

**ACTUARIAL PEER REVIEW:
WORKERS COMPENSATION
RATEMAKING PROCESSES OF THE
NATIONAL COUNCIL ON
COMPENSATION INSURANCE**

STATE OF FLORIDA

OFFICE OF INSURANCE REGULATION

January 31, 2024

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1. Introduction

1.1. Scope

The Office of Insurance Regulation, State of Florida, (the FLOIR) retained Oliver Wyman Actuarial Consulting, Inc. (Oliver Wyman) to perform an independent actuarial peer review of the ratemaking processes of the National Council on Compensation Insurance, Inc. (NCCI), in Florida, as required by Section 627.285, Florida Statutes.¹

Specifically, we have been engaged to review the following:

- Methodologies, judgments, and assumptions used to determine statewide rate level changes.
- Methodologies, judgments, and assumptions used to distribute statewide rate level changes to industry groups.
- Methodologies, judgments, and assumptions used to determine individual workers compensation classification rates.
- Methodologies, judgments, and assumptions used to determine the impact of legislative changes,² benefit-level³ adjustments, and legislative proposals.

1.2. General Approach to this Review

Our general approach to this review was to identify the data and methodology used by NCCI and to assess their appropriateness. Our assessment included consideration of the following questions:

- Is the methodology a commonly applied actuarial technique?
- Is it appropriate in the circumstances of its use by NCCI?

¹ Section 627.285 states that: “... at least once every other year contract for an independent actuarial peer review and analysis of the ratemaking processes of any licensed rating organization that makes rate filings for workers compensation insurance, and the rating organization shall fully cooperate in the peer review. The contract shall require submission of a final report to the commission, the President of the Senate, and the Speaker of the House of Representatives by February 1.”

² Since implementation of SB 50A on October 1, 2003, there have been material changes to case law due to court decisions and one material legislative change affecting workers compensation costs in Florida:

- Florida Supreme Court Decision, *Emma Murray v. Mariner Health and ACE USA*, October 23, 2008.
- HB 903, which reversed the legislative impact of the Murray Decision, effective July 1, 2009.
- Florida Supreme Court Decision, *Marvin Castellanos v. Next Door Company* April 28, 2016.
- Florida Supreme Court Decision, *Bradley Westphal v. City of St. Petersburg* June 9, 2016.
- Amended Final Order issued by the Florida Division of Administrative Hearings, *Zenith Insurance Company v. Department of Financial Services, Division of Workers Compensation, Medical Services* May 23, 2023.

³ Benefit level changes implemented in Florida periodically include adjustments to physician fee schedules, hospital fee schedules, and changes to the maximum weekly benefit. In addition to these (typically minor) adjustments, there are sometimes more substantial changes. The most recent adjustments to the medical fee schedule were effective May 23, 2023, and July 1, 2023. The combined impact of these adjustments was to reduce medical costs by 5.5%.

- Does it meet Actuarial Standards of Practice?
- Is the data appropriate for methodologies employed?
- What additional methodologies were available?

The review process is as follows:

- Review of documentation provided by NCCI – primarily documentation related to the filings effective January 1, 2023 (hereafter referred to as “the 2023 filing”) and January 1, 2024 (hereafter referred to as “the 2024 filing”).
- Discuss questions and concerns with the FLOIR.⁴
- Issue Draft Report to FLOIR.
- Consider comments from FLOIR and NCCI.
- Issue Final Report

This assignment was not used as a vehicle to substitute our professional opinions for those of NCCI. We conducted an objective review with the goal of identifying those areas where, in our opinion, NCCI’s documentation was incomplete, where inappropriate actuarial judgments were made, or where additional investigation by NCCI into specific issues was warranted. Our findings that specific processes, judgments, or assumptions are reasonable, or our lack of issue with the same, do not necessarily mean that we endorse them or would take the same approach if we were to conduct an independent analysis of rate needs in the state of Florida.

⁴ Our contact during this review was Mr. Greg Jaynes, ACAS, MAAA, Actuary, Florida Office of Insurance Regulation

2. Principal Conclusions

1. The NCCI ratemaking process (in Florida⁵) is based on commonly applied actuarial methodologies that are supported in actuarial literature and frequently used by qualified actuaries.
 - 1.1. The NCCI ratemaking process draws from actuarial methodologies employed by NCCI and other ratemaking organizations in other states.
 - 1.2. Actuarial methodologies used by NCCI are appropriate within the context of their use in the NCCI ratemaking process in Florida.

We consider the professional guidance promulgated by the Casualty Actuarial Society and the American Academy of Actuaries to determine whether the NCCI ratemaking process in Florida is compliant with professional standards. Actuarial methodologies used by NCCI are consistent with:

- The Statement of Principles Regarding Property and Casualty Insurance Ratemaking, as published by the Casualty Actuarial Society
- The Code of Professional Conduct, as published by the American Academy of Actuaries
- Applicable Actuarial Standards of Practice promulgated by the Actuarial Standards Board

We based our conclusion on a review of the key elements and selected specific details of the NCCI ratemaking process. We did not conduct an exhaustive examination of every method and calculation employed by NCCI. Additionally, while we examined certain rating values for reasonableness, we did not examine the detailed calculations of all elements during this review or all supporting documentation. These issues are not material as respects the conclusion above.

2. The NCCI ratemaking process is based on data that is appropriate as respects the actuarial methodologies employed in the 2024 filing.
 - 2.1. The Financial Call data⁶ collected by NCCI is appropriate for the actuarial methodologies used by NCCI to calculate the statewide rate change.
 - 2.2. The Workers Compensation Statistical Plan (WCSP) data⁷ collected by NCCI is appropriate for the actuarial methodologies used by NCCI to distribute the statewide change to the five industry groups and the individual classifications in each industry group.

⁵ This report addresses the NCCI ratemaking processes and methodologies in the state of Florida only. Unless otherwise stated, any references to the NCCI ratemaking process or ratemaking methodologies are specific to the state of Florida.

⁶ The Financial Call is a process by which NCCI collects, tabulates, checks, and edits combined statewide workers compensation data at an aggregated level.

⁷ WCSP data is a database of individual claim experience and policy specific information collected, tabulated, checked, and edited by NCCI. Information is collected in sufficient detail such that workers compensation experience can be allocated to individual classifications, and therefore, to the five industry groups. WCSP data is the basis for allocating the statewide rate level change to the five industry groups as well as to all individual classifications.

The Financial Call data and WCSP data are the primary data sets used by NCCI in the ratemaking process. Each set of data has advantages and limitations. The ratemaking processes employed by NCCI tend to maximize the advantages of each set of data and minimize the impact of limitations of each set of data.

2.3. The expense data utilized by NCCI is appropriate for the actuarial methodologies used by NCCI to determine the expense provisions underlying rates.

Expense provisions other than loss adjustment expense are calculated using expense data from the NAIC⁸ Insurance Expense Exhibit. The provision for loss adjustment expense is based on Florida-specific and countrywide data collected in the Financial Call.

3. The current charge for terrorism should be re-examined for the following.
 - Appropriateness as respects the amount of the charge;
 - Appropriateness as respects the manner by which it is charged, that is, as a fixed cost per \$100 payroll or as a percentage of manual premium or some other related base;
 - Whether the charge is a contingency charge, as opposed to a loss cost; and
 - If found to be a contingency charge, whether there should be a contingency charge for terrorism in addition to the profit and contingencies provision, or whether the profit and contingencies provision underlying rates compensates insurers for the risk of a terrorist event, in which case the current charge for terrorism is an unnecessary second charge to policyholders for the same contingency.
 - Whether the revenue generated by the charge should be held in reserves to fund losses resulting from a terrorism event, or whether the charge should result in insurer profits in the absence of a terrorism event.
4. The general NCCI ratemaking process is consistent over time. However, judgments and assumptions as respects specific decisions on methodology and the selection of actuarial parameters may vary between rate applications.

Certain specific judgments and assumptions vary between rate filings. In general, specific judgments and assumptions are a matter of professional actuarial opinion. There is a concern that relying on varying judgments and assumptions regarding key actuarial parameters, such as trend, rather than a consistent selection methodology over time increases the potential for generating rate level indications based on predetermined notions, rather than objective statistical measurements. Conversely, there are arguments that fixing all aspects of the ratemaking methodology may lead to illogical results when changes occur to the workers compensation system. As respects statewide ratemaking, we generally recommend that methodologies and selection criteria for key actuarial parameters such as trend be fixed over time unless there is a compelling reason to change. Nevertheless, this is our professional opinion. We find nothing inherently improper with NCCI's general approach to ratemaking as respects this issue.

⁸ National Association of Insurance Commissioners.

5. NCCI annual trend selections are greater than indicated. In Figure 1 and Figure 2, we present our review of the NCCI selected trends. The left panel⁹ presents the loss ratio data presented in Appendix A of the Filing, and the right panel presents the indicated trends presented in Appendix A-III, Section B (indemnity) and Section C (medical).

Figure 1: Indemnity Loss Ratio Trend

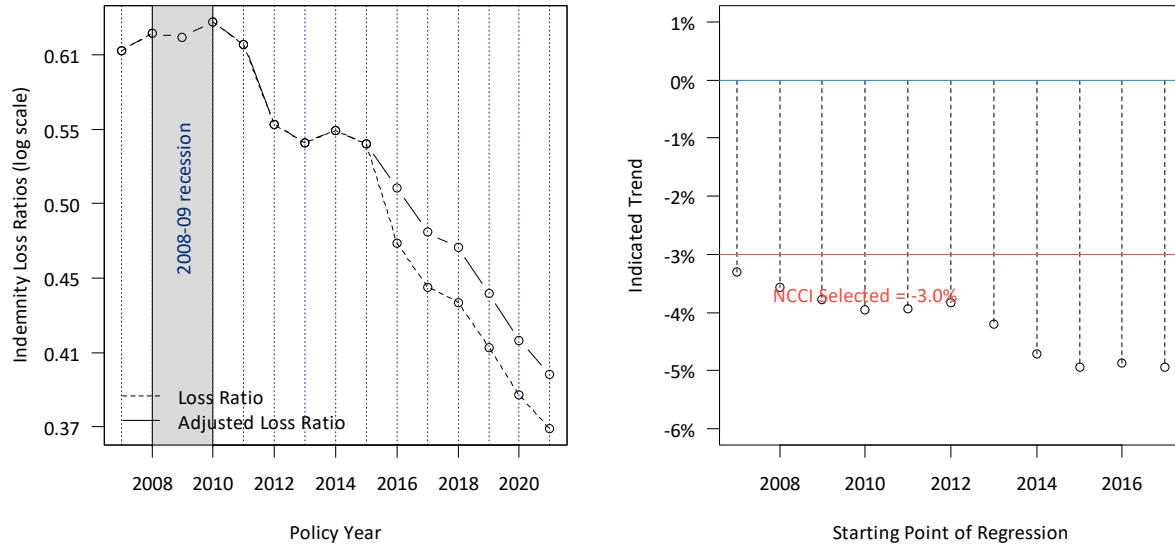
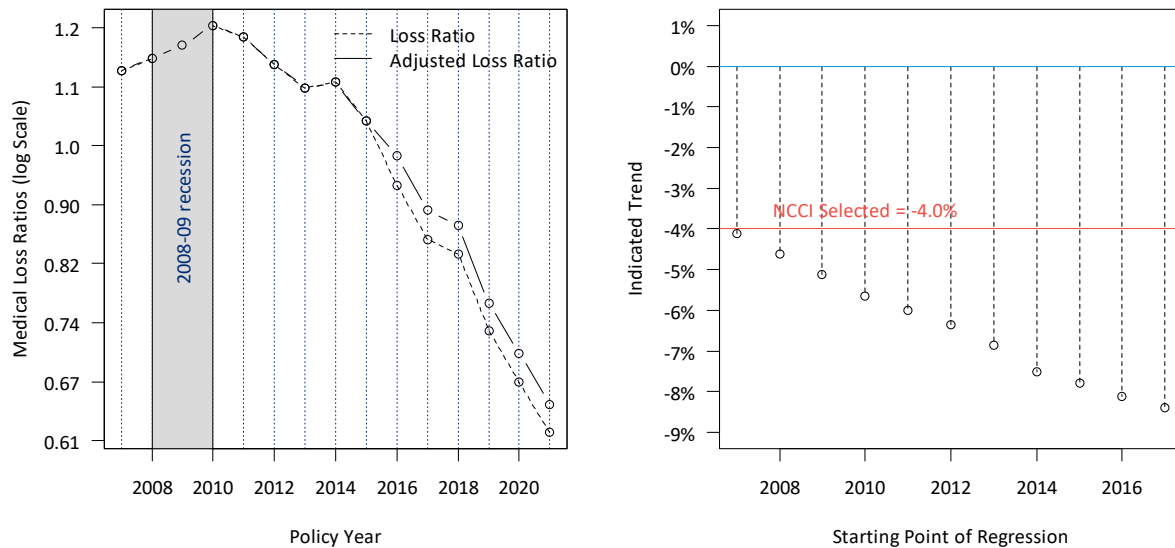


Figure 2: Medical Loss Ratio Trend



⁹ We discuss the adjustment to the raw loss ratios in Section 4.3.

While NCCI's filing documentation includes some discussion that justifies selected trend rates that are higher than the indications, we do not find this narrative to be sufficient justification for the magnitude of the difference between the indications (based on actual history) and NCCI's selections.

6. NCCI estimates the impact of changes to the medical fee schedule as part of its estimate of ultimate on-level losses. We find this to be an appropriate adjustment and we find NCCI's approach to estimating this adjustment to be reasonable. However, we find that it may be appropriate to examine experience periods of longer than one year for the purpose of estimating this adjustment. Furthermore, these calculations rely on an estimated realization rate of 80%, which is based on NCCI research from 2018. We recommend that NCCI update this research and/or demonstrate that the conclusions are still applicable.
7. Embedded in the credits for small deductibles and coinsurance is a 0.95 safety factor. The purpose of the safety factor is to compensate insurers for the risk that employers that elect to participate in these programs do not reimburse insurers for the applicable deductible or coinsurance charges. The safety factor decreases the credits (and therefore increases the premium charged) for employers who elect to participate in these programs. Therefore, the lower the safety factor, the lower the credit, and the higher the premium charge. Our understanding is that NCCI last provided support for the 0.95 safety factor in 2018, at which time the selected factor was modified from 0.90 to 0.95. We find that this analysis should be updated regularly and NCCI should present the support as part of the filing.
8. Our primary concern with the class ratemaking methodology implemented in 2010 is the substitution of theoretical excess loss ratios for actual data to provide for losses in excess of the \$500,000 per claim limit. This concern is compounded by the fact that \$500,000 limit has been unchanged since 2010. Over time, the impact of inflation will increase the volume of loss experience above the limit and decrease the volume of loss experience below the limit, effectively giving more weight to the excess ratios, and less weight to empirical data. We recommend that NCCI report to the FLOIR, based on Florida data, what the impact of keeping the limit fixed over time has been on the portion of available data below the limit, as well as what the potential impact has been, if any, on the differentials between classification rates. If the impact is measurable, consideration should be given to inflating the limit over time to reflect the impact of severity inflation.

3. Overview of the NCCI Ratemaking Methodology

The result of the workers compensation ratemaking process is a revised manual premium rate for more than 500 individual workers compensation employer classifications. The final premium rate for an individual employer is the published manual workers compensation rate multiplied by the specific employer's experience modification.¹⁰

NCCI maps classifications into five industry groups.¹¹ The premium rate for each classification incorporates the combined impact of statewide average experience, the experience of the industry group to which it belongs, and the experience of the individual classification.

The NCCI ratemaking methodology in Florida is composed of four general steps.

Step 1. Calculation of Statewide Rate Change

The statewide rate change is the average rate change for all classifications combined. This step relies primarily on aggregate Financial Call data. The statewide change is based on the experience period estimate of ultimate loss and the provision for loss underlying premium rates. If experience period estimates of ultimate loss are greater than (or less than) the provision for loss experience underlying premium rates, the indicated change will be an increase (or decrease).

Additionally, provisions for expense and underwriting profit are recalculated based on current data. If there is a need for greater (or lower) expenses or underwriting profit than included in the current rates, the indicated change will be an increase (or decrease).

Step 2. Distribution of Statewide Rate Change to Industry Groups

NCCI distributes the statewide rate change to each of the five industry groups based on the relative loss experience of each individual industry group. The allocation to industry groups relies primarily on WCSP data. Experience period estimates of ultimate loss by industry group are compared to expected loss experience. If the comparison shows that for a specific industry group loss experience exceeded the

¹⁰ Experience rating is the final step in the process of determining premium charges for individual employers. Experience rating recognizes that the premium rate for a specific classification represents the average premium rate for all employers in that classification. Experience rating is the process by which the premium rate, for a specific employer, is adjusted to reflect that employer's loss experience relative to the average loss experience in the employer's classification. Simply, experience rating is a measurement of an employer's loss experience relative to the employer's expected loss experience. Expected loss experience is based on the average loss experience of all employers in a classification. The result of the experience rating process is the experience modification. An experience modification greater than unity, or 1.000, is commonly referred to as a "debit mod" and indicates that the employer has loss experience greater than the classification average. Conversely, an experience modification less than unity is commonly referred to as a "credit mod" and indicates the employer has loss experience less than the classification average. Importantly, if an employer has a debit mod, that *does not* mean that this specific employer is "unsafe." It only means that this specific employer has greater loss experience than the average employer in that specific classification. The converse applies as well. If a specific employer has a credit mod, that does not mean that this specific employer is "safer." A range of items completely unrelated to relative safety, such as average wage levels, may also affect the experience modification.

¹¹ The five industry groups are: Manufacturing, Contracting, Office & Clerical, Goods & Services, and Miscellaneous.

expectation, that industry group is allocated a rate level change greater than the statewide average. Similarly, if the experience period estimate of ultimate loss for a specific industry group is less than the expected loss experience, that industry group is allocated a rate level change less than the statewide average.

For example, in the 2024 filing, NCCI calculated a 15.1% decrease to statewide rate level. Table 1 summarizes the distribution of the proposed statewide 15.1% decrease:

Table 1: Rate Level Change by Industry Group

Industry Group	Rate Level Change
Manufacturing	-14.8%
Contracting	-16.6%
Office & Clerical	-16.2%
Goods & Services	-14.4%
Miscellaneous	-13.7%
Overall	-15.1%

Manufacturing performed very close to the statewide average, while Contracting and Office & Clerical performed better than the statewide average because larger decreases than the statewide average were allocated to these industry groups. Conversely, Goods & Services and Miscellaneous performed worse than the statewide average because smaller decreases than the statewide average were allocated to these two industry groups.

The weighted average of the rate changes for each of the five industry groups must equal the statewide rate change calculated in Step 1.

Step 3. Distribution of Industry Group Rate Changes to the Individual Classifications

NCCI distributes the industry group change to each individual classification within the specific industry group. NCCI bases the distribution on the loss experience of each individual classification. NCCI uses WCSP data for this calculation. The weighted average of the rate changes for all classifications in an individual industry group must equal the industry group rate change calculated in Step 2.

Note that NCCI does not directly calculate classification rates.¹² Rather, the starting point in the NCCI ratemaking process is current manual rates. The process described in steps 1, 2, and 3 above represents a rate relativity system. An overall statewide rate need is determined by examining statewide combined data, which generates an indicated statewide rate level change in step 1. If not for consideration of rate relativities, the process would stop here, and NCCI would apply the same calculated rate change to the

¹² This statement applies to industrial classifications, which comprise the bulk of the workers compensation classifications. This is not the case for Federal classifications (F-Classes). F-Classes represent classifications where claims may be filed under the United States Longshoreman and Harbor Workers Act. This is a federal jurisdiction administered by Office of Workers Compensation Programs, United States Department of Labor. Workers injured on or near coastal or inland waterways have the option to file claims under either the Federal act or the Florida state act. Relevant occupations include ship manufacturing, ship repair, stevedoring, etc. NCCI calculates rates for F-Classes somewhat differently than for industrial classifications.

current rate for each classification. Steps 2 and 3, however, consider how the *relative* loss experience for each individual classification has changed since the prior rate filing. Step 2 measures the relative change between industry groups, and step 3 measures the relative change between individual classifications within each industry group. In the simplest sense, if the most recently available data indicated that every classification, relative to each other, behaved exactly as expected, then the rate for every classification would be increased or decreased by the exact same percentage, i.e., the calculated statewide rate change. This, of course, does not reflect reality, and illustrates the need for Steps 2 and 3. These steps measure how the loss experience for each individual class changed relative to each other. This is why, even with very small or zero percent statewide rate change, some classifications might increase (or decrease) by the amounts significantly greater than 0%.¹³

Step 4. Calculation of Rating Values

The final step of the ratemaking process is the calculation of the required rating values for the experience rating program, retrospective rating programs,¹⁴ and other miscellaneous rating values.

¹³ There are limits as to how much the rate for an individual classification can change. 15% represents what is referred to as the swing limit. The swing limit is the maximum allowable change (up or down, relative to the industry group change) in any year to the rate for a single classification. Using the industry group change for Contracting, -16.6% in the 2024 filing, the maximum allowable range of rate changes for classifications in the Contracting industry group is (-16.6%-15%) to (-16.6%+15%). This calculates to be a range of -31.6% to -1.6%.

¹⁴ Retrospective rating represents a type of insurance program where a specific employer's premium is based on loss experience under the program, subject to certain maximum and minimum premiums and limits on the cost of individual claims. Retrospective premiums are periodically recalculated for years after the actual insurance policy expired. The recalculation reflects the most recently available actual loss experience under the program.

4. Statewide Rate Indication

Contributing elements to the statewide rate change include loss experience, benefit changes, trend, loss adjustment expense, other insurance company expenses, taxes and assessments, and profits and contingencies.

We discuss each element individually.

4.1. Loss Experience

The analysis of loss experience generates a forecast of the final expected cost of claims with dates of loss during the specified experience period. Key considerations in this process are the selection of experience period, database, and methods used to forecast the expected cost of claims.

Experience Period

NCCI uses policy year experience in the calculation of the statewide rate change. Policy year experience maximizes the matching of losses to the premium insuring those losses. Policy year periods in NCCI applications are calendar years. For policy year 2021 (PY2021), for example, a common group of insurance policies generates the loss experience and premium reported to NCCI.

Policy year experience extends over a 24-month period because only policies written on January 1 will have claims with dates of loss exclusively in the year of writing. Using PY2021 as an example, a policy written on January 1, 2021, will provide coverage for claims with dates of loss from January 1, 2021 through December 31, 2021. On the other hand, a policy written on December 31, 2021, will provide coverage for claims with dates of loss from December 31, 2021, through December 30, 2022. Therefore, approximately half the claims associated with PY2021 will have dates of loss in 2021. The other half will have dates of loss in 2022. The average date of loss is approximately December 31, 2021.

Policy year loss experience is comprised of claims covered by policies written during that year. Therefore, claims covered by policies written during 2021 generate losses associated with PY2021. Losses must be developed, or adjusted, to a final cost basis. Loss development adjustments are required because the final cost of the group of claims associated with a specific policy year will not be known until after all claims are reported, paid, and closed. This may not occur until 50 or more years after the end of the policy year.¹⁵ Loss development is a standard part of all NCCI filings and is discussed later in this section.

Premium mapped to a specific policy year is associated with policies written during the specified policy year. Therefore, premium associated with PY2021 is the total premium associated with policies written during 2021. Policy year premium must be developed, or adjusted, to reflect the anticipated impact of premium adjustments over time. Premium adjustments are primarily due to the anticipated impact of

¹⁵ Loss development is a standard actuarial approach and is required for the analysis of numerous types of casualty exposures besides workers compensation, such as general liability, medical professional liability, automobile liability, etc. However, loss development for workers compensation claims generally has the longest durations of all casualty exposures. The cost of medical benefits associated with a workers compensation injury are payable for the lifetime of the claimant and permanent total disability income benefits are payable to age 75 in Florida (or for a maximum of five years from the determination of permanent total disability for claimants injured over the age of 70).

premium audits, which generally occur within 12 months after a typical policy has expired.¹⁶ Therefore, policy year premium used to determine the experience indication is an estimate equal to premium reported to NCCI by the insurance carriers multiplied by a premium development factor.¹⁷

The two most recent policy years available for use in the most recent rate filing are PY2020 and PY2021, both with data valued as of December 31, 2022. December 31, 2022, is 12 months after the last possible date of loss (December 31, 2021) for a claim in PY2020. PY2020, valued as of December 31, 2022, is therefore said to be at a *second report*. Analogously, December 31, 2022, is the last possible date of loss for a claim in PY2021. PY2021, valued as of December 31, 2022, is therefore said to be at a *first report*.

Database

NCCI has several types of loss data (available from NCCI's financial calls) that may be used to forecast the final cost of claims. NCCI has historically relied on either paid loss data or paid loss plus case reserve data, or a combination of both. Paid loss data relies exclusively on benefit payments. Paid loss plus case reserve data relies on benefit payments and case reserves. Case reserves are the most recent estimates by claims professionals of the unpaid costs on open reported cases. Therefore, the use of paid loss data, as opposed to paid loss plus case reserve data, excludes the most recently available information on expected future costs embedded in case reserves. Paid loss data relies much more heavily on loss development factors for forecasting purposes, whereas paid loss plus case reserve data essentially substitutes case reserves, the most recently available information on the expected future costs of individual claims, for a substantial portion of paid loss development. Paid loss data is distorted by changes in claim payment (settlement) patterns while paid loss plus case reserve data is also distorted by changes to case reserve levels.

Currently, NCCI bases the rate level indication on an average of the paid loss plus case reserve experience approach and the paid loss approach. NCCI uses paid loss data to a 19th report, after which a calculated loss development factor for a 19th report to ultimate value is applied. This is the same approach as used for paid loss plus case reserve data. NCCI's approach is consistent with prior filings and is reasonable in the context of the 2024 filing. We note that in the 2024 filing, the results of the paid plus case reserve loss development approach are lower than the results of the paid loss development approach for all four observations (PY2020 indemnity, PY2021 indemnity, PY2020 medical, and PY2021 medical). We recommend that NCCI monitor these patterns with each annual filing. If there continues to be a consistent (or growing) gap between the results using the two databases, additional analysis will be warranted to understand the drivers of the difference and determine whether a change in database weighting would be appropriate.

¹⁶ Audits are typically within six months after policy expiration. An audit generally is a reassessment of payroll to determine actual payroll during the policy period. Insurers use estimated payroll to determine the initial premium payment prior to policy inception. Final audited premium is recalculated using actual payroll. The difference between premium based on audited payroll and premium based on estimated payroll is the reason why policy year premium changes over time. NCCI uses premium development factors to incorporate the estimate of audit adjustments on policy year premium reported to NCCI by insurance carriers (see the following footnote).

¹⁷ As noted in the preceding footnote, the auditing process requires a recalculation of policy year premium using audited (actual) payroll, causing policy year premium to change from amounts initially reported to NCCI by the insurance carriers. Premium development factors reflect the impact of the auditing process and measure the change to reported policy year premium over time.

Loss Development

Loss development factors (LDFs) measure the growth in losses associated with a group of claims over time. Claims are generally grouped by experience period, either policy year or calendar/accident year. LDFs are selected considering various averages of the most recent observations available. Such averages could include the most recent five observations, or the most recent five observations excluding the highest and lowest values, or the most recent three or two observations, etc. All of these averaging techniques are appropriate and reasonable in the context of the current and recent filings. Consistent methodology is generally preferred to avoid bias. In the current filing, NCCI used an average of the three most recently available observations, which is reasonable and is consistent with approved factors in recent filings.

We also examined the method and calculation of the 19th to ultimate report LDFs. These factors estimate growth beyond a 19th report, the last report for which NCCI collects loss development data. The calculation and results are similar to NCCI practice in other states and are reasonable. The selected value is based on an average of the ten most recently available estimated paid 19th-to-ultimate tail factors.

4.2. Benefit Changes

Historical losses, for the purpose of the experience indication must be adjusted to reflect changes in benefit levels between the time the losses were incurred and the period during which the prospective rates will be in effect. The 2024 filing reflects the following:

- -3.9% impact on medical costs (-2.5% impact on overall costs) due to changes to the hospital inpatient maximum reimbursement allowances, effective May 25, 2023;
- -1.0% impact on medical costs (-0.6% impact on overall costs) due to changes to the hospital outpatient maximum reimbursement allowances, effective May 25, 2023;
- -0.9% impact on medical costs (-0.6% impact on overall costs) due to changes to the Reimbursement Manual for Ambulatory Surgical Centers, effective July 1, 2023; and
- +0.3% impact on medical costs (+0.2% impact on overall costs) due to changes to the Health Care Provider Reimbursement Manual, effective July 1, 2023.

NCCI estimates the impact of each medical fee schedule change by (1) calculating the percentage change in maximum reimbursements, (2) determining the share of medical costs that are subject to the fee schedule, and (3) estimating the price level change based on an assumed price realization factor of 80%. This approach is applied to detailed data provided by the Florida Division of Workers Compensation with dates of service between January 1, 2022, and December 31, 2022, including COVID-19 claims.

We find the approach as described to be reasonable, subject to the following recommendations for possible future enhancements to the approach:

- Consider whether examining experience periods longer than one year may result in materially different indications.
- Revisit the assumed price realization factor of 80%. NCCI states that this assumption is based on research from 2018. We did not review the underlying analysis; however, we recommend that the analysis be updated based on more recent data.

4.3. Trend

Trend forecasts the anticipated annual percentage change in loss ratios. Loss ratio trends represent the combined effect of changes in the incidence of claims over time, or frequency, as well as the change in the average cost per claim, or severity, over time.

As respects workers compensation loss ratios, trend measures the change in loss experience relative to wage inflation. That is, a 0% loss ratio trend does not imply that workers compensation costs are not increasing. Rather, a 0% loss ratio trend implies that workers compensation costs are increasing at the same rate as wages. A loss ratio trend greater (less) than 0% implies workers compensation costs are increasing at a rate greater (less) than wage inflation.

NCCI conducted a detailed analysis of trend factors separately for medical and indemnity loss experience, and judgmentally selected annual trends of -3.0% for indemnity loss ratios and -4.0% for medical loss ratios in the 2024 filing. The indemnity loss ratio trend selection is unchanged from the 2023 filing, and the medical loss ratio trend selection is one point lower than the -3.0% selected in the 2023 filing. NCCI indicates that if they had maintained the prior selection of -3.0%, the indication would increase by 1.9% from -15.1% to -13.2%.

NCCI observed an unusual decline in loss ratio in 2016, likely due to changes caused by a ruling of the Florida Supreme Court in *Castellanos v. Next Door Company*. Due to these changes, NCCI also presents alternative trend fits after smoothing the 2016 loss ratio decline. The smoothed 2016 loss ratio is calculated as the 2015 loss ratio reduced by the observed 2015-2016 change in frequency.

Table 2 and Table 3 below present the fitted indemnity and medical loss ratio trends calculated by NCCI.

Table 2: NCCI Indemnity Loss Ratio Trend

Years in Fit	Exponential Fits	Alternate Exponential Fits ¹⁸
2007-21	-4.0%	-3.3%
2008-21	-4.3%	-3.6%
2009-21	-4.6%	-3.8%
2010-21	-4.8%	-4.0%
2011-21	-4.9%	-3.9%
2012-21	-4.9%	-3.8%
2013-21	-5.2%	-4.2%
2014-21	-5.7%	-4.7%
2015-21	-5.7%	-4.9%
2016-21	-4.9%	-4.9%
2017-21	-4.9%	-4.9%
NCCI Selection: -3.0%		

¹⁸ Alternate exponential fits include the adjustment due to the Florida Supreme Court decision in *Castellanos v Next Door Company*.

Table 3: NCCI Medical Loss Ratio Trend

Years in Fit	Exponential Fits	Alternate Exponential Fits ¹⁸
2007-21	-4.6%	-4.1%
2008-21	-5.1%	-4.6%
2009-21	-5.7%	-5.1%
2010-21	-6.2%	-5.6%
2011-21	-6.6%	-6.0%
2012-21	-7.0%	-6.3%
2013-21	-7.5%	-6.8%
2014-21	-8.1%	-7.5%
2015-21	-8.2%	-7.8%
2016-21	-8.1%	-8.1%
2017-21	-8.3%	-8.4%
NCCI Selection: -4.0%		

We note that the selected trend values are materially greater than the annual trends implied by empirical data without smoothing over the last 12 years. NCCI notes that there are now five years of data following the decision in *Castellanos* on April 28, 2016. However, we note that fits based on 5 years of data continue to support trends that are more negative than that selected by the NCCI.

NCCI also states that there is likely to be “potential upward pressure on medical costs resulting from the Amended Final Order dated May 23, 2023, in the case of *Zenith Insurance Company vs. Department of Financial Services, Division of Workers Compensation, Medical Services*” (2024 Filing, page 83) and notes moderation in indemnity loss ratio changes in calendar-accident years 2021 and 2022.

We identified two concerns with the NCCI process.

- The selected trends coincide with calculated trends that require 12 or more policy years of experience. Our review of Figure 1 and Figure 2 indicates a change in the trend pattern starting with the 2010 policy year, which is also the first policy year following the 2008-09 recession. Models fit to post-2010 data indicated materially lower trends than those selected by NCCI.
- The trends are selected, not calculated. We acknowledge the rationale as to why trends may be moderating as support for the higher selected trends. However, that moderation would affect changes in cost between the end of the trend experience period (PY2021) and policy year 2024. It is our view that NCCI should develop trend indications through to PY2021 levels based on the observed data.

4.4. Premium Development

Development in premium occurs primarily due to payroll audits. The NCCI assumes that no further development of premium will occur after the 5th report.

In calculating premium development factors, the NCCI selects a 3-year average of the latest experience. We note that policy year 2019 factor from the 1st to 2nd development period appears to be an outlier, likely due to COVID-19. However, the impact of this outlier is immaterial and the use of 3-year average is consistent with prior filings.

4.5. Experience Rating Off-Balance

Experience rating off-balance factors are included as part of the premium on-level factor calculation. The experience rating off-balance factor reflects the relative difference between the average experience rating modification for the historical year being on-leveled and the average experience rating modification expected during the proposed filing effective period.

Historical off-balance values are calculated as a weighted average (expected losses are used as weights) of (i) experience modifications for intrastate rated employers, (ii) experience modifications for interstate rated employers, and a (iii) unity factor for all non-rated employers.

For the estimated experience rating off-balance factor in the proposed filing, the NCCI targets 0.965 for all intrastate rated employers, noting that employers who qualify for experience rating typically have better loss experience than non-rated employers (hence the target is below unity). The average experience modification for interstate rated employers is based on experience rating data compiled within the most recent twelve months. The methodology used by the NCCI is reasonable.

4.6. Loss Adjustment Expense

LAE is calculated as a ratio to loss, and is the sum of two components, all other expense (AOE) and defense and cost containment expense (DCCE). The approach in Florida is reasonable.

4.7. Other Insurance Company Expenses

Other insurance company expenses include the provisions for production expense and general expense. The provision for production expense includes commission and brokerage costs, and other acquisition costs. The methodology used by NCCI is reasonable. The resulting provisions generally do not vary significantly over time.

4.8. Taxes and Assessments

Taxes and assessments are based on actual charges in Florida. The only exception is the miscellaneous tax provision of 0.30%. The miscellaneous tax provision is a catch all provision for taxes, licenses and fees not specifically included. It is common ratemaking practice to include this provision, and the value of 0.30% is not unreasonable.

4.9. Profit and Contingencies Provision

The profit and contingencies provision provides the insurance company the required return on equity, after considering the investment income earned on premium payments until losses and expenses are actually paid. NCCI uses an internal rate of return model as described in the testimony of Leonard F. Herk, Senior Research Consultant in the Actuarial and Economic Services Division of NCCI.

NCCI's IRR Model estimates the time series of expected future cash flows – including premiums, losses, expenses, investment income, and taxes – for a representative insurer underwriting

workers compensation (WC) coverage in Florida during the current Policy Year. Expected future cash flows are influenced by several key financial inputs – notably the cost of capital, return on invested assets, and the reserve-to-surplus ratio – all of which are assumed to characterize a representative insurer. In addition, expected future cash flows are affected by the profit and contingency factor, a variable which scales up or down the insurer’s profitability from any modeled time path of future cash flows. The profit and contingency factor is not selected in advance but is determined by the IRR Model.

As noted, this process relies on financial inputs which are outside the scope of this review. We describe the NCCI process for developing those inputs below.

- Dr. Herk indicates that “cost of capital and the return on investment are built up from projected future rates of return to various asset classes.” NCCI develops the rates of return using static and dynamic forecasts as described by Dr. Herk:
 - “The static forecast assumes that an asset’s future rate of return will remain fixed at a rate equal to the current (as of the time the filing is prepared) US Treasury yield at the appropriate maturity plus a historical average spread that is specific to the asset and its term to maturity.”
 - “Dynamic asset returns are not constant but vary in future time periods. The dynamic return to an asset in a future time period is a forecast US Treasury yield at the appropriate maturity for that time period plus a historical average asset-and maturity-specific spread. NCCI relies on forecasts from Moody’s Analytics of future US Treasury yields across the maturity spectrum.”

We find that the use of an IRR model is a reasonable approach to determine the profit and contingencies provision. Although the review of economic assumptions is outside the scope of our report, we observe that the change in the profit and contingencies provision from 1.5% to 0.0% is consistent with our expectations for the change given a higher interest rate environment.

5. Distribution of Statewide Rate Change

5.1. Distribution to Industry Groups

The distribution of statewide rate change to each of the five industry groups relies on the relationship of experience period estimates of ultimate loss for each industry group, to expected losses for each individual industry group. The process results in industry group differentials. The differentials are analogous to “experience modifications” for each industry group, measuring the loss experience of each industry group relative to expectations. If each industry group performed exactly as expected, then the industry group differentials would all be 1.000, and each industry group would receive a rate change equal to the statewide average.

NCCI calculates the industry group differentials by adjusting reported losses for trend, development, experience rating, etc. Additionally, NCCI uses a credibility procedure to limit the impact of the procedure on a specific industry group with relatively low loss volume. In Florida, however, all industry groups are fully credible. The procedure is identical to procedures used in other NCCI states and is reasonable.

Industry group differentials are not expected to vary materially from 1.000, especially for larger states such as Florida. This is the case with this filing.

5.2. Distribution to Individual Classifications

The final step in the ratemaking process is the distribution of the industry group changes to the individual workers compensation classifications comprising each industry group. NCCI bases the distribution on the loss experience of each individual classification. As noted earlier, the approach for industrial classifications is a rate relativity system. The relative behavior of the loss experience of an individual classification (to the loss experience of all classifications in a specific industry group) is the primary determinant of the final rate for that classification.

Rates for individual classifications are calculated in a four-step process. The overall process described above is the same general process NCCI has used for many years and is reasonable and actuarially sound.

Step 1. Calculation of the Pure Premium

The pure premium is the expected cost of indemnity and medical benefits per \$100 payroll during the period when rates will be in effect.

We have expressed concerns regarding the substitution of theoretical excess loss ratios for loss experience to provide for losses in excess of the \$500,000 per claim limit, which is part of the changes to class ratemaking implemented by NCCI. While this approach is reasonable from an actuarial perspective, there is a concern regarding the \$500,000 limit, which has been fixed since implementation of the changes and is not adjusted annually for inflation. Therefore, with the passage of time, a greater portion of class experience (due to inflation) will be above \$500,000. The impact is that over time, the relative weight of excess ratios for costs above \$500,000 in the calculation of class rates will increase, and the relative weight of empirical loss experience below the \$500,000 limit will decrease.

Step 2. Conversion of the pure premium to a manual rate

The provisions for expense and profit (and contingencies) are added to the pure premiums to produce a manual premium rate.

Step 3. Application of swing limits and correction factors

Rate changes to individual classifications are limited to a range of +15% to -15% around the industry group change. A final adjustment using the test correction factor ensures that the average rate change to all classifications in an industry group equals the product of the statewide rate change and the calculated industry group differential.

In Florida, the rate change to an individual classification is limited to a range within 15% of the change to the industry group to which the classification belongs. For example, if a specific industry group has a 12% rate increase, the rate change for each classification in that industry group can be no greater than 27% (= 12% + 15%) or less than -3% (= 12% - 15%). Because of the limiting procedure, as well as other processes within the ratemaking calculation, the resulting average rate change for all classifications in an industry group may not precisely equal the required industry group change. This is addressed by calculation of a test correction factor (TCF) that is applied to each individual classification rate in the industry group to ensure that the required industry group change is achieved. The calculation of the TCF is an iterative procedure because no individual classification rate is permitted to violate the swing limit test. The TCF ensures that the impact of using swing limits is revenue neutral. Therefore, the implementation of swing limits by NCCI is actuarially sound. The precise value of the swing limit, or even the use of swing limits at all, is primarily a matter of policy with the regulator, and is dependent on the size of the range of swing in class rates that will be accepted in a specific jurisdiction.

Step 4. Disease Loadings

The last step had previously been the addition of specific disease loadings for certain individual classifications. However, in the 2024 filing and related correspondence, NCCI presented information to demonstrate that the disease exposure is now adequately considered in the ratemaking process described above. Previously, there had been significant latent exposure, which resulted in disease claims emerging too late to be captured in the ratemaking process. NCCI demonstrated that this is no longer the case, eliminating the need for a separate disease loading for latent exposure. We find this to be reasonable.

6. Recent Changes to the Ratemaking Process

There were no significant methodology changes implemented in the 2023 filing. The 2024 filing included the following changes:

6.1. Changes to Experience Rating Values

The experience rating plan is a process that assigns credits or debits to individual employers, thereby increasing or decreasing the premium rate from the base rate of the classification. The modification factor (“mod”) assigned to an individual insured is calculated based on a comparison of the insured’s recent historical loss experience to an estimate of the loss experience that an “average” insured in that classification would have.

There are several key parameters (updated annually) that are used to calculate the mod for an individual insured. With the 2024 filing, NCCI changed its method for updating the following parameters:

- The Split Point divides the insured’s historical losses into a “primary layer” and an “excess layer.” Losses in the primary layer get more weight in the mod calculation.

Previously, all states had the same Split Point (recently \$18,500, updated annually based on changes in countrywide claim costs). With the 2024 filing, NCCI implemented state-specific split points based on state-specific claim costs. For Florida, the resulting Split Point is \$18,000.

- The State Per Claim Accident Limitation (SAL) is the maximum dollar amount from any one claim that will be considered in the mod calculation. The purpose of this limitation is to limit the impact of extremely large claims.

Previously, the SAL was calculated annually as 25 times the state average cost per case. With the 2024 filing, NCCI updated the calculation to be the 95th percentile of lost-time claims. The impact of this change was a significant reduction to the SAL (from \$296,500 to \$153,500), which reduces the impact that large losses have on an insured’s mod.

- The G Value is the state average claim severity, which is used to estimate an insured’s expected claim count (which in turn is used to determine credibility that is assigned to the insured’s historical loss experience).

Previously, the G Value was calculated based on unlimited average severity in each state. In the 2024 filing, NCCI updated the calculation to (a) reflect accident limitations; and (b) reduce weight to medical-only losses. This change is expected to improve the consistency of the “expected claim count” calculation that determines credibility assigned to an insured’s experience (because the expected losses underlying the “expected claim count” calculation already include these adjustments).

- Credibility Parameters – influence the degree to which an insured’s actual historical losses impact the mod.

NCCI has recalibrated the credibility parameters to increase equity across insureds. All else being equal, NCCI states that the new parameters will increase credibility for larger risks and decrease credibility for smaller risks.

- The Discount Ratio (“D-Ratio”) is the expected percentage of losses that fall below the split point value.

Previously, NCCI calculated D-Ratios by hazard group, and then distributed them to classifications based on each classification’s share of pure premium. With the 2024 filing, NCCI eliminated the distribution to classifications and published D-Ratios at the hazard group level. NCCI states that its research has demonstrated that the classification-level D-Ratios do not add value to the calculation.

NCCI provided a performance comparison to demonstrate that the revised parameters improve the performance of the experience rating plan (increasing predictive value). We find the changes to be reasonable.

6.2. Changes to Occupational Disease Provisions

This change was discussed in Section 5 and we find it to be reasonable.

6.3. Calendar Year Wage Adjustments

Before analyzing loss trends, NCCI typically adjusts historical frequency and severity values to a common wage level (to isolate the trend impact that is over and above the impact of wage inflation). NCCI observed shifts in employment across industry sectors during the pandemic, which required special adjustments to the average weekly wage component of the wage level adjustment applied to 2020 and 2021. We find this to be reasonable.

7. Documentation and Information

The following is list of documents utilized for the purpose of this report. In addition to documents listed below, we may have relied on internal data sources, insurance industry data sources, or other information not specifically listed below.

- NCCI Annual Statistical Bulletins
- Florida Workers Compensation Rate Filing and related documents for rates effective January 1, 2024
 - Filing Documents
 - Hearing Documents
 - Interrogatories and Correspondence
- Florida Workers Compensation Rate Filing and related documents for rates effective January 1, 2023
 - Filing Documents
 - Hearing Documents
 - Interrogatories and Correspondence
- Miscellaneous Other Sources

8. Distribution and Use

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9. Considerations and Limitations

Data Verification – For our analysis, we relied on data and information provided in NCCI filings without independent audit. Though we have reviewed the data for reasonableness and consistency, we have not audited or otherwise verified this data. Our review of data may not always reveal imperfections. We have assumed that the data provided is both accurate and complete. The results of our analysis are dependent on this assumption. If this data or information is inaccurate or incomplete, our findings and conclusions might therefore be unreliable.

Other Issues – Any issues not specifically addressed in this report should not be construed as acceptance by Oliver Wyman of the methodologies and judgments associated with those issues.

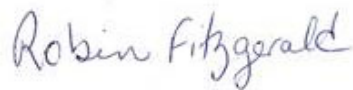
10. Acknowledgement of Qualifications

I, Rajesh Sahasrabuddhe, am a Partner with Oliver Wyman Actuarial Consulting, Inc. I am a member of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial analysis contained herein.



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I, Robin Fitzgerald, am a Senior Manager with Oliver Wyman Actuarial Consulting, Inc. I am a member of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial analysis contained herein.



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