The LCM is the reciprocal of the ratio of loss, loss adjustment expense, and loss-based assessments to premium. In the previous filing, the proposed LCM was 1.2711 (= 1 ÷ 0.7867).

The loss cost multiplier in this filing is 1.2599 (= 1 ÷ 0.7937). Exhibit 12, Page 12.1, Line (9), reflects this modification to the DCRB's standard calculations. The table below provides the details.

Delaware Loss, Loss Adjustment Expense, Underwriting Expense and Profit		
Item	**Current Provision as a Percent of Premium**	**Proposed Provision as a Percent of Premium**
Loss	59.56	58.99
Loss Adjustment Expense	15.72	15.90
Commission	4.78	4.29

Other Acquisition	1.50	1.24
General Expenses	2.63	2.51
Premium Discount	8.40	8.15
State Premium Tax	2.00	2.00
Other State Taxes	0.30	0.30
Uncollectible Premium	2.67	3.21
Administrative Assessment *	3.39	4.48
Workers Compensation Fund	1.00	1.50
Underwriting Profit	-1.95	-2.57
Loss, LAE, Administrative Assessment	78.67	79.37
* Denotes loss-based assessment		

Using the proposed provision for loss, loss adjustment expense and loss-based assessments (the provision for loss costs), the indicated change in voluntary market loss costs is -3.98%, which is computed as follows:

$$0.9517 \times 0.7937 / 0.7867 = 0.9602$$

The proposed decrease in voluntary market loss costs is attributable to the same factors as those that impact residual market rates, except that the effects of expense provisions, other than loss adjustment expense and loss-based assessments, do not apply to loss costs.

It is important to note that the net effect of the proposed loss costs on ultimate prices for employers that will be insured in the voluntary market (the majority of all insured risks) may differ significantly from employer to employer and from insurer to insurer. Workers compensation insurance prices for these employers will be a function of individual carrier decisions. Each carrier may elect to use the DCRB's loss costs by reference, to deviate from those loss costs, to file independent loss costs, or to use loss costs filed by another insurer by reference. In addition, employers may obtain their future workers compensation insurance from a different insurance carrier than the carrier providing their current policy, further expanding the range of possible price changes that individual risks may experience. These variables in determining the ultimate price impact of the DCRB's filing are natural consequences of the competitive pricing system implemented in Delaware.

Residual Market Surcharge, Exhibit 19

Experience of employers insured under the Plan in Delaware has historically presented an aggregate loss ratio higher than that of employers insured in the voluntary market. As shown in Exhibit 19, the loss ratio for the accounts in the Plan is about 40% higher than the loss ratio for voluntary business for the 5-year period 2017-2021.

During the late 1980s and early 1990s, Delaware had seen persistent increases in the portion of the market insured in the Plan. In a previous response to these concerns, the DCRB filed, and the Insurance Commissioner approved, a Plan surcharge program in 1997 that incorporated the following features:

- Surcharges are limited to risks eligible for experience rating and only apply to risks with debit experience modifications (i.e., those employers with demonstrably higher than average experience).
- To avoid redundant or inequitable penalties, surcharges are applied only to the extent that each employer is not fully credible in the Experience Rating Plan. This procedure assesses larger proportional surcharges to small employers, who are largely protected from the effects of their own experience in the Experience Rating Plan but reduces surcharges applicable to larger employers whose premiums significantly respond to their own loss records.
- Surcharges are limited to the debit portion of each risk's experience modification. This limitation provides a smooth transition from non-rated to experience-rated risks and/or small experience rating credits to small experience rating debits.

The surcharge expressed as a factor to be applied to the standard premium is computed using the following formula:

0.50 x (1.000 - risk credibility in the Experience Rating Plan)

As noted above, Plan loss ratios continue to be higher than those of the voluntary market. The portion of the Delaware workers compensation market insured under the Plan declined from a high of approximately 20% in 2005 to a current low of about 4.5% in the last three years.

This filing retains the Plan surcharge program as a disincentive for employers to have their Delaware workers compensation insurance coverage placed in the Plan.

The DCRB estimates that the surcharge program will produce an average surcharge for subject risks of approximately 28.1% of premium. Recognizing that some employers insured in the Plan do not qualify for experience rating and that other employers insured in the Plan qualify for experience rating but produce credit modifications, the surcharges produced by the proposed procedure would represent approximately 6.0% of total Plan premium.

The full amount of this surcharge premium is recognized in the calculation of proposed voluntary market loss costs for this filing. This approach reduces manual loss costs of less than 1% and essentially produces three different benchmark loss cost levels underlying workers compensation insurance rates in Delaware. These different underlying loss cost levels are as defined below:

1. Plan risks subject to surcharges (highest level depending on individual risk experience)
2. Plan risks not subject to surcharges (based on statewide average experience)
3. Voluntary market risks (based on statewide average experience reduced by offset for surcharges applied to the first group above)

The DCRB believes that while the Plan surcharge approach does not fully address the loss ratio difference between the residual and voluntary markets, it is practical and represents a reasonable step toward reducing Plan subsidies and providing meaningful disincentives for placement of employers in the Plan.

Delaware Construction Classification Premium Adjustment Program (DCCPAP), Exhibit 14

This filing proposes to update the reference to calendar quarter(s) used as the basis for determining qualifying wages for the DCCPAP and update the table of qualifying wages

underpinning that program with adjustments in the Statewide Average Weekly wage in Delaware, reflecting shifts in the mix of workers by sector due to COVID-19 as discussed above.

Other Filing Provisions

In addition to proposed residual market rates, voluntary market loss costs, and residual market surcharges, this filing addresses a number of rating values, programs, rules, and procedures which are integral parts of the Delaware workers compensation insurance system. In general, the filing's proposals simply reflect parametric changes in various rating values consistent with the most recent available Delaware experience. Detailed information supporting each of these proposals is provided elsewhere in this filing. Here is a brief synopsis of these other changes:

Item	Filing Exhibit(s)	Proposed Change	Purpose
DCCPAP Program – Effective June 1, 2025	14	Revise manual rating value offsets & wage table	Maintain revenue balance of the program
Minimum Premium (Residual Market)	11, 27	Update parameters	Update for wage inflation
Excess Loss Factors	17b, 17c	Update ELFs	Maintain accuracy of rating values based on current data
Excess Loss Premium Factors	17d, 17e	Update ELPFs	Maintain accuracy of rating values based on current data
Experience Rating Plan	13, 20, 21, 27	Update Rating Values	Maintain accuracy of rating values based on current data
Small Deductible Program	16	Revise existing premium credit and loss elimination ratio schedules	Maintain accuracy of rating values based on current data
Tax Multiplier	25	Update to tax multiplier	Maintain accuracy of rating values based on current data
Workplace Safety Program	29	Revise manual rating value offsets	Maintain revenue balance in the program
Merit Rating Plan	29	Revise manual rating value offsets	Maintain revenue balance in the program

TECHNICAL DISCUSSION AND SUPPORTING INFORMATION

Attached are exhibits and materials that provide technical support for the filing. In addition to the following discussion, each exhibit begins with one or more pages of explanatory and technical

details for the calculations that it contains. To highlight some of the more important aspects of the DCRB's technical analysis, the following discussion will address each of the following topics:

- Treatment of legislative and regulatory changes
- Effects of large losses on the experience analysis
- Estimation of policy year ultimate loss and loss adjustment expense ratios
- Trend provisions: Frequency, Severity
- Determination of the permissible loss ratio for proposed residual market rates
- Considerations regarding the Experience Rating Plan

Unless otherwise stated, the discussion and exhibits use experience from financial data collected by the DCRB in its annual financial data calls. These are the major topics underlying the proposed changes in residual market rates and voluntary market loss costs.

Treatment of Legislative and Regulatory Changes

Four major legislative changes have impacted medical expenditures in Delaware: Senate Bill 1 of the 144th General Assembly (SB1), Senate Bill 238 of the 146th General Assembly (SB238), House Bill 175 of the 147th General Assembly (HB175), and House Bill 373 of the 147th General Assembly (HB373). The estimated impacts of each of these four laws were provided in previous DCRB filings. A fifth piece of legislation, House Bill 166 of the 148th General Assembly (HB166), supplemented changes in these other bills. The DCRB does not anticipate any impact on medical expenditures from HB166. The underlying losses are adjusted to reflect Delaware law after the impacts of those four laws (a post-HB373 basis). The calculations underlying the adjustment of unlimited losses to a post-HB373 basis are in Exhibit 1 – Unlimited Losses.
The adjustment of losses to a common baseline in Delaware law allows the analysis of the underlying loss development and loss trend on a basis that is neutral to changes in law.

The law adjustment factors were developed separately for paid and incurred losses. The HB373 adjustment factors assume that payments were reduced consistent with the percentages stated in the law. The incurred factors also incorporate case adjustments to reflect the impact of HB373 as was done in past filings. Each reserve level change was distributed evenly over a 36-month period, beginning from the effective dates of the medical fee schedule changes in 2015 through 2017.

Additional details regarding legislative changes can be found in the Appendix at the end of this memorandum.

Effects of Large Losses on the Experience Analysis, Exhibit 1a

The analysis of residual market rates and voluntary market loss costs performed by the DCRB includes methods to reduce the impact of a small number of large claims in a given year. Starting with its annual experience filings effective December 1, 2004, the DCRB has applied procedures that perform loss development and trend analyses on a "limited" basis and then account for the expectation that claims exceeding the selected limit would occur from time to time by adding an excess loss factor to the rate level analysis. This filing has again approached loss development and trend analysis on a limited loss basis.

Loss amounts are stated on a post-HB373 basis. Loss development and trend analyses are conducted using losses at the post-HB373 level. The loss limit was adjusted to be stated on a post-HB373 basis (reflecting benefit levels and system provisions expected to be attained after the successive changes to Delaware's medical fee schedule were completed on January 31, 2017).

The methods and steps regarding loss limits and trends are outlined briefly below:

1. The December 1, 2004, loss limit ($1,043,461 on a post-HB373 basis) and the associated excess loss factor (0.0757) were taken as a key reference point for the determination of appropriate loss limitations for this filing.
2. Approved excess loss factor tables prior to December 1, 2004, were used to establish loss limitations consistent with an excess loss factor of 0.0757.
3. An annual trend rate was computed for the loss limits established in step 2 above.
4. Loss limits were interpolated for each policy period prior to December 1, 2004, based on the trend in loss limits through December 1, 2004.
5. Loss limitations consistent with an excess loss factor of 0.0757 for filings through December 1, 2023, were used to derive post-2004 annual trend rates. After a review of recent changes in loss limitations, an average annual change of 2.56% was selected for Policy Years 2017 and subsequent. The filing continued to reflect a selected average annual change of 4.61% for Policy Years 2005 through 2016 and 6.27% for Policy Years 1983 through 2004.
6. Loss limits were projected for each policy period after December 1, 2004, based on the trends in loss limits through December 1, 2024.
7. A series of loss limitations was selected for previous policy years consistent with the trend through December 1, 2004, applied retrospectively from that date and consistent with the trend from December 1, 2004, through December 1, 2023, applied prospectively from December 1, 2004, such that losses were capped at successively lower levels for older policy years, recognizing the impacts of wage and price inflation and potential changes in utilization over time. For policy years prior to 1984, a constant loss limitation of $275,196 was applied.
8. Reported paid and case incurred losses were adjusted, as needed, to limit underlying loss data to the selected limitations by policy year. These can be found in Exhibit 1 – Limited Losses.
9. Loss development analysis was performed using the limited loss data produced above.
10. Trend analysis was accomplished by dividing the observed limited loss ratios into separate components for claim frequency and claim severity, and prospective trends were selected for each component.
11. A loss limitation was selected for the prospective rating period based on the post-2004 projections. This selection was $1,885,210 on a post-HB373 basis.
12. The portion of losses to be removed from Delaware experience was determined based on the selected loss limitations.

13. Trended limited loss ratios were adjusted to an unlimited basis by application of an excess loss factor, from which point the rate level analysis could proceed in the usual fashion.

14. The limited losses described above are then used to calculate an Excess Loss Factor of 5.79% compared to 6.19% last year.

Estimation of Policy Year Ultimate Loss and Loss Adjustment Expense Ratios, Exhibit 2 – Limited Losses

Much of the analytical effort required in workers compensation insurance ratemaking is devoted to evaluating loss experience from prior periods. Results of past experience form a vitally important base of information when developing the prospective estimates in this filing. Since workers compensation losses may be paid out over an extended period of time after an accident occurs and a claim is filed, results of recent periods of experience must be estimated before ratemaking analysis based on those prior periods may proceed.

While the above is still true, the effects from the pandemic in recent years have made using past experience without additional considerations or adjustments inappropriate for some assumptions. This significant event has caused the experience from these years to be less indicative of future periods. The DCRB has considered estimating ultimate policy year loss and loss adjustment expense ratios at length in preparing this filing. In evaluating results of the methods in this filing, information gleaned from the DCRB's Unit Statistical Plan data was also used.

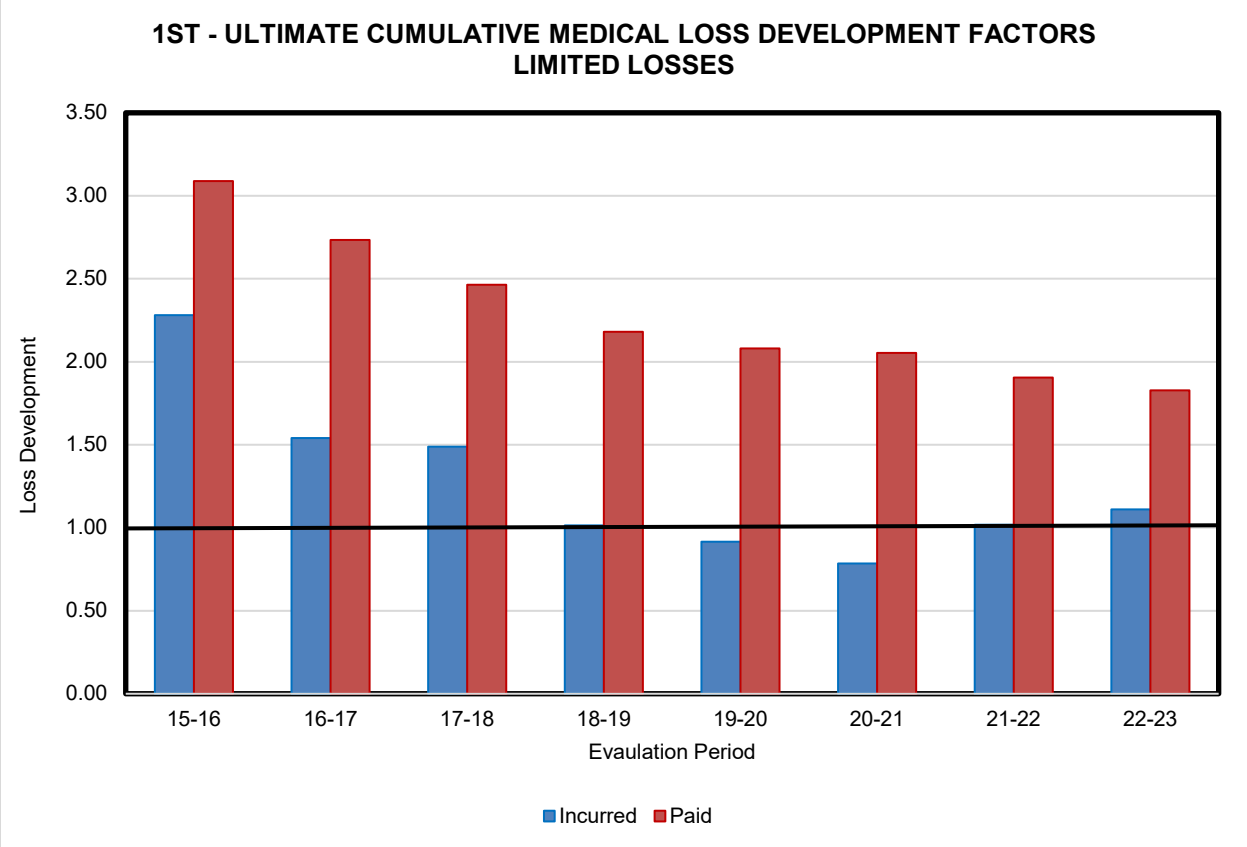
For medical, the historical incurred tail method uses a 10-year excluding high and low average to temper the effects of two abnormal points. The Weibull Curve Fit method continued to be used for the second method. Exhibit 3, Page 3 shows the curve fits for indemnity and medical. In general, stability in the methods were observed with both the indemnity and medical tails very similar to the selections last year. Stability is desired for any tail factor method, especially when using actual data points that can be volatile. The final incurred tail factor selections were the result of averaging the two methods, as shown on Exhibit 3, Page 1.

The tail factors for paid loss development are based on the incurred loss tail factors and a paid-to-incurred ratio or paid "bridge factor". A curve fit is performed on a broader set of data based on the paid-to-incurred ratio triangle to better determine the bridge factors for indemnity and medical losses (Exhibit 3, Pages 4 and 5). The curve fit projected paid-to-incurred ratios to the 50th report level, when virtually all the claims have been settled. Exhibit 3, Page 6 also graphically shows the two selected curve fits, and the resulting bridge factors based on the average of the points between the 20th and 50th reports. The bridge factors are then multiplied by the incurred tail factors to calculate the paid tail factors in Exhibit 3, Page 1.

Paid loss development factors are used through the 20th report and then developed to ultimate using the paid tail factor applied at the 20th report. The individual development factors for each report are accumulated into report-to-ultimate factors, shown in Exhibit 2 – Limited Losses as "Cum LDF". The product of the report-to-ultimate factors and the most recent valuation of paid loss or case incurred loss, as appropriate, produces estimates of ultimate loss for all policy years displayed. This produces estimates of ultimate loss for indemnity and medical on both an incurred and a paid basis. The resulting projected ultimate losses can be seen in Exhibit 2 – Limited

Losses, Page 4 for indemnity and Page 8 for medical. The resulting projected ultimate loss ratios appear on Exhibit 2 – Limited Losses, Page 5 for indemnity and Page 9 for medical.

The DCRB continued to use a 4-year average of indemnity age-to-age development factors to estimate ultimate loss and loss adjustment expense ratios. For medical, an 8-year average continued to be used given the recent volatility and the difficulty in adjusting medical loss development factors for the significant multi-year reforms and balances stability and responsiveness between the very low recent year factors impacted by the reforms and the higher prior year factors. One way to observe the volatility with the medical factors is to develop cumulative development 1st-ultimate factors for the various calendar years. This shows that for the last five evaluation periods the 5-year average 1st-ultimate incurred factor for medical is favorable by -3%. Except for the latest evaluation, each evaluation period's 1st-ultimate factor is essentially at or below unity, which is very unusual for medical incurred loss development. It is expected that as the reforms continue to settle, the most recent period reflects movement to a new normal above unity. Looking at the same average for the older three years in the 8-year average implies upward development of 77%. While neither period is appropriate to use on its own, a longer average strikes a reasonable balance for expected development as the effects of the reforms and the pandemic begin to wane. For this filing, the latest available year of development experience available for this filing is Calendar Year 2023.



Premium and Indemnity On-Level factors are shown in Exhibit 6. These are used to adjust premium and indemnity losses to the same level enabling the adjustment of historical data to current levels for projecting future periods.

In recent DCRB filings, a review of Unit Statistical Plan data showed claim closure rates that have generally been increasing in recent years. In addition, a review of the portion of reported losses paid at successive annual stages, from financial data, also provides signs of improvement. Exhibit 7 provides both sets of results.

Consistent with historical practices, the DCRB has based estimates of ultimate indemnity and medical losses in the filing on the average of the case incurred loss development method and paid loss development.

As in prior analyses, the DCRB used the following approach to smooth fluctuations arising due to the limited volume of data available for the analysis:

- Use of 4-year averages for indemnity and 8-year averages for medical when selecting loss development factors
- Smooth loss development factors using various mathematical models and curves fitted through the observed multi-year averages
- Use trend procedures which rely on multi-year averages rather than individual year ultimate loss and loss adjustment expense ratios

A comparison of results of loss development methods used in the filing may be seen on the enclosed Exhibit 2 – Limited Losses at the top of Page 5 for indemnity loss and at the top of Page 9 of the same exhibit for medical loss.

Trend Provisions, Exhibit 12

Each DCRB filing applies to a prospective time period. Since historical data is used in the analysis, it is necessary to account for any anticipated changes in loss ratios between the end of the available data and the policy period to which the proposed rates will apply. This is known as "trend" analysis.

Since 2002, the DCRB has used a trend approach that separates policy year-loss ratio trends into frequency and severity components. Frequency is measured as indemnity claims per unit of expected loss at a constant DCRB rate level. The use of expected loss in the frequency calculation incorporates exposure trend but is not affected by loss cost changes.

Policy year-on-level ultimate loss ratios are adjusted to a series of severity ratios by removing the effects of actual observed changes in the frequency of indemnity claims. The resulting severity ratios represent the policy year loss ratios that would have applied if all years had the same claim frequency. The result is a series of indices of claim severity. Loss ratio trends can then be derived as the combined result of separately determined claim frequency and claim severity trends. The goal of both the frequency and severity trend analyses is to develop the best estimate of frequency and severity in the upcoming policy period.

Frequency

Frequency analysis by the DCRB is based on Unit Statistical Data as shown in Exhibit 4. The changes in claim frequency by policy year range from +3.9% to -14.6%, with seven of the 10 years showing decreases. The average annual change over the 10 years is -5.6%. The newest data includes Policy Year 2022, which changed by -4.9% compared to Policy Year 2021. While there is variability in the year-to-year changes, overall frequency continues to decline.

It is considered actuarial best practice to develop claim counts to an ultimate level where reasonable and consistent factors can be determined. Exhibit 4, Page 2 shows the reported claim count development triangle and development factors. The statewide volume of data produces very stable and consistent factor selections. There was limited development beyond the 5th report, so the factors result in unity beyond that point.

Given the volatility in Delaware claim frequency data, the DCRB considered several approaches to estimate the claim frequency trend for this filing. A 7-point exponential trend selection used in previous DCRB filings was applied to the claim frequency data, resulting in a selected frequency trend of -6.1%, which is 0.2 points lower than in last year's filing (-5.9%).

Severity

In estimating claim severity trends, the DCRB applied exponential trend models to the policy year severity ratios produced by the loss development methods discussed above. Indemnity and medical ratios were treated separately and, for each method, the exponential models were reviewed over various time periods.

For indemnity benefits, the DCRB applied a 4-point exponential trend model, which gave a severity trend of +0.3%, based on Policy Years 2011 to 2019. This selection was similar to the 6-point trend as well as last year's selection. When combined with the frequency trend, the resulting indemnity loss ratio trend is -5.8% per year.

Indemnity loss ratios for this filing were then trended to December 1, 2025, the midpoint of the prospective rating period, by applying the claim frequency and claim severity trends to each of the most recent four policy year loss and loss adjustment expense ratios. The final projected indemnity loss and loss adjustment expense ratio, 0.3615, is based on the selected policy year weights of 10% placed on 2020 and 2021 and 40% on the years 2019 and 2022. The abnormally low 2020 and 2021 years are clearly impacted by the pandemic, and future loss ratios are expected to be at relatively higher levels in the future, as seen in 2022.

The same claim frequency trend analysis described above was used for medical benefits. While the DCRB's measure of claim frequency uses only indemnity claims, the vast majority of medical benefits are attributable to indemnity cases. This approach is consistent with prior filings.

Consistent with last year's filing, the DCRB used an average of the historical severity loss trend and CPI-U trend fit for medical. The trends were selected using a 4-point exponential trend fit and the results from the CPI-U 6-point fit. This resulted in a selected annual trend rate of +2.5%, which is consistent with last year's selection at 2.6%. When combined with the frequency trend, the resulting medical loss ratio trend is -3.7% per year.

Including CPI-U trend data in the medical severity trends is necessary since the historical data does not reflect future costs related to the economic effects of the pandemic. Higher medical fee schedules tied directly to the CPI-U will impact future periods differently from the patterns contained in the historical filing data. The CPI-U started to be used (rolling 12-month average from December to November) as the basis for changing the medical fee schedule on January 31, 2018, after the 3-year reform period concluded. Higher fee schedule changes in recent years related to the pandemic are not fully contemplated in the data. Since the filing relates to a prospective period starting 12/1/2024, these cost changes need to be considered. The selection also recognizes that only about 50% of the medical payments are driven by the fee schedule,

while the other 50% are from individually negotiated contracts, making an average of the two methods reasonable.

Medical loss ratios for this filing were then trended to December 1, 2025, the midpoint of the prospective rating period, by applying the claim frequency and claim severity trends to each of the most recent four policy year loss and loss adjustment expense ratios. The final projected medical loss and loss adjustment expense ratio, 0.3088, is based on the selected Policy Year weights of 10% placed on 2020 and 2021 and 40% on 2019 and 2022 as discussed above.

Determination of the Permissible Loss Ratio for Proposed Residual Market Rates, Exhibit 9

It is common in preparing workers compensation rate filings to use methods that explicitly recognize investment income in concert with anticipated cash flows, benefit costs and expense needs. The actual methods used differ from jurisdiction to jurisdiction. The DCRB's approach has been to directly compute a permissible loss and loss adjustment expense ratio consistent with an independently established target rate of return. This is the same approach as has been used in previous annual filings.

The prospective determination of an appropriate overall rate of return, which workers compensation insurers should be entitled to earn given the risk they assume in underwriting this line of business, is accomplished by a variety of economic analyses which are generally based on expected returns for businesses subject to risk levels comparable to that of underwriting workers compensation insurance. These methodologies proceed by establishing a set of total cash flows representing the various transactions related to the underwriting of workers compensation insurance. These cash flows include the expected patterns for the receipt of premiums, payment of losses and expenses, use of tax credits and/or payment of tax obligations, use of debt and maintenance of surplus funds in support of the business. Expense levels to which expense cash flows apply are determined based on historical experience.

Estimates of the probable investment results that an insurer who underwrites workers compensation insurance may expect to achieve were made by reviewing existing insurer investment portfolios and prevailing investment returns on various forms of investments. Applying these estimates to the previously established cash flows allows an explicit presentation of the effects of investment income throughout a book of workers compensation policies and an estimate of the value of that income to the insurer.

Based on the set of cash flows determined to apply to prospective policies and the estimated parameters of investment yields, federal tax laws, etc., these methods model all expected cash flows over the entire period during which payments attributable to a given policy period are expected to continue. For any given loss provision in rates, the present value of these cash flows can then be consolidated and compared to the target rate of return. The loss provision accomplishing a balance between the expected and target rates of return then becomes the basis for the permissible loss ratio. Within the Internal Rate of Return (IRR) Model used by the DCRB, the loss provision includes a provision for amounts generally related to losses such as loss adjustment expense and loss-based assessments.

This filing recognizes investment income on reserve and surplus funds and the cost of debt capital in determining the overall expected return for carriers from writing workers compensation business in Delaware.

The model includes debt capital as part of the weighted average cost of capital. The primary reasons supporting this are:

1. Debt capital is part of the statutory surplus.
2. Insurance company debt/capital ratios have risen over the past 20 years.
3. The inclusion of debt capital is a common industry best practice.

The analysis supporting this filing uses a similar IRR model as last year's filing. This filing indicates a needed underwriting profit provision of -2.57% compared to last year's underwriting profit provision of -1.95%. This difference is driven by the continued increase in investment yields over the past few years.

For this filing, the DCRB again retained an independent economic consultant to perform the above-described analyses. Results of this work are presented in complete detail in Exhibit 9.

Additional expense provisions are shown in Exhibit 8, and the expense loading is shown in Exhibit 11.

Experience Rating Plan and Temporary Staffing Classes, Exhibits 13, 20, 21 27, 32 and 33

The Experience Rating Plan (ERP) provides a prospective means of recognizing differences in loss potential between employers. This recognition is accomplished by means of a comparison of each qualifying employer's loss and exposure experience over a specified period (experience period) to the average experience of all employers engaged in similar businesses.

The DCRB reviews the performance of the ERP as part of its analysis supporting each annual rating value filing submitted to the Department of Insurance. Fluctuations in plan results, in particular movement in the average experience modification produced by the plan, are measured and accounted for in the derivation of proposed changes in manual rates and loss costs. This approach allows the ERP to reallocate premium obligations among insureds based on the merits of their past experience, but not either increase or reduce the total amount of premium indicated by the DCRB's benchmark filings of residual market rates and voluntary market loss costs.

Based on the Collectible Premium Ratios used to derive manual rating values for purposes of this filing on the most recent three completed available years of Market Profile data as shown in Exhibit 20. This approach is used to support the proposed collectible rate and loss cost changes and to provide more current recognition of the probable impact of experience rating for the upcoming rating period.

Exhibit 32 calculates temporary staffing rates based on the methodology presented in DCRB Filing No. 2012. Exhibit 33 calculates expected loss factors for certain temporary staffing classes that were discontinued effective December 1, 2021.

Excess Loss (Pure Premium) Factors

The loss cost filings typically include rating values for various rating plans affected by the size of loss for individual claims or occurrences. Limitations applicable to the amount(s) of loss can be used in computing a retrospective premium. This filing used the same Hazard Groups as updated in last year's filing. Other portions of this analysis facilitate the application of standard tables to Delaware business.

Exhibit 17a shows empirical distributions of Delaware losses by claim size. These distributions are derived from three years of experience. To determine the final excess loss factors, separate analyses of claim frequency and loss severity were performed, and a lognormal distribution was used to estimate claim severity and claim frequency for each type of injury. To produce the final loss distributions and excess loss factors, actual data (claim counts and dollars of loss) for limits below $250,000 were combined with fitted counts and dollars above $250,000 and reaccumulated. The resulting excess loss factors by loss limitation and empirical Hazard Group relativities are also presented in Exhibit 17b.

Exhibit 17b-e shows the derivation of excess loss (pure premium) factors from the loss distributions produced in Exhibit 17a. Average claim size by hazard group and type of injury were used, together with incurred loss weights by type of injury within each hazard group, to derive excess loss factors at selected size-of-loss limits by hazard group for Hazard Groups A through G. Exhibit 17 c and 17e are comparable to 17b and 17d, respectively, but they include an adjustment to account for ALAE.

CLOSING COMMENTS AND QUALIFICATIONS

DCRB Filing No. 2403 fully and fairly reflects the most recent available experience indications in Delaware. Together with all initial and continuing effects of SB1, SB238, HB175 and HB373, the methods and selections balance overall stability and responsiveness of the workers compensation system. The DCRB respectfully requests a timely review of this filing, allowing implementation on a new and renewal basis **effective December 1, 2024**. A timely review will allow adequate advance notice of final residual market rates, and voluntary market loss costs and related rating values to all participants in the Delaware marketplace. Toward that objective, the DCRB will be pleased to answer any questions or provide any available supplementary information which you, your staff, and consultants reviewing this filing on your behalf may require.

This filing has been developed by and under the direction of Brent Otto, FCAS, MAAA. He meets the Qualification Standards of the American Academy of Actuaries to provide the actuarial opinion in this filing.

Please direct all questions to:

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APPENDIX – LEGISLATIVE CHANGES

The following is a summary of the recent major legislative changes in Delaware.

Senate Bill 1, 144th GA

SB1 was signed into law on January 17, 2007. This was a landmark piece of legislation, creating several features of the health care payment system in Delaware. It included the following notable components:

- Established a Health Care Advisory Panel
- Provided for a health care payment system intended to control health care costs in connection with workers compensation
- Provided for the establishment of health care practice guidelines
- Provided for the development of certification standards for health care providers treating employees in the workers compensation system
- Provided for the adoption of forms and a consistent and uniform reporting system among employees, employers, insurance carriers, and health care providers
- Adopted standards for billing and payment of health care services
- Required contractors and other parties doing substantial work within Delaware to adequately insure their employees for workers compensation under the laws of Delaware
- Authorized payment of indemnity benefits or health care benefits without prejudice against the right to later contest the employer's obligation to pay the expense in question
- Established new procedures for attorney fees in workers compensation matters
- Clarified the obligations of independent contractors and subcontractors with respect to maintaining workers compensation insurance
- Clarified the calculation of wage rates, especially in cases where employees had limited work histories
- Implemented procedures for the collection of data relevant to workers compensation including injury reports, mandatory insurance requirements and health care treatments and costs

Senate Bill 238, 146th GA

SB238 was signed into law on August 7, 2012, and revised procedures used to determine payments to hospitals and ambulatory surgery centers for services provided to workers compensation claimants. SB238 made technical improvements to the changes in SB1.

House Bill 175, 147th GA

HB175 was signed into law on June 27, 2013, arising from work done by the Workers Compensation Task Force created by House Joint Resolution 3.

House Bill 373, 148th GA

HB373 was signed into law on July 15, 2014, and included the following notable components:

- A 33% reduction in medical expenditures phased in over a three-year period (20%, 5%, and 8%) effective 1/31/2015, 1/31/2016, and 1/31/2017 respectively.
- Imposed caps expressed as percentages of Medicare per-procedure reimbursements beginning on January 31, 2017

- Revised certain procedures pertaining to the position of Ratepayer Advocate

House Bill 166, 148th GA

HB166 was signed into law on July 27, 2015, and included the following provisions:

- Defined “health care provider” for purposes of §2301
- Allowed recognition of savings other than fee schedule changes in accomplishing the reductions in medical expenditures required by HB373
- Modified procedures applicable to the reimbursement for medical treatment and procedures performed outside Delaware
- Authorized the Workers Compensation Oversight Panel to adopt rules requiring electronic medical billing and payment processes and to standardize documentation required for billing adjudication
- Provided for the certification of healthcare providers not licensed by Delaware
- Made the utilization review program applicable to health care providers regardless of whether such providers are certified under §2322D

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