



Rhode Island

Advisory Loss Costs and
Rating Values Filing

Proposed Effective August 1, 2023



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November 18, 2022

The Honorable Elizabeth Kelleher Dwyer
Interim 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, 2023

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, 2023, reflect a decrease of 6.2% from the current advisory loss costs which became effective August 1, 2022.

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 (561) 893-3828 or Brett Foster at (561) 893-3121.

Respectfully Submitted,

A handwritten signature in black ink that reads "Justin Moulton". The signature is fluid and cursive, with a large loop at the beginning and end.

Justin Moulton, CPCU, WCP, ARC, ARe
State Relations Executive



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Actuarial Certification

I, Brett Foster, am an Executive 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.

A handwritten signature in black ink, appearing to read "Brett Foster".

Brett Foster, FCAS, MAAA
Executive 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, 2023.

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.

NCCI utilizes widely accepted general ratemaking methodologies in the calculation of advisory loss costs. After in-depth review and analysis, as well as a thorough assessment of COVID-19 impacts, NCCI has determined that the continued use of its ratemaking methodologies remains appropriate, including:

- Experience base determination
- Chain ladder development method
- Trending procedure
- Expense calculation
- Application of indemnity and medical benefit changes

See COVID-19 Pandemic-related Considerations in the Additional Proposed Changes section for additional information regarding potential COVID-19 pandemic-related effects.



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Disclosures

Data Sources

Key Dates

Financial Data Valuation Date	December 31, 2021
Financial Call Data Cutoff Date	September 19, 2022
Unit Statistical Plan Data Cutoff Date	September 27, 2022
Filing Preparation Date	October 19, 2022

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 the Financial Call Data Cutoff Date 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 the Unit Statistical Plan Data Cutoff Date were not considered for inclusion in the analysis.

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. Events that have occurred after the Filing Preparation Date that may have a material impact on workers compensation costs in this jurisdiction have not been considered in the analysis.

Data Exclusions

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.

In this year's filing, 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.



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Disclosures

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/rates since these events are not considered to be predictive of future experience. Consistent with this catastrophe methodology, NCCI is proposing to treat COVID-19 claims with accident dates between December 1, 2019 through December 31, 2021 as a catastrophe in this filing. These reported claims have been excluded from Financial Call Data and Unit Statistical Plan Data for use in ratemaking to better reflect the conditions expected to prevail in the filing's proposed effective period.

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
- Unanticipated changes to wage or medical inflation
- 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.

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.



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Part 1 Filing Overview

- Executive Summary
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Executive Summary

Based on its review of the most recently available data, NCCI has proposed the following overall average workers compensation voluntary market advisory loss cost level change of -6.2% to become effective August 1, 2023.

Key Components

Impact of change in Experience and Development	- 6.6%
Impact of change in Trend	0.0%
Impact of change in Benefits	+ 0.4%
<u>Impact of change in Loss-based Expenses</u>	<u>0.0%</u>
Proposed Change in Overall Voluntary Loss Cost Level	- 6.2%*

*The loss cost change varies by classification code, each of which belongs to one of five Industry Groups.

Items of Note:

- This filing is based on premium and loss experience for Policy Years 2018 through 2020 evaluated as of December 31, 2021. Reported COVID-19-related claims have been excluded from the data on which this filing is based.
 - While all three years were relied upon, Policy Year 2020 experience appears to be impacted by pandemic-related factors, some of which may not persist during the loss cost effective period. As a result, the experience in PY 2020 was given less weight.
- Although the lost-time claim frequency decrease in Policy Year 2020 was modest, the long-term pattern of frequency decline is expected to continue. After adjusting to a common wage level, both indemnity and medical average cost per case figures declined significantly in the most recent policy year.
- Annual trend factors were selected with consideration given to the improved experience in the most recent policy year along with the uncertainty surrounding the pandemic's effects. See COVID-19 Pandemic-Related Considerations in the Additional Proposed Changes.



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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, 2023, along with the selections underlying the currently approved filing effective August 1, 2022.

<u>Voluntary Market Advisory Loss Costs</u>	<u>Currently Approved August 1, 2022</u>	<u>Proposed Effective August 1, 2023</u>
Experience Period	Policy Years 2017, 2018 and 2019	Policy Years 2018, 2019 and 2020*
Premium Development	3-yr avg	3-yr avg
Loss Experience Base	Paid	Paid
Loss Development - Paid	5-yr xhilo avg	5-yr xhilo avg
Tail Factor – Indemnity	1.005	1.005
Tail Factor – Medical	1.000	1.000
Trend Factor – Indemnity Loss Ratio	0.965	0.965
Trend Factor – Medical Loss Ratio	0.945	0.945
Base Threshold for Limiting Losses	\$2,894,382	\$2,817,267
Excess Ratio	2.0%	2.1%
Loss-based Expense Provision	22.9%	22.9%
Classification Swing Limits (applied by Industry Group)	+/-15%	+/-15%

* The weight applied to year in the experience period varies, with Policy Year 2020 given half the usual weight.



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Additional Proposed Changes

COVID-19 Pandemic-Related Considerations

Overview

The COVID-19 pandemic has been affecting the general population, workplace, and economy for more than two years. In consideration of possible pandemic-related impacts on the Rhode Island workers compensation system, NCCI has thoroughly analyzed various aspects of the utilized ratemaking methodologies and considered how they may be impacted. Considerations on various components of the ratemaking calculations are described below, including potential COVID-19 pandemic-related effects.

After a comprehensive review, NCCI has determined that the continued use of widely accepted general ratemaking methodologies (such as the use of the chain ladder development method, consideration of exponential trend fit model, etc.) remain appropriate for use in this year's filing. The annual loss ratio trend factors in this filing were selected with consideration of potential COVID-19 pandemic-related effects on the underlying data, and reflect the conditions expected to prevail in the filing's proposed effective period.

COVID-19 Claim Data

NCCI categorizes catastrophic events as those that incur aggregate workers compensation losses of more than \$50 million per occurrence. NCCI's ratemaking methodology excludes catastrophe-related losses from the calculation of loss costs since these events are not considered to be predictive of future experience. Pandemics have the potential to be a catastrophic peril on workers compensation system costs. Consistent with NCCI's actuarial catastrophe methodology, NCCI is proposing to treat all COVID-19 claims with accident dates between December 1, 2019 and December 31, 2021, as catastrophe-related. Since the nature of the COVID-19 pandemic and its impact on the workers compensation system has changed over time, all reported COVID-19 claims from this historical period have been excluded from the ratemaking data (including reviews of the experience period, trend, and loss-based expense) to better reflect the conditions expected to prevail in the filing's proposed effective period.

Below is a summary of COVID-19-related losses and claim counts, as reported in NCCI's Financial Call 31 as of year-end 2021.



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<u>Year</u>	<u>COVID-19 Claim Counts</u>	<u>COVID-19 Paid+Case Losses</u>
PY 2019	86	1,219,104
PY 2020	139	1,313,315
AY 2020	213	2,443,392
AY 2021	26	110,661

Excludes large deductible and expense-only claims.

Reported COVID-19-related losses would have represented less than a 1% share of the reported paid+case losses in Rhode Island’s experience period.

Determination of the Experience Period

This year’s analysis included a review of various experience periods and an assessment of possible pandemic claim-related impacts. The most recent five policy year and calendar-accident year projected loss ratios are shown below.

<u>Policy Year</u>	<u>Loss Ratio</u>	<u>Calendar- Accident Year</u>	<u>Loss Ratio</u>
2016	0.921	2017	0.904
2017	0.949	2018	1.031
2018	0.967	2019	0.971
2019	0.952	2020	0.778
2020	0.831	2021	0.891

*Based on NCCI’s Financial Call data reported through 12/31/2021, on-leveled, developed to an ultimate report, and trended to the prospective period. Projected losses do not include the change in expenses
Calendar-Accident Year 2019–2021 loss ratios include a premium audit adjustment due to changes in audit activity primarily attributable to the COVID-19 pandemic-related recession.*

The favorable loss ratio experience observed in Policy Year 2020 in Rhode Island is likely impacted by pandemic-related effects. While some of these pandemic-related trends could persist into the future, some factors may be temporary:

- Fewer claims reported due to the pandemic-related recession
- High concentration of industries impacted by the pandemic
- Reduction in the total number of medical evaluations, treatments, and/or procedures
- Social distancing and other temporary safety measures to separate workers
- Reduction in business travel and decreased exposure to motor vehicle accidents



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Additional Proposed Changes

While all three years were relied upon, the Policy Year 2020 loss ratio was given only one-sixth weight, which is half the standard weight, to reduce its possible impact on the overall indicated prospective loss cost level change. The remaining weight was split evenly across the remaining two Policy Years, 2018 and 2019.

Premium Development

Premium at an ultimate report is estimated by incorporating a review of historical patterns of premium development over time—primarily due to payroll audits. Premium development link ratios are used from first through fifth report, after which NCCI assumes no further development occurs.

The COVID-19 pandemic resulted in an economic contraction that reduced employment levels and payrolls in 2020, followed by a rapid recovery. Premium development is expected to be similar to historical periods as the observed employment level changes in 2020 and 2021 are anticipated to have a minimal impact on workers compensation ultimate premium estimates. Therefore, a three-year average of historical premium development factors was selected.

Loss Development

Loss development factors are needed since reported paid losses on claims change over time until all claims are closed. Loss development factors are calculated based on a review of how paid losses estimates changed over time for claims from previous years. Fewer reported minor injuries, postponement of medical treatments, changes in inflation, operational impacts to claims handling, and changes in return-to-work outcomes are among the pandemic-related factors that had the potential to impact historical patterns of indemnity and medical loss development.

After a review of the historical development patterns as well as the recent changes observed throughout the system, a five-year excluding highest and lowest average of historical paid loss development factors through a nineteenth report was selected as being the most appropriate for use in this filing, which is consistent with the approach used in last year's filing.

Trend

Indemnity and medical loss ratio, severity, and claim frequency trends were analyzed by NCCI. The trend review focused on the most recent fifteen policy years and the most recent five calendar-accident years of data. Policy year data is given greater consideration by NCCI in forecasting future workers compensation experience as policy year data reflects a relatively better match between exposure and losses by utilizing premium and losses from the same set



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Additional Proposed Changes

of policies. Loss ratios are relied upon as they are less impacted by shifts in the industry mix since these impacts to frequency and severity tend to offset.

It is possible that some portion of the improved loss ratio experience in Policy Year 2020 may be expected to continue going forward as the COVID-19 pandemic may have permanently altered aspects of the workplace and economy. However, the improved experience may also be partly related to some COVID-19 pandemic-related effects which may not persist during the effective period of the proposed loss costs:

- During the peak of the pandemic, workers may have reported fewer medical-only claims, or postponed medical evaluations and/or surgeries.
- Fewer work-related motor vehicle accidents occurred during 2020, possibly related to decreased exposure to business deliveries and travel.
- Employment levels have rebounded from the lows observed in 2020. The Great Reshuffle has increased the share of short-tenured workers (i.e., employees with one year or less at their current employer) in some industries, which NCCI studies have shown to be associated with higher injury frequency and claim costs. The increased prevalence of short-tenured workers may continue as new industry segments expand, but it is likely to recede toward historical norms in most economic sectors.
- After declines in employment levels, Rhode Island is observing accelerated wage growth in lower-wage jobs, which NCCI research has shown to have a higher propensity for injury.
- In the historical trend period, medical price inflation, as measured by the Chain-Weighted Personal Healthcare index, grew at a rate of approximately 1.5% per year from 2011 to 2020. However, the forecasted changes over the next ten years are higher—approximately 2.5% per year.

For the reasons stated above, NCCI's review of loss ratio trends in this year's analysis also encompassed a review of trend estimates after excluding the impact of the most recent experience year.

NCCI analyzed a variety of trend estimates and ultimately selected trend factors that reflect the conditions expected to exist during the proposed loss cost effective period. See Appendix A-III for additional trend information.



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Additional Proposed Changes

Experience Rating

The Expected Loss Rates (ELRs) in this filing reflect a frequency trend which contemplates the trend period under consideration for the ELR calculation, which differs from that underlying the overall indication. See Part 2 of the filing for more explanation of the ELR calculation.

Calendar Year Wage Adjustments

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 over and above changes that may be due solely to wage inflation. In this year's filing, the frequency and severity values have been adjusted to the Calendar Year 2021 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 2019-to-2020 and 2020-to-2021 AWW changes were also impacted by COVID-19 pandemic-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 and 2021 AWW changes was unusually large, due to pandemic-related job losses, followed by wage growth in relatively low-wage industries. Therefore, in this year's ratemaking analysis, the 2020 and 2021 AWW values were 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 overall impact of the AWW adjustment is expected to be immaterial.



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- Proposed Voluntary Market Advisory Loss Costs for Inclusion in the Basic Manual
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Proposed Voluntary Market Advisory Loss Costs for Inclusion in the Basic Manual

The following pages include proposed:

- Voluntary market advisory loss costs by class code, along with associated footnotes
- Advisory miscellaneous values, such as:
 - Catastrophe and Terrorism provisions
 - Maximum and minimum weekly payroll applicable for select class codes
 - Premium determination for Partners and Sole Proprietors
 - United States Longshore and Harbor Workers' Compensation Coverage Percentage

Please note the following in connection with this filing:

- As a result of Item R-1420, the retrospective rating plan parameters were updated.

ADVISORY LOSS COSTS - NOT RATES

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

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Effective August 1, 2023

CLASS CODE	LOSS COST	CLASS CODE	LOSS COST	CLASS CODE	LOSS COST	CLASS CODE	LOSS COST	CLASS CODE	LOSS COST	CLASS CODE	LOSS COST	CLASS CODE	LOSS COST
0005	2.44	2039	2.07	2735	3.79	3300	3.10	4101	1.67	4703	1.23	5645	4.77
0008	1.94	2041	2.07	2759	5.21	3303	1.64	4109	0.29	4717	1.38	5703	9.48
0016	3.83	2065	1.47	2790	1.20	3307	1.87	4110	1.03	4720	1.79	5705	8.36
0034	2.85	2070	3.49	2797	2.29	3315	2.24	4111	1.31	4740	1.18	5951	0.25
0035	1.81	2081	2.26	2799	3.12	3334	1.81	4113	-	4741	2.12	6003	4.13
0036	3.15	2089	2.18	2802	3.61	3336	2.56	4114	1.84	4751	1.78	6005	2.72
0037	3.38	2095	2.73	2835	1.96	3365	2.85	4130	2.16	4771N	1.92	6045	3.48
0042	3.83	2105	2.99	2836	2.23	3372	1.96	4131	3.42	4777	2.20	6204	5.06
0050	3.12	2110	1.69	2841	2.54	3373	3.03	4133	1.58	4825	0.44	6206	1.66
0059D	0.14	2111	1.74	2881	2.01	3383	1.32	4149	0.74	4828	1.12	6213	1.20
0065D	0.04	2112	2.48	2883	2.34	3385	0.66	4206	2.29	4829	1.23	6214	1.10
0066D	0.04	2114	1.57	2915	2.11	3400	2.02	4207	1.68	4902	1.60	6216	3.32
0067D	0.04	2121	0.83	2916	2.07	3507	1.82	4239	1.79	4923	1.06	6217	2.78
0079	2.38	2130	1.42	2923	1.29	3515	1.23	4240	1.71	5020	3.25	6229	2.82
0083	3.65	2131	1.34	2960	3.98	3548	1.22	4243	1.79	5022	3.61	6233	1.43
0106	7.77	2143	1.92	3004	1.02	3559	1.78	4244	1.97	5037	8.45	6235	3.34
0113	3.61	2157	3.41	3018	1.79	3574	0.88	4250	1.50	5040	5.56	6236	3.97
0170	2.39	2172	1.27	3022	2.57	3581	0.74	4251	2.23	5057	2.81	6237	0.97
0251	2.97	2174	2.09	3027	2.53	3612	1.38	4263	2.13	5059	8.91	6251D	3.63
0401	8.32	2211	3.84	3028	1.91	3620	1.80	4273	1.76	5069	-	6252D	5.54
0771N	0.34	2220	1.71	3030	3.51	3629	1.14	4279	1.93	5102	3.17	6306	2.45
0908P	125.00	2286	-	3040	3.63	3632	1.66	4282	-	5146	3.15	6319	2.02
0913P	355.00	2288	3.02	3041	2.67	3634	1.18	4283	1.27	5160	1.18	6325	2.27
0917	3.30	2302	1.29	3042	3.03	3635	1.26	4299	1.14	5183	2.23	6400	2.65
0918	0.74	2305	1.70	3064	2.86	3638	1.30	4304	3.38	5188	1.97	6503	1.63
1005	4.97	2361	1.26	3076	2.63	3642	0.93	4307	1.03	5190	1.51	6504	2.07
1164D	2.52	2362	1.80	3081D	4.28	3643	1.24	4351	0.92	5191	0.79	6702M*	2.69
1165D	2.29	2380	1.46	3082D	2.51	3647	1.92	4352	1.03	5192	2.30	6703M*	4.84
1320	1.32	2386	-	3085D	3.18	3648	1.01	4360	-	5213	3.62	6704M*	2.98
1322	5.23	2388	1.02	3110	2.57	3681	0.53	4361	0.63	5215	3.03	6801F	3.70
1430	2.94	2402	1.80	3111	1.33	3685	0.61	4410	2.06	5221	2.62	6811	3.75
1438	3.06	2413	1.69	3113	1.23	3719	0.58	4420	2.54	5222	4.21	6824F	4.47
1452	1.93	2416	1.41	3114	2.14	3724	2.12	4431	1.01	5223	3.08	6826F	2.47
1463	7.47	2417	1.47	3118	1.21	3726	2.00	4432	0.93	5348	3.29	6834	2.26
1472	2.24	2501	1.48	3119	0.59	3803	1.78	4439	-	5402	3.63	6836	2.20
1624D	2.53	2503	1.17	3122	1.33	3807	1.64	4452	2.18	5403	3.19	6843F	6.00
1642	1.99	2534	-	3126	1.18	3808	2.52	4459	1.96	5437	4.14	6845F	3.24
1654	3.92	2570	2.40	3131	1.13	3821	4.06	4470	1.71	5443	1.98	6854	4.05
1655	-	2585	2.92	3132	1.97	3822	2.61	4484	1.82	5445	3.91	6872F	5.01
1699	1.98	2586	2.01	3145	1.42	3824	2.41	4493	1.60	5462	4.36	6874F	7.10
1701	2.21	2587	2.21	3146	1.74	3826	0.61	4511	0.42	5472	5.31	6882	4.09
1710D	2.60	2589	1.30	3169	2.43	3827	1.41	4557	1.77	5473	4.59	6884	1.97
1741	-	2600	3.58	3175	-	3830	0.93	4558	1.18	5474	4.05	7016M	2.46
1747	1.94	2623	4.34	3179	1.24	3851	1.56	4568	1.76	5478	2.48	7024M	2.73
1748	3.26	2651	1.33	3180	1.66	3865	2.07	4581	0.67	5479	3.83	7038M	3.07
1803D	6.11	2660	1.64	3188	1.37	3881	2.63	4583	3.47	5480	3.92	7046M	4.14
1853	-	2670	-	3220	1.39	4000	3.25	4611	0.81	5491	1.14	7047M	4.43
1860	-	2683	-	3223	-	4021	2.92	4635	2.11	5506	3.95	7050M	5.53
1924	1.77	2688	1.30	3224	2.38	4024D	2.80	4653	2.12	5507	3.06	7090M	3.41
1925	2.21	2701	9.81	3227	2.06	4034	4.10	4665	5.18	5508	-	7098M	4.60
2002	4.61	2702	16.00	3240	-	4036	1.57	4670	-	5535	4.80	7099M	7.47
2003	2.86	2709	6.04	3241	1.90	4038	1.71	4683	2.83	5537	2.60	7133	2.12
2014	3.38	2710	5.43	3255	1.86	4053	-	4686	1.70	5551	9.31	7151M	2.58
2016	1.79	2714	3.01	3257	2.16	4061	-	4692	0.53	5606	0.56	7152M	4.64
2021	2.44	2731	3.27	3270	1.60	4062	1.80	4693	0.68	5610	3.08	7153M	2.86

REFER TO UPDATE PAGE FOR ALL SUBSEQUENT REVISIONS TO ALL CLASS CODES

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.

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

Effective August 1, 2023

CLASS CODE	LOSS COST	CLASS CODE	LOSS COST	CLASS CODE	LOSS COST	CLASS CODE	LOSS COST	CLASS CODE	LOSS COST	CLASS CODE	LOSS COST	CLASS CODE	LOSS COST
7219	4.62	8013	0.50	8723	0.09	9101	2.48						
7222	5.99	8015	0.52	8725	1.70	9102	2.48						
7225	6.18	8017	1.30	8726F	1.21	9154	1.17						
7228	-	8018	2.23	8734M	0.27	9156	1.88						
7229	-	8021	1.81	8737M	0.24	9170	6.88						
7230	5.61	8031	1.97	8738M	0.44	9178	2.89						
7231	7.50	8032	1.51	8742	0.20	9179	6.21						
7232	7.39	8033	1.24	8745	2.32	9180	3.82						
7309F	5.82	8037	1.39	8748	0.46	9182	1.39						
7313F	2.57	8039	1.15	8754	0.69	9186	7.39						
7317F	4.27	8044	2.76	8755	0.22	9220	3.47						
7327F	10.75	8045	0.59	8799	0.52	9402	3.73						
7333M	2.50	8046	2.06	8800	0.95	9403	5.68						
7335M	2.78	8047	0.76	8803	0.04	9410	1.92						
7337M	4.51	8058	2.33	8805M	0.12	9501	1.88						
7350F	7.42	8072	0.44	8810	0.09	9505	2.32						
7360	3.01	8102	1.48	8814M	0.11	9516	1.99						
7370	3.68	8103	2.67	8815M	0.20	9519	3.06						
7380	4.16	8106	2.87	8820	0.09	9521	2.22						
7382	3.01	8107	2.19	8824	2.23	9522	1.63						
7390	5.98	8111	1.47	8825	-	9534	2.08						
7394M	2.87	8116	2.58	8826	1.85	9554	4.86						
7395M	3.19	8203	5.38	8831	0.82	9586	0.39						
7398M	5.18	8204	3.88	8832	0.22	9600	1.84						
7402	0.13	8209	2.99	8833	0.68	9620	1.12						
7403	3.62	8215	2.87	8835	1.70								
7405N	0.92	8227	1.95	8841	1.60								
7420	7.78	8232	3.88	8842	2.11								
7421	0.76	8233	2.68	8855	0.09								
7422	1.14	8235	3.45	8856	0.31								
7425	1.70	8263	4.60	8864	1.07								
7431N	0.82	8264	3.56	8868	0.21								
7445N	0.50	8265	4.17	8869	0.66								
7453N	0.44	8279	4.52	8871	0.04								
7502	1.23	8288	5.50	8901	0.16								
7515	0.72	8291	2.54	9012	0.74								
7520	2.90	8292	2.50	9014	2.13								
7538	1.83	8293	6.54	9015	2.54								
7539	0.94	8304	4.51	9016	2.28								
7540	2.09	8350	5.04	9019	2.27								
7580	2.35	8381	1.37	9033	2.46								
7590	2.41	8385	1.76	9040	3.52								
7600	3.89	8387	2.50	9047	1.86								
7605	1.43	8391	2.32	9052	1.47								
7610	0.46	8392	1.54	9058	1.16								
7705	3.83	8393	1.27	9060	0.98								
7710	2.92	8500	4.51	9061	0.88								
7711	2.92	8601	0.17	9063	0.56								
7720	1.88	8602	0.82	9077F	2.86								
7855	2.21	8603	0.04	9082	0.91								
8001	1.77	8606	1.66	9083	1.05								
8002	1.53	8709F	2.64	9084	0.97								
8006	1.43	8719	1.86	9088a	a								
8008	0.78	8720	0.91	9089	0.76								
8010	1.12	8721	0.26	9093	0.83								

REFER TO UPDATE PAGE FOR ALL SUBSEQUENT REVISIONS TO ALL CLASS CODES

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, 2023

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.

Disease			Disease			Disease		
Code No.	Loading	Symbol	Code No.	Loading	Symbol	Code No.	Loading	Symbol
0059D	0.14	S	1165D	0.01	S	3082D	0.03	S
0065D	0.04	S	1624D	0.01	S	3085D	0.04	S
0066D	0.04	S	1710D	0.02	S	4024D	0.01	S
0067D	0.04	S	1803D	0.21	S	6251D	0.01	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 2.191 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.

REFER TO UPDATE PAGE FOR ALL SUBSEQUENT REVISIONS TO ALL CLASS CODES

Effective August 1, 2023

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 Amount	HAZARD GROUP						
	A	B	C	D	E	F	G
\$250	2.5%	2.0%	1.6%	1.3%	1.1%	0.8%	0.7%
\$500	4.3%	3.6%	2.9%	2.4%	2.0%	1.5%	1.3%
\$1,000	7.0%	6.0%	4.9%	4.1%	3.5%	2.7%	2.2%
\$2,500	12.4%	10.9%	9.2%	7.8%	6.8%	5.4%	4.5%
\$5,000	18.7%	16.8%	14.4%	12.6%	10.9%	9.0%	7.6%

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 <i>Basic Manual</i> notes for Code 7370 -- "Taxicab Co.":	
Employee operated vehicle.....	\$92,400
Leased or rented vehicle.....	\$61,600
Catastrophe (other than Certified Acts of Terrorism) - (Advisory Loss Cost).....	0.01
Maximum Weekly Payroll applicable in accordance with the <i>Basic Manual</i> rule, Rule for premium determination of executive officers and the <i>Basic Manual</i> notes for Code 9178 -- "Athletic Sports or Park: Noncontact Sports," and Code 9179 -- "Athletic Sports or Park: Contact Sports".....	\$4,700
Minimum Weekly Payroll applicable in accordance with the <i>Basic Manual</i> rule, Rule for premium determination of executive officers.....	\$1,200
Terrorism - (Advisory Loss Cost).....	0.005
United States Longshore and Harbor Workers' Compensation Coverage Percentage applicable only in connection with the <i>Basic Manual</i> rule, Federal coverages.....	82%

(Multiply a Non-F classification loss cost by a factor of 1.82 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 (1.039).)

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, 2023

Proposed Values for Inclusion in the Experience Rating Plan Manual

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

- Description of Expected Loss Rates and D-ratios
- Expected Loss Rates and D-ratios by class code
- Description of the Weighting and Ballast values
- Table of Weighting Values
- Table of Ballast Values
- Experience Rating Premium Eligibility Amounts



RHODE ISLAND

Advisory Loss Costs and Rating Values Filing – August 1, 2023

Proposed Rating Values

Description of Expected Loss Rates and D-ratios

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 proposed loss costs are adjusted to reflect the average loss levels of the proposed effective rating period. This is accomplished through the application of ELR factors to the proposed underlying pure premiums. These ELR factors, calculated by hazard group (HG), remove the effects of the following: loss development, expected losses in excess of the State Accident Limit, a portion of medical-only losses, benefit changes, trend, loss-based expenses, experience, and 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.

The final ELR for each classification is calculated as follows:

$$\text{ELR} = \{(\text{HG indemnity ELR factor}) \times (\text{indemnity pure premium}) + (\text{HG medical ELR factor}) \times (\text{medical pure premium})\} \times \text{Manual/Standard Ratio}$$

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-ratio factors over adjacent hazard groups. The final D-ratio for each classification is calculated as follows:

$$\text{D-ratio} = \{(\text{HG indemnity d-ratio factor}) \times (\text{indemnity pure premium}) + (\text{HG medical d-ratio factor}) \times (\text{medical pure premium})\} / \text{total pure premium}$$

Effective August 1, 2023

TABLE OF EXPECTED LOSS RATES AND DISCOUNT RATIOS
APPLICABLE TO ALL POLICIES

CLASS CODE	ELR	D RATIO	CLASS CODE	ELR	D RATIO	CLASS CODE	ELR	D RATIO	CLASS CODE	ELR	D RATIO	CLASS CODE	ELR	D RATIO
0005	2.11	0.35	2039	1.77	0.35	2735	3.29	0.35	3300	2.78	0.41	4101	1.39	0.33
0008	1.67	0.35	2041	1.76	0.35	2759	4.52	0.35	3303	1.41	0.35	4109	0.25	0.35
0016	3.07	0.31	2065	1.22	0.33	2790	1.07	0.41	3307	1.56	0.33	4110	0.89	0.35
0034	2.39	0.33	2070	2.89	0.33	2797	2.04	0.41	3315	1.91	0.35	4111	1.11	0.35
0035	1.51	0.33	2081	2.01	0.41	2799	2.60	0.33	3334	1.49	0.33	4113	1.11	0.35
0036	2.68	0.35	2089	1.87	0.35	2802	3.01	0.33	3336	2.12	0.33	4114	1.53	0.33
0037	2.72	0.31	2095	2.28	0.33	2835	1.73	0.40	3365	2.15	0.29	4130	1.85	0.35
0042	3.21	0.33	2105	2.65	0.40	2836	1.97	0.40	3372	1.63	0.33	4131	2.95	0.35
0050	2.49	0.31	2110	1.45	0.35	2841	2.21	0.35	3373	2.59	0.35	4133	1.41	0.41
0059	0.05	0.29	2111	1.50	0.35	2881	1.77	0.40	3383	1.13	0.35	4149	0.66	0.41
0065	0.02	0.31	2112	2.12	0.35	2883	2.02	0.35	3385	0.56	0.35	4206	1.96	0.35
0066	0.02	0.33	2114	1.39	0.41	2915	1.68	0.31	3400	1.73	0.35	4207	1.26	0.29
0067	0.02	0.33	2121	0.74	0.41	2916	1.66	0.31	3507	1.52	0.33	4239	1.35	0.29
0079	2.01	0.34	2130	1.19	0.33	2923	1.15	0.40	3515	1.04	0.33	4240	1.53	0.41
0083	3.06	0.33	2131	1.15	0.35	2960	3.33	0.33	3548	1.05	0.35	4243	1.49	0.33
0106	5.91	0.29	2143	1.71	0.41	3004	0.77	0.29	3559	1.48	0.33	4244	1.57	0.31
0113	3.09	0.35	2157	2.89	0.35	3018	1.36	0.29	3574	0.75	0.35	4250	1.25	0.33
0170	2.05	0.35	2172	0.99	0.31	3022	2.20	0.35	3581	0.64	0.35	4251	1.91	0.35
0251	2.48	0.33	2174	1.80	0.35	3027	2.03	0.31	3612	1.15	0.33	4263	1.78	0.33
0401	6.37	0.29	2211	3.07	0.31	3028	1.52	0.31	3620	1.42	0.31	4273	1.47	0.33
0771	-	-	2220	1.42	0.33	3030	2.79	0.31	3629	0.96	0.33	4279	1.54	0.31
0908	106.11	0.34	2286	1.42	0.33	3040	3.04	0.33	3632	1.38	0.33	4282	1.54	0.31
0913	294.84	0.33	2288	2.59	0.35	3041	2.23	0.33	3634	0.98	0.33	4283	1.08	0.35
0917	2.93	0.40	2302	1.09	0.33	3042	2.53	0.33	3635	1.04	0.33	4299	0.96	0.33
0918	0.61	0.33	2305	1.35	0.31	3064	2.39	0.33	3638	1.11	0.35	4304	2.82	0.33
1005	3.52	0.28	2361	1.06	0.34	3076	2.26	0.35	3642	0.80	0.35	4307	0.92	0.40
1164	1.80	0.28	2362	1.55	0.35	3081	3.57	0.33	3643	0.99	0.31	4351	0.80	0.35
1165	1.63	0.28	2380	1.26	0.35	3082	1.98	0.31	3647	1.60	0.33	4352	0.89	0.35
1320	1.00	0.29	2386	1.26	0.35	3085	2.63	0.33	3648	0.90	0.40	4360	0.36	0.31
1322	3.75	0.28	2388	0.92	0.41	3110	2.15	0.33	3681	0.46	0.35	4361	0.54	0.35
1430	2.36	0.31	2402	1.44	0.31	3111	1.14	0.35	3685	0.52	0.35	4410	1.76	0.35
1438	2.40	0.31	2413	1.42	0.33	3113	1.03	0.33	3719	0.42	0.28	4420	1.91	0.29
1452	1.52	0.31	2416	1.21	0.35	3114	1.79	0.33	3724	1.54	0.28	4431	0.90	0.40
1463	5.45	0.28	2417	1.24	0.35	3118	1.07	0.40	3726	1.44	0.28	4432	0.83	0.41
1472	1.79	0.31	2501	1.26	0.35	3119	0.53	0.44	3803	1.52	0.35	4439	0.98	0.33
1624	1.89	0.29	2503	1.00	0.35	3122	1.19	0.41	3807	1.40	0.35	4452	1.83	0.33
1642	1.58	0.31	2534	1.26	0.35	3126	0.98	0.33	3808	2.08	0.33	4459	1.56	0.31
1654	3.11	0.31	2570	2.06	0.35	3131	0.95	0.33	3821	3.22	0.31	4470	1.42	0.33
1655	1.58	0.31	2585	2.44	0.33	3132	1.70	0.35	3822	2.26	0.35	4484	1.56	0.35
1699	1.58	0.31	2586	1.74	0.35	3145	1.19	0.33	3824	2.08	0.35	4493	1.33	0.33
1701	1.69	0.29	2587	1.88	0.35	3146	1.47	0.33	3826	0.51	0.33	4511	0.35	0.33
1710	2.03	0.31	2589	1.09	0.33	3169	2.07	0.35	3827	1.21	0.35	4557	1.40	0.31
1741	1.69	0.29	2600	3.04	0.35	3175	2.07	0.35	3830	0.78	0.33	4558	0.98	0.33
1747	1.53	0.31	2623	3.47	0.31	3179	1.06	0.35	3851	1.33	0.35	4568	1.38	0.31
1748	2.61	0.31	2651	1.15	0.35	3180	1.43	0.35	3865	1.84	0.41	4581	0.52	0.29
1803	4.69	0.31	2660	1.46	0.41	3188	1.14	0.33	3881	2.19	0.33	4583	2.62	0.29
1853	1.69	0.29	2670	1.12	0.35	3220	1.16	0.33	4000	2.44	0.29	4611	0.70	0.35
1860	1.54	0.31	2683	1.26	0.35	3223	1.43	0.35	4021	2.45	0.33	4635	1.59	0.29
1924	1.50	0.35	2688	1.12	0.35	3224	2.09	0.40	4024	2.21	0.31	4653	1.85	0.35
1925	1.85	0.33	2701	7.37	0.29	3227	1.75	0.35	4034	3.26	0.31	4665	4.10	0.31
2002	3.99	0.35	2702	11.56	0.28	3240	1.86	0.35	4036	1.25	0.31	4670	2.37	0.33
2003	2.37	0.33	2709	4.58	0.29	3241	1.63	0.35	4038	1.51	0.40	4683	2.37	0.33
2014	2.69	0.31	2710	4.33	0.31	3255	1.65	0.41	4053	1.50	0.33	4686	1.36	0.31
2016	1.52	0.35	2714	2.60	0.35	3257	1.86	0.35	4061	1.50	0.33	4692	0.45	0.35
2021	2.05	0.33	2731	2.80	0.35	3270	1.39	0.35	4062	1.50	0.33	4693	0.58	0.35

REFER TO UPDATE PAGE FOR ALL SUBSEQUENT REVISIONS TO ALL CLASS CODES

Effective August 1, 2023

TABLE OF EXPECTED LOSS RATES AND DISCOUNT RATIOS
APPLICABLE TO ALL POLICIES

CLASS CODE	ELR	D RATIO	CLASS CODE	ELR	D RATIO	CLASS CODE	ELR	D RATIO	CLASS CODE	ELR	D RATIO	CLASS CODE	ELR	D RATIO
4703	1.02	0.33	5645	3.45	0.28	7219	3.49	0.29	8013	0.42	0.33	8723	0.07	0.33
4717	1.22	0.40	5703	7.57	0.31	7222	4.46	0.29	8015	0.44	0.33	8725	1.34	0.31
4720	1.52	0.34	5705	6.69	0.31	7225	4.90	0.31	8017	1.15	0.40	8726F	0.67	0.31
4740	0.84	0.28	5951	0.22	0.35	7228	3.49	0.29	8018	1.90	0.35	8734	0.21	0.31
4741	1.77	0.33	6003	3.12	0.29	7229	3.49	0.29	8021	1.55	0.35	8737	0.19	0.31
4751	1.42	0.31	6005	2.16	0.31	7230	4.63	0.33	8031	1.69	0.35	8738	0.34	0.31
4771	1.46	0.29	6045	2.73	0.31	7231	6.21	0.33	8032	1.29	0.35	8742	0.16	0.31
4777	1.70	0.29	6204	3.83	0.29	7232	5.49	0.29	8033	1.09	0.40	8745	1.95	0.33
4825	0.35	0.31	6206	1.19	0.28	7309F	2.95	0.26	8037	1.26	0.44	8748	0.35	0.29
4828	0.85	0.29	6213	0.86	0.28	7313F	1.30	0.26	8039	1.02	0.41	8754	0.58	0.33
4829	0.94	0.29	6214	0.83	0.29	7317F	2.17	0.26	8044	2.36	0.35	8755	0.18	0.31
4902	1.38	0.35	6216	2.39	0.28	7327F	5.45	0.26	8045	0.51	0.35	8799	0.44	0.35
4923	0.88	0.33	6217	2.02	0.28	7333	1.78	0.28	8046	1.77	0.35	8800	0.82	0.35
5020	2.44	0.29	6229	2.23	0.31	7335	1.98	0.28	8047	0.65	0.35	8803	0.04	0.31
5022	2.59	0.28	6233	1.02	0.28	7337	3.11	0.28	8058	2.02	0.35	8805	0.10	0.35
5037	6.06	0.28	6235	2.40	0.28	7350F	3.93	0.27	8072	0.39	0.41	8810	0.08	0.35
5040	3.98	0.28	6236	3.12	0.31	7360	2.38	0.31	8102	1.27	0.35	8814	0.09	0.35
5057	2.01	0.28	6237	0.73	0.29	7370	3.14	0.35	8103	2.25	0.33	8815	0.17	0.35
5059	6.46	0.28	6251	2.71	0.29	7380	3.29	0.31	8106	2.29	0.31	8820	0.07	0.31
5069	6.46	0.28	6252	3.95	0.28	7382	2.52	0.33	8107	1.66	0.29	8824	2.00	0.44
5102	2.39	0.29	6306	1.86	0.29	7390	5.12	0.35	8111	1.24	0.33	8825	1.65	0.41
5146	2.48	0.31	6319	1.45	0.28	7394	2.04	0.28	8116	2.15	0.33	8826	1.65	0.41
5160	0.85	0.28	6325	1.65	0.28	7395	2.27	0.28	8203	4.48	0.33	8831	0.76	0.44
5183	1.69	0.29	6400	2.11	0.31	7398	3.56	0.28	8204	3.28	0.34	8832	0.19	0.35
5188	1.49	0.29	6503	1.39	0.35	7402	0.11	0.35	8209	2.57	0.35	8833	0.58	0.35
5190	1.14	0.29	6504	1.77	0.35	7403	3.09	0.35	8215	2.30	0.31	8835	1.45	0.35
5191	0.63	0.31	6702	2.12	0.31	7405	0.78	0.35	8227	1.48	0.29	8841	1.33	0.33
5192	1.91	0.33	6703	3.69	0.31	7420	5.48	0.28	8232	3.09	0.31	8842	1.89	0.44
5213	2.62	0.28	6704	2.35	0.31	7421	0.60	0.31	8233	2.08	0.31	8855	0.08	0.35
5215	2.39	0.31	6801F	2.05	0.31	7422	0.85	0.29	8235	2.88	0.33	8856	0.27	0.35
5221	1.98	0.29	6811	3.00	0.31	7425	1.26	0.29	8263	3.86	0.33	8864	0.96	0.41
5222	3.04	0.28	6824F	2.47	0.31	7431	0.61	0.29	8264	2.82	0.31	8868	0.19	0.41
5223	2.44	0.31	6826F	1.37	0.31	7445	-	-	8265	3.16	0.29	8869	0.59	0.41
5348	2.59	0.31	6834	1.94	0.35	7453	-	-	8279	3.50	0.29	8871	0.04	0.35
5402	3.11	0.35	6836	1.85	0.33	7502	0.97	0.31	8288	4.67	0.34	8901	0.12	0.31
5403	2.42	0.29	6843F	3.04	0.26	7515	0.52	0.28	8291	2.12	0.33	9012	0.58	0.31
5437	3.13	0.29	6845F	1.64	0.26	7520	2.42	0.33	8292	2.13	0.35	9014	1.82	0.35
5443	1.65	0.33	6854	3.07	0.29	7538	1.32	0.28	8293	5.58	0.35	9015	2.12	0.33
5445	2.82	0.28	6872F	2.54	0.26	7539	0.71	0.29	8304	3.43	0.29	9016	1.99	0.35
5462	3.44	0.31	6874F	3.60	0.26	7540	1.52	0.28	8350	3.79	0.29	9019	1.83	0.31
5472	3.83	0.28	6882	3.16	0.29	7580	1.87	0.31	8381	1.15	0.33	9033	2.05	0.33
5473	3.31	0.28	6884	1.49	0.29	7590	1.92	0.31	8385	1.46	0.33	9040	3.13	0.41
5474	2.93	0.28	7016	1.75	0.28	7600	3.08	0.31	8387	2.08	0.33	9047	1.60	0.35
5478	1.87	0.29	7024	1.94	0.28	7605	1.08	0.29	8391	1.94	0.33	9052	1.30	0.40
5479	3.06	0.31	7038	2.32	0.28	7610	0.36	0.31	8392	1.37	0.40	9058	1.04	0.44
5480	2.94	0.29	7046	2.99	0.28	7705	3.18	0.33	8393	1.00	0.31	9060	0.87	0.40
5491	0.87	0.29	7047	3.05	0.28	7710	2.22	0.29	8500	3.59	0.31	9061	0.78	0.40
5506	3.00	0.29	7050	4.03	0.28	7711	2.22	0.29	8601	0.13	0.29	9063	0.51	0.41
5507	2.33	0.29	7090	2.57	0.28	7720	1.50	0.31	8602	0.65	0.31	9077F	1.71	0.35
5508	2.33	0.29	7098	3.32	0.28	7855	1.74	0.31	8603	0.04	0.35	9082	0.82	0.44
5535	3.50	0.28	7099	5.21	0.28	8001	1.52	0.35	8606	1.26	0.29	9083	0.96	0.44
5537	2.05	0.31	7133	1.61	0.29	8002	1.33	0.35	8709F	1.34	0.26	9084	0.86	0.40
5551	6.86	0.28	7151	1.97	0.29	8006	1.26	0.40	8719	1.42	0.29	9088	a	a
5606	0.41	0.28	7152	3.41	0.29	8008	0.69	0.41	8720	0.70	0.29	9089	0.69	0.41
5610	2.43	0.31	7153	2.18	0.29	8010	0.96	0.35	8721	0.20	0.31	9093	0.74	0.41

REFER TO UPDATE PAGE FOR ALL SUBSEQUENT REVISIONS TO ALL CLASS CODES

Effective August 1, 2023

**TABLE OF EXPECTED LOSS RATES AND DISCOUNT RATIOS
APPLICABLE TO ALL POLICIES**

CLASS CODE	ELR	D RATIO	CLASS CODE	ELR	D RATIO	CLASS CODE	ELR	D RATIO	CLASS CODE	ELR	D RATIO	CLASS CODE	ELR	D RATIO
9101	2.18	0.40												
9102	2.08	0.33												
9154	1.02	0.35												
9156	1.67	0.41												
9170	5.23	0.29												
9178	2.68	0.44												
9179	5.56	0.44												
9180	3.25	0.34												
9182	1.21	0.35												
9186	5.73	0.29												
9220	2.89	0.33												
9402	2.82	0.29												
9403	4.27	0.29												
9410	1.64	0.35												
9501	1.50	0.31												
9505	1.94	0.33												
9516	1.65	0.33												
9519	2.41	0.31												
9521	1.76	0.31												
9522	1.43	0.40												
9534	1.49	0.28												
9554	3.71	0.29												
9586	0.34	0.40												
9600	1.57	0.35												
9620	0.89	0.31												

REFER TO UPDATE PAGE FOR ALL SUBSEQUENT REVISIONS TO ALL CLASS CODES



RHODE ISLAND

Advisory Loss Costs and Rating Values Filing – August 1, 2023

Proposed Rating Values

Description of the Weighting and Ballast Values

Table of Weighting Values

The weighting value determines the volume of actual and expected excess losses that 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 in each experience filing based on the state reference point.

The state reference point is calculated based on Unit Statistical Data 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 is assigned 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 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 in the experience modification 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. The G value used in the ballast formula is the state reference point divided by 250,000, rounded to the nearest 0.05.

Effective August 1, 2023

TABLE OF WEIGHTING VALUES
APPLICABLE TO ALL POLICIES
Experience Rating Program - ERA

Expected Losses			Weighting Values	Expected Losses			Weighting Values
0	--	2,397	0.04	1,352,119	--	1,426,701	0.44
2,398	--	9,693	0.05	1,426,702	--	1,505,602	0.45
9,694	--	17,144	0.06	1,505,603	--	1,589,207	0.46
17,145	--	24,756	0.07	1,589,208	--	1,677,953	0.47
24,757	--	32,535	0.08	1,677,954	--	1,772,327	0.48
32,536	--	54,418	0.09	1,772,328	--	1,872,886	0.49
54,419	--	81,003	0.10	1,872,887	--	1,980,258	0.50
81,004	--	104,651	0.11	1,980,259	--	2,095,159	0.51
104,652	--	127,676	0.12	2,095,160	--	2,218,413	0.52
127,677	--	150,704	0.13	2,218,414	--	2,350,965	0.53
150,705	--	174,015	0.14	2,350,966	--	2,493,909	0.54
174,016	--	197,768	0.15	2,493,910	--	2,648,517	0.55
197,769	--	222,070	0.16	2,648,518	--	2,816,280	0.56
222,071	--	247,001	0.17	2,816,281	--	2,998,951	0.57
247,002	--	272,629	0.18	2,998,952	--	3,198,610	0.58
272,630	--	299,014	0.19	3,198,611	--	3,417,745	0.59
299,015	--	326,214	0.20	3,417,746	--	3,659,351	0.60
326,215	--	354,284	0.21	3,659,352	--	3,927,073	0.61
354,285	--	383,280	0.22	3,927,074	--	4,225,388	0.62
383,281	--	413,261	0.23	4,225,389	--	4,559,859	0.63
413,262	--	444,286	0.24	4,559,860	--	4,937,483	0.64
444,287	--	476,419	0.25	4,937,484	--	5,367,189	0.65
476,420	--	509,726	0.26	5,367,190	--	5,860,551	0.66
509,727	--	544,277	0.27	5,860,552	--	6,432,847	0.67
544,278	--	580,149	0.28	6,432,848	--	7,104,669	0.68
580,150	--	617,423	0.29	7,104,670	--	7,904,452	0.69
617,424	--	656,186	0.30	7,904,453	--	8,872,605	0.70
656,187	--	696,533	0.31	8,872,606	--	10,068,554	0.71
696,534	--	738,564	0.32	10,068,555	--	11,583,417	0.72
738,565	--	782,390	0.33	11,583,418	--	13,564,386	0.73
782,391	--	828,131	0.34	13,564,387	--	16,265,701	0.74
828,132	--	875,917	0.35	16,265,702	--	20,167,591	0.75
875,918	--	925,890	0.36	20,167,592	--	26,299,124	0.76
925,891	--	978,205	0.37	26,299,125	--	37,335,869	0.77
978,206	--	1,033,033	0.38	37,335,870	--	63,088,253	0.78
1,033,034	--	1,090,561	0.39	63,088,254	--	191,850,110	0.79
1,090,562	--	1,150,994	0.40	191,850,111	AND OVER	0.80	
1,150,995	--	1,214,559	0.41				
1,214,560	--	1,281,507	0.42				
1,281,508	--	1,352,118	0.43				

(a) G	11.45
(b) State Per Claim Accident Limitation	\$286,000
(c) State Multiple Claim Accident Limitation	\$572,000
(d) USL&HW Per Claim Accident Limitation	\$574,500
(e) USL&HW Multiple Claim Accident Limitation	\$1,149,000
(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
<i>(Multiply a Non-F classification ELR by the USL&HW Act - Expected Loss Factor of 1.75.)</i>	

Effective August 1, 2023

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 -- 61,587	28,625	1,976,282 -- 2,033,498	229,000	3,979,451 -- 4,036,692	429,375
61,588 -- 105,998	34,350	2,033,499 -- 2,090,718	234,725	4,036,693 -- 4,093,934	435,100
105,999 -- 157,026	40,075	2,090,719 -- 2,147,939	240,450	4,093,935 -- 4,151,176	440,825
157,027 -- 210,857	45,800	2,147,940 -- 2,205,161	246,175	4,151,177 -- 4,208,419	446,550
210,858 -- 265,997	51,525	2,205,162 -- 2,262,385	251,900	4,208,420 -- 4,265,661	452,275
265,998 -- 321,830	57,250	2,262,386 -- 2,319,610	257,625	4,265,662 -- 4,322,904	458,000
321,831 -- 378,067	62,975	2,319,611 -- 2,376,837	263,350	4,322,905 -- 4,380,147	463,725
378,068 -- 434,558	68,700	2,376,838 -- 2,434,064	269,075	4,380,148 -- 4,437,391	469,450
434,559 -- 491,220	74,425	2,434,065 -- 2,491,292	274,800	4,437,392 -- 4,494,634	475,175
491,221 -- 548,001	80,150	2,491,293 -- 2,548,522	280,525	4,494,635 -- 4,551,878	480,900
548,002 -- 604,868	85,875	2,548,523 -- 2,605,752	286,250	4,551,879 -- 4,609,121	486,625
604,869 -- 661,800	91,600	2,605,753 -- 2,662,983	291,975	4,609,122 -- 4,666,365	492,350
661,801 -- 718,781	97,325	2,662,984 -- 2,720,215	297,700	4,666,366 -- 4,723,609	498,075
718,782 -- 775,802	103,050	2,720,216 -- 2,777,448	303,425	4,723,610 -- 4,780,854	503,800
775,803 -- 832,853	108,775	2,777,449 -- 2,834,682	309,150	4,780,855 -- 4,838,098	509,525
832,854 -- 889,930	114,500	2,834,683 -- 2,891,916	314,875	4,838,099 -- 4,895,342	515,250
889,931 -- 947,027	120,225	2,891,917 -- 2,949,150	320,600	4,895,343 -- 4,952,587	520,975
947,028 -- 1,004,141	125,950	2,949,151 -- 3,006,386	326,325	4,952,588 -- 5,009,832	526,700
1,004,142 -- 1,061,270	131,675	3,006,387 -- 3,063,621	332,050	5,009,833 -- 5,067,077	532,425
1,061,271 -- 1,118,411	137,400	3,063,622 -- 3,120,858	337,775	5,067,078 -- 5,124,322	538,150
1,118,412 -- 1,175,563	143,125	3,120,859 -- 3,178,095	343,500	5,124,323 -- 5,181,567	543,875
1,175,564 -- 1,232,724	148,850	3,178,096 -- 3,235,332	349,225	5,181,568 -- 5,238,812	549,600
1,232,725 -- 1,289,892	154,575	3,235,333 -- 3,292,570	354,950	5,238,813 -- 5,296,057	555,325
1,289,893 -- 1,347,068	160,300	3,292,571 -- 3,349,808	360,675	5,296,058 -- 5,353,302	561,050
1,347,069 -- 1,404,249	166,025	3,349,809 -- 3,407,046	366,400	5,353,303 -- 5,410,548	566,775
1,404,250 -- 1,461,436	171,750	3,407,047 -- 3,464,285	372,125	5,410,549 -- 5,467,793	572,500
1,461,437 -- 1,518,627	177,475	3,464,286 -- 3,521,525	377,850		
1,518,628 -- 1,575,823	183,200	3,521,526 -- 3,578,764	383,575		
1,575,824 -- 1,633,023	188,925	3,578,765 -- 3,636,004	389,300		
1,633,024 -- 1,690,225	194,650	3,636,005 -- 3,693,244	395,025		
1,690,226 -- 1,747,431	200,375	3,693,245 -- 3,750,485	400,750		
1,747,432 -- 1,804,640	206,100	3,750,486 -- 3,807,726	406,475		
1,804,641 -- 1,861,851	211,825	3,807,727 -- 3,864,967	412,200		
1,861,852 -- 1,919,065	217,550	3,864,968 -- 3,922,208	417,925		
1,919,066 -- 1,976,281	223,275	3,922,209 -- 3,979,450	423,650		

For Expected Losses greater than \$5,467,375, the Ballast Value can be calculated using the following formula (rounded to the nearest 1):

$$\text{Ballast} = (0.10)(\text{Expected Losses}) + 2500(\text{Expected Losses})(11.45) / (\text{Expected Losses} + (700)(11.45))$$

G = 11.45

REFER TO UPDATE PAGE FOR ALL SUBSEQUENT REVISIONS.

NATIONAL COUNCIL ON COMPENSATION INSURANCE, INC

RHODE ISLAND—UPDATE TO EXPERIENCE RATING PREMIUM ELIGIBILITY AMOUNTS

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	<u>2/1/24 and after</u>	13,000	6,500
	<u>2/1/23 - 1/31/24</u>	11,500	5,750
	<u>2/1/22 - 1/31/23</u>	11,500	5,750

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-c. 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, 2023

Proposed Values for Inclusion in the Retrospective Rating Plan Manual

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

- Average Cost per Case
- Excess Loss Pure Premium Factors
- Retrospective Pure Premium Development Factors

**RETROSPECTIVE RATING PLAN MANUAL
STATE SPECIAL RATING VALUES**

**RHODE ISLAND
RR 1
Original Printing**

Effective August 1, 2023

1. Average Cost per Case by Hazard Group

A	B	C	D	E	F	G
9,131	11,217	14,336	17,229	22,122	28,662	34,933

Average Cost per Case including ALAE by Hazard Group

A	B	C	D	E	F	G
10,458	12,842	16,400	19,703	25,263	32,708	39,845

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	0.587	0.607	0.633	0.653	0.673	0.694	0.711
\$15,000	0.530	0.554	0.584	0.606	0.631	0.656	0.677
\$20,000	0.485	0.511	0.543	0.567	0.595	0.624	0.647
\$25,000	0.449	0.475	0.509	0.534	0.565	0.595	0.621
\$30,000	0.418	0.444	0.480	0.506	0.538	0.570	0.598
\$35,000	0.392	0.419	0.455	0.481	0.515	0.548	0.577
\$40,000	0.370	0.396	0.432	0.458	0.494	0.528	0.558
\$50,000	0.333	0.359	0.395	0.421	0.458	0.492	0.524
\$75,000	0.269	0.294	0.329	0.354	0.392	0.427	0.459
\$100,000	0.227	0.250	0.284	0.308	0.346	0.380	0.413
\$125,000	0.196	0.219	0.251	0.274	0.311	0.345	0.377
\$150,000	0.173	0.194	0.226	0.247	0.284	0.317	0.348
\$175,000	0.155	0.175	0.205	0.225	0.262	0.294	0.324
\$200,000	0.140	0.159	0.188	0.207	0.243	0.274	0.304
\$225,000	0.127	0.146	0.174	0.192	0.227	0.257	0.287
\$250,000	0.117	0.134	0.161	0.179	0.213	0.243	0.271
\$275,000	0.108	0.125	0.151	0.167	0.201	0.230	0.258
\$300,000	0.100	0.116	0.141	0.157	0.191	0.218	0.246
\$325,000	0.093	0.109	0.133	0.148	0.181	0.208	0.235
\$350,000	0.087	0.102	0.126	0.141	0.172	0.199	0.225
\$375,000	0.082	0.096	0.119	0.133	0.165	0.190	0.216
\$400,000	0.077	0.091	0.113	0.127	0.158	0.182	0.207
\$425,000	0.073	0.086	0.108	0.121	0.151	0.175	0.200
\$450,000	0.069	0.082	0.103	0.116	0.145	0.169	0.193
\$475,000	0.066	0.078	0.098	0.111	0.140	0.163	0.186
\$500,000	0.063	0.075	0.094	0.106	0.134	0.157	0.180
\$600,000	0.052	0.063	0.080	0.091	0.117	0.138	0.159
\$700,000	0.045	0.054	0.070	0.080	0.104	0.123	0.143
\$800,000	0.039	0.048	0.062	0.071	0.093	0.111	0.129
\$900,000	0.034	0.042	0.055	0.063	0.085	0.101	0.118
\$1,000,000	0.030	0.038	0.050	0.057	0.077	0.093	0.109
\$2,000,000	0.013	0.017	0.024	0.028	0.040	0.050	0.059
\$3,000,000	0.008	0.010	0.015	0.017	0.026	0.032	0.039
\$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, 2023

**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	0.685	0.708	0.736	0.757	0.778	0.801	0.819
\$15,000	0.624	0.650	0.683	0.707	0.733	0.761	0.783
\$20,000	0.575	0.603	0.639	0.665	0.695	0.726	0.751
\$25,000	0.535	0.564	0.602	0.629	0.662	0.695	0.723
\$30,000	0.501	0.531	0.570	0.598	0.633	0.668	0.698
\$35,000	0.473	0.502	0.542	0.571	0.607	0.644	0.675
\$40,000	0.448	0.477	0.517	0.546	0.584	0.621	0.654
\$50,000	0.406	0.436	0.476	0.505	0.544	0.583	0.618
\$75,000	0.334	0.362	0.402	0.429	0.471	0.510	0.546
\$100,000	0.286	0.313	0.351	0.377	0.419	0.458	0.494
\$125,000	0.251	0.276	0.313	0.339	0.380	0.418	0.454
\$150,000	0.224	0.248	0.284	0.308	0.349	0.386	0.421
\$175,000	0.202	0.225	0.260	0.283	0.324	0.360	0.394
\$200,000	0.184	0.207	0.240	0.262	0.302	0.337	0.371
\$225,000	0.170	0.191	0.223	0.245	0.284	0.318	0.351
\$250,000	0.157	0.178	0.209	0.229	0.268	0.301	0.334
\$275,000	0.146	0.166	0.196	0.216	0.254	0.287	0.318
\$300,000	0.136	0.156	0.185	0.204	0.242	0.273	0.305
\$325,000	0.128	0.147	0.175	0.194	0.230	0.261	0.292
\$350,000	0.120	0.139	0.166	0.184	0.220	0.251	0.281
\$375,000	0.114	0.131	0.158	0.176	0.211	0.241	0.270
\$400,000	0.108	0.125	0.151	0.168	0.203	0.232	0.261
\$425,000	0.102	0.119	0.144	0.161	0.195	0.223	0.252
\$450,000	0.097	0.113	0.138	0.154	0.188	0.216	0.243
\$475,000	0.093	0.108	0.133	0.148	0.181	0.208	0.236
\$500,000	0.089	0.104	0.127	0.142	0.175	0.202	0.229
\$600,000	0.075	0.089	0.110	0.124	0.154	0.179	0.204
\$700,000	0.065	0.077	0.097	0.109	0.138	0.161	0.184
\$800,000	0.057	0.068	0.086	0.097	0.124	0.146	0.168
\$900,000	0.050	0.061	0.077	0.088	0.113	0.134	0.155
\$1,000,000	0.045	0.055	0.070	0.080	0.104	0.123	0.143
\$2,000,000	0.020	0.026	0.035	0.040	0.055	0.067	0.080
\$3,000,000	0.012	0.015	0.021	0.025	0.036	0.045	0.054
\$4,000,000	0.008	0.010	0.015	0.017	0.025	0.032	0.040
\$5,000,000	0.006	0.007	0.011	0.013	0.019	0.024	0.030
\$6,000,000	0.004	0.005	0.008	0.010	0.014	0.019	0.024
\$7,000,000	0.003	0.004	0.006	0.008	0.011	0.015	0.019
\$8,000,000	0.003	0.003	0.005	0.006	0.009	0.012	0.016
\$9,000,000	0.002	0.003	0.004	0.005	0.007	0.010	0.013
\$10,000,000	0.002	0.002	0.003	0.004	0.006	0.008	0.011

3.

Retrospective Pure Premium Development Factors

With Loss Limit			Without Loss Limit			4th & Subsequent Adjustment
1st Adj.	2nd Adj.	3rd Adj.	1st Adj.	2nd Adj.	3rd Adj.	
0.09	0.05	0.02	0.26	0.13	0.07	0.00



RHODE ISLAND

Advisory Loss Costs and Rating Values Filing – August 1, 2023

Part 3 Supporting Exhibits

- Exhibit I: Determination of the Indicated Loss Cost Level Change
- Exhibit II: Workers Compensation Loss Adjustment Expense
- 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



RHODE ISLAND

Advisory Loss Costs and Rating Values Filing – August 1, 2023

Exhibit I – Determination of Indicated Loss Cost Level Change

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 the proposed experience period, as shown on the next few pages.

During this year's analysis, which included an assessment of pandemic claim-related impacts, paid data was selected as most appropriate to best reflect the conditions likely to prevail in the proposed effective period. This is consistent with prior filings made in Rhode Island.

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, although PY 2020 was given half the usual weight. Lastly, the impact of the change in loss-based expenses is applied.



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EXHIBIT I

Determination of Indicated Loss Cost Level Change

Section A - Policy Year 2020 Experience

Premium:

(1) Standard Earned Premium Developed to Ultimate (Appendix A-II)	\$134,078,464
(2) Premium On-level Factor (Appendix A-I)	0.656
(3) Pure Premium Available for Benefit Costs = (1) x (2)	\$87,955,472

Indemnity Benefit Cost:

(4) Limited Indemnity Losses Developed to Ultimate (Appendix A-II)	\$59,297,317
(5) Indemnity Loss On-level Factor (Appendix A-I)	1.023
(6) Adjusted Limited Indemnity Losses = (4) x (5)	\$60,661,155
(7) Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (6) / (3)	0.690
(8) Factor to Reflect Indemnity Trend (Appendix A-III)	0.879
(9) Projected Limited Indemnity Cost Ratio = (7) x (8)	0.607
(10) Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis (Appendix A-II)	1.021
(11) Projected Indemnity Cost Ratio = (9) x (10)	0.620
(12) Factor to Reflect Proposed Changes in Indemnity Benefits (Appendix C)	1.000
(13) Projected Indemnity Cost Ratio including Benefit Changes = (11) x (12)	0.620

Medical Benefit Cost:

(14) Limited Medical Losses Developed to Ultimate (Appendix A-II)	\$21,737,328
(15) Medical Loss On-level Factor (Appendix A-I)	1.012
(16) Adjusted Limited Medical Losses = (14) x (15)	\$21,998,176
(17) Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (16) / (3)	0.250
(18) Factor to Reflect Medical Trend (Appendix A-III)	0.815
(19) Projected Limited Medical Cost Ratio = (17) x (18)	0.204
(20) Factor to Adjust Medical Cost Ratio to an Unlimited Basis (Appendix A-II)	1.021
(21) Projected Medical Cost Ratio = (19) x (20)	0.208
(22) Factor to Reflect Proposed Changes in Medical Benefits (Appendix C)	1.013
(23) Projected Medical Cost Ratio including Benefit Changes = (21) x (22)	0.211

Total Benefit Cost:

(24) Indicated Change Based on Experience, Trend and Benefits = (13) + (23)	0.831
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EXHIBIT I

Determination of Indicated Loss Cost Level Change

Section B - Policy Year 2019 Experience

Premium:

(1) Standard Earned Premium Developed to Ultimate (Appendix A-II)	\$150,581,908
(2) Premium On-level Factor (Appendix A-I)	0.596
(3) Pure Premium Available for Benefit Costs = (1) x (2)	\$89,746,817

Indemnity Benefit Cost:

(4) Limited Indemnity Losses Developed to Ultimate (Appendix A-II)	\$70,184,631
(5) Indemnity Loss On-level Factor (Appendix A-I)	1.022
(6) Adjusted Limited Indemnity Losses = (4) x (5)	\$71,728,693
(7) Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (6) / (3)	0.799
(8) Factor to Reflect Indemnity Trend (Appendix A-III)	0.848
(9) Projected Limited Indemnity Cost Ratio = (7) x (8)	0.678
(10) Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis (Appendix A-II)	1.021
(11) Projected Indemnity Cost Ratio = (9) x (10)	0.692
(12) Factor to Reflect Proposed Changes in Indemnity Benefits (Appendix C)	1.000
(13) Projected Indemnity Cost Ratio including Benefit Changes = (11) x (12)	0.692

Medical Benefit Cost:

(14) Limited Medical Losses Developed to Ultimate (Appendix A-II)	\$28,857,538
(15) Medical Loss On-level Factor (Appendix A-I)	1.018
(16) Adjusted Limited Medical Losses = (14) x (15)	\$29,376,974
(17) Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (16) / (3)	0.327
(18) Factor to Reflect Medical Trend (Appendix A-III)	0.770
(19) Projected Limited Medical Cost Ratio = (17) x (18)	0.252
(20) Factor to Adjust Medical Cost Ratio to an Unlimited Basis (Appendix A-II)	1.021
(21) Projected Medical Cost Ratio = (19) x (20)	0.257
(22) Factor to Reflect Proposed Changes in Medical Benefits (Appendix C)	1.013
(23) Projected Medical Cost Ratio including Benefit Changes = (21) x (22)	0.260

Total Benefit Cost:

(24) Indicated Change Based on Experience, Trend and Benefits = (13) + (23)	0.952
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EXHIBIT I

Determination of Indicated Loss Cost Level Change

Section C - Policy Year 2018 Experience

Premium:

(1) Standard Earned Premium Developed to Ultimate (Appendix A-II)	\$159,655,374
(2) Premium On-level Factor (Appendix A-I)	0.557
(3) Pure Premium Available for Benefit Costs = (1) x (2)	\$88,928,043

Indemnity Benefit Cost:

(4) Limited Indemnity Losses Developed to Ultimate (Appendix A-II)	\$73,313,769
(5) Indemnity Loss On-level Factor (Appendix A-I)	1.013
(6) Adjusted Limited Indemnity Losses = (4) x (5)	\$74,266,848
(7) Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (6) / (3)	0.835
(8) Factor to Reflect Indemnity Trend (Appendix A-III)	0.819
(9) Projected Limited Indemnity Cost Ratio = (7) x (8)	0.684
(10) Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis (Appendix A-II)	1.021
(11) Projected Indemnity Cost Ratio = (9) x (10)	0.698
(12) Factor to Reflect Proposed Changes in Indemnity Benefits (Appendix C)	1.000
(13) Projected Indemnity Cost Ratio including Benefit Changes = (11) x (12)	0.698

Medical Benefit Cost:

(14) Limited Medical Losses Developed to Ultimate (Appendix A-II)	\$31,081,278
(15) Medical Loss On-level Factor (Appendix A-I)	1.023
(16) Adjusted Limited Medical Losses = (14) x (15)	\$31,796,147
(17) Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (16) / (3)	0.358
(18) Factor to Reflect Medical Trend (Appendix A-III)	0.728
(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)	1.021
(21) Projected Medical Cost Ratio = (19) x (20)	0.266
(22) Factor to Reflect Proposed Changes in Medical Benefits (Appendix C)	1.013
(23) Projected Medical Cost Ratio including Benefit Changes = (21) x (22)	0.269

Total Benefit Cost:

(24) Indicated Change Based on Experience, Trend and Benefits = (13) + (23)	0.967
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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 2020 Indicated Change Based on Experience, Trend, and Benefits	0.831
(2) Policy Year 2019 Indicated Change Based on Experience, Trend, and Benefits	0.952
(3) Policy Year 2018 Indicated Change Based on Experience, Trend, and Benefits	0.967
(4) Indicated Change Based on Experience, Trend, and Benefits* = (1) x 16.6% + (2) x 41.7% + (3) x 41.7%	0.938

* The weight applied to each loss ratio in the experience period varies by year, with PY 2020 given half the usual weight.

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

(1) Indicated Loss Cost Level Change	0.938
(2) Effect of the Change in Loss-based Expenses (Exhibit II)	1.000
(3) Indicated Change Modified to Reflect the Change in Loss-based Expenses = (1) x (2)	0.938

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

Industry Group Differentials (Appendix A-IV):

Manufacturing	1.014
Contracting	0.974
Office & Clerical	1.008
Goods & Services	1.002
Miscellaneous	1.007

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	0.938	1.014	0.951	(-4.9%)
Contracting	0.938	0.974	0.914	(-8.6%)
Office & Clerical	0.938	1.008	0.946	(-5.4%)
Goods & Services	0.938	1.002	0.940	(-6.0%)
Miscellaneous	0.938	1.007	0.945	(-5.5%)
Overall	0.938	1.000	0.938	(-6.2%)



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Advisory Loss Costs and Rating Values Filing – August 1, 2023

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 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 to better reflect the conditions likely to prevail in the proposed effective 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 only data.

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



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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 no change to the currently approved loss adjustment expense provision.

Rhode Island Provisions	(1) Current <u>Approved</u>	(2) <u>Proposed</u>
AOE	9.4%	9.4%
DCCE	13.5%	13.5%
Total LAE	22.9%	22.9%

Proposed Change in Rhode Island LAE Provision	1.000
= [1.0 + (2)] / [1.0 + (1)] - 1	0.0%

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%.

<u>Accident Year</u>	Ultimate AOE <u>Ratio</u>
2017	9.2%
2018	9.2%
2019	9.6%
2020	10.0%
2021	9.3%
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

<u>Policy Year</u>	(1) Reported Ratio of Paid DCCE to <u>Paid Losses</u>	(2) Age to Ultimate Development <u>Factor</u>	(3) Ultimate DCCE <u>Ratio</u>
2016	15.8%	0.976	15.4%
2017	15.3%	0.976	14.9%
2018	14.2%	0.967	13.7%
2019	13.3%	0.958	12.7%
2020	14.1%	1.006	14.2%
Rhode Island Selected			13.5%

(2) Section D

(3) = (1) x (2)

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

<u>Report</u>	(1) DCCE Ratio Development		(2)
	<u>To Next Report</u>	<u>To Ultimate</u>	
1st	1.050		1.006
2nd	0.991		0.958
3rd	0.991		0.967
4th	1.000		0.976
5th	0.999		0.976
6th	1.002		0.977
7th	0.992		0.975
8th	0.992		0.983
9th	0.999		0.991
10th	1.001		0.992
11th	0.998		0.991
12th	1.000		0.993
13th	0.997		0.993
14th	0.998		0.996
15th	0.999		0.998
16th	0.999		0.999
17th	1.000		1.000
18th	1.000		1.000
19th			1.000*

(1) Section E

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

*Selection



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EXHIBIT II

Workers Compensation Loss Adjustment Expense Provision

Section E - Paid DCCE to Paid Loss Ratio Development Factors

<u>Valuation</u>	<u>1st/2nd</u>	<u>2nd/3rd</u>	<u>3rd/4th</u>	<u>4th/5th</u>	<u>5th/6th</u>	<u>6th/7th</u>
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
12/31/2021	1.058	1.008	1.003	1.013	1.003	0.981
Average*	1.050	0.991	0.991	1.000	0.999	1.002

*Excludes the years with the lowest and highest factors.

<u>Valuation</u>	<u>7th/8th</u>	<u>8th/9th</u>	<u>9th/10th</u>	<u>10th/11th</u>	<u>11th/12th</u>	<u>12th/13th</u>
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
12/31/2021	1.006	0.992	1.004	0.992	0.996	0.998
Average*	0.992	0.992	0.999	1.001	0.998	1.000

*Excludes the years with the lowest and highest factors.

<u>Valuation</u>	<u>13th/14th</u>	<u>14th/15th</u>	<u>15th/16th</u>	<u>16th/17th</u>	<u>17th/18th</u>	<u>18th/19th</u>
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
12/31/2021	0.999	1.001	0.998	0.997	1.001	1.000
Average*	0.997	0.998	0.999	0.999	1.000	1.000

*Excludes the years with the lowest and highest factors.



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Advisory Loss Costs and Rating Values Filing – August 1, 2023

Appendix A – Factors Underlying the Proposed Rate 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 2020 Policy Year Premium to Present Level

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Loss Cost	Cumulative		Product	Adj. Factor	Adj. For	Off-balance	Premium
Date	Level	Index	Weight	(2)x(3)	Present Index/ Sum Column (4)	Expense Removal	Adjustment Factor*	Adjustment Factor (5)x(6)x(7)
	Change							
NR 08/01/19	Base	1.000	0.620	0.620	0.796	0.814	1.013	0.656
NR 08/01/20	0.870	0.870	0.380	0.331				
NR 08/01/21	0.930	0.809						
NR 08/01/22	0.936	0.757						
				0.951				

Section B - Factor Adjusting 2020 Policy Year Indemnity Losses to Present Benefit Level

	(1)	(2)	(3)	(4)	(5)
	Benefit	Cumulative		Product	Adj. Factor
Date	Level	Index	Weight	(2)x(3)	Present Index/ Sum Column (4)
	Change				
01/01/20	Base	1.000	0.557	0.557	1.023
01/01/21	1.000	1.000	0.443	0.443	
01/01/22	1.023	1.023			
				1.000	

Section C - Factor Adjusting 2020 Policy Year Medical Losses to Present Benefit Level

	(1)	(2)	(3)	(4)	(5)
	Benefit	Cumulative		Product	Adj. Factor
Date	Level	Index	Weight	(2)x(3)	Present Index/ Sum Column (4)
	Change				
01/01/20	Base	1.000	0.557	0.557	1.012
01/01/21	1.008	1.008	0.443	0.447	
01/01/22	1.008	1.016			
				1.004	

NR New and renewal business.

* $1.013 = 0.967 / 0.955 = (\text{Targeted Off-balance}) / (\text{Off-balance for Policy Year 2020})$



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APPENDIX A-I

Determination of Policy Year On-level Factors

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

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Loss Cost	Cumulative		Product	Adj. Factor	Adj. For	Off-balance	Premium
Date	Level	Index	Weight	(2)x(3)	Present Index/ Sum Column (4)	Expense	Adjustment	Adjustment
	Change					Removal	Factor*	Factor
								(5)x(6)x(7)
NR 08/01/18	Base	1.000	0.620	0.620	0.718	0.814	1.021	0.596
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						
NR 08/01/22	0.936	0.696						
				0.969				

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

	(1)	(2)	(3)	(4)	(5)
	Benefit	Cumulative		Product	Adj. Factor
Date	Level	Index	Weight	(2)x(3)	Present Index/ Sum Column (4)
	Change				
10/01/18	Base	1.000	0.099	0.099	1.022
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			
01/01/22	1.023	1.008			
				0.986	

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

	(1)	(2)	(3)	(4)	(5)
	Benefit	Cumulative		Product	Adj. Factor
Date	Level	Index	Weight	(2)x(3)	Present Index/ Sum Column (4)
	Change				
10/01/18	Base	1.000	0.099	0.099	1.018
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			
01/01/22	1.008	1.020			
				1.002	

NR New and renewal business.

* 1.021 = 0.967 / 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 G - Factor Adjusting 2018 Policy Year Premium to Present Level

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Loss Cost	Cumulative		Product	Adj. Factor	Adj. For	Off-balance	Premium
Date	Level	Index	Weight	(2)x(3)	Present Index/ Sum Column (4)	Expense Removal	Adjustment Factor*	Adjustment Factor (5)x(6)x(7)
	Change							
NR 08/01/17	Base	1.000	0.620	0.620	0.672	0.814	1.019	0.557
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						
NR 08/01/22	0.936	0.659						
				0.980				

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

	(1)	(2)	(3)	(4)	(5)
	Benefit	Cumulative		Product	Adj. Factor
Date	Level	Index	Weight	(2)x(3)	Present Index/ Sum Column (4)
	Change				
10/01/17	Base	1.000	0.099	0.099	1.013
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			
01/01/22	1.023	1.029			
				1.016	

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

	(1)	(2)	(3)	(4)	(5)
	Benefit	Cumulative		Product	Adj. Factor
Date	Level	Index	Weight	(2)x(3)	Present Index/ Sum Column (4)
	Change				
10/01/17	Base	1.000	0.099	0.099	1.023
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			
01/01/22	1.008	1.028			
				1.005	

NR New and renewal business.

* 1.019 = 0.967 / 0.949 = (Targeted Off-balance) / (Off-balance for Policy Year 2018)



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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
2004	0.991	1.008	0.997	0.997	0.967	0.970
2005	0.976	1.017	0.991	0.992	0.967	0.975
2006	0.974	0.991	0.980	0.982	0.967	0.985
2007	0.985	0.991	0.987	0.989	0.967	0.978
2008	0.985	0.997	0.989	0.991	0.967	0.976
2009	0.995	0.977	0.988	0.990	0.967	0.977
2010	0.992	0.987	0.990	0.991	0.967	0.976
2011	0.998	0.990	0.995	0.996	0.967	0.971
2012	0.996	0.987	0.992	0.993	0.967	0.974
2013	0.988	0.983	0.986	0.988	0.967	0.979
2014	0.960	0.982	0.969	0.973	0.967	0.994
2015	0.951	0.957	0.953	0.959	0.967	1.008
2016	0.949	0.955	0.951	0.958	0.967	1.009
2017	0.939	0.952	0.944	0.951	0.967	1.017
2018	0.945	0.935	0.941	0.949	0.967	1.019
2019	0.938	0.941	0.939	0.947	0.967	1.021
2020	0.943	0.952	0.947	0.955	0.967	1.013
2021	0.945	0.960	0.951	0.958	0.967	1.009



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Advisory Loss Costs and Rating Values Filing – August 1, 2023

Appendix A – Factors Underlying the Proposed Rate Level Change

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

Development factors are used to project premium and 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 on the following pages.

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. . It is calculated as one percent of the total volume of premium from the state's experience period underlying the currently approved filing. The base threshold is then 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.

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 excess ratio is derived from Rhode Island's Retrospective Rating Plan Parameters.

Development

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. For indemnity and medical loss development past the 19th report, a 19th-to-ultimate "tail" factor is used to reflect all future expected loss emergence.

In analyzing losses for the purpose of Aggregate Ratemaking, NCCI reviews both "paid" and "paid plus case" loss data, which is (i) the benefit amounts already paid by insurers on reported claims and (ii) the benefit amounts already paid by insurers on reported claims plus the amounts



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Advisory Loss Costs and Rating Values Filing – August 1, 2023

Appendix A – Factors Underlying the Proposed Rate Level Change

set aside to cover future payments on those claims. To best reflect the conditions likely to prevail in the proposed effective period, this filing utilizes paid data.

Loss development factors are needed since paid losses and case reserve estimates on a given claim change over time until the claim is finally closed. The loss development factors are based on how paid losses and case reserve estimates 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 five-year excluding highest and lowest average of historical paid loss development factors through a 19th report

These development factors were selected to strike a balance between being responsive to observed changes and promoting stability in the selected development factors from one filing to the next.

19th-to-Ultimate Tail Factor

Tail factors are calculated separately for indemnity and medical unlimited 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. To adjust for these differences in the volume of losses between policy years, a growth adjustment factor is applied. The tail factors are brought from an unlimited basis to a limited basis through the application of a tail adjustment factor, which is based on countrywide data and the state specific large loss threshold.

The calculation of indemnity and medical paid plus case 19th-to-ultimate tail factors utilizes all available experience for the years prior to the tail attachment point and are calculated for the most recent ten available policy years. Loss development tail factors from a nineteenth report to ultimate were judgmentally selected in this filing based on a review of the ten most recently available factors. The selected indemnity tail factor reflects an expectation of lower development due to the 1992 reform.

Paid plus case data is used in the calculation of 19th-to-ultimate loss development factors since it is most reflective of the expected ultimate losses. Since this filing utilizes both paid and paid plus case data, the selected paid plus case loss development tail factors are converted to a paid basis using paid-to-paid plus case ratios. Both the indemnity and medical conversion ratios were selected based on a review of historical conversion ratios.



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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 12/31/2021

Policy Year 2020

(1) Standard Earned Premium	\$133,411,407
(2) Factor to Develop Premium to Ultimate	1.005
(3) Standard Earned Premium Developed to Ultimate = (1)x(2)	\$134,078,464
(4) Limited Indemnity Paid Losses	\$22,469,616
(5) Limited Indemnity Paid Development Factor to Ultimate	2.639
(6) Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	\$59,297,317
(7) Limited Medical Paid Losses	\$14,078,580
(8) Limited Medical Paid Development Factor to Ultimate	1.544
(9) Limited Medical Paid Losses Developed to Ultimate = (7)x(8)	\$21,737,328

Policy Year 2019

(1) Standard Earned Premium	\$150,732,641
(2) Factor to Develop Premium to Ultimate	0.999
(3) Standard Earned Premium Developed to Ultimate = (1)x(2)	\$150,581,908
(4) Limited Indemnity Paid Losses	\$44,675,131
(5) Limited Indemnity Paid Development Factor to Ultimate	1.571
(6) Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	\$70,184,631
(7) Limited Medical Paid Losses	\$23,234,733
(8) Limited Medical Paid Development Factor to Ultimate	1.242
(9) Limited Medical Paid Losses Developed to Ultimate = (7)x(8)	\$28,857,538

Policy Year 2018

(1) Standard Earned Premium	\$159,655,374
(2) Factor to Develop Premium to Ultimate	1.000
(3) Standard Earned Premium Developed to Ultimate = (1)x(2)	\$159,655,374
(4) Limited Indemnity Paid Losses	\$58,463,931
(5) Limited Indemnity Paid Development Factor to Ultimate	1.254
(6) Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	\$73,313,769
(7) Limited Medical Paid Losses	\$27,288,216
(8) Limited Medical Paid Development Factor to Ultimate	1.139
(9) Limited Medical Paid Losses Developed to Ultimate = (7)x(8)	\$31,081,278



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APPENDIX A-II

Determination of Premium and Losses Developed to an Ultimate Report

Section B - Premium Development Factors

<u>Policy Year</u>	<u>1st/2nd</u>	<u>Policy Year</u>	<u>2nd/3rd</u>	<u>Policy Year</u>	<u>3rd/4th</u>	<u>Policy Year</u>	<u>4th/5th</u>
2017	1.007	2016	1.000	2015	1.000	2014	1.000
2018	1.010	2017	0.999	2016	1.000	2015	1.000
2019	1.001	2018	0.999	2017	1.000	2016	1.000
Average	1.006	Average	0.999	Average	1.000	Average	1.000

Summary of Premium Development Factors

<u>1st/5th</u>	<u>2nd/5th</u>	<u>3rd/5th</u>	<u>4th/5th</u>
1.005	0.999	1.000	1.000



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APPENDIX A-II

Determination of Premium and Losses Developed to an Ultimate Report

Section C - Limited Indemnity Paid Loss Development Factors

Policy Year	<u>1st/2nd</u>	Policy Year	<u>2nd/3rd</u>	Policy Year	<u>3rd/4th</u>	Policy Year	<u>4th/5th</u>
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
2019	1.685	2018	1.248	2017	1.094	2016	1.039
Average*	1.680	Average*	1.253	Average*	1.103	Average*	1.044

* Excludes the years with the lowest and highest factors.

Policy Year	<u>5th/6th</u>	Policy Year	<u>6th/7th</u>	Policy Year	<u>7th/8th</u>	Policy Year	<u>8th/9th</u>
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	1.017	2011	1.010	2010	1.004
2014	1.032	2013	1.017	2012	1.008	2011	1.005
2015	1.019	2014	1.018	2013	1.004	2012	1.004
Average*	1.029	Average*	1.017	Average*	1.011	Average*	1.004

* Excludes the years with the lowest and highest factors.

Policy Year	<u>9th/10th</u>	Policy Year	<u>10th/11th</u>	Policy Year	<u>11th/12th</u>	Policy Year	<u>12th/13th</u>
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	1.006	2009	1.003	2008	1.008	2007	1.000
2011	1.001	2010	1.003	2009	1.003	2008	1.002
Average*	1.004	Average*	1.003	Average*	1.002	Average*	1.002

* Excludes the years with the lowest and highest factors.

Policy Year	<u>13th/14th</u>	Policy Year	<u>14th/15th</u>	Policy Year	<u>15th/16th</u>	Policy Year	<u>16th/17th</u>
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
2007	1.000	2006	1.001	2005	1.001	2004	1.001
Average*	1.004	Average*	1.002	Average*	1.001	Average*	1.000

* Excludes the years with the lowest and highest factors.

Policy Year	<u>17th/18th</u>	Policy Year	<u>18th/19th</u>
1999	1.001	1998	1.000
2000	1.000	1999	1.003
2001	1.002	2000	1.000
2002	1.000	2001	1.002
2003	1.000	2002	1.000
Average*	1.000	Average*	1.001

* Excludes the years with the lowest and highest factors.



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APPENDIX A-II

Determination of Premium and Losses Developed to an Ultimate Report

Section D - Limited Medical Paid Loss Development Factors

Policy Year	<u>1st/2nd</u>	Policy Year	<u>2nd/3rd</u>	Policy Year	<u>3rd/4th</u>	Policy Year	<u>4th/5th</u>
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	1.044	2014	1.019
2018	1.225	2017	1.085	2016	1.032	2015	1.011
2019	1.252	2018	1.080	2017	1.028	2016	1.015

Average* 1.243 Average* 1.090 Average* 1.040 Average* 1.021
 * Excludes the years with the lowest and highest factors.

Policy Year	<u>5th/6th</u>	Policy Year	<u>6th/7th</u>	Policy Year	<u>7th/8th</u>	Policy Year	<u>8th/9th</u>
2011	1.016	2010	1.007	2009	1.014	2008	1.004
2012	1.012	2011	1.011	2010	1.008	2009	1.006
2013	1.017	2012	1.011	2011	1.005	2010	1.008
2014	1.011	2013	1.008	2012	1.011	2011	1.003
2015	1.013	2014	1.005	2013	1.004	2012	1.006

Average* 1.014 Average* 1.009 Average* 1.008 Average* 1.005
 * Excludes the years with the lowest and highest factors.

Policy Year	<u>9th/10th</u>	Policy Year	<u>10th/11th</u>	Policy Year	<u>11th/12th</u>	Policy Year	<u>12th/13th</u>
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	1.009	2007	1.001
2011	1.005	2010	1.001	2009	1.004	2008	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	<u>13th/14th</u>	Policy Year	<u>14th/15th</u>	Policy Year	<u>15th/16th</u>	Policy Year	<u>16th/17th</u>
2003	1.002	2002	1.001	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
2007	1.001	2006	1.003	2005	1.001	2004	1.002

Average* 1.002 Average* 1.001 Average* 1.002 Average* 1.002
 * Excludes the years with the lowest and highest factors.

Policy Year	<u>17th/18th</u>	Policy Year	<u>18th/19th</u>
1999	1.002	1998	1.000
2000	1.000	1999	1.005
2001	1.003	2000	1.000
2002	1.001	2001	1.001
2003	1.001	2002	1.000

Average* 1.001 Average* 1.000
 * Excludes the years with the lowest and highest factors.



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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) Policy Year	(2) <u>Losses for Policy Year</u> 19th Report	(3) <u>Losses for Policy Year</u> 20th Report	(4) <u>Losses for All Prior Policy Years</u> Previous	(5) <u>Losses for All Prior Policy Years</u> Current	(6) Factor to Adjust Losses for Prior Policy Years	(7) Indicated 19th-to-Ult Development for Policy Year
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
2001	59,881,210	60,071,381	1,809,098,780	1,809,617,747	0.754	1.015
Selected Indemnity 19th-to-Ultimate Loss Development Factor*						1.005

Medical Paid+Case Data for Matching Companies

(8) Policy Year	(9) <u>Losses for Policy Year</u> 19th Report	(10) <u>Losses for Policy Year</u> 20th Report	(11) <u>Losses for All Prior Policy Years</u> Previous	(12) <u>Losses for All Prior Policy Years</u> Current	(13) Factor to Adjust Losses for Prior Policy Years	(14) Indicated 19th-to-Ult Development for Policy Year
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
2001	28,641,088	28,104,978	586,366,899	588,575,589	0.736	1.086
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.



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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

<u>Policy Year</u>	<u>Indemnity Paid-to-Paid + Case Ratio 19th Report</u>	<u>Medical Paid-to-Paid + Case Ratio 19th Report</u>
1998	1.000	1.000
1999	0.992	0.981
2000	0.999	0.998
2001	0.974	0.976
2002	1.000	0.996
Selected	0.995	0.985

	<u>Indemnity</u>	<u>Medical</u>
(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	0.297	0.297
(3) Limited Paid+Case 19th-to-Ultimate Loss Development Factor = $[(1)-1] \times (2) + 1$	1.001	1.000
(4) Limited Paid-to-Paid+Case Ratio (Section F)	0.995	0.985
(5) Limited Paid 19th-to-Ultimate Loss Development Factor = (3) / (4)	1.006	1.015

Section G - Summary of Limited Paid Loss Development Factors

<u>Report</u>	<u>(1) Indemnity Paid Loss Development to Next Report</u>	<u>(2) to Ultimate</u>	<u>Report</u>	<u>(3) Medical Paid Loss Development to Next Report</u>	<u>(4) to Ultimate</u>
1st	1.680	2.639	1st	1.243	1.544
2nd	1.253	1.571	2nd	1.090	1.242
3rd	1.103	1.254	3rd	1.040	1.139
4th	1.044	1.137	4th	1.021	1.095
5th	1.029	1.089	5th	1.014	1.072
6th	1.017	1.058	6th	1.009	1.057
7th	1.011	1.040	7th	1.008	1.048
8th	1.004	1.029	8th	1.005	1.040
9th	1.004	1.025	9th	1.005	1.035
10th	1.003	1.021	10th	1.002	1.030
11th	1.002	1.018	11th	1.003	1.028
12th	1.002	1.016	12th	1.002	1.025
13th	1.004	1.014	13th	1.002	1.023
14th	1.002	1.010	14th	1.001	1.021
15th	1.001	1.008	15th	1.002	1.020
16th	1.000	1.007	16th	1.002	1.018
17th	1.000	1.007	17th	1.001	1.016
18th	1.001	1.007	18th	1.000	1.015
19th		1.006	19th		1.015

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

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



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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*	2,817,267
(2) Statewide Excess Ratio for (1)	0.021
(3) Market Share for Carriers Missing from Large Loss and Catastrophe Call	0.000
(4) Factor to Adjust Limited Losses to an Unlimited Basis = $1.0 / \{1.0 - [(2) \times (1.0 - (3))]\}$	1.021

Section I - Policy Year Large Loss Limits

Experience Year	Policy Year Detrended Limit
2020	2,369,234
2019	2,234,441
2018	2,127,062
2017	2,087,360
2016	2,043,216
2015	2,000,267
2014	1,957,293
2013	1,895,549
2012	1,837,855
2011	1,792,245
2010	1,750,415
2009	1,705,559
2008	1,678,332
2007	1,645,849
2006	1,598,922
2005	1,541,450
2004	1,486,803
2003	1,441,194
2002	1,383,472
2001	1,330,692
2000	1,289,430
1999	1,242,211
1998	1,197,937

* July 24, 2024 is the midpoint of the effective period for which the revised loss costs are being proposed.



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Advisory Loss Costs and Rating Values Filing – August 1, 2023

Appendix A – Factors Underlying the Proposed Rate Level Change

Appendix A-III Trend Factors

This filing relies primarily on the experience from Policy Years 2018, 2019 and 2020. However, the proposed loss costs are intended for use with policies with effective dates on and after August 1, 2023. It is necessary to use trend factors that forecast how much the future Rhode Island workers compensation experience will differ from historical experience.

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

Overview of Methodology

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

In order to estimate the average annual percentage changes in the loss ratios, exponential curves are fit to the historical data points. Consideration in the trend factor selections include a review of loss ratio patterns observed over an extended period of time, 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 are shown in this appendix, along with the impact of the trend factor selection on each policy year in the filing's experience period. The trend lengths displayed 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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Advisory Loss Costs and Rating Values Filing – August 1, 2023

Appendix A – Factors Underlying the Proposed Rate Level Change

Considerations Underlying Trend Selections in this Filing

The indicated exponential loss ratio trend fits for both indemnity and medical for which the selection in this filing is based on are displayed on the following pages. These exhibits show the underlying frequency and severity components, as well as the exponential trend fits for periods ranging from 5 to 15 years for loss ratios. These figures have been adjusted to the common wage level and are based on an average of paid losses.

As shown on the following pages, lost-time claim frequency has generally declined over the past fifteen policy years. The data in the chart reflects premiums at today's loss cost and wage levels. After adjusting to a common wage level, the indemnity and medical average cost per case figures, with the exception of Policy Year 2020 were average severities dropped significantly, continue to indicate a relatively flat long-term trend.

The selected annual loss ratio trends are based more heavily on longer term exponential trend fits because they are less volatile and the least influenced by the substantial improvement in experience observed in the latest policy year. Additionally, the selected trends reflect the consideration that Policy Year 2020 may be heavily impacted by pandemic related factors, some of which may not persist during the proposed loss cost effective period. It should also be noted that the favorable loss ratio experience in policy year 2020 is already accounted for directly in the experience period of the indication. Therefore, as discussed in the COVID-19 Pandemic-related Considerations section of the filing, this year's analysis also encompassed a review of exponential trend fits that result from excluding the impact of the most recent experience year from the trend analysis.

As a result, an annual trend factor of -3.5% was selected for the indemnity loss ratio, and an annual trend factor of -5.5% was selected for the medical loss ratio. The selected loss ratio trends are unchanged from those underlying the current approved loss costs.

The selected annual indemnity loss ratio trend also considers the impact of the latest change in the State Average Weekly Wage (SAWW). The larger-than-normal wage growth in 2021—as measured by the Quarterly Census of Employment and Wages (QCEW)—is reflected in the premium estimates, which are valued as of December 31, 2021. The impact on benefits is lagged a year behind, putting downward pressure on the loss ratios in the experience period. During the trend projection period, losses will catch up to premium as benefits reflect the higher wages already observed in the premium. See COVID-19 Pandemic-related Considerations in the Additional Proposed Changes section for additional details related to potential COVID-19 pandemic-related effects.



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APPENDIX A-III

Policy Year Trend Factors

Section A - Calculation of Annual Loss Ratio Trend Factors

(1) Selected Annual Loss Ratio Trends: Indemnity
-3.5% Medical
-5.5%

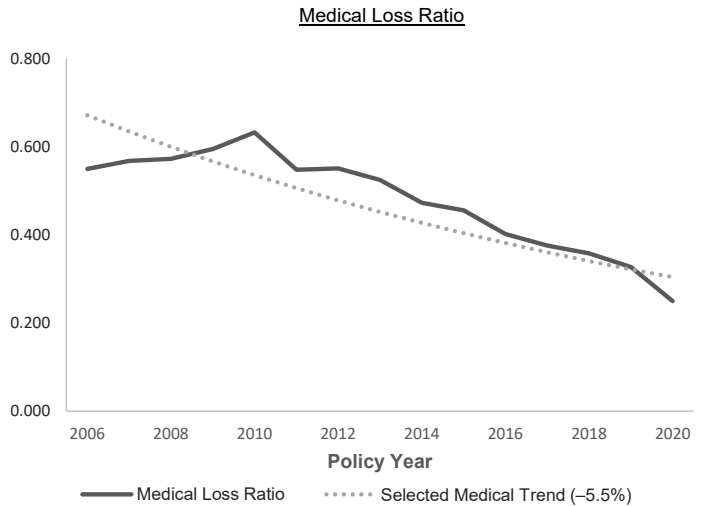
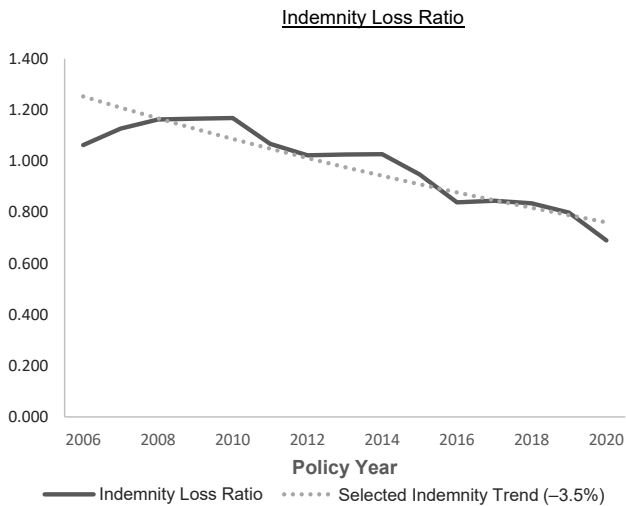
(2) Length of Trend Period from Midpoint of Policy Year to Midpoint of Effective Period:

	<u>PY 2020</u>	<u>PY 2019</u>	<u>PY 2018</u>
Trend Length:	3.619	4.619	5.619

(3) Trend Factors Applied to Experience Year Loss Ratios = $[1 + (1)]^{(2)}$

	<u>PY 2020</u>	<u>PY 2019</u>	<u>PY 2018</u>
Indemnity:	0.879	0.848	0.819
Medical:	0.815	0.770	0.728

Section B - Loss Ratio Trend Data



Policy Year	Indemnity Loss Ratio ^A	# of Years in Fit	Exponential Fits	Alternate Exponential Fits*
2006	1.063			
2007	1.127			
2008	1.163			Alternate
2009	1.166			Exponential
2010	1.169	15	-3.3%	NA
2011	1.068	14	-3.7%	-2.9%
2012	1.023	13	-4.1%	-3.4%
2013	1.026	12	-4.3%	-3.7%
2014	1.027	11	-4.4%	-3.9%
2015	0.948	10	-4.4%	-4.0%
2016	0.839	9	-4.6%	-3.9%
2017	0.845	8	-5.1%	-4.0%
2018	0.835	7	-5.4%	-4.5%
2019	0.799	6	-4.9%	-4.5%
2020	0.690	5	-4.4%	-3.4%

^ABased on paid losses

*Exponential Fits excluding the latest Policy Year

Policy Year	Medical Loss Ratio ^A	# of Years in Fit	Exponential Fits	Alternate Exponential Fits*
2006	0.550			
2007	0.568			
2008	0.573			Alternate
2009	0.595			Exponential
2010	0.633	15	-5.2%	NA
2011	0.548	14	-5.8%	-4.4%
2012	0.551	13	-6.5%	-5.0%
2013	0.525	12	-7.1%	-5.6%
2014	0.473	11	-7.7%	-6.3%
2015	0.456	10	-7.8%	-6.8%
2016	0.402	9	-8.5%	-6.7%
2017	0.376	8	-8.9%	-7.3%
2018	0.358	7	-9.2%	-7.5%
2019	0.327	6	-10.0%	-7.3%
2020	0.250	5	-10.3%	-7.5%

^ABased on paid losses

*Exponential Fits excluding the latest Policy Year

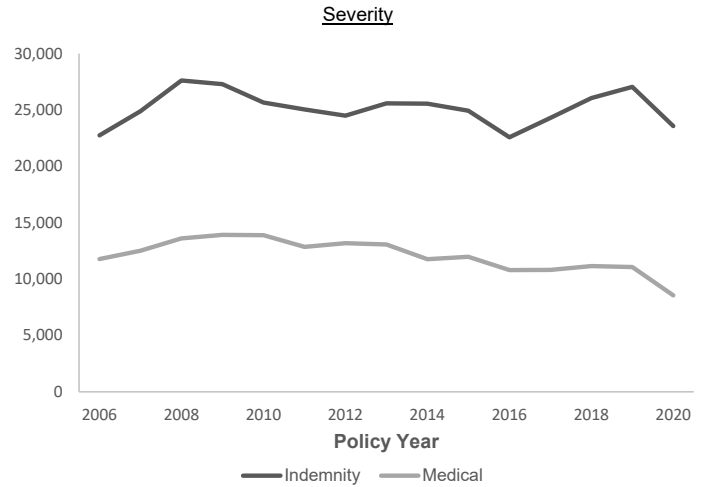
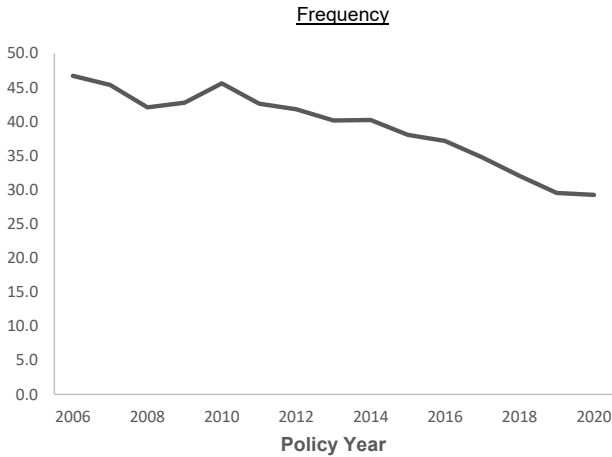


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APPENDIX A-III

Policy Year Trend Factors

Section C - Frequency and Severity Trend Data



Policy Year	Claim Frequency†	# of Years in Fit	Exponential Fits
2006	46.690		
2007	45.343		
2008	42.061		
2009	42.747		
2010	45.566	15	-3.1%
2011	42.597	14	-3.3%
2012	41.772	13	-3.4%
2013	40.127	12	-3.9%
2014	40.201	11	-4.3%
2015	38.036	10	-4.4%
2016	37.149	9	-4.7%
2017	34.730	8	-5.0%
2018	32.035	7	-5.6%
2019	29.537	6	-5.8%
2020	29.242	5	-6.2%

† Per million of on-leveled, wage-adjusted premium

Policy Year	Severity		# of Years in Fit	Exponential Fits	
	Indemnity*	Medical*		Indemnity	Medical
2006	22,761	11,787			
2007	24,884	12,524			
2008	27,620	13,618			
2009	27,282	13,926			
2010	25,652	13,896	15	-0.1%	-2.1%
2011	25,044	12,858	14	-0.5%	-2.7%
2012	24,493	13,189	13	-0.7%	-3.1%
2013	25,589	13,076	12	-0.5%	-3.4%
2014	25,547	11,769	11	-0.1%	-3.6%
2015	24,931	11,988	10	0.0%	-3.6%
2016	22,578	10,804	9	0.0%	-4.0%
2017	24,290	10,818	8	-0.1%	-4.1%
2018	26,056	11,164	7	0.2%	-3.8%
2019	27,040	11,077	6	1.0%	-4.4%
2020	23,585	8,553	5	2.0%	-4.3%

*Adjusted to a common wage level, based on paid losses



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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	18,382,124	89,633,511	84,063,623	1.102	1.111
Contracting	26,235,644	115,073,117	107,896,302	1.101	1.100
Office & Clerical	17,206,038	81,421,825	76,369,315	1.110	1.119
Goods & Services	61,215,702	290,437,650	272,419,585	1.020	1.023
Miscellaneous	26,366,717	124,408,802	116,653,823	1.082	1.075
Statewide	149,406,224	700,974,905	657,402,648		

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	18,233,214	88,907,407	83,382,639	1.066	1.000
Contracting	26,259,494	115,177,729	107,994,390	1.067	1.001
Office & Clerical	17,067,651	80,766,957	75,755,084	1.066	1.000
Goods & Services	61,036,184	289,585,927	271,620,701	1.066	1.000
Miscellaneous	26,538,407	125,218,906	117,413,429	1.066	1.000
Statewide	149,134,950	699,656,926	656,166,243	1.066	



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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	85,706,719	1.028	1.030	2,933
Contracting	101,532,605	0.939	0.941	2,270
Office & Clerical	77,024,905	1.017	1.019	2,446
Goods & Services	271,776,002	1.001	1.003	11,550
Miscellaneous	118,946,343	1.013	1.015	3,306
Statewide	654,986,574	0.998		

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	0.49	1.013	1.014
Contracting	12,000	0.43	0.973	0.974
Office & Clerical	12,000	0.45	1.007	1.008
Goods & Services	12,000	0.98	1.001	1.002
Miscellaneous	12,000	0.52	1.006	1.007
Statewide			0.999	1.000

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



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APPENDIX A-IV

III. Description of Industry Group Differentials

Column (2) reflects the indemnity and medical combined expected losses calculated as five years of payroll (in hundreds) extended separately by indemnity and medical pure premiums underlying the latest approved loss costs. Column (3) adjusts the current expected losses to the proposed level by applying the components of the proposed loss cost level change. These components are applied separately for indemnity and medical, where possible. These adjustments are reflected in Appendix B-I, Section B.

Column (4) shows the current manual premium to standard premium ratios that were calculated using the latest five years of WCSP data used in the currently approved Rhode Island filing. Column (5) shows the proposed manual premium to standard premium ratios calculated using the latest five years of manual premium and experience modification factors reported in the WCSP data used in the proposed Rhode Island filing. "Proposed" ratio refers to the fact that these ratios are based on the latest available WCSP data in the proposed filing, and they are used to adjust the proposed industry group differentials to reflect the latest available impact of experience rating by industry group. The differences between columns (4) and (5) relate to the different periods of data being used, which are rolling 5-year periods.

Columns (6), (7), and (8) are based on columns (1), (2), and (3), respectively, and include an adjustment for the change in the average experience rating off-balance by Industry Group (IG). The adjustment for the change in the average experience rating off-balance by IG is reflected by multiplying columns (1), (2), and (3) by the ratio of column (4) to column (5). The ratio of column (4) to column (5) adjusts the current and proposed expected losses (and therefore the IG differentials) to reflect the latest available impact of experience rating by industry group.

The expected losses in column (6) are used as the IG weights when determining the statewide average Credibility Weighted Indicated-to-Expected Ratio in column (17).

The expected losses in columns (7) and (8) are used to determine the relative IG changes from the prior filing to the proposed filing in column (9). Since the indicated IG relativities in column (9) reflect a statewide average that differs from 1.000, the calculation in column (10) ensures that the indicated changes by IG balance to the overall proposed statewide loss cost level change.

Column (13) normalizes the indicated to expected ratios determined in column (12) to determine differentials before credibility weighting. The credibilities are calculated for each industry group using actual lost-time cases (column (14)) and the full credibility standard. The full credibility standard (column (15)) is determined based on an analysis of five successive years of five industry group differential fluctuations across 36 states. In column (16), the credibility is 1.00 when lost-time claims exceed 12,000. The final differentials reflected in column (18) are the normalized credibility weighted industry group differentials calculated in column (17).



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Advisory Loss Costs and Rating Values Filing – August 1, 2023

Appendix B – Calculations Underlying the Loss Cost Change by Classification

NCCI separately determines 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 industrial 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, swing limits, and where applicable, any additional loads



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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
1/15-12/15	1.048	1.017	1.010	0.997
1/16-12/16	1.075	1.033	1.023	0.998
1/17-12/17	1.117	1.069	1.054	0.999
1/18-12/18	1.266	1.180	1.085	0.999
1/19-12/19	1.929	1.586	1.118	1.011

*The likely/not-likely development factors reflect a 60% likely / 40% not-likely distribution of the total tail development.

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
1/15-12/15	0.735	0.614
1/16-12/16	0.762	0.650
1/17-12/17	0.790	0.687
1/18-12/18	0.818	0.727
1/19-12/19	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
1/15-12/15	0.997	1.025	1.042	1.024	1.057
1/16-12/16	0.995	1.023	1.041	1.022	1.053
1/17-12/17	0.991	1.017	1.034	1.014	1.043
1/18-12/18	0.988	1.004	1.021	1.001	1.036
1/19-12/19	0.997	1.014	1.029	1.011	1.031



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APPENDIX B-I

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)
1/15-12/15	0.768	0.745	0.790	0.803	0.779	0.789	0.765	0.655	0.647
1/16-12/16	0.815	0.783	0.838	0.853	0.819	0.837	0.804	0.700	0.683
1/17-12/17	0.874	0.837	0.897	0.912	0.873	0.895	0.856	0.755	0.716
1/18-12/18	1.023	0.954	1.040	1.057	0.986	1.037	0.966	0.817	0.752
1/19-12/19	1.631	1.341	1.659	1.683	1.384	1.654	1.360	0.888	0.803

* 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	0.071	0.085	0.109	0.124	0.158	0.186	0.214
(2) Excess Factors 1/(1-(1))	1.076	1.093	1.122	1.142	1.188	1.229	1.272

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.



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APPENDIX B-I

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*	1.030	0.941	1.019	1.003	1.015
(2) Final Differentials**	1.014	0.974	1.008	1.002	1.007
(3) Adjustment (2)/(1)	0.984	1.035	0.989	0.999	0.992

*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)
1/15-12/15	0.916	1.065	1.064	1.001	0.917
1/16-12/16	0.921	1.065	1.068	0.997	0.918
1/17-12/17	0.909	1.065	1.071	0.994	0.904
1/18-12/18	0.861	1.066	1.073	0.993	0.855
1/19-12/19	0.899	1.066	1.069	0.997	0.896

3. Adjustment for Experience Change

A factor of 0.934 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
1/15-12/15	1.036	1.089	1.041	1.052	1.044
1/16-12/16	1.037	1.091	1.042	1.053	1.045
1/17-12/17	1.021	1.074	1.026	1.037	1.029
1/18-12/18	0.966	1.016	0.971	0.980	0.974
1/19-12/19	1.012	1.065	1.017	1.027	1.020



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APPENDIX B-I

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 0.934 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, 1.000 and 1.000, 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, 2023	1.000	1.013

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	1.229	1.229	1.229	1.229
(2) Loss-based Assessment	1.000	1.000	1.000	1.000
(3) = (1) + (2) – 1.000	1.229	1.229	1.229	1.229
(4) Overall Change (3b)/(3a)			1.000	1.000

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	1.102	1.111	0.992
Contracting	1.101	1.100	1.001
Office & Clerical	1.110	1.119	0.992
Goods & Services	1.020	1.023	0.997
Miscellaneous	1.082	1.075	1.007



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APPENDIX B-I

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	1.014	1.000	1.014
Contracting	0.974	1.001	0.975
Office & Clerical	1.008	1.000	1.008
Goods & Services	1.002	1.000	1.002
Miscellaneous	1.007	1.000	1.007

*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	0.939	0.952
Contracting	0.912	0.923
Office & Clerical	0.934	0.946
Goods & Services	0.933	0.945
Miscellaneous	0.947	0.959



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APPENDIX B-I

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: \$34,068,510 for indemnity and \$7,339,680 for medical.

The partial credibilities formula is:

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

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:

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

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.



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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	0.9979
Contracting	1.0080
Office & Clerical	1.0203
Goods & Services	0.9991
Miscellaneous	1.0247

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	1.111
Contracting	1.100
Office & Clerical	1.119
Goods & Services	1.023
Miscellaneous	1.075

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 10% above to 20% below
Contracting	from 6% above to 24% below
Office & Clerical	from 10% above to 20% 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

List of Classifications Limited by the Lower Swing

0113	2416	3629	3865	4110	4568	4751	4829	4511
5951	6213	7225	8602	8799	8856			



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APPENDIX B-II

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)	\$1,149.89 ¹	\$1,184.11 ²	3.0%
2) Basis of premium applicable in accordance with the Basic Manual notes for Code 7370 -- "Taxicab Co.":			
Employee operated vehicle ³	\$89,700	\$92,400	3.0%
Leased or rented vehicle ⁴	\$59,800	\$61,600	3.0%
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	\$4,600	\$4,700	2.2%
4) Minimum Weekly Payroll applicable in accordance with the Basic Manual rule, Rule for premium determination of executive officers ⁷	\$1,150	\$1,200	4.3%

¹ State Average Weekly Wage. Effective October 1, 2021.
² State Average Weekly Wage. Effective October 1, 2022.
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-1420.



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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
01/01/15 - 12/31/15	0	0	41,514	305,283	822,968	486,455	1,135,170	677,299	1,106,347
01/01/16 - 12/31/16	0	500,000	0	153,351	1,394,865	593,836	1,197,395	194,966	1,159,847
01/01/17 - 12/31/17	0	0	0	501,817	873,388	163,186	836,862	198,527	1,085,906
01/01/18 - 12/31/18	0	0	0	185,895	1,319,534	454,067	928,504	220,147	1,294,716
01/01/19 - 12/31/19	0	0	0	0	272,343	458,434	996,466	335,199	972,582

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
01/01/15 - 12/31/15	0.768	0.745	0.790	0.803	0.779	0.789	0.765	0.655	0.647
01/01/16 - 12/31/16	0.815	0.783	0.838	0.853	0.819	0.837	0.804	0.700	0.683
01/01/17 - 12/31/17	0.874	0.837	0.897	0.912	0.873	0.895	0.856	0.755	0.716
01/01/18 - 12/31/18	1.023	0.954	1.040	1.057	0.986	1.037	0.966	0.817	0.752
01/01/19 - 12/31/19	1.631	1.341	1.659	1.683	1.384	1.654	1.360	0.888	0.803

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%
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APPENDIX B-III

Derivation of Proposed Loss Cost - Code 8810

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
01/01/15 - 12/31/15	0	0	35,203	263,135	688,149	411,985	932,147	530,284	877,241
01/01/16 - 12/31/16	0	420,236	0	140,409	1,226,246	533,524	1,033,369	183,895	1,011,254
01/01/17 - 12/31/17	0	0	0	491,249	818,434	156,771	768,935	197,766	944,989
01/01/18 - 12/31/18	0	0	0	210,914	1,396,560	505,429	962,771	234,519	1,200,290
01/01/19 - 12/31/19	0	0	0	0	404,590	813,906	1,454,666	371,175	961,283

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

Policy Period	INDUSTRY GROUP: Office and Clerical
01/01/15 - 12/31/15	1.041
01/01/16 - 12/31/16	1.042
01/01/17 - 12/31/17	1.026
01/01/18 - 12/31/18	0.971
01/01/19 - 12/31/19	1.017

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
01/01/15 - 12/31/15	4,629,616,273	739,446	1,686,728	552,026	913,208	2,426,174	1,465,234	3,891,408
01/01/16 - 12/31/16	5,013,507,377	702,238	2,792,405	191,619	1,053,727	3,494,643	1,245,346	4,739,989
01/01/17 - 12/31/17	5,047,288,514	664,869	1,628,641	202,908	969,559	2,293,510	1,172,467	3,465,977
01/01/18 - 12/31/18	5,027,866,394	695,569	2,290,910	227,718	1,165,482	2,986,479	1,393,200	4,379,679
01/01/19 - 12/31/19	5,138,641,310	827,742	1,890,863	377,485	977,625	2,718,605	1,355,110	4,073,715
Total	24,856,919,868	3,629,864	10,289,547	1,551,756	5,079,601	13,919,411	6,631,357	20,550,768
INDICATED PURE PREMIUM						0.056	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	0.053	0.027	0.08
Conversion Factors (App. B-I, Section B)	0.934	0.946	xxx
PURE PREMIUMS PRESENT ON RATE LEVEL (Underlying Pure Premiums) x (Conversion Factor)	0.050	0.026	0.08



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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:

	<u>Indemnity</u>	<u>Medical</u>	<u>Total</u>
1. Indicated Pure Premium	0.056	0.027	0.08
2. Pure Premium Indicated by National Relativity	0.052	0.026	0.08
3. Pure Premium Present on Rate Level	0.050	0.026	0.08
4. State Credibilities	60%	93%	xxx
5. National Credibilities	20%	3%	xxx
6. Residual Credibilities = 100% - (4) - (5)	20%	4%	xxx
7. Derived by Formula Pure Premiums = (1) x (4) + (2) x (5) + (3) x (6)	0.054	0.027	0.08
8. Test Correction Factor	1.0203	1.0203	xxx
9. Underlying Pure Premiums = (7) x (8) *	0.052	0.028	0.08
10. Ratio of Manual to Standard Premium			1.119
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 = 0.09 x 0.800 = 0.08			
b) Upper bound = 0.09 x 1.100 = 0.09			
13. Pure Premiums Underlying Proposed Loss Cost* = ((13TOT) / (9TOT)) x (9) , (13TOT) = (12) / (10)	0.052	0.028	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



RHODE ISLAND APPENDIX B-IV

WCSP data is used to determine the F-Classification (F-Class) loss costs. The latest year of WCSP payroll is extended by both the current and proposed loss costs. Based on \$7,704,088 of payroll, the overall loss cost level change in Rhode Island is -14.7%.

I. Overview of Methodology

- 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.
- F-class code countrywide relativities are then calculated by comparing the F-class countrywide pure premiums by class to the overall countrywide F-class pure premium. The relativity values were updated in this filing and are reflected in the table in Section II.
- A single state primary base pure premium is calculated by applying a countrywide to state relativity factor to bring the F-class overall countrywide pure premium to the Rhode Island proposed level.
- A final base pure premium is calculated by bringing the primary base pure premium to the proposed Rhode Island trend and benefit levels, and applying any applicable expenses and/or offsets.
- Final F-Class loss costs are calculated by applying the countrywide relativity by class code to the final base pure premium and applying swing limits.

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



**RHODE ISLAND
APPENDIX B-IV**

II. The F-class code countrywide relativities:

Class Code	(1) 10-Year Countrywide Payroll	(2) 10-Year Expected Unlimited Countrywide Losses	(3) = (2)/((1)/100) Countrywide Pure Premium	(4) = (3)/(3)Overall Countrywide Relativity
6006	319,348,635	16,099,739	5.04	1.686
6801*	25,149,359	317,541	1.26	1.000
6824	458,135,225	16,228,862	3.54	1.184
6825	282,951,707	2,983,160	1.05	0.351
6826	131,202,370	2,614,329	1.99	0.666
6828*	32,547,556	295,888	0.91	1.000
6829*	14,486,717	215,799	1.49	1.000
6843	1,175,200,155	47,728,908	4.06	1.358
6845	261,305,795	5,703,096	2.18	0.729
6872	1,586,157,671	60,116,329	3.79	1.268
6873*	33,323,113	1,109,521	3.33	1.000
6874	119,940,848	5,708,295	4.76	1.592
7309	899,444,077	33,043,808	3.67	1.227
7313	694,325,089	10,328,694	1.49	0.498
7317	1,259,736,448	35,680,681	2.83	0.946
7327	53,442,740	4,022,190	7.53	2.518
7350	673,451,636	20,606,788	3.06	1.023
8709	404,943,249	4,647,082	1.15	0.385
8726	703,002,097	5,536,694	0.79	0.264
9077*	442,283	3,517	0.80	1.000
Overall	9,128,536,770	272,990,921	2.99	

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

III. 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
9077

Classifications Limited by the Lower Swing
6824 6826 6843 6845
6872 6874 7309 7313
7317 7327 7350 8709
8726



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APPENDIX B-IV**

Derivation of State Base Pure Premium

	<u>Indemnity</u>	<u>Medical</u>	<u>Total</u>
1. Overall Countrywide Pure Premium			2.99
2. State Act Pure Premium Relativity Factor			1.205
3. Countrywide State Act Weight			24%
4. Primary Base Pure Premium = [(1) x (2) x (3)] + [(1) x (1 - (3))]			3.14
5. Countrywide Weights	50%	50%	100%
6. Trend Factors	0.946	0.916	xx
7. Weighted Benefits	1.000	1.003	xx
8. Weighted Loss-Based Expenses	1.296	1.229	xx
9. Secondary Base Pure Premium = (4tot) x (5) x (6) x (7) x (8)	1.925	1.773	3.70
10. Additional Offsets			1.000
11. Final Base Pure Premium = (9) x (10)			3.70



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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	3.70
2. Countrywide Class Code 6872 Relativity (Section II)	1.268
3. Loss Cost = (1) x (2)	4.69
4. Loss Cost Within Swing Limits	5.01
Current Loss Cost x Swing Limits	
a) Lower bound = $5.89 \times 0.85 = 5.01$	
a) Upper bound = $5.89 \times 1.15 = 6.77$	
5. Disease, Catastrophe and/or Miscellaneous Loadings	0.00
6. Final Loaded Loss Cost	5.01



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APPENDIX B-IV

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.) Assessment Rate on Indemnity Losses *	8.8%
2.) Assessment Rate on Total Losses #	4.8%

* Calculated using data provided by the U.S. Department of Labor

Calculated using U.S. Department of Labor data and on-leveled and developed USL&HW losses - statistical plan data



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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.

Changes affecting the Rhode Island Medical Fee Schedule Effective January 1, 2023 are detailed in this section of the filing.



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Appendix C-I

Analysis of Rhode Island Medical Fee Schedule Changes Effective January 1, 2023

NCCI estimates that the changes to the medical fee schedule in Rhode Island, effective January 1, 2023, will result in an impact of +0.4% 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, 2022. The changes to the MFS, effective January 1, 2023, include revisions to professional services, ambulance, HCPCS, and dental services.

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 prior 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.
 - Any potential impact from the share of costs not subject to the fee schedule will be realized in future claim experience and reflected in subsequent NCCI loss cost filings, as appropriate.
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, HCPCS, and dental fee schedules.



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Appendix C-I

Analysis of Rhode Island Medical Fee Schedule Changes Effective January 1, 2023

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 2020. Reported medical experience for COVID-19 claims as reported in NCCI Call 31 for Large Loss and Catastrophe have been excluded from the data on which this analysis is based.
- The share of benefit costs attributed to medical benefits is based on NCCI’s Financial Call data for Rhode Island from Policy Years 2017, 2018, and 2019 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, 2023, 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	+2.0%	60.3%	+1.2%
Other ¹	+1.4%	9.0%	+0.1%
Combined Impact on Medical Costs (D) = Total of (C)			+1.3%
Medical Costs as a Share of Overall Costs (E)			29%
Combined Impact on Overall Costs (F) = (D) x (E)			+0.4%

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.

¹ Other includes ambulance, HCPCS, and dental services.



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Appendix C-I

Analysis of Rhode Island Medical Fee Schedule Changes Effective January 1, 2023

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	3.1%	+3.0%
Surgery	25.7%	+2.4%
Radiology	9.4%	+3.0%
Pathology & Laboratory	0.2%	+2.0%
Evaluation & Management	23.2%	+2.8%
Medicine	1.8%	+1.7%
State-Specific Codes	27.2%	+3.0%
Payments with no specific MAR	9.4%	--
Total	100.0%	+2.5%

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	90.6%	+2.5%	+2.0%
Other	42.0%	+1.8%	+1.4%



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Advisory Loss Costs and Rating Values Filing – August 1, 2023

Part 4 Additional Information

- Definitions
- NCCI Affiliate List
- Key Contacts



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Advisory Loss Costs and Rating Values Filing – August 1, 2023

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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Advisory Loss Costs and Rating Values Filing – August 1, 2023

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.



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NCCI Affiliate List

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



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NCCI Affiliate List

GENERAL INS CO OF AMERICA	MID CENTURY INS CO
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	NEXT INSURANCE US COMPANY
HARTFORD INS CO OF THE SOUTHEAST	NGM INSURANCE COMPANY
HARTFORD UNDERWRITERS INS CO	NORGUARD INS CO
HDI GLOBAL INSURANCE COMPANY	NORMANDY INSURANCE COMPANY
ILLINOIS NATIONAL INSURANCE COMPANY	NORTH POINTE INS CO
IMPERIUM INSURANCE COMPANY	NORTH RIVER INS CO
INDEMNITY INS CO OF N AMERICA (INA INS) (CT GEN)	NORTHSTONE INSURANCE COMPANY
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	PIE CASUALTY INS CO
MERCHANTS PREFERRED INSURANCE COMPANY	PINNACLE NATIONAL INSURANCE COMPANY
MERIDIAN SECURITY INSURANCE COMPANY	PINNACLEPOINT INSURANCE COMPANY



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PLAZA INSURANCE CO
PRAETORIAN INSURANCE COMPANY
PREFERRED EMPLOYERS INS CO
PREFERRED PROFESSIONAL INSURANCE COMPANY
PRIVILEGE UNDERWRITERS RECIPROCAL EXCHANGE
PROPERTY AND CASUALTY INS CO OF HARTFORD
PROTECTIVE INS CO
QBE INSURANCE CORPORATION
REDWOOD FIRE & CASUALTY INS CO
REGENT INSURANCE COMPANY
REPUBLIC FRANKLIN INS CO
REPUBLIC INDEMNITY CO OF CA
REPUBLIC INDEMNITY COMPANY OF AMERICA
RIVERPORT INSURANCE COMPANY
RLI INSURANCE COMPANY
SAFECO INS CO OF AMERICA
SAFETY FIRST INS CO
SAFETY NATIONAL CASUALTY CORP
SAGAMORE INSURANCE CO
SAMSUNG FIRE AND MARINE INS CO LTD USB
SCOTTSDALE INDEMNITY CO
SECURITY NATIONAL INS CO (AMTRUST GROUP)
SELECTIVE INS CO OF SC
SELECTIVE INS CO OF THE SOUTHEAST
SELECTIVE INSURANCE COMPANY OF AMERICA
SELECTIVE WAY INS CO
SENTINEL INS CO
SENTRY CASUALTY CO
SENTRY INS CO
SENTRY SELECT INSURANCE COMPANY
SEQUOIA INSURANCE CO
SERVICE AMERICAN INDEMNITY COMPANY
SERVICE LLOYDS INSURANCE CO, A STOCK COMPANY
SIRIUSPOINT AMERICA INSURANCE COMPANY
SOMPO AMERICA FIRE & MARINE INSURANCE COMPANY
SOMPO AMERICA INSURANCE COMPANY
SOUTHERN INS CO
ST PAUL FIRE AND MARINE INS CO
ST PAUL GUARDIAN INS CO
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
SUMMITPOINT INSURANCE COMPANY
SUNZ INSURANCE COMPANY
SWISS RE CORPORATE SOLUTIONS AMERICA INS CORP
SWISS RE CORPORATE SOLUTIONS ELITE INS CORP
SWISS RE CORPORATE SOLUTIONS PREMIER INS CORP
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
TRAVELERS INDEMNITY CO OF CT
TRAVELERS INSURANCE CO
TRAVELERS PROPERTY CASUALTY CO OF AMERICA
TRI STATE INSURANCE COMPANY OF MINNESOTA
TRIUMPHE CASUALTY COMPANY
TRUCK INSURANCE EXCHANGE
TRUMBULL INS CO
TWIN CITY FIRE INS CO
UNION INS CO OF PROVIDENCE
UNION INSURANCE COMPANY
UNITED STATES FIDELITY AND GUARANTY CO
UNITED WI INS CO
US FIRE INS CO
UTICA MUTUAL INS CO
VALLEY FORGE INS CO
VANLINER INS CO
VANTAPRO SPECIALTY INS CO
VICTORIA FIRE & CASUALTY COMPANY
VIGILANT INS CO
WCF NATIONAL INSURANCE COMPANY
WCF SELECT INSURANCE COMPANY
WELLFLEET INSURANCE COMPANY
WELLFLEET NEW YORK INSURANCE COMPANY
WESCO INSURANCE COMPANY (AMTRUST GROUP)
WEST AMERICAN INS CO
WEST BEND MUTUAL INS CO
WESTCHESTER FIRE INSURANCE COMPANY
WESTPORT INSURANCE CORPORATION
WORK FIRST CASUALTY CO
XL INS CO OF NY INC
XL INSURANCE AMERICA INC
XL SPECIALTY INS CO
ZENITH INS CO
ZURICH AMERICAN INS CO
ZURICH AMERICAN INS CO OF IL



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Advisory Loss Costs and Rating Values Filing – August 1, 2023

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