Rhode Island

Advisory Loss Costs and Rating Values Filing

Proposed Effective August 1, 2022

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November 19, 2021

The Honorable Elizabeth Kelleher Dwyer
Deputy Director & Superintendent of Insurance
State of Rhode Island and Providence Plantations
Department of Business Regulation
Insurance Division
1511 Pontiac Ave
Cranston, RI 02920

Attention: Beth Vollucci, SPIR, Chief of Consumer and Filing Services

Re: **Rhode Island Advisory Loss Costs and Rating Values Filing Proposed to Be Effective August 1, 2022**

Dear Superintendent Dwyer:

In accordance with the applicable statutes and regulations of the state of Rhode Island, we are filing for your consideration and approval advisory loss costs changes for Rhode Island. The advisory loss costs, which are proposed to be effective August 1, 2022, reflect a decrease of 6.4% from the current advisory loss costs which became effective August 1, 2021.

Reported COVID-19-related claims have been excluded from the data on which this filing is based because those claims are not expected to be predictive of the loss experience that may arise during the filing prospective period. After an in-depth review and analysis, NCCI has determined that its standard ratemaking methodologies continue to remain appropriate for use in this year's filing.

This filing is made exclusively on behalf of the companies that have given valid consideration for the express purpose of fulfilling regulatory rate or pure premium filing requirements and other private use of this information.

In the enclosed appendix is a list of companies, which as of the time this filing is submitted, are eligible to reference this information. The inclusion of a company on this list merely indicates that the company, or the group to which it belongs, is affiliated with NCCI in this jurisdiction, or has licensed this information as a non-affiliate, and is not intended to indicate whether the company is currently writing business or is even licensed to write business in this state.

As always, if you should have any questions or need additional information, please do not hesitate to contact me at (860) 969-7903 or Brett Foster at (561) 893-3121.

Respectfully Submitted,

Justin Moulton, CPCU, WCP, ARe
State Relations Executive

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Actuarial Certification

I, Brett Foster, am a Director and Actuary for the National Council on Compensation Insurance, Inc. I am a Fellow of the Casualty Actuarial Society and a member of the American Academy of Actuaries, and I meet the Qualification Standards of the American Academy of Actuaries to provide the actuarial report contained herein.

The information contained in this report has been prepared under my direction in accordance with applicable Actuarial Standards of Practice as promulgated by the Actuarial Standards Board. The Actuarial Standards Board is vested by the U.S.-based actuarial organizations with the responsibility for promulgating Actuarial Standards of Practice for actuaries providing professional services in the United States. Each of these organizations requires its members, through its Code of Professional Conduct, to observe the Actuarial Standards of Practice when practicing in the United States.

Brett Foster, FCAS, MAAA
Director and Actuary
Actuarial and Economic Services

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Disclosures

Purpose of the Report

The purpose of this report is to provide the proposed advisory loss costs for workers compensation policies in Rhode Island, proposed to be effective August 1, 2022. The intended users of this report are:

- The Rhode Island Department of Business Regulation, Insurance Division
- Affiliated carriers, for their reference in determining workers compensation rates

Scope

The prospective loss costs are intended to cover the indemnity and medical benefits provided under the system, as well as some of the expenses associated with providing these benefits (loss adjustment expenses). They do not, however, contemplate any other costs associated with providing workers compensation insurance (such as commissions, taxes, etc.).

Each insurance company offering workers compensation insurance in Rhode Island that uses NCCI loss costs may file a loss cost multiplier to be applied to the approved advisory prospective loss costs in order to compute the final workers compensation rates they intend to charge. This multiplier is intended to cover the other costs associated with providing workers compensation insurance that are not already part of the advisory prospective loss costs.

Data Sources and Dates

The overall average loss cost level change is based on a review of Financial Call Data, which is an aggregation of workers compensation data annually reported to NCCI. In this filing, Financial Call Data submissions received after September 19, 2021, were not considered for inclusion in the analysis.

Loss cost level changes at the classification code level are based on Unit Statistical Plan Data, which is the audited exposure, premium, and loss information reported to NCCI on a policy level. In this filing, Unit Statistical Data submissions received after September 23, 2021, were not considered for inclusion in the analysis.

NCCI categorizes catastrophic events as those that incur aggregate workers compensation losses in excess of $50 million per occurrence. NCCI's standard ratemaking methodology excludes catastrophe-related losses from the calculation of loss costs since these events are not considered to be predictive of future experience. NCCI is proposing to treat the COVID-19 pandemic as a catastrophic event and, therefore, the losses from reported COVID-19-related

claims have been excluded from the underlying data in this year's analysis because those claims are not expected to be predictive of the loss experience that may arise during the filing prospective period.

In some areas, NCCI's analysis also relies on other data sources, which are reviewed for reasonableness and are referenced in the filing where applicable.

This filing was prepared as of October 18, 2021. Therefore, events that occurred after this date that may have a material impact on workers compensation costs in this jurisdiction have not been considered in the analysis.

NCCI maintains several data reporting initiatives and programs to assist carriers to report data and to ensure that the data that is reported to NCCI is complete, accurate, and reported in a timely fashion. Occasionally, a carrier's data submission is not available for use in an NCCI filing either because the data was not reported prior to the filing, had quality issues, or NCCI determined that the data that was reported should not be included in the filing based on NCCI's actuarial judgment.

Data for all carriers writing at least one-tenth of one percent of the Rhode Island workers compensation written premium volume have been included in the experience period on which this filing is based.

Other exclusions are made for the purposes of analysis, but do not have a material impact on the proposed changes in this filing.

Risks and Uncertainty

This filing includes assumptions and projections concerning the future. As with any prospective analysis, there exists estimation uncertainty in these assumptions and projections. Areas of this analysis subject to estimation uncertainty that could have a material impact on the final results include the following:

- Projection of future loss development
- Selection of loss ratio trends
- Potential impact of changes to laws and/or regulations

In addition, any future changes to workers compensation law or regulations that apply retroactively to policies or benefit claims on policies in the proposed effective period may have a significant impact on the adequacy of the loss costs proposed in this filing.

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The course of the COVID-19 pandemic and related considerations, such as future economic conditions and the labor market, contribute additional uncertainty when estimating future costs. After an in-depth review and analysis of NCCI's general ratemaking methodologies, NCCI has determined that those approaches remain appropriate for use in this filing.

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Executive Summary

Based on its review of the most recently available data, NCCI has proposed an overall average workers compensation voluntary market loss cost level change of −6.4% to become effective August 1, 2022.

Key Components	Percentage Change
Impact of change in Experience and Development	– 5.0%
Impact of change in Trend	– 3.0%
Impact of change in Benefits	+ 1.9%
Impact of change in Loss-based Expenses	- 0.3%
Proposed Change in Overall Voluntary Loss Cost Level	**– 6.4%**

Key Observations:

- The overall loss cost level change in this filing is based on premium and loss experience for policy years 2017, 2018, and 2019, evaluated as of December 31, 2020. The reported claims resulting from COVID-19 have been excluded from the data on which this filing is based.

- Lost-time claim frequency continues to decline in Rhode Island with a decrease of nearly 8% in Policy Year 2019.

- Rhode Island's indemnity and medical cost per case figures have both remained fairly stable over time, however the indemnity average cost per case has increased in recent years.

- The loss cost change varies by classification code, each of which belongs to one of five industry groups. The average change by industry group ranges from – 9.6% for Manufacturing to – 5.2% for Miscellaneous.

Additional Notable Changes Proposed in the Filing:

- Catastrophic Handling of the COVID-19 Pandemic
- Federal-Classification (F-Class) Ratemaking
- Calendar Year 2020 Wage Adjustment

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Overview of Methodology

Aggregate Ratemaking

NCCI's approach to determining the proposed overall average loss cost level change utilizes widely accepted ratemaking methodologies. The approach employed in this filing includes the following steps:

- The reported historical premium totals are projected to an ultimate basis and adjusted to the current pure premium level
- The excess loss portion of individual large claims are removed from reported aggregate losses, based on a Rhode Island-specific large loss threshold
- The reported historical limited indemnity and medical loss totals are projected to an ultimate basis and adjusted to the current benefit level
- Ratios of losses to pure premium are projected to the cost levels expected in the loss cost effective period
- Ultimate, trended, limited losses are adjusted to an unlimited basis via a non-catastrophe excess ratio (with excess ratios at limits beyond $50 million set equal to zero)
- Proposed benefit level and expense changes are applied to the projected cost ratios

The indicated average loss cost level change is calculated for the years in the filing's experience period. If the final projected cost ratios are greater (less) than 1.000, then an increase (decrease) in the average loss cost level is indicated.

Class Ratemaking

Once the proposed overall average voluntary loss cost level change has been determined, NCCI separately determines loss costs per $100 of payroll for each workers compensation job classification (class); the loss costs and year-over-year changes vary by class. Three sets of pure premiums are combined as part of each class code's loss cost calculation based on the volume of available data for that job classification. The three sets of pure premiums are:

- State-specific payroll and loss experience ("indicated")
- Currently-approved pure premium adjusted to the proposed level ("present on rate level")
- Countrywide experience adjusted to state conditions ("national")

Note: The methodology and assumptions used in this filing may not be applicable to or relevant for another purpose, including but not limited to NCCI filings in other jurisdictions.

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Summary of Selections

The following is a summary of selections underlying the voluntary loss costs proposed to be effective August 1, 2022, along with the selections underlying the currently-approved loss costs.

Voluntary Loss Costs	Currently Approved August 1, 2021	Proposed Effective August 1, 2022
Experience Period	Policy Years 2016–2018	Policy Years 2017–2019
Premium Development	3-year average	3-year average*
Basis of Loss Experience	Paid Losses	Paid Losses
Loss Development Factors	5-year Xhilo average	5-year Xhilo average
Tail Factors	Selected	Selected
Indemnity Annual Loss Ratio Trend Factor	0.970	0.965
Medical Annual Loss Ratio Trend Factor	0.955	0.945
Loss Adjustment Expense Provision	23.3%	22.9%
Base Threshold for Limiting Losses	$3,262,665	$2,894,382
Large Loss Excess Ratio	1.6%	2.0%**
Classification Swing Limits (applied by Industry Group)	+/−15%	+/−15%

* A selection was made for the 1st/2nd premium development factor.
** The proposed value reflects the updated hazard group assignment changes as detailed in the approved Item Filing B-1442.

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Selections Underlying the Proposed Changes

Experience and Development

NCCI analyzed the emerging experience of Rhode Island workers compensation policies in recent years. The primary focus of our analysis was on premiums and losses from policy years 2017, 2018, and 2019 evaluated as of December 31, 2020. The most recently available full policy year is 2019 since the last policy had an effective date of December 31, 2019 and did not expire until December 31, 2020. During this year's analysis, which included an assessment of pandemic claim-related impacts, the use of the three most recently available full policy years of data was selected as most appropriate in terms of providing a balance between stability and responsiveness.

The specific loss experience used by NCCI in this filing is based on paid losses, which are the benefit amounts already paid by insurers on reported claims. This is consistent with NCCI filings made in the past several years in Rhode Island. Loss development factors are needed since paid losses on a given claim change over time until the claim is finally closed. The loss development factors are based on how paid losses changed over time for claims from older years. The specific development link ratio selections underlying this filing are shown below:

- A three-year average of historical premium development factors
  - A selection of 1.000 was made for the 1st/2nd premium development factor which reflects the expectation of no future payroll growth in Policy Year 2019 as a result of the COVID-19-related economic contraction
- A five-year excluding highest and lowest average of historical paid loss development factors through a 19th report
- Loss development tail factors from a 19th report to ultimate were selected

After analysis and consideration of the most recent data, and the assessment of COVID-19 impacts, NCCI has determined that its standard development procedures and methodologies remain appropriate.

Trend

This filing relies primarily on the experience from policy years 2017, 2018, and 2019. However, the proposed loss costs are intended for use with policies with effective dates starting on August 1, 2022. It is necessary to use trend factors that forecast how much the future Rhode Island workers compensation experience will differ from the past. These trend factors measure anticipated changes in the amount of indemnity and medical benefits as compared with anticipated changes in the amount of workers' wages. For example, if benefit costs are expected to grow faster than wages, then a trend factor greater than zero is indicated.

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Selections Underlying the Proposed Changes

Conversely, if wages are expected to grow faster than benefit costs, then a trend factor less than zero is indicated.

While historical changes in claim frequency and average cost per case were also reviewed, NCCI applies loss ratio trend factors in the determination of the proposed overall average loss cost level change.

After analysis and consideration of the most recent data, and the assessment of COVID-19 impacts, NCCI has determined that its standard trend procedures and methodologies remain appropriate.

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Selections Underlying the Proposed Changes

The following few charts show a measure of the number of workplace injuries (claim frequency) and the average cost of each of these injuries (claim severity).

Rhode Island Claim Frequency
Per Million of On-Leveled, Wage-Adjusted Premium

Rhode Island's lost-time claim frequency has declined since 2010, as shown immediately above. The data in this chart reflects premiums at today's loss cost and wage levels.

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Selections Underlying the Proposed Changes

Rhode Island Indemnity Average Cost Per Case
Adjusted to a Common Wage Level, Based on Paid Losses

Rhode Island Medical Average Cost Per Case
Adjusted to a Common Wage Level, Based on Paid Losses

As these two charts illustrate, Rhode Island's indemnity and medical cost per case figures have both remained relatively stable over time, however the indemnity average cost per case has increased during the latest three policy years.

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Selections Underlying the Proposed Changes

Loss ratios result after combining observed changes in Rhode Island's average claim frequency with corresponding changes in Rhode Island's average cost per case.

Rhode Island Indemnity Loss Ratio History
Based on Paid Losses

Rhode Island Medical Loss Ratio History
Based on Paid Losses

Based on our analysis this year, we are proposing to decrease the annual indemnity loss ratio trend from -3.0% to −3.5% and decrease the annual medical loss ratio trend from −4.5% to −5.5%.

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Selections Underlying the Proposed Changes

Benefit Changes

NCCI has included the impact of enacted Senate Bill 937/House Bill 6376 effective January 1, 2022. This change is estimated to increase indemnity costs by 2.3% and increase overall system costs by 1.6%. Please see Appendix C-I for additional detail.

NCCI has included the impact of the most recent Medical Fee Schedule update effective January 1, 2022. This change is estimated to increase medical costs by 0.8% and increase overall system costs by 0.2%. Please see Appendix C-II for additional detail.

Loss-Based Expenses

The proposed loss costs include a provision for loss adjustment expenses (LAE). These are expenses associated with the handling of workers compensation claims. LAE is included in the loss costs by using a ratio of private carrier loss adjustment expense dollars to loss dollars (called the LAE provision). In this filing, NCCI is proposing to decrease the current LAE provision from 23.3% to 22.9% of losses. Please see Exhibit II for additional detail.

Catastrophic Handling of the COVID-19 Pandemic

<u>Overview</u>

NCCI recently reviewed its actuarial catastrophe methodology as a result of the COVID-19 pandemic. Currently, NCCI's Catastrophe (other than Certified Acts of Terrorism) Provision accounts for single-event losses resulting only from earthquakes, noncertified acts of terrorism, or catastrophic industrial accidents that exceed $50 million in aggregate workers compensation losses. However, the COVID-19 pandemic has shown that there are other perils that can result in catastrophic losses.

In the calculation of loss costs, NCCI is proposing to use data that excludes the impact of the catastrophic COVID-19 event. In Approved Item Filing P-1418, NCCI revised the Catastrophe (other than Certified Acts of Terrorism) Provision to contemplate the exposure to all events or perils that could result in aggregate workers compensation losses in excess of $50 million (which may include pandemics). NCCI proposed no change to the currently approved Miscellaneous Value.

Due to the uncertainty surrounding quantifying the impact future pandemics could have on the workers compensation system, it is appropriate to contemplate all catastrophic perils, including pandemics, within the Catastrophe (other than Certified Acts of Terrorism) definition without a change in the advisory value. This handling recognizes that there are additional catastrophic exposures (which may include pandemics) on workers compensation system costs that should be considered in the calculation of loss costs in adherence with the Actuarial Standards of Practice (ASOPs).

<u>Background</u>

The COVID-19 pandemic has shown that pandemics have the potential to be a catastrophic peril on workers compensation system costs. In this filing, COVID-19 is being treated as a catastrophe and all reported data from COVID-19 pandemic claims have been excluded from ratemaking to better reflect the conditions likely to prevail in the filing's proposed effective period beginning on August 1, 2022.

Both the definition of catastrophe and the treatment of catastrophe losses in property and casualty ratemaking are addressed in the Actuarial Standards of Practice (ASOP). As defined in ASOP 39 ("Treatment of Catastrophe Losses in Property/Casualty Insurance Ratemaking"), a catastrophe is "a relatively infrequent event or phenomenon that produces unusually large aggregate losses." ASOP 39 also states that "consideration should be given to the impact of catastrophes and that procedures should be developed to include an allowance for catastrophe exposure in the rate."

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Additional Proposed Changes

In the calculation of loss costs, NCCI uses ratemaking data that excludes the impact of catastrophes because the full unadjusted impact of the catastrophe experience is not considered predictive on a prospective basis. Previously, the advisory Catastrophe (other than Certified Acts of Terrorism) Provision accounted for single-event aggregate workers compensation losses resulting only from earthquakes, noncertified acts of terrorism, or catastrophic industrial accidents that exceed $50 million. This $50 million threshold applies per occurrence, across all states for which claims arise from a single event or peril. In Rhode Island, the currently approved advisory Catastrophe (other than Certified Acts of Terrorism) Provision is $0.01 per $100 of payroll and can be found in the Miscellaneous Values in this filing.

The COVID-19 pandemic has shown that there are other perils that can result in catastrophic losses and that regardless of the specific peril, any event exceeding $50 million should be removed from the data used in ratemaking. In approved Item Filing P-1418, NCCI revised the Catastrophe (other than Certified Acts of Terrorism) Provision to contemplate a single event or peril resulting in a group of claims with aggregate workers compensation losses in excess of $50 million. This revision recognizes that there are other potentially catastrophic perils with exposure on workers compensation system costs. This item resulted in no change to the currently approved provision of $0.01 per $100 of payroll. Note: The loss cost catastrophe provision in the Miscellaneous Values is not a final rate, as it does not include provisions for all expense-related components.

Changes to the Catastrophe (Other Than Certified Acts of Terrorism) Premium Endorsement

In approval Item Filing P-1418, NCCI revised the Catastrophe (Other Than Certified Acts of Terrorism) Premium Endorsement in NCCI's **Forms Manual of Workers Compensation and Employers Liability Insurance (Forms Manual)** to define "Catastrophe (other than Certified Acts of Terrorism)" as "[a] single event or peril resulting in a group of claims with aggregate workers compensation losses in excess of $50 million. This $50 million threshold applies per occurrence, across all states for which claims arise from a single event or peril." This item is to become effective for new and renewal policies effective on and after 12:01 a.m. August 1, 2022. This lead time will provide insurance companies ample time to incorporate the new endorsement into their processes. This revision did not change the currently approved advisory Miscellaneous Value.

Additional Proposed Changes

Federal-Classification (F-Class) Ratemaking

This filing proposes to revise the current approach used to determine the loss costs for those classification codes that are subject to the benefits provided under the United States Longshore and Harbor Workers Compensation Act (USL&HW Act). The proposed approach has several advantages over the current methodology that has been in effect, without significant changes, for more than 20 years. These advantages include:

- Greater year-to-year stability in loss costs
- A simplified ratemaking approach
- Direct recognition that federal act USL&HW benefits are the same across jurisdictions

For reference, the F-classifications in Rhode Island have a total of $7 million in payroll in the latest policy period used in this filing; this represents less than 0.1% of Rhode Island's total payroll.

The USL&HW Act is a federal law that provides indemnity and medical benefits to employees such as longshore workers, harbor workers, ship repair workers, shipbuilders, and other employees who perform the loading, unloading, repairing, or building of a vessel or dock. It applies to such employees while working on US navigable waters and while working on any adjoining pier, wharf, dry dock, terminal, building way, marine railway, or other area adjoining such navigable waters customarily used for the loading, unloading, repairing, or building of a vessel. It does not cover masters or members of the crew of a vessel.

An injured F-class worker (or beneficiary) may receive state or federal act benefits, based on the exposure at the time of the accident. While federal and state act losses are reported separately, payroll is reported on a combined basis. Therefore, F-class loss costs must reflect both state and federal act benefits.

In the past, updates were made to NCCI's general class ratemaking methodology, which have increased the year-to-year stability for the F-class codes. Even so, relative to the industrial codes, the F-class codes have generally exhibited a higher level of volatility associated with their lower volume of data.

NCCI recently completed a review of the current F-class methodology. The proposed F-class approach incorporates a countrywide pure premium based on 10 policy years of F-class data, state-specific benefit relativities, and F-class code relativities.

The proposed approach recognizes that F-class experience across all jurisdictions consists primarily of federal act benefits. These benefits are based on a federal benefit structure and are subject to a federal medical fee schedule—neither of which vary by individual jurisdiction.

Additional Proposed Changes

Accordingly, the proposed methodology leverages this consistency by combining the data at a countrywide level—rather than relying on smaller volumes of state-specific data during the F-class ratemaking process. This change, alongside the expansion to 10 policy years of data, helps increase the stability of these low volume and unique classifications.

The state act benefits portion of the reported F-class experience is initially adjusted to a countrywide level and then back down to a state level using industrial codes' data as a proxy. This allows a greater volume of combined data to be used in the F-class ratemaking process as well as retaining the ability to directly reflect state-specific cost differences.

For more details, refer to Appendix B-IV.

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Additional Proposed Changes

Calendar Year 2020 Wage Adjustment

NCCI's standard methodology is to adjust frequency and severity values included in its loss cost filings to a common wage level before analyzing trends that may be present in those values. This practice allows NCCI to analyze trends above and beyond changes that may be due solely to wage inflation. More specifically, in this year's filing, the frequency and severity adjustments would have incorporated the state's estimated Calendar Year 2020 average weekly wage (AWW) level using data from the Bureau of Labor Statistics' Quarterly Census of Employment and Wages (QCEW).

In addition to the traditional growth in wages/salaries that may be expected to occur each year, the observed change in the 2019-to-2020 AWW was also impacted by COVID-19-related shifts in employment across industry sectors. While a change in industry-sector mix occurs to a small degree each year, its impact on the 2020 AWW change was unusually large, due to pandemic-related job losses in relatively low wage industries and ignoring this effect would otherwise distort the intended nature of the adjustment. Therefore, in this year's ratemaking analysis the 2020 AWW value was adjusted to exclude the estimated impact of the pandemic-related, industry-sector mix change.

This adjustment is reflected in the frequency and severity values shown in Appendix A-III Trend Factors. The impact of the AWW adjustment is expected to be immaterial.

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Part 2   Proposed Values

-      Proposed Voluntary Market Advisory Loss Costs and Rating Values

-      Proposed Values for Inclusion in the Experience Rating Plan Manual

-      Proposed Values for Inclusion in the Retrospective Rating Plan Manual

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Proposed Voluntary Market Advisory Loss Costs and Rating Values

The following pages include proposed voluntary market advisory loss costs and rating values:

- Voluntary market advisory loss costs, expected loss rates, and d-ratios by class code, along with associated footnotes
- Advisory miscellaneous values, such as:
    - Advisory loss elimination ratios
    - Catastrophe (other than Terrorism) advisory loss cost
    - Maximum and minimum weekly payroll applicable for select class codes
    - Premium determination for Partners and Sole Proprietors
    - Terrorism voluntary advisory loss cost
    - United States Longshore and Harbor Workers' Compensation Coverage Percentage

Please note the following in connection with this filing:
- As a result of Item B-1439, effective August 1, 2021:
    - Class Codes 2683 and 2501 are combined to reflect the final year of a two-year transition program and Class Code 2683 is discontinued.
    - Class Codes 3240 and 3257 are combined to reflect the final year of a two-year transition program and Class Code 3240 is discontinued.
- As a result of Item B-1442, effective August 1, 2022, class code hazard group changes were incorporated.
- As a result of Item R-1419, the retrospective rating plan parameters have been updated.

ADVISORY LOSS COSTS - NOT RATES — RHODE ISLAND

Advisory loss costs exclude all expense provisions except loss adjustment expense.

Effective August 1, 2022

CLASS CODE	LOSS COST	ELR	D RATIO	CLASS CODE	LOSS COST	ELR	D RATIO	CLASS CODE	LOSS COST	ELR	D RATIO
0005	2.75	2.26	0.39	2016	1.95	1.58	0.39	2709	6.50	4.68	0.30
0008	2.01	1.64	0.39	2021	2.47	1.98	0.36	2710	5.80	4.39	0.33
0016	4.44	3.38	0.33	2039	2.04	1.66	0.39	2714	3.21	2.64	0.39
0034	3.17	2.54	0.35	2041	2.09	1.70	0.39	2731	3.34	2.73	0.39
0035	2.06	1.64	0.35	2065	1.51	1.21	0.35	2735	4.18	3.45	0.39
0036	3.37	2.73	0.39	2070	3.89	3.09	0.35	2759	5.64	4.65	0.39
0037	3.60	2.75	0.33	2081	2.36	2.01	0.40	2790	1.21	1.03	0.40
0042	4.22	3.39	0.36	2089	2.38	1.94	0.39	2797	2.51	2.14	0.40
0050	3.34	2.53	0.33	2095	3.15	2.51	0.35	2799	3.15	2.51	0.35
0059D	0.15	0.06	0.30	2105	3.09	2.61	0.40	2802	3.64	2.90	0.35
0065D	0.04	0.02	0.33	2110	1.60	1.31	0.39	2835	1.91	1.61	0.40
0066D	0.04	0.02	0.35	2111	1.76	1.45	0.39	2836	2.31	1.95	0.40
0067D	0.04	0.02	0.36	2112	2.53	2.07	0.39	2841	2.91	2.41	0.39
0079	2.65	2.15	0.36	2114	1.68	1.43	0.40	2881	2.01	1.69	0.40
0083	3.92	3.13	0.35	2121	0.99	0.84	0.40	2883	2.39	1.96	0.39
0106	8.29	6.01	0.30	2130	1.37	1.10	0.36	2913	–	1.96	0.39
0113	3.32	2.72	0.39	2131	1.45	1.18	0.39	2915	2.49	1.87	0.33
0170	2.53	2.07	0.39	2143	2.15	1.82	0.40	2916	2.27	1.73	0.33
0251	3.05	2.45	0.36	2157	3.57	2.88	0.38	2923	1.39	1.18	0.40
0400	–	2.15	0.36	2172	1.34	1.00	0.33	2942	–	0.83	0.40
0401	8.96	6.51	0.30	2174	2.14	1.75	0.39	2960	4.56	3.67	0.36
0771N	0.36	–	–	2211	4.09	3.10	0.33	3004	1.11	0.80	0.30
0908P	132.00	106.18	0.36	2220	1.60	1.26	0.35	3018	1.95	1.41	0.30
0913P	383.00	303.67	0.35	2260	–	3.10	0.33	3022	2.57	2.08	0.39
0917	3.33	2.80	0.40	2286	–	1.26	0.35	3027	2.58	1.96	0.33
0918	0.82	0.65	0.35	2288	3.05	2.50	0.39	3028	2.03	1.53	0.33
1005	5.83	3.92	0.28	2300	–	1.27	0.39	3030	4.22	3.20	0.33
1164D	2.80	1.90	0.28	2302	1.30	1.05	0.36	3040	3.90	3.13	0.36
1165D	2.42	1.63	0.28	2305	1.74	1.32	0.33	3041	2.79	2.23	0.35
1320	1.35	0.97	0.30	2361	1.28	1.04	0.36	3042	3.35	2.68	0.35
1322	5.46	3.72	0.28	2362	1.83	1.50	0.39	3064	3.37	2.70	0.36
1430	3.16	2.42	0.33	2380	1.54	1.27	0.39	3076	2.79	2.27	0.39
1438	3.32	2.47	0.33	2386	–	1.27	0.39	3081D	4.70	3.76	0.36
1452	2.05	1.53	0.33	2388	1.18	1.01	0.40	3082D	2.83	2.11	0.33
1463	7.82	5.46	0.28	2402	1.97	1.50	0.33	3085D	3.43	2.70	0.35
1472	2.33	1.76	0.33	2413	2.01	1.61	0.36	3110	2.84	2.27	0.35
1624D	2.36	1.68	0.30	2416	1.29	1.06	0.39	3111	1.41	1.14	0.39
1642	2.02	1.52	0.33	2417	1.59	1.28	0.38	3113	1.15	0.91	0.35
1654	4.32	3.25	0.33	2501	1.55	1.27	0.39	3114	2.38	1.90	0.35
1655	–	1.52	0.33	2503	1.31	1.06	0.39	3118	1.32	1.11	0.40
1699	2.13	1.62	0.33	2534	–	1.27	0.39	3119	0.62	0.53	0.44
1701	2.35	1.70	0.30	2570	2.72	2.22	0.39	3122	1.45	1.24	0.40
1710D	2.91	2.16	0.33	2585	3.01	2.40	0.35	3126	1.18	0.94	0.35
1741	–	1.70	0.30	2586	1.96	1.61	0.39	3131	1.23	0.99	0.36
1747	1.87	1.41	0.33	2587	2.25	1.82	0.39	3132	2.14	1.76	0.39
1748	3.48	2.65	0.33	2589	1.41	1.13	0.35	3145	1.56	1.25	0.35
1803D	6.02	4.39	0.33	2600	3.66	2.95	0.38	3146	1.80	1.45	0.36
1852	–	1.10	0.28	2623	4.62	3.51	0.33	3169	2.49	2.01	0.38
1853	–	1.70	0.30	2651	1.45	1.20	0.39	3175	–	2.01	0.38
1860	–	1.43	0.33	2660	1.76	1.50	0.40	3179	1.36	1.10	0.38
1924	1.75	1.42	0.39	2670	–	1.23	0.39	3180	1.60	1.32	0.39
1925	2.55	2.04	0.36	2683	–	1.27	0.39	3188	1.48	1.18	0.35
2002	4.55	3.76	0.39	2688	1.51	1.23	0.39	3220	1.47	1.17	0.35
2003	3.12	2.48	0.35	2701	10.86	7.73	0.30	3223	–	1.32	0.39
2014	3.63	2.75	0.33	2702	16.53	11.38	0.28	3224	2.45	2.05	0.39

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Effective August 1, 2022

CLASS CODE	LOSS COST	ELR	D RATIO	CLASS CODE	LOSS COST	ELR	D RATIO	CLASS CODE	LOSS COST	ELR	D RATIO
3227	1.98	1.62	0.39	4021	3.14	2.52	0.36	4611	0.82	0.67	0.39
3240	–	1.97	0.39	4024D	3.03	2.27	0.33	4635	2.24	1.60	0.30
3241	2.02	1.65	0.39	4034	4.03	3.04	0.33	4653	2.23	1.85	0.39
3255	1.83	1.56	0.40	4036	1.66	1.26	0.33	4665	5.25	3.95	0.33
3257	2.39	1.97	0.39	4038	1.74	1.46	0.40	4670	–	2.55	0.36
3270	1.72	1.41	0.39	4053	–	1.55	0.35	4683	3.18	2.55	0.36
3300	3.11	2.67	0.40	4061	–	1.55	0.35	4686	1.86	1.41	0.33
3303	1.55	1.27	0.39	4062	1.95	1.55	0.35	4692	0.57	0.46	0.38
3307	2.14	1.72	0.36	4101	1.77	1.41	0.35	4693	0.73	0.59	0.39
3315	2.36	1.91	0.38	4109	0.33	0.27	0.39	4703	1.36	1.07	0.35
3334	1.93	1.51	0.35	4110	0.94	0.77	0.39	4717	1.40	1.18	0.40
3336	3.15	2.50	0.35	4111	1.22	0.99	0.39	4720	1.79	1.44	0.36
3365	2.77	2.00	0.30	4113	–	0.99	0.39	4740	1.11	0.75	0.28
3372	2.22	1.77	0.35	4114	1.94	1.54	0.35	4741	2.09	1.67	0.35
3373	2.96	2.41	0.39	4130	2.27	1.86	0.39	4751	1.62	1.24	0.33
3383	1.32	1.07	0.39	4131	3.52	2.90	0.39	4771N	2.03	1.47	0.30
3385	0.65	0.53	0.39	4133	1.49	1.27	0.40	4777	2.40	1.76	0.30
3400	2.15	1.76	0.39	4149	0.77	0.66	0.40	4825	0.44	0.33	0.33
3507	1.96	1.56	0.35	4206	2.38	1.93	0.39	4828	1.05	0.76	0.30
3515	1.37	1.10	0.36	4207	1.72	1.23	0.30	4829	1.12	0.81	0.30
3516	–	1.10	0.36	4239	1.84	1.32	0.30	4902	1.94	1.59	0.39
3548	1.22	1.01	0.39	4240	1.96	1.67	0.40	4923	1.15	0.91	0.35
3559	1.91	1.52	0.35	4243	1.91	1.52	0.35	5020	3.20	2.29	0.30
3561	–	0.71	0.39	4244	2.23	1.69	0.33	5022	4.04	2.76	0.28
3574	0.87	0.71	0.39	4250	1.42	1.14	0.36	5037	9.41	6.43	0.28
3581	0.80	0.66	0.39	4251	2.13	1.73	0.39	5040	6.41	4.35	0.28
3612	1.54	1.23	0.35	4263	2.10	1.68	0.35	5057	3.27	2.22	0.28
3620	1.97	1.48	0.33	4273	1.90	1.51	0.35	5059	10.60	7.31	0.28
3629	1.04	0.83	0.36	4279	1.90	1.43	0.33	5069	–	7.31	0.28
3632	1.73	1.38	0.35	4282	–	1.43	0.33	5102	3.52	2.53	0.30
3634	1.12	0.89	0.35	4283	1.19	0.97	0.39	5146	3.77	2.81	0.33
3635	1.42	1.13	0.35	4299	1.25	1.00	0.35	5160	1.34	0.92	0.28
3638	1.29	1.05	0.39	4301	–	1.43	0.33	5183	2.29	1.65	0.30
3642	0.86	0.71	0.39	4304	3.24	2.59	0.35	5188	2.01	1.45	0.30
3643	1.30	0.98	0.33	4307	1.15	0.97	0.40	5190	1.63	1.17	0.30
3647	2.01	1.60	0.35	4351	0.86	0.71	0.39	5191	0.81	0.61	0.33
3648	1.14	0.96	0.40	4352	1.10	0.90	0.39	5192	2.50	1.98	0.35
3681	0.54	0.44	0.39	4360	–	0.36	0.33	5213	3.77	2.59	0.28
3685	0.71	0.58	0.39	4361	0.60	0.49	0.39	5215	3.72	2.81	0.33
3719	0.68	0.47	0.28	4410	2.13	1.73	0.39	5221	3.13	2.24	0.30
3724	2.29	1.57	0.28	4420	2.93	2.09	0.30	5222	5.31	3.63	0.28
3726	2.12	1.45	0.28	4431	1.10	0.93	0.40	5223	3.51	2.65	0.33
3803	1.94	1.57	0.39	4432	0.97	0.83	0.40	5348	4.02	3.02	0.33
3807	1.93	1.56	0.38	4439	–	1.01	0.35	5402	4.06	3.32	0.39
3808	2.61	2.06	0.35	4452	2.07	1.67	0.36	5403	3.62	2.61	0.30
3821	4.49	3.38	0.33	4459	2.12	1.60	0.33	5437	4.61	3.32	0.30
3822	2.62	2.17	0.39	4470	1.72	1.36	0.35	5443	2.33	1.86	0.35
3824	2.62	2.15	0.39	4484	1.91	1.55	0.39	5445	4.57	3.13	0.28
3826	0.66	0.52	0.35	4493	1.83	1.46	0.35	5462	5.09	3.83	0.33
3827	1.56	1.27	0.39	4511	0.53	0.42	0.35	5472	6.52	4.46	0.28
3830	0.96	0.76	0.35	4557	1.77	1.34	0.33	5473	4.83	3.31	0.28
3851	1.69	1.37	0.39	4558	1.27	1.01	0.35	5474	4.54	3.13	0.28
3865	1.89	1.61	0.40	4568	1.60	1.21	0.33	5478	2.71	1.94	0.30
3881	2.78	2.21	0.35	4581	0.69	0.51	0.30	5479	4.12	3.12	0.33
4000	3.34	2.39	0.30	4583	4.11	2.94	0.30	5480	4.48	3.20	0.30

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ADVISORY LOSS COSTS - NOT RATES

RHODE ISLAND

Advisory loss costs exclude all expense provisions except loss adjustment expense.

Effective August 1, 2022

CLASS CODE	LOSS COST	ELR	D RATIO	CLASS CODE	LOSS COST	ELR	D RATIO	CLASS CODE	LOSS COST	ELR	D RATIO
5491	1.23	0.89	0.30	7046M	4.46	3.05	0.28	7705	4.24	3.37	0.35
5506	4.56	3.29	0.30	7047M	5.01	3.23	0.28	7710	3.00	2.17	0.30
5507	3.33	2.41	0.30	7050M	5.80	3.99	0.28	7711	3.00	2.17	0.30
5508	–	2.41	0.30	7090M	3.54	2.54	0.28	7720	1.96	1.48	0.33
5535	5.01	3.47	0.28	7098M	4.96	3.39	0.28	7855	2.41	1.81	0.33
5537	2.86	2.15	0.33	7099M	8.12	5.32	0.28	8001	1.80	1.47	0.39
5551	9.91	6.92	0.28	7133	2.28	1.65	0.30	8002	1.72	1.43	0.39
5606	0.54	0.37	0.28	7151M	2.77	2.01	0.30	8006	1.65	1.40	0.40
5610	3.84	2.87	0.33	7152M	5.04	3.50	0.30	8008	0.86	0.73	0.40
5645	5.12	3.51	0.28	7153M	3.08	2.23	0.30	8010	1.20	0.99	0.39
5703	11.07	8.38	0.33	7219	5.29	3.80	0.30	8013	0.51	0.41	0.35
5705	8.76	6.68	0.33	7222	6.33	4.48	0.30	8015	0.56	0.45	0.35
5951	0.23	0.19	0.39	7225	5.62	4.25	0.33	8017	1.35	1.14	0.40
6003	4.88	3.50	0.30	7228	–	3.80	0.30	8018	2.23	1.81	0.39
6005	2.90	2.20	0.33	7229	–	3.80	0.30	8021	1.96	1.60	0.39
6045	3.61	2.69	0.33	7230	5.64	4.46	0.35	8031	2.15	1.76	0.39
6204	5.69	4.07	0.30	7231	8.36	6.60	0.35	8032	1.71	1.40	0.39
6206	1.86	1.27	0.28	7232	7.64	5.38	0.30	8033	1.28	1.08	0.40
6213	1.14	0.78	0.28	7309F	6.84	3.43	0.25	8037	1.49	1.30	0.44
6214	1.26	0.90	0.30	7313F	3.02	1.51	0.25	8039	1.20	1.03	0.40
6216	3.63	2.48	0.28	7317F	5.02	2.52	0.25	8044	3.04	2.48	0.39
6217	2.84	1.95	0.28	7327F	12.64	6.34	0.25	8045	0.61	0.50	0.39
6229	2.96	2.23	0.33	7333M	2.72	1.83	0.28	8046	2.19	1.80	0.39
6233	1.64	1.12	0.28	7335M	3.02	2.04	0.28	8047	0.75	0.61	0.39
6235	3.58	2.44	0.28	7337M	4.95	3.20	0.28	8058	2.79	2.31	0.39
6236	4.51	3.37	0.33	7350F	8.72	4.55	0.28	8072	0.47	0.40	0.40
6237	1.01	0.72	0.30	7360	2.99	2.24	0.33	8102	1.55	1.27	0.39
6251D	4.08	2.89	0.30	7370	3.81	3.10	0.39	8103	2.66	2.15	0.36
6252D	5.89	3.98	0.28	7380	4.43	3.34	0.33	8105	–	1.81	0.39
6260	–	2.89	0.30	7382	2.87	2.29	0.35	8106	3.26	2.47	0.33
6306	2.71	1.95	0.30	7390	6.27	5.10	0.39	8107	2.40	1.73	0.30
6319	2.26	1.54	0.28	7394M	3.13	2.11	0.28	8111	1.57	1.26	0.36
6325	2.36	1.63	0.28	7395M	3.48	2.35	0.28	8116	2.40	1.92	0.36
6400	3.08	2.32	0.33	7398M	5.70	3.69	0.28	8203	5.41	4.29	0.35
6503	1.74	1.40	0.38	7402	0.12	0.10	0.39	8204	4.25	3.45	0.36
6504	2.28	1.86	0.39	7403	3.87	3.15	0.39	8209	3.12	2.56	0.39
6702M*	2.93	2.20	0.33	7405N	1.00	0.79	0.38	8215	2.91	2.21	0.33
6703M*	5.33	3.84	0.33	7420	8.34	5.56	0.28	8227	2.33	1.68	0.30
6704M*	3.25	2.43	0.33	7421	0.89	0.67	0.33	8232	4.08	3.09	0.33
6801F	4.11	2.23	0.32	7422	1.19	0.84	0.30	8233	2.81	2.07	0.33
6811	3.93	2.98	0.33	7425	1.89	1.32	0.30	8235	3.57	2.84	0.35
6824F	5.25	2.85	0.32	7431N	0.87	0.61	0.30	8263	4.76	3.83	0.36
6826F	2.90	1.57	0.32	7445N	0.54	–	–	8264	3.71	2.81	0.33
6834	2.60	2.12	0.39	7453N	0.47	–	–	8265	4.49	3.23	0.30
6836	2.47	1.97	0.35	7502	1.23	0.93	0.33	8279	4.93	3.64	0.30
6843F	7.05	3.53	0.25	7515	0.76	0.52	0.28	8288	5.70	4.63	0.36
6845F	3.81	1.91	0.25	7520	2.86	2.28	0.35	8291	2.65	2.12	0.35
6854	4.10	2.95	0.30	7538	2.21	1.52	0.28	8292	2.73	2.22	0.39
6872F	5.89	2.95	0.25	7539	1.05	0.75	0.30	8293	7.49	6.09	0.39
6874F	8.35	4.19	0.25	7540	2.10	1.46	0.28	8304	4.66	3.37	0.30
6882	4.37	3.22	0.30	7580	2.26	1.71	0.33	8350	5.40	3.85	0.30
6884	1.99	1.44	0.30	7590	2.37	1.80	0.33	8381	1.56	1.25	0.35
7016M	2.75	1.85	0.28	7600	3.84	2.89	0.33	8385	1.92	1.52	0.35
7024M	3.06	2.06	0.28	7605	1.55	1.12	0.30	8387	2.72	2.17	0.35
7038M	3.19	2.29	0.28	7610	0.48	0.36	0.33	8391	2.32	1.85	0.35

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ADVISORY LOSS COSTS - NOT RATES   RHODE ISLAND
Advisory loss costs exclude all expense provisions except loss adjustment expense.

Effective August 1, 2022

CLASS CODE	LOSS COST	ELR	D RATIO	CLASS CODE	LOSS COST	ELR	D RATIO	CLASS CODE	LOSS COST	ELR	D RATIO
8392	1.64	1.40	0.40	9058	1.17	1.01	0.44				
8393	1.39	1.03	0.33	9060	1.14	0.97	0.40				
8500	5.14	3.88	0.33	9061	0.90	0.76	0.40				
8601	0.19	0.14	0.30	9063	0.60	0.52	0.40				
8602	0.75	0.57	0.33	9077F	2.49	1.46	0.38				
8603	0.05	0.05	0.39	9082	0.98	0.85	0.44				
8606	1.85	1.33	0.30	9083	1.07	0.93	0.44				
8709F	3.10	1.55	0.25	9084	1.08	0.92	0.40				
8719	1.98	1.43	0.30	9088a	a	a	a				
8720	0.95	0.70	0.30	9089	0.83	0.72	0.41				
8721	0.27	0.20	0.33	9093	0.93	0.79	0.40				
8723	0.09	0.07	0.36	9101	2.68	2.26	0.40				
8725	1.92	1.44	0.33	9102	2.33	1.86	0.36				
8726F	1.42	0.77	0.32	9154	1.27	1.05	0.39				
8734M	0.30	0.23	0.33	9156	2.00	1.70	0.40				
8737M	0.27	0.20	0.33	9170	7.02	5.10	0.30				
8738M	0.49	0.36	0.33	9178	2.86	2.55	0.44				
8742	0.22	0.17	0.33	9179	6.08	5.20	0.44				
8745	2.45	1.95	0.35	9180	3.99	3.26	0.36				
8748	0.50	0.36	0.30	9182	1.43	1.19	0.39				
8754	0.67	0.54	0.36	9186	8.48	6.29	0.30				
8755	0.22	0.17	0.33	9220	3.58	2.85	0.35				
8799	0.48	0.39	0.39	9402	3.94	2.83	0.30				
8800	0.99	0.81	0.39	9403	5.58	3.99	0.30				
8803	0.04	0.03	0.33	9410	1.92	1.56	0.39				
8805M	0.12	0.10	0.39	9501	2.06	1.56	0.33				
8810	0.09	0.07	0.39	9505	2.64	2.11	0.35				
8814M	0.11	0.09	0.39	9516	2.36	1.86	0.35				
8815M	0.20	0.15	0.39	9519	3.05	2.28	0.33				
8820	0.10	0.08	0.33	9521	2.44	1.84	0.33				
8824	2.51	2.16	0.44	9522	1.60	1.34	0.39				
8825	–	1.66	0.40	9534	2.18	1.48	0.28				
8826	1.96	1.66	0.40	9554	5.68	4.12	0.30				
8831	0.86	0.76	0.44	9586	0.43	0.36	0.39				
8832	0.23	0.19	0.39	9600	1.96	1.59	0.39				
8833	0.79	0.64	0.39	9620	1.18	0.90	0.33				
8835	1.86	1.51	0.39								
8841	1.69	1.35	0.35								
8842	2.24	1.93	0.44								
8855	0.10	0.08	0.39								
8856	0.29	0.23	0.38								
8864	1.21	1.03	0.40								
8868	0.22	0.19	0.40								
8869	0.70	0.59	0.40								
8871	0.05	0.05	0.39								
8901	0.16	0.12	0.33								
9012	0.79	0.59	0.33								
9014	2.23	1.82	0.39								
9015	2.52	2.01	0.35								
9016	2.55	2.12	0.39								
9019	2.23	1.72	0.33								
9033	2.63	2.10	0.35								
9040	3.48	2.95	0.40								
9047	1.90	1.55	0.39								
9052	1.63	1.38	0.40								

Refer to the Classification codes section of the *Basic Manual* for any state specific classification phraseology.

* Refer to the Footnotes Page for additional information on this class code.

Effective August 1, 2022

FOOTNOTES

a   Advisory loss cost for each individual risk must be obtained from NCCI Customer Service or the Rating Organization having jurisdiction.

D   Advisory loss cost for classification already includes the specific disease loading shown in the table below. See the *Basic Manual* rule, Supplemental and supplementary loading.

Code No.	Disease Loading	Symbol	Code No.	Disease Loading	Symbol	Code No.	Disease Loading	Symbol
0059D	0.15	S	1165D	0.01	S	3082D	0.04	S
0065D	0.04	S	1624D	0.01	S	3085D	0.05	S
0066D	0.04	S	1710D	0.02	S	4024D	0.02	S
0067D	0.04	S	1803D	0.20	S	6251D	0.02	S
1164D	0.02	S	3081D	0.04	S	6252D	0.02	S

S=Silica

F   Advisory loss cost provides for coverage under the United States Longshore and Harbor Workers Compensation Act and its extensions. Loss cost contains a provision for the USL&HW Assessment.

M   Risks are subject to Admiralty Law or Federal Employers Liability Act (FELA). However, the published loss cost is for risks that voluntarily purchase standard workers compensation and employers liability coverage. A provision for the USL&HW Assessment is included for those classifications under Program II USL Act.

N   This code is part of a ratable / non-ratable group shown below. The statistical non-ratable code and corresponding advisory loss cost are applied in addition to the basic classification when determining premium.

Class Code	Non-Ratable Element Code
4771	0771
7405	7445
7431	7453

P   Classification is computed on a per capita basis.

* Class Codes with Specific Footnotes

6702   Loss cost and rating values only appropriate for laying or relaying of tracks or maintenance of way - no work on elevated railroads. Otherwise, assign appropriate construction or erection code loss cost and elr each x 1.215.

6703   Loss cost and rating values only appropriate for laying or relaying of tracks or maintenance of way - no work on elevated railroads. Otherwise, assign appropriate construction or erection class loss cost x 2.211 and elr x 2.12.

6704   Loss cost and rating values only appropriate for laying or relaying of tracks or maintenance of way - no work on elevated railroads. Otherwise, assign appropriate construction or erection class loss cost and elr each x 1.35.

Effective August 1, 2022

ADVISORY MISCELLANEOUS VALUES

Advisory Loss Elimination Ratios - The following percentages represent the portion of total loss eliminated per claim and are applicable by hazard group:

Advisory Loss Elimination Ratios							
Deductible	HAZARD GROUP						
Amount	**A**	**B**	**C**	**D**	**E**	**F**	**G**
$250	2.6%	2.1%	1.7%	1.4%	1.1%	0.9%	0.7%
$500	4.6%	3.7%	3.0%	2.6%	2.1%	1.6%	1.3%
$1,000	7.4%	6.2%	5.1%	4.3%	3.6%	2.8%	2.3%
$2,500	13.0%	11.2%	9.5%	8.2%	7.0%	5.6%	4.7%
$5,000	19.6%	17.2%	14.9%	13.1%	11.2%	9.3%	7.9%
Note: These percentages do not include a safety factor and do not reflect the premium reductions to be applied to policy premium.							

Basis of premium applicable in accordance with the **Basic Manual** notes for Code 7370 -- "Taxicab Co.":

Employee operated vehicle……………………………………………………………………………… $89,700

Leased or rented vehicle………………………………………………………………………………… $59,800

Catastrophe (other than Certified Acts of Terrorism) - (Advisory Loss Cost)………....……………………… 0.01

Maximum Weekly Payroll applicable in accordance with the **Basic Manual** rule, Rule for premium determination of executive officers and the **Basic Manual** notes for Code 9178 -- "Athletic Sports or Park: Noncontact Sports," and Code 9179 -- "Athletic Sports or Park: Contact Sports"…... $4,600

Minimum Weekly Payroll applicable in accordance with the **Basic Manual** rule, Rule for premium determination of executive officers….. $1,150

Terrorism - (Advisory Loss Cost)…..……………………..………………………..…………………………. 0.005

United States Longshore and Harbor Workers' Compensation Coverage Percentage applicable only in connection with the **Basic Manual** rule, Federal coverages………..…………………………......…… 84%

(Multiply a Non-F classification loss cost by a factor of 1.84 to adjust for differences in benefits and loss-based expenses. This factor is the product of the adjustment for differences in benefits (1.75) and the adjustment for differences in loss-based expenses (1.050).)

Experience Rating Eligibility

A risk qualifies for experience rating on an intrastate basis when it meets the premium eligibility requirements for the state in which it operates. The eligibility amount varies by rating effective date. The **Experience Rating Plan Manual** should be referenced for the latest approved eligibility amounts by state and by effective date.

RHODE ISLAND

Advisory Loss Costs and Rating Values Filing – August 1, 2022

Proposed Values for Inclusion in the Experience Rating Plan Manual

The following pages include proposed values for the Experience Rating Plan Manual:

- Table of Weighting Values
- Table of Ballast Values
- Experience Rating Premium Eligibility Amounts

Effective August 1, 2022
TABLE OF WEIGHTING VALUES
APPLICABLE TO ALL POLICIES
Experience Rating Program - ERA

Expected Losses			Weighting Values	Expected Losses			Weighting Values
0	--	2,261	0.04	1,275,361	--	1,345,709	0.44
2,262	--	9,142	0.05	1,345,710	--	1,420,131	0.45
9,143	--	16,171	0.06	1,420,132	--	1,498,990	0.46
16,172	--	23,351	0.07	1,498,991	--	1,582,698	0.47
23,352	--	30,688	0.08	1,582,699	--	1,671,715	0.48
30,689	--	51,329	0.09	1,671,716	--	1,766,565	0.49
51,330	--	76,405	0.10	1,766,566	--	1,867,841	0.50
76,406	--	98,710	0.11	1,867,842	--	1,976,220	0.51
98,711	--	120,428	0.12	1,976,221	--	2,092,477	0.52
120,429	--	142,149	0.13	2,092,478	--	2,217,504	0.53
142,150	--	164,137	0.14	2,217,505	--	2,352,333	0.54
164,138	--	186,541	0.15	2,352,334	--	2,498,165	0.55
186,542	--	209,463	0.16	2,498,166	--	2,656,404	0.56
209,464	--	232,979	0.17	2,656,405	--	2,828,705	0.57
232,980	--	257,152	0.18	2,828,706	--	3,017,030	0.58
257,153	--	282,040	0.19	3,017,031	--	3,223,725	0.59
282,041	--	307,695	0.20	3,223,726	--	3,451,615	0.60
307,696	--	334,172	0.21	3,451,616	--	3,704,139	0.61
334,173	--	361,522	0.22	3,704,140	--	3,985,519	0.62
361,523	--	389,801	0.23	3,985,520	--	4,301,002	0.63
389,802	--	419,065	0.24	4,301,003	--	4,657,189	0.64
419,066	--	449,373	0.25	4,657,190	--	5,062,502	0.65
449,374	--	480,789	0.26	5,062,503	--	5,527,856	0.66
480,790	--	513,379	0.27	5,527,857	--	6,067,664	0.67
513,380	--	547,215	0.28	6,067,665	--	6,701,347	0.68
547,216	--	582,373	0.29	6,701,348	--	7,455,727	0.69
582,374	--	618,936	0.30	7,455,728	--	8,368,920	0.70
618,937	--	656,991	0.31	8,368,921	--	9,496,977	0.71
656,992	--	696,636	0.32	9,496,978	--	10,925,843	0.72
696,637	--	737,975	0.33	10,925,844	--	12,794,356	0.73
737,976	--	781,119	0.34	12,794,357	--	15,342,320	0.74
781,120	--	826,192	0.35	15,342,321	--	19,022,706	0.75
826,193	--	873,328	0.36	19,022,707	--	24,806,160	0.76
873,329	--	922,674	0.37	24,806,161	--	35,216,365	0.77
922,675	--	974,389	0.38	35,216,366	--	59,506,823	0.78
974,390	--	1,028,651	0.39	59,506,824	--	180,959,056	0.79
1,028,652	--	1,085,653	0.40	180,959,057	AND OVER		0.80
1,085,654	--	1,145,610	0.41				
1,145,611	--	1,208,758	0.42				
1,208,759	--	1,275,360	0.43				

(a) G 10.80
(b) State Per Claim Accident Limitation $270,500
(c) State Multiple Claim Accident Limitation $541,000
(d) USL&HW Per Claim Accident Limitation $625,500
(e) USL&HW Multiple Claim Accident Limitation $1,251,000
(f) Employers Liability Accident Limitation $55,000
(g) Primary/Excess Loss Split Point $18,500
(h) USL&HW Act -- Expected Loss Factor -- Non-F Classes 1.75
(Multiply a Non-F classification ELR by the USL&HW Act - Expected Loss Factor of 1.75.)

Effective August 1, 2022
TABLE OF BALLAST VALUES
APPLICABLE TO ALL POLICIES
Experience Rating Plan - ERA

Expected Losses		Ballast Values	Expected Losses		Ballast Values	Expected Losses		Ballast Values
0	-- 58,091	27,000	1,864,091	-- 1,918,060	216,000	3,753,543	-- 3,807,535	405,000
58,092	-- 99,980	32,400	1,918,061	-- 1,972,031	221,400	3,807,536	-- 3,861,527	410,400
99,981	-- 148,112	37,800	1,972,032	-- 2,026,003	226,800	3,861,528	-- 3,915,520	415,800
148,113	-- 198,887	43,200	2,026,004	-- 2,079,977	232,200	3,915,521	-- 3,969,513	421,200
198,888	-- 250,897	48,600	2,079,978	-- 2,133,953	237,600	3,969,514	-- 4,023,506	426,600
250,898	-- 303,560	54,000	2,133,954	-- 2,187,929	243,000	4,023,507	-- 4,077,499	432,000
303,561	-- 356,605	59,400	2,187,930	-- 2,241,907	248,400	4,077,500	-- 4,131,493	437,400
356,606	-- 409,889	64,800	2,241,908	-- 2,295,886	253,800	4,131,494	-- 4,185,486	442,800
409,890	-- 463,334	70,200	2,295,887	-- 2,349,865	259,200	4,185,487	-- 4,239,480	448,200
463,335	-- 516,892	75,600	2,349,866	-- 2,403,846	264,600	4,239,481	-- 4,293,474	453,600
516,893	-- 570,530	81,000	2,403,847	-- 2,457,827	270,000	4,293,475	-- 4,347,468	459,000
570,531	-- 624,230	86,400	2,457,828	-- 2,511,810	275,400	4,347,469	-- 4,401,462	464,400
624,231	-- 677,977	91,800	2,511,811	-- 2,565,793	280,800	4,401,463	-- 4,455,457	469,800
677,978	-- 731,760	97,200	2,565,794	-- 2,619,776	286,200	4,455,458	-- 4,509,451	475,200
731,761	-- 785,573	102,600	2,619,777	-- 2,673,761	291,600	4,509,452	-- 4,563,446	480,600
785,574	-- 839,410	108,000	2,673,762	-- 2,727,746	297,000	4,563,447	-- 4,617,441	486,000
839,411	-- 893,265	113,400	2,727,747	-- 2,781,731	302,400	4,617,442	-- 4,671,436	491,400
893,266	-- 947,138	118,800	2,781,732	-- 2,835,717	307,800	4,671,437	-- 4,725,431	496,800
947,139	-- 1,001,023	124,200	2,835,718	-- 2,889,704	313,200	4,725,432	-- 4,779,426	502,200
1,001,024	-- 1,054,921	129,600	2,889,705	-- 2,943,691	318,600	4,779,427	-- 4,833,421	507,600
1,054,922	-- 1,108,828	135,000	2,943,692	-- 2,997,679	324,000	4,833,422	-- 4,887,416	513,000
1,108,829	-- 1,162,744	140,400	2,997,680	-- 3,051,667	329,400	4,887,417	-- 4,941,412	518,400
1,162,745	-- 1,216,667	145,800	3,051,668	-- 3,105,655	334,800	4,941,413	-- 4,995,407	523,800
1,216,668	-- 1,270,596	151,200	3,105,656	-- 3,159,644	340,200	4,995,408	-- 5,049,403	529,200
1,270,597	-- 1,324,532	156,600	3,159,645	-- 3,213,633	345,600	5,049,404	-- 5,103,399	534,600
1,324,533	-- 1,378,472	162,000	3,213,634	-- 3,267,623	351,000	5,103,400	-- 5,157,000	540,000
1,378,473	-- 1,432,417	167,400	3,267,624	-- 3,321,613	356,400			
1,432,418	-- 1,486,366	172,800	3,321,614	-- 3,375,603	361,800			
1,486,367	-- 1,540,318	178,200	3,375,604	-- 3,429,593	367,200			
1,540,319	-- 1,594,274	183,600	3,429,594	-- 3,483,584	372,600			
1,594,275	-- 1,648,232	189,000	3,483,585	-- 3,537,575	378,000			
1,648,233	-- 1,702,193	194,400	3,537,576	-- 3,591,567	383,400			
1,702,194	-- 1,756,157	199,800	3,591,568	-- 3,645,558	388,800			
1,756,158	-- 1,810,122	205,200	3,645,559	-- 3,699,550	394,200			
1,810,123	-- 1,864,090	210,600	3,699,551	-- 3,753,542	399,600			

For Expected Losses greater than $5,157,000, the Ballast Value can be calculated using the following formula (rounded to the nearest 1):

Ballast = (0.10)(Expected Losses) + 2500(Expected Losses)(10.80) / (Expected Losses + (700)(10.80))

G = 10.80

NATIONAL COUNCIL ON COMPENSATION INSURANCE, INC.

RHODE ISLAND—UPDATE TO EXPERIENCE RATING PREMIUM ELIGIBILITY

EXPERIENCE RATING PLAN MANUAL—2003 EDITION
RULE 2—EXPERIENCE RATING ELEMENTS AND FORMULA
A. PREMIUM ELIGIBILITY

2. State Subject Premium Eligibility Amounts

A risk qualifies for experience rating when its subject premium, developed in its experience period, meets or exceeds the minimum eligibility amount shown in the State Table of Subject Premium Eligibility Amounts in Rule 2-A-2-c. *Refer to Rule 2-E-1 to determine a risk's experience period.*

a. A risk qualifies for experience rating if its data within the most recent 24 months of the experience period develops a subject premium of at least the amount shown in Column A.

b. A risk may not qualify according to Rule 2-A-2-a. If it has more than the amount of experience referenced in Rule 2-A-2-a, then to qualify for experience rating the risk must develop an average annual subject premium of at least the amount shown in Column B. *Refer to Rule 2-A-3 to determine average annual subject premium.*

c. A risk's rating effective date determines the applicable Column A and Column B subject premium eligibility amounts required to qualify for experience rating. *Refer to Rule 2-B for rating effective date determination.*

State Table of Subject Premium Eligibility Amounts

State	Rating Effective Date	Column A ($)	Column B ($)
RI	2/1/23 and after	11,500	5,750
	2/1/22 - 1/31/23	11,500	5,750
	2/1/21 - 1/31/22	11,000	5,500

NOTE: This exhibit revises the Rhode Island experience rating subject premium eligibility amounts shown in the State Table of Subject Premium Eligibility Amounts in NCCI's *Experience Rating Plan Manual* national Rule 2-A-2. The content shown in this table is not a complete replacement of the existing State Table of Subject Premium Eligibility Amounts. The premium eligibility amounts are applicable to all policies.

RHODE ISLAND

Advisory Loss Costs and Rating Values Filing – August 1, 2022

Proposed Values for Inclusion in the Retrospective Rating Plan Manual

The following pages include values for inclusion in the Retrospective Rating Plan Manual:

- Average Cost per Case by Hazard Group
- Average Cost per Case including ALAE by Hazard Group
- Excess Loss Pure Premium Factors
- Excess Loss and Allocated Expense Pure Premium Factors
- Retrospective Pure Premium Development Factors

Effective August 1, 2022

1. **Average Cost per Case by Hazard Group**

A	B	C	D	E	F	G
8,637	10,918	13,824	16,358	21,194	27,740	33,547

Average Cost per Case including ALAE by Hazard Group

A	B	C	D	E	F	G
9,977	12,605	15,947	18,863	24,401	31,911	38,576

2. **Excess Loss Pure Premium Factors**
(Applicable to New and Renewal Policies)

Per Accident Limitation	Hazard Groups						
	A	B	C	D	E	F	G
$10,000	0.577	0.601	0.626	0.645	0.667	0.689	0.705
$15,000	0.520	0.548	0.576	0.598	0.625	0.650	0.671
$20,000	0.475	0.505	0.536	0.559	0.589	0.618	0.641
$25,000	0.439	0.469	0.502	0.526	0.559	0.589	0.615
$30,000	0.409	0.439	0.473	0.498	0.533	0.564	0.592
$35,000	0.384	0.414	0.448	0.473	0.509	0.542	0.571
$40,000	0.362	0.392	0.426	0.451	0.489	0.522	0.552
$50,000	0.326	0.355	0.390	0.414	0.453	0.487	0.519
$75,000	0.263	0.291	0.325	0.348	0.388	0.423	0.455
$100,000	0.222	0.248	0.281	0.303	0.344	0.377	0.409
$125,000	0.192	0.217	0.248	0.270	0.310	0.342	0.374
$150,000	0.169	0.193	0.223	0.244	0.283	0.315	0.346
$175,000	0.151	0.174	0.203	0.222	0.261	0.292	0.323
$200,000	0.137	0.158	0.186	0.205	0.242	0.273	0.303
$225,000	0.125	0.145	0.172	0.190	0.227	0.256	0.285
$250,000	0.114	0.134	0.160	0.177	0.213	0.242	0.270
$275,000	0.106	0.124	0.149	0.166	0.201	0.229	0.257
$300,000	0.098	0.116	0.140	0.156	0.190	0.218	0.245
$325,000	0.091	0.108	0.132	0.147	0.181	0.207	0.234
$350,000	0.086	0.102	0.125	0.139	0.172	0.198	0.224
$375,000	0.080	0.096	0.118	0.132	0.165	0.190	0.215
$400,000	0.076	0.091	0.112	0.126	0.158	0.182	0.207
$425,000	0.072	0.086	0.107	0.120	0.151	0.175	0.200
$450,000	0.068	0.082	0.102	0.115	0.145	0.169	0.193
$475,000	0.065	0.078	0.098	0.110	0.140	0.163	0.186
$500,000	0.061	0.075	0.093	0.105	0.135	0.157	0.180
$600,000	0.051	0.063	0.080	0.090	0.118	0.138	0.159
$700,000	0.044	0.054	0.070	0.079	0.104	0.123	0.143
$800,000	0.038	0.048	0.062	0.070	0.094	0.111	0.130
$900,000	0.034	0.042	0.055	0.063	0.085	0.101	0.119
$1,000,000	0.030	0.038	0.050	0.057	0.078	0.093	0.109
$2,000,000	0.013	0.017	0.024	0.028	0.040	0.050	0.060
$3,000,000	0.008	0.010	0.015	0.017	0.026	0.032	0.040
$4,000,000	0.005	0.007	0.010	0.012	0.018	0.023	0.029
$5,000,000	0.003	0.005	0.007	0.009	0.013	0.017	0.022
$6,000,000	0.003	0.004	0.005	0.007	0.010	0.013	0.017
$7,000,000	0.002	0.003	0.004	0.005	0.008	0.011	0.014
$8,000,000	0.002	0.002	0.003	0.004	0.006	0.009	0.011
$9,000,000	0.001	0.002	0.003	0.003	0.005	0.007	0.009
$10,000,000	0.001	0.002	0.002	0.003	0.004	0.006	0.008

Effective August 1, 2022

Excess Loss and Allocated
Expense Pure Premium Factors
(Applicable to New and Renewal Policies)

Per Accident Limitation	Hazard Groups						
	A	**B**	**C**	**D**	**E**	**F**	**G**
$10,000	0.680	0.708	0.735	0.755	0.778	0.802	0.819
$15,000	0.619	0.650	0.681	0.705	0.733	0.761	0.783
$20,000	0.570	0.603	0.637	0.662	0.695	0.726	0.751
$25,000	0.530	0.563	0.600	0.626	0.662	0.695	0.723
$30,000	0.497	0.530	0.568	0.595	0.633	0.668	0.698
$35,000	0.468	0.502	0.540	0.568	0.607	0.643	0.675
$40,000	0.443	0.477	0.516	0.544	0.584	0.621	0.654
$50,000	0.403	0.436	0.475	0.503	0.545	0.583	0.617
$75,000	0.331	0.363	0.401	0.428	0.472	0.511	0.547
$100,000	0.284	0.314	0.351	0.377	0.421	0.459	0.495
$125,000	0.249	0.278	0.314	0.338	0.382	0.420	0.456
$150,000	0.222	0.250	0.284	0.308	0.352	0.388	0.424
$175,000	0.201	0.227	0.261	0.283	0.327	0.362	0.397
$200,000	0.184	0.209	0.241	0.263	0.305	0.340	0.374
$225,000	0.169	0.193	0.224	0.245	0.287	0.321	0.354
$250,000	0.156	0.180	0.210	0.230	0.271	0.304	0.337
$275,000	0.146	0.168	0.197	0.217	0.257	0.289	0.321
$300,000	0.136	0.158	0.186	0.205	0.245	0.276	0.308
$325,000	0.128	0.149	0.176	0.195	0.233	0.264	0.295
$350,000	0.120	0.140	0.167	0.185	0.223	0.253	0.284
$375,000	0.114	0.133	0.159	0.177	0.214	0.244	0.273
$400,000	0.108	0.127	0.152	0.169	0.205	0.234	0.264
$425,000	0.102	0.121	0.146	0.162	0.198	0.226	0.255
$450,000	0.097	0.115	0.139	0.155	0.191	0.218	0.246
$475,000	0.093	0.110	0.134	0.149	0.184	0.211	0.239
$500,000	0.089	0.105	0.129	0.143	0.178	0.204	0.232
$600,000	0.075	0.090	0.111	0.125	0.157	0.182	0.207
$700,000	0.065	0.079	0.098	0.110	0.140	0.163	0.187
$800,000	0.057	0.069	0.087	0.098	0.127	0.148	0.171
$900,000	0.051	0.062	0.079	0.089	0.115	0.136	0.157
$1,000,000	0.045	0.056	0.071	0.081	0.106	0.125	0.146
$2,000,000	0.020	0.026	0.035	0.041	0.056	0.069	0.082
$3,000,000	0.012	0.016	0.022	0.026	0.036	0.046	0.055
$4,000,000	0.008	0.011	0.015	0.018	0.026	0.033	0.040
$5,000,000	0.006	0.008	0.011	0.013	0.019	0.025	0.031
$6,000,000	0.004	0.006	0.008	0.010	0.015	0.019	0.025
$7,000,000	0.003	0.004	0.006	0.008	0.012	0.015	0.020
$8,000,000	0.003	0.003	0.005	0.006	0.009	0.013	0.016
$9,000,000	0.002	0.003	0.004	0.005	0.008	0.010	0.014
$10,000,000	0.002	0.002	0.003	0.004	0.006	0.009	0.011

3.   **Retrospective Pure Premium Development Factors**

With Loss Limit				Without Loss Limit			
1st Adj.	2nd Adj.	3rd Adj.		1st Adj.	2nd Adj.	3rd Adj.	4th & Subsequent Adjustment
0.09	0.04	0.02		0.25	0.12	0.06	0.00

Part 3   Supporting Exhibits

- Exhibit I: Determination of Indicated Loss Cost Level Change

- Exhibit II: Workers Compensation Loss Adjustment Expenses

- Appendix A: Factors Underlying the Proposed Loss Cost Level Change

- Appendix B: Calculations Underlying the Loss Cost Change by Classification

- Appendix C: Memoranda for Laws and Assessments

- Appendix D: Derivation of Experience Rating Values

Advisory Loss Costs and Rating Values Filing – August 1, 2022

Exhibit I – Determination of Indicated Loss Cost Level Change

NCCI uses the following general methodology to determine the indicated change based on experience, trend, and benefits for each of the policy years in the experience period:

1. Standard earned premium at Designated Statistical Reporting (DSR) level is developed to ultimate and on-leveled to the current approved loss cost level.
2. Reported indemnity and medical losses are limited by a large loss threshold, developed to ultimate using limited development factors, and on-leveled to a common benefit level to yield adjusted limited losses.
3. Limited indemnity and medical cost ratios excluding trend and benefits are calculated as adjusted losses (step 2) divided by premium available for benefit costs (step 1).
4. Trend factors are applied to the indemnity and medical cost ratios to reflect expected differences between the historical experience years and the effective period of the proposed filing.
5. Limited losses are adjusted to an unlimited basis via a non-catastrophe excess ratio (with excess ratios at limits beyond $50 million set equal to zero).
6. A factor is applied to reflect the impact of proposed indemnity and medical benefit changes.
7. The projected unlimited indemnity and medical cost ratios including benefit changes are added to yield the indicated change based on experience, trend, and benefits.

The indicated change based on experience, trend, and benefits for this filing is calculated as the average of the indicated changes for each of the individual policy years in the experience period. Lastly, the impact of the change in loss-based expenses is applied. The detailed calculations can be found on the following pages.

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EXHIBIT I

Determination of Indicated Loss Cost Level Change

Section A - Policy Year 2019 Experience

Premium:

(1)	Standard Earned Premium Developed to Ultimate (Appendix A-II)	$150,587,578
(2)	Premium On-level Factor (Appendix A-I)	0.638
(3)	Pure Premium Available for Benefit Costs = (1) x (2)	$96,074,875

Indemnity Benefit Cost:

(4)	Limited Indemnity Losses Developed to Ultimate (Appendix A-II)	$70,677,644
(5)	Indemnity Loss On-level Factor (Appendix A-I)	0.999
(6)	Adjusted Limited Indemnity Losses = (4) x (5)	$70,606,966
(7)	Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (6) / (3)	0.735
(8)	Factor to Reflect Indemnity Trend (Appendix A-III)	0.879
(9)	Projected Limited Indemnity Cost Ratio = (7) x (8)	0.646
(10)	Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis (Appendix A-II)	1.020
(11)	Projected Indemnity Cost Ratio = (9) x (10)	0.659
(12)	Factor to Reflect Proposed Changes in Indemnity Benefits (Appendix C)	1.023
(13)	Projected Indemnity Cost Ratio including Benefit Changes = (11) x (12)	0.674

Medical Benefit Cost:

(14)	Limited Medical Losses Developed to Ultimate (Appendix A-II)	$29,077,702
(15)	Medical Loss On-level Factor (Appendix A-I)	1.010
(16)	Adjusted Limited Medical Losses = (14) x (15)	$29,368,479
(17)	Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (16) / (3)	0.306
(18)	Factor to Reflect Medical Trend (Appendix A-III)	0.815
(19)	Projected Limited Medical Cost Ratio = (17) x (18)	0.249
(20)	Factor to Adjust Medical Cost Ratio to an Unlimited Basis (Appendix A-II)	1.020
(21)	Projected Medical Cost Ratio = (19) x (20)	0.254
(22)	Factor to Reflect Proposed Changes in Medical Benefits (Appendix C)	1.008
(23)	Projected Medical Cost Ratio including Benefit Changes = (21) x (22)	0.256

Total Benefit Cost:

(24)	Indicated Change Based on Experience, Trend and Benefits = (13) + (23)	0.930

EXHIBIT I

Determination of Indicated Loss Cost Level Change

Section B - Policy Year 2018 Experience

Premium:

(1)	Standard Earned Premium Developed to Ultimate (Appendix A-II)	$159,820,413
(2)	Premium On-level Factor (Appendix A-I)	0.595
(3)	Pure Premium Available for Benefit Costs = (1) x (2)	$95,093,146

Indemnity Benefit Cost:

(4)	Limited Indemnity Losses Developed to Ultimate (Appendix A-II)	$74,028,227
(5)	Indemnity Loss On-level Factor (Appendix A-I)	0.990
(6)	Adjusted Limited Indemnity Losses = (4) x (5)	$73,287,945
(7)	Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (6) / (3)	0.771
(8)	Factor to Reflect Indemnity Trend (Appendix A-III)	0.848
(9)	Projected Limited Indemnity Cost Ratio = (7) x (8)	0.654
(10)	Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis (Appendix A-II)	1.020
(11)	Projected Indemnity Cost Ratio = (9) x (10)	0.667
(12)	Factor to Reflect Proposed Changes in Indemnity Benefits (Appendix C)	1.023
(13)	Projected Indemnity Cost Ratio including Benefit Changes = (11) x (12)	0.682

Medical Benefit Cost:

(14)	Limited Medical Losses Developed to Ultimate (Appendix A-II)	$31,738,116
(15)	Medical Loss On-level Factor (Appendix A-I)	1.015
(16)	Adjusted Limited Medical Losses = (14) x (15)	$32,214,188
(17)	Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (16) / (3)	0.339
(18)	Factor to Reflect Medical Trend (Appendix A-III)	0.770
(19)	Projected Limited Medical Cost Ratio = (17) x (18)	0.261
(20)	Factor to Adjust Medical Cost Ratio to an Unlimited Basis (Appendix A-II)	1.020
(21)	Projected Medical Cost Ratio = (19) x (20)	0.266
(22)	Factor to Reflect Proposed Changes in Medical Benefits (Appendix C)	1.008
(23)	Projected Medical Cost Ratio including Benefit Changes = (21) x (22)	0.268

Total Benefit Cost:

(24)	Indicated Change Based on Experience, Trend and Benefits = (13) + (23)	0.950

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EXHIBIT I

Determination of Indicated Loss Cost Level Change

Section C - Policy Year 2017 Experience

Premium:

(1)	Standard Earned Premium Developed to Ultimate (Appendix A-II)	$159,997,661
(2)	Premium On-level Factor (Appendix A-I)	0.566
(3)	Pure Premium Available for Benefit Costs = (1) x (2)	$90,558,676

Indemnity Benefit Cost:

(4)	Limited Indemnity Losses Developed to Ultimate (Appendix A-II)	$70,723,297
(5)	Indemnity Loss On-level Factor (Appendix A-I)	1.002
(6)	Adjusted Limited Indemnity Losses = (4) x (5)	$70,864,744
(7)	Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (6) / (3)	0.783
(8)	Factor to Reflect Indemnity Trend (Appendix A-III)	0.819
(9)	Projected Limited Indemnity Cost Ratio = (7) x (8)	0.641
(10)	Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis (Appendix A-II)	1.020
(11)	Projected Indemnity Cost Ratio = (9) x (10)	0.654
(12)	Factor to Reflect Proposed Changes in Indemnity Benefits (Appendix C)	1.023
(13)	Projected Indemnity Cost Ratio including Benefit Changes = (11) x (12)	0.669

Medical Benefit Cost:

(14)	Limited Medical Losses Developed to Ultimate (Appendix A-II)	$31,616,549
(15)	Medical Loss On-level Factor (Appendix A-I)	1.022
(16)	Adjusted Limited Medical Losses = (14) x (15)	$32,312,113
(17)	Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (16) / (3)	0.357
(18)	Factor to Reflect Medical Trend (Appendix A-III)	0.728
(19)	Projected Limited Medical Cost Ratio = (17) x (18)	0.260
(20)	Factor to Adjust Medical Cost Ratio to an Unlimited Basis (Appendix A-II)	1.020
(21)	Projected Medical Cost Ratio = (19) x (20)	0.265
(22)	Factor to Reflect Proposed Changes in Medical Benefits (Appendix C)	1.008
(23)	Projected Medical Cost Ratio including Benefit Changes = (21) x (22)	0.267

Total Benefit Cost:

(24)	Indicated Change Based on Experience, Trend and Benefits = (13) + (23)	0.936

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EXHIBIT I

Determination of Indicated Loss Cost Level Change

Section D - Indicated Change Based on Experience, Trend, and Benefits

(1) Policy Year 2019 Indicated Change Based on Experience, Trend, and Benefits	0.930
(2) Policy Year 2018 Indicated Change Based on Experience, Trend, and Benefits	0.950
(3) Policy Year 2017 Indicated Change Based on Experience, Trend, and Benefits	0.936
(4) Indicated Change Based on Experience, Trend, and Benefits = [(1)+(2)+(3)] / 3	0.939

Section E - Application of the Change in Loss-based Expenses

(1) Indicated Loss Cost Level Change	0.939
(2) Effect of the Change in Loss-based Expenses (Exhibit II)	0.997
(3) Indicated Change Modified to Reflect the Change in Loss-based Expenses = (1) x (2)	0.936

Section F - Distribution of Overall Loss Cost Level Change to Industry Groups

Industry Group Differentials (Appendix A-IV):

Manufacturing	0.966
Contracting	0.998
Office & Clerical	1.002
Goods & Services	1.005
Miscellaneous	1.013

Applying these industry group differentials to the final overall loss cost level change produces the changes in loss cost level proposed for each group as shown:

Industry Group	(1) Final Overall Loss Cost Level Change	(2) Industry Group Differential	(3) = (1) x (2) Final Loss Cost Level Change by Industry Group	
Manufacturing	0.936	0.966	0.904	(-9.6%)
Contracting	0.936	0.998	0.934	(-6.6%)
Office & Clerical	0.936	1.002	0.938	(-6.2%)
Goods & Services	0.936	1.005	0.941	(-5.9%)
Miscellaneous	0.936	1.013	0.948	(-5.2%)
Overall	0.936	1.000	0.936	(-6.4%)

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Exhibit II – Workers Compensation Loss Adjustment Expenses

The proposed loss costs include a provision for loss adjustment expenses (LAE).

LAE is included in the loss costs by using a ratio of loss adjustment expense dollars to loss dollars (called the LAE provision). These expenses are directly associated with the handling of workers compensation claims. The LAE provision is comprised of two components: Adjusting and Other Expenses (AOE) and Defense and Cost Containment Expenses (DCCE).

Given the nature of AOE, it cannot be allocated to a specific claim, and hence cannot be accurately attributed to specific states. Therefore, the state-specific AOE ratio reflects the latest selected countrywide provision. The countrywide provision was calculated using data obtained from the NCCI Call for Loss Adjustment Expense. The accident year developed AOE ratios displayed in Section B are calculated on a countrywide basis using private carrier-only data after removing the reported COVID-19-related losses.

The reported DCCE and losses from COVID-19-related claims have been excluded from the underlying data in this year's analysis because that data is not expected to be predictive of the experience that may arise during the filing prospective period. NCCI used the following general methodology to determine the proposed DCCE provision based on Rhode Island-specific paid DCCE and losses reported on the NCCI Call for Policy Year Data:

- 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 a 19th report.
- The proposed DCCE provision is selected based on the ultimate projected DCCE ratios by policy year.

The proposed LAE provision is based on private carrier data.

The calculation of the loss adjustment expense provision is shown on the following pages.

EXHIBIT II

Workers Compensation Loss Adjustment Expense Provision

Section A - Proposed Change in Rhode Island Loss Adjustment Expense Provision

NCCI proposes a 22.9% loss adjustment expense allowance as a percentage of losses. This represents a 0.3% decrease from the currently approved loss adjustment expense provision.

Rhode Island Provisions	(1) Current Approved	(2) Proposed
AOE	8.9%	**9.4%**
DCCE	14.4%	**13.5%**
Total LAE	23.3%	**22.9%**

Proposed Change in Rhode Island LAE Provision	0.997
= [1.0 + (2)] / [1.0 + (1)] - 1	**-0.3%**

Section B - Selection of AOE Provision

The adjusting and other expense data by accident year shown below is based on countrywide data for private carriers. NCCI's countrywide selection for the AOE provision is 9.4%.

Accident Year	Ultimate AOE Ratio
2016	8.5%
2017	9.1%
2018	9.1%
2019	9.4%
2020	9.8%
Countrywide Selected	9.4%
Rhode Island Selected	**9.4%**

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EXHIBIT II

Workers Compensation Loss Adjustment Expense Provision

Section C - Selection of DCCE Provision

Policy Year	(1) Reported Ratio of Paid DCCE to Paid Losses	(2) Age to Ultimate Development Factor	(3) Ultimate DCCE Ratio
2015	12.0%	0.974	11.7%
2016	15.6%	0.971	15.1%
2017	15.3%	0.955	14.6%
2018	14.1%	0.943	13.3%
2019	12.6%	0.995	12.5%

Rhode Island Selected   **13.5%**

(2) Section D

(3) = (1) x (2)

Section D - Summary of Paid DCCE to Paid Loss Ratio Development Factors

	(1)	(2)
	DCCE Ratio Development	
Report	To Next Report	To Ultimate
1st	1.055	0.995
2nd	0.987	0.943
3rd	0.984	0.955
4th	0.997	0.971
5th	0.994	0.974
6th	1.002	0.980
7th	0.992	0.978
8th	0.993	0.986
9th	0.998	0.993
10th	1.001	0.995
11th	0.999	0.994
12th	1.001	0.995
13th	0.998	0.994
14th	0.998	0.996
15th	1.000	0.998
16th	0.998	0.998
17th	1.000	1.000
18th	1.000	1.000
19th		1.000*

(1) Section E

(2) = Cumulative upward product of column (1)

*Selection

EXHIBIT II

Workers Compensation Loss Adjustment Expense Provision

Section E - Paid DCCE to Paid Loss Ratio Development Factors

Valuation	1st/2nd	2nd/3rd	3rd/4th	4th/5th	5th/6th	6th/7th
12/31/2016	1.077	0.995	0.982	1.004	0.987	0.995
12/31/2017	1.072	1.007	0.973	1.014	1.010	1.011
12/31/2018	1.050	0.959	1.007	1.004	0.990	0.999
12/31/2019	1.042	1.012	0.865	0.977	1.005	1.000
12/31/2020	1.040	0.930	0.998	0.984	0.982	1.007
Average*	1.055	0.987	0.984	0.997	0.994	1.002

*Excludes the years with the lowest and highest factors.

Valuation	7th/8th	8th/9th	9th/10th	10th/11th	11th/12th	12th/13th
12/31/2016	1.000	0.997	1.000	0.996	1.003	1.001
12/31/2017	0.982	1.006	1.004	1.003	1.000	1.001
12/31/2018	0.981	0.990	0.997	1.002	0.998	0.998
12/31/2019	1.000	0.991	0.996	1.001	0.999	1.001
12/31/2020	0.994	0.992	0.994	0.999	0.979	1.000
Average*	0.992	0.993	0.998	1.001	0.999	1.001

*Excludes the years with the lowest and highest factors.

Valuation	13th/14th	14th/15th	15th/16th	16th/17th	17th/18th	18th/19th
12/31/2016	1.003	0.999	1.000	0.994	1.001	1.001
12/31/2017	1.001	0.996	0.998	1.000	0.998	1.000
12/31/2018	0.995	1.000	1.003	0.980	1.000	0.993
12/31/2019	0.998	0.996	1.001	1.000	1.002	1.000
12/31/2020	0.983	0.998	0.996	1.002	1.000	1.000
Average*	0.998	0.998	1.000	0.998	1.000	1.000

*Excludes the years with the lowest and highest factors.

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Appendix A – Factors Underlying the Proposed Loss Cost Level Change

Appendix A-I Determination of Policy Year On-level Factors

NCCI uses premium and loss on-level factors to adjust historical policy year experience to current loss cost and benefit levels, respectively.

Premium on-level factors are adjustment factors that reflect the cumulative impact of all premium level changes that have occurred during and after the individual year being on-leveled. To calculate a weighted average, NCCI utilizes a monthly premium distribution for Rhode Island based on an analysis of policies reported in the Unit Statistical Data, which was updated for this filing. Additional adjustments applied as part of the premium on-level factor calculation include:

- Adjustment for Expense Removal: This factor is applied to remove expenses from the reported voluntary DSR level premium totals.
- Experience Rating Off-Balance Adjustment Factor: This factor reflects the relative difference between the average experience rating modification for the historical year being on-leveled and the average experience rating modification targeted in the filing.

Loss on-level factors are adjustment factors that reflect the cumulative impact of all benefit level changes that have occurred during and after the individual year of data being on-leveled.

Note: For NCCI ratemaking purposes, proposed benefit level changes that (i) do not impact the experience period of the filing and (ii) have not yet been approved are included in Exhibit I, rather than in the loss on-level calculation.

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APPENDIX A-I

Determination of Policy Year On-level Factors

Section A - Factor Adjusting 2019 Policy Year Premium to Present Level

	Date	(1) Loss Cost Level Change	(2) Cumulative Index	(3) Weight	(4) Product (2)x(3)	(5) Adj. Factor Present Index/ Sum Column (4)	(6) Adj. For Expense Removal	(7) Off-balance Adjustment Factor*	(8) Premium Adjustment Factor (5)x(6)x(7)
NR	08/01/18	Base	1.000	0.620	0.620	0.768	0.811	1.024	0.638
NR	08/01/19	0.919	0.919	0.380	0.349				
NR	08/01/20	0.870	0.800						
NR	08/01/21	0.930	0.744		0.969				

Section B - Factor Adjusting 2019 Policy Year Indemnity Losses to Present Benefit Level

Date	(1) Benefit Level Change	(2) Cumulative Index	(3) Weight	(4) Product (2)x(3)	(5) Adj. Factor Present Index/ Sum Column (4)
10/01/18	Base	1.000	0.099	0.099	0.999
05/10/19	0.985	0.985	0.458	0.451	
01/01/20	1.000	0.985	0.443	0.436	
01/01/21	1.000	0.985		0.986	

Section C - Factor Adjusting 2019 Policy Year Medical Losses to Present Benefit Level

Date	(1) Benefit Level Change	(2) Cumulative Index	(3) Weight	(4) Product (2)x(3)	(5) Adj. Factor Present Index/ Sum Column (4)
10/01/18	Base	1.000	0.099	0.099	1.010
05/10/19	1.000	1.000	0.458	0.458	
01/01/20	1.004	1.004	0.443	0.445	
01/01/21	1.008	1.012		1.002	

NR New and renewal business.
*   1.024 = 0.970 / 0.947 = (Targeted Off-balance) / (Off-balance for Policy Year 2019)

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APPENDIX A-I

Determination of Policy Year On-level Factors

Section D - Factor Adjusting 2018 Policy Year Premium to Present Level

	Date	(1) Loss Cost Level Change	(2) Cumulative Index	(3) Weight	(4) Product (2)x(3)	(5) Adj. Factor Present Index/ Sum Column (4)	(6) Adj. For Expense Removal	(7) Off-balance Adjustment Factor*	(8) Premium Adjustment Factor (5)x(6)x(7)
NR	08/01/17	Base	1.000	0.620	0.620	0.718	0.811	1.022	0.595
NR	08/01/18	0.947	0.947	0.380	0.360				
NR	08/01/19	0.919	0.870						
NR	08/01/20	0.870	0.757						
NR	08/01/21	0.930	0.704						
					0.980				

Section E - Factor Adjusting 2018 Policy Year Indemnity Losses to Present Benefit Level

Date	(1) Benefit Level Change	(2) Cumulative Index	(3) Weight	(4) Product (2)x(3)	(5) Adj. Factor Present Index/ Sum Column (4)
10/01/17	Base	1.000	0.099	0.099	0.990
05/10/18	1.021	1.021	0.233	0.238	
10/01/18	1.000	1.021	0.484	0.494	
05/10/19	0.985	1.006	0.184	0.185	
01/01/20	1.000	1.006			
01/01/21	1.000	1.006			
				1.016	

Section F - Factor Adjusting 2018 Policy Year Medical Losses to Present Benefit Level

Date	(1) Benefit Level Change	(2) Cumulative Index	(3) Weight	(4) Product (2)x(3)	(5) Adj. Factor Present Index/ Sum Column (4)
10/01/17	Base	1.000	0.099	0.099	1.015
05/10/18	1.000	1.000	0.233	0.233	
10/01/18	1.008	1.008	0.484	0.488	
05/10/19	1.000	1.008	0.184	0.185	
01/01/20	1.004	1.012			
01/01/21	1.008	1.020			
				1.005	

NR New and renewal business.
 * 1.022 = 0.970 / 0.949 = (Targeted Off-balance) / (Off-balance for Policy Year 2018)

APPENDIX A-I

Determination of Policy Year On-level Factors

Section G - Factor Adjusting 2017 Policy Year Premium to Present Level

	Date	(1) Loss Cost Level Change	(2) Cumulative Index	(3) Weight	(4) Product (2)x(3)	(5) Adj. Factor Present Index/ Sum Column (4)	(6) Adj. For Expense Removal	(7) Off-balance Adjustment Factor*	(8) Premium Adjustment Factor (5)x(6)x(7)
NR	08/01/16	Base	1.000	0.620	0.620	0.684	0.811	1.020	0.566
NR	08/01/17	0.955	0.955	0.380	0.363				
NR	08/01/18	0.947	0.904						
NR	08/01/19	0.919	0.831						
NR	08/01/20	0.870	0.723						
NR	08/01/21	0.930	0.672						
					0.983				

Section H - Factor Adjusting 2017 Policy Year Indemnity Losses to Present Benefit Level

Date	(1) Benefit Level Change	(2) Cumulative Index	(3) Weight	(4) Product (2)x(3)	(5) Adj. Factor Present Index/ Sum Column (4)
10/01/16	Base	1.000	0.272	0.272	1.002
09/01/17	1.000	1.000	0.060	0.060	
10/01/17	1.002	1.002	0.483	0.484	
05/10/18	1.021	1.023	0.159	0.163	
10/01/18	1.000	1.023	0.026	0.027	
05/10/19	0.985	1.008			
01/01/20	1.000	1.008			
01/01/21	1.000	1.008			
				1.006	

Section I - Factor Adjusting 2017 Policy Year Medical Losses to Present Benefit Level

Date	(1) Benefit Level Change	(2) Cumulative Index	(3) Weight	(4) Product (2)x(3)	(5) Adj. Factor Present Index/ Sum Column (4)
10/01/16	Base	1.000	0.272	0.272	1.022
09/01/17	1.010	1.010	0.060	0.061	
10/01/17	1.000	1.010	0.483	0.488	
05/10/18	1.000	1.010	0.159	0.161	
10/01/18	1.008	1.018	0.026	0.026	
05/10/19	1.000	1.018			
01/01/20	1.004	1.022			
01/01/21	1.008	1.030			
				1.008	

NR New and renewal business.
 *   1.020 = 0.970 / 0.951 = (Targeted Off-balance) / (Off-balance for Policy Year 2017)

APPENDIX A-I

Determination of Policy Year On-level Factors

Section J - Premium Adjustment to Average Expected Mod

Rating Year	(1) Average Intrastate Mod	(2) Average Interstate Mod	(3) Average Mod Combined Rated Risk	(4) Weighted Average Off-Balance	(5) Average Mod Expected	(6)= (5)/(4) Policy Year Adjustment Factor
2003	1.018	1.005	1.013	1.012	0.970	0.958
2004	0.991	1.008	0.997	0.997	0.970	0.973
2005	0.976	1.017	0.991	0.992	0.970	0.978
2006	0.974	0.991	0.980	0.982	0.970	0.988
2007	0.985	0.991	0.987	0.989	0.970	0.981
2008	0.985	0.997	0.989	0.991	0.970	0.979
2009	0.995	0.977	0.988	0.990	0.970	0.980
2010	0.992	0.987	0.990	0.991	0.970	0.979
2011	0.998	0.990	0.995	0.996	0.970	0.974
2012	0.996	0.987	0.992	0.993	0.970	0.977
2013	0.988	0.983	0.986	0.988	0.970	0.982
2014	0.960	0.982	0.969	0.973	0.970	0.997
2015	0.951	0.957	0.953	0.959	0.970	1.011
2016	0.949	0.955	0.951	0.958	0.970	1.013
2017	0.939	0.952	0.944	0.951	0.970	1.020
2018	0.945	0.936	0.941	0.949	0.970	1.022
2019	0.938	0.941	0.939	0.947	0.970	1.024
2020	0.944	0.954	0.948	0.955	0.970	1.016

Advisory Loss Costs and Rating Values Filing – August 1, 2022

Appendix A – Factors Underlying the Proposed Loss Cost Level Change

Appendix A-II Determination of Premium and Losses Developed to an Ultimate Report

Development factors are used to project premium and limited losses to an ultimate report. In general, the ultimate development factors are based on a chain-ladder approach that utilizes average link ratios for several maturities and the application of a tail factor, as shown in Appendix A-II Sections A through G.

Limited Large Loss Methodology

In order to limit volatility on the loss cost indications due to the impact of extraordinary large losses, a limited large loss methodology is used in Rhode Island. A base threshold for the large loss limitation is determined by the volume of premium in the state as well as the number of years used in the experience period. The base threshold proposed in this filing is $2,894,382, based on the volume of premium in policy years 2016, 2017, and 2018 underlying the currently approved filing that utilizes data valued as of 12/31/2019.

The base threshold is detrended by policy year to reflect the inflationary impact on claim costs due to wage inflation. The wage index used as a basis for these calculations is the Rhode Island average weekly wages from the Quarterly Census of Employment and Wages (QCEW). Detrended thresholds are used in the experience period, trend period, and loss development period. Indemnity and medical losses are limited at the detrended large loss threshold corresponding to their policy year, as shown in Appendix A-II Section I.

Limited indemnity and medical losses used to calculate the ultimate losses are shown in Appendix A-II Section A.

After developing limited indemnity and medical losses to an ultimate report, a statewide, non-catastrophe excess ratio at the base threshold is used to adjust the limited losses to an unlimited basis. The excess ratios are non-catastrophe because excess ratios at limits beyond $50 million are set equal to zero. The proposed excess ratio in this filing is 2.0%, as shown in Appendix A-II Section H.

Development Factors

For premium development, link ratios are used from 1st report through 5th report. It is assumed that no further development occurs after the 5th report.

For indemnity and medical loss development, link ratios calculated from limited losses are used from 1st report through the 19th report.

Advisory Loss Costs and Rating Values Filing – August 1, 2022

Appendix A – Factors Underlying the Proposed Loss Cost Level Change

For indemnity and medical loss development past the 19th report, a "tail" factor is used to reflect all future expected emergence. The calculation of indemnity and medical paid + case 19th-to-ultimate tail factors utilize all available experience for the years prior to the tail attachment point.

Tail factors are calculated for the most recent ten available policy years, each relying on losses in older policy years as well as a factor to adjust for the differences in the volume of losses between the policy years. Tail factors are calculated separately for indemnity and medical losses by comparing the changes in the volume of policy year losses that occur on policy years reported after a nineteenth report to the volume of policy year losses at the nineteenth report, along with the application of a growth adjustment factor. The selected indemnity tail factor reflects an expectation of lower development due to the 1992 reform.

Since unlimited losses are used for the tail factor, they are adjusted to a limited basis as shown in Appendix A-II Section F.

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APPENDIX A-II

Determination of Premium and Losses Developed to an Ultimate Report

Section A - Premium and Loss Summary Valued as of 12/31/2020

Policy Year 2019

(1)	Standard Earned Premium	$150,587,578
(2)	Factor to Develop Premium to Ultimate	1.000
(3)	Standard Earned Premium Developed to Ultimate = (1)x(2)	$150,587,578
(4)	Limited Indemnity Paid Losses	$26,550,580
(5)	Limited Indemnity Paid Development Factor to Ultimate	2.662
(6)	Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	$70,677,644
(7)	Limited Medical Paid Losses	$18,580,001
(8)	Limited Medical Paid Development Factor to Ultimate	1.565
(9)	Limited Medical Paid Losses Developed to Ultimate = (7)x(8)	$29,077,702

Policy Year 2018

(1)	Standard Earned Premium	$159,820,413
(2)	Factor to Develop Premium to Ultimate	1.000
(3)	Standard Earned Premium Developed to Ultimate = (1)x(2)	$159,820,413
(4)	Limited Indemnity Paid Losses	$46,853,308
(5)	Limited Indemnity Paid Development Factor to Ultimate	1.580
(6)	Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	$74,028,227
(7)	Limited Medical Paid Losses	$25,249,098
(8)	Limited Medical Paid Development Factor to Ultimate	1.257
(9)	Limited Medical Paid Losses Developed to Ultimate = (7)x(8)	$31,738,116

Policy Year 2017

(1)	Standard Earned Premium	$159,997,661
(2)	Factor to Develop Premium to Ultimate	1.000
(3)	Standard Earned Premium Developed to Ultimate = (1)x(2)	$159,997,661
(4)	Limited Indemnity Paid Losses	$56,129,601
(5)	Limited Indemnity Paid Development Factor to Ultimate	1.260
(6)	Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	$70,723,297
(7)	Limited Medical Paid Losses	$27,492,651
(8)	Limited Medical Paid Development Factor to Ultimate	1.150
(9)	Limited Medical Paid Losses Developed to Ultimate = (7)x(8)	$31,616,549

APPENDIX A-II

Determination of Premium and Losses Developed to an Ultimate Report

Section B - Premium Development Factors

Policy Year	1st/2nd	Policy Year	2nd/3rd	Policy Year	3rd/4th	Policy Year	4th/5th
2016	1.003	2015	1.000	2014	0.999	2013	1.000
2017	1.007	2016	1.000	2015	1.000	2014	1.000
2018	1.010	2017	0.999	2016	1.000	2015	1.000
Selected	1.000*	Average	1.000	Average	1.000	Average	1.000

Summary of Premium Development Factors

1st/5th	2nd/5th	3rd/5th	4th/5th
1.000	1.000	1.000	1.000

* The premium development factor was selected to account for the COVID-19-related economic contraction.

APPENDIX A-II

Determination of Premium and Losses Developed to an Ultimate Report

Section C - Limited Indemnity Paid Loss Development Factors

Policy Year	1st/2nd	Policy Year	2nd/3rd	Policy Year	3rd/4th	Policy Year	4th/5th
2014	1.740	2013	1.251	2012	1.097	2011	1.048
2015	1.701	2014	1.269	2013	1.114	2012	1.041
2016	1.629	2015	1.242	2014	1.118	2013	1.049
2017	1.657	2016	1.240	2015	1.097	2014	1.048
2018	1.698	2017	1.298	2016	1.097	2015	1.043
Average*	1.685	Average*	1.254	Average*	1.103	Average*	1.046

* Excludes the years with the lowest and highest factors.

Policy Year	5th/6th	Policy Year	6th/7th	Policy Year	7th/8th	Policy Year	8th/9th
2010	1.029	2009	1.009	2008	1.008	2007	1.007
2011	1.025	2010	1.012	2009	1.016	2008	1.003
2012	1.029	2011	1.020	2010	1.014	2009	1.013
2013	1.040	2012	1.016	2011	1.010	2010	1.004
2014	1.032	2013	1.017	2012	1.008	2011	1.005
Average*	1.030	Average*	1.015	Average*	1.011	Average*	1.005

* Excludes the years with the lowest and highest factors.

Policy Year	9th/10th	Policy Year	10th/11th	Policy Year	11th/12th	Policy Year	12th/13th
2006	1.003	2005	1.004	2004	1.002	2003	1.000
2007	1.000	2006	1.003	2005	1.001	2004	1.001
2008	1.006	2007	1.001	2006	1.002	2005	1.003
2009	1.013	2008	1.002	2007	1.002	2006	1.002
2010	1.007	2009	1.003	2008	1.009	2007	1.000
Average*	1.005	Average*	1.003	Average*	1.002	Average*	1.001

* Excludes the years with the lowest and highest factors.

Policy Year	13th/14th	Policy Year	14th/15th	Policy Year	15th/16th	Policy Year	16th/17th
2002	1.001	2001	1.004	2000	1.000	1999	1.005
2003	1.000	2002	1.005	2001	1.004	2000	1.000
2004	1.003	2003	1.000	2002	1.000	2001	1.009
2005	1.010	2004	1.004	2003	1.000	2002	1.000
2006	1.008	2005	1.001	2004	1.001	2003	1.000
Average*	1.004	Average*	1.003	Average*	1.000	Average*	1.002

* Excludes the years with the lowest and highest factors.

Policy Year	17th/18th	Policy Year	18th/19th
1998	1.000	1997	1.001
1999	1.001	1998	1.000
2000	1.000	1999	1.003
2001	1.002	2000	1.000
2002	1.000	2001	1.002
Average*	1.000	Average*	1.001

* Excludes the years with the lowest and highest factors.

Determination of Premium and Losses Developed to an Ultimate Report

Section D - Limited Medical Paid Loss Development Factors

Policy Year	1st/2nd	Policy Year	2nd/3rd	Policy Year	3rd/4th	Policy Year	4th/5th
2014	1.287	2013	1.092	2012	1.038	2011	1.016
2015	1.251	2014	1.098	2013	1.052	2012	1.030
2016	1.225	2015	1.091	2014	1.043	2013	1.030
2017	1.259	2016	1.095	2015	1.051	2014	1.019
2018	1.225	2017	1.085	2016	1.032	2015	1.011
Average*	1.245	Average*	1.093	Average*	1.044	Average*	1.022

* Excludes the years with the lowest and highest factors.

Policy Year	5th/6th	Policy Year	6th/7th	Policy Year	7th/8th	Policy Year	8th/9th
2010	1.016	2009	1.006	2008	1.006	2007	1.003
2011	1.016	2010	1.007	2009	1.014	2008	1.004
2012	1.012	2011	1.011	2010	1.007	2009	1.006
2013	1.017	2012	1.011	2011	1.005	2010	1.007
2014	1.011	2013	1.008	2012	1.011	2011	1.003
Average*	1.015	Average*	1.009	Average*	1.008	Average*	1.004

* Excludes the years with the lowest and highest factors.

Policy Year	9th/10th	Policy Year	10th/11th	Policy Year	11th/12th	Policy Year	12th/13th
2006	1.005	2005	1.002	2004	1.003	2003	1.001
2007	1.001	2006	1.006	2005	1.002	2004	1.002
2008	1.004	2007	1.001	2006	1.003	2005	1.003
2009	1.010	2008	1.002	2007	1.001	2006	1.003
2010	1.007	2009	1.003	2008	1.011	2007	1.001
Average*	1.005	Average*	1.002	Average*	1.003	Average*	1.002

* Excludes the years with the lowest and highest factors.

Policy Year	13th/14th	Policy Year	14th/15th	Policy Year	15th/16th	Policy Year	16th/17th
2002	1.002	2001	1.005	2000	1.000	1999	1.002
2003	1.002	2002	1.002	2001	1.003	2000	1.002
2004	1.002	2003	1.001	2002	1.000	2001	1.011
2005	1.002	2004	1.002	2003	1.001	2002	1.001
2006	1.002	2005	1.001	2004	1.003	2003	1.001
Average*	1.002	Average*	1.002	Average*	1.001	Average*	1.002

* Excludes the years with the lowest and highest factors.

Policy Year	17th/18th	Policy Year	18th/19th
1998	1.000	1997	1.001
1999	1.002	1998	1.000
2000	1.000	1999	1.005
2001	1.003	2000	1.000
2002	1.001	2001	1.001
Average*	1.001	Average*	1.001

* Excludes the years with the lowest and highest factors.

APPENDIX A-II

Determination of Premium and Losses Developed to an Ultimate Report

Section E - Determination of Policy Year Loss Development Factors (19th-to-Ultimate Report)

Indemnity Paid+Case Data for Matching Companies

(1)	(2)	(3)	(4)	(5)	(6)	(7)
					Factor to	Indicated
Policy	Losses for Policy Year		Losses for All Prior Policy Years		Adjust Losses	19th-to-Ult Development
Year	19th Report	20th Report	Previous	Current	for Prior Policy Years	for Policy Year
1991	85,575,382	85,672,605	1,409,971,364	1,411,320,668	1.239	1.014
1992	48,966,747	49,116,401	1,496,937,388	1,498,561,923	2.215	1.018
1993	32,082,136	32,043,098	1,547,678,324	1,546,925,912	3.353	0.992
1994	35,573,601	35,269,771	1,578,600,354	1,579,786,961	2.916	1.003
1995	33,411,148	33,410,705	1,614,875,524	1,616,415,545	2.984	1.015
1996	32,626,595	32,676,866	1,649,815,097	1,651,133,241	2.862	1.016
1997	37,652,693	37,670,124	1,683,393,920	1,683,526,291	2.232	1.002
1998	42,406,781	42,410,412	1,721,196,415	1,721,953,208	1.735	1.010
1999	52,556,592	52,719,950	1,730,440,924	1,730,858,611	1.200	1.010
2000	56,981,758	57,019,969	1,756,449,271	1,756,846,643	0.905	1.008

Selected Indemnity 19th-to-Ultimate Loss Development Factor * 1.005

Medical Paid+Case Data for Matching Companies

(8)	(9)	(10)	(11)	(12)	(13)	(14)
					Factor to	Indicated
Policy	Losses for Policy Year		Losses for All Prior Policy Years		Adjust Losses	19th-to-Ult Development
Year	19th Report	20th Report	Previous	Current	for Prior Policy Years	for Policy Year
1991	30,866,077	31,077,089	392,573,156	395,172,097	0.884	1.102
1992	20,595,271	20,585,164	426,208,322	426,744,400	1.391	1.018
1993	17,249,496	17,306,436	447,329,564	445,502,865	1.691	0.941
1994	16,124,192	15,872,178	462,664,689	462,078,050	1.809	0.964
1995	16,651,572	16,805,511	477,878,172	477,524,550	1.741	0.997
1996	15,376,023	15,327,703	494,295,888	493,962,401	1.834	0.985
1997	18,940,099	18,769,960	509,011,886	508,947,030	1.409	0.989
1998	19,623,245	19,624,596	527,716,990	527,527,028	1.281	0.993
1999	31,523,511	32,031,547	536,850,762	536,858,199	0.739	1.016
2000	26,808,696	26,905,235	561,237,193	561,707,372	0.824	1.025

Selected Medical 19th-to-Ultimate Loss Development Factor 1.000

(7) = 1 + [(3)-(2) + ((5)-(4)) / (6)] / (2)
(14) = 1 + [(10)-(9) + ((12)-(11)) / (13)] / (9)
Columns (4) and (11) are valued as of the date at which the given policy year is at a 19th report.
Columns (5) and (12) are valued as of the date at which the given policy year is at a 20th report.

* The selected indemnity tail factor reflects an expectation of lower development due to the 1992 reform.

APPENDIX A-II

Determination of Premium and Losses Developed to an Ultimate Report

Section F - Derivation of Policy Year Limited 19th-to-Ultimate Loss Development Factors

Policy Year	Indemnity Paid-to-Paid + Case Ratio 19th Report	Medical Paid-to-Paid + Case Ratio 19th Report
1997	0.994	0.976
1998	1.000	1.000
1999	0.990	0.982
2000	0.999	0.998
2001	0.971	0.972
Selected	0.995	0.980

	Indemnity	Medical
(1) Paid+Case 19th-to-Ultimate Loss Development Factor (Section E)	1.005	1.000
(2) Factor to Adjust 19th-to-Ultimate Development Factor to a Limited Basis	0.332	0.332
(3) Limited Paid+Case 19th-to-Ultimate Loss Development Factor = [(1)-1]x(2)+1	1.002	1.000
(4) Limited Paid-to-Paid+Case Ratio (Section F)	0.995	0.980
(5) Limited Paid 19th-to-Ultimate Loss Development Factor = (3) / (4)	1.007	1.020

Section G - Summary of Limited Paid Loss Development Factors

	(1)	(2)		(3)	(4)
	Indemnity Paid Loss Development			Medical Paid Loss Development	
Report	to Next Report	to Ultimate	Report	to Next Report	to Ultimate
1st	1.685	2.662	1st	1.245	1.565
2nd	1.254	1.580	2nd	1.093	1.257
3rd	1.103	1.260	3rd	1.044	1.150
4th	1.046	1.142	4th	1.022	1.102
5th	1.030	1.092	5th	1.015	1.078
6th	1.015	1.060	6th	1.009	1.062
7th	1.011	1.044	7th	1.008	1.053
8th	1.005	1.033	8th	1.004	1.045
9th	1.005	1.028	9th	1.005	1.041
10th	1.003	1.023	10th	1.002	1.036
11th	1.002	1.020	11th	1.003	1.034
12th	1.001	1.018	12th	1.002	1.031
13th	1.004	1.017	13th	1.002	1.029
14th	1.003	1.013	14th	1.002	1.027
15th	1.000	1.010	15th	1.001	1.025
16th	1.002	1.010	16th	1.002	1.024
17th	1.000	1.008	17th	1.001	1.022
18th	1.001	1.008	18th	1.001	1.021
19th		1.007	19th		1.020

(2) = Cumulative upward product of column (1).
(4) = Cumulative upward product of column (3).

APPENDIX A-II

Determination of Premium and Losses Developed to an Ultimate Report

Section H - Factor to Adjust Limited Losses to an Unlimited Basis

(1)	Threshold at the Midpoint of the Loss Cost Effective Period*	2,894,382
(2)	Statewide Excess Ratio for (1)	0.020
(3)	Market Share for Carriers Missing from Large Loss and Catastrophe Call	0.000
(4)	Factor to Adjust Limited Losses to an Unlimited Basis = 1.0 / {1.0 - [(2) x (1.0 - (3))]}	1.020

Section I - Policy Year Large Loss Limits

Experience Year	Policy Year Detrended Limit
2019	2,470,631
2018	2,357,946
2017	2,313,935
2016	2,264,999
2015	2,217,388
2014	2,169,750
2013	2,101,303
2012	2,037,346
2011	1,986,784
2010	1,940,413
2009	1,890,689
2008	1,860,506
2007	1,824,497
2006	1,772,476
2005	1,708,767
2004	1,648,188
2003	1,597,628
2002	1,533,641
2001	1,475,132
2000	1,429,392
1999	1,377,047
1998	1,327,967
1997	1,271,383

* July 24, 2023 is the midpoint of the effective period for which the revised loss costs are being proposed.

Advisory Loss Costs and Rating Values Filing – August 1, 2022

Appendix A – Factors Underlying the Proposed Loss Cost Level Change

Appendix A-III Trend Factors

NCCI separately analyzes a measure of the number of workplace injuries (claim frequency) and the average indemnity and medical costs of each of these injuries (claim severity). Premium, lost-time claim counts, and losses used in these frequency and severity calculations are developed to ultimate and adjusted for changes in the level of workers' wages over time using the United States Bureau of Labor Statistics Quarterly Census of Employment and Wages for Rhode Island. Note that medical-only claim counts are excluded from the claim frequency and severity calculations, but the losses associated with medical-only claims are included.

While claim frequency and average costs per case are reviewed separately, NCCI selects annual indemnity and medical loss ratio trend factors based on an analysis of historical indemnity and medical loss ratios, along with other pertinent considerations, including, but not limited to, changes in system benefits and administration, economic environment, credibility of state data, and prior trend approach and selection.

The lost-time claim frequency, average costs per case, and loss ratios for policy years 2005 through 2019 are shown in Appendix A-III, along with the impact of the trend selection for each policy year in the experience period. The trend lengths displayed in Section B(3) are calculated by comparing the average accident date for the effective period of the proposed loss costs to each of the policy years in the experience period. The average accident dates are based on a Rhode Island distribution of policy writings by month and assume a uniform probability of loss over the coverage period.

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APPENDIX A-III

Policy Year Trend Factors

Section A - Summary of Policy Year Data

(1)	(2)	(3)	(4)	(5)	(6)
	Lost-Time	Indemnity		Medical	
Policy	Claim	Avg Cost	Loss	Avg Cost	Loss
Year	Frequency*	Per Case*^	Ratio^	Per Case*^	Ratio^
2005	48.901	19,048	0.932	10,575	0.518
2006	46.510	21,065	0.980	11,063	0.515
2007	45.029	23,023	1.037	11,764	0.530
2008	41.717	25,515	1.064	12,834	0.536
2009	42.446	25,215	1.070	13,150	0.558
2010	45.291	23,668	1.073	13,157	0.596
2011	42.371	23,102	0.979	12,046	0.511
2012	41.553	22,575	0.938	12,375	0.514
2013	39.866	23,742	0.947	12,309	0.491
2014	39.903	23,592	0.942	11,095	0.443
2015	37.757	23,187	0.876	11,317	0.428
2016	36.894	20,959	0.773	10,218	0.377
2017	34.582	22,643	0.783	10,321	0.357
2018	31.776	24,248	0.771	10,656	0.339
2019	29.269	25,109	0.735	10,444	0.306

* Figures have been adjusted to the common wage level.
^ Based on paid losses.

Section B - Summary of Annual Trend Factors

	Indemnity	Medical
(1) Current Approved Annual Loss Ratio Trend Factor	0.970	0.955
(2) Selected Annual Loss Ratio Trend Factor	**0.965**	**0.945**

(3) Length of Trend Period from Midpoint of Policy Year to Midpoint of Effective Period:

		Years
Policy Year	2017	5.619
Policy Year	2018	4.619
Policy Year	2019	3.619

(4) Trend Factor Applied to Experience Year = (2) ^ (3)

		Indemnity	Medical
Policy Year	2017	0.819	0.728
Policy Year	2018	0.848	0.770
Policy Year	2019	0.879	0.815

APPENDIX A-IV

Derivation of Industry Group Differentials

Industry group differentials are used to more equitably distribute the overall loss cost level change based on the individual experience of each industry group. The payroll, losses and claim counts used in the calculations below are from NCCI's Workers Compensation Statistical Plan (WCSP) data.

I. Expected Losses

The current expected losses (columns (1) and (2)) are the payroll extended by the pure premiums underlying the latest approved loss costs. The proposed expected losses (3) are the current expected losses adjusted to the proposed level. These adjustments include the proposed experience, trend, benefit and, if applicable, loss-based expense changes as well as any miscellaneous premium adjustments.

Industry Group	(1) Latest Year Current Expected Losses Prior to Adjustment for Change in Off-Balance	(2) Five Year Current Expected Losses Prior to Adjustment for Change in Off-Balance	(3) Five Year Proposed Expected Losses Prior to Adjustment for Change in Off-Balance	(4) Current Ratio of Manual to Standard Premium	(5) Proposed Ratio of Manual to Standard Premium
Manufacturing	19,977,277	97,664,095	91,276,131	1.094	1.102
Contracting	27,323,525	114,720,051	107,313,314	1.097	1.101
Office & Clerical	18,251,846	86,087,368	80,426,891	1.102	1.110
Goods & Services	63,826,513	300,692,205	280,872,164	1.013	1.020
Miscellaneous	28,008,852	126,137,641	117,949,304	1.084	1.082
Statewide	157,388,014	725,301,359	677,837,804		

Industry Group	(6) Latest Year Current Expected Losses Adjusted for Change in Off-Balance (1)x(4)/(5)	(7) Five Year Current Expected Losses Adjusted for Change in Off-Balance (2)x(4)/(5)	(8) Five Year Proposed Expected Losses Adjusted for Change in Off-Balance (3)x(4)/(5)	(9) Current/ Proposed (7)/(8)	(10) Adjustment to Proposed for Current Relativity (9)IG/(9)SW
Manufacturing	19,832,251	96,955,099	90,613,509	1.070	1.000
Contracting	27,224,257	114,303,267	106,923,438	1.069	0.999
Office & Clerical	18,120,301	85,466,918	79,847,238	1.070	1.000
Goods & Services	63,388,488	298,628,631	278,944,610	1.071	1.001
Miscellaneous	28,060,625	126,370,797	118,167,325	1.069	0.999
Statewide	156,625,922	721,724,712	674,496,120	1.070	

APPENDIX A-IV

II. Industry Group Differentials

To calculate the converted indicated balanced losses (11) the reported losses are limited to $500,000 for a single claim occurrence and $1,500,000 for each multiple claim occurrence. After the application of limited development, trend and benefit factors, the limited losses are brought to an unlimited level through the application of the expected excess provision. The expected excess loss provisions are non-catastrophe and the excess ratios at a loss limit of $50 million are set equal to zero. The proposed experience change, applicable loss-based expenses and any miscellaneous premium adjustments are applied to calculate the indicated losses.   These indicated losses are then balanced to the expected losses using the factors shown in Appendix B-I, Section A-3.

Industry Group	(11) Converted Indicated Balanced Losses	(12) Indicated/ Expected Ratio (11)/[(8)x(10)]	(13) Indicated Differential (12)IG/(12)SW	(14) Lost-Time Claim Counts
Manufacturing	84,705,150	0.935	0.936	3,030
Contracting	106,620,413	0.998	0.999	2,335
Office & Clerical	80,401,521	1.007	1.008	2,549
Goods & Services	280,979,991	1.006	1.007	12,002
Miscellaneous	121,178,258	1.027	1.028	3,386
Statewide	673,885,333	0.999		

Industry Group	(15) Full Credibility Standard for Lost-Time Claim Counts	(16) Credibility Minimum of 1.000 and ((14)/(15))^0.5	(17) Credibility Weighted Indicated/Expected Ratio [(16)IGx(12)IG] + [1-(16)IG]x(12)SW*	(18) Final Industry Group Differential (17)IG/(17)SW
Manufacturing	12,000	0.50	0.967	0.966
Contracting	12,000	0.44	0.999	0.998
Office & Clerical	12,000	0.46	1.003	1.002
Goods & Services	12,000	1.00	1.006	1.005
Miscellaneous	12,000	0.53	1.014	1.013
Statewide			1.001	1.000

*Statewide ratio (column 17) = $\Sigma_{IG}[(6)x(17)] \div \Sigma_{IG}(6)$

Advisory Loss Costs and Rating Values Filing – August 1, 2022

**Appendix B – Calculations Underlying the
Loss Cost Change by Classification**

NCCI separately determines voluntary loss costs for each workers compensation classification. The proposed change from the current loss cost will vary depending on the classification. The following are the general steps utilized to determine the individual classification loss costs:

1. Calculate industry group differentials, which are used to more equitably distribute the proposed overall average loss cost level change based on the individual experience of each industry group
2. For each classification, determine the indicated pure premiums based on the most recently-available five policy periods of Rhode Island payroll and loss experience
3. Indicated pure premiums are credibility-weighted with present on rate level pure premiums and national pure premiums to generate derived by formula pure premiums
4. Final adjustments include the application of a test correction factor, the ratio of manual-to-standard premium, and swing limits

APPENDIX B-I

Distribution of Loss Cost Level Change to Occupational Classification

After determining the required changes in the overall loss cost level for the state and by industry group, the next step in the ratemaking procedure is to distribute these changes among the various occupational classifications. In order to do this, the pure premiums by classification must be adjusted, by policy period, industry group, or on an overall basis, to incorporate the changes proposed in the filing. There are three sets of pure premiums for each classification: indicated, present on rate level, and national pure premiums.

Section A – Calculation of Indicated Pure Premiums
The indicated pure premiums are calculated from the payroll and loss data reported, by class code and policy period, in the Workers Compensation Statistical Plan (WCSP) for the latest available five policy periods. Various adjustments are made to these pure premiums to put them at the level proposed in this filing (Sections A-1 to A-3).

Section A-1 – Calculation of Primary Conversion Factors

1. Limited Loss Development Factors

The following factors are applied to develop the losses from first through fifth report to an ultimate basis.

Policy Period	Indemnity		Medical	
	Likely-to-Develop	Not-Likely-to-Develop	Likely-to-Develop	Not-Likely-to-Develop
1/14-12/14	1.055	1.020	1.029	0.999
1/15-12/15	1.085	1.038	1.049	0.999
1/16-12/16	1.133	1.077	1.078	1.001
1/17-12/17	1.303	1.188	1.121	1.003
1/18-12/18	2.021	1.587	1.167	1.013

2. Factors to Adjust to the Proposed Trend Level

The proposed trend factors are applied to adjust the losses to the proposed level.

Policy Period	Indemnity	Medical
1/14-12/14	0.736	0.614
1/15-12/15	0.762	0.650
1/16-12/16	0.790	0.688
1/17-12/17	0.819	0.728
1/18-12/18	0.848	0.770

3. Factors to Adjust to the Proposed Benefit Level

The following factors are applied to adjust the losses to the proposed benefit level.

Policy Period	Fatal	Permanent Total (P.T.)	Permanent Partial (P.P.)	Temporary Total (T.T.)	Medical
1/14-12/14	0.997	1.025	1.042	1.024	1.044
1/15-12/15	0.997	1.025	1.042	1.024	1.043
1/16-12/16	0.995	1.023	1.041	1.022	1.039
1/17-12/17	0.991	1.017	1.034	1.014	1.030
1/18-12/18	0.988	1.004	1.021	1.001	1.023

4. Primary Conversion Factors: Indicated Pure Premiums

The factors above, contained within Section A-1, are combined multiplicatively, resulting in the following factors for the Likely-to-Develop (L) and Not-Likely-to-Develop (NL) groupings.

Policy Period	Fatal (L)	Fatal (NL)	P.T.*	P.P. (L)	P.P. (NL)	T.T. (L)	T.T. (NL)	Medical (L)	Medical (NL)
1/14-12/14	0.774	0.748	0.796	0.809	0.782	0.795	0.769	0.660	0.640
1/15-12/15	0.824	0.789	0.847	0.861	0.824	0.847	0.810	0.711	0.677
1/16-12/16	0.891	0.847	0.916	0.932	0.886	0.915	0.870	0.771	0.716
1/17-12/17	1.058	0.964	1.085	1.103	1.006	1.082	0.987	0.841	0.752
1/18-12/18	1.693	1.330	1.721	1.750	1.374	1.716	1.347	0.919	0.798

* Permanent total losses are always assigned to the Likely-to-Develop grouping.

Section A-2 – Expected Excess Provision and Redistribution

After the application of the primary conversion factors, the limited losses are brought to an expected unlimited level through the application of excess loss factors by hazard group. The expected excess loss provisions are non-catastrophe and the excess ratios at a loss limit of $50 million are set equal to zero. These factors are shown below.

Hazard Group	A	B	C	D	E	F	G
(1) Excess Ratios	0.070	0.086	0.109	0.123	0.159	0.187	0.215
(2) Excess Factors 1/(1-(1))	1.075	1.094	1.122	1.140	1.189	1.230	1.274

As the excess loss factors are on a combined (indemnity and medical) basis, a portion (40%) of the indemnity expected excess losses are redistributed to medical in order to more accurately allocate expected excess losses. Since a portion of the expected excess losses are redistributed in an additive manner, the expected excess factors shown above cannot be combined multiplicatively with either the primary or secondary loss conversion factors.

Section A-3 – Calculation of Secondary Conversion Factors

1. Factors to Adjust for Proposed Industry Group Differentials

The following factors are applied to adjust the indicated industry group differentials for the effects of credibility weighting the industry group differentials and weighting the differentials by the latest year expected losses.

	Manufacturing	Contracting	Office and Clerical	Goods and Services	Miscellaneous
(1) Indicated Differentials*	0.936	0.999	1.008	1.007	1.028
(2) Final Differentials**	0.966	0.998	1.002	1.005	1.013
(3) Adjustment (2)/(1)	1.032	0.999	0.994	0.998	0.985

*See Appendix A-IV, column (13).
**See Appendix A-IV, column (18).

2. Factors to Balance Indicated to Expected Losses

The expected losses are calculated as the pure premium underlying the current loss costs, adjusted to the proposed level and adjusted for the Experience Rating Plan off-balance. The indicated losses are balanced to the expected losses by applying the following factors.

Policy Period	(1) Adjustment of Indicated Losses to Pure Premium at Proposed Level	(2) Current Ratio of Manual to Standard Premium	(3) Proposed Ratio of Manual to Standard Premium	(4) Off-balance Adjustment (2)/(3)	(5) Balancing Indicated to Expected Losses (1)x(4)
1/14-12/14	0.830	1.060	1.057	1.003	0.832
1/15-12/15	0.915	1.060	1.064	0.996	0.911
1/16-12/16	0.912	1.060	1.068	0.993	0.906
1/17-12/17	0.893	1.060	1.071	0.990	0.884
1/18-12/18	0.861	1.061	1.073	0.989	0.852

3. Adjustment for Experience Change

A factor of 0.950 is applied to adjust for the experience change in the proposed loss cost level.

4. Factor to Reflect the Proposed Loss-Based Expense Provisions

A factor of 1.229 is applied to include the proposed loss-based expense provisions.

5. Secondary Conversion Factors: Indicated Pure Premiums

The factors above, contained within section A-3, are combined multiplicatively, resulting in the following factors:

Policy Period	Manufacturing	Contracting	Office and Clerical	Goods and Services	Miscellaneous
1/14-12/14	1.002	0.970	0.966	0.969	0.957
1/15-12/15	1.098	1.063	1.057	1.062	1.048
1/16-12/16	1.092	1.057	1.051	1.056	1.042
1/17-12/17	1.065	1.031	1.026	1.030	1.017
1/18-12/18	1.027	0.994	0.989	0.993	0.980

Section B – Calculation of Present on Rate Level Pure Premiums

The present on rate level pure premiums are the pure premiums underlying the current loss costs, adjusted to the proposed level. The data sources for the above-captioned pure premiums are the partial pure premiums underlying the current loss costs.

1. Adjustment for Experience Change

A factor of 0.950 is applied to adjust for the experience change in the proposed loss cost level.

2. Factors to Adjust to the Proposed Trend Level

The pure premiums underlying the current loss costs contain the current trend. The change in trend factors, 0.977 and 0.953, for indemnity and medical, respectively, are applied to adjust to the proposed trend level.

3. Factors to Adjust to the Proposed Benefit Level

The following factors are applied to adjust the pure premiums underlying the current loss costs to the proposed benefit level.

Effective Date	Indemnity	Medical
January 1, 2022	1.023	1.000
January 1, 2022	1.000	1.008
Combined Benefit Adjustment	1.023	1.008

4. Factors to Include the Proposed Loss-Based Expense Provisions

The pure premiums underlying the current loss costs include the current loss-based expense provisions and must be adjusted to the proposed level.

	(a) Current		(b) Proposed	
	Indemnity	Medical	Indemnity	Medical
(1) Loss Adjustment Expense	1.233	1.233	1.229	1.229
(2) Loss-based Assessment	1.000	1.000	1.000	1.000
(3) = (1) + (2) – 1.000	1.233	1.233	1.229	1.229
(4) Overall Change (3b)/(3a)			0.997	0.997

5. Adjustment to Obtain Expected Losses

The pure premiums underlying the current loss costs reflect the current Experience Rating Plan off-balance. The change in off-balance must be applied.

Industry Group	(1) Current Ratio of Manual to Standard Premium	(2) Proposed Ratio of Manual to Standard Premium	(3) Off-balance Adjustment (1)/(2)
Manufacturing	1.094	1.102	0.993
Contracting	1.097	1.101	0.996
Office & Clerical	1.102	1.110	0.993
Goods & Services	1.013	1.020	0.993
Miscellaneous	1.084	1.082	1.002

6. Factors to Adjust for Proposed Industry Group Differentials

The pure premiums underlying the current loss costs are adjusted by the proposed industry group differentials.

Industry Group	(1) Final Differential*	(2) Adjustment to Proposed for Current Relativities**	(3) Adjusted Differential (1)x(2)
Manufacturing	0.966	1.000	0.966
Contracting	0.998	0.999	0.997
Office & Clerical	1.002	1.000	1.002
Goods & Services	1.005	1.001	1.006
Miscellaneous	1.013	0.999	1.012

*See Appendix A-IV, column (18).
**See Appendix A-IV, column (10).

7. Combined Conversion Factors

The factors above, contained within Section B, are combined multiplicatively, resulting in the following factors.

Industry Group	Indemnity	Medical
Manufacturing	0.908	0.873
Contracting	0.940	0.904
Office & Clerical	0.942	0.905
Goods & Services	0.946	0.909
Miscellaneous	0.960	0.923

Section C – Calculation of National Pure Premiums

Finally, there are the national pure premiums, which reflect the countrywide experience for each classification adjusted to state conditions. These pure premiums reflect the countrywide experience for each classification as indicated by the latest available individual classification experience for all states for which the National Council on Compensation Insurance compiles workers compensation data.

Countrywide data is adjusted to Rhode Island conditions in four steps. First, statewide indicated pure premiums are determined for Rhode Island. Second, using Rhode Island payrolls as weights, corresponding statewide-average pure premiums are computed for each remaining state. Third, the ratios of Rhode Island statewide pure premiums to those for other states are used as adjustment factors to convert losses for other states to a basis that is consistent with the Rhode Island indicated pure premiums. The quotient of the countrywide total of such adjusted losses divided by the total countrywide payroll for the classification is the initial pure premium indicated by national relativity. Finally, national pure premiums are balanced to the level of the state indicated pure premiums to ensure unbiased derived by formula pure premiums. Indemnity and medical pure premiums are computed separately.

Section D – Calculation of Derived by Formula Pure Premiums

The indicated, present on rate level and national pure premiums are credibility weighted, and the resulting derived by formula pure premiums are used to determine the final class loss costs.

As for the preceding pure premiums, separate computations are performed for each partial pure premium: indemnity and medical. Each partial formula pure premium is derived by the weighting of the indicated, present on rate level and national partial pure premiums. The weight assigned to the policy year indicated pure premium varies in one-percent intervals from zero percent to one hundred percent, depending upon the volume of expected losses (i.e. the product of the underlying pure premiums and the payroll in hundreds). To achieve full state credibility, a classification must have expected losses of at least: $33,854,011 for indemnity and $7,334,854 for medical.

The partial credibilities formula is:

$$z = [\text{ (expected losses) / (full credibility standard) }]^{0.5}$$

For the national pure premiums, credibility is determined from the number of lost-time claims. Full credibility standards are: 2,300 lost-time claims for indemnity and 2,000 lost-time claims for medical.

Partial credibilities are assigned using a credibility formula similar to that used for indicated pure premiums but based on the number of national cases. In no case is the national credibility permitted to exceed 50% of the complement of the state credibility.

National Credibility equals the smaller of:

$$[\text{ (national cases)/(full credibility standard) }]^{0.5} \text{ and } [\text{ (1 – state credibility)/2 }]$$

The residual credibility (100% minus the sum of the state and national credibilities) is assigned to the present on rate level pure premium.

> For example, if the state credibility is 40%, the national pure premium is assigned a maximum credibility of 30% ((100-40) / 2). The remainder is assigned to the present on rate level pure premium.

The total pure premium shown on the attached Appendix B-III is obtained by adding the indemnity and medical partial pure premiums obtained above and rounding the sum to two decimal places.

APPENDIX B-II

Adjustments to Obtain Loss Costs

The following items are combined with the derived by formula pure premium to obtain the proposed loss cost:

1. Test Correction Factor

The payrolls are now extended by the loss costs presently in effect and by the indicated loss costs to determine if the required change in manual premium level as calculated in Exhibit I has been achieved. Since at first this calculation may not yield the required results, an iterative process is initiated which continuously tests the proposed loss costs including tentative test correction factors until the required change in manual premium level is obtained. The test correction factor is applied to the derived by formula pure premiums.

The factors referred to above are set out as follows:

	Test Correction Factor
Manufacturing	0.9962
Contracting	1.0160
Office & Clerical	1.0185
Goods & Services	1.0032
Miscellaneous	1.0142

2. Ratios of Manual to Standard Premiums

The ratios of manual to standard premiums by industry group have also been excluded from the classification experience, and it is necessary to apply these factors to the derived by formula pure premiums.

	Ratio of Manual to Standard Premiums
Manufacturing	1.102
Contracting	1.101
Office & Clerical	1.110
Goods & Services	1.020
Miscellaneous	1.082

3. Disease Loadings

The proposed manual loss costs shown in this filing include specific disease loadings for those classifications where they apply. The proposed specific disease loadings are shown on the footnotes page.

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APPENDIX B-II

4. Swing Limits

As a further step, a test is made to make certain that the proposed loss costs fall within the following departures from the present loss costs:

Manufacturing	from 5% above to 25% below
Contracting	from 8% above to 22% below
Office & Clerical	from 9% above to 21% below
Goods & Services	from 9% above to 21% below
Miscellaneous	from 10% above to 20% below

These limits have been calculated in accordance with the following formula:

Max. Deviation = Effect of the final change in loss cost level by industry group plus or minus 15% rounded to the nearest 1%.

The product of the swing limits and the present loss cost sets bounds for the proposed loss cost. If the calculated loss cost falls outside of the bounds, the closest bound is chosen as the proposed loss cost. When a code is limited, the underlying pure premiums are adjusted to reflect the limited loss cost. The classifications which have been so limited are shown below. Note that classifications that are subject to special handling may fall outside of the swing limits. A code listed below with an asterisk indicates the code's swing limit was adjusted by one cent before being applied; this is only performed when the upper and lower bounds calculated by the swing limit are equal.

An illustrative example showing the calculation of a proposed manual class loss cost is attached as Appendix B-III. This example demonstrates the manner in which the partial pure premiums are combined to produce a total pure premium, and shows the steps in the calculation at which the rounding takes place. The loss costs for other classifications are calculated in the same manner.

List of Classifications Limited by the Upper Swing

2220 3865 4110 4740 4829 6213 7225
8755 8856 9040

List of Classifications Limited by the Lower Swing

3030 4511 8603 8871

Determination of Rating Values on Miscellaneous Values Page

A. Current and Proposed Miscellaneous Values are calculated based on formulas, dependent on the State Average Weekly Wage (SAWW).

	Current	Proposed	Change
1) State Average Weekly Wage (SAWW)	$1,042.85 [1]	$1,149.89 [2]	10.3%
2) Basis of premium applicable in accordance with the *Basic Manual* notes for Code 7370 -- "Taxicab Co.":			
Employee operated vehicle [3]	$81,300	$89,700	10.3%
Leased or rented vehicle [4]	$54,200	$59,800	10.3%
3) Maximum Weekly Payroll applicable in accordance with the *Basic Manual* rule, Rule for premium determination of executive officers [5] and the *Basic Manual* notes for Code 9178 -- "Athletic Sports or Park: Noncontact Sports," and Code 9179 -- "Athletic Sports or Park: Contact Sports" [6]	$4,200	$4,600	9.5%
4) Minimum Weekly Payroll applicable in accordance with the *Basic Manual* rule, Rule for premium determination of executive officers [7]	$1,050	$1,150	9.5%

[1]   State Average Weekly Wage. Effective October 1, 2020.
[2]   State Average Weekly Wage. Effective October 1, 2021.
[3]   Underlying formula is: SAWW x 52 x 1.5 (Rounded to the nearest $100), Item B-1422.
[4]   Underlying formula is: SAWW x 52 (Rounded to the nearest $100), Item B-1422.
[5]   Underlying formula is: SAWW x 4 (Rounded to the nearest $100), Item B-1420.
[6]   Underlying formula is: SAWW x 4 (Rounded to the nearest $100), Item B-1422.
[7]   Underlying formula is: SAWW (Rounded to the nearest $50), Item B-1420.

B. Loss Elimination Ratios (LERs) are defined in "Fundamentals of Individual Risk Rating" by Gillam and Snader, 1992. The latest methodology for determining Excess Loss Pure Premium Factors (ELPPFs) is described in "NCCI's 2014 Excess Loss Factors" by Corro and Tseng, 2019. The updated LER values reflect the experience, trend, and development consistent with the Excess Loss Pure Premium Factors (ELPPFs) filed in Item R-1419.

APPENDIX B-III

Derivation of Proposed Loss Cost - Code 8810

As previously explained in Appendix B-I, the indicated pure premiums are developed by adjusting the limited losses by a set of conversion factors. The converted losses are then summarized into indemnity and medical and then divided by payroll (in hundreds). The derivation of the indicated pure premium for the above-captioned classification follows:

LIMITED LOSSES (Workers Compensation Statistical Plan)

Policy Period	Fatal Likely	Fatal Not-Likely	Permanent Total	Permanent Partial Likely	Permanent Partial Not-Likely	Temporary Total Likely	Temporary Total Not-Likely	Medical Likely	Medical Not-Likely
01/01/14 - 12/31/14	0	0	0	468,313	1,127,671	410,560	815,830	229,392	1,143,997
01/01/15 - 12/31/15	0	0	29,534	330,367	982,931	536,455	945,556	702,143	1,112,353
01/01/16 - 12/31/16	0	500,000	0	270,390	1,063,086	598,480	1,139,280	305,823	1,036,676
01/01/17 - 12/31/17	0	0	0	471,464	770,732	164,497	846,866	166,286	1,030,186
01/01/18 - 12/31/18	0	0	0	184,092	376,170	294,615	1,013,522	292,724	1,251,294

PRIMARY CONVERSION FACTORS (Appendix B-I, Section A-1)

Policy Period	Fatal Likely	Fatal Not-Likely	Permanent Total	Permanent Partial Likely	Permanent Partial Not-Likely	Temporary Total Likely	Temporary Total Not-Likely	Medical Likely	Medical Not-Likely
01/01/14 - 12/31/14	0.774	0.748	0.796	0.809	0.782	0.795	0.769	0.660	0.640
01/01/15 - 12/31/15	0.824	0.789	0.847	0.861	0.824	0.847	0.810	0.711	0.677
01/01/16 - 12/31/16	0.891	0.847	0.916	0.932	0.886	0.915	0.870	0.771	0.716
01/01/17 - 12/31/17	1.058	0.964	1.085	1.103	1.006	1.082	0.987	0.841	0.752
01/01/18 - 12/31/18	1.693	1.330	1.721	1.750	1.374	1.716	1.347	0.919	0.798

EXPECTED EXCESS PROVISION AND REDISTRIBUTION (Appendix B-I, Section A-2)

After the application of the primary conversion factors, the limited losses are brought to an expected unlimited level through the application of a hazard group-specific excess loss factor. The factor is shown below:

	HAZARD GROUP: C
Excess Factor	1.122

As the excess loss factor is on a combined (indemnity and medical) basis, the following portion of the indemnity expected excess losses are redistributed to medical in order to more accurately allocate expected excess losses:

Redistribution %	40%

EXPECTED UNLIMITED LOSSES (Limited Losses x Primary Conversion Factors, then adjusted for the Excess Provision and Redistribution)

Policy Period	Fatal Likely	Fatal Not-Likely	Permanent Total	Permanent Partial Likely	Permanent Partial Not-Likely	Temporary Total Likely	Temporary Total Not-Likely	Medical Likely	Medical Not-Likely
01/01/14 - 12/31/14	0	0	0	406,674	946,566	350,352	673,422	204,431	895,577
01/01/15 - 12/31/15	0	0	26,851	305,325	869,385	487,729	822,118	597,674	922,301
01/01/16 - 12/31/16	0	454,585	0	270,500	1,011,030	587,804	1,063,927	303,763	948,380
01/01/17 - 12/31/17	0	0	0	558,195	832,268	191,050	897,209	191,111	948,316
01/01/18 - 12/31/18	0	0	0	345,808	554,796	542,667	1,465,422	342,426	1,212,785

SECONDARY CONVERSION FACTORS (Appendix B-I, Section A-3)

Policy Period	INDUSTRY GROUP: Office and Clerical
01/01/14 - 12/31/14	0.966
01/01/15 - 12/31/15	1.057
01/01/16 - 12/31/16	1.051
01/01/17 - 12/31/17	1.026
01/01/18 - 12/31/18	0.989

PAYROLL, FINAL CONVERTED LOSSES (Expected Unlimited Losses x Secondary Conversion Factors)

Policy Period	Payroll	Indemnity Likely	Indemnity Not-Likely	Medical Likely	Medical Not-Likely	Total Indemnity	Total Medical	Total
01/01/14 - 12/31/14	4,740,132,340	731,287	1,564,908	197,480	865,127	2,296,195	1,062,607	3,358,802
01/01/15 - 12/31/15	4,629,616,273	866,640	1,787,919	631,741	974,872	2,654,559	1,606,613	4,261,172
01/01/16 - 12/31/16	5,013,678,152	902,078	2,658,549	319,255	996,747	3,560,627	1,316,002	4,876,629
01/01/17 - 12/31/17	5,046,305,306	768,725	1,774,443	196,080	972,972	2,543,168	1,169,052	3,712,220
01/01/18 - 12/31/18	5,026,738,336	878,702	1,997,996	338,659	1,199,444	2,876,698	1,538,103	4,414,801
Total	24,456,470,407	4,147,432	9,783,815	1,683,215	5,009,162	13,931,247	6,692,377	20,623,624
		INDICATED PURE PREMIUM				**0.057**	**0.027**	**0.08**

The pure premiums shown were calculated using unrounded losses, while the converted losses have been rounded for display purposes.

The present on rate level pure premiums are developed by adjusting the pure premiums underlying the current loss cost by the conversion factors calculated in Appendix B-I. The derivation of the present on rate level pure premiums for the above-captioned classification follows:

	Indemnity	Medical	Total
Pure Premiums Underlying Current Loss Cost	0.059	0.031	0.09
Conversion Factors (App. B-I, Section B)	0.942	0.905	xxx
PURE PREMIUMS PRESENT ON RATE LEVEL (Underlying Pure Premiums) x (Conversion Factor)	0.056	0.028	0.08

APPENDIX B-III

Derivation of Proposed Loss Cost - Code 8810
Industry Group - Office and Clerical, Hazard Group - C

The loss cost for the above-captioned classification is derived as follows:

		Indemnity	**Medical**	**Total**
1.	Indicated Pure Premium	0.057	0.027	0.08
2.	Pure Premium Indicated by National Relativity	0.055	0.028	0.08
3.	Pure Premium Present on Rate Level	0.056	0.028	0.08
4.	State Credibilities	64%	97%	xxx
5.	National Credibilities	18%	1%	xxx
6.	Residual Credibilities = 100% - (4) - (5)	18%	2%	xxx
7.	Derived by Formula Pure Premiums = (1) x (4) + (2) x (5) + (3) x (6)	0.056	0.027	0.08
8.	Test Correction Factor	1.0185	1.0185	xxx
9.	Underlying Pure Premiums = (7) x (8) *	0.053	0.027	0.08
10.	Ratio of Manual to Standard Premium			1.110
11.	Loss Cost = (9) x (10)			0.09
12.	Loss Cost Within Swing Limits			0.09
	Current Loss Cost x Swing Limits a) Lower bound = 0.10 x 0.790 = 0.08 b) Upper bound = 0.10 x 1.090 = 0.10			
13.	Pure Premiums Underlying Proposed Loss Cost* = ((13TOT) / (9TOT)) x (9) , (13TOT) = (12) / (10)	0.053	0.027	0.08
14.	Disease, Catastrophe and/or Miscellaneous Loadings			0.00
15.	Final Loaded Loss Cost			0.09

* Indemnity pure premium is adjusted for the rounded total pure premium:
      Indemnity Pure Premium = Total Pure Premium - Medical Pure Premium

Ten years of Workers Compensation Statistical Plan (WCSP) data is used to determine the F-classification (F-class) loss costs. An F-class countrywide pure premium is brought to Rhode Island's proposed level, and F-class code countrywide relativities are applied to determine indicated loss costs. The latest year of payroll is extended by both the current and proposed loss costs. Based on $6,862,951 of payroll, the overall indicated loss cost level change in Rhode Island is -14.0%.

I. Calculation of F-Class Countrywide Pure Premium and F-Class Code Relativities

Ten years of F-class losses* across all states for which the National Council on Compensation Insurance compiles workers compensation ratemaking data are converted and adjusted to a countrywide level and used with ten years of F-class countrywide payroll to determine the F-class countrywide pure premiums at both an overall and individual classification level. The F-class code countrywide relativities are then calculated using these pure premiums.

*Losses are limited to $500,000 for a single claim occurrence and $1,500,000 for each multiple claim occurrence.
  Note: Texas data is included for policies effective 1/1/2013 and subsequent.

A. Calculation of Primary Conversion Factors

Each state's losses are adjusted by its state-specific benefit and trend factors and countrywide development. Below are the adjustments made to Rhode Island's losses:

1. Factors to Adjust to a Current Benefit Level

The state and federal losses are adjusted to the current state and federal benefit levels, respectively.

| | | State Act | | | |
Policy Period	Fatal	Permanent Total (P.T.)	Permanent Partial (P.P.)	Temporary Total (T.T.)	Medical
1/08 - 12/08	0.998	1.012	1.045	1.011	1.043
1/09 - 12/09	0.998	1.012	1.045	1.011	1.043
1/10 - 12/10	0.998	1.012	1.045	1.011	1.043
1/11 - 12/11	0.998	1.011	1.030	1.011	1.043
1/12 - 12/12	0.998	1.009	1.011	1.011	1.043
1/13 - 12/13	0.998	1.009	1.011	1.011	1.041
1/14 - 12/14	0.998	1.009	1.011	1.011	1.036
1/15 - 12/15	0.998	1.009	1.011	1.011	1.035
1/16 - 12/16	0.996	1.007	1.010	1.009	1.031
1/17 - 12/17	0.992	1.001	1.003	1.001	1.022

| | | Federal Act | | | |
Policy Period	Fatal	Permanent Total (P.T.)	Permanent Partial (P.P.)	Temporary Total (T.T.)	Medical
1/08 - 12/08	1.000	1.000	1.000	1.000	1.000
1/09 - 12/09	1.000	1.000	1.000	1.000	1.000
1/10 - 12/10	1.000	1.000	1.000	1.000	1.000
1/11 - 12/11	1.000	1.000	1.000	1.000	1.000
1/12 - 12/12	1.000	1.000	1.000	1.000	1.000
1/13 - 12/13	1.000	1.000	1.000	1.000	1.000
1/14 - 12/14	1.000	1.000	1.000	1.000	1.000
1/15 - 12/15	1.000	1.000	1.000	1.000	1.000
1/16 - 12/16	1.000	1.000	1.000	1.000	1.000
1/17 - 12/17	1.000	1.000	1.000	1.000	1.000

2. Factors to Trend to 1/1/2022

The losses are trended from the midpoint of each policy year to 1/1/2022 using the current annual trends of 0.970 and 0.955 for indemnity and medical, respectively.

Policy Period	Indemnity	Medical
1/08 - 12/08	0.671	0.547
1/09 - 12/09	0.692	0.573
1/10 - 12/10	0.713	0.600
1/11 - 12/11	0.735	0.628
1/12 - 12/12	0.758	0.658
1/13 - 12/13	0.782	0.689
1/14 - 12/14	0.806	0.722
1/15 - 12/15	0.831	0.756
1/16 - 12/16	0.856	0.791
1/17 - 12/17	0.883	0.828

3. Limited Loss Development Factors

The losses are developed to an ultimate basis using loss development factors based on countrywide data.*

Policy Period	Indemnity Likely-to-Develop	Indemnity Not-Likely-to-Develop	Medical Likely-to-Develop	Medical Not-Likely-to-Develop
1/08 - 12/08	1.045	1.006	1.111	1.012
1/09 - 12/09	1.048	1.013	1.119	1.028
1/10 - 12/10	1.057	1.020	1.128	1.027
1/11 - 12/11	1.067	1.031	1.127	1.020
1/12 - 12/12	1.058	1.029	1.132	1.010
1/13 - 12/13	1.088	1.040	1.134	1.024
1/14 - 12/14	1.113	1.054	1.176	1.023
1/15 - 12/15	1.281	1.109	1.250	1.024
1/16 - 12/16	1.481	1.254	1.316	1.060
1/17 - 12/17	2.325	1.810	1.527	1.135

*Excludes Texas.

4. Primary Conversion Factors = (1) x (2) x (3)

The factors above, contained within Section A, are combined multiplicatively, resulting in the following Likely-to-Develop (L) and Not-Likely-to-Develop (NL) factors:

State Act

Policy Period	Fatal (L)	Fatal (NL)	P.T.*	P.P. (L)	P.P. (NL)	T.T. (L)	T.T. (NL)	Medical (L)	Medical (NL)
1/08 - 12/08	0.700	0.674	0.710	0.733	0.705	0.709	0.682	0.634	0.577
1/09 - 12/09	0.724	0.700	0.734	0.758	0.733	0.733	0.709	0.669	0.614
1/10 - 12/10	0.752	0.726	0.763	0.788	0.760	0.762	0.735	0.706	0.643
1/11 - 12/11	0.783	0.756	0.793	0.808	0.781	0.793	0.766	0.738	0.668
1/12 - 12/12	0.800	0.778	0.809	0.811	0.789	0.811	0.789	0.777	0.693
1/13 - 12/13	0.849	0.812	0.858	0.860	0.822	0.860	0.822	0.813	0.734
1/14 - 12/14	0.895	0.848	0.905	0.907	0.859	0.907	0.859	0.880	0.765
1/15 - 12/15	1.062	0.920	1.074	1.076	0.932	1.076	0.932	0.978	0.801
1/16 - 12/16	1.263	1.069	1.277	1.280	1.084	1.279	1.083	1.073	0.864
1/17 - 12/17	2.037	1.585	2.055	2.059	1.603	2.055	1.600	1.292	0.960

Federal Act

Policy Period	Fatal (L)	Fatal (NL)	P.T.*	P.P. (L)	P.P. (NL)	T.T. (L)	T.T. (NL)	Medical (L)	Medical (NL)
1/08 - 12/08	0.701	0.675	0.701	0.701	0.675	0.701	0.675	0.608	0.554
1/09 - 12/09	0.725	0.701	0.725	0.725	0.701	0.725	0.701	0.641	0.589
1/10 - 12/10	0.754	0.727	0.754	0.754	0.727	0.754	0.727	0.677	0.616
1/11 - 12/11	0.784	0.758	0.784	0.784	0.758	0.784	0.758	0.708	0.641
1/12 - 12/12	0.802	0.780	0.802	0.802	0.780	0.802	0.780	0.745	0.665
1/13 - 12/13	0.851	0.813	0.851	0.851	0.813	0.851	0.813	0.781	0.706
1/14 - 12/14	0.897	0.850	0.897	0.897	0.850	0.897	0.850	0.849	0.739
1/15 - 12/15	1.065	0.922	1.065	1.065	0.922	1.065	0.922	0.945	0.774
1/16 - 12/16	1.268	1.073	1.268	1.268	1.073	1.268	1.073	1.041	0.838
1/17 - 12/17	2.053	1.598	2.053	2.053	1.598	2.053	1.598	1.264	0.940

*Permanent Total losses are always assigned to the Likely-to-Develop grouping.

B. Expected Excess Provision and Redistribution

After the application of the primary conversion factors, each state's limited losses are brought to an expected unlimited level through the application of countrywide excess loss factors by hazard group. The expected excess loss provisions are non-catastrophe and the excess ratios at a loss limit of $50 million are set equal to zero. The countrywide excess loss factors are shown below:

Hazard Group	A	B	C	D	E	F	G
(1) Excess Ratios	0.079	0.101	0.134	0.151	0.207	0.240	0.274
(2) = 1/(1-(1)) Excess Factors	1.086	1.112	1.155	1.178	1.261	1.316	1.377

As the excess loss factors are on a combined (indemnity and medical) basis, a portion (40%) of the indemnity expected excess losses are redistributed to medical in order to more accurately allocate expected excess losses. Since a portion of the expected excess losses are redistributed in an additive manner, the expected excess factors shown above cannot be combined multiplicatively with the primary loss conversion factors.

C.   Calculation of Total Expected Unlimited Losses

Using expected unlimited losses, each state's total losses at the countrywide level are a combination of its federal act losses and its state act losses adjusted to the countrywide level.

State act losses are adjusted to a common countrywide level for each state using its state-specific index to countrywide factor by using the steps below:

1.   Each state's Hazard Group E average pure premium is calculated by payroll weighting the pure premiums of the industrial codes in Hazard Group E. The average pure premium for Hazard Groups F and G are calculated in a similar manner.
2.   Each state's industrial average pure premium is calculated by weighting together the state's hazard group average pure premiums (step 1) by the F-class countrywide payroll distribution of Hazard Groups E, F, and G.
3.   The countrywide industrial average pure premium is calculated by payroll weighting each state's industrial average pure premium (step 2) by its respective F-class payroll.
4.   Each state's index to countrywide factor is the ratio of the industrial countrywide average pure premium (step 3) to its respective industrial average pure premium (step 2).
5.   The adjusted state act losses for each state are calculated by applying the state-specific index to countrywide factor to its state act expected unlimited losses. Rhode Island's index to countrywide factor is 0.73.

D.   F-Class Countrywide Pure Premium and F-Class Code Relativities

All states' expected unlimited losses at the countrywide level are summed to determine the F-class overall countrywide pure premium, F-class code countrywide pure premiums, and F-class code countrywide relativities.

	(1)	(2)	(3) = (2) / ((1)/100)	(4) = (3) / (3)CW
Class Code	10-Year Countrywide Payroll	10-Year Expected Unlimited Countrywide Losses	Countrywide Pure Premium	Countrywide Relativity
6006	285,475,380	13,842,243	4.85	1.410
6801*	24,801,350	385,828	1.56	1.000
6824	474,818,380	18,772,950	3.95	1.148
6825	289,698,605	3,107,916	1.07	0.311
6826	130,250,844	2,914,882	2.24	0.651
6828*	42,894,518	577,268	1.35	1.000
6829*	17,179,079	557,027	3.24	1.000
6843	1,356,336,819	64,095,958	4.73	1.375
6845	248,031,406	6,194,045	2.50	0.727
6872	1,556,953,017	70,722,752	4.54	1.320
6873*	33,450,087	1,693,252	5.06	1.000
6874	113,627,635	6,175,783	5.44	1.581
7309	901,526,126	37,208,286	4.13	1.201
7313	670,874,776	11,325,737	1.69	0.491
7317	1,159,322,995	36,038,706	3.11	0.904
7327	55,654,194	5,073,036	9.12	2.651
7350	644,701,195	20,158,860	3.13	0.910
8709	381,840,788	5,825,272	1.53	0.445
8726	678,866,423	6,787,249	1.00	0.291
9077*	1,120,828	436,201	38.92	1.000
Overall	**9,067,424,445**	**311,893,251**	**3.44**	

*Relativities for class codes with a limited amount of data are set to 1.000.

II. Calculation of Rhode Island's F-Class Base Pure Premiums

Rhode Island's primary, secondary, and final base pure premiums are calculated to bring the F-class overall countrywide pure premium to Rhode Island's proposed level.

A. Primary Base Pure Premium Factors

Using the factors below, Rhode Island's primary base pure premium is calculated to bring the F-class overall countrywide pure premium to Rhode Island's level:

1. State Act Pure Premium Relativity Factor   1.37
Calculated as 1 / Rhode Island's index to countrywide factor (Section I.C)

2. Countrywide State and Federal Weights
Countrywide state and federal losses are used to determine the weights.
-   i.   State Act Weight (St%)   24%
-   ii. Federal Act Weight (Fed%)   76%

B. Secondary Base Pure Premium Factors

Using the factors below, Rhode Island's secondary base pure premium is calculated to incorporate Rhode Island's proposed trends, benefits, and loss-based expenses on an indemnity and medical basis:

1. Countrywide Indemnity and Medical Weights
Countrywide indemnity and medical losses are used to determine the weights.
-   i.   Indemnity Weight   49%
-   ii. Medical Weight   51%

2. Indemnity and Medical Trend Factors
Rhode Island's primary base pure premium is trended from 1/1/2022 to the midpoint of the proposed period using the proposed annual trends of 0.965 and 0.945 for indemnity and medical, respectively.
-   i.   Indemnity Trend Factor   0.946
-   ii. Medical Trend Factor   0.916

3. Indemnity and Medical Benefits
Rhode Island's primary base pure premium is adjusted to proposed state and federal benefit levels using countrywide state and federal weights (Section A.2).

	Indemnity	Medical
(a) State Benefits	1.023	1.008
(b) Federal Benefits	1.000	1.000
Weighted Benefits	1.006	1.002
= [(a) x St%] + [(b) x Fed%]		

4. Loss-Based Expenses
Rhode Island's primary base pure premium is adjusted by the weighted impact of the proposed state and federal loss-based expenses. The countrywide state and federal weights (Section A.2) are used to determine the weighted effects.

	Indemnity	Medical
(a) State Act Loss Adjustment Expense	1.229	1.229
(b) State Act Loss-Based Assessment	1.000	1.000
(c) Federal Act Loss Adjustment Expense	1.229	1.229
(d) Federal Act Loss-Based Assessment	1.113	1.000
(e) State Act Total = (a) + (b) - 1	1.229	1.229
(f) Federal Act Total = (c) +(d) - 1	1.342	1.229
Weighted Loss-Based Expenses	1.315	1.229
= [(e) x St%] + [(f) x Fed%]		

C. Final Base Pure Premium Factors
The following factors are applied to determine Rhode Island's final base pure premium:

1. Additional Offsets   1.000
There are no additional offsets applicable in Rhode Island.

III. Calculation of Rhode Island's Proposed Loss Costs by Class Code

The proposed loss costs are calculated by applying the items below to Rhode Island's final base pure premium.

A. Application of F-Class Code Relativities

Loss costs are calculated for each of Rhode Island's F-class codes by applying the respective F-class code countrywide relativity factor (Section I.D) to Rhode Island's final base pure premium.

B. Class Code 9077

Class Code 9077 is calculated as described in Sections I and II but using non-appropriated benefit changes and federal loss-based expenses.

C. Swing Limits

The proposed loss costs are limited to the swing limits based on 15% above and 15% below the current loss costs.

Classifications Limited by the Upper Swing	Classifications Limited by the Lower Swing
6801 9077	6824 6843 6845 6874 7309 7313 7317
	7327 7350 8709 8726

	Indemnity	Medical	Total
1. Overall Countrywide Pure Premium (Section I.D)			3.44
2. State Act Pure Premium Relativity Factor (Section II.A.1)			1.370
3. Countrywide State Act Weight (Section II.A.2)			24%
4. **Primary Base Pure Premium** =[(1) x (2) x (3)] + [(1) x (1 - (3))]			**3.75**
5. Countrywide Weights (Section II.B.1)	49%	51%	100%
6. Trend Factors (Section II.B.2)	0.946	0.916	xx
7. Weighted Benefits (Section II.B.3)	1.006	1.002	xx
8. Weighted Loss-Based Expenses (Section II.B.4)	1.315	1.229	xx
9. **Secondary Base Pure Premium** = (4tot) x (5) x (6) x (7) x (8)	2.300	2.157	**4.46**
10. Additional Offsets (Section II.C.1)			1.000
11. **Final Base Pure Premium** = (9) x (10)			**4.46**

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APPENDIX B-IV

Derivation of Proposed Loss Cost - Code 6872
Industry Group - F-Class, Hazard Group - G

The loss cost for the above-captioned classification is derived as follows:

1. Rhode Island's Final Base Pure Premium	4.46
2. Countrywide Class Code 6872 Relativity (Section I.D)	1.320
3. Loss Cost = (1) x (2)	5.89
4. Loss Cost Within Swing Limits	5.89

       Current Loss Cost x Swing Limits
       a) Lower bound = 6.54 x 0.85 = 5.56
       a) Upper bound = 6.54 x 1.15 = 7.52

5. Disease, Catastrophe and/or Miscellaneous Loadings	0.00
6. Final Loaded Loss Cost	5.89

Advisory Loss Costs and Rating Values Filing – August 1, 2022

Appendix C – Memoranda for Laws and Assessments

Appendix C provides details on changes affecting workers compensation benefit costs that are not yet reflected in the on-level factors shown in Appendix A-I. Such changes may result from annual updates in medical reimbursement levels or other changes that directly affect worker compensation benefit levels. In addition, changes to the administration of the workers compensation system, including benefit levels, may result from specific regulatory, legislative, or judicial action.

The overall effect of benefit changes displayed in Appendix C is calculated as of the benefit effective date, which may differ from the overall impact on the filing as shown in the Executive Summary.

The following changes affecting Rhode Island benefit levels are detailed in this section of the filing:

- Enacted Senate Bill 937 / House Bill 6376, Effective January 1, 2021, change in compensation based on spendable wages to average weekly wage
- Change in the Rhode Island Medical Fee Schedule Effective January 1, 2021
- Longshore and Harbor Workers' Compensation Act Annual Assessment

Appendix C-I

Analysis of Senate Bill 937/House Bill 6376
Effective January 1, 2022

NCCI estimates that enacted Rhode Island Senate Bill 937/House Bill 6376 (S 937/H 6376) will result in an impact of +1.6% on overall workers compensation (WC) system costs in Rhode Island.

The enacted benefit changes will only impact injuries occurring on or after January 1, 2022. Benefits for injuries occurring before January 1, 2022 are to be determined based on the spendable base wage tables in effect on the claimant's date of injury.

<u>**Summary and Actuarial Analysis of S 937/H 6376**</u>

For injuries occurring prior to January 1, 2022, the rate of compensation for Fatal, Permanent Total Disability (PTD), and Temporary Total Disability (TTD) in Rhode Island is 75% of the pre-injury spendable wage. For partial incapacity (PI) benefits payable beyond the healing period (HP), the effective rate[1] of compensation is 52.5% of spendable wage loss. (For additional benefits for specific injuries and disfigurement, the rate of compensation is 50% of the gross wage.)

For all benefit types, S 937/H 6376 changes the compensation base from spendable wages to average weekly wages—increasing the base wages used in the calculation—and lowers the rate of compensation to 62%. For PI benefits payable after the HP, this change corresponds to 43.4% (= 62% of 70%) of the employee's average weekly wages.

For calculation purposes, the assumed distribution of costs for married and single claimants is 51.4% and 48.6%, respectively, for disability cases[2]. For Fatal cases, a different distribution was used since the single claimant category can only include "head of household" cases. Specifically, the married/single claimant distribution employed in this analysis for fatal cases is 84.4%/15.6%[2].

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[1] Per § 28-33-18, the compensation rate for PI benefits payable after the HP is 70% of 75% (or 52.5%) of the difference between spendable wages before and after the injury. PI benefits prior to the HP are not reduced by the 70%.
[2] Based on a countrywide hypothetical distribution of 1,000 cases, utilizing the 2018 U.S. Census Bureau Current Population Survey (CPS).

Appendix C-I

Analysis of Senate Bill 937/House Bill 6376
Effective January 1, 2022

The following table summarizes the impacts of the enacted changes by injury type:

	As a % of Indemnity[3]	Impact by Type of Injury
Fatal	1.4%	-0.1%
Permanent Total	1.1%	+1.6%
Partial Incapacity	59.3%	+3.1%
Temporary Total	38.2%	+1.3%
Combined Impact on Indemnity Costs		**+2.3%**
Indemnity Costs as a Share of Overall Costs		69%
Combined Impact on Overall Costs		**+1.6%**

Since the pre-2022 benefit structure relies on spendable wages, the impact on benefits from a change to average weekly wage varies depending on the worker's current tax status. The calculated impacts on indemnity benefit costs are +0.7% for married claimants and +4.3% for single claimants. The resulting impact on indemnity benefits is +2.3%. Indemnity benefit costs are projected to represent 69%[4] of total WC system costs in Rhode Island. **Therefore, NCCI expects that the weekly benefit compensation changes in S 937/H 6376, effective January 1, 2022, will result in an impact of +1.6% (= +2.3% x 69%) on overall WC system costs in Rhode Island.**

Other Considerations

The enacted changes in S 937/H 6376 result in moderate impacts for PTD and TTD (including healing period for PI claims) benefits. However, the impact for PI wage loss benefits is a more significant increase due to the interaction of wage loss and the progressive tax structure. Please note that additional benefits for specific injuries and disfigurement will continue to be based on total wages and therefore are not impacted by enacted S 937/H 6376.

The impact of the changes in S 937/H 6376 related to settlement of disputed cases and the interests of the Centers for Medicare and Medicaid Services (CMS) is indeterminate, but not expected to materially impact WC system costs in Rhode Island.

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[3] Based on losses for policies becoming effective during the 36-month period ending 12/30/2017 on the 1/1/2021 law level and developed to an ultimate basis by injury type.
[4] Based on NCCI Financial Call data for Policy Years 2016, 2017, and 2018, for Rhode Island, trended to 1/1/2022.

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Appendix C-II

Analysis of Rhode Island Medical Fee Schedule Changes
Effective January 1, 2022

NCCI estimates that the changes to the medical fee schedule in Rhode Island, effective January 1, 2022, will result in an impact of +0.2% on overall workers compensation system costs.

Summary of Changes

The current Medical Fee Schedule (MFS) for professional services, ambulance, Healthcare Common Procedure Coding System (HCPCS), and dental services in Rhode Island became effective January 1, 2021. The changes include all sections of the Rhode Island Workers Compensation MFS.

Actuarial Analysis

NCCI's methodology to evaluate the impact of medical fee schedule changes includes three major steps:

1. Calculate the percentage change in maximum reimbursements
    - Compare the current and revised maximum reimbursements by procedure code to determine the percentage change by procedure code.
    - Calculate the weighted-average percentage change in maximum reimbursements for the fee schedule using observed payments by procedure code as weights.

2. Determine the share of costs that are subject to the fee schedule
    - The share is based on a combination of fields, such as procedure code, provider type, and place of service, as reported on the NCCI Medical Data Call, to categorize payments that are subject to the fee schedule.
    - The share is calculated as the percent of observed payments with a maximum allowable reimbursement (MAR). NCCI assumes no change for the share of costs not subject to the fee schedule.

3. Estimate the price level change as a result of the revised fee schedule
    - NCCI research by David Colón and Paul Hendrick, "The Impact of Fee Schedule Updates on Physician Payments" (2018), suggests that approximately 80% of the change in maximum reimbursements for physician fee schedules is realized on payments impacted by the change.
    - A price realization factor of 80% is also assumed for the ambulance, dental, and HCPCS fee schedules.

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Appendix C-II

Analysis of Rhode Island Medical Fee Schedule Changes
Effective January 1, 2022

In this analysis, NCCI relies primarily on two data sources:

- Detailed medical data underlying the calculations in this analysis are based on NCCI's Medical Data Call for Rhode Island for Service Year 2019.
- The share of benefit costs attributed to medical benefits is based on NCCI's Financial Call data for Rhode Island from Policy Years 2016, 2017, and 2018 projected to the effective date of the benefit changes.

Summary of Impacts

The impacts from the fee schedule changes in Rhode Island, effective January 1, 2022, are summarized below.

Type of Service	(A) Impact on Type of Service	(B) Share of Medical Costs	(C) = (A) x (B) Impact on Medical Costs
Professional	+1.3%	58.1%	+0.8%
Other[1]	-0.1%	8.6%	Negligible[2] decrease
Combined Impact on Medical Costs (D) = Total of (C)			**+0.8%**
Medical Costs as a Share of Overall Costs (E)			30%
Combined Impact on Overall Costs (F) = (D) x (E)			**+0.2%**

Refer to the appendix for the weighted-average changes in MARs by professional services practice category, the share of costs subject to the fee schedule by type of service, and the weighted-average change in MAR by type of service.

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[1] Other includes ambulance, HCPCS, and dental services.
[2] Negligible is defined in this document to be an impact smaller in magnitude than +/-0.1%.

RHODE ISLAND

Appendix C-II

Analysis of Rhode Island Medical Fee Schedule Changes
Effective January 1, 2022

Appendix

Weighted-Average Percentage Change in MARs Prior to Price Realization by Physician Practice Category

Professional Service Practice Category	Share of Professional Costs	Percentage Change in MARs
Anesthesia	3.7%	0.0%
Surgery	26.1%	+1.8%
Radiology	9.7%	+1.9%
Pathology & Laboratory	0.2%	+1.0%
Evaluation & Management	23.9%	+1.9%
Medicine	2.6%	+1.1%
State-Specific Codes	25.4%	+1.9%
Payments with no specific MAR	8.4%	-
Total	**100.0%**	**+1.6%**

Share of Costs Subject to the Fee Schedule and Weighted-Average Percentage Change in MARs by Type of Service

Type of Service	Share of Costs Subject to the Fee Schedule	Percentage Change in MARs	Impact after 80% Price Realization
Professional	91.6%	+1.6%	+1.3%
Other	45.4%	-0.1%	-0.1%

Rhode Island

APPENDIX C-III

U.S. Longshore and Harbor Workers' Compensation Act Assessment

The F-class and Program II, Option II maritime class voluntary loss costs
include the following provision for the federal assessment:

1.)	Estimated Total Expense Needed for 2021 *	90,000,000
2.)	Compensation Payments Reported (on indemnity only) in 2020 *	799,935,476
3.)	Assessment Rate on Indemnity Losses (1) / (2)	11.3%

Breakdown of Losses Under the Longshore and Harbor Workers Act

4.)	Indemnity Losses (Combination of 1st through 3rd reports) #	25,021,803
5.)	Medical Losses (Combination of 1st through 3rd reports) #	21,690,123
6.)	Total Losses (4) + (5)	46,711,926
7.)	Assessment Rate on Total Losses { (3) x (4) } / (6)	6.1%

*   Source: U.S. Department of Labor

\#   Source: On-leveled and developed USL&HW losses - statistical plan data

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Appendix D – Derivation of Experience Rating Values

1. **Expected Loss Rate (ELR) factors**

   An expected loss rate for a classification is used to estimate the expected losses per $100 of payroll during the experience rating period for risks within that classification. These *expected* losses are then compared with the *actual* losses of a risk during the experience rating period to determine the experience modification (mod).

   The actual losses reflect the loss data during the experience rating period. Expected losses and actual losses must be at the same level to enable an appropriate comparison for purposes of the experience mod calculation. As such, the pure premiums underlying the proposed loss costs are adjusted to reflect the average loss levels of the proposed experience rating period. This is accomplished through the application of ELR factors to the proposed underlying pure premiums. These ELR factors, calculated by hazard group, remove the effects of items such as: loss development, expected losses above the State Accident Limit, a portion of medical-only losses, benefit changes, trend, loss-based expenses, experience, and offsets for assigned risk programs.

   An adjustment is made to the ELR factors so that the resulting ELRs produce an expected experience rating off-balance that equals the targeted experience rating off-balance used in the calculation of the overall loss cost level change for the state (Appendix A–I). This adjustment includes a frequency trend that reflects an observed COVID-19 pandemic-related decline in claim frequency.

   The final ELR for each classification is calculated as follows:

   ELR = {(Hazard Group indemnity ELR factor) x (indemnity pure premium) + (Hazard Group medical ELR factor) x (medical pure premium)} x Manual/Standard Ratio

2. **Discount Ratio (D-Ratio) factors**

   In experience rating, losses are divided into primary and excess portions. For each claim, losses below the split point are primary losses, while losses above the split point are excess losses. The D-ratio represents the estimated ratio of expected primary losses to expected total losses for a classification. The D-ratio is used to determine the expected primary losses to be used in the experience mod calculation.

   D-ratio factors are calculated separately for indemnity and medical losses by hazard group and are based on the latest three years of Unit Statistical data. A comparison of the resulting D-ratio factors across hazard groups is done to ensure that the factors monotonically

decrease from hazard group A to hazard group G. If they do not, an adjustment is made by averaging the D-ratios over adjacent hazard groups.

The final D-ratio for each classification is calculated as follows:

D-ratio   =   {(HG indemnity D-ratio factor) x (indemnity pure premium) +
                   (HG medical D-ratio factor) x (medical pure premium)} / total pure premium

3. **Additional experience rating values**

   Table of Weighting Values

   The Weighting Value (W) determines how much actual excess and expected excess losses will enter the experience modification formula. The weighting value increases as expected losses increase with larger insureds receiving a larger weighting value. The weighting value for various levels of expected losses is provided in the Table of Weighting Values. The table is updated based on the state reference point, which is updated with Unit Statistical data each experience filing.

   The state reference point is calculated as the state average cost per case for the experience rating period multiplied by 250. The state reference point serves to determine how much credibility to give to the losses of an individual risk and as an index of claim cost differences by state. The state per claim accident limitation shown on the Table of Weighting Values is 10% of the state reference point.

   Table of Ballast Values

   The Ballast Value (B) is a stabilizing value designed to limit the effect of any actual loss experience on the experience rating modification. It is added to both the numerator and denominator of the mod calculation and increases as expected losses increase. The ballast value for various levels of expected loss ranges is provided in the Table of Ballast Values. The table is updated based on the state reference point, which is updated with Unit Statistical data.

   The G value used in the ballast formula is the state reference point / 250,000, rounded to the nearest 0.05.

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Part 4   **Additional Information**

- Definitions

- NCCI Affiliate List

- Key Contacts

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Definitions

Accident Year (AY): A loss accounting definition in which experience is summarized by the calendar year in which an accident occurred.

Calendar Year (CY):
1. The 12-month period beginning January 1 and ending December 31.
2. Method of accounting for all financial transactions occurring during a specific year.

Case Reserves: Reserves that an insurance company establishes for specific (known) claims.

DSR Level Premium: The standard earned premium that would result if business were written at NCCI state-approved loss costs or rates instead of at the company rates. It is the common benchmark level at which carriers report premium on the Financial Calls.

Frequency: The number of lost-time claims per million dollars of on-leveled, wage-adjusted premium.

Incurred Claim Count: The total of all claims reported, whether open or closed, as of a given valuation date. An indemnity claim is associated with a payment or case reserve for an indemnity loss (i.e., lost work time-related benefits) and excludes claims closed without an indemnity payment.

Lost-time Claims: Claims where an injured employee has received wage replacement benefits due to a compensable workplace injury.

Limited Losses: Losses that result after the application of NCCI's large loss procedure—in which individual large claims are limited to jurisdiction and year-specific large loss thresholds.

On-Level Factor: Applied to historical premiums and losses to adjust the historical experience to reflect approved loss cost/rate level changes as well as statutory benefit level changes implemented since that time.

Paid+Case Losses: The sum of paid losses and case reserves. Also known as "case incurred losses."

Paid Losses: Losses that an insurance company has paid as a result of claim activity.

Policy Year:
- The one-year period beginning with the effective date or anniversary of a policy.
- A premium and loss accounting definition in which experience is summarized for all policies with effective dates in a given calendar year period.

Severity: The average cost per case (claim) calculated as ultimate losses divided by ultimate lost-time claim counts.

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Definitions

Ultimate Development Factor: For an aggregation of data, an estimate of the development that will occur between the data's current valuation date and the time when all claims are closed.

Unlimited Losses: Losses that have not been limited to jurisdiction and year-specific large loss thresholds as part of NCCI's large loss procedure.

Valuation Date: The date that premiums and losses are evaluated for reporting purposes. Premiums and losses may change over time from initial estimates to final values. Therefore, interim snapshots have associated valuation dates.

Wage Level Adjustment Factor: The ratio of the average workers' wages during the most recent time period to the average workers' wages during a historical time period.

ACADIA INSURANCE COMPANY	CHARTER OAK FIRE INS CO
ACCIDENT FUND GENERAL INS CO	CHEROKEE INS CO
ACCIDENT FUND INS CO OF AMERICA	CHIRON INSURANCE COMPANY
ACCIDENT FUND NATIONAL INS CO	CHUBB INDEMNITY INS CO
ACCREDITED SURETY & CASUALTY COMPANY INC	CHUBB NATIONAL INS CO
ACE AMERICAN INSURANCE COMPANY	CHURCH MUTUAL INS CO, S.I.
ACE FIRE UNDERWRITERS INSURANCE COMPANY	CINCINNATI CASUALTY COMPANY
ACE PROPERTY & CASUALTY INSURANCE COMPANY	CINCINNATI INDEMNITY COMPANY
ACIG INS CO	CINCINNATI INS CO
AIG ASSURANCE COMPANY	CITIZENS INS CO OF AMERICA
AIG PROPERTY CASUALTY COMPANY	CLEAR SPRING PROPERTY AND CASUALTY COMPANY
AIU INSURANCE CO (NATIONAL UNION FIRE OF PITTS PA)	COLONIAL AMERICAN CASUALTY & SURETY CO
ALLIED EASTERN IND CO	COLONIAL SURETY COMPANY
ALLIED INSURANCE COMPANY OF AMERICA	COMMERCE AND INDUSTRY INS CO
ALLMERICA FINANCIAL ALLIANCE INS CO	CONTINENTAL CASUALTY CO
ALLMERICA FINANCIAL BENEFIT INS CO	CONTINENTAL INDEMNITY CO
AMERICAN ALTERNATIVE INSURANCE CORPORATION	CONTINENTAL INS CO
AMERICAN AUTOMOBILE INSURANCE CO	COREPOINTE INSURANCE COMPANY
AMERICAN CASUALTY COMPANY OF READING P A	CRESTBROOK INS CO
AMERICAN COMPENSATION INS CO	CRUM AND FORSTER INDEMNITY CO
AMERICAN FAMILY HOME INS CO	DISCOVER PROPERTY & CASUALTY INS CO
AMERICAN FIRE AND CASUALTY CO	DORCHESTER MUTUAL INSURANCE COMPANY
AMERICAN GUARANTEE AND LIABILITY INS CO	EASTERN ADVANTAGE ASSURANCE COMPANY
AMERICAN HOME ASSUR CO-NATIONAL UNION FIRE OF PIT	EASTERN ALLIANCE INSURANCE COMPANY
AMERICAN INS CO	EASTGUARD INS CO
AMERICAN INTERSTATE INS CO	ELECTRIC INS CO
AMERICAN MODERN HOME INS CO	EMC PROPERTY & CASUALTY COMPANY
AMERICAN ZURICH INS CO	EMCASCO INS CO
AMERISURE INS CO	EMPLOYERS ASSURANCE COMPANY
AMERISURE MUTUAL INS CO	EMPLOYERS COMPENSATION INS CO
AMERISURE PARTNERS INS CO	EMPLOYERS INS CO OF WAUSAU
AMGUARD INS CO	EMPLOYERS MUTUAL CASUALTY CO
ARBELLA INDEMNITY INS CO	EMPLOYERS PREFERRED INS CO
ARBELLA PROTECTION INS CO	ENDURANCE AMERICAN INS CO
ARCH INDEMNITY INSURANCE COMPANY	ENDURANCE ASSURANCE CORPORATION
ARCH INSURANCE COMPANY	EVEREST DENALI INSURANCE COMPANY
ARCH PROPERTY CASUALTY INS CO	EVEREST NATIONAL INS CO
ARGONAUT GREAT CENTRAL INS CO	EVEREST PREMIER INSURANCE COMPANY
ARGONAUT INS CO	EVEREST REINSURANCE CO DIRECT
ARGONAUT MIDWEST INS CO	EXCELSIOR INSURANCE COMPANY
ARROW MUTUAL LIABILITY INS CO	EXECUTIVE RISK INDEMNITY INC
ASSOCIATED EMPLOYERS INS CO	FALLS LAKE NATIONAL INSURANCE CO
ASSOCIATED INDEMNITY CORP	FARMINGTON CASUALTY COMPANY
ASSOCIATED INDUSTRIES OF MASS MUTUAL INS CO	FEDERAL INSURANCE COMPANY
ATLANTIC SPECIALTY INS CO (INTACT)	FEDERATED MUTUAL INS CO
BANKERS STANDARD INS CO	FEDERATED RESERVE INSURANCE CO
BEACON MUTUAL INS CO	FEDERATED RURAL ELECTRIC INS EXCHANGE
BENCHMARK INSURANCE COMPANY	FEDERATED SERVICE INS CO
BERKLEY CASUALTY COMPANY	FIDELITY & DEPOSIT COMPANY OF MARYLAND
BERKLEY INSURANCE COMPANY	FIDELITY & GUARANTY INS UNDERWRITERS
BERKLEY NATIONAL INSURANCE COMPANY	FIDELITY & GUARANTY INSURANCE CO
BERKLEY REGIONAL INS CO	FIREMANS FUND INSURANCE CO
BERKSHIRE HATHAWAY DIRECT INSURANCE COMPANY	FIREMENS INS CO OF WASHINGTON DC
BERKSHIRE HATHAWAY HOMESTATE INS CO	FIRST LIBERTY INS CORP
BITCO GENERAL INSURANCE CORPORATION	FIRSTCOMP INSURANCE CO
BLACKBOARD INSURANCE COMPANY	FITCHBURG MUTUAL INS CO
BROTHERHOOD MUTUAL INS CO	FLORISTS MUTUAL INSURANCE CO
CALIFORNIA INSURANCE COMPANY	FRANK WINSTON CRUM INSURANCE CO
CAROLINA CASUALTY INS CO	GENERAL CASUALTY COMPANY OF WISCONSIN
CERITY INSURANCE COMPANY	GENERAL INS CO OF AMERICA

GENESIS INS CO	MIDDLESEX INS CO
GRANITE STATE INSURANCE COMPANY	MIDVALE INDEMNITY COMPANY
GRAPHIC ARTS MUTUAL INS CO	MIDWEST EMPLOYERS CASUALTY CO
GRAY INSURANCE COMPANY	MILBANK INSURANCE COMPANY
GREAT AMERICAN ALLIANCE INS CO	MILFORD CASUALTY INSURANCE CO
GREAT AMERICAN ASSURANCE COMPANY	MITSUI SUMITOMO INS CO OF AMERICA
GREAT AMERICAN INS CO OF NY	MITSUI SUMITOMO INS USA INC
GREAT AMERICAN INSURANCE COMPANY	MOTORISTS COMMERCIAL MUTUAL INSURANCE COMPANY
GREAT AMERICAN SPIRIT INS CO	NATIONAL AMERICAN INS CO
GREAT DIVIDE INSURANCE COMPANY	NATIONAL CASUALTY CO
GREAT MIDWEST INS CO	NATIONAL FIRE INS CO OF HARTFORD
GREAT NORTHERN INS CO	NATIONAL INTERSTATE INS CO
GREAT WEST CASUALTY COMPANY	NATIONAL LIABILITY & FIRE INSURANCE CO
GREATER NY MUTUAL INS CO	NATIONAL SPECIALTY INS CO
GREENWICH INS CO	NATIONAL SURETY CORP
GUIDEONE ELITE INS CO	NATIONAL UNION FIRE INS CO OF PITTSBURGH PA
GUIDEONE INSURANCE COMPANY	NATIONWIDE AGRIBUSINESS INS CO
GUIDEONE SPECIALTY INSURANCE COMPANY	NATIONWIDE ASSURANCE CO
HANOVER AMERICAN INS CO	NATIONWIDE GENERAL INSURANCE CO
HANOVER INS CO	NATIONWIDE INS CO OF AMERICA
HARLEYSVILLE INSURANCE COMPANY	NATIONWIDE MUTUAL FIRE INS CO
HARLEYSVILLE PREFERRED INSURANCE CO	NATIONWIDE MUTUAL INS CO
HARLEYSVILLE WORCESTER INSURANCE CO	NATIONWIDE PROPERTY AND CASUALTY INS CO
HARTFORD ACCIDENT AND INDEMNITY CO	NETHERLANDS INSURANCE COMPANY
HARTFORD CASUALTY INS CO	NEW HAMPSHIRE EMPLOYERS INSURANCE COMPANY
HARTFORD FIRE INSURANCE CO	NEW HAMPSHIRE INSURANCE COMPANY
HARTFORD INS CO OF IL	NEW YORK MARINE AND GENERAL INSURANCE CO
HARTFORD INS CO OF MIDWEST	NGM INSURANCE COMPANY
HARTFORD INS CO OF THE SOUTHEAST	NORFOLK AND DEDHAM MUTUAL FIRE INS CO
HARTFORD UNDERWRITERS INS CO	NORGUARD INS CO
HDI GLOBAL INSURANCE COMPANY	NORTH AMERICAN ELITE INSURANCE CO
ILLINOIS NATIONAL INSURANCE COMPANY	NORTH AMERICAN SPECIALTY INS CO
IMPERIUM INSURANCE COMPANY	NORTH POINTE INS CO
INDEMNITY INS CO OF N AMERICA (INA INS) (CT GEN)	NORTH RIVER INS CO
INS CO OF GREATER NY	NOVA CASUALTY COMPANY
INS CO OF NORTH AMERICA	OAK RIVER INSURANCE COMPANY
INS CO OF THE STATE PA	OBI AMERICA INSURANCE COMPANY
INS CO OF THE WEST	OBI NATIONAL INSURANCE COMPANY
INTREPID INSURANCE COMPANY	OH CASUALTY INS CO
KEY RISK INS CO	OHIO SECURITY INS CO
LACKAWANNA AMERICAN INS CO	OLD REPUBLIC GENERAL INSURANCE CORPORATION
LACKAWANNA CASUALTY CO	OLD REPUBLIC INS CO
LACKAWANNA NATIONAL INS CO	PA MANUFACTURERS ASSN INS CO
LIBERTY INS CORP	PA MANUFACTURERS INDEMNITY CO
LIBERTY INSURANCE UNDERWRITERS INC	PA NATIONAL MUTUAL CAS INS CO
LIBERTY MUTUAL FIRE INS CO	PACIFIC EMPLOYERS INS CO
LIBERTY MUTUAL INS CO	PACIFIC INDEMNITY CO
LM INS CORP	PATRONS MUTUAL INS CO OF CT
MA BAY INS CO	PEERLESS INDEMNITY INS CO
MAG MUTUAL INS CO	PEERLESS INSURANCE COMPANY
MAIN STREET AMERICA ASSURANCE CO	PENN MILLERS INS CO
MANUFACTURERS ALLIANCE INS CO	PENNSYLVANIA INSURANCE COMPANY
MARKEL INSURANCE CO	PETROLEUM CASUALTY CO
ME EMPLOYERS MUTUAL INS CO	PHARMACISTS MUTUAL INS CO
MEMIC CASUALTY COMPANY	PHENIX MUTUAL FIRE INS CO
MEMIC INDEMNITY CO	PHOENIX INS CO
MERCHANTS MUTUAL INS CO	PINNACLE NATIONAL INSURANCE COMPANY
MERCHANTS PREFERRED INSURANCE COMPANY	PLAZA INSURANCE CO
MERIDIAN SECURITY INSURANCE COMPANY	PRAETORIAN INSURANCE COMPANY
MID CENTURY INS CO	PREFERRED PROFESSIONAL INSURANCE COMPANY

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NCCI Affiliate List

PRIVILEGE UNDERWRITERS RECIPROCAL EXCHANGE	TRAVELERS INDEMNITY CO OF CT
PROPERTY AND CASUALTY INS CO OF HARTFORD	TRAVELERS INSURANCE CO
PROTECTIVE INS CO	TRAVELERS PROPERTY CASUALTY CO OF AMERICA
QBE INSURANCE CORPORATION	TRI STATE INSURANCE COMPANY OF MINNESOTA
REDWOOD FIRE & CASUALTY INS CO	TRIUMPHE CASUALTY COMPANY
REGENT INSURANCE COMPANY	TRUCK INSURANCE EXCHANGE
REPUBLIC FRANKLIN INS CO	TRUMBULL INS CO
REPUBLIC INDEMNITY CO OF CA	TWIN CITY FIRE INS CO
REPUBLIC INDEMNITY COMPANY OF AMERICA	UNION INS CO OF PROVIDENCE
RIVERPORT INSURANCE COMPANY	UNITED STATES FIDELITY AND GUARANTY CO
RLI INSURANCE COMPANY	UNITED WI INS CO
SAFECO INS CO OF AMERICA	US FIRE INS CO
SAFETY FIRST INS CO	UTICA MUTUAL INS CO
SAFETY NATIONAL CASUALTY CORP	VALLEY FORGE INS CO
SAGAMORE INSURANCE CO	VANLINER INS CO
SAMSUNG FIRE AND MARINE INS CO LTD USB	VANTAPRO SPECIALTY INS CO
SECURITY NATIONAL INS CO (AMTRUST GROUP)	VICTORIA FIRE & CASUALTY COMPANY
SELECTIVE INS CO OF SC	VIGILANT INS CO
SELECTIVE INS CO OF THE SOUTHEAST	WASHINGTON INTERNATIONAL INSURANCE COMPANY
SELECTIVE INSURANCE COMPANY OF AMERICA	WCF NATIONAL INSURANCE COMPANY
SELECTIVE WAY INS CO	WELLFLEET INSURANCE COMPANY
SENTINEL INS CO	WELLFLEET NEW YORK INSURANCE COMPANY
SENTRY CASUALTY CO	WESCO INSURANCE COMPANY (AMTRUST GROUP)
SENTRY INS CO	WEST AMERICAN INS CO
SENTRY SELECT INSURANCE COMPANY	WEST BEND MUTUAL INS CO
SERVICE AMERICAN INDEMNITY COMPANY	WESTCHESTER FIRE INSURANCE COMPANY
SERVICE LLOYDS INSURANCE CO, A STOCK COMPANY	WESTPORT INSURANCE CORPORATION
SFM MUTUAL INS CO	WORK FIRST CASUALTY CO
SIRIUS AMERICA INSURANCE COMPANY	XL INS CO OF NY INC
SOMPO AMERICA FIRE & MARINE INSURANCE COMPANY	XL INSURANCE AMERICA INC
SOMPO AMERICA INSURANCE COMPANY	XL SPECIALTY INS CO
SOUTHERN INS CO	ZENITH INS CO
ST PAUL FIRE AND MARINE INS CO	ZURICH AMERICAN INS CO
ST PAUL GUARDIAN INS CO	ZURICH AMERICAN INS CO OF IL
ST PAUL MERCURY INS CO	
ST PAUL PROTECTIVE INS CO	
STANDARD FIRE INSURANCE COMPANY	
STAR INS CO	
STARNET INSURANCE COMPANY	
STARR INDEMNITY AND LIABILITY CO	
STARR SPECIALTY INSURANCE COMPANY	
STARSTONE NATIONAL INSURANCE COMPANY	
STATE AUTO PROPERTY AND CASUALTY INS CO	
STATE AUTOMOBILE MUTUAL INS CO	
STATE NATIONAL INSURANCE COMPANY	
STONINGTON INS CO	
STRATHMORE INS CO	
SUNZ INSURANCE COMPANY	
T H E INSURANCE COMPANY	
TECHNOLOGY INSURANCE CO	
THE TRAVELERS CASUALTY COMPANY	
TNUS INSURANCE CO	
TOKIO MARINE AMERICA INSURANCE CO	
TRANS PACIFIC INS CO	
TRANSGUARD INS CO OF AMERICA INC	
TRANSPORTATION INS CO	
TRAVELERS CASUALTY AND SURETY CO	
TRAVELERS CASUALTY INS CO OF AMERICA	
TRAVELERS INDEMNITY CO	
TRAVELERS INDEMNITY CO OF AMERICA	

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