

MILLIMAN REPORT

# NCCI Proposed Workers Compensation Advisory Loss Costs, Effective 8/1/24

State of Rhode Island Department of Business Regulation

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# I. Scope and Intended Purpose

## A. Background

On 11/17/23, the National Council on Compensation Insurance, Inc. (“NCCI”) filed to revise its Rhode Island workers compensation advisory loss costs to be effective 8/1/24. NCCI proposes an overall change in loss costs of -10.5% for the industrial classes and -13.4% for the Federal (“F”) classifications. For the U.S. Longshore and Harbor Workers (“USL&HW”) compensation percentage that adjusts for differences in benefits and loss-based expenses, NCCI proposes a small decrease from the current percentage of 82% to 81%.

## B. Scope

Milliman, Inc. (“Milliman”) has been retained by the State of Rhode Island Department of Business Regulation (“the Department” or “DBR”) to provide an independent actuarial review of NCCI’s Rhode Island loss cost filing, with a proposed effective date of 8/1/24, including the underlying assumptions, actuarial methodology, and reasonableness of the assumptions and selections.

## C. Intended Purpose

The intended purpose of this report is to assist the Department in evaluating NCCI’s proposed loss cost changes.

## D. Limitations on Distribution

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## II. Summary of Findings

Table 1 summarizes the proposed changes of NCCI and Milliman.

**Table 1: Summary of Proposed Changes by Party**

*Effective 8/1/24*

	<b>NCCI</b>	<b>Milliman</b>
Industrial Classes	-10.5%	-10.5%
"F" Classifications	-13.4%	-13.4%
USL&HW %	-0.5%	-0.5%

The following is a summary of the major findings of Milliman's independent actuarial review of the filing.

- **Industrial Classes:** We find NCCI's methodology to be within a range of reasonableness and its assumptions to be reasonably supported.
- **"F" Classifications:** We find NCCI's methodology to be within a range of reasonableness and its assumptions to be reasonably supported.
- **USL&HW:** We find NCCI's methodology to be within a range of reasonableness and its assumptions to be reasonably supported.

We recommend that NCCI include COVID-19 experience, study long COVID-19 to the extent data is available, and examine the relationship between COVID-19 and experience rating.

### III. Summary of NCCI Filing

#### A. Industrial Classes

Table 2 summarizes NCCI's proposed changes by component.

**Table 2: Proposed Changes - Industrial Classifications**

*Effective 8/1/24*

<b>Component</b>	<b>Indication</b>
Impact of Change in Experience and Development	-10.6%
Impact of Change in Trend	-0.1%
Impact of Change in Benefits	+0.4%
Impact of Change in Loss Adjustment Expenses	-0.2%
Proposed Change in Overall Voluntary Loss Cost Level	-10.5%

NCCI proposes an overall change of -10.5% in loss costs for the industrial classes. This is derived from a change in experience and development of -10.6%, change in trend of -0.1%, change in benefits of +0.4%, and a change in the Loss Adjustment Expenses ("LAE") provision of -0.2%.

#### B. "F" Classifications / USL&HW

Table 3 summarizes NCCI's proposed changes to its "F" classifications and the USL&HW percentage to be effective 8/1/24.

**Table 3: Proposed Changes - Other**

*Effective 8/1/24*

<b>Component</b>	<b>Indication</b>
"F" Classifications	-13.4%
USL&HW %	-0.5%

For the "F" classifications, NCCI proposes a loss cost change of -13.4%. For USL&HW, NCCI proposes a -0.5% change to the current adjustment factor for differences in benefits and loss-based expenses.

## C. Industry Group Loss Cost Level Changes

Table 4 summarizes the distribution of the overall loss cost level change to each industry group as filed by NCCI. The overall change across all classes is designed to balance to the overall aggregate indication.

**Table 4: Proposed Changes by Industry Groups**

*Effective 8/1/24*

<b>Industry Group</b>	<b>Average Change</b>
Manufacturing	-10.0%
Contracting	-11.8%
Office and Clerical	-8.6%
Goods and Services	-10.3%
<u>Miscellaneous</u>	<u>-11.0%</u>
Overall	-10.5%

## D. Experience Rating Plan Split Point

In experience rating, the split point separates losses into primary and excess components.

In the current filing, NCCI proposes to lower the split point to \$17,500, which represents a decrease of 5.4% from \$18,500 in 2023. Per the updates approved in Item E-1409 (Enhancement to NCCI's Experience Rating Plan Methodology), the split point now differs by jurisdiction (state) to better reflect state cost differences.

## IV. Milliman Analysis and Comments on NCCI Filing

### A. Comments from Third Parties

The Department of the Attorney General (“AG”) did not undertake an actuarial review of the NCCI filing, and provided comments on NCCI’s filing concerning a variety of items as well as the impact of COVID-19 losses on the ratemaking process. The AG stated that based on their observations, there are five factors upon which the DBR decisions are generally based:

1. Weighting of standard actuarial loss development methodologies
2. Selection of loss development factors (“LDFs”)
3. Treatment of large losses
4. Selection of trend factors
5. Selection of the LAE provision

The AG recommended a review of each of the factors above and a determination of whether an additional decrease is warranted.

The AG also recommended a timeline shift of the NCCI filing submission to later in the year (filing in February or March) so as to incorporate more recent data.

Regarding COVID-19, the AG suggests that the ongoing effects do not appear to be purely transitory and disagrees with the NCCI’s categorization of the pandemic as a catastrophe because this is not an isolated incident with limited effects. Further, the AG encourages the DBR to obtain more information from NCCI as to why COVID-19 claims are not expected to be predictive of future experience particularly in light of long COVID.

Regarding the AG’s comments, we have the following responses:

1. Our detailed review of the five factors is included below. Based on our review, we believe the requested change to be reasonable at this time.
2. We believe the request of a timeline shift is reasonable. We note we did request updated indications to include the 2022 accident year (discussed below).
3. Regarding COVID-19 claims, we have the following comments:

As we noted in our report last year, Beacon Mutual indicated that “it is widely recognized, including by NCCI, that the long-term impact of COVID-19 and potential future pandemics remains unknown. Experts are continuing to study the effects of post-acute COVID-19, also known as ‘Long COVID.’ It is also uncertain whether COVID-19 will result in delayed losses, including from mental stress and employer liability claims, as well as permanent claims. In addition, other considerations, such as potential legal and legislative changes, may impact the compensability of pandemic-related losses. Also, limitations and/or exclusions for occupational disease-related losses are being proposed by reinsurers in response to the COVID-19 pandemic.”

The AG “recognizes that certain factors, such as risk to occupations comprised of frontline workers and increase of teleworking capabilities, will determine whether the COVID-19 impact ultimately results in a positive, negative, or flat change in the loss cost levels”.

Based on our request, NCCI tested the impact of adding the COVID-19 data underlying the proposed indication. NCCI estimated the impact to be an increase to the indication by 1.1% (overall indication including COVID-19 data of -9.4%).

As we note in the detailed COVID-19 section below and based on the nature of these claims, we believe NCCI's proposed approach of excluding COVID-19 loss data in the filing is reasonable at this time. We recommend NCCI include COVID-19 loss data in future analyses.

## B. Loss Cost Level Indication

With respect to the treatment of individual large losses, NCCI uses the same ratemaking methodology as was used in recent filings of limiting individual large losses to a certain loss threshold (about \$2.7 million in this year's filing). The actual excess "paid plus case" loss amounts greater than this amount are removed and replaced with an expected excess loss amount. This methodology is intended to stabilize the loss cost indications. According to NCCI, in the experience period used in this year's filing, there were no claims that exceeded the threshold on a paid basis but there was one claim in each of policy years 2019, 2020, and 2021 that exceeded the threshold on a "paid plus case" basis.

Using this ratemaking methodology, NCCI calculates an indication of the estimated loss cost needed for the prospective year based on the loss experience of policy years 2019, 2020, and 2021 evaluated as of 12/31/22. We note that policy year 2021 is the latest available policy year for use in the filing, which is based on 12/31/22 data. Policies written during 2021 have effective dates between 1/1/21 and 12/31/21 and are in effect for twelve months. Therefore, these policies have expiration dates between 1/1/22 and 12/31/22, respectively. Policy year 2022 is not fully earned as of 12/31/22 and it is appropriate to exclude that year from the filing.

The proposed indication is based on the following loss development methodology: 100% weight to developed paid losses using LDFs based on the average of the latest five years excluding the highest and lowest years ("XHL").

We asked NCCI to calculate alternative loss cost level indications based on the same methodology as described above for the treatment of large losses, but using alternative scenarios. These alternative indications are listed below and compared in Table 6. Please note that these alternative indications reflect the overall impact of the proposed change, including the LAE provision.

- 100% weight to paid losses with LDFs based on the latest five years ("Paid 5")
- 100% weight to paid losses with LDFs based on the latest three years ("Paid 3")
- 100% weight to "paid plus case" losses with LDFs based on the latest five years excluding the highest and lowest years ("Paid+Case 5 XHL")
- 100% weight to "paid plus case" losses with LDFs based on the latest five years ("Paid+Case 5")
- 100% weight to "paid plus case" losses with LDFs based on the latest three years ("Paid+Case 3")
- 50% weight to Paid 5 and 50% weight to Paid+Case 5
- 50% weight to Paid 3 and 50% weight to Paid+Case 3
- 50% weight to Paid 5 XHL and 50% weight to Paid+Case 5 XHL

Table 5 summarizes NCCI's original and alternative indications for the current filing. The table also shows the differential between the original and alternative indications. NCCI's selected methodology



(i.e., original indication) is at the low end of these tested methods, which is true for the latest two years. Prior to that, the selected methodology usually produced an indication that fell in the middle of the tested alternative indications. However, NCCI's selected methodology is consistent with the approved methodology in recent filings. Based on our review of this data and information, we believe that NCCI's selected methodology is reasonable at this time.

**Table 5: Alternative Scenarios - Policy Year Basis**

Effective 8/1/24

Scenario	Indication	Difference
Original	-10.5%	
Paid 5 Years	-9.5%	+1.0%
Paid 3 Years	-9.7%	+0.8%
Paid+Case 5 Years XHL	-10.4%	+0.1%
Paid+Case 5 Years	-10.1%	+0.4%
Paid+Case 3 Years	-12.0%	-1.5%
50% Paid and 50% Paid+Case 5 Years	-9.8%	+0.7%
50% Paid and 50% Paid+Case 3 Years	-10.9%	-0.4%
50% Paid and 50% Paid+Case 5 Years XHL	-10.4%	+0.1%

We also asked NCCI to provide an alternative indication based on loss experience and premium for accident years 2020, 2021, and 2022, using the same loss development methodology used in the original filing. Table 6 summarizes this alternative indication. Please note that this alternative indication reflects the overall impact of the proposed change, including the LAE provision.

**Table 6: Alternative Scenarios - Accident Year Basis**

Effective 8/1/24

Accident Year	Indication
2020	-18.8%
2021	-10.6%
2022	-10.9%
Half Weight to 2020	-12.3%
Equal Weight 2019-2021	-13.4%
No Weight to 2020	-10.7%

In general, we believe that NCCI's selection based upon paid LDFs in the calculation of the loss cost indication is reasonable. Paid LDFs have been relied on for many years in Rhode Island and can be stable and reliable for workers compensation coverage, which typically makes periodic payments on claims.

Based on the data and information that we received from NCCI, we believe that NCCI's loss development methodology is reasonably supported.

## C. Treatment of COVID-19

### 1. NCCI Filing

NCCI stated that reported COVID-19-related claims have been excluded from the data used in this filing. According to NCCI, “pandemics have the potential to be catastrophic in terms of the costs they impose on the worker compensation system” and “NCCI is proposing to treat all COVID-19 claims with accident dates between 12/1/19 through 12/31/22 as a catastrophe in this filing”. NCCI indicates these reported COVID-19 claims have been excluded from the ratemaking data (including reviews of the experience period, trend, and loss-based expense) “to better reflect the conditions expected to prevail in the filing’s prospective effective period.”

NCCI removed all COVID-19 losses from the historical experience used in the filing. The filing includes a catastrophe factor that indirectly reflects the potential impact of COVID-19 losses. We recommend NCCI begin analyzing the COVID-19 experience to compare to the catastrophe factor.

NCCI provided the following summary of COVID-19 losses in the state of Rhode Island as of 12/31/22:

**Table 7: COVID-19 Loss Experience as of 12/31/22**

*Effective 8/1/24*

Year	COVID-19 Counts	% of Count Total	COVID-19	
			Paid+Case Losses	% of Loss Total
PY 2019	86	33.6%	1,219,348	45.5%
PY 2020	141	55.1%	1,429,616	53.4%
PY 2021	29	11.3%	28,181	1.1%
<b>PY Total</b>	<b>256</b>	<b>100.0%</b>	<b>2,677,145</b>	<b>100.0%</b>
AY 2020	215	80.8%	2,507,012	92.9%
AY 2021	31	11.7%	158,242	5.9%
AY 2022	20	7.5%	32,991	1.2%
<b>AY Total</b>	<b>266</b>	<b>100.0%</b>	<b>2,698,245</b>	<b>100.0%</b>

This year’s filing is based on policy years 2019, 2020, and 2021 only. The filing is also based on paid losses only. Therefore, COVID-19 losses represent a relatively small percentage of the overall loss data eligible for use in this filing (about 1.3% of policy year 2019 paid plus case loss experience, 1.9% of policy year 2020, less than 0.1% of policy year 2021, and 1.2% across all three policy years).

We asked NCCI to provide an alternate indication including the COVID-19 loss experience. The following table summarizes the impact of the COVID-19 experience on the rate level indication (increases the indication by 1.1% if the COVID-19 experience is included).

**Table 8: Alternative Indication Including Covid-19 Loss Experience***Effective 8/1/24*

	Indication
<b>Original</b>	<b>-10.5%</b>
Include Covid-19 Experience	-9.4%
Impact of Covid-19 Experience	1.1%

**2. Milliman Comments and Recommendations**

NCCI excludes payments to furloughed employees from the premium calculations in this filing. We believe this approach to be reasonable as furloughed employees cannot file a workers compensation claim during their furlough. Further, this prevents an overstatement of premium in the filing, which would result in a lower rate level indication. Calendar-accident year loss ratios for 2019-2021 included a premium audit adjustment due to changes in audit activity (primarily attributable to COVID-19 impact).

We believe NCCI's proposed approach of treating COVID-19 loss data in the filing is reasonable at this time, especially given the small volume of COVID-19 losses through year-end 2022. As additional information about COVID-19 losses emerge, alternative approaches may be reasonable for future filings. We recommend that NCCI continue to monitor COVID-19 loss experience, including long COVID.

We recognize the possibility of double counting the impact of COVID-19 on specific classifications (e.g., Nursing Homes and Hospitals) and experience rating. Thus, we recommend that NCCI examine the relationship between COVID-19 losses and experience rating.

**D. Treatment of Large Losses**

We believe that NCCI's ratemaking methodology with respect to the treatment of large losses is reasonable and appropriate for use in a small state like Rhode Island. It is a continuation of NCCI's program utilized in prior Rhode Island filings and is similar to NCCI's program in other states. This methodology should help increase long-term stability in the loss cost level in Rhode Island. If one or more large losses occur in a policy year, it will not cause the loss cost level to increase as significantly in the years that follow. Per the updates approved in Item E-1409 (Enhancement to NCCI's Experience Rating Plan Methodology), the split point now differs by jurisdiction (state) to better reflect state cost differences. The large loss threshold is \$2,666,303 in this year's filing, which is 5.4% lower than the threshold of \$2,817,267 in the prior filing; the threshold changes as the latest experience period is incorporated.

**E. Tail Factors**

A "tail factor" is the final LDF that is applied to losses to develop them to an ultimate basis and is selected for each of medical and indemnity losses. NCCI selects its tail factors based on historical loss information.

Based on a review of loss experience from policy years 1993 to 2002, NCCI's selected the following tail factors:

- Indemnity “paid plus case” of 1.010
- Indemnity paid of 1.007
- Medical “paid plus case” of 1.010
- Medical paid of 1.017

The selected indemnity paid tail factor is slightly higher than the prior filing (1.006) and selected medical paid tail factor is higher than the prior filing (1.015), while the “paid plus case” selected tail factors are higher than the prior filing (1.005 for indemnity and 1.000 for medical).

We asked NCCI to provide alternative indications based on the latest eight-year average (i.e., policy years 1995 to 2002) and latest five-year average (i.e., policy years 1998 to 2002) of “paid plus case” indicated factors. According to NCCI, the alternative indications are -10.3% and -10.2%, respectively (compared to the original indication of -10.5%). Please note all of these alternative indications reflect the overall impact of the proposed change, including the LAE provision.

Based on the data and information that we received from NCCI, we believe that both the medical and indemnity tail factors are reasonably supported.

## F. Trend Factors

NCCI uses trend factors to measure expected changes in benefit costs along with expected changes in wages. Trend is determined separately for indemnity and medical benefits. The indemnity portion of the 2021 adjusted limited total losses is 74% and the medical portion is 26%.

In the current filing, NCCI proposes no change to the loss ratio trend factors (indemnity trend factor of -3.5% and medical trend factor -5.5%). NCCI’s selections are based on an analysis of Rhode Island historical loss ratios as well as economic data.

For comparison purposes, we asked NCCI to calculate alternative overall indications for each of the following alternative scenarios: (a) -3.0% for the indemnity trend factor and -4.5% for the medical trend factor; (b) -4.0% for the indemnity trend factor and -6.0% for the medical trend factor; and (c) -3.0% for the indemnity trend factor and -5.0% for the medical trend factor. The following table summarizes the results of these alternative calculations:

**Table 9: Alternative Indications Using Different Trend Factors**

*Effective 8/1/24*

	<b>Indemnity Trend</b>	<b>Medical Trend</b>	<b>Indication</b>
<b>Original</b>	<b>-3.5%</b>	<b>-5.5%</b>	<b>-10.5%</b>
Alternative 1	-3.0%	-4.5%	-7.6%
Alternative 2	-4.0%	-6.0%	-12.6%
Alternative 3	-3.0%	-5.0%	-8.3%

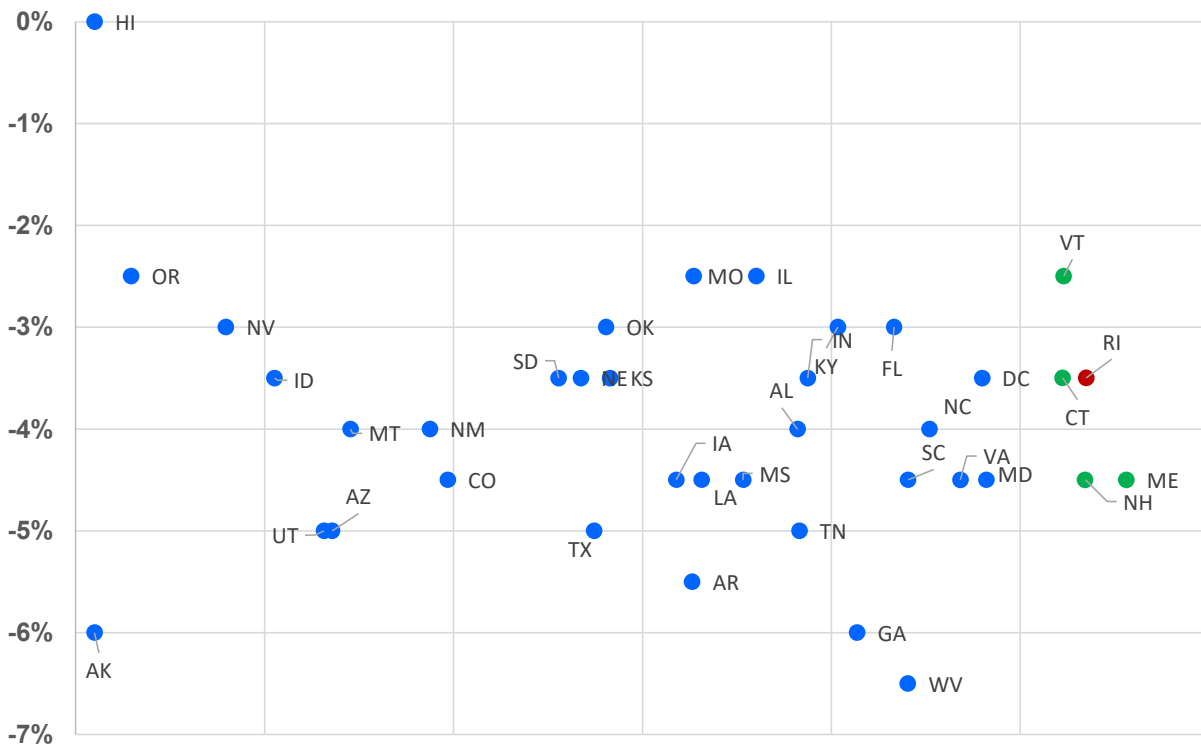
Please note that these alternative indications reflect the overall impact of the proposed change, including the LAE provision.

NCCI also provided the currently approved indemnity and medical trend factors in other NCCI states, the annual percentage changes in the indemnity and medical loss ratios in Rhode Island, and the exponential trend analyses that were reviewed for Rhode Island along with the goodness-of-fit statistics, or R-squared values.

### Indemnity Trend Factor

Chart 1 illustrates the currently approved indemnity trend factors in states where NCCI performs a workers compensation analysis. Regarding NCCI’s selected indemnity trend factor of -3.5%, we note that there are many states that have both higher and lower approved indemnity trends than Rhode Island. The selected indemnity trend factors for the surrounding New England states are -3.5% for CT, -4.5% for ME, -4.5% for NH, and -2.5% for VT. In addition, the countrywide unweighted average is -4.0%.

**Chart 1: Comparison of Rhode Island Proposed Indemnity Trend Factor with Approved Trend Factors for All Other NCCI States**



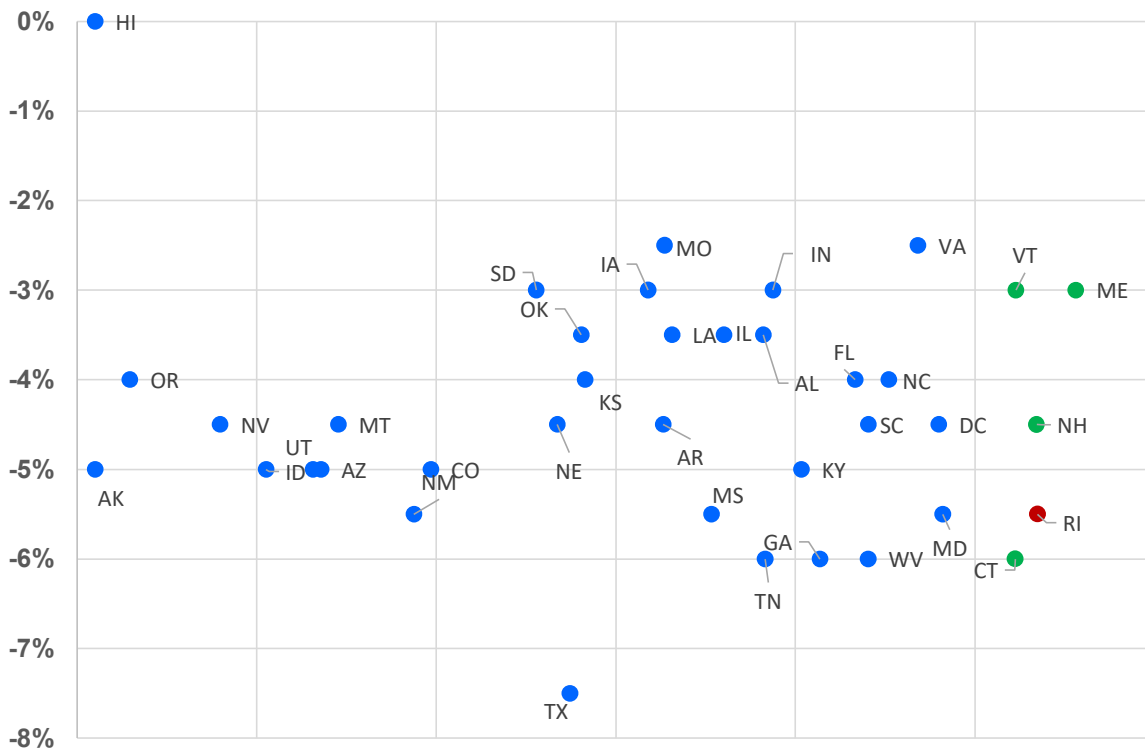
We also reviewed the 8, 12, and 15-year goodness-of-fit statistics of the indemnity trend. The 12-year data fit had the highest goodness-of-fit statistic, and this corresponds to an annual indemnity trend factor of -5.9%. Including additional years in the data fit implies a lower indemnity trend factor but it also reduces the goodness-of-fit statistic.

We believe the selected indemnity trend of -3.5% is reasonably supported.

### Medical Trend Factor

Chart 2 illustrates the currently approved medical trend factors in states where NCCI performs a workers compensation analysis. Regarding NCCI’s selected medical trend factor of -5.5%, we note that only five states (CT, GA, TN, TX and WV) have a lower approved medical trend (-7.5% for TX and -6.0% for the other four states) and only three other states (MD, MS and NM) have the same medical trend factor (-5.5%). All other states have greater medical trend factors than the selection for Rhode Island. However, we note that more than half the states (24 of the 38 states reviewed by NCCI) have an approved medical trend of -3.5% or higher (i.e. less negative). The selected medical trend factors for the surrounding New England states are -6.0% for CT, -3.0% for ME, -4.5% for NH, and -3.0% for VT. In addition, the countrywide unweighted average is -4.3%.

**Chart 2: Comparison of Rhode Island Proposed Medical Trend Factor with Approved Trend Factors for All Other NCCI States**



We also reviewed the 8, 12, and 15-year goodness-of-fit statistics of the medical trend. In general, the data indicates a higher medical trend factor than -5.5%. The 12-year data fit had the highest goodness-of-fit statistic, and this corresponds to a medical trend factor of -12.6%. Including additional years in the data fit generally implies higher medical trend factors but it also reduces the goodness-of-fit statistic. We note that a medical trend factor of -12.6% would be an outlier compared to other states.

We believe NCCI’s selected medical trend of -5.5% is reasonably supported.

## G. Loss Adjustment Expense Provision

NCCI is proposing a slight decrease (-0.2%) to the LAE provision from 22.9% last year to 22.7% this year. LAE is comprised of two components, Defense and Cost Containment Expenses (“DCCE”) and Adjusting and Other Expenses (“AOE”).

NCCI calculates the DCCE provision by utilizing Rhode Island-specific paid DCCE and losses, reported on the NCCI Call for Policy Year Data (“Financial Call”). Under this methodology, the ratios of reported paid DCCE to paid losses by policy year are developed to a 19th report using DCCE ratio development factors. A 19th-to-ultimate tail factor is applied to reflect expected development beyond the 19th report. The proposed DCCE provision is selected based on the ultimate projected DCCE ratios by policy year.

As loss costs have decreased in Rhode Island in each of the five most recently approved filings, it is not unreasonable for the LAE provision (or one of its two components) to increase. Expenses may not be decreasing at the same rate as the level of losses and therefore the expense ratio (as measured by the ratio of expenses to losses) may exhibit an increase due to the smaller level of losses. In this year’s filing, NCCI is proposing no change to the AOE provision of 9.4% and a slight decrease to the DCCE provision from 13.5% to 13.3%.

We believe that NCCI’s proposed LAE provision is reasonable at this time.

## H. USL&HW Compensation Coverage Percentage

NCCI is proposing no change in the USL&HW benefits provision of 1.75 that was based on a recently completed a study of the USL&HW factors using Unit Statistical Data. NCCI is proposing a change to the factor to adjust for differences in loss-based expenses from 1.039 to 1.037. Therefore, the proposed change to the USL&HW Coverage Percentage is to decrease the percentage from 82% to 81%.

We believe the USL&HW Coverage Percentage of 81% is reasonable at this time.

## I. Summary

With respect to the following major areas of review, we believe that NCCI’s methodology and assumptions in this year’s filing is reasonable at this time:

- weighting of standard actuarial loss development methodologies
- selection of LDFs
- treatment of COVID-19
- treatment of large losses
- selection of the indemnity and medical trend factors
- selection of LAE provision
- selection of USL&HW Compensation Coverage Percentage

Please note that for convenience we use the term “reasonable” in this report as equivalent to our understanding of not excessive, inadequate, or unfairly discriminatory as stated in Rhode Island law and regulations.

We recommend that NCCI include COVID-19 experience, study long COVID-19 to the extent data is available and examine the relationship between COVID-19 and experience rating, and begin analyzing the COVID-19 experience to compare to the catastrophe factor.



## V. Disclosures and Limitations

### A. Acknowledgement of Qualifications

Kimberly W. Guerriero is a Principal of Milliman, Fellow of the Casualty Actuarial Society, and Member of the American Academy of Actuaries. Kim meets the qualification standards of the American Academy of Actuaries to provide the findings in this report.

### B. Data and Information

In performing this analysis, we relied on data and other information provided by NCCI. We have not audited or verified this data and information. If the underlying data or information is inaccurate or incomplete, the results of our analysis may likewise be inaccurate or incomplete. In that event, the results of our analysis may not be suitable for the intended purpose.

We performed a limited review of the data used directly in our analysis for reasonableness and consistency and have not found material defects in the data. If there are material defects in the data, it is possible that they would be uncovered by a detailed, systematic review and comparison of the data to search for data values that are questionable or relationships that are materially inconsistent. Such a review was beyond the scope of our assignment.

### C. Uncertainty

Actuarial estimates are subject to uncertainty from various sources, including changes in claim reporting patterns, claim settlement patterns, judicial decisions, legislation, and economic conditions.

In estimating the amount of loss cost change required, it is necessary to project future loss and LAE payments. Actual future losses and LAE will not develop exactly as projected and may, in fact, vary significantly from NCCI's projections. Further, the projections make no provision for future emergence of new classes or types of losses not sufficiently represented in NCCI's historical database or that are not yet quantifiable.

Indemnity benefits and the availability/timeliness of medical treatment may be impacted by the COVID-19 pandemic. The length of the recovery period, the ultimate cost of treatment, and the timing of payments for workplace and other injuries may be affected. In addition, the pandemic may influence the filing and settlement of claims in unexpected ways.

### D. Variability of Results

NCCI's estimates are based on long term averages. Actual loss experience in any given year may differ from what is suggested by these averages.

## VI. Glossary of Insurance Terms

**Actuarial Central Estimate.** An actuarial central estimate represents an expected value over the range of reasonably possible outcomes. As such, it is conceptually similar to an estimate of the mean. Since the range of reasonably possible outcomes may not include all conceivable outcomes, an actuarial central estimate is not technically a true statistical mean. For example, the range of reasonably possible outcomes may exclude conceivable extreme events whose contribution to the true statistical mean is not reliably estimable.

**Adjusting and Other Expenses.** AOE is the portion of loss adjustment expenses that covers all claims adjusting expenses, whether internal or external to an insurance company.

**Case Reserves.** Case reserves are the claims administrator's estimates of future payments on individual reported claims for a particular period at a specific point in time.

**Defense and Cost Containment Expenses.** DCCE is the portion of loss adjustment expenses that covers all defense and litigation-related expenses, whether internal or external to an insurance company.

**Incurred But Not Reported ("IBNR") Reserves.** IBNR reserves are the difference between ultimate losses and case incurred losses to date. As such, they are a provision for unreported claims, changes in incurred values on open claims, and future payments on reopened claims.

**Incurred ("Paid Plus Case") Losses.** Incurred losses are the sum of all paid losses and case reserves for a particular period at a specific point in time. Incurred losses are also referred to as case incurred losses or reported losses.

**Loss Adjustment Expenses.** The NAIC categorizes LAE in the Annual Statement as Defense & Cost Containment Expenses ("DCCE") and Adjusting and Other Expenses ("AOE"). Generally, DCCE includes all defense and litigation-related expenses, whether internal or external to a company, while AOE includes all claims adjusting expenses, whether internal or external to a company.

**Loss Cost.** A loss cost is the ratio of ultimate losses to payroll (in \$100 increments). In this report, LAE are excluded from the loss costs.

**Loss Development Factor.** An LDF is a ratio used to quantify the change in immature loss data over time. An "age-to-age" or "incremental" LDF is the ratio of a specific data item (e.g., paid losses, incurred losses, reported claims, etc.) at successive valuations. An "age-to-ultimate" or "cumulative" LDF quantifies the change in the data item from its current value to its ultimate value when all claims are closed.

**Paid Losses.** Paid losses for a particular period are losses that have been paid on all known claims.

**Premium On-Leveling.** Premium on-leveling is the process of estimating what historical premium levels would be, had the insurance been written today.

**Tail Factor.** A tail factor is a final development factor that is applied to losses (or claims) to develop to an ultimate basis. Tail factors provide for development beyond the maturities represented in the historical development triangles.

**Trend Factors.** Trend factors adjust historical values for inflationary effects and any other underlying trends that are expected to produce changes over time. For workers compensation, a loss trend factor accounts for the expected combined growth in indemnity benefits and medical costs, and a payroll trend factor accounts for the expected growth in wages.

**Ultimate Losses.** Ultimate losses are the final settlement values for all claims. Until all claims are closed with no possibility of reopening, ultimate losses can only be estimated. At any prior time, an estimate of ultimate losses is equal to the sum of paid losses, case reserves, and estimated IBNR reserves.