



Connecticut

**Voluntary Loss Costs,
Assigned Risk Rates, and
Rating Values Filing**

Proposed Effective January 1, 2025

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September 10, 2024

Andrew N. Mais
Insurance Commissioner
Connecticut Insurance Department
153 Market Street
Hartford, CT 06103

**Re: Connecticut Voluntary Loss Costs, Assigned Risk Rates, and Rating Values Filing—
Proposed Effective January 1, 2025**

Dear Commissioner Mais:

In accordance with applicable Connecticut statutes and regulations, we are filing for your consideration and approval voluntary loss costs, assigned risk rates, and rating values to become effective January 1, 2025 for new and renewal policies. This filing proposes an overall average decrease of 6.1% to the current voluntary loss cost level and an average decrease of 6.2% to the current assigned risk rate level. These changes are applicable to new and renewal business only.

Reported COVID-19-related claims have been excluded from the data on which this filing is based for claims prior to July 1, 2023 to better reflect the conditions likely to prevail during the proposed effective period. As a result of approved Item E-1410, claims attributable to COVID-19 with accident dates on or after July 1, 2023 are no longer treated as catastrophic claims.

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 state, 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.

Please contact me if you have any questions or need further information.

Sincerely,

A handwritten signature in black ink, appearing to read "Justin Moulton".

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



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Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

Actuarial Certification

I, Robert Moss, am an Actuary II for the National Council on Compensation Insurance, Inc. I am an Associate 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 that reads "Robert J Moss". The signature is fluid and cursive, with "Robert" on the top line and "J Moss" on the bottom line.

Robert Moss, ACAS, MAAA
Actuary II
Actuarial and Economic Services



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Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

Disclosures

Purpose of the Report

The purpose of this report is to provide the proposed voluntary loss costs and assigned risk rates for workers compensation policies in Connecticut, proposed to be effective January 1, 2025.

The intended users of this report are:

- The Connecticut Insurance Department
- 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 Connecticut must file a loss cost multiplier to be applied to the approved prospective loss costs 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 prospective loss costs.

Employers unable to secure coverage in the voluntary market can apply for such coverage in the assigned risk market. The proposed assigned risk rates are intended to cover the indemnity and medical benefits provided under the system, the expenses associated with providing these benefits (loss adjustment expenses), and any other costs associated with providing workers compensation insurance (such as commissions, taxes, etc.).

NCCI utilizes widely accepted general ratemaking methodologies in the calculation of advisory loss costs, including (i) experience base determination, (ii) chain ladder development method, (iii) trending procedure, and (iv) application of indemnity and medical benefit changes. These ratemaking methodologies are unchanged from the prior filing and continue to remain appropriate for use in this filing.



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Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

Disclosures

Data Sources

Key Dates

Financial Data Valuation Date	December 31, 2023
Financial Call Data Cutoff Date	July 16, 2024
Unit Statistical Plan Data Cutoff Date	July 23, 2024
Filing Preparation Date	August 13, 2024

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 five years of 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 Connecticut workers compensation written premium volume have been included in the experience period on which this filing is based.



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Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

Disclosures

NCCI categorizes catastrophic events as those that incur aggregate workers compensation losses in excess of \$50 million per occurrence. Pandemics have the potential to be catastrophic in terms of the costs they impose on the workers compensation system. NCCI's ratemaking methodology excludes losses related to catastrophes from the calculation of loss costs and rates. This is because the actual experience from such events is not considered predictive of future experience. In line with this methodology, NCCI is proposing to treat COVID-19 claims with accident dates between December 1, 2019 through July 1, 2023 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. Due to approved Item E-1410, claims attributable to COVID-19 with accident dates on or after July 1, 2023, are no longer treated as catastrophic claims and are included in the calculation of loss costs in this year's filing. The temporary classification of COVID-19 claims as catastrophic was intended to address the initial surge in cases but is no longer necessary. As COVID-19 losses are expected to persist, they no longer represent a unique risk in workers compensation. Starting July 1, 2023, NCCI anticipates that COVID-19 claims will align with typical claim patterns and no longer need special treatment, and thus should be treated like any other workers compensation claims for ratemaking purposes.

Below is a summary of COVID-19-related lost-time claim counts and indemnity and medical combined paid plus case losses, as reported in NCCI's Financial Call 31 as of year-end 2023.

<u>Year</u>	<u>COVID-19 Lost-Time Claim Counts</u>	<u>COVID-19 Paid+Case Losses</u>
PY 2019	314	\$11,761,505
PY 2020	447	\$5,113,628
PY 2021	155	\$458,070
PY 2022	34	\$29,153
AY 2020	709	\$16,328,187
AY 2021	158	\$973,447
AY 2022	73	\$55,331
AY 2023	10	\$5,391

Excludes large deductible and expense-only claims.



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Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

Disclosures

Reported COVID-19-related losses would have represented about a 0.1% share of the reported paid plus case losses in Connecticut's experience 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.



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Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

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- NCCI Affiliate List
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Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

Part 1 Filing Overview

- Executive Summary
- Overview of Methodology
- Summary of Selections
- Additional Proposed Changes



Connecticut

Voluntary Loss Costs and Assigned Risk Rate Filing – January 1, 2025

Executive Summary

Based on its review of the most recently available data, NCCI has proposed the following overall average workers compensation voluntary loss cost and assigned risk rate level changes in Connecticut to become effective January 1, 2025.

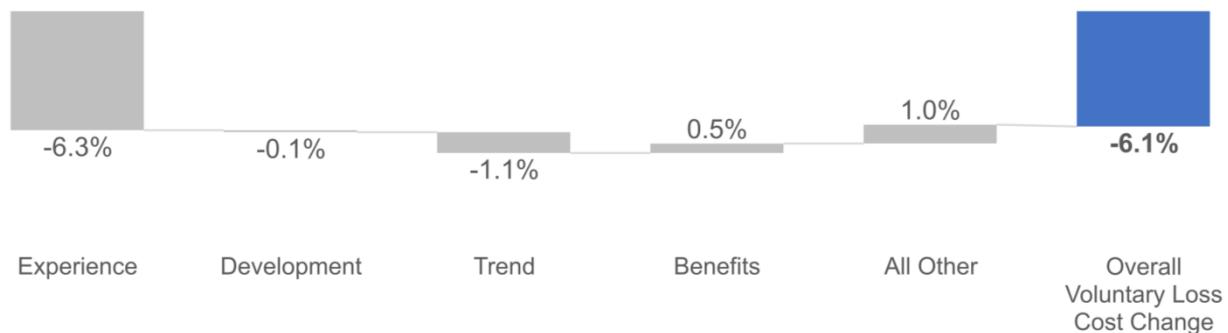
Summary of Overall Indications

Proposed Change in Overall Voluntary Loss Cost Level	- 6.1%
Proposed Change in Overall Assigned Risk Rate Level	- 6.2%

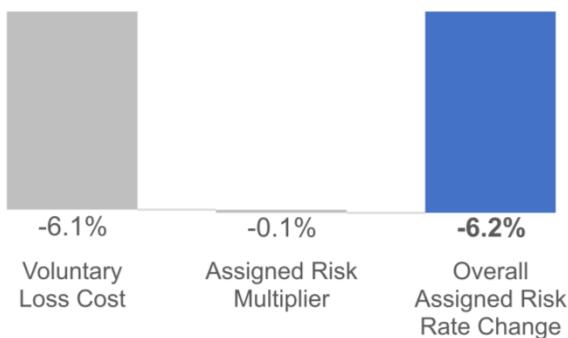
Breakdown of the Change in Key Components

Below are changes in the key components underlying the overall voluntary loss cost and assigned risk rate level indications. The impact of these components are combined multiplicatively to produce the overall change. The overall change varies by classification code, each of which belongs to one of five Industry Groups.

Voluntary Loss Cost



Assigned Risk Rate



The key components shown above are described in detail on the following pages.



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Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

Executive Summary

Key Components

Experience and Development

- This filing is based on premium and loss experience for Policy Years 2021 and 2022 evaluated as of December 31, 2023. The financial data experience period evaluated as of December 31, 2023 shows improvement when compared to the data evaluated as of December 31, 2022. Refer to Exhibit I for the considerations underlying the experience period and loss base selections.
 - A combination of both paid and paid plus case data was selected to best reflect the conditions likely to prevail in the proposed effective period. This is a change from prior filings as only indemnity paid plus case data had been used previously when estimating ultimate losses for indemnity.
 - Reported COVID-19-related claims with accident dates between December 1, 2019 through June 30, 2023 have been excluded from the data on which this filing is based.
- The reported loss amounts are projected to an ultimate basis using a 5-year average for paid plus case losses. Refer to Appendix A-II for considerations underlying the development selections.

Trend

- Generally, the selected annual loss ratio trends in this year's filing are primarily based on observed longer-term patterns. Refer to Appendix A-III for considerations underlying the trend selection.
 - Exponential fits were reviewed to support a proposed decrease to the indemnity loss ratio trend from -3.5% to -4.0% and maintaining the currently approved medical loss ratio trend of -6.0%.
 - After adjusting to a common wage level, Connecticut lost-time claim frequency has generally been declining. Although small increases in Connecticut's claim frequency were observed in both Policy Years 2020 and 2021, frequency declined by almost 10% in Policy Year 2022.
 - After adjusting to a common wage level, the indemnity average cost per case has been relatively flat over the long-term although with moderate year-to-year variability, while the medical average cost per case figures have been declining, on average, with significant year-to-year variability.



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Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

Executive Summary

Other Items of Note

- The primary driver of the proposed change is improved experience.
- The proposed loss cost change includes an increase to the loss expense provision.
- The benefit change reflects the impact of recent updates to the Connecticut medical fee schedule.
- This filing proposes a decrease to the assigned risk profit and contingency provision from 0.0% to -1.0%, which considers the notable shift in interest rates in recent years. The proposed assigned risk rate level change also includes a proposed increase to the assigned risk differential along with an updated assigned risk servicing carrier allowance.
- Additional proposed methodology changes in this filing include a change to the selected assigned risk market share. Please refer to the Additional Proposed Changes section for additional information.



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Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

Overview of Methodology

The following 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.

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 Connecticut-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/or 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")



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Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

Overview of Methodology

Assigned Risk Rates

The proposed assigned risk rates are then determined for each job classification as the product of the classification's voluntary loss cost and a loss cost multiplier (LCM). The LCM incorporates the indicated assigned risk market expense need, changes to the assigned risk differential, and the proposed uncollectible premium provision.



Connecticut

Voluntary Loss Costs and Assigned Risk Rate Filing – January 1, 2025

Summary of Selections

The following is a summary of selections underlying the voluntary loss costs and assigned risk rates proposed to be effective January 1, 2025, along with the selections underlying the currently approved filing effective January 1, 2024.

<u>Voluntary Loss Costs</u>	<u>Currently Approved</u> <u>January 1, 2024</u>	<u>Proposed Effective</u> <u>January 1, 2025</u>
Experience Period	Policy Years 2020 and 2021	Policy Years 2021 and 2022
Premium Development	3-yr avg	3-yr avg
Loss Experience Base – Indemnity / Medical	Indemnity: Paid + Case Medical: Avg Paid and P+C	Avg Paid and P+C
Loss Development - Paid	3-yr avg	3-yr avg
Loss Development - Paid+Case	5-yr avg	5-yr avg
Tail Factor – Indemnity	1.065	1.055
Tail Factor – Medical	1.025	1.015
Trend Factor – Indemnity Loss Ratio	0.965	0.960
Trend Factor – Medical Loss Ratio	0.940	0.940
Base Threshold for Limiting Losses	\$6,049,163	\$6,218,175
Excess Ratio	3.0%	3.0%
Loss-based Expense Provision	20.4%	21.9%
Classification Swing Limits (applied by Industry Group)	+/-20%	+/-20%
<u>Assigned Risk Rates</u>	<u>Currently Approved</u> <u>January 1, 2024</u>	<u>Proposed Effective</u> <u>January 1, 2025</u>
Assigned Risk Differential	1.500	1.550
Permissible Loss Ratio (PLR)	0.724	0.740
Uncollectible Premium Provision (UPP)	4.0%	4.0%
Servicing Carrier Allowance (SCA)	19.1%	18.6%
Profit and Contingencies Provision (P&C)	0.0%	-1.0%
Maximum Minimum Premium	\$1,500	\$1,500
Minimum Premium Multiplier	320	320
Expense Constant	\$160	\$160



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Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

Additional Proposed Changes

Selected Assigned Risk Market Share Premium Calculation

NCCI adjusts the historical policy year experience to the current level by reflecting approved loss cost and rate level changes. In this process, known as on-leveled, premium adjustment factors are calculated for the assigned risk market as well as the voluntary market to calculate a final premium that is applicable statewide.

In order to remove possible policy year-to-year distortions that may result due to changes in the volume of business written in the voluntary or assigned risk markets, assigned risk premium is brought to a common selected market share level. A consistent selected assigned risk market share value from filing-to-filing results in a benchmark loss cost that is independent of changes in the size of the assigned risk market. In prior Connecticut filings, a market share of 0% was selected which adjusted the assigned risk premium to the voluntary premium level by removing the assigned risk premium programs (e.g., ARAP, differential).

Based on a review of historical assigned risk market shares, a market share of 5% was selected in this filing. Rather than establishing voluntary loss costs that assume all risks will be written at the voluntary loss cost premium level, this selection is intended to recognize that there will inevitably be some minimum proportion of employers who obtain coverage in the assigned risk market each year. The selection in this year's loss cost filing considers the observed history across a 15 year period in which assigned risk market shares range from 3% to 7%, while also considering Connecticut's industry mix, economic factors, and the assigned risk mechanisms in effect. The positive market share selection recognizes that 5% of premium will be a function of the assigned risk market. This assumed level considers the estimated impact from the current assigned risk premium programs in the calculation of the overall advisory loss cost and rate level change.

NCCI's methodology of selecting an assigned risk market share leads to a stable benchmark loss cost, that is independent of variations in the assigned risk market's size over time. The updated selection in this filing, which reflects various state-specific factors, will result in a downward impact of approximately 1.8% to the voluntary loss costs.

When a positive assigned risk market share is selected, the assigned risk differential is calculated by comparing the historical on-leveled assigned risk loss ratios to the similarly adjusted voluntary loss ratios, after accounting for additional premium generated from assigned risk pricing programs. Under the prior approach, the historical on-leveled assigned risk loss ratios were compared to the similarly adjusted statewide loss ratios, without accounting for additional premium from assigned risk pricing programs. As a result of the selection of a positive assigned risk market share and resulting decrease to the voluntary loss cost level in this year's filing, the assigned risk differential was increased in this filing.

Please refer to Appendix A-I for more information.



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Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

Part 2 Proposed Values

- Proposed Voluntary Loss Costs for Inclusion in the Basic Manual
- Proposed Assigned Risk Rates for Inclusion in the Residual Market Manual
- Proposed Values for Inclusion in the Experience Rating Plan Manual
- Proposed Values for Inclusion in the Retrospective Rating Plan Manual

Please note the following in connection with this filing:

- As a result of Item R-1423, the Retrospective Rating Plan parameters have been updated.



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Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

Proposed Voluntary Loss Costs for Inclusion in the Basic Manual

The following pages include proposed:

- Table of payroll-weighted class codes
- Voluntary 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



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Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

Proposed Voluntary Loss Costs

Payroll-Weighted Class Codes

This exhibit is included to display combined experience for indicated groupings of classes in the determination of loss costs.

Loss costs for these groups are calculated by payroll-weighting the indicated loss costs of the class codes using the latest policy period of payroll included in this filing. If swing limits are applied to a class code's loss cost, preventing it from achieving the payroll-weighted loss cost, it is noted in the table below with an "Upper" or "Lower" to indicate which limit was applied because of payroll-weighting.

The class codes below also have a footnote indicating a non-standard calculation in the Individual Classification Exhibit that accompanies this filing.

Class Code	Swing Limit Applied
0008	-
0079	-
0113	-
0170	-

ADVISORY LOSS COSTS - NOT RATES**CONNECTICUT**

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

Original Printing**Page S1****Effective January 1, 2025**

CLASS CODE	LOSS COST											
0005	1.77	2081	2.73	2797	2.32	3336	2.22	4133	1.99	4829	0.78	
0008	1.73	2089	2.16	2799	4.50	3365	4.19	4149	0.59	4902	1.51	
0016	2.98	2095	2.75	2802	3.38	3372	2.29	4206	3.24	4923	1.11	
0034	2.48	2105	3.05	2835	2.40	3373	3.23	4207	1.69	5020	3.65	
0035	1.42	2110	3.29	2836	2.24	3383	1.09	4239	1.57	5022	5.58	
0036	2.77	2111	1.77	2841	2.49	3385	1.61	4240	2.06	5037	4.86	
0037	2.99	2112	2.88	2881	1.97	3400	2.44	4243	1.77	5040	7.00	
0042	4.20	2114	1.31	2883	2.16	3507	2.06	4244	2.06	5057	4.04	
0050	5.20	2121	0.97	2915	2.19	3515	1.43	4250	1.65	5059	10.12	
0059	—	2130	1.48	2916	2.16	3548	1.07	4251	2.13	5102	4.00	
0065	—	2131	1.25	2923	1.44	3559	1.87	4263	2.52	5146	3.55	
0066	—	2143	1.97	2960	3.40	3574	1.30	4273	1.72	5160	1.95	
0067	—	2157	4.51	3004	1.03	3581	0.69	4279	2.32	5183	2.46	
0079	1.73	2172	1.48	3018	2.61	3612	1.30	4283	1.39	5188	2.69	
0083	3.69	2174	2.11	3022	2.82	3620	1.95	4299	1.78	5190	1.98	
0106	5.76	2211	5.21	3027	2.20	3629	1.12	4304	3.32	5191	0.72	
0113	2.71	2220	2.04	3028	2.06	3632	1.57	4307	1.26	5192	2.70	
0170	2.71	2286	—	3030	4.86	3634	1.55	4351	0.80	5213	6.10	
0251	2.63	2288	3.22	3040	3.43	3635	1.05	4352	0.92	5215	4.78	
0401	7.73	2302	1.50	3041	2.93	3638	1.25	4360	—	5221	3.90	
0771N	0.43	2305	1.93	3042	2.71	3642	0.92	4361	0.46	5222	5.46	
0908P	120.00	2361	1.51	3064	2.71	3643	1.29	4410	2.06	5223	4.01	
0913P	345.00	2362	1.82	3076	2.46	3647	2.07	4420	2.46	5348	3.74	
0917	2.75	2380	1.52	3081	3.78	3648	0.86	4431	0.84	5402	5.09	
0918	0.63	2386	—	3082	3.12	3681	0.67	4432	1.22	5403	4.81	
1005	4.14	2388	0.97	3085	3.43	3685	0.63	4452	2.16	5437	3.97	
1164	2.37	2402	1.67	3110	2.92	3719	0.76	4459	2.06	5443	2.64	
1165	1.87	2413	1.46	3111	1.40	3724	2.80	4470	1.74	5445	3.85	
1320	1.23	2416	1.64	3113	1.25	3726	3.07	4484	2.06	5462	4.56	
1322	6.49	2417	0.96	3114	1.77	3803	1.94	4493	1.80	5472	3.97	
1430	2.66	2501	1.72	3118	1.26	3807	1.45	4511	0.31	5473	6.06	
1438	2.50	2503	1.02	3119	0.68	3808	2.58	4557	1.55	5474	4.34	
1452	1.70	2534	—	3122	1.23	3821	4.20	4558	1.54	5478	2.99	
1463	4.99	2560	—	3126	2.04	3822	2.97	4568	1.84	5479	6.52	
1472	2.35	2570	2.96	3131	1.28	3824	2.35	4581	0.67	5480	4.74	
1624	2.15	2585	3.09	3132	2.08	3826	0.58	4583	2.78	5491	1.69	
1642	2.13	2586	2.63	3145	1.68	3827	1.39	4611	0.68	5506	4.35	
1654	3.10	2587	1.99	3146	2.18	3830	1.19	4635	2.13	5507	3.43	
1699	2.07	2589	1.25	3169	2.13	3851	1.39	4653	1.29	5508	—	
1701	2.19	2600	3.44	3179	1.62	3865	2.18	4665	5.67	5509	4.08	
1710	2.07	2623	3.82	3180	1.67	3881	2.55	4670	—	5535	5.03	
1747	2.81	2651	0.92	3188	1.30	4000	3.62	4683	2.58	5537	2.64	
1748	3.16	2660	1.54	3220	1.51	4021	2.74	4686	1.79	5551	11.14	
1803	4.53	2670	—	3224	2.50	4024	2.89	4692	0.49	5604	1.35	
1924	2.21	2683	—	3227	1.80	4034	4.45	4693	0.59	5606	0.81	
1925	2.18	2688	1.20	3240	—	4036	1.70	4703	1.13	5610	3.43	
2002	2.78	2701	7.70	3241	2.54	4038	1.81	4717	1.60	5645	10.28	
2003	3.22	2702	12.37	3255	1.87	4062	1.54	4720	1.39	5703	7.01	
2014	5.88	2709	5.95	3257	1.71	4101	1.91	4740	0.75	5705	14.12	
2016	3.04	2710	4.65	3270	1.39	4109	0.36	4741	2.14	5951	0.34	
2021	2.47	2714	3.29	3300	3.07	4110	0.65	4751	1.95	6003	5.94	
2039	2.53	2731	3.24	3303	2.19	4111	2.13	4771N	2.42	6005	4.72	
2041	2.67	2735	3.12	3307	1.68	4114	1.94	4777	4.82	6018	2.53	
2065	1.86	2759	3.49	3315	2.79	4130	2.80	4825	0.53	6045	3.87	
2070	3.42	2790	1.36	3334	2.02	4131	3.58	4828	1.17	6204	6.06	
											7309F	4.67

REFER TO UPDATE PAGE FOR ALL SUBSEQUENT REVISIONS TO ALL CLASS CODESRefer 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.

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ADVISORY LOSS COSTS - NOT RATES

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

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CLASS CODE	LOSS COST										
7313F	2.06	8032	1.41	8745	2.56	9180	3.24				
7317F	3.15	8033	1.38	8748	0.33	9182	1.73				
7327F	7.46	8037	1.51	8754	0.56	9186	8.34				
7333M	1.65	8039	1.18	8755	0.20	9220	2.89				
7335M	1.83	8044	2.24	8799	0.33	9402	2.58				
7337M	2.52	8045	0.78	8800	1.17	9403	5.90				
7350F	4.04	8046	2.05	8803	0.03	9410	3.11				
7360	3.58	8047	0.65	8805M	0.09	9501	2.31				
7370	3.36	8058	1.62	8810	0.07	9505	2.30				
7380	5.33	8072	0.48	8814M	0.09	9516	1.90				
7382	2.41	8102	1.53	8815M	0.13	9519	2.91				
7390	9.41	8103	2.44	8820	0.09	9521	2.23				
7394M	2.65	8106	2.94	8824	2.02	9522	1.56				
7395M	2.94	8107	2.18	8825	—	9534	3.28				
7398M	4.04	8111	1.84	8826	1.41	9554	5.50				
7402	0.07	8116	2.22	8829	—	9586	0.36				
7403	2.13	8203	4.89	8831	0.73	9600	1.65				
7405N	0.77	8204	2.85	8832	0.27	9620	1.06				
7420	4.61	8209	2.89	8833	0.54						
7421	0.39	8215	2.62	8835	1.34						
7422	0.77	8227	3.22	8842	1.81						
7425	1.37	8232	3.92	8855	0.08						
7431N	0.51	8233	2.89	8856	0.28						
7445N	0.41	8235	3.02	8864	1.17						
7453N	0.27	8263	4.36	8868	0.25						
7502	1.36	8264	3.62	8869	0.54						
7515	0.84	8265	4.38	8871	0.03						
7520	1.55	8279	4.50	8901	0.10						
7538	1.74	8288	5.55	9012	0.67						
7539	0.98	8291	2.98	9014	1.88						
7540	2.03	8292	2.52	9015	2.00						
7580	1.79	8293	5.90	9016	1.40						
7590	3.42	8304	4.28	9019	2.01						
7600	4.68	8350	5.70	9033	2.20						
7605	1.75	8380	1.65	9040	2.30						
7607	0.07	8381	1.24	9044	0.99						
7610	0.23	8385	2.14	9052	1.38						
7705	3.21	8392	1.47	9058	1.04						
7710	3.49	8393	1.52	9060	0.88						
7711	18.65	8500	4.03	9061	0.90						
7720	2.24	8601	0.20	9063	0.53						
7723	1.03	8602	0.90	9077F	3.50						
7731*	2.21	8603	0.05	9082	0.71						
7855	2.31	8606	1.10	9083	0.69						
8001	1.44	8709F	3.88	9084	0.91						
8002	1.29	8719	1.93	9088a	a						
8006	1.44	8720	0.84	9089	0.65						
8008	0.73	8721	0.16	9093	0.88						
8010	1.16	8723	0.05	9101	2.44						
8013	0.24	8725	1.50	9102	1.95						
8015	0.61	8726F	0.88	9154	1.02						
8017	1.04	8734M	0.20	9156	1.26						
8018	2.78	8737M	0.18	9170	9.46						
8021	2.05	8738M	0.28	9178	3.77						
8031	1.37	8742	0.15	9179	8.22						

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 January 1, 2025**FOOTNOTES**

- a Advisory loss cost for each individual risk must be obtained from NCCI Customer Service or the Rating Organization having jurisdiction.
- F Advisory loss cost provides for coverage under the United States Longshore and Harbor Workers Compensation Act and its extensions.
- 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.
- 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 class 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 and elr each x 1.856.
- 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.
- 7731 Loss cost per Service Response.

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

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ADVISORY MISCELLANEOUS VALUES

Advisory Loss Elimination Ratios - The following percentages are applicable by deductible amount and hazard group for total losses on a per claim basis. They do not include a safety factor.

Deductible Amount	Total Losses						
	HAZARD GROUP						
	A	B	C	D	E	F	G
\$1,000	6.7%	5.2%	4.0%	3.5%	2.5%	2.0%	1.7%
\$5,000	17.2%	14.0%	11.6%	10.3%	8.1%	6.7%	5.6%
\$10,000	24.6%	20.8%	17.6%	15.9%	12.9%	10.8%	9.2%

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

Employee operated vehicle.....	\$129,000
Leased or rented vehicle.....	\$86,000

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

Maximum Weekly Payroll applicable in accordance with the **Basic Manual** rule, Rule for premium determination of executive officers and the **Basic Manual** notes for Code 9178 -- "Athletic Sports or Park: Noncontact Sports," and Code 9179 -- "Athletic Sports or Park: Contact Sports"..... \$1,650

Maximum Weekly Payroll applicable in accordance with the **Basic Manual** rules, Rule for premium determination of executive officers and Rule for premium determination of members of LLCs..... \$3,300

Minimum Weekly Payroll applicable in accordance with the **Basic Manual** rules, Rule for premium determination of executive officers and Rule for premium determination of members of LLCs..... \$1,650

Premium Determination for Partners and Sole Proprietors in accordance with the **Basic Manual** rule, Rule for premium determination for partners or sole proprietors (Annual Payroll)..... \$86,000

Terrorism - (Advisory Loss Cost) 0.025

United States Longshore and Harbor Workers' Compensation Coverage Percentage applicable only in connection with the **Basic Manual** rule, Federal coverages..... 50%

(Multiply a Non-F classification loss cost by a factor of 1.50 to adjust for the difference in state and federal benefits only.)

Workers Compensation Administration Funds Assessment factors applicable in accordance with the **Basic Manual** rule, Rule for applying the Connecticut Workers Compensation Administration Fund Assessment factors

Industrial Classifications and Maritime/FELA (Program I and Program II State Act).....	2.2%
F Classifications and Maritime/FELA (Program II USL Act).....	3.1%

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.



CONNECTICUT

Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

Proposed Assigned Risk Rates for Inclusion in the Residual Market Manual

The following pages include proposed:

- Assigned risk rates and minimum premiums by class code, along with associated footnotes
- Miscellaneous values, such as:
 - Catastrophe and Terrorism provisions
 - Expense Constant and Minimum Premium parameters
 - 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

WORKERS COMPENSATION AND EMPLOYERS LIABILITY
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APPLICABLE TO ASSIGNED RISK POLICIES ONLY

CLASS CODE	MIN RATE	PREM												
0005	3.16	1171	2081	4.88	1500	2797	4.15	1488	3336	3.97	1430	4133	3.56	1299
0008	3.09	1149	2089	3.86	1395	2799	8.06	1500	3365	7.50	1500	4149	1.05	496
0016	5.33	1500	2095	4.92	1500	2802	6.04	1500	3372	4.09	1469	4206	5.79	1500
0034	4.43	1500	2105	5.45	1500	2835	4.29	1500	3373	5.78	1500	4207	3.02	1126
0035	2.54	973	2110	5.88	1500	2836	4.01	1443	3383	1.95	784	4239	2.81	1059
0036	4.95	1500	2111	3.16	1171	2841	4.45	1500	3385	2.88	1082	4240	3.68	1338
0037	5.35	1500	2112	5.15	1500	2881	3.52	1286	3400	4.36	1500	4243	3.16	1171
0042	7.52	1500	2114	2.34	909	2883	3.86	1395	3507	3.68	1338	4244	3.68	1338
0050	9.29	1500	2121	1.73	714	2915	3.92	1414	3515	2.56	979	4250	2.95	1104
0059	—	—	2130	2.65	1008	2916	3.86	1395	3548	1.91	771	4251	3.81	1379
0065	—	—	2131	2.24	877	2923	2.57	982	3559	3.34	1229	4263	4.51	1500
0066	—	—	2143	3.52	1286	2960	6.08	1500	3574	2.32	902	4273	3.08	1146
0067	—	—	2157	8.06	1500	3004	1.84	749	3581	1.23	554	4279	4.15	1488
0079	3.09	1149	2172	2.65	1008	3018	4.67	1500	3612	2.32	902	4283	2.49	957
0083	6.60	1500	2174	3.77	1366	3022	5.04	1500	3620	3.49	1277	4299	3.18	1178
0106	10.30	1500	2211	9.32	1500	3027	3.93	1418	3629	2.00	800	4304	5.94	1500
0113	4.85	1500	2220	3.65	1328	3028	3.68	1338	3632	2.81	1059	4307	2.25	880
0170	4.85	1500	2286	—	—	3030	8.69	1500	3634	2.77	1046	4351	1.43	618
0251	4.70	1500	2288	5.76	1500	3040	6.13	1500	3635	1.88	762	4352	1.64	685
0401	13.82	A	2302	2.68	1018	3041	5.24	1500	3638	2.24	877	4360	—	—
0771N	0.77	—	2305	3.45	1264	3042	4.85	1500	3642	1.64	685	4361	0.82	422
0908P	215.00	340	2361	2.70	1024	3064	4.85	1500	3643	2.31	899	4410	3.68	1338
0913P	617.00	742	2362	3.25	1200	3076	4.40	1500	3647	3.70	1344	4420	4.40	1500
0917	4.92	1500	2380	2.72	1030	3081	6.76	1500	3648	1.54	653	4431	1.50	640
0918	1.13	650	2386	—	—	3082	5.58	1500	3681	1.20	544	4432	2.18	858
1005	7.40	1500	2388	1.73	714	3085	6.13	1500	3685	1.13	522	4452	3.86	1395
1164	4.24	1500	2402	2.99	1117	3110	5.22	1500	3719	1.36	595	4459	3.68	1338
1165	3.34	1229	2413	2.61	995	3111	2.50	960	3724	5.02	1500	4470	3.11	1155
1320	2.20	864	2416	2.93	1098	3113	2.24	877	3726	5.50	1500	4484	3.68	1338
1322	11.60	1500	2417	1.72	710	3114	3.16	1171	3803	3.47	1270	4493	3.22	1190
1430	4.76	1500	2501	3.08	1146	3118	2.25	880	3807	2.59	989	4511	0.55	336
1438	4.47	1500	2503	1.82	742	3119	1.22	550	3808	4.61	1500	4557	2.77	1046
1452	3.04	1133	2534	—	—	3122	2.20	864	3821	7.51	1500	4558	2.75	1040
1463	8.92	1500	2560	—	—	3126	3.65	1328	3822	5.31	1500	4568	3.29	1213
1472	4.20	1500	2570	5.29	1500	3131	2.29	893	3824	4.20	1500	4581	1.20	544
1624	3.84	1389	2585	5.52	1500	3132	3.72	1350	3826	1.04	493	4583	4.97	1500
1642	3.81	1379	2586	4.70	1500	3145	3.00	1120	3827	2.49	957	4611	1.22	550
1654	5.54	1500	2587	3.56	1299	3146	3.90	1408	3830	2.13	842	4635	3.81	1379
1699	3.70	1344	2589	2.24	877	3169	3.81	1379	3851	2.49	957	4653	2.31	899
1701	3.92	1414	2600	6.15	1500	3179	2.90	1088	3865	3.90	1408	4665	10.14	1500
1710	3.70	1344	2623	6.83	1500	3180	2.99	1117	3881	4.56	1500	4670	—	—
1747	5.02	1500	2651	1.64	685	3188	2.32	902	4000	6.47	1500	4683	4.61	1500
1748	5.65	1500	2660	2.75	1040	3220	2.70	1024	4021	4.90	1500	4686	3.20	1184
1803	8.10	1500	2670	—	—	3224	4.47	1500	4024	5.17	1500	4692	0.88	442
1924	3.95	1424	2683	—	—	3227	3.22	1190	4034	7.96	1500	4693	1.05	496
1925	3.90	1408	2688	2.15	848	3240	—	—	4036	3.04	1133	4703	2.02	806
2002	4.97	1500	2701	13.77	1500	3241	4.54	1500	4038	3.24	1197	4717	2.86	1075
2003	5.76	1500	2702	22.12	1500	3255	3.34	1229	4062	2.75	1040	4720	2.49	957
2014	10.51	1500	2709	10.64	1500	3257	3.06	1139	4101	3.42	1254	4740	1.34	589
2016	5.44	1500	2710	8.31	1500	3270	2.49	957	4109	0.64	365	4741	3.83	1386
2021	4.42	1500	2714	5.88	1500	3300	5.49	1500	4110	1.16	531	4751	3.49	1277
2039	4.52	1500	2731	5.79	1500	3303	3.92	1414	4111	3.81	1379	4771N	4.33	1500
2041	4.77	1500	2735	5.58	1500	3307	3.00	1120	4114	3.47	1270	4777	8.62	1500
2065	3.33	1226	2759	6.24	1500	3315	4.99	1500	4130	5.01	1500	4825	0.95	464
2070	6.11	1500	2790	2.43	938	3334	3.61	1315	4131	6.40	1500	4828	2.09	829

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

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

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WORKERS COMPENSATION AND EMPLOYERS LIABILITY

Effective January 1, 2025

APPLICABLE TO ASSIGNED RISK POLICIES ONLY

CLASS CODE	MIN RATE	PREM												
4829	1.39	605	6206	3.74	1357	7313F	3.68	1338	8032	2.52	966	8745	4.58	1500
4902	2.70	1024	6213	2.93	1098	7317F	5.63	1500	8033	2.47	950	8748	0.59	349
4923	1.98	794	6214	2.25	880	7327F	13.34	1500	8037	2.70	1024	8754	1.00	480
5020	6.54	1500	6216	6.70	1500	7333M	2.95	1104	8039	2.11	835	8755	0.36	275
5022	9.97	1500	6217	5.03	1500	7335M	3.27	1206	8044	4.01	1443	8799	0.59	349
5037	8.70	1500	6229	5.20	1500	7337M	4.51	1500	8045	1.39	605	8800	2.09	829
5040	12.51	1500	6233	2.66	1011	7350F	7.22	1500	8046	3.67	1334	8803	0.05	176
5057	7.23	1500	6235	7.50	1500	7360	6.40	1500	8047	1.16	531	8805M	0.16	211
5059	18.10	1500	6236	7.79	1500	7370	6.01	1500	8058	2.90	1088	8810	0.13	202
5102	7.16	1500	6237	2.16	851	7380	9.53	1500	8072	0.86	435	8814M	0.16	211
5146	6.36	1500	6251	6.91	1500	7382	4.31	1500	8102	2.74	1037	8815M	0.23	234
5160	3.49	1277	6252	4.24	1500	7390	16.83	1500	8103	4.36	1500	8820	0.16	211
5183	4.40	1500	6306	6.34	1500	7394M	4.74	1500	8106	5.26	1500	8824	3.61	1315
5188	4.81	1500	6319	4.17	1494	7395M	5.26	1500	8107	3.90	1408	8825	—	—
5190	3.54	1293	6325	4.65	1500	7398M	7.22	1500	8111	3.29	1213	8826	2.52	966
5191	1.29	573	6400	6.80	1500	7402	0.13	202	8116	3.97	1430	8829	—	—
5192	4.83	1500	6503	2.77	1046	7403	3.81	1379	8203	8.74	1500	8831	1.31	579
5213	10.90	1500	6504	3.92	1414	7405N	1.38	835	8204	5.10	1500	8832	0.48	314
5215	8.56	1500	6702M*	5.02	1500	7420	8.24	1500	8209	5.17	1500	8833	0.97	470
5221	6.98	1500	6703M*	7.67	1500	7421	0.70	384	8215	4.68	1500	8835	2.40	928
5222	9.75	1500	6704M*	5.58	1500	7422	1.38	602	8227	5.77	1500	8842	3.24	1197
5223	7.18	1500	6801F	6.26	1500	7425	2.45	944	8232	7.01	1500	8855	0.14	205
5348	6.70	1500	6811	5.42	1500	7431N	0.91	605	8233	5.17	1500	8856	0.50	320
5402	9.09	1500	6824F	7.51	1500	7445N	0.73	—	8235	5.40	1500	8864	2.09	829
5403	8.61	1500	6826F	3.50	1280	7453N	0.48	—	8263	7.80	1500	8868	0.45	304
5437	7.11	1500	6834	3.54	1293	7502	2.43	938	8264	6.47	1500	8869	0.97	470
5443	4.72	1500	6836	3.74	1357	7515	1.50	640	8265	7.83	1500	8871	0.05	176
5445	6.89	1500	6843F	7.60	1500	7520	2.77	1046	8279	8.05	1500	8901	0.18	218
5462	8.16	1500	6845F	5.72	1500	7538	3.11	1155	8288	9.92	1500	9012	1.20	544
5472	7.11	1500	6854	5.72	1500	7539	1.75	720	8291	5.33	1500	9014	3.36	1235
5473	10.83	1500	6872F	8.35	1500	7540	3.63	1322	8292	4.51	1500	9015	3.58	1306
5474	7.77	1500	6874F	9.60	1500	7580	3.20	1184	8293	10.55	1500	9016	2.50	960
5478	5.36	1500	6882	3.93	1418	7590	6.11	1500	8304	7.65	1500	9019	3.59	1309
5479	11.65	1500	6884	5.27	1500	7600	8.37	1500	8350	10.19	1500	9033	3.93	1418
5480	8.49	1500	7016M	3.72	1350	7605	3.13	1162	8380	2.95	1104	9040	4.11	1475
5491	3.02	1126	7024M	4.13	1482	7607	0.13	202	8381	2.22	870	9044	1.77	726
5506	7.79	1500	7038M	5.83	1500	7610	0.41	291	8385	3.83	1386	9052	2.47	950
5507	6.14	1500	7046M	6.31	1500	7705	5.74	1500	8392	2.63	1002	9058	1.86	755
5508	—	—	7047M	5.69	1500	7710	6.24	1500	8393	2.72	1030	9060	1.57	662
5509	7.31	1500	7050M	8.90	1500	7711	33.35	1500	8500	7.21	1500	9061	1.61	675
5535	8.99	1500	7090M	6.47	1500	7720	4.01	1443	8601	0.36	275	9063	0.95	464
5537	4.72	1500	7097	—	—	7723	1.84	749	8602	1.61	675	9077F	6.26	1500
5551	19.92	1500	7098M	7.01	1500	7731*	3.95	7250	8603	0.09	189	9082	1.27	566
5604	2.41	931	7099M	9.64	1500	7855	4.13	1482	8606	1.97	790	9083	1.23	554
5606	1.45	624	7133	3.88	1402	8001	2.57	982	8709F	6.94	1500	9084	1.63	682
5610	6.14	1500	7151M	4.72	1500	8002	2.31	899	8719	3.45	1264	9088a	a	a
5645	18.38	1500	7152M	7.21	1500	8006	2.57	982	8720	1.50	640	9089	1.16	531
5703	12.53	1500	7153M	5.24	1500	8008	1.31	579	8721	0.29	253	9093	1.57	662
5705	25.26	1500	7219	9.51	1500	8010	2.07	822	8723	0.09	189	9101	4.36	1500
5951	0.61	355	7222	9.15	1500	8013	0.43	298	8725	2.68	1018	9102	3.49	1277
6003	10.61	1500	7225	9.67	1500	8015	1.09	509	8726F	1.57	662	9154	1.82	742
6005	8.45	1500	7230	9.26	1500	8017	1.86	755	8734M	0.36	275	9156	2.25	880
6018	4.52	1500	7231	11.57	1500	8018	4.97	1500	8737M	0.32	262	9170	16.91	1500
6045	6.93	1500	7232	10.64	1500	8021	3.67	1334	8738M	0.50	320	9178	6.74	1500
6204	10.83	1500	7309F	8.35	1500	8031	2.45	944	8742	0.27	246	9179	14.70	1500

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.

WORKERS COMPENSATION AND EMPLOYERS LIABILITY

CONNECTICUT

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Original Printing

Effective January 1, 2025

APPLICABLE TO ASSIGNED RISK POLICIES ONLY

CLASS CODE	RATE	MIN PREM	CLASS CODE	RATE	MIN PREM	CLASS CODE	RATE	MIN PREM	CLASS CODE	RATE	MIN PREM
9180	5.79	1500									
9182	3.09	1149									
9186	14.91	1500									
9220	5.17	1500									
9402	4.61	1500									
9403	10.55	1500									
9410	5.56	1500									
9501	4.13	1482									
9505	4.11	1475									
9516	3.40	1248									
9519	5.20	1500									
9521	3.99	1437									
9522	2.79	1053									
9534	5.87	1500									
9554	9.83	1500									
9586	0.64	365									
9600	2.95	1104									
9620	1.90	768									

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.

FOOTNOTES

- a Rate for each individual risk must be obtained by NCCI Customer Service or the Rating Organization having jurisdiction.
- A Minimum Premium \$100 per ginning location for policy minimum premium computation.
- F Rate provides for coverage under the United States Longshore and Harbor Workers Compensation Act and its extensions.
- M Risks are subject to Admiralty Law or Federal Employers Liability Act (FELA). However, the published rate is for risks that voluntarily purchase standard workers compensation and employers liability coverage. The listed codes of 6702, 6703, 6704, 7151, 7152, 7153, 8734, 8737, 8738, 8805, 8814, and 8815 under the Federal Employers' Liability Act (FELA) for employees of interstate railroads are not applicable in the residual market.
- N This code is part of a ratable / non-ratable group shown below. The statistical non-ratable code and corresponding rate 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 Rate 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 rate and elr each x 1.215.
- 6703 Rate 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 rate and elr each x 1.856.
- 6704 Rate 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 rate and elr each x 1.35.
- 7731 Rate per Service Response.

Effective January 1, 2025

APPLICABLE TO ASSIGNED RISK POLICIES ONLY

MISCELLANEOUS VALUES

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

Employee operated vehicle.....	\$129,000
Leased or rented vehicle.....	\$86,000

Catastrophe (other than Certified Acts of Terrorism) - (Assigned Risk)..... 0.01**Expense Constant** applicable for policies with the following classification in accordance with the **Basic Manual** rule:

Per Capita Codes Only.....	\$125
All Other.....	\$160

Loss Sensitive Rating Plan (LSRP) - The factors which are used in the calculation of the LSRP are as follows:

Basic Premium Factor	0.40
Minimum Premium Factor	0.75
Maximum Premium Factor	1.75
Loss Conversion Factor	1.219
Tax Multiplier	1.015

Loss Development Factors	
1st Adjustment	0.29
2nd Adjustment	0.19
3rd Adjustment	0.14
4th Adjustment	0.11

Maximum Minimum Premium..... \$1,500**Maximum Weekly Payroll** applicable in accordance with the **Basic Manual** rule, Rule for premium determination of executive officers and the **Basic Manual** notes for Code 9178 -- "Athletic Sports or Park: Noncontact Sports," and Code 9179 -- "Athletic Sports or Park: Contact Sports"..... \$1,650**Maximum Weekly Payroll** applicable in accordance with the **Basic Manual** rules, Rule for premium determination of executive officers and Rule for premium determination of members of LLCs..... \$3,300**Minimum Premium Multiplier**..... 320**Minimum Weekly Payroll** applicable in accordance with the **Basic Manual** rules, Rule for premium determination of executive officers and Rule for premium determination of members of LLCs..... \$1,650**Premium Determination for Partners and Sole Proprietors** in accordance with the **Basic Manual** rule, Rule for premium determination for partners or sole proprietors (Annual Payroll)..... \$86,000**Premium Discount Percentages** - (See the **Basic Manual** rule, Premium discount.) The following premium discounts are applicable to Standard Premiums:

First	\$10,000	-
Next	\$190,000	5.1%
Next	\$1,550,000	6.5%
Over	\$1,750,000	7.5%

Premium Reduction Percentages - The following percentages are applicable by deductible amount and hazard group for total losses on a per claim basis:

Deductible Amount	Total Losses						
	HAZARD GROUP						
	A	B	C	D	E	F	G
\$1,000	4.9%	3.8%	2.9%	2.6%	1.8%	1.5%	1.2%
\$5,000	12.6%	10.2%	8.5%	7.5%	5.9%	4.9%	4.1%
\$10,000	18.0%	15.2%	12.8%	11.6%	9.4%	7.9%	6.7%

MISCELLANEOUS VALUES (cont.)

Terrorism (Assigned Risk)..... 0.03

United States Longshore and Harbor Workers' Compensation Coverage Percentage
applicable only in connection with the *Basic Manual* rule, Federal coverages..... 50%

(Multiply a Non-F classification rate by a factor of 1.50 to adjust for the difference in state and federal benefits only.)

Workers Compensation Administration Funds Assessment factors applicable in accordance with the *Basic Manual* rule, Rule for applying the Connecticut Workers Compensation Administration Fund Assessment factors

Industrial Classifications and Maritime/FELA (Program I and Program II State Act)..... 2.2%
F Classifications and Maritime/FELA (Program II USL Act)..... 3.1%

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.



CONNECTICUT

Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

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

**Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025****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 experience rating period. This is accomplished through the application of ELR factors to the proposed underlying pure premiums. These ELR factors, calculated by hazard group (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.

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 split point is based on the average claim costs in the state, promoting an equitable determination of primary and excess losses. To reflect changes in claim costs and preserve alignment with other experience rating parameters, the split point is reviewed annually and may be adjusted to maintain an average D-ratio of approximately 40%, the average D-ratio utilized when the credibility parameters underlying the weight and ballast values were last recalibrated. Utilizing a consistent average D-ratio promotes similar experience rating plan performance across states with varying cost levels.

The D-ratio is used to determine the expected excess losses to be used in the experience mod calculation. D-ratios are calculated by hazard group and are based on the latest three years of Unit Statistical Data trended to the midpoint of the proposed experience rating period. A comparison of the resulting D-ratios across hazard groups is done to ensure that they monotonically decrease from hazard group A to hazard group G. If they do not, an adjustment is made by averaging the D-ratios over adjacent hazard groups. The final D-ratio for each classification is the hazard group D-ratio.

An adjustment to the ELR factors is necessary so that the resulting ELRs produce an expected intrastate experience rating off-balance that equals the targeted intrastate experience rating off-balance used in the calculation of the overall loss cost level change for the state. Preliminary ELR factors are calculated by class code utilizing the appropriate hazard group factors and underlying pure premiums. Intrastate experience rating modifications for the most recent year of rating effective dates available at the time of the production of the filing are calculated based on the preliminary ELRs and D-ratios, and the losses underlying the mod calculations are adjusted for trend and to the appropriate benefit level of the data that will be used for experience ratings in the proposed effective period. The trend is applied separately by frequency and severity using selected values that are appropriate for the time period covered. It should be noted that the loss ratio trends used in other parts of the filing may not match the ELR trends due to possible differences between the experience rating trend periods and the ratemaking trend periods. An average of these intrastate experience modifications is calculated, and an iterative process follows where the ELR factors are adjusted up or down, class ELRs are recalculated, and experience rating modifications are restated until the target average intrastate experience mod is achieved.



CONNECTICUT

Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

Proposed Rating Values

The final ELR for each classification is calculated as follows:

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

Description of the Weighting and Ballast Values

The weighting value (W) and ballast value (B) influence the degree to which an employer's actual losses impact the experience rating modification for employers of various sizes - generally described as excess loss credibility - and are governed by the formulas in Item E-1409.

One element of these formulas is the G-value, which represents the state average claim severity in thousands of dollars and reflects the state accident limitation and the reduction of medical only losses. The state accident limit is used to curtail the impact of large claims on the experience modification and is based on a state-level 95th percentile of lost-time claims so that the limitation is expected to impact the largest 5% of lost-time claims.

The values for W and B are such that larger employers receive higher excess loss credibility in their experience modification calculation than smaller employers.

The ballast value is a stabilizing value designed to control the effect of 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 weighting value for various levels of expected losses is provided in the Table of Weighting Values.

The ballast value for various levels of expected losses is provided in the Table of Ballast Values.

Effective January 1, 2025

**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	1.28	0.41	2081	2.14	0.43	2797	1.81	0.43	3336	1.50	0.39	4133	1.57	0.43
0008	1.25	0.41	2089	1.55	0.41	2799	3.05	0.39	3365	2.35	0.33	4149	0.45	0.43
0016	1.87	0.36	2095	1.89	0.39	2802	2.33	0.39	3372	1.58	0.39	4206	2.30	0.41
0034	1.71	0.39	2105	2.33	0.43	2835	1.89	0.43	3373	2.32	0.41	4207	0.94	0.33
0035	0.99	0.39	2110	2.36	0.41	2836	1.74	0.43	3383	0.78	0.41	4239	0.89	0.33
0036	1.96	0.41	2111	1.26	0.41	2841	1.81	0.41	3385	1.22	0.41	4240	1.60	0.43
0037	1.84	0.36	2112	2.07	0.41	2881	1.51	0.43	3400	1.75	0.41	4243	1.22	0.39
0042	2.89	0.39	2114	1.02	0.43	2883	1.55	0.41	3507	1.42	0.39	4244	1.27	0.36
0050	3.11	0.36	2121	0.75	0.43	2915	1.35	0.36	3515	0.99	0.39	4250	1.13	0.39
0059	—	—	2130	1.03	0.39	2916	1.36	0.36	3548	0.76	0.41	4251	1.52	0.41
0065	—	—	2131	0.89	0.41	2923	1.10	0.43	3559	1.29	0.39	4263	1.72	0.39
0066	—	—	2143	1.52	0.43	2960	2.32	0.39	3574	0.94	0.41	4273	1.19	0.39
0067	—	—	2157	3.19	0.41	3004	0.57	0.33	3581	0.50	0.41	4279	1.44	0.36
0079	1.20	0.39	2172	0.91	0.36	3018	1.49	0.33	3612	0.90	0.39	4283	0.99	0.41
0083	2.56	0.39	2174	1.54	0.41	3022	2.02	0.41	3620	1.19	0.36	4299	1.23	0.39
0106	3.28	0.33	2211	3.24	0.36	3027	1.35	0.36	3629	0.77	0.39	4304	2.27	0.39
0113	1.96	0.41	2220	1.41	0.39	3028	1.27	0.36	3632	1.08	0.39	4307	0.98	0.43
0170	1.96	0.41	2286	1.41	0.39	3030	3.03	0.36	3634	1.07	0.39	4351	0.57	0.41
0251	1.81	0.39	2288	2.33	0.41	3040	2.34	0.39	3635	0.72	0.39	4352	0.66	0.41
0401	4.47	0.33	2302	1.04	0.39	3041	2.01	0.39	3638	0.89	0.41	4360	0.14	0.36
0771	—	—	2305	1.19	0.36	3042	1.84	0.39	3642	0.66	0.41	4361	0.33	0.41
0908	82.49	0.39	2361	1.05	0.39	3064	1.88	0.39	3643	0.80	0.36	4410	1.48	0.41
0913	236.98	0.39	2362	1.32	0.41	3076	1.76	0.41	3647	1.41	0.39	4420	1.38	0.33
0917	2.10	0.43	2380	1.10	0.41	3081	2.62	0.39	3648	0.66	0.43	4431	0.65	0.43
0918	0.42	0.39	2386	1.25	0.41	3082	1.93	0.36	3681	0.49	0.41	4432	0.94	0.43
1005	2.04	0.30	2388	0.76	0.43	3085	2.36	0.39	3685	0.45	0.41	4452	1.50	0.39
1164	1.20	0.30	2402	1.04	0.36	3110	2.04	0.39	3719	0.38	0.30	4459	1.28	0.36
1165	0.94	0.30	2413	1.01	0.39	3111	1.01	0.41	3724	1.44	0.30	4470	1.20	0.39
1320	0.68	0.33	2416	1.18	0.41	3113	0.86	0.39	3726	1.56	0.30	4484	1.49	0.41
1322	3.26	0.30	2417	0.69	0.41	3114	1.22	0.39	3803	1.38	0.41	4493	1.25	0.39
1430	1.65	0.36	2501	1.25	0.41	3118	0.97	0.43	3807	1.03	0.41	4511	0.21	0.39
1438	1.53	0.36	2503	0.72	0.41	3119	0.56	0.44	3808	1.74	0.39	4557	0.95	0.36
1452	1.03	0.36	2534	1.25	0.41	3122	0.94	0.43	3821	2.60	0.36	4558	1.05	0.39
1463	2.55	0.30	2560	1.25	0.41	3126	1.40	0.39	3822	2.16	0.41	4568	1.11	0.36
1472	1.45	0.36	2570	2.10	0.41	3131	0.90	0.39	3824	1.69	0.41	4581	0.39	0.33
1624	1.21	0.33	2585	2.12	0.39	3132	1.51	0.41	3826	0.39	0.39	4583	1.57	0.33
1642	1.31	0.36	2586	1.91	0.41	3145	1.17	0.39	3827	0.99	0.41	4611	0.49	0.41
1654	1.90	0.36	2587	1.40	0.41	3146	1.52	0.39	3830	0.83	0.39	4635	1.20	0.33
1699	1.29	0.36	2589	0.87	0.39	3169	1.55	0.41	3851	1.01	0.41	4653	0.92	0.41
1701	1.24	0.33	2600	2.44	0.41	3179	1.15	0.41	3865	1.65	0.43	4665	3.51	0.36
1710	1.26	0.36	2623	2.38	0.36	3180	1.20	0.41	3881	1.73	0.39	4670	1.77	0.39
1747	1.75	0.36	2651	0.66	0.41	3188	0.90	0.39	4000	2.05	0.33	4683	1.77	0.39
1748	1.99	0.36	2660	1.19	0.43	3220	1.03	0.39	4021	1.89	0.39	4686	1.10	0.36
1803	2.79	0.36	2670	0.87	0.41	3224	1.90	0.43	4024	1.78	0.36	4692	0.35	0.41
1924	1.59	0.41	2683	1.25	0.41	3227	1.27	0.41	4034	2.75	0.36	4693	0.42	0.41
1925	1.50	0.39	2688	0.87	0.41	3240	1.22	0.41	4036	1.05	0.36	4703	0.77	0.39
2002	2.00	0.41	2701	4.28	0.33	3241	1.83	0.41	4038	1.39	0.43	4717	1.23	0.43
2003	2.18	0.39	2702	6.29	0.30	3255	1.45	0.43	4062	1.07	0.39	4720	0.96	0.39
2014	3.72	0.36	2709	3.37	0.33	3257	1.22	0.41	4101	1.32	0.39	4740	0.39	0.30
2016	2.18	0.41	2710	2.87	0.36	3270	1.00	0.41	4109	0.26	0.41	4741	1.46	0.39
2021	1.71	0.39	2714	2.39	0.41	3300	2.39	0.43	4110	0.46	0.41	4751	1.22	0.36
2039	1.81	0.41	2731	2.33	0.41	3303	1.57	0.41	4111	1.53	0.41	4771	1.37	0.33
2041	1.92	0.41	2735	2.27	0.41	3307	1.16	0.39	4114	1.32	0.39	4777	2.77	0.33
2065	1.27	0.39	2759	2.50	0.41	3315	1.96	0.41	4130	2.00	0.41	4825	0.32	0.36
2070	2.32	0.39	2790	1.06	0.43	3334	1.35	0.39	4131	2.55	0.41	4828	0.66	0.33

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

Effective January 1, 2025

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
4829	0.44	0.33	6206	1.05	0.30	7313F	1.04	0.25	8032	1.02	0.41	8745	1.77	0.39
4902	1.10	0.41	6213	0.83	0.30	7317F	1.59	0.25	8033	1.06	0.43	8748	0.19	0.33
4923	0.78	0.39	6214	0.71	0.33	7327F	3.76	0.25	8037	1.24	0.44	8754	0.39	0.39
5020	2.05	0.33	6216	1.88	0.30	7333	0.82	0.30	8039	0.92	0.43	8755	0.12	0.36
5022	2.84	0.30	6217	1.45	0.30	7335	0.91	0.30	8044	1.59	0.41	8799	0.23	0.41
5037	2.46	0.30	6229	1.76	0.36	7337	1.25	0.30	8045	0.56	0.41	8800	0.84	0.41
5040	3.55	0.30	6233	0.75	0.30	7350F	2.18	0.28	8046	1.48	0.41	8803	0.02	0.36
5057	2.03	0.30	6235	2.12	0.30	7360	2.21	0.36	8047	0.46	0.41	8805	0.06	0.41
5059	5.21	0.30	6236	2.63	0.36	7370	2.39	0.41	8058	1.17	0.41	8810	0.05	0.41
5102	2.25	0.33	6237	0.67	0.33	7380	3.20	0.36	8072	0.38	0.43	8814	0.06	0.41
5146	2.14	0.36	6251	2.13	0.33	7382	1.64	0.39	8102	1.11	0.41	8815	0.09	0.41
5160	0.99	0.30	6252	1.19	0.30	7390	6.64	0.41	8103	1.69	0.39	8820	0.06	0.36
5183	1.38	0.33	6306	2.01	0.33	7394	1.35	0.30	8106	1.82	0.36	8824	1.61	0.44
5188	1.51	0.33	6319	1.19	0.30	7395	1.50	0.30	8107	1.23	0.33	8825	1.09	0.43
5190	1.12	0.33	6325	1.32	0.30	7398	2.06	0.30	8111	1.28	0.39	8826	1.09	0.43
5191	0.44	0.36	6400	2.36	0.36	7402	0.05	0.41	8116	1.54	0.39	8829	1.61	0.44
5192	1.83	0.39	6503	1.11	0.41	7403	1.50	0.41	8203	3.33	0.39	8831	0.61	0.44
5213	3.13	0.30	6504	1.58	0.41	7405	0.53	0.41	8204	1.99	0.39	8832	0.19	0.41
5215	2.92	0.36	6702	1.71	0.36	7420	2.28	0.30	8209	2.08	0.41	8833	0.38	0.41
5221	2.20	0.33	6703	2.62	0.36	7421	0.24	0.36	8215	1.62	0.36	8835	0.95	0.41
5222	2.78	0.30	6704	1.90	0.36	7422	0.43	0.33	8227	1.80	0.33	8842	1.45	0.44
5223	2.44	0.36	6801F	2.00	0.31	7425	0.74	0.33	8232	2.42	0.36	8855	0.06	0.41
5348	2.27	0.36	6811	1.89	0.36	7431	0.27	0.33	8233	1.70	0.36	8856	0.20	0.41
5402	3.65	0.41	6824F	2.40	0.31	7445	—	—	8235	2.05	0.39	8864	0.91	0.43
5403	2.73	0.33	6826F	1.12	0.31	7453	—	—	8263	3.02	0.39	8868	0.20	0.43
5437	2.24	0.33	6834	1.42	0.41	7502	0.83	0.36	8264	2.22	0.36	8869	0.43	0.43
5443	1.81	0.39	6836	1.43	0.39	7515	0.43	0.30	8265	2.51	0.33	8871	0.02	0.41
5445	1.96	0.30	6843F	2.14	0.25	7520	1.06	0.39	8279	2.59	0.33	8901	0.06	0.36
5462	2.79	0.36	6845F	1.61	0.25	7538	0.89	0.30	8288	3.88	0.39	9012	0.41	0.36
5472	2.01	0.30	6854	1.80	0.33	7539	0.55	0.33	8291	2.03	0.39	9014	1.35	0.41
5473	3.07	0.30	6872F	2.35	0.25	7540	1.05	0.30	8292	1.82	0.41	9015	1.36	0.39
5474	2.22	0.30	6874F	2.71	0.25	7580	1.09	0.36	8293	4.19	0.41	9016	1.02	0.41
5478	1.67	0.33	6882	1.26	0.33	7590	2.11	0.36	8304	2.45	0.33	9019	1.26	0.36
5479	4.06	0.36	6884	1.63	0.33	7600	2.83	0.36	8350	3.19	0.33	9033	1.52	0.39
5480	2.65	0.33	7016	1.02	0.30	7605	0.99	0.33	8380	1.13	0.39	9040	1.77	0.43
5491	0.95	0.33	7024	1.14	0.30	7607	0.05	0.41	8381	0.86	0.39	9044	0.76	0.43
5506	2.43	0.33	7038	1.78	0.30	7610	0.14	0.36	8385	1.48	0.39	9052	1.06	0.43
5507	1.92	0.33	7046	1.81	0.30	7705	2.18	0.39	8392	1.12	0.43	9058	0.84	0.44
5508	1.92	0.33	7047	1.57	0.30	7710	1.97	0.33	8393	0.93	0.36	9060	0.68	0.43
5509	2.32	0.33	7050	2.71	0.30	7711	10.89	0.33	8500	2.50	0.36	9061	0.68	0.43
5535	2.60	0.30	7090	1.97	0.30	7720	1.36	0.36	8601	0.12	0.33	9063	0.41	0.43
5537	1.61	0.36	7097	1.14	0.30	7723	0.60	0.33	8602	0.55	0.36	9077F	2.24	0.37
5551	5.75	0.30	7098	2.01	0.30	7731	1.51	0.39	8603	0.03	0.41	9082	0.57	0.44
5604	0.76	0.33	7099	2.76	0.30	7855	1.41	0.36	8606	0.62	0.33	9083	0.56	0.44
5606	0.42	0.30	7133	1.23	0.33	8001	1.04	0.41	8709F	1.96	0.25	9084	0.70	0.43
5610	2.10	0.36	7151	1.50	0.33	8002	0.93	0.41	8719	1.06	0.33	9088	a	a
5645	5.34	0.30	7152	2.28	0.33	8006	1.10	0.43	8720	0.48	0.33	9089	0.51	0.43
5703	4.37	0.36	7153	1.66	0.33	8008	0.57	0.43	8721	0.10	0.36	9093	0.68	0.43
5705	8.39	0.36	7219	2.96	0.33	8010	0.83	0.41	8723	0.03	0.39	9101	1.88	0.43
5951	0.24	0.41	7222	2.81	0.33	8013	0.16	0.39	8725	0.93	0.36	9102	1.34	0.39
6003	3.28	0.33	7225	3.26	0.36	8015	0.42	0.39	8726F	0.50	0.31	9154	0.74	0.41
6005	2.89	0.36	7230	3.49	0.39	8017	0.80	0.43	8734	0.13	0.36	9156	0.97	0.43
6018	1.53	0.36	7231	4.32	0.39	8018	1.96	0.41	8737	0.11	0.36	9170	5.39	0.33
6045	2.34	0.36	7232	3.27	0.33	8021	1.48	0.41	8738	0.17	0.36	9178	3.30	0.44
6204	3.38	0.33	7309F	2.35	0.25	8031	0.98	0.41	8742	0.09	0.36	9179	6.73	0.44

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

Effective January 1, 2025

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
9180	2.31	0.39									
9182	1.29	0.41									
9186	4.99	0.33									
9220	1.97	0.39									
9402	1.45	0.33									
9403	3.35	0.33									
9410	2.27	0.41									
9501	1.45	0.36									
9505	1.59	0.39									
9516	1.27	0.39									
9519	1.78	0.36									
9521	1.37	0.36									
9522	1.18	0.43									
9534	1.69	0.30									
9554	3.08	0.33									
9586	0.27	0.43									
9600	1.19	0.41									
9620	0.66	0.36									

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

Effective January 1, 2025
TABLE OF WEIGHTING VALUES
APPLICABLE TO ALL POLICIES

Expected Losses	Weighting Values	Expected Losses	Weighting Values		
0 --	2,520	0.14	1,420,817 --	1,492,282	0.49
2,521 --	7,100	0.15	1,492,283 --	1,567,594	0.50
7,101 --	11,789	0.16	1,567,595 --	1,647,069	0.51
11,790 --	16,592	0.17	1,647,070 --	1,731,062	0.52
16,593 --	18,269	0.18	1,731,063 --	1,819,974	0.53
18,270 --	20,661	0.17	1,819,975 --	1,914,247	0.54
20,662 --	23,930	0.16	1,914,248 --	2,014,382	0.55
23,931 --	28,850	0.15	2,014,383 --	2,120,947	0.56
28,851 --	38,211	0.14	2,120,948 --	2,234,580	0.57
38,212 --	87,809	0.13	2,234,581 --	2,356,009	0.58
87,810 --	117,996	0.14	2,356,010 --	2,486,066	0.59
117,997 --	144,359	0.15	2,486,067 --	2,625,706	0.60
144,360 --	169,717	0.16	2,625,707 --	2,776,029	0.61
169,718 --	194,873	0.17	2,776,030 --	2,938,308	0.62
194,874 --	220,193	0.18	2,938,309 --	3,114,032	0.63
220,194 --	245,886	0.19	3,114,033 --	3,304,944	0.64
245,887 --	272,093	0.20	3,304,945 --	3,513,103	0.65
272,094 --	298,917	0.21	3,513,104 --	3,740,956	0.66
298,918 --	326,444	0.22	3,740,957 --	3,991,438	0.67
326,445 --	354,748	0.23	3,991,439 --	4,268,098	0.68
354,749 --	382,660	0.24	4,268,099 --	4,575,264	0.69
382,661 --	410,089	0.25	4,575,265 --	4,918,281	0.70
410,090 --	438,383	0.26	4,918,282 --	5,303,813	0.71
438,384 --	467,587	0.27	5,303,814 --	5,740,287	0.72
467,588 --	497,752	0.28	5,740,288 --	6,238,516	0.73
497,753 --	528,933	0.29	6,238,517 --	6,812,604	0.74
528,934 --	561,184	0.30	6,812,605 --	7,481,307	0.75
561,185 --	594,566	0.31	7,481,308 --	8,270,116	0.76
594,567 --	629,142	0.32	8,270,117 --	9,214,583	0.77
629,143 --	664,980	0.33	9,214,584 --	10,365,828	0.78
664,981 --	702,153	0.34	10,365,829 --	11,800,107	0.79
702,154 --	740,740	0.35	11,800,108 --	13,636,431	0.80
740,741 --	780,824	0.36	13,636,432 --	16,071,401	0.81
780,825 --	822,496	0.37	16,071,402 --	19,454,772	0.82
822,497 --	865,854	0.38	19,454,773 --	24,474,648	0.83
865,855 --	911,005	0.39	24,474,649 --	32,697,132	0.84
911,006 --	958,064	0.40	32,697,133 --	48,622,689	0.85
958,065 --	1,007,153	0.41	48,622,690 --	92,614,465	0.86
1,007,154 --	1,058,411	0.42	92,614,466 --	789,037,898	0.87
1,058,412 --	1,111,983	0.43	789,037,899 --	AND OVER	0.88
1,111,984 --	1,168,034	0.44			11.65
1,168,035 --	1,226,738	0.45			\$151,500
1,226,739 --	1,288,291	0.46			\$303,000
1,288,292 --	1,352,905	0.47			\$308,500
1,352,906 --	1,420,816	0.48			\$617,000

(a) G	11.65
(b) State Per Claim Accident Limitation	\$151,500
(c) State Multiple Claim Accident Limitation	\$303,000
(d) USL&HW Per Claim Accident Limitation	\$308,500
(e) USL&HW Multiple Claim Accident Limitation	\$617,000
(f) Employers Liability Accident Limitation	\$55,000
(g) Primary/Excess Loss Split Point	\$20,500
(h) USL&HW Act -- Expected Loss Factor -- Non-F Classes	1.50

(Multiply a Non-F classification ELR by the USL&HW Act - Expected Loss Factor of 1.50.)

EXPERIENCE RATING PLAN MANUAL
CONNECTICUT
Page E5
Original Printing
Effective January 1, 2025
**TABLE OF BALLAST VALUES
APPLICABLE TO ALL POLICIES**

Expected Losses	Ballast Values	Expected Losses	Ballast Values	Expected Losses	Ballast Values
0 -- 420,366	53,590	3,948,244 -- 4,052,234	257,465	7,588,363 -- 7,692,372	461,340
420,367 -- 522,496	59,415	4,052,235 -- 4,156,226	263,290	7,692,373 -- 7,796,383	467,165
522,497 -- 625,230	65,240	4,156,227 -- 4,260,220	269,115	7,796,384 -- 7,900,393	472,990
625,231 -- 728,321	71,065	4,260,221 -- 4,364,214	274,940	7,900,394 -- 8,004,404	478,815
728,322 -- 831,638	76,890	4,364,215 -- 4,468,210	280,765	8,004,405 -- 8,108,416	484,640
831,639 -- 935,108	82,715	4,468,211 -- 4,572,207	286,590	8,108,417 -- 8,212,427	490,465
935,109 -- 1,038,686	88,540	4,572,208 -- 4,676,204	292,415	8,212,428 -- 8,316,438	496,290
1,038,687 -- 1,142,343	94,365	4,676,205 -- 4,780,203	298,240	8,316,439 -- 8,420,450	502,115
1,142,344 -- 1,246,060	100,190	4,780,204 -- 4,884,202	304,065	8,420,451 -- 8,524,462	507,940
1,246,061 -- 1,349,822	106,015	4,884,203 -- 4,988,202	309,890	8,524,463 -- 8,628,474	513,765
1,349,823 -- 1,453,621	111,840	4,988,203 -- 5,092,203	315,715	8,628,475 -- 8,732,486	519,590
1,453,622 -- 1,557,449	117,665	5,092,204 -- 5,196,204	321,540	8,732,487 -- 8,836,498	525,415
1,557,450 -- 1,661,300	123,490	5,196,205 -- 5,300,206	327,365	8,836,499 -- 8,940,511	531,240
1,661,301 -- 1,765,171	129,315	5,300,207 -- 5,404,209	333,190	8,940,512 -- 9,044,523	537,065
1,765,172 -- 1,869,058	135,140	5,404,210 -- 5,508,212	339,015	9,044,524 -- 9,148,536	542,890
1,869,059 -- 1,972,959	140,965	5,508,213 -- 5,612,216	344,840	9,148,537 -- 9,252,548	548,715
1,972,960 -- 2,076,872	146,790	5,612,217 -- 5,716,220	350,665	9,252,549 -- 9,356,561	554,540
2,076,873 -- 2,180,794	152,615	5,716,221 -- 5,820,225	356,490	9,356,562 -- 9,460,574	560,365
2,180,795 -- 2,284,725	158,440	5,820,226 -- 5,924,230	362,315	9,460,575 -- 9,564,587	566,190
2,284,726 -- 2,388,664	164,265	5,924,231 -- 6,028,236	368,140	9,564,588 -- 9,668,600	572,015
2,388,665 -- 2,492,609	170,090	6,028,237 -- 6,132,242	373,965	9,668,601 -- 9,772,614	577,840
2,492,610 -- 2,596,560	175,915	6,132,243 -- 6,236,249	379,790	9,772,615 -- 9,876,627	583,665
2,596,561 -- 2,700,517	181,740	6,236,250 -- 6,340,256	385,615	9,876,628 -- 9,980,640	589,490
2,700,518 -- 2,804,477	187,565	6,340,257 -- 6,444,263	391,440	9,980,641 -- 10,084,654	595,315
2,804,478 -- 2,908,442	193,390	6,444,264 -- 6,548,270	397,265	10,084,655 -- 10,188,668	601,140
2,908,443 -- 3,012,411	199,215	6,548,271 -- 6,652,278	403,090	10,188,669 -- 10,291,610	606,965
3,012,412 -- 3,116,382	205,040	6,652,279 -- 6,756,287	408,915		
3,116,383 -- 3,220,357	210,865	6,756,288 -- 6,860,295	414,740		
3,220,358 -- 3,324,334	216,690	6,860,296 -- 6,964,304	420,565		
3,324,335 -- 3,428,314	222,515	6,964,305 -- 7,068,313	426,390		
3,428,315 -- 3,532,296	228,340	7,068,314 -- 7,172,322	432,215		
3,532,297 -- 3,636,280	234,165	7,172,323 -- 7,276,332	438,040		
3,636,281 -- 3,740,266	239,990	7,276,333 -- 7,380,341	443,865		
3,740,267 -- 3,844,254	245,815	7,380,342 -- 7,484,351	449,690		
3,844,255 -- 3,948,243	251,640	7,484,352 -- 7,588,362	455,515		

For Expected Losses greater than \$10,291,610, the Ballast Value can be calculated using the following formula (rounded to the nearest 1):

$$\text{Ballast} = (0.056)(\text{Expected Losses}) + 2876.4(\text{Expected Losses})(11.65) / (\text{Expected Losses} + (600)(11.65))$$

$$G = 11.65$$

NATIONAL COUNCIL ON COMPENSATION INSURANCE, INC.

CONNECTICUT—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 (\$)
CT	<u>7/1/25 and after</u>	<u>14,500</u>	<u>7,250</u>
	<u>7/1/24 - 6/30/25</u>	13,500	6,750
	<u>7/1/23 - 6/30/24</u>	13,500	6,750

NOTE: This exhibit revises the Connecticut 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.



CONNECTICUT

Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

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**

Effective January 1, 2025

**CONNECTICUT
RR 1
Original Printing**

1. Average Cost per Case by Hazard Group

A	B	C	D	E	F	G
10,095	13,521	18,406	21,919	31,423	39,180	50,367

Average Cost per Case including ALAE by Hazard Group

A	B	C	D	E	F	G
11,295	15,114	20,555	24,468	35,006	43,614	56,050

2.

Excess Loss Pure Premium Factors

(Applicable to New and Renewal Policies)

Per Accident Limitation	A	B	C	D	E	F	G
\$10,000	0.627	0.658	0.685	0.699	0.724	0.741	0.754
\$15,000	0.581	0.615	0.646	0.662	0.692	0.713	0.729
\$20,000	0.543	0.579	0.613	0.631	0.665	0.688	0.708
\$25,000	0.511	0.548	0.584	0.603	0.641	0.666	0.688
\$30,000	0.484	0.521	0.559	0.579	0.619	0.646	0.670
\$35,000	0.460	0.498	0.536	0.557	0.599	0.628	0.654
\$40,000	0.439	0.477	0.516	0.538	0.581	0.611	0.639
\$50,000	0.404	0.441	0.482	0.504	0.550	0.581	0.611
\$75,000	0.339	0.376	0.417	0.440	0.489	0.523	0.556
\$100,000	0.295	0.330	0.371	0.394	0.445	0.479	0.514
\$125,000	0.262	0.296	0.337	0.358	0.410	0.445	0.480
\$150,000	0.237	0.269	0.309	0.330	0.382	0.417	0.452
\$175,000	0.216	0.247	0.286	0.307	0.359	0.393	0.428
\$200,000	0.198	0.229	0.267	0.287	0.339	0.373	0.407
\$225,000	0.184	0.213	0.250	0.270	0.322	0.355	0.389
\$250,000	0.171	0.200	0.236	0.255	0.306	0.340	0.373
\$275,000	0.160	0.188	0.224	0.242	0.293	0.326	0.359
\$300,000	0.151	0.178	0.213	0.231	0.281	0.313	0.346
\$325,000	0.142	0.168	0.203	0.220	0.270	0.302	0.334
\$350,000	0.135	0.160	0.194	0.211	0.260	0.291	0.323
\$375,000	0.128	0.153	0.186	0.202	0.251	0.282	0.313
\$400,000	0.122	0.146	0.178	0.194	0.243	0.273	0.304
\$425,000	0.117	0.140	0.172	0.187	0.235	0.265	0.295
\$450,000	0.112	0.134	0.165	0.181	0.228	0.257	0.287
\$475,000	0.107	0.129	0.160	0.175	0.221	0.250	0.280
\$500,000	0.103	0.124	0.154	0.169	0.215	0.244	0.273
\$600,000	0.089	0.109	0.137	0.150	0.194	0.221	0.249
\$700,000	0.078	0.097	0.123	0.135	0.178	0.203	0.229
\$800,000	0.070	0.087	0.112	0.123	0.164	0.189	0.213
\$900,000	0.063	0.079	0.103	0.114	0.153	0.176	0.199
\$1,000,000	0.058	0.073	0.095	0.105	0.143	0.166	0.188
\$2,000,000	0.031	0.041	0.057	0.063	0.092	0.108	0.122
\$3,000,000	0.022	0.029	0.041	0.046	0.069	0.082	0.093
\$4,000,000	0.016	0.023	0.033	0.036	0.056	0.067	0.076
\$5,000,000	0.013	0.018	0.027	0.030	0.047	0.056	0.064
\$6,000,000	0.011	0.015	0.023	0.025	0.040	0.049	0.055
\$7,000,000	0.009	0.013	0.020	0.022	0.035	0.043	0.049
\$8,000,000	0.008	0.011	0.017	0.019	0.031	0.038	0.043
\$9,000,000	0.007	0.010	0.015	0.017	0.027	0.034	0.039
\$10,000,000	0.006	0.009	0.013	0.015	0.024	0.030	0.035

**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	0.709	0.742	0.771	0.785	0.812	0.830	0.843
\$15,000	0.659	0.696	0.729	0.746	0.778	0.800	0.818
\$20,000	0.618	0.657	0.694	0.713	0.749	0.774	0.795
\$25,000	0.584	0.624	0.663	0.684	0.723	0.750	0.774
\$30,000	0.554	0.595	0.636	0.658	0.700	0.729	0.755
\$35,000	0.528	0.570	0.611	0.634	0.679	0.710	0.738
\$40,000	0.505	0.547	0.590	0.613	0.660	0.692	0.721
\$50,000	0.466	0.508	0.552	0.576	0.625	0.660	0.692
\$75,000	0.395	0.436	0.481	0.506	0.559	0.596	0.632
\$100,000	0.346	0.385	0.430	0.455	0.510	0.548	0.586
\$125,000	0.309	0.347	0.391	0.415	0.472	0.510	0.548
\$150,000	0.280	0.317	0.360	0.384	0.440	0.479	0.517
\$175,000	0.257	0.292	0.335	0.358	0.414	0.452	0.491
\$200,000	0.237	0.271	0.313	0.336	0.392	0.430	0.468
\$225,000	0.221	0.254	0.295	0.317	0.373	0.410	0.448
\$250,000	0.206	0.238	0.279	0.300	0.356	0.392	0.430
\$275,000	0.194	0.225	0.265	0.285	0.341	0.377	0.414
\$300,000	0.183	0.213	0.252	0.272	0.327	0.363	0.400
\$325,000	0.173	0.203	0.241	0.260	0.315	0.350	0.386
\$350,000	0.164	0.193	0.230	0.250	0.304	0.339	0.374
\$375,000	0.157	0.185	0.221	0.240	0.293	0.328	0.363
\$400,000	0.149	0.177	0.213	0.231	0.284	0.318	0.353
\$425,000	0.143	0.170	0.205	0.223	0.275	0.309	0.343
\$450,000	0.137	0.163	0.198	0.215	0.267	0.300	0.334
\$475,000	0.132	0.157	0.191	0.208	0.260	0.292	0.326
\$500,000	0.127	0.151	0.185	0.202	0.253	0.285	0.318
\$600,000	0.110	0.133	0.164	0.180	0.229	0.259	0.291
\$700,000	0.097	0.118	0.148	0.163	0.210	0.239	0.268
\$800,000	0.087	0.107	0.135	0.149	0.194	0.222	0.250
\$900,000	0.079	0.097	0.125	0.137	0.181	0.208	0.234
\$1,000,000	0.072	0.090	0.115	0.127	0.170	0.195	0.221
\$2,000,000	0.039	0.050	0.068	0.076	0.108	0.127	0.144
\$3,000,000	0.026	0.035	0.049	0.055	0.081	0.096	0.110
\$4,000,000	0.020	0.027	0.039	0.043	0.065	0.078	0.089
\$5,000,000	0.016	0.022	0.032	0.035	0.054	0.065	0.075
\$6,000,000	0.013	0.018	0.027	0.030	0.047	0.056	0.065
\$7,000,000	0.011	0.015	0.023	0.026	0.041	0.049	0.057
\$8,000,000	0.009	0.013	0.020	0.022	0.036	0.044	0.050
\$9,000,000	0.008	0.011	0.017	0.020	0.032	0.039	0.045
\$10,000,000	0.007	0.010	0.015	0.017	0.028	0.035	0.041

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	0.06	0.04	0.32	0.21	0.16	0.00



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Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

Part 3 Supporting Exhibits

- Exhibit I – Determination of the Indicated Loss Cost Level Change
- Exhibit II – Workers Compensation Loss Adjustment Expense Provision
- Appendix A – Factors Underlying the Proposed Loss Cost Level Change
- Appendix B – Calculations Underlying the Loss Cost Change by Classification
- Appendix C – Memoranda for Laws and Assessments
- Appendix D – Determination of Assigned Risk Rates



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Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

Exhibit I – Determination of the Indicated Loss Cost Level Change

NCCI analyzed the emerging experience of Connecticut workers compensation policies in recent years. The primary focus of our analysis was on premiums and losses from the proposed experience period, as shown in the exhibits on the next few pages.

Determination of the Loss Base

In analyzing losses for the purpose of Aggregate Ratemaking, NCCI reviews both “paid” and “paid plus case” loss data, which are (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 set aside to cover future payments on those claims.

During this year’s analysis, which included an assessment of possible pandemic claim-related impacts, a combination of both paid and paid plus case data was selected as most appropriate to best reflect the conditions likely to prevail in the proposed effective period. This is a change from prior filings as only indemnity paid plus case data had been used previously when estimating ultimate losses for indemnity. This change is being proposed due to improved stability in the indemnity paid ultimates in recent years and makes the most use of the available financial data information.

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. Policy year data is given greater consideration by NCCI because policy year data reflects the best match between exposure and losses.



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Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

Exhibit I – Determination of the Indicated Loss Cost Level Change

Policy <u>Year</u>	Loss <u>Ratio</u>	Calendar- <u>Accident Year</u>	Loss <u>Ratio</u>
2018	0.948	2019	1.017
2019	0.992	2020	0.926
2020	0.958	2021	0.951
2021	0.928	2022	0.922
2022	0.931	2023	0.924

Note the following regarding the projected loss ratios:

- *Based on NCCI's Financial Call data reported through 12/31/2023, on-leveled, developed to an ultimate report, and trended to the prospective period. Projected losses do not include the change in expenses and standard earned premium at Designated Statistical Reporting (DSR) level is adjusted to a pure premium level.*
- *The Calendar-Accident Year analysis was not conducted separately; the displayed loss ratios are trended using the policy year loss ratio selections underlying this filing.*
- *Calendar-Accident Year 2019–2023 loss ratios include a premium audit adjustment due to changes in audit activity primarily attributable to the COVID-19 pandemic-related recession.*

The Connecticut loss ratio experience for Policy Years 2021 and 2022 show improvement compared to the recent history. While some of the improvement in experience can be attributed to the pandemic, the loss experience remains favorable in the most recent Policy Year 2022 and Calendar-Accident Year 2023 loss ratio projections, which are further removed from the peak of the pandemic. A slight reduction in volume of large loss activity is contributing to the improved experience observed in Policy Year 2021 and Policy Year 2022.

Data for the two most recently available full policy years was selected as the most appropriate experience period on which to base this year's filing. The selection provides a balance between stability and responsiveness and best reflected the conditions likely to prevail in the proposed effective period. This method is consistent with prior filings in Connecticut.

Determination of the Indicated Change

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

1. Standard earned premium at the Designated Statistical Reporting (DSR) level is developed to an ultimate basis, on-leveled to the current approved loss cost level, and adjusted to a pure premium level.
2. Reported indemnity and medical losses are limited by a large loss threshold, developed to an ultimate report, and adjusted (via on-level factors) to the current benefit level.
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).



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Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

Exhibit I – Determination of the Indicated Loss Cost Level Change

4. Trend factors are applied to the indemnity and medical cost ratios to reflect anticipated changes in the amount of indemnity and medical benefits as compared with anticipated changes in the amount of workers' wages between (i) the years in filing's experience period and (ii) the period during which the proposed loss costs will be in effect.
5. Limited losses are adjusted to an unlimited basis via a non-catastrophe excess ratio (with excess ratios at limits beyond \$50 million set equal to zero).
6. A factor is applied to reflect the impact of proposed indemnity and medical benefit changes.
7. The projected unlimited indemnity and medical cost ratios including benefit changes are added to yield the indicated change based on experience, trend, and benefits.

The indicated change based on experience, trend, and benefits for this filing is calculated as the average of the indicated changes for each of the individual policy years in the experience period. Lastly, the impact of the change in loss adjustment expense is applied to determine the indicated overall average loss cost level change.

The detailed calculations can be found on the following pages.



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EXHIBIT I

Determination of Indicated Loss Cost Level Change

Section A - Policy Year 2022 Experience

Premium:

(1) Standard Earned Premium Developed to Ultimate (Appendix A-II)	\$452,457,447
(2) Premium On-level Factor (Appendix A-I)	0.714
(3) Pure Premium Available for Benefit Costs = (1) x (2)	\$323,054,617

Indemnity Benefit Cost:

(4) Limited Indemnity Losses Developed to Ultimate (Appendix A-II)	\$192,318,804
(5) Indemnity Loss On-level Factor (Appendix A-I)	1.000
(6) Adjusted Limited Indemnity Losses = (4) x (5)	\$192,318,804
(7) Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (6) / (3)	0.595
(8) Factor to Reflect Indemnity Trend (Appendix A-III)	0.885
(9) Projected Limited Indemnity Cost Ratio = (7) x (8)	0.527
(10) Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis (Appendix A-II)	1.031
(11) Projected Indemnity Cost Ratio = (9) x (10)	0.543
(12) Factor to Reflect Proposed Changes in Indemnity Benefits (Appendix C)	1.000
(13) Projected Indemnity Cost Ratio including Benefit Changes = (11) x (12)	0.543

Medical Benefit Cost:

(14) Limited Medical Losses Developed to Ultimate (Appendix A-II)	\$142,515,198
(15) Medical Loss On-level Factor (Appendix A-I)	1.011
(16) Adjusted Limited Medical Losses = (14) x (15)	\$144,082,865
(17) Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (16) / (3)	0.446
(18) Factor to Reflect Medical Trend (Appendix A-III)	0.831
(19) Projected Limited Medical Cost Ratio = (17) x (18)	0.371
(20) Factor to Adjust Medical Cost Ratio to an Unlimited Basis (Appendix A-II)	1.031
(21) Projected Medical Cost Ratio = (19) x (20)	0.383
(22) Factor to Reflect Proposed Changes in Medical Benefits (Appendix C)	1.012
(23) Projected Medical Cost Ratio including Benefit Changes = (21) x (22)	0.388

Total Benefit Cost:

(24) Indicated Change Based on Experience, Trend and Benefits = (13) + (23)	0.931
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EXHIBIT I

Determination of Indicated Loss Cost Level Change

Section B - Policy Year 2021 Experience

Premium:

(1) Standard Earned Premium Developed to Ultimate (Appendix A-II)	\$489,859,607
(2) Premium On-level Factor (Appendix A-I)	0.616
(3) Pure Premium Available for Benefit Costs = (1) x (2)	\$301,753,518

Indemnity Benefit Cost:

(4) Limited Indemnity Losses Developed to Ultimate (Appendix A-II)	\$197,206,664
(5) Indemnity Loss On-level Factor (Appendix A-I)	1.000
(6) Adjusted Limited Indemnity Losses = (4) x (5)	\$197,206,664
(7) Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (6) / (3)	0.654
(8) Factor to Reflect Indemnity Trend (Appendix A-III)	0.849
(9) Projected Limited Indemnity Cost Ratio = (7) x (8)	0.555
(10) Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis (Appendix A-II)	1.031
(11) Projected Indemnity Cost Ratio = (9) x (10)	0.572
(12) Factor to Reflect Proposed Changes in Indemnity Benefits (Appendix C)	1.000
(13) Projected Indemnity Cost Ratio including Benefit Changes = (11) x (12)	0.572

Medical Benefit Cost:

(14) Limited Medical Losses Developed to Ultimate (Appendix A-II)	\$129,961,657
(15) Medical Loss On-level Factor (Appendix A-I)	1.015
(16) Adjusted Limited Medical Losses = (14) x (15)	\$131,911,082
(17) Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (16) / (3)	0.437
(18) Factor to Reflect Medical Trend (Appendix A-III)	0.781
(19) Projected Limited Medical Cost Ratio = (17) x (18)	0.341
(20) Factor to Adjust Medical Cost Ratio to an Unlimited Basis (Appendix A-II)	1.031
(21) Projected Medical Cost Ratio = (19) x (20)	0.352
(22) Factor to Reflect Proposed Changes in Medical Benefits (Appendix C)	1.012
(23) Projected Medical Cost Ratio including Benefit Changes = (21) x (22)	0.356

Total Benefit Cost:

(24) Indicated Change Based on Experience, Trend and Benefits = (13) + (23)	0.928
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EXHIBIT I

Determination of Indicated Loss Cost Level Change

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

(1) Policy Year 2022 Indicated Change Based on Experience, Trend, and Benefits	0.931
(2) Policy Year 2021 Indicated Change Based on Experience, Trend, and Benefits	0.928
(3) Indicated Change Based on Experience, Trend, and Benefits*	0.930
= (1) x 50.0% + (2) x 50.0%	

* The weight applied to each loss ratio in the experience period does not vary by year.

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

(1) Indicated Loss Cost Level Change	0.928
(2) Effect of the Change in Loss-based Expenses (Exhibit II)	1.012
(3) Indicated Change Modified to Reflect the Change in Loss-based Expenses = (1) x (2)	0.939

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

Industry Group Differentials (Appendix A-IV):

Manufacturing	0.980
Contracting	0.991
Office & Clerical	1.005
Goods & Services	1.010
Miscellaneous	1.004

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	0.939	0.980	0.920	(-8.0%)
Contracting	0.939	0.991	0.931	(-6.9%)
Office & Clerical	0.939	1.005	0.944	(-5.6%)
Goods & Services	0.939	1.010	0.948	(-5.2%)
Miscellaneous	0.939	1.004	0.943	(-5.7%)
Overall	0.939	1.000	0.939	(-6.1%)



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Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

Exhibit II – Workers Compensation Loss Adjustment Expense Provision

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: Defense and Cost Containment Expenses (DCCE) and Adjusting and Other Expenses (AOE).

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 applying an adjustment to exclude the percentage of COVID-19-related losses relative to total losses for COVID-19 claims with accident dates between December 1, 2019 and June 30, 2023.

The reported DCCE and losses from COVID-19-related claims with accident dates between December 1, 2019 and June 30, 2023 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 Connecticut-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 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 Connecticut Loss Adjustment Expense Provision

NCCI proposes a 21.9% loss adjustment expense allowance as a percentage of losses. This represents a 1.2% increase from the currently approved loss adjustment expense provision.

	(1)	(2)
Connecticut Provisions	Current Approved	Proposed
AOE	9.4%	9.8%
DCCE	11.0%	12.1%
Total LAE	20.4%	21.9%

$$\begin{aligned} \text{Proposed Change in Connecticut LAE Provision} &= 1.012 \\ &= [1.0 + (2)] / [1.0 + (1)] - 1 & 1.2\% \end{aligned}$$

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 9.8%.

Accident Year	Ultimate AOE Ratio
2019	9.6%
2020	10.2%
2021	9.9%
2022	9.7%
2023	9.9%
Countrywide Selected	9.8%
Connecticut Selected	9.8%



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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>
2018	11.2%	1.007	11.3%
2019	10.7%	1.010	10.8%
2020	11.1%	1.004	11.1%
2021	11.8%	1.027	12.1%
2022	11.4%	1.136	13.0%

Connecticut Selected **12.1%**

(2) Section D

(3) = (1) x (2)

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

<u>Report</u>	(1)	(2)
	<u>DCCE Ratio Development</u>	
	<u>To Next Report</u>	<u>To Ultimate</u>
1st	1.106	1.136
2nd	1.023	1.027
3rd	0.994	1.004
4th	1.003	1.010
5th	0.996	1.007
6th	0.995	1.011
7th	0.997	1.016
8th	0.998	1.019
9th	1.003	1.021
10th	1.003	1.018
11th	0.998	1.015
12th	1.000	1.017
13th	0.998	1.017
14th	1.000	1.019
15th	1.003	1.019
16th	1.000	1.016
17th	1.000	1.016
18th	1.001	1.016
19th		1.015*

(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>
12/31/2021	1.083	1.022	0.971	0.988	0.994	0.987
12/31/2022	1.109	1.011	1.000	1.014	0.987	1.005
12/31/2023	1.126	1.036	1.011	1.008	1.006	0.994
Average	1.106	1.023	0.994	1.003	0.996	0.995

<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>
12/31/2021	0.996	1.002	0.996	1.004	1.000	0.999
12/31/2022	0.997	0.998	1.013	1.004	0.996	1.000
12/31/2023	0.998	0.994	1.001	1.000	0.999	1.001
Average	0.997	0.998	1.003	1.003	0.998	1.000

<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>
12/31/2021	1.000	0.997	1.000	0.999	0.999	1.005
12/31/2022	0.994	1.003	1.009	1.000	1.001	1.002
12/31/2023	1.001	1.000	1.001	1.001	1.000	0.996
Average	0.998	1.000	1.003	1.000	1.000	1.001



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Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

Appendix A – Factors Underlying the Proposed Loss Cost Level Change

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

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

Premium on-level factors capture the difference between the average premium level for the year being on-leveled and the present premium level. The average premium level for the year being on-leveled is calculated using a weighted average based on a monthly premium distribution derived from Connecticut Unit Statistical Plan data. Differences in premium level changes specific to the market are addressed through distinct voluntary and assigned risk on-level factors. These factors are weighted together, using selected market shares as weights, to arrive at the final statewide on-level factor. The following adjustments are applied as part of the premium on-level factor calculation:

- Adjustment for Expense Constant Removal: This factor removes premium collected via the charged expense constant.
- Adjustment for Expense Removal: This factor is applied to remove expenses from the reported assigned risk and voluntary DSR level premium totals—serving to make the separate market premiums more comparable.
- Uncollectible Premium Provision to Gross Premium Factor: This factor is applied to the assigned risk market premium to account for the difference between gross premium as reported and the ultimate premium that is collected.
- 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 expected during the proposed filing effective period. Additional details on this adjustment factor are provided in the sub-section below.
- Current Premium Index (Assigned Risk-To-Voluntary): This factor reflects the cumulative impact of the current assigned risk standard premium programs.
- Factor to Reflect the Impact of Assigned Risk Pricing Programs: This factor, in conjunction with the Current Premium Index, adjusts premium to a selected assigned risk market share volume by incorporating the current assigned risk premium programs at the selected level. Based on a review of historical assigned risk market shares in Connecticut, a market share of 5% was selected in this filing.

The selection of 5% in this filing recognizes that a baseline level of assigned risk market business is anticipated to exist. The selection considers the observed history across a 15 year period while considering several factors including Connecticut's assigned risk mechanisms in effect.



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Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

Appendix A – Factors Underlying the Proposed Loss Cost Level Change

Selecting a market share removes possible policy year-to-year distortions that may result due to changes in the volume of business written in the voluntary or assigned risk market. By maintaining a consistent A/R market share over an extended period, a stable benchmark loss cost level independent of fluctuations in the assigned risk market's size is achieved.

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.

Experience Rating Off-Balance Adjustment Factor

The term “off-balance” refers to the average experience rating modification factor (E-mod) across all employers for a given time period. Historical off-balance values are calculated as a weighted average—using expected losses as weights—of the following:

- E-mods for intrastate rated employers
- E-mods for interstate rated employers
- A unity factor for all non-rated employers

NCCI reviews changes in each state's average off-balance annually. The historical data review combined with the experience rating parameters included in the latest approved filing provide all necessary information to adjust historical premiums to reflect any changes in the off-balance values over time. Specifically, the premiums in the financial data experience period are adjusted to the off-balance expected in the proposed filing effective period. This adjustment can be seen in the premium on-level adjustment factors provided in Appendix A-I.

The key components used to estimate the off-balance for the proposed filing includes:

- A targeted average E-mod of 0.960 for intrastate rated employers is used to estimate the off-balance. A targeted average intrastate E-mod slightly below unity is desirable because employers who qualify for experience rating typically have better loss experience, on average, than non-rated employers. The impact of NCCI's off-balance adjustment is premium-neutral on a statewide basis while promoting loss cost adequacy for non-rated employers.
- An average interstate E-mod is used to estimate the off-balance. The average interstate E-mod is estimated based on experience rating data for interstate rated employers



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Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

Appendix A – Factors Underlying the Proposed Loss Cost Level Change

compiled within the most recent twelve months. Unlike intrastate-rated employers, interstate employers have exposure in multiple states, where each state's data and underlying experience rating parameters are used to determine the employer's interstate E-mod. Because E-mods for interstate employers are influenced by experience rating values for multiple states, NCCI's standard approach is to assume that the average interstate E-mod during the proposed filing period is best approximated by the average interstate E-mod observed over the most recent twelve months of E-mod data available at the time of the analysis.

**CONNECTICUT****APPENDIX A-I****Determination of Policy Year On-level Factors****Section A - Factor Adjusting 2022 Policy Year Assigned Risk Premium to Present Assigned Risk Level**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Date	Rate Level Change	Cumulative Index	Weight	Product (2)x(3)	Adj. Factor Present Index/ Sum Column (4)	Adj. For Expense Constant Removal @	Adj. For Expense Removal	UPP Adj. to Gross Premium Factor	Premium Adjustment Factor (5)x(6)x(7)x(8)
NR	01/01/22	Base	1.000	1.000	1.000	0.895	0.947	0.724	0.962
NR	01/01/23	1.000	1.000						
NR	01/01/24	0.895	0.895						
				1.000					

Section B - Factor Adjusting 2022 Policy Year Voluntary Premium to Present Voluntary Level

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Date	Loss Cost Level Change	Cumulative Index	Weight	Product (2)x(3)	Adj. Factor Present Index/ Sum Column (4)	Adj. For Expense Constant Removal @	Adj. For Expense Removal	UPP Adj. to Gross Premium Factor	Premium Adjustment Factor (5)x(6)x(7)x(8)
NR	01/01/22	Base	1.000	1.000	1.000	0.875	1.000	0.831	1.000
NR	01/01/23	0.970	0.970						
NR	01/01/24	0.902	0.875						
				1.000					

Section C - Factor Adjusting 2022 Policy Year Assigned Risk Premium and Voluntary Premium to Present Statewide Level

(1) Assigned Risk Market Share PY 2022	0.070
(2) Voluntary Market Share PY 2022	0.930
(3) Assigned Risk Standard Premium Adjustment Factor (See Sec. A)	0.591
(4) Voluntary Standard Premium Adjustment Factor (See Sec. B)	0.727
(5) Premium Adjustment Factor = [(1)x(3)]/1.577+(2)x(4) #	0.702
(6) Experience Rating Off-balance Adjustment Factor*	0.998
(7) Factor to Reflect the Impact of Assigned Risk Pricing Programs	0.982
(8) Final Premium Adjustment Factor = [(5)x(6)]/(7)	0.714

NR New and renewal business.

@ Eliminates premium derived from expense constants.

Current premium index (assigned risk-to-voluntary) = 1.577

* = 0.998 = 0.954 / 0.956 = (Targeted Off-balance) / (Off-balance for Policy Year 2022)

**CONNECTICUT****APPENDIX A-I****Determination of Policy Year On-level Factors****Section D - Factor Adjusting 2022 Policy Year Indemnity Losses to Present Benefit Level**

(1)	(2)	(3)	(4)	(5)
Date	Benefit Level Change	Cumulative Index	Weight	Product (2)x(3)
07/15/21	Base	1.000	0.052	0.052
04/01/22	1.000	1.000	0.138	0.138
07/15/22	1.000	1.000	0.587	0.587
04/01/23	1.000	1.000	0.150	0.150
07/15/23	1.000	1.000	0.073	0.073
				1.000

Section E - Factor Adjusting 2022 Policy Year Medical Losses to Present Benefit Level

(1)	(2)	(3)	(4)	(5)
Date	Benefit Level Change	Cumulative Index	Weight	Product (2)x(3)
07/15/21	Base	1.000	0.052	0.052
04/01/22	1.001	1.001	0.138	0.138
07/15/22	0.999	1.000	0.587	0.587
04/01/23	1.012	1.012	0.150	0.152
07/15/23	1.002	1.014	0.073	0.074
				1.003



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APPENDIX A-I

Determination of Policy Year On-level Factors

Section F - Factor Adjusting 2021 Policy Year Assigned Risk Premium to Present Assigned Risk Level

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Date	Rate Level Change	Cumulative Index	Weight	Product (2)x(3)	Adj. Factor Present Index/ Sum Column (4)	Adj. For Expense Constant Removal @	Adj. For Expense Removal	UPP Adj. to Gross Premium Factor	Premium Adjustment Factor (5)x(6)x(7)x(8)
NR	01/01/21	Base	1.000	1.000	1.000	0.822	0.948	0.724	0.962
NR	01/01/22	0.918	0.918						
NR	01/01/23	1.000	0.918						
NR	01/01/24	0.895	0.822						
				1.000					

Section G - Factor Adjusting 2021 Policy Year Voluntary Premium to Present Voluntary Level

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Date	Loss Cost Level Change	Cumulative Index	Weight	Product (2)x(3)	Adj. Factor Present Index/ Sum Column (4)	Adj. For Expense Constant Removal @	Adj. For Expense Removal	UPP Adj. to Gross Premium Factor	Premium Adjustment Factor (5)x(6)x(7)x(8)
NR	01/01/21	Base	1.000	1.000	1.000	0.751	1.000	0.831	1.000
NR	01/01/22	0.859	0.859						
NR	01/01/23	0.970	0.833						
NR	01/01/24	0.902	0.751						
				1.000					

Section H - Factor Adjusting 2021 Policy Year Assigned Risk Premium and Voluntary Premium to Present Statewide Level

(1) Assigned Risk Market Share PY 2021	0.066
(2) Voluntary Market Share PY 2021	0.934
(3) Assigned Risk Standard Premium Adjustment Factor (See Sec. F)	0.543
(4) Voluntary Standard Premium Adjustment Factor (See Sec. G)	0.624
(5) Premium Adjustment Factor = [(1)x(3)]/1.577+(2)x(4) #	0.606
(6) Experience Rating Off-balance Adjustment Factor*	0.999
(7) Factor to Reflect the Impact of Assigned Risk Pricing Programs	0.982
(8) Final Premium Adjustment Factor = [(5)x(6)]/(7)	0.616

NR New and renewal business.

@ Eliminates premium derived from expense constants.

Current premium index (assigned risk-to-voluntary) = 1.577

* = 0.999 = 0.954 / 0.955 = (Targeted Off-balance) / (Off-balance for Policy Year 2021)

**CONNECTICUT****APPENDIX A-I****Determination of Policy Year On-level Factors****Section I - Factor Adjusting 2021 Policy Year Indemnity Losses to Present Benefit Level**

Date	(1) Benefit Level Change	(2) Cumulative Index	(3) Weight	(4) Product (2)x(3)	(5) Adj. Factor Present Index/ Sum Column (4)
04/01/20	Base	1.000	0.052	0.052	1.000
04/01/21	1.000	1.000	0.101	0.101	
06/23/21	1.000	1.000	0.038	0.038	
07/15/21	1.000	1.000	0.586	0.586	
04/01/22	1.000	1.000	0.150	0.150	
07/15/22	1.000	1.000	0.073	0.073	
04/01/23	1.000	1.000			
07/15/23	1.000	1.000			
			1.000		

Section J - Factor Adjusting 2021 Policy Year Medical Losses to Present Benefit Level

Date	(1) Benefit Level Change	(2) Cumulative Index	(3) Weight	(4) Product (2)x(3)	(5) Adj. Factor Present Index/ Sum Column (4)
04/01/20	Base	1.000	0.052	0.052	1.015
04/01/21	1.012	1.012	0.101	0.102	
06/23/21	1.000	1.012	0.038	0.038	
07/15/21	1.000	1.012	0.586	0.593	
04/01/22	1.001	1.013	0.150	0.152	
07/15/22	0.999	1.012	0.073	0.074	
04/01/23	1.012	1.024			
07/15/23	1.002	1.026			
			1.011		



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Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

Appendix A – Factors Underlying the Proposed Loss Cost Level Change

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

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

Limited Large Loss Methodology

To limit volatility on the loss cost level indications due to the impact of extraordinary large losses, a limited large loss methodology is utilized. 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 is based on the Connecticut 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 to the year-specific detrended large loss thresholds.

Limited indemnity and medical losses are used to calculate estimated losses at 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 Connecticut's Retrospective Rating Plan Parameters.

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. 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.

In this filing, a three-year average of historical premium development factors was selected to strike a balance between responsiveness to recently observed changes and maintaining stability in the selected development factors from one filing to the next.



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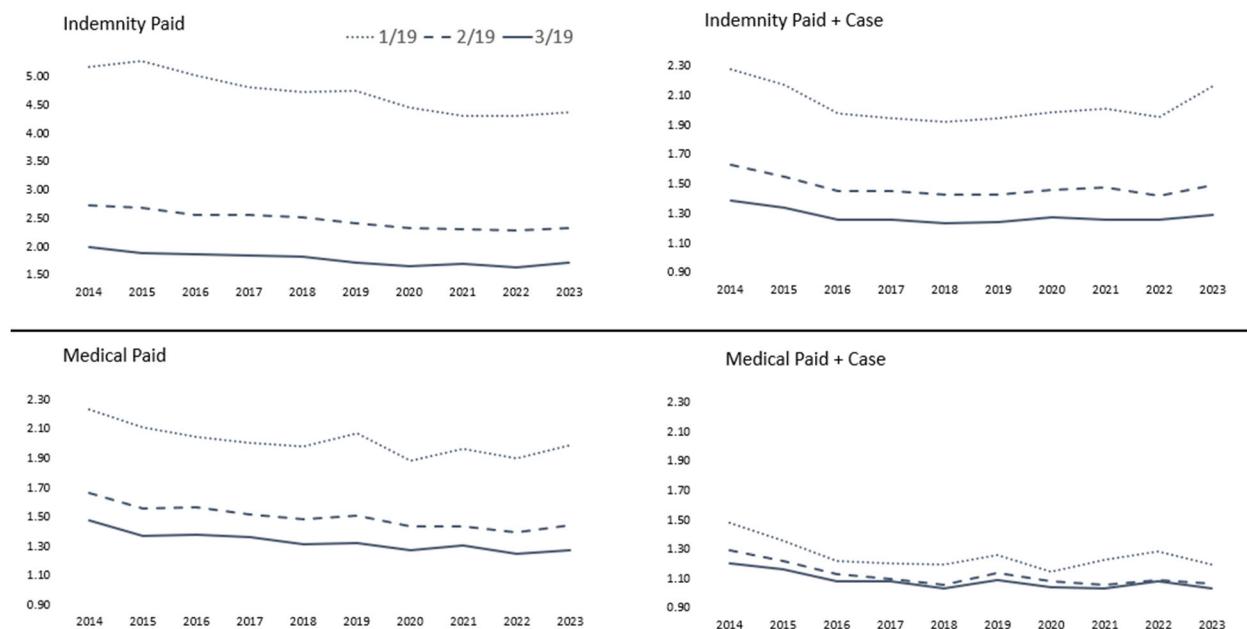
Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

Appendix A – Factors Underlying the Proposed Loss Cost Level Change

Loss Development

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. For indemnity and medical loss development, link ratios calculated from limited losses are used from 1st through 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. The loss development factors are based on how paid losses and case reserve estimates changed over time for claims from older years.

The graphs below display the age-to-19th cumulative loss development factors over the last ten valuations.



The specific development link ratio selections underlying this filing are shown below:

- A three-year average of historical paid loss development factors through a 19th report for medical losses
- A five-year average of historical paid plus case loss development factors through a 19th report for both indemnity and medical losses

As can be seen in the graphs above, the latest valuation of development factors are generally consistent with those from historical periods for medical paid and paid plus case development. Therefore, there was no change in the selected medical development averages compared to



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Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

Appendix A – Factors Underlying the Proposed Loss Cost Level Change

last year's filing. Indemnity paid loss development has also exhibited consistency over the last several years and a three-year development average was selected for the use of indemnity paid in this filing. While there was a notable increase in indemnity paid plus case development in the latest valuation, no change is being proposed to the selected development averages compared to last year's filing; the 5-year average for indemnity paid plus case continues to provide a balance of stability and responsiveness

The development factor selections were made to strike a balance between responsiveness to recently observed changes and maintaining stability in the selected development factors from one filing to the next. A shorter-term average was selected for paid losses to capture more recent changes in paid development patterns over time, while a longer-term average was selected for paid plus case losses to limit the amount of variability from year to year.

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 19th-to-ultimate tail factor in Connecticut is calculated on a paid plus case basis. Both the indemnity and medical tail factors utilize 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.

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 conversion ratios.

Both the indemnity and medical paid-to-paid plus case 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 12/31/2023

Policy Year 2022

(1) Standard Earned Premium	\$450,654,828
(2) Factor to Develop Premium to Ultimate	1.004
(3) Standard Earned Premium Developed to Ultimate = (1)x(2)	\$452,457,447
(4) Limited Indemnity Paid Losses	\$43,481,661
(5) Limited Indemnity Paid Development Factor to Ultimate	4.498
(6) Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	\$195,580,511
(7) Limited Indemnity Paid+Case Losses	\$91,111,854
(8) Limited Indemnity Paid+Case Development Factor to Ultimate	2.075
(9) Limited Indemnity Paid+Case Losses Developed to Ultimate = (7)x(8)	\$189,057,097
(10) Policy Year 2022 Limited Indemnity Losses Developed to Ultimate = [(6)+(9)]/2	\$192,318,804
(11) Limited Medical Paid Losses	\$71,466,818
(12) Limited Medical Paid Development Factor to Ultimate	2.023
(13) Limited Medical Paid Losses Developed to Ultimate = (11)x(12)	\$144,577,373
(14) Limited Medical Paid+Case Losses	\$114,375,426
(15) Limited Medical Paid+Case Development Factor to Ultimate	1.228
(16) Limited Medical Paid+Case Losses Developed to Ultimate = (14)x(15)	\$140,453,023
(17) Policy Year 2022 Limited Medical Losses Developed to Ultimate = [(13)+(16)]/2	\$142,515,198

Policy Year 2021

(1) Standard Earned Premium	\$490,349,957
(2) Factor to Develop Premium to Ultimate	0.999
(3) Standard Earned Premium Developed to Ultimate = (1)x(2)	\$489,859,607
(4) Limited Indemnity Paid Losses	\$82,815,104
(5) Limited Indemnity Paid Development Factor to Ultimate	2.399
(6) Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	\$198,673,434
(7) Limited Indemnity Paid+Case Losses	\$130,667,485
(8) Limited Indemnity Paid+Case Development Factor to Ultimate	1.498
(9) Limited Indemnity Paid+Case Losses Developed to Ultimate = (7)x(8)	\$195,739,893
(10) Policy Year 2021 Limited Indemnity Losses Developed to Ultimate = [(6)+(9)]/2	\$197,206,664
(11) Limited Medical Paid Losses	\$89,367,623
(12) Limited Medical Paid Development Factor to Ultimate	1.478
(13) Limited Medical Paid Losses Developed to Ultimate = (11)x(12)	\$132,085,347
(14) Limited Medical Paid+Case Losses	\$117,175,038
(15) Limited Medical Paid+Case Development Factor to Ultimate	1.091
(16) Limited Medical Paid+Case Losses Developed to Ultimate = (14)x(15)	\$127,837,966
(17) Policy Year 2021 Limited Medical Losses Developed to Ultimate = [(13)+(16)]/2	\$129,961,657



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APPENDIX A-II

Determination of Premium and Losses Developed to an Ultimate Report

Section B - Premium Development Factors

Policy Year	1st/2nd	Policy Year	2nd/3rd	Policy Year	3rd/4th	Policy Year	4th/5th
2019	0.992	2018	0.999	2017	1.002	2016	1.000
2020	1.010	2019	0.999	2018	1.000	2017	0.999
2021	1.012	2020	0.999	2019	0.999	2018	1.000
Average	1.005	Average	0.999	Average	1.000	Average	1.000

Summary of Premium Development Factors

1st/5th	2nd/5th	3rd/5th	4th/5th
1.004	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 <u>Year</u>	<u>1st/2nd</u>	Policy <u>Year</u>	<u>2nd/3rd</u>	Policy <u>Year</u>	<u>3rd/4th</u>	Policy <u>Year</u>	<u>4th/5th</u>
2019	1.868	2018	1.360	2017	1.183	2016	1.109
2020	1.881	2019	1.413	2018	1.186	2017	1.091
2021	1.876	2020	1.363	2019	1.189	2018	1.096
Average	1.875	Average	1.379	Average	1.186	Average	1.099
Policy <u>Year</u>	<u>5th/6th</u>	Policy <u>Year</u>	<u>6th/7th</u>	Policy <u>Year</u>	<u>7th/8th</u>	Policy <u>Year</u>	<u>8th/9th</u>
2015	1.058	2014	1.045	2013	1.032	2012	1.020
2016	1.068	2015	1.032	2014	1.026	2013	1.020
2017	1.058	2016	1.048	2015	1.036	2014	1.028
Average	1.061	Average	1.042	Average	1.031	Average	1.023
Policy <u>Year</u>	<u>9th/10th</u>	Policy <u>Year</u>	<u>10th/11th</u>	Policy <u>Year</u>	<u>11th/12th</u>	Policy <u>Year</u>	<u>12th/13th</u>
2011	1.028	2010	1.013	2009	1.014	2008	1.013
2012	1.015	2011	1.008	2010	1.019	2009	1.009
2013	1.016	2012	1.017	2011	1.017	2010	1.011
Average	1.020	Average	1.013	Average	1.017	Average	1.011
Policy <u>Year</u>	<u>13th/14th</u>	Policy <u>Year</u>	<u>14th/15th</u>	Policy <u>Year</u>	<u>15th/16th</u>	Policy <u>Year</u>	<u>16th/17th</u>
2007	1.006	2006	1.007	2005	1.005	2004	1.006
2008	1.011	2007	1.005	2006	1.004	2005	1.003
2009	1.009	2008	1.005	2007	1.004	2006	1.008
Average	1.009	Average	1.006	Average	1.004	Average	1.006
Policy <u>Year</u>	<u>17th/18th</u>	Policy <u>Year</u>	<u>18th/19th</u>				
2003	1.011	2002	1.002				
2004	1.004	2003	1.003				
2005	1.003	2004	1.013				
Average	1.006	Average	1.006				



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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 <u>Year</u>	<u>1st/2nd</u>	Policy <u>Year</u>	<u>2nd/3rd</u>	Policy <u>Year</u>	<u>3rd/4th</u>	Policy <u>Year</u>	<u>4th/5th</u>
2019	1.367	2018	1.104	2017	1.084	2016	1.039
2020	1.361	2019	1.118	2018	1.049	2017	1.028
2021	1.380	2020	1.132	2019	1.081	2018	1.038
Average	1.369	Average	1.118	Average	1.071	Average	1.035
Policy <u>Year</u>	<u>5th/6th</u>	Policy <u>Year</u>	<u>6th/7th</u>	Policy <u>Year</u>	<u>7th/8th</u>	Policy <u>Year</u>	<u>8th/9th</u>
2015	1.024	2014	1.025	2013	1.009	2012	1.011
2016	1.047	2015	1.016	2014	1.015	2013	1.011
2017	1.028	2016	1.016	2015	1.017	2014	1.014
Average	1.033	Average	1.019	Average	1.014	Average	1.012
Policy <u>Year</u>	<u>9th/10th</u>	Policy <u>Year</u>	<u>10th/11th</u>	Policy <u>Year</u>	<u>11th/12th</u>	Policy <u>Year</u>	<u>12th/13th</u>
2011	1.012	2010	1.009	2009	1.005	2008	1.013
2012	1.009	2011	1.007	2010	1.011	2009	1.004
2013	1.006	2012	1.008	2011	1.003	2010	1.007
Average	1.009	Average	1.008	Average	1.006	Average	1.008
Policy <u>Year</u>	<u>13th/14th</u>	Policy <u>Year</u>	<u>14th/15th</u>	Policy <u>Year</u>	<u>15th/16th</u>	Policy <u>Year</u>	<u>16th/17th</u>
2007	1.003	2006	1.009	2005	1.006	2004	1.010
2008	1.007	2007	1.004	2006	1.005	2005	1.004
2009	1.005	2008	1.004	2007	1.002	2006	1.005
Average	1.005	Average	1.006	Average	1.004	Average	1.006
Policy <u>Year</u>	<u>17th/18th</u>	Policy <u>Year</u>	<u>18th/19th</u>				
2003	1.006	2002	1.002				
2004	1.005	2003	1.004				
2005	1.004	2004	1.007				
Average	1.005	Average	1.004				

**CONNECTICUT****APPENDIX A-II****Determination of Premium and Losses Developed to an Ultimate Report****Section E - Limited Indemnity Paid + Case Loss 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	1.362	2016	1.150	2015	1.064	2014	1.038
2018	1.359	2017	1.151	2016	1.077	2015	1.042
2019	1.367	2018	1.173	2017	1.061	2016	1.041
2020	1.380	2019	1.132	2018	1.086	2017	1.022
2021	1.456	2020	1.152	2019	1.094	2018	1.051
Average	1.385	Average	1.152	Average	1.076	Average	1.039
<u>Policy Year</u>	<u>5th/6th</u>	<u>Policy Year</u>	<u>6th/7th</u>	<u>Policy Year</u>	<u>7th/8th</u>	<u>Policy Year</u>	<u>8th/9th</u>
2013	1.043	2012	1.015	2011	1.016	2010	1.013
2014	1.018	2013	1.023	2012	1.014	2011	1.019
2015	1.024	2014	1.012	2013	1.017	2012	1.012
2016	1.033	2015	1.020	2014	1.012	2013	1.006
2017	1.021	2016	1.023	2015	1.008	2014	1.014
Average	1.028	Average	1.019	Average	1.013	Average	1.013
<u>Policy Year</u>	<u>9th/10th</u>	<u>Policy Year</u>	<u>10th/11th</u>	<u>Policy Year</u>	<u>11th/12th</u>	<u>Policy Year</u>	<u>12th/13th</u>
2009	1.006	2008	0.999	2007	1.009	2006	1.003
2010	1.007	2009	1.012	2008	1.012	2007	1.008
2011	1.016	2010	1.009	2009	1.010	2008	1.003
2012	1.007	2011	1.010	2010	1.009	2009	1.003
2013	1.007	2012	1.008	2011	1.008	2010	1.009
Average	1.009	Average	1.008	Average	1.010	Average	1.005
<u>Policy Year</u>	<u>13th/14th</u>	<u>Policy Year</u>	<u>14th/15th</u>	<u>Policy Year</u>	<u>15th/16th</u>	<u>Policy Year</u>	<u>16th/17th</u>
2005	1.004	2004	0.998	2003	1.003	2002	1.006
2006	1.003	2005	1.005	2004	0.998	2003	1.001
2007	1.002	2006	1.000	2005	1.000	2004	1.017
2008	1.005	2007	1.007	2006	1.004	2005	1.003
2009	1.007	2008	1.001	2007	1.000	2006	1.002
Average	1.004	Average	1.002	Average	1.001	Average	1.006
<u>Policy Year</u>	<u>17th/18th</u>	<u>Policy Year</u>	<u>18th/19th</u>				
2001	1.002	2000	1.000				
2002	1.002	2001	1.002				
2003	1.003	2002	1.002				
2004	1.006	2003	0.997				
2005	1.003	2004	1.005				
Average	1.003	Average	1.001				

**CONNECTICUT****APPENDIX A-II****Determination of Premium and Losses Developed to an Ultimate Report****Section F - Limited Medical Paid + Case Loss 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	1.109	2016	1.041	2015	1.004	2014	1.017
2018	1.055	2017	1.041	2016	1.004	2015	1.003
2019	1.160	2018	1.030	2017	1.003	2016	1.002
2020	1.181	2019	1.012	2018	1.007	2017	1.012
2021	1.125	2020	1.031	2019	1.033	2018	1.007
Average	1.126	Average	1.031	Average	1.010	Average	1.008
<u>Policy Year</u>	<u>5th/6th</u>	<u>Policy Year</u>	<u>6th/7th</u>	<u>Policy Year</u>	<u>7th/8th</u>	<u>Policy Year</u>	<u>8th/9th</u>
2013	1.019	2012	1.000	2011	1.011	2010	1.008
2014	0.996	2013	0.998	2012	1.011	2011	1.002
2015	1.002	2014	1.009	2013	1.005	2012	1.012
2016	1.015	2015	1.007	2014	1.000	2013	1.001
2017	1.008	2016	0.991	2015	0.983	2014	0.998
Average	1.008	Average	1.001	Average	1.002	Average	1.004
<u>Policy Year</u>	<u>9th/10th</u>	<u>Policy Year</u>	<u>10th/11th</u>	<u>Policy Year</u>	<u>11th/12th</u>	<u>Policy Year</u>	<u>12th/13th</u>
2009	1.004	2008	1.008	2007	1.002	2006	1.001
2010	1.006	2009	0.998	2008	1.016	2007	1.006
2011	1.004	2010	0.994	2009	0.999	2008	0.996
2012	0.999	2011	1.008	2010	1.001	2009	1.002
2013	1.005	2012	1.001	2011	0.995	2010	1.006
Average	1.004	Average	1.002	Average	1.003	Average	1.002
<u>Policy Year</u>	<u>13th/14th</u>	<u>Policy Year</u>	<u>14th/15th</u>	<u>Policy Year</u>	<u>15th/16th</u>	<u>Policy Year</u>	<u>16th/17th</u>
2005	0.998	2004	1.002	2003	1.000	2002	1.006
2006	0.998	2005	1.001	2004	0.994	2003	1.002
2007	1.000	2006	0.996	2005	0.997	2004	1.003
2008	1.008	2007	1.000	2006	1.001	2005	1.006
2009	1.000	2008	1.004	2007	0.997	2006	0.996
Average	1.001	Average	1.001	Average	0.998	Average	1.003
<u>Policy Year</u>	<u>17th/18th</u>	<u>Policy Year</u>	<u>18th/19th</u>				
2001	1.002	2000	1.002				
2002	0.999	2001	1.004				
2003	1.000	2002	1.003				
2004	1.007	2003	0.998				
2005	0.999	2004	1.005				
Average	1.001	Average	1.002				



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APPENDIX A-II

Determination of Premium and Losses Developed to an Ultimate Report

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

Indemnity Paid+Case Data for Matching Companies

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Policy Year	Losses for Policy Year		Losses for All Prior Policy Years		Factor to Adjust Losses for Prior Policy Years	Indicated 19th-to-Ult Development for Policy Year
	19th Report	20th Report	Previous	Current		
1994	122,415,525	122,354,079	3,871,203,569	3,886,232,413	1.909	1.064
1995	113,817,954	114,177,802	4,005,788,708	4,017,051,757	2.009	1.052
1996	126,705,721	126,897,455	4,130,518,682	4,139,232,424	1.732	1.041
1997	149,206,465	150,189,849	4,264,033,202	4,278,850,907	1.409	1.077
1998	149,708,274	150,694,029	4,429,040,756	4,442,176,978	1.315	1.073
1999	148,261,652	148,293,152	4,456,195,299	4,471,762,090	1.142	1.092
2000	175,634,276	176,329,901	4,537,247,438	4,550,541,941	0.866	1.091
2001	142,221,703	143,826,707	4,715,870,933	4,722,758,156	0.976	1.061
2002	131,662,945	131,648,253	4,952,261,536	4,960,374,848	0.958	1.064
2003	144,534,090	144,748,843	5,092,288,462	5,093,232,506	0.835	1.009
Selected Indemnity 19th-to-Ultimate Loss Development Factor						1.055

Medical Paid+Case Data for Matching Companies

(8)	(9)	(10)	(11)	(12)	(13)	(14)
Policy Year	Losses for Policy Year		Losses for All Prior Policy Years		Factor to Adjust Losses for Prior Policy Years	Indicated 19th-to-Ult Development for Policy Year
	19th Report	20th Report	Previous	Current		
1994	91,368,551	91,086,660	1,780,977,194	1,791,033,757	1.266	1.084
1995	83,451,149	83,539,241	1,881,583,695	1,886,914,499	1.403	1.047
1996	111,739,962	111,359,915	1,970,073,399	1,972,788,087	1.039	1.020
1997	95,944,030	96,330,529	2,082,740,916	2,087,168,032	1.222	1.042
1998	103,340,130	103,268,435	2,183,498,561	2,186,775,082	1.110	1.028
1999	109,180,143	108,447,992	2,224,150,900	2,227,967,333	0.976	1.029
2000	121,359,556	121,175,295	2,283,072,251	2,279,852,297	0.819	0.966
2001	103,911,420	104,982,843	2,393,340,503	2,390,795,407	0.934	0.984
2002	103,962,584	103,452,003	2,552,922,306	2,551,229,781	0.880	0.977
2003	116,294,593	116,355,761	2,654,891,111	2,652,850,148	0.768	0.978
Selected Medical 19th-to-Ultimate Loss Development Factor						1.015

$$(7) = 1 + [(3) - (2) + ((5) - (4)) / (6)] / (2)$$

$$(14) = 1 + [(10) - (9) + ((12) - (11)) / (13)] / (9)$$

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.



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Determination of Premium and Losses Developed to an Ultimate Report

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

Policy Year	Indemnity Paid-to-Paid + Case Ratio <u>19th Report</u>	Medical Paid-to-Paid + Case Ratio <u>19th Report</u>
2000	0.987	0.960
2001	0.981	0.966
2002	0.990	0.959
2003	0.969	0.965
2004	0.978	0.974
Selected	0.990	0.970

	Indemnity	Medical
(1) Paid+Case 19th-to-Ultimate Loss Development Factor (Section G)	1.055	1.015
(2) Factor to Adjust 19th-to-Ultimate Development Factor to a Limited Basis	0.554	0.554
(3) Limited Paid+Case 19th-to-Ultimate Loss Development Factor = [(1) - 1] x (2) + 1	1.030	1.008
(4) Limited Paid-to-Paid+Case Ratio	0.990	0.970
(5) Limited Paid 19th-to-Ultimate Loss Development Factor = (3) / (4)	1.040	1.039

Section I - Summary of Limited Paid Loss Development Factors

Report	(1) <u>Indemnity Paid Loss Development</u>		(3) <u>Medical Paid Loss Development</u>	
	<u>to Next Report</u>	<u>to Ultimate</u>	<u>Report</u>	<u>to Next Report</u>
1st	1.875	4.498	1st	1.369
2nd	1.379	2.399	2nd	1.118
3rd	1.186	1.740	3rd	1.071
4th	1.099	1.467	4th	1.035
5th	1.061	1.335	5th	1.033
6th	1.042	1.258	6th	1.019
7th	1.031	1.207	7th	1.014
8th	1.023	1.171	8th	1.012
9th	1.020	1.145	9th	1.009
10th	1.013	1.123	10th	1.008
11th	1.017	1.109	11th	1.006
12th	1.011	1.090	12th	1.008
13th	1.009	1.078	13th	1.005
14th	1.006	1.068	14th	1.006
15th	1.004	1.062	15th	1.004
16th	1.006	1.058	16th	1.006
17th	1.006	1.052	17th	1.005
18th	1.006	1.046	18th	1.004
19th		1.040	19th	1.039

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

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



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Determination of Premium and Losses Developed to an Ultimate Report

Section J - Summary of Limited Paid+Case Loss Development Factors

Report	(1) <u>Indemnity Paid+Case Loss Development</u>		(3) <u>Medical Paid+Case Loss Development</u>	
	<u>to Next Report</u>	<u>to Ultimate</u>	<u>to Next Report</u>	<u>to Ultimate</u>
1st	1.385	2.075	1st	1.126
2nd	1.152	1.498	2nd	1.031
3rd	1.076	1.300	3rd	1.010
4th	1.039	1.208	4th	1.008
5th	1.028	1.163	5th	1.008
6th	1.019	1.131	6th	1.001
7th	1.013	1.110	7th	1.002
8th	1.013	1.096	8th	1.004
9th	1.009	1.082	9th	1.004
10th	1.008	1.072	10th	1.002
11th	1.010	1.063	11th	1.003
12th	1.005	1.052	12th	1.002
13th	1.004	1.047	13th	1.001
14th	1.002	1.043	14th	1.001
15th	1.001	1.041	15th	0.998
16th	1.006	1.040	16th	1.003
17th	1.003	1.034	17th	1.001
18th	1.001	1.031	18th	1.002
19th		1.030	19th	1.008

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

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



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Determination of Premium and Losses Developed to an Ultimate Report

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

(1) Threshold at the Midpoint of the Loss Cost Effective Period*	6,218,175
(2) Statewide Excess Ratio for (1)	0.030
(3) Market Share for Carriers Missing from Large Loss and Catastrophe Call	0.000
(4) Factor to Adjust Limited Losses to an Unlimited Basis = $1.0 / \{1.0 - [(2) \times (1.0 - (3))]\}$	1.031

Section L - Policy Year Large Loss Limits

Experience Year	Policy Year Detrended Limit
2022	5,698,098
2021	5,452,644
2020	5,179,514
2019	4,920,226
2018	4,724,484
2017	4,621,794
2016	4,563,857
2015	4,532,340
2014	4,465,819
2013	4,360,530
2012	4,310,126
2011	4,262,411
2010	4,163,639
2009	4,036,783
2008	4,019,667
2007	4,039,304
2006	3,906,605
2005	3,721,959
2004	3,574,847
2003	3,410,937
2002	3,272,081
2001	3,242,314
2000	3,187,816

* December 2, 2025 is the midpoint of the effective period for which the revised loss costs are being proposed.



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Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

Appendix A – Factors Underlying the Proposed Loss Cost Level Change

Appendix A-III Trend Factors

The proposed loss costs and assigned risk rates are intended for use with policies with effective dates in the proposed effective period. However, the data underlying this filing is based on the years in the experience period. Thus, it is necessary to use trend factors that forecast how much future Connecticut workers compensation experience will differ from historical experience.

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

NCCI separately analyzes a measure of the number of workplace injuries (claim frequency) and the average indemnity and medical costs of each of these injuries (claim severity). Premium, lost-time claim counts, and losses used in these frequency and severity calculations are developed to ultimate and adjusted for changes in the level of workers' wages over time using the United States Bureau of Labor Statistics Quarterly Census of Employment and Wages for Connecticut. 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 severity figures.

While claim frequency and severity are reviewed separately, NCCI selects annual indemnity and medical loss ratio trend factors in Connecticut. 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 one another. Additionally, loss ratios do not require an adjustment to a common wage level, since the wage adjustment to frequency and severities nullify. 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 trend lengths displayed on the following exhibits are calculated by comparing the average accident date, or midpoint, for the effective period of the proposed loss costs to each average accident date of the policy years in the experience period. The average accident dates are based on a Connecticut distribution of policy writings by month and assume a uniform probability of loss over the coverage period.



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Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

Appendix A – Factors Underlying the Proposed Loss Cost Level Change

Considerations Underlying Trend Selections in this Filing

The trend factors selected in this filing are meant to recognize the impact the changes in benefits and inflation will have on loss ratios between the midpoints of the experience period years on which the filing is based and the midpoint of the proposed loss cost effective period. A review of loss ratio patterns observed over an extended period of time are typically reviewed to allow one to evaluate changes over an extended period of time, including both economic and non-economic factors, and to mitigate short-term anomalous year-to-year changes.

The COVID-19 pandemic may have permanently altered aspects of the workplace and economy. For example, remote work and reduced business travel affecting some sectors, changes in job duties and workplaces, and changes in the mix of business are likely to persist into the future. The increasingly favorable policy year and calendar-accident year experience, coupled with the strength and stability of Connecticut's labor market, suggests improvements in experience are predictive of future experience and expected to persist into the filing effective period.

The indicated exponential loss ratio trend fits for both indemnity and medical over periods ranging from 5 to 15 years are based are displayed on the following pages along with the exponential trend fits for the underlying frequency and severity components.

Lost-time claim frequency experienced a moderate decrease in the latest year, continuing the long-term general decline that has been observed over the entire history displayed. While small increases in claim frequency were observed in the two prior Policy Years (i.e., 2020 and 2021), those increases, as well as the larger than typical decrease seen from Policy Year 2018 to Policy Year 2019 may have been driven, to some extent, by the impact of the COVID-19 pandemic. After adjusting to a common wage level, both the indemnity and medical average cost per case figures increased in the latest year, although the more significant increase for medical follows two consecutive years of significant decreases. Looking over a longer-term history, the indemnity average cost per case appears relatively flat while the medical average cost per case has exhibited more variability in recent years with a downward trend since 2013. Together, claim frequency and severity trends suggest improving workers compensation experience.

The range of indicated exponential loss ratio fits for indemnity, with all fits based on 5 to 15 years, ranges between -3.3% to -5.0%. Consideration of the trend component included a review of loss ratio patterns observed over an extended period of time. This allows one to review trends over an entire underwriting cycle and smooth out year-to-year fluctuations. Based



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Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

Appendix A – Factors Underlying the Proposed Loss Cost Level Change

on this year's analysis, NCCI selected to decrease the annual indemnity loss ratio trend from -3.5% to -4.0% in this filing.

Additional consideration was given to the accelerated wage growth in Connecticut during and after the COVID-19 pandemic, particularly in relation to medical benefits. From 2008 to 2019, wages in Connecticut grew at an average annual rate of about 1.5%, according to the US Bureau of Labor Statistics (BLS) Quarterly Census of Employment and Wages (QCEW). However, from 2020 to 2022, annual wage growth exceeded the historical average, rising at a rate of more than 5% per year. Looking ahead, forecasts suggest that wage growth in Connecticut will moderate to around 3% annually in 2024 and beyond (Moody's Analytics), a trend supported by the latest data observed for 2023.

While the anticipated 3% annual wage growth remains strong compared to the historical pre-COVID growth rate, the latest data and forecasts suggest that the unusually high wage growth seen in 2020-2022 is unlikely to continue. Since payroll serves as the exposure base for determining workers' compensation premiums, rising wages lead to higher premiums, which in turn exert downward pressure on medical loss ratios over time. The extent of this effect depends on the rate of wage growth. Therefore, it is important to consider how future wage growth expectations, which differ from historical rates, may influence prospective estimates of medical loss ratio trends.

Another factor influencing historical medical loss ratio changes is the rate of medical inflation. Workers compensation medical costs in Connecticut are affected by the general cost of medical services, which typically rises over time. Annual medical inflation rates, as measured by the nationwide Chain-Weighted Personal Healthcare (PHC) index¹, have fluctuated—dropping from around 3% in 2008, 2009, and 2010 to below 1% in 2015, and then gradually increasing to approximately 2.5% in 2023. The PHC index is projected to see annual increases of around 3% through the prospective rate effective period (Centers for Medicare & Medicaid Services).

Given that historical patterns of wage growth and medical inflation differ from future expectations, NCCI also analyzed medical loss ratio changes adjusted to reflect prospective estimates for wage growth and medical inflation, in addition to the unadjusted medical loss ratio analysis. Specifically, for 2019 and beyond, the historically observed annual changes in medical loss ratios were restated to align with projected estimates of annual wage growth (3%) and medical inflation (3%), rather than relying on the actual historical values as measured by the QCEW and PHC.

¹ The PHC Chain-Weighted Price Index, produced by the Centers for Medicare & Medicaid Services, is a proxy for medical care price inflation that responds to changes in the blend of different medical services over time.



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Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

Appendix A – Factors Underlying the Proposed Loss Cost Level Change

Displayed below are the unadjusted policy year medical loss ratios, the associated year-over-year changes, and the adjusted policy year medical loss ratios which reflect these adjustments.

Scenario A: Unadjusted medical loss ratios

	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
Loss ratio	0.963	0.957	0.991	0.949	0.927	0.890	0.744	0.694	0.650	0.689	0.581	0.593	0.523	0.437	0.446
% Change		-0.6%	3.6%	-4.2%	-2.3%	-4.0%	-16.4%	-6.7%	-6.3%	6.0%	-15.7%	2.1%	-11.8%	-16.4%	2.1%

Scenario B: Adjusted medical loss ratio changes for 2019 and subsequent to reflect the prospective expectations of wage growth and medical inflation:

	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
PY PHC Index % Change	1.7%	2.0%	2.2%	2.4%
PY QCEW AWW % Change ⁺	4.1%	5.3%	5.3%	4.5%
Adjusted Med L/R % Change*	4.5%	-9.0%	-13.9%	4.2%
Adjusted Med Loss Ratio [^]	0.607	0.552	0.475	0.495

⁺ Calendar-Accident Years 2020 and 2021 QCEW AWW values have been adjusted for industry cross sector mix changes as a result of COVID-19-related shifts in employment.

* = (1 + Unadjusted Med L/R % Change) x [(1 + QCEW AWW % Change) / (1 + 3%)] x [(1 + 3%) / (1 + PHC Index % Change)] -1, where 3% and 3% are the prospective wage and medical inflation expectations, respectively.

[^] 2008 - 2018 loss ratios are unadjusted. For 2019 and subsequent, Adjusted Loss Ratio = (Adjusted Med L/R % Change) x (prior year's Adjusted Loss Ratio).

Overall, the observed year-over-year changes for medical average cost per case figures have been more variable relative to those for indemnity. The range of indicated exponential loss ratio fits for medical, with all fits based on 5 to 15 years, range between -6.0% to -8.6%. After making the adjustment to historical wage growth and medical inflation outlined above, the range of indicated exponential loss ratio fits for medical, with fits based on 5 to 15 years, falls between -5.2% and -6.5%. By giving some weight to the short-term fits, there is recognition of the declining trend in medical loss ratios while not being overly responsive to large changes in the average medical cost per case. Based on this year's analysis, in this filing NCCI selected to maintain the annual medical loss ratio trend of -6.0%.

Note that the claim frequency and average cost per case values are adjusted to the wage level of the most recent experience year to remove the effects of inflation.



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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:

	<u>Indemnity</u>	<u>Medical</u>
	-4.0%	-6.0%

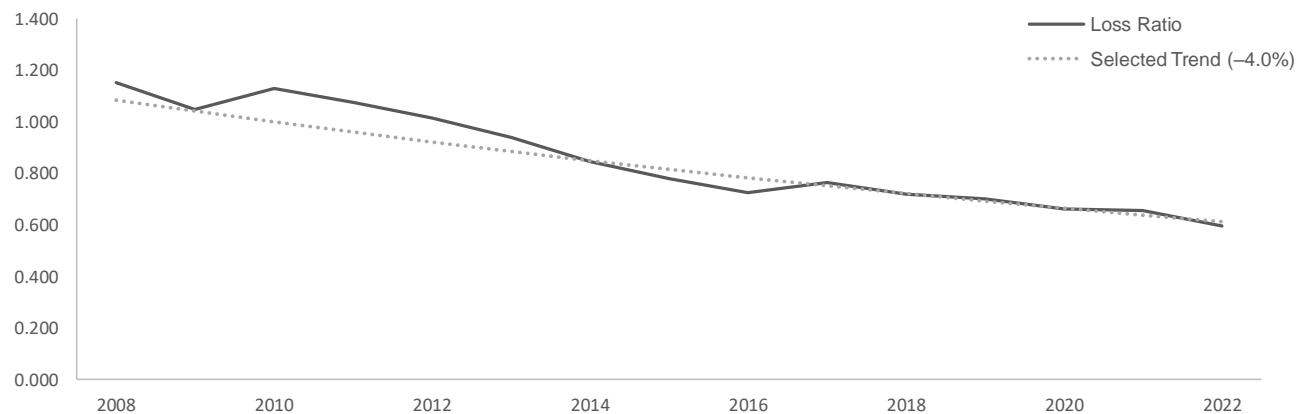
(2) Length of Trend Period from Midpoint of Policy Year to Midpoint of Effective Period:

Trend Length:	<u>PY 2022</u>	<u>PY 2021</u>
	3.001	4.001

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

Indemnity:	<u>PY 2022</u>	<u>PY 2021</u>
	0.885	0.849
Medical:	0.831	0.781

Section B - Indemnity Loss Ratio Trend Data



Policy Year	Indemnity Loss Ratio [^]	Annual Percent Change	# of Years in Fit	Exponential Fits
2008	1.151			
2009	1.048	-8.9%		
2010	1.128	7.6%		
2011	1.074	-4.8%		
2012	1.013	-5.7%	15	-4.7%
2013	0.937	-7.5%	14	-4.7%
2014	0.845	-9.8%	13	-5.0%
2015	0.780	-7.7%	12	-4.8%
2016	0.725	-7.1%	11	-4.5%
2017	0.762	5.1%	10	-4.1%
2018	0.717	-5.9%	9	-3.6%
2019	0.700	-2.4%	8	-3.3%
2020	0.662	-5.4%	7	-3.4%
2021	0.654	-1.2%	6	-4.4%
2022	0.595	-9.0%	5	-4.3%

[^]Based on an average of paid and paid+case losses

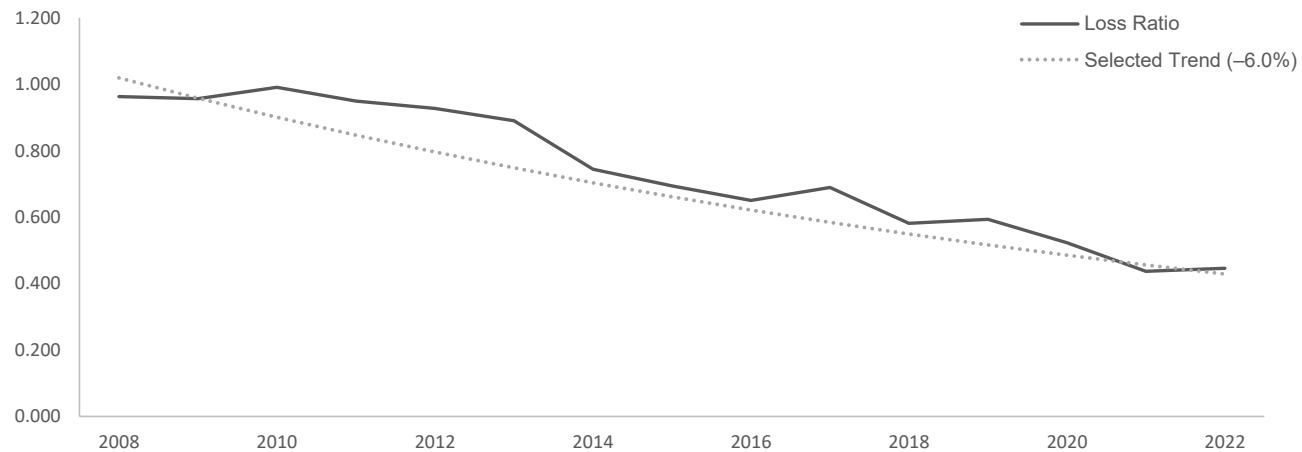


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APPENDIX A-III

Policy Year Trend Factors

Section C - Medical Loss Ratio Trend Data



Policy Year	Medical Loss Ratio [^]	Annual Percent Change	# of Years in Fit	Exponential Fits	Exponential Fits	Alternate*
2008	0.963					
2009	0.957	-0.6%				
2010	0.991	3.6%				
2011	0.949	-4.2%				
2012	0.927	-2.3%	15	-6.0%	-5.4%	
2013	0.890	-4.0%	14	-6.3%	-5.7%	
2014	0.744	-16.4%	13	-6.7%	-6.0%	
2015	0.694	-6.7%	12	-6.9%	-6.1%	
2016	0.650	-6.3%	11	-7.0%	-6.1%	
2017	0.689	6.0%	10	-6.9%	-5.8%	
2018	0.581	-15.7%	9	-6.5%	-5.2%	
2019	0.593	2.1%	8	-6.8%	-5.3%	
2020	0.523	-11.8%	7	-7.4%	-5.6%	
2021	0.437	-16.4%	6	-8.6%	-6.5%	
2022	0.446	2.1%	5	-8.0%	-5.5%	

[^]Based on an average of paid and paid+case losses

*Exponential fits adjusted for medical loss ratio changes for PY 2019 and subsequent to reflect the prospective expectations of wage growth and medical inflation

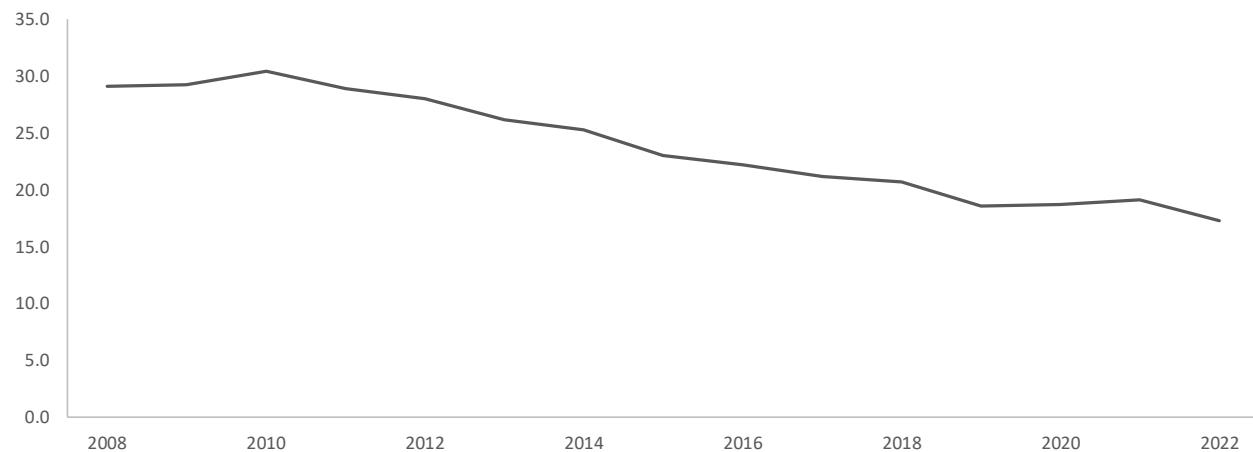


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APPENDIX A-III

Policy Year Trend Factors

Section D - Frequency Trend Data



Policy Year	Claim Frequency ^a	Annual Percent Change	# of Years in Fit	Exponential Fits
2008	29.066	-		
2009	29.215	0.5%		
2010	30.411	4.1%		
2011	28.877	-5.0%		
2012	27.988	-3.1%	15	-4.1%
2013	26.134	-6.6%	14	-4.4%
2014	25.246	-3.4%	13	-4.6%
2015	22.995	-8.9%	12	-4.6%
2016	22.161	-3.6%	11	-4.5%
2017	21.180	-4.4%	10	-4.3%
2018	20.683	-2.3%	9	-4.2%
2019	18.556	-10.3%	8	-3.8%
2020	18.691	0.7%	7	-3.7%
2021	19.114	2.3%	6	-3.5%
2022	17.271	-9.6%	5	-3.3%

^aPer million of on-leveled, wage-adjusted premium

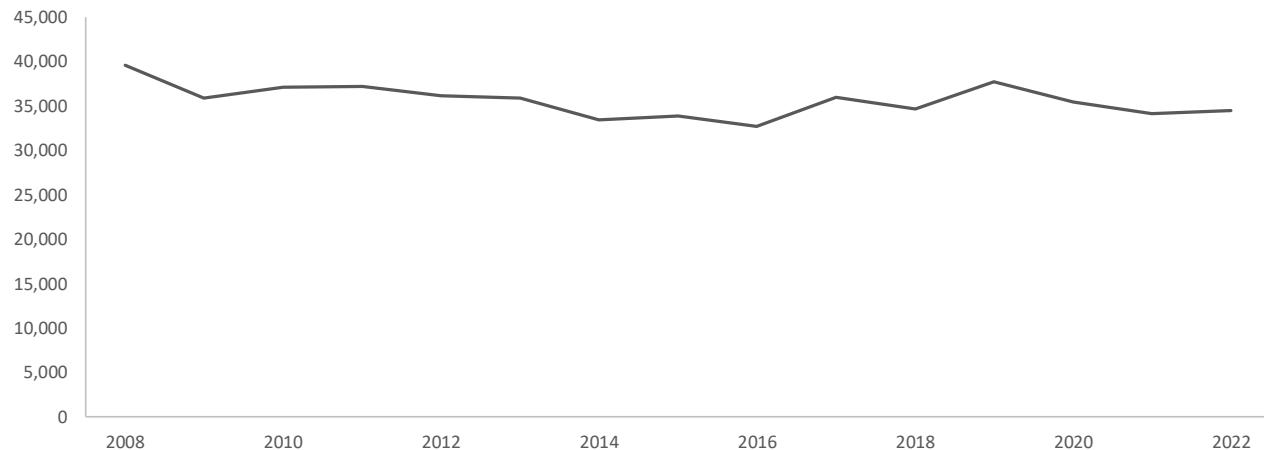


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APPENDIX A-III

Policy Year Trend Factors

Section E - Indemnity Severity Trend Data



Policy Year	Indemnity Severity [^]	Annual Percent Change	# of Years in Fit	Exponential Fits
2008	39,584	-		
2009	35,874	-9.4%		
2010	37,099	3.4%		
2011	37,214	0.3%		
2012	36,170	-2.8%	15	-0.6%
2013	35,862	-0.9%	14	-0.3%
2014	33,452	-6.7%	13	-0.4%
2015	33,902	1.3%	12	-0.2%
2016	32,697	-3.6%	11	0.0%
2017	36,014	10.1%	10	0.2%
2018	34,673	-3.7%	9	0.6%
2019	37,767	8.9%	8	0.4%
2020	35,417	-6.2%	7	0.3%
2021	34,176	-3.5%	6	-0.9%
2022	34,478	0.9%	5	-1.1%

[^]Adjusted to a common wage level, based on an average of paid and paid+case losses

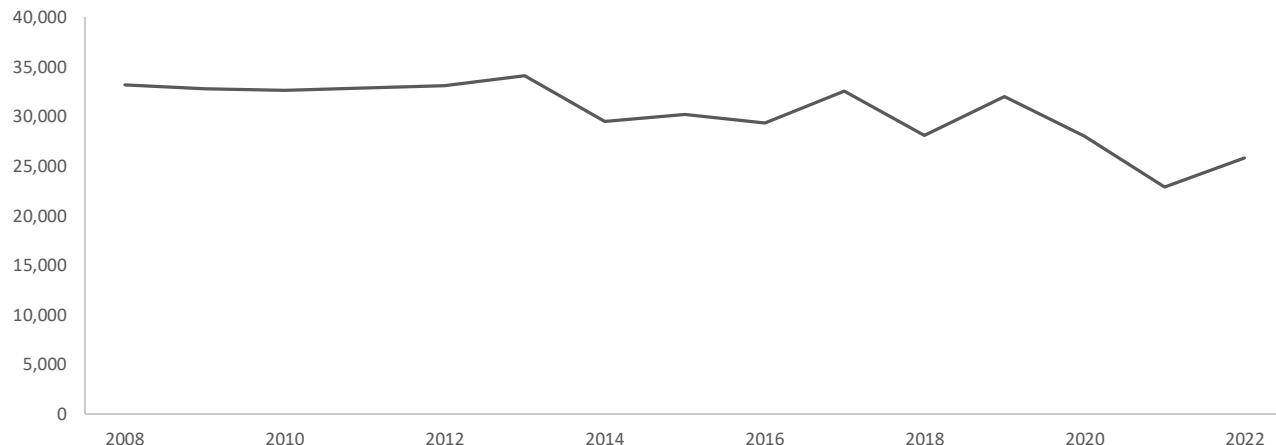


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APPENDIX A-III

Policy Year Trend Factors

Section F - Medical Severity Trend Data



Policy Year	Medical Severity [^]	Annual Percent Change	# of Years in Fit	Exponential Fits
2008	33,127	-		
2009	32,785	-1.0%		
2010	32,613	-0.5%		
2011	32,844	0.7%		
2012	33,104	0.8%	15	-1.9%
2013	34,079	2.9%	14	-2.0%
2014	29,467	-13.5%	13	-2.2%
2015	30,142	2.3%	12	-2.4%
2016	29,325	-2.7%	11	-2.6%
2017	32,535	10.9%	10	-2.7%
2018	28,086	-13.7%	9	-2.4%
2019	31,969	13.8%	8	-3.1%
2020	27,969	-12.5%	7	-3.8%
2021	22,867	-18.2%	6	-5.3%
2022	25,830	13.0%	5	-4.9%

[^]Adjusted to a common wage level, based on an average of paid and paid+case 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	96,134,318	418,747,355	394,226,447	1.135	1.133
Contracting	108,749,754	480,167,907	451,661,689	1.112	1.106
Office & Clerical	64,429,056	282,533,454	266,080,023	1.133	1.134
Goods & Services	219,790,224	957,957,223	901,663,799	1.032	1.030
Miscellaneous	111,201,742	475,990,312	447,368,789	1.089	1.076
Statewide	600,305,093	2,615,396,251	2,461,000,747		

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	96,304,017	419,486,538	394,922,345	1.062	0.999
Contracting	109,339,717	482,772,797	454,111,933	1.063	1.000
Office & Clerical	64,372,240	282,284,307	265,845,384	1.062	0.999
Goods & Services	220,217,001	959,817,334	903,414,602	1.062	0.999
Miscellaneous	112,545,257	481,741,125	452,773,803	1.064	1.001
Statewide	602,778,232	2,626,102,101	2,471,068,067	1.063	



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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	385,777,492	0.978	0.977	8,035
Contracting	449,110,953	0.989	0.988	5,435
Office & Clerical	268,365,759	1.010	1.009	5,312
Goods & Services	913,541,205	1.012	1.011	24,106
Miscellaneous	456,618,871	1.007	1.006	7,904
Statewide	2,473,414,280	1.001		

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	0.82	0.982	0.980
Contracting	12,000	0.67	0.993	0.991
Office & Clerical	12,000	0.67	1.007	1.005
Goods & Services	12,000	1.00	1.012	1.010
Miscellaneous	12,000	0.81	1.006	1.004
Statewide			1.002	1.000

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



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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 Connecticut 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 Connecticut 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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Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

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 Connecticut 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
8/17-7/18	1.184	1.121	1.061	1.026
8/18-7/19	1.251	1.161	1.082	1.032
8/19-7/20	1.371	1.249	1.112	1.046
8/20-7/21	1.658	1.421	1.176	1.065
8/21-7/22	2.701	1.827	1.444	1.115

*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
8/17-7/18	0.741	0.635
8/18-7/19	0.772	0.676
8/19-7/20	0.804	0.719
8/20-7/21	0.838	0.764
8/21-7/22	0.873	0.813

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
8/17-7/18	1.017	1.012	1.014	1.012	1.056
8/18-7/19	1.010	1.000	1.001	1.000	1.048
8/19-7/20	1.010	1.000	1.000	1.000	1.039
8/20-7/21	1.003	1.000	1.000	1.000	1.028
8/21-7/22	1.000	1.000	1.000	1.000	1.025



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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)
8/17-7/18	0.892	0.845	0.888	0.890	0.842	0.888	0.841	0.711	0.688
8/18-7/19	0.975	0.905	0.966	0.967	0.897	0.966	0.896	0.767	0.731
8/19-7/20	1.113	1.014	1.102	1.102	1.004	1.102	1.004	0.831	0.781
8/20-7/21	1.394	1.194	1.389	1.389	1.191	1.389	1.191	0.924	0.836
8/21-7/22	2.358	1.595	2.358	2.358	1.595	2.358	1.595	1.203	0.929

* 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	0.117	0.143	0.179	0.197	0.253	0.287	0.323
(2) Excess Factors 1/(1-(1))	1.133	1.167	1.218	1.245	1.339	1.403	1.477

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*	0.977	0.988	1.009	1.011	1.006
(2) Final Differentials**	0.980	0.991	1.005	1.010	1.004
(3) Adjustment (2)/(1)	1.003	1.003	0.996	0.999	0.998

*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)
8/17-7/18	0.809	1.085	1.094	0.992	0.803
8/18-7/19	0.847	1.084	1.087	0.997	0.844
8/19-7/20	0.857	1.084	1.075	1.008	0.864
8/20-7/21	0.859	1.085	1.075	1.009	0.867
8/21-7/22	0.864	1.084	1.068	1.015	0.877

3. Adjustment for Experience Change

A factor of 0.936 is applied to adjust for the experience change in the proposed loss cost level.

4. Offset for Change in Assigned Risk Pricing Programs

A factor of 0.998 is applied to offset the change in the assigned risk pricing programs.

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

A factor of 1.219 is applied to include the proposed loss-based expense provisions.

6. 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
8/17-7/18	0.917	0.917	0.911	0.913	0.913
8/18-7/19	0.964	0.964	0.957	0.960	0.959
8/19-7/20	0.987	0.987	0.980	0.983	0.982
8/20-7/21	0.990	0.990	0.983	0.986	0.985
8/21-7/22	1.002	1.002	0.995	0.998	0.997



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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 0.936 is applied to adjust for the experience change in the proposed loss cost level.

2. Factors to Adjust to the Proposed Trend Level

The pure premiums underlying the current loss costs contain the current trend. The change in trend factors, 0.982 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
April 1, 2024	1.000	1.011
July 15, 2024	1.000	1.001
Combined Benefit Adjustment	1.000	1.012

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	1.204	1.204	1.219	1.219
(2) Loss-based Assessment	1.000	1.000	1.000	1.000
(3) = (1) + (2) – 1.000	1.204	1.204	1.219	1.219
(4) Overall Change (3b)/(3a)			1.012	1.012

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	1.135	1.133	1.002
Contracting	1.112	1.106	1.005
Office & Clerical	1.133	1.134	0.999
Goods & Services	1.032	1.030	1.002
Miscellaneous	1.089	1.076	1.012



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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	0.980	0.999	0.979
Contracting	0.991	1.000	0.991
Office & Clerical	1.005	0.999	1.004
Goods & Services	1.010	0.999	1.009
Miscellaneous	1.004	1.001	1.005

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

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

7. Offset for Change in Assigned Risk Pricing Programs

A factor of 0.998 is applied to offset the change in the assigned risk pricing programs.

8. Combined Conversion Factors

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

Industry Group	Indemnity	Medical
Manufacturing	0.910	0.939
Contracting	0.924	0.953
Office & Clerical	0.931	0.960
Goods & Services	0.938	0.968
Miscellaneous	0.944	0.973



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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 Connecticut conditions in four steps. First, statewide indicated pure premiums are determined for Connecticut. Second, using Connecticut payrolls as weights, corresponding statewide-average pure premiums are computed for each remaining state. Third, the ratios of Connecticut 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 Connecticut 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: \$45,394,542 for indemnity and \$17,403,674 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	1.0019
Contracting	1.0014
Office & Clerical	0.9644
Goods & Services	0.9925
Miscellaneous	0.9781

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	1.133
Contracting	1.106
Office & Clerical	1.134
Goods & Services	1.030
Miscellaneous	1.076



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APPENDIX B-II

3. 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 12% above to 28% below
Contracting	from 13% above to 27% below
Office & Clerical	from 14% above to 26% below
Goods & Services	from 15% above to 25% below
Miscellaneous	from 14% above to 26% 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 20% 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.

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.

* 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.

List of Classifications Limited by the Upper Swing

4740 6251

List of Classifications Limited by the Lower Swing

8871

4. Connecticut Contracting Classification Premium Adjustment Program (CCPAP)

For classifications eligible for the CCPAP, the last step in producing the final proposed loss costs is to apply a factor of 1.001 to offset the credits payable under the CCPAP.

A list of the eligible class codes can be found under the **Basic Manual** state pricing programs.



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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
08/01/17 - 07/31/18	0	0	0	933,412	2,501,142	923,208	2,028,415	1,364,971	6,481,417
08/01/18 - 07/31/19	0	0	0	1,590,994	2,140,866	830,639	1,246,421	1,956,683	5,381,715
08/01/19 - 07/31/20	0	0	0	1,854,487	1,274,327	2,367,835	1,585,149	2,622,285	3,778,321
08/01/20 - 07/31/21	12,550	500,000	0	956,642	1,898,333	678,934	2,253,614	1,487,579	5,567,769
08/01/21 - 07/31/22	0	12,516	246,716	431,758	949,349	1,421,432	2,037,177	2,180,106	5,294,076

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
08/01/17 - 07/31/18	0.892	0.845	0.888	0.890	0.842	0.888	0.841	0.711	0.688
08/01/18 - 07/31/19	0.975	0.905	0.966	0.967	0.897	0.966	0.896	0.767	0.731
08/01/19 - 07/31/20	1.113	1.014	1.102	1.102	1.004	1.102	1.004	0.831	0.781
08/01/20 - 07/31/21	1.394	1.194	1.389	1.389	1.191	1.389	1.191	0.924	0.836
08/01/21 - 07/31/22	2.358	1.595	2.358	2.358	1.595	2.358	1.595	1.203	0.929

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	1.218

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
08/01/17 - 07/31/18	0	0	0	939,411	2,381,456	927,053	1,929,056	1,326,033	5,763,878
08/01/18 - 07/31/19	0	0	0	1,739,750	2,171,570	907,363	1,262,888	2,032,135	5,056,631
08/01/19 - 07/31/20	0	0	0	2,310,986	1,446,793	2,950,699	1,799,682	3,060,016	3,844,612
08/01/20 - 07/31/21	19,783	675,097	0	1,502,601	2,556,679	1,066,404	3,035,172	1,873,858	6,152,814
08/01/21 - 07/31/22	0	22,574	657,859	1,151,267	1,712,295	3,790,198	3,674,357	3,626,310	6,407,666

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

Policy Period	INDUSTRY GROUP: Office and Clerical
08/01/17 - 07/31/18	0.911
08/01/18 - 07/31/19	0.957
08/01/19 - 07/31/20	0.980
08/01/20 - 07/31/21	0.983
08/01/21 - 07/31/22	0.995

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
08/01/17 - 07/31/18	25,729,721,030	1,700,349	3,926,876	1,208,016	5,250,893	5,627,225	6,458,909	12,086,134
08/01/18 - 07/31/19	25,588,881,079	2,533,287	3,286,776	1,944,753	4,839,196	5,820,063	6,783,949	12,604,012
08/01/19 - 07/31/20	24,964,367,137	5,156,451	3,181,546	2,998,816	3,767,720	8,337,997	6,766,536	15,104,533
08/01/20 - 07/31/21	29,396,974,095	2,544,779	6,160,410	1,842,002	6,048,216	8,705,189	7,890,218	16,595,407
08/01/21 - 07/31/22	30,712,752,628	5,571,327	5,382,180	3,608,178	6,375,628	10,953,507	9,983,806	20,937,313
Total	136,392,695,969	17,506,193	21,937,788	11,601,765	26,281,653	39,443,981	37,883,418	77,327,399
		INDICATED PURE PREMIUM				0.029	0.028	0.06

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	0.031	0.029	0.06
Conversion Factors (App. B-I, Section B)	0.931	0.960	xxx
PURE PREMIUMS PRESENT ON RATE LEVEL (Underlying Pure Premiums) x (Conversion Factor)	0.029	0.028	0.06



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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	0.029	0.028	0.06
2. Pure Premium Indicated by National Relativity	0.036	0.032	0.07
3. Pure Premium Present on Rate Level	0.029	0.028	0.06
4. State Credibilities	93%	100%	xxx
5. National Credibilities	3%	0%	xxx
6. Residual Credibilities = 100% - (4) - (5)	4%	0%	xxx
7. Derived by Formula Pure Premiums = (1) x (4) + (2) x (5) + (3) x (6)	0.029	0.028	0.06
8. Test Correction Factor	0.9644	0.9644	xxx
9. Underlying Pure Premiums = (7) x (8) *	0.033	0.027	0.06
10. Ratio of Manual to Standard Premium			1.134
11. Loss Cost = (9) x (10)			0.07
12. Loss Cost Within Swing Limits			0.07
Current Loss Cost x Swing Limits			
a) Lower bound = 0.07 x 0.740 = 0.06			
b) Upper bound = 0.07 x 1.140 = 0.07			
13. Pure Premiums Underlying Proposed Loss Cost* = ((13TOT) / (9TOT)) x (9) , (13TOT) = (12) / (10)	0.033	0.027	0.06
14. Miscellaneous Loadings			0.00
15. Final Loaded Loss Cost			0.07

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



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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 \$1,492,811 of payroll, the overall loss cost level change in Connecticut is -6.7%.

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 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 Connecticut proposed level.
- A final base pure premium is calculated by bringing the primary base pure premium to the proposed Connecticut 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.



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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)	(4) = (3)/(3)Overall
6006	414,124,714	15,368,473	3.71	1.427
6801*	27,346,413	722,254	2.64	1.000
6824	447,172,653	12,575,174	2.81	1.081
6825	278,629,234	2,654,069	0.95	0.365
6826	144,020,407	2,070,534	1.44	0.554
6828*	29,276,826	457,014	1.56	1.000
6829*	8,759,538	88,208	1.01	1.000
6843	929,338,676	29,396,645	3.16	1.215
6845	281,500,815	8,701,152	3.09	1.188
6872	1,618,863,209	56,150,653	3.47	1.335
6873*	33,096,319	684,303	2.07	1.000
6874	152,731,608	5,330,294	3.49	1.342
7309	971,348,463	33,700,883	3.47	1.335
7313	702,956,785	10,776,600	1.53	0.588
7317	1,401,745,011	32,773,878	2.34	0.900
7327*	43,082,544	3,224,307	7.48	1.000
7350	703,993,474	20,979,050	2.98	1.146
8709	440,829,790	4,200,289	0.95	0.365
8726	741,743,944	4,171,383	0.56	0.215
9077*	309,799	0	0.00	1.000
Overall	9,370,870,222	244,025,163	2.60	

*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 20% above and 20% below the current loss costs.

Classifications Limited by the Upper Swing
6845

Classifications Limited by the Lower Swing
6824 6826 6874 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			2.60
2. State Act Pure Premium Relativity Factor			1.704
3. Countrywide State Act Weight			25%
4. Primary Base Pure Premium $=[(1) \times (2) \times (3)] + [(1) \times (1 - (3))]$			3.06
5. Countrywide Weights	53%	47%	100%
6. Trend Factors	0.963	0.945	xx
7. Weighted Benefits	1.000	1.003	xx
8. Weighted Loss-Based Expenses	1.219	1.219	xx
9. Secondary Base Pure Premium $=(4\text{tot}) \times (5) \times (6) \times (7) \times (8)$	1.904	1.662	3.57
10. Additional Offsets			0.980
11. Final Base Pure Premium $=(9) \times (10)$			3.50



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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. Connecticut's Final Base Pure Premium	3.50
2. Countrywide Class Code 6872 Relativity (Section II)	1.335
3. Loss Cost = (1) x (2)	4.67
4. Loss Cost Within Swing Limits	4.67
Current Loss Cost x Swing Limits	
a) Lower bound = $4.64 \times 0.80 = 3.72$	
a) Upper bound = $4.64 \times 1.20 = 5.56$	
5. Miscellaneous Loadings	0.00
6. Final Loaded Loss Cost	4.67



CONNECTICUT

APPENDIX B-IV

Computation of Workers' Compensation Commission Administrative Assessment

I. INDUSTRIAL CLASSIFICATIONS

1. WC Commission Assessment as a Percentage of Losses (source: CT WCC)	2.99%
2. Proposed Permissible Loss Ratio (Appendix D, Section A)	74.0%
3. Proposed Assessment as a Percentage of Premium = (1) x (2)	2.2%

II. "F" CLASSIFICATIONS

4. 2024 USL&HW Assessments on Total Losses (Appendix B-IV)	4.5%
5. Percent of "F" Class Losses under State Act (Appendix B-IV)	25.0%
6. Percent of "F" Class Losses under Federal Act = (1 - (5))	75.0%
7. Assessments as a Percentage of Premium = { [(1) x (5)] + [(4) x (6)] } x (2)	3.1%

Per the Connecticut Insurance Department, we are proposing the following:

I. INDUSTRIAL CLASSIFICATIONS

1. Proposed Assessment as a Percentage of Premium = (3)	2.2%
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II. "F" CLASSIFICATIONS

2. Assessments as a Percentage of Premium = (7)	3.1%
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Note: The Workers' Compensation Commission Administrative Assessment is NOT part of the loss costs or assigned risk rates. The Connecticut Insurance Department requests that NCCI calculate the annual assessment for Industrial Codes and "F" Classifications as a percent of premium.



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APPENDIX B-IV

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

1.) Assessment Rate on Indemnity Losses *	7.1%
2.) Assessment Rate on Total Losses #	4.5%

* 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 B-V

Calculation of Factor to Convert Loss Costs to Assigned Risk Rates

A factor of 1.788 = [1.550 / 1.219 / 0.740 x 1.040] is applied to the loss costs in order to convert to assigned risk rates. The proposed assigned risk differential (1.550) is applied. Next, since the loss costs include a provision for loss adjustment expense, that provision (1.219) is removed and assigned risk expenses are loaded through application of the permissible loss ratio (0.740). The uncollectible premium provision (1.040) is also applied.



CONNECTICUT

Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

Appendix C – Memoranda for Laws and Assessments

The purpose of this appendix is to provide 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 within this appendix is calculated as of the benefit effective date, which may differ from the overall impact on the filing as shown in the Executive Summary.

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

- Annual Updates to the Medical Fee Schedule



CONNECTICUT

APPENDIX C-I

ANALYSIS OF CONNECTICUT MEDICAL FEE SCHEDULE CHANGES EFFECTIVE APRIL 1, 2024 AND JULY 15, 2024

NCCI estimates that the changes to the Connecticut Fee Schedule for Hospitals and Ambulatory Surgical Centers, effective April 1, 2024, will result in an impact of +0.5% on overall workers compensation system costs.

NCCI estimates that the changes to the Connecticut Practitioner Fee Schedule, effective July 15, 2024, will result in a negligible increase on overall workers compensation system costs.

SUMMARY OF CHANGES

The changes to the Connecticut medical fee schedules are summarized below.

- Update the hospital inpatient fee schedule to be based on 174% of Medicare's 2024 Inpatient Prospective Payment System (IPPS). Prior to April 1, 2024, hospital inpatient services were subject to a maximum reimbursement rate of 174% of the 2023 IPPS.
- Update the hospital outpatient and hospital-based ambulatory surgical center (ASC) fee schedule to be based on 210% of Medicare's 2024 Outpatient Prospective Payment System (OPPS). Prior to April 1, 2024, hospital outpatient and hospital-based ASC services were subject to a maximum reimbursement rate of 210% of the 2023 OPPS.
- Update the non-hospital-based ASC fee schedule to be based on 195% of Medicare's 2024 OPPS. Prior to April 1, 2024, non-hospital-based ASC services were subject to a maximum reimbursement rate of 195% of the 2023 OPPS.
- Update the Connecticut Practitioner Fee Schedule for physician services to include the 2024 maximum allowable reimbursements (MARs) as revised by the Workers Compensation Commission.



CONNECTICUT

APPENDIX C-I

ANALYSIS OF CONNECTICUT MEDICAL FEE SCHEDULE CHANGES EFFECTIVE APRIL 1, 2024 AND JULY 15, 2024

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. For hospital inpatient services, the prior and revised maximum reimbursements are compared by episode.
 - Calculate the weighted-average percentage change in maximum reimbursements for the fee schedule using observed payments by procedure code as weights. For hospital inpatient services, the observed payments by episode are used as weights. For hospital outpatient and ASC services, observed payments are aggregated according to packaging rules, where applicable.
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.
 - For facility fee schedule changes, a price realization factor of 80% is assumed.

Note that the values presented in the document are rounded and may not be displayed to full precision.

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 Connecticut for Service Year 2022. Due to low data volume, the hospital inpatient impact analysis is based on NCCI's Medical Data Call for Connecticut for Service Years 2021 and 2022. Reported medical experience for COVID-19 claims as reported in NCCI's 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 Connecticut from Policy Years 2020 and 2021 projected to the effective date of the benefit changes.



CONNECTICUT

APPENDIX C-I

ANALYSIS OF CONNECTICUT MEDICAL FEE SCHEDULE CHANGES EFFECTIVE APRIL 1, 2024 AND JULY 15, 2024

SUMMARY OF IMPACTS

The impacts from the fee schedule changes in Connecticut, effective April 1, 2024, are summarized below.

	(A)	(B)	(C) = (A) x (B)
Type of Service	Impact on Type of Service	Share of Medical Costs	Impact on Medical Costs
Hospital Inpatient	+1.9%	12.2%	+0.2%
Hospital Outpatient	+4.0%	14.0%	+0.6%
ASC	+2.2%	15.0%	+0.3%
Combined Impact on Medical Costs (D) = Total of (C)			+1.1%
Medical Costs as a Share of Overall Costs (E)			41%
Combined Impact on Overall Costs (F) = (D) x (E)			+0.5%

The impact from the fee schedule changes in Connecticut, effective July 15, 2024, is summarized below.

	(A)	(B)	(C) = (A) x (B)	(D)	(E) = (C) x (D)
Type of Service	Impact on Type of Service	Share of Medical Costs	Impact on Medical Costs	Medical Costs as a Share of Overall Costs	Impact on Overall Costs
Physician	+0.2%	39.6%	+0.1%	41%	Negligible Increase

Refer to the appendix for the weighted-average changes in MARs by physician 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.

ADDITIONAL CONSIDERATIONS & NON-QUANTIFIED CHANGES

- In Connecticut, the reimbursement for ASC services varies depending on the ownership of the facility. Hospital-based ASCs are subject to a maximum reimbursement based on Medicare's OPPS packaging rules. Non-hospital-based ASCs use Multiple Procedure Payment Reduction, which reduces the payment for second and subsequent procedures by 50%. Due to limited ability to accurately differentiate between hospital and non-hospital-based ASCs, this component of the fee schedule change was analyzed assuming all ASCs are non-hospital based. Any potential impact from this change will be realized in future claim experience and reflected in subsequent NCCI loss cost filings in Connecticut, as appropriate.



CONNECTICUT

APPENDIX C-I

ANALYSIS OF CONNECTICUT MEDICAL FEE SCHEDULE CHANGES EFFECTIVE APRIL 1, 2024 AND JULY 15, 2024

- Maximum reimbursements for custom orthotics and prosthetics are also governed by the fee schedule in Connecticut. The share of these payments with a MAR makes up a minor portion of medical costs. Therefore, the impact on overall costs due to updating the fee schedule for these services is not anticipated to be material.

APPENDIX

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

Physician Practice Category	Share of Physician Costs	Percentage Change in MARs
Anesthesia	3.0%	0.0%
Surgery	28.1%	+1.3%
Radiology	8.6%	-1.3%
Pathology & Laboratory	0.4%	+0.8%
General Medicine	2.4%	+0.9%
Physical Medicine	30.3%	-0.9%
Evaluation & Management	22.4%	+1.2%
Subject to the Fee Schedule	95.2%	+0.3%
Physician Payments with no specific MAR	4.8%	—
Total Physician Costs	100.0%	+0.3%

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

Type of Service	(A) Change in MARs for Costs Subject to the FS	(B) Share of Costs Subject to the FS	(C) = (A) x (B)	(D) = (C) x 80%
Physician	+0.3%	95.2%	+0.3%	+0.2%
Hospital Inpatient	+3.7%	64.5%	+2.4%	+1.9%
Hospital Outpatient	+5.4%	92.5%	+5.0%	+4.0%
ASC	+2.9%	95.2%	+2.8%	+2.2%



CONNECTICUT

Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

Appendix D – Determination of Assigned Risk Rates

Overall Proposed Change to Assigned Risk Rate Level

NCCI applies an assigned risk loss cost multiplier (LCM) to the voluntary market loss costs to calculate the assigned risk rates. This factor accounts for differences in the components included in the assigned risk rates versus those in the voluntary market loss costs. The key components of the assigned risk loss cost multiplier are the assigned risk differential, assigned risk market expenses (as reflected in the assigned risk permissible loss ratio (PLR)), and the uncollectible premium provision (UPP). Voluntary market loss-based expenses (LBE) must also be removed in the calculation since the servicing carrier allowance already contemplates these expenses for the assigned risk market. The assigned risk loss cost multiplier formula is as follows:

$$\text{Assigned Risk Loss Cost Multiplier} = (\text{AR Differential}) \div (\text{Voluntary LAE}) \div (\text{PLR}) \times \text{UPP}$$

The proposed changes to assigned risk rates, as well as the detailed calculations, can be found on the following pages.

Assigned Risk Differential

The primary purpose of the loss cost differential is to ensure equity between the assigned risk and voluntary markets. To help ensure a self-funded assigned risk market—one that does not require subsidization by participants in the voluntary market—the adequacy of the loss cost differential is reviewed.

In Connecticut, as is usually the case, the combined experience for employers in the assigned risk market is typically worse than that of employers in the voluntary market. Therefore, during the assigned risk ratemaking process, a surcharge called the assigned risk differential is applied to those in the assigned risk market to recognize this disparity.

To derive the indicated differential, loss ratios are calculated for both the (i) assigned risk market and (ii) voluntary market by individual year as follows:

$$\frac{(\text{total on-leveled losses})}{(\text{total on-leveled, developed standard premium at the voluntary level})}$$

For each individual policy year, the assigned risk loss ratio is divided by the voluntary loss ratio to produce loss ratio relativities. These loss ratio relativities are reviewed for ten individual years so that changes in the actual differentials can be observed over a long period of time. When selecting the assigned risk differential, the impact of additional premium that is already expected to be generated due to other assigned risk programs (e.g., removal of premium discounts, Assigned Risk Adjustment Program) is also reflected in the calculation.



CONNECTICUT

Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

Appendix D – Determination of Assigned Risk Rates

Based on this year's review, an increase to the current assigned risk loss cost differential from 1.500 to 1.550 is being proposed. NCCI believes there are several reasons that it is appropriate to increase the current differential:

- The assigned risk differential can vary quite substantially from one year to the next. For example, the individual assigned risk differentials for the latest ten years range from 1.086 to 3.273. A longer-term average provides stability when dealing with a wide range of indications from year to year.
- The differential should be sufficiently high so that an insured would not find an offer of residual market coverage to be more attractive than an offer for voluntary coverage.
- It is important to the health of the workers compensation system to have an adequate rate level in the residual market, allowing that market to be as self-funding as possible. NCCI believes that maintaining the differential is appropriate to ensure a self-funded residual market, while also encouraging the process of residual market depopulation.

The data underlying this calculation is shown in Appendix D – Derivation of Assigned Risk Differential.

Assigned Risk Expenses

Provisions for expense items related to the writing of workers compensation insurance not already contemplated in the loss costs must be included in the final assigned risk rates. These include:

- Servicing Carrier Allowance (SCA): This is the market-based cost paid to the assigned risk market servicing carriers as a percentage of final net collected premium that is intended to compensate for expenses incurred in handling the assigned risk business. The average SCA is determined through a competitive bid process and typically includes provisions for such items as general (overhead), production, and loss-based expenses.
- Assigned Risk Administration Expense: Reflects NCCI Plan Administration Expenses, NWCRA Pool Administration Expenses, and Servicing Carrier Other Expenses. It is selected based on a review of expenses as a percentage of premium over the past ten years.
- Average Commission: Based on a weighted average of the most recently available two policy years.
- Profit and Contingency Provision: Insurers should have an opportunity to earn a fair rate of return on the capital supporting all of their workers compensation business, including the funds supplied to the assigned risk market. Therefore, assigned risk rate filings should contemplate the inclusion of a fair and reasonable profit and contingency (P&C) provision. A



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Appendix D – Determination of Assigned Risk Rates

reasonable return helps to ensure equity in the residual market and continued participation in the voluntary market, particularly in light of the long-tail nature of the workers compensation line. The proposed P&C provision in this year's filing was selected based on the results of NCCI's Internal Rate of Return (IRR) model, which estimates the time series of expected future cash flows including premium, losses, expenses, investment income and taxes, for a representative insurer underwriting workers compensation coverage. In determining the P&C provision, NCCI reviews both static and dynamic P&C estimates as indicated by the IRR model. The static estimate holds interest rates fixed over time, while the dynamic estimate incorporates projections of future interest rate levels.

Starting with this filing season, NCCI has renamed the previous static estimate as the "static-spot" estimate and incorporated a second static estimate, the "static-average" estimate. The static-average estimate emphasizes the stability of the results from year-to-year. To achieve this, the new static-average estimate utilizes longer-term averages for various inputs of the IRR model. The following differences in methodology between the two static estimates are noted below:

	Static-spot	Static-average
US Treasury Rates	Latest observed rate	5-year average
Equity Market Risk Premium	30-year average	All-year average

Additionally, NCCI has updated the number of years included in calculating the beta utilized in the weighted average cost of capital (WACC) calculation from 3-years to 10-years for all three estimates to promote stability in this value. Please refer to Appendix D - Derivation of the Indicated Profit and Contingency Provision for additional information.

This filing proposes a decrease to the P&C provision from 0.0% to -1.0%. This selection considers the three P&C estimates indicated by the IRR model, the changes in these estimates from year to year and the current and projected interest rate environment, while maintaining stability in this filing component.

Note that the expense components that are based on net premium are converted to a standard premium basis excluding the impact of expense constants. Then the total assigned risk expenses are used to determine the Permissible Loss Ratio (PLR):

$$PLR = 100\% - (\text{provision for Assigned Risk Expenses})$$

The calculation of assigned risk expenses can be found in Appendix D – Expense Components of Assigned Risk Rate.



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Uncollectible Premium Provision

The purpose of the uncollectible premium provision is to make available sufficient funds in the rate structure to offset the policy premium ultimately determined to be uncollectible. Based on a review of historical ratios of ultimate gross premium to ultimate collected premium in Connecticut's assigned risk market, NCCI is proposing no change to the uncollectible premium provision factor of 1.040.

The data underlying this provision is shown in Appendix D – Calculation of Ultimate Uncollectible Premium Provision (UPP) Factor.



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APPENDIX D

Determination of Assigned Risk Rate Level Change

Section A - Derivation of the Assigned Risk Loss Cost Multiplier

This filing proposes a -6.2% overall average change to the current assigned risk rate level. For all classifications, an assigned risk multiplier is applied to the voluntary loss costs proposed effective January 1, 2025 in order to convert to assigned risk rates.

(1)	Current Assigned Risk Loss Cost Multiplier	1.790
(2)	Proposed Assigned Risk Loss Cost Differential (See Section B)	1.550
(3)	Proposed Voluntary Loss-based Expense Provision (Exhibit II)	21.9%
(4)	Indicated Assigned Risk Permissible Loss Ratio (See Section C)	74.0%
(5)	Proposed Uncollectible Premium Provision Factor (See Section G)	1.040
(6)	Indicated Assigned Risk Loss Cost Multiplier = $\{ (2) / [1.0 + (3)] \} / (4) \times (5)$	1.788
(7)	Indicated Change in the Assigned Risk Loss Cost Multiplier = $[(6) / (1)] - 1.0$	-0.1%
(8)	Proposed Voluntary Loss Cost Level Change (Exhibit I)	-6.1%
(9)	Indicated Assigned Risk Rate Level Change = $\{ [1.0 + (7)] \times [1.0 + (8)] \} - 1.0$	-6.2%



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Section B - Derivation of Assigned Risk Differential Experience Valued as of 12/31/2023

Policy Year	(1) Standard Pure Premium		(3) Unlimited Undeveloped Paid+Case Losses	(4) Voluntary
	Assigned Risk	Voluntary		
2013	9,799,261	207,027,407	48,054,999	339,562,681
2014	10,266,582	213,856,316	25,170,852	308,532,447
2015	10,683,182	225,230,295	23,098,483	302,796,000
2016	9,812,992	229,623,519	18,999,360	295,017,096
2017	10,165,641	232,863,470	16,830,907	326,188,601
2018	10,401,739	245,445,938	19,905,346	283,066,638
2019	10,395,764	250,523,220	24,418,921	278,289,170
2020	10,474,817	255,373,939	36,179,226	256,374,868
2021	11,227,750	285,366,756	10,722,823	238,877,326
2022	11,231,613	307,264,295	10,675,154	196,070,255

	(5) = (3) / (1)	(6) = (4) / (2)	(7) = (5) / (6)	(8) = (7) / Impact of ARAP ^A
Policy Year	Pure Premium Ratio		Assigned Risk to Voluntary Relativity	Indicated Assigned Risk Differential
	Assigned Risk	Voluntary		
2013	4.904	1.640	2.990	2.845
2014	2.452	1.443	1.699	1.617
2015	2.162	1.344	1.609	1.531
2016	1.936	1.285	1.507	1.434
2017	1.656	1.401	1.182	1.125
2018	1.914	1.153	1.660	1.579
2019	2.349	1.111	2.114	2.011
2020	3.454	1.004	3.440	3.273
2021	0.955	0.837	1.141	1.086
2022	0.950	0.638	1.489	1.417

Current Assigned Risk Differential	1.500
Proposed Assigned Risk Differential	1.550
Proposed Change in Assigned Risk Differential	1.033 +3.3%

^A Impact of the Assigned Risk Adjustment Program (ARAP) = 1.051



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Section C - Expense Components of Assigned Risk Rate

The assigned risk expense provision including loss-based expenses is derived directly from the servicing carrier allowance, since this is the market-based cost to the assigned risk plan to have the plan serviced. The average commission rate, the profit and contingency provision, a provision for administrative expenses, and all taxes and assessments not included in the servicing carrier allowance must be added to the allowance to derive an average expense provision as a percentage of standard premium excluding the expense constants.

	<u>Expense Provisions Underlying Proposed Rates</u>
(1) Expense Constant	\$160
(2) Weighted-Average of Servicing Carrier Allowance Bids	18.6%
(3) Premium Tax	1.5%
(4) Assigned Risk Administration Expense (See Section E)	4.8%
(5) Premium Discount as a Percentage of Standard Premium Excluding the Expense Constant (See Section D)	1.6%
(6) Expense Constant Premium as a Percentage of Standard Premium Excluding the Expense Constant (See Section D)	5.5%
(7) Servicing Carrier Allowance, Taxes and Administrative Expense Converted to a Standard Premium Excluding Expense Constant Basis = [(2) + (3) + (4)] x [1 - (5) + (6)] + (5) - (6)	22.0%
(8) Average Commission (See Section D)	5.0%
(9) Profit and Contingency Provision	-1.0%
(10) Total Expense Provision in Rate = (7) + (8) + (9)	26.0%
(11) Permissible Loss Ratio in Rate = 1 - (10)	74.0%
(12) Current Permissible Loss Ratio in Rate	72.4%
(13) Impact on Rate due to Change in Expenses = (12) / (11) - 1	-2.2%



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Section D - Derivation of Premium Discount, Expense Constant and Commission as a Percentage of Premium

Premium Distribution by Layer for Assigned Risk Policies for Policy Years 2022 & 2023

Portion of Total	Standard Premium	(1)	(2)	(3) ¹	(4) ¹
		Standard Premium	Excl Exp Cnst	Premium	Commission
First 1,000	17,703,880		30.3%	8.0%	--
Next 4,000	16,720,649		28.6%	5.0%	--
Next 5,000	6,566,268		11.2%	3.0%	--
Next 90,000	14,477,278		24.8%	3.0%	5.1%
Next 100,000	1,706,452		2.9%	2.0%	5.1%
Next 1,550,000	1,299,044		2.2%	2.0%	6.5%
Over 1,750,000	0		0.0%	2.0%	7.5%
Total	58,473,571		100.0%	5.0%	1.6%

(5) Expense Constant Premium as % of Standard Premium Excluding Expense Constant ³ = 5.5%

¹ Totals represent weighted averages based on column (2).

² Commissions paid in Connecticut are based on standard premium excluding expense constant premium.
Source of the commission scale is Connecticut's Residual Market Manual, Producer Fees.

³ Based on assigned risk policy and premium totals for policy years 2022 & 2023 using the dominant state method for the classification of multistate policies.



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Section E - Derivation of NCCI Plan Administration Expenses, NWCRA Pool Administration Expenses, and Servicing Carrier Other Expenses

Calendar Year	Net Written Premium ¹	Expenses	Expenses as % of NWP = (2)/(1)
2014	41,749,644	1,635,357	3.9%
2015	40,258,766	1,492,000	3.7%
2016	30,795,342	1,314,112	4.3%
2017	26,113,613	1,221,283	4.7%
2018	26,638,105	1,352,311	5.1%
2019	19,291,124	1,248,810	6.5%
2020	17,917,073	1,224,224	6.8%
2021	20,796,265	1,091,213	5.2%
2022	21,398,110	1,115,525	5.2%
2023	20,881,164	1,239,227	5.9%
		Selected	4.8%

¹ Gross of uncollectible premium.



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Section F - Calculation of Ultimate Uncollectible Premium Provision (UPP) Factor

Section 1 - Gross Premium as of 12/31/2023 - Traumatic Only (000s)

Policy Year	1st	2nd	3rd	4th	5th	6th	7th	8th	Ultimate Gross
2008									18,679
2009									18,679
2010									15,211
2011									15,211
2012									15,211
2013									15,211
2014									15,211
2015									15,211
2016									15,211
2017									15,211
2018									15,211
2019									15,211
2020									15,211
2021									15,211
2022									15,211

Policy Year	1 / 2	2 / 3	3 / 4	4 / 5	5 / 6	6 / 7	7 / 8	8 / Ult
2012						1.000	1.000	
2013						1.002	1.000	1.000
2014						0.999	1.000	1.000
2015						1.000	0.999	0.999
2016						1.000	0.994	1.001
2017	0.954		0.995	1.022	0.977	0.999		
2018	0.989		1.000	1.000	0.997			
2019	0.932		1.004	1.000				
2020	0.912		0.993					
2021	0.969							
5-Yr Avg	0.951	0.998	1.003	0.995	1.000	1.000	1.000	
5-Yr Avg x H/L	0.952	0.998	1.000	0.999	1.000	1.000	1.000	
Selected	0.952	0.998	1.000	0.999	1.000	1.000	1.000	1.000
Ultimate	0.949	0.997	0.999	0.999	1.000	1.000	1.000	1.000

Section 2 - Collected Premium as of 12/31/2023 - Traumatic Only (000s)

Policy Year	1st	2nd	3rd	4th	5th	6th	7th	8th	Ultimate Collected	Gross / Collected
2008									17,286	1.081
2009									14,802	1.082
2010									14,906	1.054
2011									14,944	1.054
2012									16,458	1.063
2013									16,488	1.052
2014									26,893	1.030
2015									26,893	1.030
2016									26,724	1.062
2017									25,752	1.057
2018									23,238	1.037
2019									17,230	1.030
2020									17,480	1.014
2021									18,349	1.024
2022									19,878	1.047
Policy Year	1 / 2	2 / 3	3 / 4	4 / 5	5 / 6	6 / 7	7 / 8	8 / Ult	5-Yr Avg	1.030
2012									10-Yr Avg	1.038
2013									10-Yr x H/L	1.038
2014									15-Yr Avg	1.044
2015									15-Yr x H/L	1.043
2016										
2017	0.932	1.002	1.018	0.978	1.002				Selected UPP Factor	1.040
2018	0.979	0.997	1.000	0.996					Current UPP Factor	1.040
2019	0.914	1.009	1.001							
2020	0.898	1.011								
2021	0.958								Impact of Change in UPP Factor	1.000
5-Yr Avg	0.936	0.999	1.005	0.996	1.002	1.000	1.000			
5-Yr Avg x H/L	0.935	1.003	1.002	0.999	1.002	1.000	1.000			
Selected	0.935	1.003	1.002	0.999	1.002	1.000	1.000	1.000		
Ultimate	0.941	1.006	1.003	1.001	1.002	1.000	1.000	1.000		



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Section G - Derivation of the Indicated Profit and Contingency Provision

Overview

According to actuarial principles, insurance rates should provide for the cost of capital through an underwriting profit and contingency (P&C) provision, after accounting for investment and other income. NCCI considered Actuarial Standard of Practice #30 *Treatment of Profit and Contingency Provisions and the Cost of Capital in Property/Casualty Insurance Ratemaking* in choosing to employ an Internal Rate of Return (IRR) model to estimate a P&C provision. The cost of capital and investment income assumptions used in the model are estimated using market-based financial methods for investors of securities with a similar risk profile to workers compensation insurance companies. Note that the assumptions used in this IRR model, including the cost of capital and investment income assumptions, may or may not be applicable to any individual insurance company in this state.

The IRR model is based on the principle that the internal rate of return from an investment opportunity equals the investor's cost of capital if the sum of all cash flows from that investment, discounted at the cost of capital, equals zero. In the case of workers compensation insurance, cash flows to the capital providers are comprised of insurance cash flows, investment income, and commitment and release of capital in support of the insurance transaction.

- The insurance cash flows are estimated based on premiums earned less payments for losses and expenses, as included in this rate filing, after recognizing the impact of federal income taxes.
- Investment income on reserves and surplus depends on an after-tax return on investment (RoI), which is estimated using a combination of current financial market data and forecasts.
- The cost of capital used is a weighted average cost of capital (WACC), expressed as a percentage of capital, which takes into account both debt and equity components of a representative insurer's capital structure.

IRR Model Inputs and Results

The model estimates the P&C provision necessary in order for the proposed rates to cover the cost of capital. The P&C provision is estimated using three different assumptions regarding the return on investment and cost of capital:

- The "Static" estimate(s) of the P&C provision assume that the RoI and the WACC do not change over time. The 'Static-Avg' estimate assumes a longer-term average compared to the 'Static-Spot' estimate for certain financial inputs impacting the WACC and RoI, specifically: the US treasury rate and equity market risk premium (ERP). The RoI and the WACC for both static estimates are derived using data through the first quarter of 2024.
- The "Dynamic" estimate assumes that the return on investment and WACC vary over time. Dynamic estimates are derived using data through the first quarter of 2024, with forecasts from May of that year. The starting point for the Dynamic estimates is January 1, 2025.

The following table summarizes the inputs and results of the model under each scenario.

TABLE 1: IRR MODEL INPUTS AND RESULTS

<u>Inputs:</u>				
(1)	Expenses and Taxes as a Percentage of Net Premium at NCCI Level			29.71%
(1a)	Uncollectible Premium			0.00%
(2)	Reserve-to-Surplus Ratio			1.91
(3)	Cash Flow Patterns			See Table 2
(4)	Return on Investments	Static - Avg*	Static - Spot*	Dynamic**
(5)	Weighted Average Cost of Capital	2.95%	4.78%	3.89% - 4.66%
		8.32%	10.36%	9.70% - 10.40%
<u>Results</u>				
(6)	Indicated Profit and Contingency Provision	Static - Avg	Static - Spot	Dynamic
(7)	Loss Provision [100% - (6) - (1)]	1.07%	-3.86%	-2.22%
		69.22%	74.15%	72.51%

Table Notes:

It is assumed that no policyholders' dividends are paid and that there are no rate departures (deviations or schedule rating). (1) Expense provisions and taxes derived from the filing.

(2) Calculated from Best's 2023 Aggregates & Averages, for Commercial Casualty Composite, as the weighted average of Loss, LAE, and Unearned Premium Reserves to Policyholder Surplus, for years 2018 - 2022.

* The Static-Avg estimate assumes a rolling 5-year average for US treasury rates and an all-year average for ERP, while the Static-Spot estimate assumes the current US treasury rate and a 30-year average for ERP.

** The Dynamic estimate uses similar assumptions as the Static-Spot estimate with varying RoI and WACC. See table 3 for details by time period.



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Section G - Derivation of the Indicated Profit and Contingency Provision

TABLE 2: CASH FLOW PATTERNS (CUMULATIVE)

Time	(1) Policy-Year Collected Premium	(2) Earned Premium	(3) Written Premium	(4) Expenses and Taxes	(5) Paid Losses
0.00	-	-	-	-	-
0.25	24.42%	3.44%	27.53%	23.19%	0.48%
0.50	51.26%	13.93%	56.34%	49.90%	1.93%
0.75	77.95%	31.26%	82.30%	76.60%	4.34%
1.00	100.00%	54.04%	100.00%	98.89%	7.50%
1.25		75.60%		100.00%	13.75%
1.50		90.12%			20.00%
1.75		97.79%			26.25%
2.00		100.00%			32.50%
2.25					37.08%
2.50					41.65%
2.75					46.23%
3.00					50.80%
3.25					53.85%
3.50					56.90%
3.75					59.95%
4.00					63.00%
4.25					65.20%
4.50					67.40%
4.75					69.60%
5.00					71.80%
6.00					76.90%
7.00					80.50%
8.00					83.20%
9.00					85.40%
10.00					87.00%
11.00					88.50%
12.00					89.50%
13.00					90.60%
14.00					91.60%
15.00					92.20%
16.00					92.70%
17.00					93.00%
18.00					93.50%
19.00					94.20%
20.00					94.50%
21.00					94.90%
22.00					95.20%
23.00					95.40%
24.00					95.70%
25.00					96.00%
26.00					96.50%
27.00					96.70%
28.00					97.00%
29.00					97.20%
30.00					97.50%
31.00					97.60%
32.00					98.27%
33.00					98.89%
34.00					99.46%
35.00					100.00%

TABLE 3: DYNAMIC ESTIMATE
INPUTS

Time	(1) Return on Investments	(2) Weighted Average Cost of Capital
0.00	-	-
0.25	4.66%	10.40%
0.50	4.64%	10.32%
0.75	4.58%	10.29%
1.00	4.56%	10.22%
1.25	4.51%	10.17%
1.50	4.49%	10.11%
1.75	4.43%	10.06%
2.00	4.42%	10.04%
2.25	4.41%	10.03%
2.50	4.40%	10.03%
2.75	4.19%	10.01%
3.00	4.19%	10.01%
3.25	4.19%	10.00%
3.50	4.19%	10.00%
3.75	4.18%	9.99%
4.00	4.18%	9.99%
4.25	4.18%	9.99%
4.50	4.18%	9.97%
4.75	4.18%	9.95%
5.00	4.18%	9.94%
6.00	4.10%	9.88%
7.00	4.10%	9.84%
8.00	4.04%	9.81%
9.00	3.99%	9.79%
10.00	3.99%	9.76%
11.00	3.98%	9.75%
12.00	3.98%	9.74%
13.00	3.97%	9.73%
14.00	3.97%	9.72%
15.00	3.97%	9.71%
16.00	3.92%	9.72%
17.00	3.92%	9.73%
18.00	3.93%	9.74%
19.00	3.93%	9.74%
20.00	3.93%	9.73%
21.00	3.91%	9.72%
22.00	3.91%	9.72%
23.00	3.90%	9.71%
24.00	3.90%	9.70%
25.00	3.90%	9.70%
26.00	3.89%	9.70%
27.00	3.89%	9.70%
28.00	3.89%	9.70%
29.00	3.89%	9.70%
30.00	3.89%	9.70%
31.00	3.89%	9.70%
32.00	3.89%	9.70%
33.00	3.89%	9.70%
34.00	3.89%	9.70%
35.00	3.89%	9.70%

Table 2 Notes:

Table 2 shows cumulative cash flows. For ease of reading no additional numbers are shown after a column reaches 100% cumulative cash flow.

- (1) Derived from estimates of premium distribution and payment terms by size of policy.
- (2) Based on written premium pattern assuming uniform writings within quarters and standard quarterly earning pattern.
- (3) Based on this jurisdiction's premium writings by quarter.
- (4) Expenses assumed paid as premium is collected; timing of taxes based on NCCI's Tax and Assessment Directory.
- (5) Derived from loss development data underlying this rate filing. Payouts for the first 31 years are based upon the ratio of paid losses to incurred losses from the most recent 31 policy years for which data is available. For the following years, loss payouts are assumed to trail off geometrically, with an adjustment so that the payout will be complete at 35 years.



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Calculation Details

The tables in the following pages show the detailed calculations of the IRR model.

List of Tables

Static-Average (Static-Avg) Estimate

Table 4: Derivation of Insurance Cash Flows

Table 5: Derivation of Cash Flows to the Capital Providers

Static-Spot Estimate

Table 6: Derivation of Insurance Cash Flows

Table 7: Derivation of Cash Flows to the Capital Providers

Dynamic Estimate

Table 8: Derivation of Insurance Cash Flows

Table 9: Derivation of Cash Flows to the Capital Providers

Appendices

Appendix A: Calculation of Weighted Average Cost of Capital and Return on Investments

Table A.1: Calculation of Weighted Average Cost of Capital

Table A.2: Calculation of Return on Investments

Appendix B: Federal Income Tax Incurred from Insurance Operations

Table B.1: Federal Income Tax Calculation (Static-Avg Estimate)

Table B.2: Federal Income Tax Calculation (Static-Spot Estimate)

Table B.3: Federal Income Tax Calculation (Dynamic Estimate)

Appendix C: Reserve-to-Surplus Ratio

Note: Although values are displayed to 4 decimal places in the following tables, the calculations themselves are carried to the full precision of the computer.



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Calculation Details - Static-Avg Estimate

TABLE 4: DERIVATION OF INSURANCE CASH FLOW (STATIC-AVG ESTIMATE)

Time	(1) Collected Premium Factor	(2) Expense and Taxes Factor	(3) Paid Losses Factor	(4) Federal Income Tax Factor	(5) Insurance Cash flow Factor
0.00	-	-	-	-	-
0.25	0.2442	0.0689	0.0033	0.0013	0.1707
0.50	0.5126	0.1483	0.0134	0.0026	0.3483
0.75	0.7795	0.2276	0.0300	0.0039	0.5180
1.00	1.0000	0.2938	0.0519	0.0052	0.6491
1.25	1.0000	0.2971	0.0952	0.0074	0.6004
1.50	1.0000	0.2971	0.1384	0.0095	0.5550
1.75	1.0000	0.2971	0.1817	0.0116	0.5096
2.00	1.0000	0.2971	0.2250	0.0137	0.4642
2.25	1.0000	0.2971	0.2566	0.0131	0.4331
2.50	1.0000	0.2971	0.2883	0.0126	0.4021
2.75	1.0000	0.2971	0.3199	0.0120	0.3710
3.00	1.0000	0.2971	0.3516	0.0114	0.3399
3.25	1.0000	0.2971	0.3727	0.0109	0.3193
3.50	1.0000	0.2971	0.3938	0.0104	0.2987
3.75	1.0000	0.2971	0.4149	0.0099	0.2780
4.00	1.0000	0.2971	0.4361	0.0094	0.2574
4.25	1.0000	0.2971	0.4513	0.0090	0.2426
4.50	1.0000	0.2971	0.4665	0.0086	0.2278
4.75	1.0000	0.2971	0.4817	0.0082	0.2130
5.00	1.0000	0.2971	0.4970	0.0078	0.1982
6.00	1.0000	0.2971	0.5323	0.0068	0.1638
7.00	1.0000	0.2971	0.5572	0.0061	0.1396
8.00	1.0000	0.2971	0.5759	0.0053	0.1217
9.00	1.0000	0.2971	0.5911	0.0046	0.1072
10.00	1.0000	0.2971	0.6022	0.0041	0.0966
11.00	1.0000	0.2971	0.6126	0.0037	0.0866
12.00	1.0000	0.2971	0.6195	0.0034	0.0800
13.00	1.0000	0.2971	0.6271	0.0031	0.0727
14.00	1.0000	0.2971	0.6340	0.0029	0.0660
15.00	1.0000	0.2971	0.6382	0.0027	0.0621
16.00	1.0000	0.2971	0.6416	0.0025	0.0588
17.00	1.0000	0.2971	0.6437	0.0024	0.0568
18.00	1.0000	0.2971	0.6472	0.0024	0.0533
19.00	1.0000	0.2971	0.6520	0.0024	0.0485
20.00	1.0000	0.2971	0.6541	0.0024	0.0464
21.00	1.0000	0.2971	0.6569	0.0024	0.0437
22.00	1.0000	0.2971	0.6589	0.0024	0.0416
23.00	1.0000	0.2971	0.6603	0.0024	0.0402
24.00	1.0000	0.2971	0.6624	0.0023	0.0382
25.00	1.0000	0.2971	0.6645	0.0023	0.0361
26.00	1.0000	0.2971	0.6679	0.0023	0.0326
27.00	1.0000	0.2971	0.6693	0.0023	0.0313
28.00	1.0000	0.2971	0.6714	0.0023	0.0292
29.00	1.0000	0.2971	0.6728	0.0023	0.0278
30.00	1.0000	0.2971	0.6749	0.0023	0.0257
31.00	1.0000	0.2971	0.6755	0.0023	0.0251
32.00	1.0000	0.2971	0.6802	0.0023	0.0204
33.00	1.0000	0.2971	0.6845	0.0023	0.0162
34.00	1.0000	0.2971	0.6885	0.0023	0.0122
35.00	1.0000	0.2971	0.6922	0.0023	0.0085

Column Notes:

- (1) is Collected Premium by time period, expressed as a factor, = Table 2 col (1) x [1 - Table 1 col (1a)]
- (2) is Expenses and Taxes by time period, expressed as a factor, = Table 1 row (1) x Table 2 col (4)
- (3) is Paid Losses by time period, expressed as a factor, = Table 1 row (7, Static-Avg) x Table 2 col (5)
- (4) per the Tax Cuts and Jobs Act of 2017, federal income taxes are computed as the tax rate (21%) times the adjusted underwriting income calculated per IRS rules. See Appendix B for details.
- (5) is the Total Insurance Cash Flow by time period, expressed as a factor, = (1) - [(2) + (3) + (4)]



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Calculation Details - Static-Avg Estimate (continued)

TABLE 5: DERIVATION OF CASH FLOWS TO THE CAPITAL PROVIDERS (STATIC-AVG ESTIMATE)

Time	(1) Unearned Premium and Unpaid Loss Reserve Factor	(2) Factor for Surplus Allocated to Reserves	(3) Admitted Agents' Balances	(4) Total Invested Funds Factor	(5) Income from Invested Funds Factor	(6) Capital Provider Equity Factor	(7) Capital Provider Cash Flow Factor	(8) Discounted Capital Provider Cash Flow Factor
0.00	-	-	-	-	-	-	-	-
0.25	0.2614	0.1369	0.0311	0.3672	0.0013	(0.1951)	(0.1951)	(0.1932)
0.50	0.5072	0.2655	0.0508	0.7219	0.0053	(0.3682)	(0.1731)	(0.1680)
0.75	0.6968	0.3648	0.0435	1.0181	0.0117	(0.4884)	(0.1202)	(0.1143)
1.00	0.7817	0.4093	-	1.1910	0.0197	(0.5222)	(0.0338)	(0.0315)
1.25	0.6721	0.3519	-	1.0240	0.0278	(0.3958)	0.1264	0.1156
1.50	0.5841	0.3058	-	0.8900	0.0348	(0.3002)	0.0956	0.0857
1.75	0.5173	0.2708	-	0.7881	0.0409	(0.2376)	0.0626	0.0550
2.00	0.4672	0.2446	-	0.7118	0.0464	(0.2012)	0.0364	0.0313
2.25	0.4355	0.2280	-	0.6636	0.0514	(0.1790)	0.0222	0.0187
2.50	0.4039	0.2115	-	0.6153	0.0561	(0.1572)	0.0218	0.0181
2.75	0.3722	0.1949	-	0.5671	0.0604	(0.1357)	0.0215	0.0174
3.00	0.3405	0.1783	-	0.5188	0.0644	(0.1146)	0.0211	0.0168
3.25	0.3194	0.1672	-	0.4867	0.0680	(0.0994)	0.0152	0.0119
3.50	0.2983	0.1562	-	0.4545	0.0715	(0.0844)	0.0150	0.0114
3.75	0.2772	0.1451	-	0.4223	0.0747	(0.0696)	0.0147	0.0110
4.00	0.2561	0.1341	-	0.3902	0.0777	(0.0551)	0.0145	0.0106
4.25	0.2409	0.1261	-	0.3670	0.0804	(0.0440)	0.0111	0.0080
4.50	0.2256	0.1181	-	0.3438	0.0830	(0.0330)	0.0110	0.0077
4.75	0.2104	0.1102	-	0.3206	0.0854	(0.0222)	0.0108	0.0075
5.00	0.1952	0.1022	-	0.2974	0.0877	(0.0115)	0.0106	0.0072
6.00	0.1599	0.0837	-	0.2436	0.0957	0.0159	0.0274	0.0177
7.00	0.1350	0.0707	-	0.2056	0.1023	0.0363	0.0204	0.0121
8.00	0.1163	0.0609	-	0.1772	0.1080	0.0525	0.0162	0.0089
9.00	0.1011	0.0529	-	0.1540	0.1128	0.0661	0.0136	0.0069
10.00	0.0900	0.0471	-	0.1371	0.1171	0.0766	0.0106	0.0050
11.00	0.0796	0.0417	-	0.1213	0.1210	0.0863	0.0096	0.0042
12.00	0.0727	0.0381	-	0.1107	0.1244	0.0937	0.0074	0.0029
13.00	0.0651	0.0341	-	0.0991	0.1275	0.1010	0.0074	0.0027
14.00	0.0581	0.0304	-	0.0886	0.1303	0.1077	0.0066	0.0023
15.00	0.0540	0.0283	-	0.0823	0.1328	0.1126	0.0049	0.0015
16.00	0.0505	0.0265	-	0.0770	0.1351	0.1169	0.0043	0.0013
17.00	0.0485	0.0254	-	0.0738	0.1374	0.1203	0.0034	0.0009
18.00	0.0450	0.0236	-	0.0685	0.1395	0.1243	0.0039	0.0010
19.00	0.0401	0.0210	-	0.0612	0.1414	0.1287	0.0045	0.0010
20.00	0.0381	0.0199	-	0.0580	0.1431	0.1316	0.0029	0.0006
21.00	0.0353	0.0185	-	0.0538	0.1448	0.1347	0.0031	0.0006
22.00	0.0332	0.0174	-	0.0506	0.1463	0.1373	0.0026	0.0005
23.00	0.0318	0.0167	-	0.0485	0.1478	0.1395	0.0022	0.0004
24.00	0.0298	0.0156	-	0.0453	0.1492	0.1420	0.0025	0.0004
25.00	0.0277	0.0145	-	0.0422	0.1505	0.1444	0.0024	0.0003
26.00	0.0242	0.0127	-	0.0369	0.1516	0.1474	0.0030	0.0004
27.00	0.0228	0.0120	-	0.0348	0.1527	0.1491	0.0018	0.0002
28.00	0.0208	0.0109	-	0.0316	0.1537	0.1512	0.0021	0.0002
29.00	0.0194	0.0101	-	0.0295	0.1546	0.1529	0.0016	0.0002
30.00	0.0173	0.0091	-	0.0264	0.1554	0.1548	0.0019	0.0002
31.00	0.0166	0.0087	-	0.0253	0.1562	0.1559	0.0011	0.0001
32.00	0.0120	0.0063	-	0.0183	0.1568	0.1590	0.0031	0.0002
33.00	0.0077	0.0040	-	0.0117	0.1572	0.1617	0.0027	0.0002
34.00	0.0037	0.0019	-	0.0056	0.1575	0.1640	0.0024	0.0002
35.00	-	-	-	-	0.1576	0.1661	0.0020	0.0001

Column Notes:

- (1) is Unearned Premium Reserve (equal to Written Premium minus Earned Premium, per the cashflow pattern) plus Unpaid Loss Reserve (equal to Incurred minus Paid Losses) by time period, expressed as a factor,

$$= \text{MAX}[\text{Table 4 col (1), Table 2 col (3)}] - \text{Table 2 col (2)} + \text{Table 1 row (7, Static-Avg)} \times [\text{Table 2 col (2)} - \text{Table 2 col (5)}]$$
- (2) is the Surplus derived from Reserves per the Reserve-to-Surplus Ratio by time period, expressed as a factor, $= (1) / \text{Table 1 row (2)}$
- (3) Admitted Agents' Balances arise when premium is written before it's collected, or premium is earned in the prior period before it's collected,

$$= \text{MAX}[\text{Table 4 col (1), Table 2 col (3)}] - \text{Table 4 col (1)} - \text{MAX}[0, \text{Table 2 col (2, previous row)} - \text{Table 4 col (1)}]$$
- (4) is Reserves plus Surplus minus Agent Balances by time period, expressed as a factor, $= (1) + (2) - (3)$
- (5) is derived by applying the Return on Investments [Table 1 row (4, Static-Avg)] to the average Invested Funds (4) from the previous and current time periods, plus previous Income from Invested Funds, by time period expressed as a factor.
- (6) is Insurance Cash Flow plus Income from Invested Funds minus Total Invested Funds by time period, expressed as a factor,

$$= \text{Table 4 col (5)} + (5) - (4)$$
- (7) is the difference between Capital Provider Equity (6) at the current and previous time periods, expressed as a factor.
- (8) is the Capital Provider Cash Flow (7) discounted by the Weighted Average Cost of Capital [Table 1 row (5, Static-Avg)], expressed as a factor.



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Calculation Details - Static-Spot Estimate

TABLE 6: DERIVATION OF INSURANCE CASH FLOW (STATIC-SPOT ESTIMATE)

Time	(1) Collected Premium Factor	(2) Expense and Taxes Factor	(3) Paid Losses Factor	(4) Federal Income Tax Factor	(5) Insurance Cash flow Factor
0.00	-	-	-	-	-
0.25	0.2442	0.0689	0.0035	0.0001	0.1716
0.50	0.5126	0.1483	0.0143	0.0003	0.3497
0.75	0.7795	0.2276	0.0322	0.0004	0.5193
1.00	1.0000	0.2938	0.0556	0.0005	0.6500
1.25	1.0000	0.2971	0.1020	0.0015	0.5995
1.50	1.0000	0.2971	0.1483	0.0024	0.5522
1.75	1.0000	0.2971	0.1946	0.0033	0.5050
2.00	1.0000	0.2971	0.2410	0.0042	0.4577
2.25	1.0000	0.2971	0.2749	0.0036	0.4244
2.50	1.0000	0.2971	0.3088	0.0029	0.3911
2.75	1.0000	0.2971	0.3428	0.0023	0.3578
3.00	1.0000	0.2971	0.3767	0.0017	0.3245
3.25	1.0000	0.2971	0.3993	0.0012	0.3024
3.50	1.0000	0.2971	0.4219	0.0006	0.2804
3.75	1.0000	0.2971	0.4445	0.0001	0.2583
4.00	1.0000	0.2971	0.4671	(0.0004)	0.2362
4.25	1.0000	0.2971	0.4834	(0.0009)	0.2203
4.50	1.0000	0.2971	0.4998	(0.0013)	0.2045
4.75	1.0000	0.2971	0.5161	(0.0018)	0.1886
5.00	1.0000	0.2971	0.5324	(0.0022)	0.1727
6.00	1.0000	0.2971	0.5702	(0.0032)	0.1359
7.00	1.0000	0.2971	0.5969	(0.0040)	0.1100
8.00	1.0000	0.2971	0.6169	(0.0048)	0.0908
9.00	1.0000	0.2971	0.6332	(0.0056)	0.0752
10.00	1.0000	0.2971	0.6451	(0.0061)	0.0639
11.00	1.0000	0.2971	0.6562	(0.0065)	0.0532
12.00	1.0000	0.2971	0.6636	(0.0069)	0.0461
13.00	1.0000	0.2971	0.6718	(0.0072)	0.0383
14.00	1.0000	0.2971	0.6792	(0.0075)	0.0312
15.00	1.0000	0.2971	0.6836	(0.0077)	0.0269
16.00	1.0000	0.2971	0.6874	(0.0078)	0.0234
17.00	1.0000	0.2971	0.6896	(0.0079)	0.0213
18.00	1.0000	0.2971	0.6933	(0.0080)	0.0176
19.00	1.0000	0.2971	0.6985	(0.0080)	0.0124
20.00	1.0000	0.2971	0.7007	(0.0080)	0.0102
21.00	1.0000	0.2971	0.7037	(0.0080)	0.0072
22.00	1.0000	0.2971	0.7059	(0.0080)	0.0050
23.00	1.0000	0.2971	0.7074	(0.0080)	0.0035
24.00	1.0000	0.2971	0.7096	(0.0080)	0.0013
25.00	1.0000	0.2971	0.7118	(0.0080)	(0.0009)
26.00	1.0000	0.2971	0.7155	(0.0080)	(0.0046)
27.00	1.0000	0.2971	0.7170	(0.0080)	(0.0061)
28.00	1.0000	0.2971	0.7192	(0.0080)	(0.0083)
29.00	1.0000	0.2971	0.7207	(0.0080)	(0.0098)
30.00	1.0000	0.2971	0.7229	(0.0080)	(0.0120)
31.00	1.0000	0.2971	0.7237	(0.0080)	(0.0127)
32.00	1.0000	0.2971	0.7286	(0.0081)	(0.0177)
33.00	1.0000	0.2971	0.7332	(0.0081)	(0.0223)
34.00	1.0000	0.2971	0.7375	(0.0081)	(0.0265)
35.00	1.0000	0.2971	0.7415	(0.0081)	(0.0305)

Column Notes:

- (1) is Collected Premium by time period, expressed as a factor, = Table 2 col (1) x [1 - Table 1 col (1a)]
- (2) is Expenses and Taxes by time period, expressed as a factor, = Table 1 row (1) x Table 2 col (4)
- (3) is Paid Losses by time period, expressed as a factor, = Table 1 row (7, Static-Spot) x Table 2 col (5)
- (4) per the Tax Cuts and Jobs Act of 2017, federal income taxes are computed as the tax rate (21%) times the adjusted underwriting income calculated per IRS rules. See Appendix B for details.
- (5) is the Total Insurance Cash Flow by time period, expressed as a factor, = (1) - [(2) + (3) + (4)]



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Calculation Details - Static-Spot Estimate (continued)

TABLE 7: DERIVATION OF CASH FLOWS TO THE CAPITAL PROVIDERS (STATIC-SPOT ESTIMATE)

Time	(1) Unearned Premium and Unpaid Loss Reserve Factor	(2) Factor for Surplus Allocated to Reserves	(3) Admitted Agents' Balances	(4) Total Invested Funds Factor	(5) Income from Invested Funds Factor	(6) Capital Provider Equity Factor	(7) Capital Provider Cash Flow Factor	(8) Discounted Capital Provider Cash Flow Factor
0.00	-	-	-	-	-	-	-	-
0.25	0.2629	0.1376	0.0311	0.3694	0.0022	(0.1956)	(0.1956)	(0.1932)
0.50	0.5131	0.2686	0.0508	0.7309	0.0086	(0.3725)	(0.1770)	(0.1705)
0.75	0.7100	0.3717	0.0435	1.0383	0.0190	(0.4999)	(0.1274)	(0.1198)
1.00	0.8047	0.4213	-	1.2260	0.0323	(0.5436)	(0.0437)	(0.0401)
1.25	0.7026	0.3679	-	1.0705	0.0458	(0.4252)	0.1184	0.1060
1.50	0.6187	0.3239	-	0.9427	0.0576	(0.3328)	0.0923	0.0806
1.75	0.5526	0.2893	-	0.8419	0.0681	(0.2688)	0.0640	0.0546
2.00	0.5005	0.2620	-	0.7625	0.0775	(0.2273)	0.0415	0.0345
2.25	0.4666	0.2443	-	0.7109	0.0861	(0.2003)	0.0270	0.0219
2.50	0.4327	0.2265	-	0.6592	0.0942	(0.1739)	0.0264	0.0209
2.75	0.3987	0.2088	-	0.6075	0.1016	(0.1481)	0.0258	0.0199
3.00	0.3648	0.1910	-	0.5558	0.1084	(0.1228)	0.0252	0.0190
3.25	0.3422	0.1792	-	0.5214	0.1148	(0.1041)	0.0187	0.0137
3.50	0.3196	0.1673	-	0.4869	0.1207	(0.0859)	0.0183	0.0131
3.75	0.2970	0.1555	-	0.4524	0.1262	(0.0680)	0.0179	0.0125
4.00	0.2743	0.1436	-	0.4180	0.1313	(0.0505)	0.0175	0.0119
4.25	0.2580	0.1351	-	0.3931	0.1361	(0.0368)	0.0137	0.0092
4.50	0.2417	0.1266	-	0.3683	0.1405	(0.0233)	0.0135	0.0087
4.75	0.2254	0.1180	-	0.3434	0.1447	(0.0101)	0.0132	0.0083
5.00	0.2091	0.1095	-	0.3186	0.1486	0.0027	0.0129	0.0080
6.00	0.1713	0.0897	-	0.2610	0.1624	0.0374	0.0347	0.0202
7.00	0.1446	0.0757	-	0.2203	0.1739	0.0636	0.0262	0.0138
8.00	0.1246	0.0652	-	0.1898	0.1837	0.0847	0.0211	0.0101
9.00	0.1083	0.0567	-	0.1649	0.1922	0.1025	0.0178	0.0077
10.00	0.0964	0.0505	-	0.1469	0.1997	0.1167	0.0142	0.0056
11.00	0.0853	0.0446	-	0.1299	0.2063	0.1296	0.0129	0.0046
12.00	0.0779	0.0408	-	0.1186	0.2122	0.1397	0.0102	0.0033
13.00	0.0697	0.0365	-	0.1062	0.2176	0.1497	0.0100	0.0029
14.00	0.0623	0.0326	-	0.0949	0.2224	0.1586	0.0090	0.0024
15.00	0.0578	0.0303	-	0.0881	0.2268	0.1656	0.0069	0.0017
16.00	0.0541	0.0283	-	0.0825	0.2308	0.1718	0.0062	0.0013
17.00	0.0519	0.0272	-	0.0791	0.2347	0.1769	0.0051	0.0010
18.00	0.0482	0.0252	-	0.0734	0.2383	0.1825	0.0056	0.0010
19.00	0.0430	0.0225	-	0.0655	0.2417	0.1885	0.0061	0.0010
20.00	0.0408	0.0214	-	0.0621	0.2447	0.1928	0.0042	0.0006
21.00	0.0378	0.0198	-	0.0576	0.2476	0.1972	0.0044	0.0006
22.00	0.0356	0.0186	-	0.0542	0.2502	0.2010	0.0038	0.0005
23.00	0.0341	0.0179	-	0.0520	0.2528	0.2043	0.0033	0.0004
24.00	0.0319	0.0167	-	0.0486	0.2552	0.2079	0.0036	0.0004
25.00	0.0297	0.0155	-	0.0452	0.2574	0.2113	0.0034	0.0003
26.00	0.0260	0.0136	-	0.0395	0.2594	0.2153	0.0040	0.0003
27.00	0.0245	0.0128	-	0.0373	0.2613	0.2179	0.0026	0.0002
28.00	0.0222	0.0116	-	0.0339	0.2630	0.2208	0.0029	0.0002
29.00	0.0208	0.0109	-	0.0316	0.2645	0.2231	0.0023	0.0001
30.00	0.0185	0.0097	-	0.0282	0.2660	0.2257	0.0026	0.0001
31.00	0.0178	0.0093	-	0.0271	0.2673	0.2275	0.0017	0.0001
32.00	0.0128	0.0067	-	0.0196	0.2684	0.2312	0.0037	0.0002
33.00	0.0082	0.0043	-	0.0126	0.2692	0.2344	0.0032	0.0001
34.00	0.0040	0.0021	-	0.0060	0.2696	0.2371	0.0027	0.0001
35.00	-	-	-	-	0.2698	0.2393	0.0022	0.0001

Column Notes:

- (1) is Unearned Premium Reserve (equal to Written Premium minus Earned Premium, per the cashflow pattern) plus Unpaid Loss Reserve (equal to Incurred minus Paid Losses) by time period, expressed as a factor,

$$= \text{MAX}[\text{Table 6 col (1), Table 2 col (3)}] - \text{Table 2 col (2)} + \text{Table 1 row (7, Static-Spot)} \times [\text{Table 2 col (2)} - \text{Table 2 col (5)}]$$
- (2) is the Surplus derived from Reserves per the Reserve-to-Surplus Ratio by time period, expressed as a factor, $= (1) / \text{Table 1 row (2)}$
- (3) Admitted Agents' Balances arise when premium is written before it's collected, or premium is earned in the prior period before it's collected,

$$= \text{MAX}[\text{Table 6 col (1), Table 2 col (3)}] - \text{Table 6 col (1)} - \text{MAX}[0, \text{Table 2 col (2, previous row)} - \text{Table 6 col (1)}]$$
- (4) is Reserves plus Surplus minus Agent Balances by time period, expressed as a factor, $= (1) + (2) - (3)$
- (5) is derived by applying the Return on Investments [Table 1 row (4, Static-Spot)] to the average Invested Funds (4) from the previous and current time periods, plus previous Income from Invested Funds, by time period expressed as a factor.
- (6) is Insurance Cash Flow plus Income from Invested Funds minus Total Invested Funds by time period, expressed as a factor,

$$= \text{Table 6 col (5)} + (5) - (4)$$
- (7) is the difference between Capital Provider Equity (6) at the current and previous time periods, expressed as a factor.
- (8) is the Capital Provider Cash Flow (7) discounted by the Weighted Average Cost of Capital [Table 1 row (5, Static-Spot)], expressed as a factor.



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TABLE 8: DERIVATION OF INSURANCE CASH FLOW (DYNAMIC ESTIMATE)

Time	(1) Collected Premium Factor	(2) Expense and Taxes Factor	(3) Paid Losses Factor	(4) Federal Income Tax Factor	(5) Insurance Cash flow Factor
0.00	-	-	-	-	-
0.25	0.2442	0.0689	0.0035	0.0005	0.1713
0.50	0.5126	0.1483	0.0140	0.0011	0.3493
0.75	0.7795	0.2276	0.0315	0.0016	0.5189
1.00	1.0000	0.2938	0.0544	0.0021	0.6497
1.25	1.0000	0.2971	0.0997	0.0034	0.5998
1.50	1.0000	0.2971	0.1450	0.0047	0.5532
1.75	1.0000	0.2971	0.1903	0.0060	0.5065
2.00	1.0000	0.2971	0.2357	0.0074	0.4599
2.25	1.0000	0.2971	0.2688	0.0067	0.4273
2.50	1.0000	0.2971	0.3020	0.0061	0.3948
2.75	1.0000	0.2971	0.3352	0.0055	0.3622
3.00	1.0000	0.2971	0.3683	0.0049	0.3296
3.25	1.0000	0.2971	0.3905	0.0044	0.3080
3.50	1.0000	0.2971	0.4126	0.0039	0.2864
3.75	1.0000	0.2971	0.4347	0.0034	0.2648
4.00	1.0000	0.2971	0.4568	0.0028	0.2433
4.25	1.0000	0.2971	0.4728	0.0024	0.2277
4.50	1.0000	0.2971	0.4887	0.0020	0.2122
4.75	1.0000	0.2971	0.5047	0.0015	0.1967
5.00	1.0000	0.2971	0.5206	0.0011	0.1812
6.00	1.0000	0.2971	0.5576	0.0001	0.1452
7.00	1.0000	0.2971	0.5837	(0.0006)	0.1198
8.00	1.0000	0.2971	0.6033	(0.0014)	0.1011
9.00	1.0000	0.2971	0.6192	(0.0022)	0.0859
10.00	1.0000	0.2971	0.6308	(0.0027)	0.0748
11.00	1.0000	0.2971	0.6417	(0.0031)	0.0643
12.00	1.0000	0.2971	0.6489	(0.0034)	0.0574
13.00	1.0000	0.2971	0.6569	(0.0038)	0.0497
14.00	1.0000	0.2971	0.6642	(0.0040)	0.0427
15.00	1.0000	0.2971	0.6685	(0.0042)	0.0386
16.00	1.0000	0.2971	0.6722	(0.0044)	0.0352
17.00	1.0000	0.2971	0.6743	(0.0045)	0.0331
18.00	1.0000	0.2971	0.6780	(0.0045)	0.0295
19.00	1.0000	0.2971	0.6830	(0.0045)	0.0244
20.00	1.0000	0.2971	0.6852	(0.0045)	0.0222
21.00	1.0000	0.2971	0.6881	(0.0045)	0.0193
22.00	1.0000	0.2971	0.6903	(0.0046)	0.0172
23.00	1.0000	0.2971	0.6917	(0.0046)	0.0157
24.00	1.0000	0.2971	0.6939	(0.0046)	0.0136
25.00	1.0000	0.2971	0.6961	(0.0046)	0.0114
26.00	1.0000	0.2971	0.6997	(0.0046)	0.0078
27.00	1.0000	0.2971	0.7012	(0.0046)	0.0063
28.00	1.0000	0.2971	0.7033	(0.0046)	0.0042
29.00	1.0000	0.2971	0.7048	(0.0046)	0.0027
30.00	1.0000	0.2971	0.7070	(0.0046)	0.0005
31.00	1.0000	0.2971	0.7077	(0.0046)	(0.0002)
32.00	1.0000	0.2971	0.7125	(0.0046)	(0.0050)
33.00	1.0000	0.2971	0.7170	(0.0046)	(0.0095)
34.00	1.0000	0.2971	0.7212	(0.0046)	(0.0137)
35.00	1.0000	0.2971	0.7251	(0.0047)	(0.0175)

Column Notes:

- (1) is Collected Premium by time period, expressed as a factor, = Table 2 col (1) x [1 - Table 1 col (1a)]
- (2) is Expenses and Taxes by time period, expressed as a factor, = Table 1 row (1) x Table 2 col (4)
- (3) is Paid Losses by time period, expressed as a factor, = Table 1 row (7, Dynamic) x Table 2 col (5)
- (4) per the Tax Cuts and Jobs Act of 2017, federal income taxes are computed as the tax rate (21%) times the adjusted underwriting income calculated per IRS rules. See Appendix B for details.
- (5) is the Total Insurance Cash Flow by time period, expressed as a factor, = (1) - [(2) + (3) + (4)]



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Calculation Details - Dynamic Estimate (continued)

TABLE 9: DERIVATION OF CASH FLOWS TO THE CAPITAL PROVIDERS (DYNAMIC ESTIMATE).

Time	(1) Unearned Premium and Unpaid Loss Reserve Factor	(2) Factor for Surplus Allocated to Reserves	(3) Admitted Agents' Balances	(4) Total Invested Funds Factor	(5) Income from Invested Funds Factor	(6) Capital Provider Equity Factor	(7) Capital Provider Cash Flow Factor	(8) Cumulative Discount Factor	(9) Discounted Capital Provider Cash Flow Factor
0.00	-	-	-	-	-	-	-	-	-
0.25	0.2624	0.1374	0.0311	0.3686	0.0021	(0.1952)	(0.1952)	0.9877	(0.1928)
0.50	0.5111	0.2676	0.0508	0.7279	0.0084	(0.3703)	(0.1751)	0.9638	(0.1687)
0.75	0.7056	0.3694	0.0435	1.0316	0.0183	(0.4944)	(0.1241)	0.9405	(0.1167)
1.00	0.7970	0.4173	-	1.2143	0.0309	(0.5338)	(0.0394)	0.9178	(0.0361)
1.25	0.6925	0.3625	-	1.0550	0.0434	(0.4118)	0.1220	0.8959	0.1093
1.50	0.6072	0.3179	-	0.9252	0.0543	(0.3177)	0.0941	0.8746	0.0823
1.75	0.5408	0.2832	-	0.8240	0.0639	(0.2536)	0.0641	0.8539	0.0547
2.00	0.4894	0.2562	-	0.7457	0.0724	(0.2134)	0.0402	0.8337	0.0335
2.25	0.4563	0.2389	-	0.6951	0.0802	(0.1876)	0.0258	0.8140	0.0210
2.50	0.4231	0.2215	-	0.6446	0.0875	(0.1624)	0.0252	0.7948	0.0201
2.75	0.3899	0.2041	-	0.5941	0.0939	(0.1380)	0.0244	0.7760	0.0189
3.00	0.3567	0.1868	-	0.5435	0.0997	(0.1141)	0.0238	0.7578	0.0181
3.25	0.3346	0.1752	-	0.5098	0.1052	(0.0966)	0.0175	0.7399	0.0130
3.50	0.3125	0.1636	-	0.4761	0.1102	(0.0794)	0.0172	0.7225	0.0124
3.75	0.2904	0.1520	-	0.4424	0.1150	(0.0626)	0.0168	0.7055	0.0119
4.00	0.2683	0.1405	-	0.4087	0.1194	(0.0461)	0.0165	0.6889	0.0114
4.25	0.2523	0.1321	-	0.3844	0.1234	(0.0333)	0.0129	0.6727	0.0087
4.50	0.2364	0.1238	-	0.3601	0.1273	(0.0206)	0.0126	0.6569	0.0083
4.75	0.2204	0.1154	-	0.3358	0.1309	(0.0083)	0.0124	0.6415	0.0079
5.00	0.2045	0.1071	-	0.3115	0.1342	0.0038	0.0121	0.6265	0.0076
6.00	0.1675	0.0877	-	0.2552	0.1458	0.0358	0.0320	0.5907	0.0189
7.00	0.1414	0.0740	-	0.2154	0.1555	0.0599	0.0240	0.5378	0.0129
8.00	0.1218	0.0638	-	0.1856	0.1636	0.0790	0.0192	0.4897	0.0094
9.00	0.1059	0.0554	-	0.1613	0.1705	0.0951	0.0160	0.4461	0.0071
10.00	0.0943	0.0494	-	0.1436	0.1766	0.1077	0.0127	0.4064	0.0051
11.00	0.0834	0.0437	-	0.1270	0.1819	0.1192	0.0115	0.3703	0.0043
12.00	0.0761	0.0399	-	0.1160	0.1868	0.1282	0.0090	0.3374	0.0030
13.00	0.0682	0.0357	-	0.1038	0.1911	0.1370	0.0089	0.3075	0.0027
14.00	0.0609	0.0319	-	0.0928	0.1950	0.1450	0.0080	0.2803	0.0022
15.00	0.0566	0.0296	-	0.0862	0.1986	0.1510	0.0060	0.2555	0.0015
16.00	0.0529	0.0277	-	0.0806	0.2019	0.1564	0.0053	0.2328	0.0012
17.00	0.0508	0.0266	-	0.0773	0.2050	0.1607	0.0043	0.2122	0.0009
18.00	0.0471	0.0247	-	0.0718	0.2079	0.1655	0.0048	0.1934	0.0009
19.00	0.0421	0.0220	-	0.0641	0.2106	0.1709	0.0053	0.1762	0.0009
20.00	0.0399	0.0209	-	0.0608	0.2130	0.1745	0.0036	0.1606	0.0006
21.00	0.0370	0.0194	-	0.0563	0.2153	0.1783	0.0038	0.1464	0.0006
22.00	0.0348	0.0182	-	0.0530	0.2174	0.1816	0.0033	0.1334	0.0004
23.00	0.0334	0.0175	-	0.0508	0.2195	0.1844	0.0028	0.1216	0.0003
24.00	0.0312	0.0163	-	0.0475	0.2214	0.1874	0.0031	0.1108	0.0003
25.00	0.0290	0.0152	-	0.0442	0.2232	0.1904	0.0029	0.1010	0.0003
26.00	0.0254	0.0133	-	0.0387	0.2248	0.1939	0.0035	0.0921	0.0003
27.00	0.0239	0.0125	-	0.0365	0.2262	0.1961	0.0022	0.0840	0.0002
28.00	0.0218	0.0114	-	0.0331	0.2276	0.1986	0.0025	0.0765	0.0002
29.00	0.0203	0.0106	-	0.0309	0.2288	0.2006	0.0020	0.0698	0.0001
30.00	0.0181	0.0095	-	0.0276	0.2300	0.2029	0.0023	0.0636	0.0001
31.00	0.0174	0.0091	-	0.0265	0.2310	0.2043	0.0014	0.0580	0.0001
32.00	0.0126	0.0066	-	0.0191	0.2319	0.2078	0.0034	0.0528	0.0002
33.00	0.0081	0.0042	-	0.0123	0.2325	0.2108	0.0030	0.0482	0.0001
34.00	0.0039	0.0020	-	0.0059	0.2329	0.2133	0.0026	0.0439	0.0001
35.00	-	-	-	-	0.2330	0.2155	0.0022	0.0400	0.0001

Column Notes:

(1) is Unearned Premium Reserve (equal to Written Premium minus Earned Premium, per the cashflow pattern) plus Unpaid Loss Reserve (equal to Incurred minus Paid Losses) by time period, expressed as a factor,

= MAX[Table 8 col (1), Table 2 col (3)] - Table 2 col (2) + Table 1 row (7, Dynamic) x [Table 2 col (2) - Table 2 col (5)]

(2) is the Surplus derived from Reserves per the Reserve-to-Surplus Ratio by time period, expressed as a factor, = (1) / Table 1 row (2)

(3) Admitted Agents' Balances arise when premium is written before it's collected, or premium is earned in the prior period before it's collected, = MAX[Table 8 col (1), Table 2 col (3)] - Table 8 col (1) - MAX[0, Table 2 col (2, previous row) - Table 8 col (1)]

(4) is Reserves plus Surplus minus Agent Balances by time period, expressed as a factor, = (1) + (2) - (3)

(5) is derived by applying the Return on Investments [Table 3 col (1)] to the average Invested Funds (4) from the previous and current time periods, plus previous Income from Invested Funds, by time period expressed as a factor.

(6) is Insurance Cash Flow plus Income from Invested Funds minus Total Invested Funds by time period, expressed as a factor, = Table 8 col (5) + (5) - (4)

(7) is the difference between Capital Provider Equity (6) at the current and previous time periods, expressed as a factor

(8) is derived from the respective Weighted Average Cost of Capital [Table 3 col (2)] for each time period, expressed as a factor

(9) is the Capital Provider Cash Flow (7) discounted by the Cumulative Discount Factor (8), expressed as a factor



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APPENDIX A: CALCULATION OF WEIGHTED AVERAGE COST OF CAPITAL AND RETURN ON INVESTMENTS

The calculation of the Weighted Average Cost of Capital (WACC) is shown in Table A.1, and the calculation of the Return on Investments (RoI) is shown in Table A.2. The calculation for the Static estimates are shown for each. Calculations of the WACC and RoI under the Dynamic estimate for time periods 1, 2, and 5 are also provided for illustrative purposes. Note that the IRR model under the Dynamic estimate includes estimates of the WACC and RoI on a quarterly basis for the first five years and annually thereafter.

TABLE A.1: CALCULATION OF WEIGHTED AVERAGE COST OF CAPITAL

	Static		Dynamic - IRR Model Time (yrs)		
	Avg	Spot	1.00	2.00	5.00
(1) 5 year US T-note Yield	2.16%	4.12%	3.98%	3.77%	3.68%
(2) US Equity Market Risk Premium	7.74%	7.92%	7.92%	7.92%	7.92%
(3) Beta for Property/Casualty (P/C) Insurers	0.89	0.89	0.89	0.89	0.89
(4) Equity Cost of Capital for P/C Insurers	9.05%	11.17%	11.03%	10.82%	10.73%
(5) Share of Equity Capital for P/C Insurers	88%	88%	88%	88%	88%
(6) Debt Cost of Capital for P/C Insurers	2.96%	4.39%	4.31%	4.29%	4.22%
(7) Weighted Average Cost of Capital (WACC)	8.32%	10.36%	10.22%	10.04%	9.94%

Column Notes:

- (1) The Static-Avg estimate utilizes a rolling 5-year average, while the Static-Spot estimate utilizes the current US treasury yield. Forward estimates of US Treasury yields are from Moody's forecasts and apply only to the Dynamic estimate of the WACC.
- Time periods provided are illustrative; the full model includes estimates on a quarterly basis for the first five years and annually thereafter.
- (3) & (5) P/C beta and share of equity capital are estimated from historical data for a collection of insurers with publicly traded equity and debt.
- (4) = (1) + (2) x (3)
- (6) P/C debt cost of capital is the sum of the 10-year US T-note yield plus the historical corporate spread, net of income tax.
- (7) = (4) x (5) + (6) x [1 - (5)]



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APPENDIX A: CALCULATION OF WEIGHTED AVERAGE COST OF CAPITAL AND RETURN ON INVESTMENTS (CONTINUED)

TABLE A.2 CALCULATION OF RETURN ON INVESTMENTS

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
Security Description	Investment Portfolio	Yield Curve, Maturity and Spread	Roll-over Period	Income Tax Rate	Post-tax Return					
					Static	Dynamic - IRR Model Time (yrs)				
					Avg	Spot	1.00	2.00	5.00	
Bonds, of which	72.7%									
Government Direct Obligations	7.7%									
< 1yr	2.6%	6 mo US T-bill	0.50 yrs	21.00%	1.78%	4.22%	3.24%	2.52%	2.36%	
1 – 5 yrs	3.3%	2.5 yr US T-note	2.50 yrs	21.00%	1.68%	3.46%	3.36%	3.36%	2.74%	
5 – 10 yrs	1.2%	7.5 yr US T-note	7.50 yrs	21.00%	1.81%	3.28%	3.29%	3.29%	3.29%	
10 – 20 yrs	0.2%	15 yr US T-note	15.00 yrs	21.00%	2.01%	3.40%	3.46%	3.46%	3.46%	
> 20 yrs	0.3%	20 yr US T-note	20.00 yrs	21.00%	2.16%	3.51%	3.62%	3.62%	3.62%	
Collateralized Securities	7.1%									
< 1yr	1.1%	6 mo US T-bill + 50 basis points	0.50 yrs	21.00%	2.17%	4.62%	3.64%	2.91%	2.75%	
1 – 5 yrs	2.8%	2.5 yr US T-note + 50 basis points	2.50 yrs	21.00%	2.08%	3.85%	3.76%	3.76%	3.13%	
5 – 10 yrs	1.8%	7.5 yr US T-note + 50 basis points	7.50 yrs	21.00%	2.20%	3.67%	3.68%	3.68%	3.68%	
10 – 20 yrs	1.1%	15 yr US T-note + 50 basis points	15.00 yrs	21.00%	2.40%	3.79%	3.85%	3.85%	3.85%	
> 20 yrs	0.3%	20 yr US T-note + 50 basis points	20.00 yrs	21.00%	2.56%	3.91%	4.02%	4.02%	4.02%	
Tax-exempt Bonds	17.1%									
< 1yr	1.3%	6 mo US T-bill + Tax-exempt spread	0.50 yrs	5.25%	2.21%	5.14%	3.96%	3.09%	2.90%	
1 – 5 yrs	5.0%	2.5 yr US T-note + Tax-exempt spread	2.50 yrs	5.25%	2.15%	4.28%	4.16%	4.16%	3.41%	
5 – 10 yrs	4.0%	7.5 yr US T-note + Tax-exempt spread	7.50 yrs	5.25%	2.31%	4.07%	4.08%	4.08%	4.08%	
10 – 20 yrs	5.4%	15 yr US T-note + Tax-exempt spread	15.00 yrs	5.25%	2.68%	4.34%	4.41%	4.41%	4.41%	
> 20 yrs	1.5%	20 yr US T-note + Tax-exempt spread	20.00 yrs	5.25%	2.98%	4.58%	4.70%	4.70%	4.70%	
Industrial and Hybrid Securities (unaffiliated)	40.6%									
< 1yr	4.2%	6 mo US T-bill + Corp spread	0.50 yrs	21.00%	2.27%	4.72%	3.74%	3.01%	2.85%	
1 – 5 yrs	17.9%	2.5 yr US T-note + Corp spread	2.50 yrs	21.00%	2.40%	4.18%	4.09%	4.09%	3.46%	
5 – 10 yrs	14.0%	7.5 yr US T-note + Corp spread	7.50 yrs	21.00%	2.84%	4.32%	4.33%	4.33%	4.33%	
10 – 20 yrs	2.7%	15 yr US T-note + Corp spread	15.00 yrs	21.00%	3.16%	4.56%	4.61%	4.61%	4.61%	
> 20 yrs	1.9%	20 yr US T-note + Corp spread	20.00 yrs	21.00%	3.33%	4.69%	4.78%	4.78%	4.78%	
Industrial and Hybrid Securities (affiliated)	0.2%									
< 1yr	0.1%	6 mo US T-bill + Corp spread	0.50 yrs	5.25%	2.73%	5.66%	4.48%	3.61%	3.42%	
1 – 5 yrs	0.1%	2.5 yr US T-note + Corp spread	2.50 yrs	5.25%	2.88%	5.02%	4.90%	4.90%	4.15%	
5 – 10 yrs	0.0%	7.5 yr US T-note + Corp spread	7.50 yrs	5.25%	3.41%	5.18%	5.19%	5.19%	5.19%	
10 – 20 yrs	0.0%	15 yr US T-note + Corp spread	15.00 yrs	5.25%	3.79%	5.46%	5.53%	5.53%	5.53%	
> 20 yrs	0.0%	20 yr US T-note + Corp spread	20.00 yrs	5.25%	3.99%	5.62%	5.73%	5.73%	5.73%	
Stocks, of which	11.7%									
Preferred Stock	0.5%	5 year US T-note + 396 basis points	0.25 yrs	13.13%	5.24%	7.02%	6.90%	6.72%	6.63%	
Common Stock	11.2%	5 year US T-note + 792 basis points	0.25 yrs	18.49%	8.07%	9.82%	9.70%	9.53%	9.45%	
Mortgage Loans	2.6%									
Real Estate	0.5%									
Cash & Short-Term Investment	5.4%	3 month US T-bill	0.25 yrs	21.00%	1.71%	4.36%	3.02%	2.35%	2.27%	
All Other Assets*	7.1%									
		Post-Tax Return on Invested Funds, pre-Expense:				3.12%	4.95%	4.73%	4.59%	4.35%
		Investment Expense**:				-0.17%	-0.17%	-0.17%	-0.17%	-0.17%
		Post-Tax Return on Invested Funds:				2.95%	4.78%	4.56%	4.42%	4.18%

Table Notes:

(1) Government Direct Obligations include US Government Issuer Obligations and Non-US Government Issuer Obligations.
 Collateralized Securities include Mortgage Backed, Loan Backed, or Structured Securities.
 Tax-exempt Bonds include Issuer Obligations of US States, Territories, and Possessions, US Political Subdivisions of States, Territories, and Possessions, and US Special Revenue and Special Assessment Obligations.
 Industrial and Hybrid Securities (unaffiliated) include Industrial and Miscellaneous and Hybrid Securities.
 Industrial and Hybrid Securities (affiliated) include Parents, Subsidiaries, and Affiliates.

(2) Bond and total portfolio distributions are 3-year averages for 2020-2022, calculated from annual editions of Best's Aggregates & Averages (Property-Casualty), Assets for Commercial Casualty Composite, page number varies by edition, Column 3, Net Admitted Assets.
 For each year 2020-2022, the maturity distribution pertains to all bonds owned as of December 31 at book/adjusted carrying value for Commercial Casualty Composite, Schedule D, Part 1A, Section 2.

(3) Spread to US treasury yields are either constant or varying by maturity (tax-exempt or corporate) as applicable.
 The tax-exempt spread is a term structure of average historical spreads in forward rates at different maturities between US municipal bonds and US Treasuries.
 Data on historical yields to US municipal bonds are from Bloomberg.
 The corporate spread is a term structure of average historical spreads in forward rates at different maturities between US corporate bonds and US Treasuries.
 Historical data on yields to US corporate bonds are from the US Department of Treasury.

(4) Applies only to the Dynamic estimate of the return on invested funds.
 The roll-over period is the time interval at which the estimated yield is updated for the given security in the investment portfolio.
 For bonds, the roll-over period is the bond's term to maturity. Forward yields for common and preferred stocks are updated quarterly.

(5) It is assumed that investment returns, except dividends and tax exempt municipal bond income, are taxed at 21%.
 It is assumed that 50% of dividends received are tax exempt. In accordance with the "pro-ration" provision, it is assumed that 25% of otherwise exempt municipal bond income and dividends are taxed at 21%. For common stock, the portion of income attributable to capital appreciation is assumed to equal 68.1% while the income portion is 31.9%. The percentages are obtained from the SBBI Summary Statistics of Annual Returns: large cap stocks, arithmetic mean.

(6)-(7) Static estimates of US Treasury yields are constant maturity yields from the first quarter of 2024.

(8)-(10) Applies only to the dynamic estimate of the return on invested funds. Forward estimates of US Treasury yields at various maturities are from Moody's.

* Yields to mortgage loans, real estate, and all other assets are not directly estimated, but are assumed to equal the weighted average portfolio yield net of these categories.
 ** Investment expense calculated from Annual Statement data for the Commercial Casualty Composite by dividing Total Investment Expense by Cash and Invested Assets.
 Total investment expense for 2022 is from the Annual Statement, Exhibit of Net Investment Income.
 Average cash and invested assets for 2021 and 2022 are from Best's Aggregates and Averages (Property-Casualty), Assets for Commercial Casualty Composite.



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APPENDIX D - Determination of Assigned Risk Rates

Section G - Derivation of the Indicated Profit and Contingency Provision

APPENDIX B: FEDERAL INCOME TAX INCURRED FROM INSURANCE OPERATIONS

Federal taxes on underwriting income, based on the Tax Cuts and Jobs Act of 2017, are calculated in the following tables on an annual basis. Columns (1) through (5) are the same under both Static and the Dynamic Estimates; the paid losses factors (col (6)) vary by Estimate. Note that investment taxes are accounted for in Appendix A. Annual tax is prorated when quarterly amounts are required.

TABLE B.1: FEDERAL INCOME TAX CALCULATION (STATIC-AVG ESTIMATE)

Time	(1) Written Premium Factor	(2) Unearned Premium Factor	(3) Expense and Taxes Factor	(4) Premium Balances Charged Off Factor	(5) Discount Factor	(6) Paid Losses Factor	(7) AY1 Paid Losses Factor	(8) AY2 Paid Losses Factor	(9) Discounted AY1 Unpaid Losses Factor	(10) Discounted AY2 Unpaid Losses Factor	(11) Federal Income Tax Factor
0.00	-	-	-	-	-	-	-	-	-	-	-
1.00	1.0000	0.4596	0.2938	-	0.8896	0.0519	0.0519	-	0.2617	-	0.0052
2.00	1.0000	-	0.2971	-	0.8748	0.2250	0.1428	0.0822	0.1779	0.2347	0.0137
3.00	1.0000	-	0.2971	-	0.8689	0.3516	0.1923	0.1593	0.1336	0.1634	0.0114
4.00	1.0000	-	0.2971	-	0.8642	0.4361	0.2309	0.2052	0.0996	0.1224	0.0094
5.00	1.0000	-	0.2971	-	0.8671	0.4970	0.2573	0.2397	0.0770	0.0920	0.0078
6.00	1.0000	-	0.2971	-	0.8611	0.5323	0.2706	0.2617	0.0650	0.0732	0.0068
7.00	1.0000	-	0.2971	-	0.8670	0.5572	0.2826	0.2746	0.0550	0.0616	0.0061
8.00	1.0000	-	0.2971	-	0.8819	0.5759	0.2906	0.2853	0.0489	0.0527	0.0053
9.00	1.0000	-	0.2971	-	0.8959	0.5911	0.2980	0.2931	0.0431	0.0467	0.0046
10.00	1.0000	-	0.2971	-	0.9051	0.6022	0.3026	0.2996	0.0393	0.0417	0.0041
11.00	1.0000	-	0.2971	-	0.9178	0.6126	0.3081	0.3044	0.0348	0.0377	0.0037
12.00	1.0000	-	0.2971	-	0.9307	0.6195	0.3106	0.3089	0.0331	0.0341	0.0034
13.00	1.0000	-	0.2971	-	0.9439	0.6271	0.3150	0.3121	0.0293	0.0317	0.0031
14.00	1.0000	-	0.2971	-	0.9573	0.6340	0.3180	0.3160	0.0269	0.0284	0.0029
15.00	1.0000	-	0.2971	-	0.9710	0.6382	0.3196	0.3185	0.0257	0.0264	0.0027
16.00	1.0000	-	0.2971	-	0.9847	0.6416	0.3214	0.3202	0.0243	0.0251	0.0025
17.00	1.0000	-	0.2971	-	0.9857	0.6437	0.3221	0.3216	0.0237	0.0241	0.0024
18.00	1.0000	-	0.2971	-	0.9857	0.6472	0.3243	0.3228	0.0214	0.0229	0.0024
19.00	1.0000	-	0.2971	-	0.9857	0.6520	0.3268	0.3252	0.0190	0.0206	0.0024
20.00	1.0000	-	0.2971	-	0.9857	0.6541	0.3271	0.3269	0.0187	0.0189	0.0024
21.00	1.0000	-	0.2971	-	0.9857	0.6569	0.3291	0.3278	0.0168	0.0180	0.0024
22.00	1.0000	-	0.2971	-	0.9857	0.6589	0.3297	0.3293	0.0162	0.0166	0.0024
23.00	1.0000	-	0.2971	-	0.9857	0.6603	0.3304	0.3299	0.0154	0.0159	0.0024
24.00	1.0000	-	0.2971	-	0.9857	0.6624	0.3316	0.3308	0.0143	0.0151	0.0023
25.00	1.0000	-	0.2971	-	0.9857	0.6645	0.3326	0.3319	0.0133	0.0140	0.0023
26.00	1.0000	-	0.2971	-	0.9857	0.6679	0.3347	0.3333	0.0112	0.0126	0.0023
27.00	1.0000	-	0.2971	-	0.9857	0.6693	0.3347	0.3347	0.0113	0.0113	0.0023
28.00	1.0000	-	0.2971	-	0.9857	0.6714	0.3362	0.3352	0.0097	0.0107	0.0023
29.00	1.0000	-	0.2971	-	0.9857	0.6728	0.3365	0.3363	0.0095	0.0096	0.0023
30.00	1.0000	-	0.2971	-	0.9857	0.6749	0.3379	0.3369	0.0081	0.0090	0.0023
31.00	1.0000	-	0.2971	-	0.9857	0.6755	0.3377	0.3378	0.0083	0.0081	0.0023
32.00	1.0000	-	0.2971	-	0.9857	0.6802	0.3413	0.3389	0.0047	0.0071	0.0023
33.00	1.0000	-	0.2971	-	0.9857	0.6845	0.3427	0.3418	0.0033	0.0043	0.0023
34.00	1.0000	-	0.2971	-	0.9857	0.6885	0.3450	0.3435	0.0011	0.0026	0.0023
35.00	1.0000	-	0.2971	-	0.9857	0.6922	0.3461	0.3461	-	-	0.0023

Column Notes:

- (1) is Written Premium by time period, expressed as a factor, = Table 2 col (3)
- (2) is Written Premium minus Earned Premium by time period, expressed as a factor, = Table 2 col (3) - Table 2 col (2)
- (3) is Expenses and Taxes by time period, expressed as a factor, = Table 1 row (1) x Table 2 col (4)
- (4) is Premium Balances Charged Off by time period, expressed as a factor, = Table 1 col (1a) x Table 2 col (1)
- (5) is from Internal Revenue Bulletin, 2023-52, Rev. Proc. 2023-41, dated December 26, 2023
- (6) is Paid Losses by time period, expressed as a factor, = Table 1 row (7, Static-Avg) x Table 2 col (5)
- (7) and (8) split the payments between the accident year coincident with the policy year ("AY1"), and the following accident year ("AY2"). Assuming that the payout pattern is linear between integer times, and that the average accident date for AY2 is two-thirds of a year later than the average accident date for AY1, columns (7) and (8) are determined by solving these two equations simultaneously:

$$\text{Col (7) + Col (8) = Col (6)}$$

$$\text{Col (8) = (2/3) * Col (7, previous row) + (1/3) * Col (7)}$$
 with $\text{Col (7, Time 1) = Col (6, Time 1)}$ and $\text{Col (7, Time 35) = Col (8, Time 35)}$
- (9) is the discounted difference between AY1 Losses that will ultimately be paid, and the amount already paid, $= [\text{col (7, Time 35)} - (7)] \times (5)$
- (10) is the discounted difference between AY2 Losses that will ultimately be paid, and the amount already paid, $= [\text{col (8, Time 35)} - (8)] \times \text{col (5, previous row)}$
- (11) Per IRS rules, federal income tax equals the tax rate (21%) times the adjusted underwriting income $= 21\% \times \{ (1) - 0.8 \times (2) - [(3) + (4) + (6) + (9) + (10)] \}$



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APPENDIX D - Determination of Assigned Risk Rates

Section G - Derivation of the Indicated Profit and Contingency Provision

APPENDIX B: FEDERAL INCOME TAX INCURRED FROM INSURANCE OPERATIONS (CONTINUED)

TABLE B.2: FEDERAL INCOME TAX CALCULATION (STATIC-SPOT ESTIMATE)

Time	(1) Written Premium Factor	(2) Unearned Premium Factor	(3) Expense and Taxes Factor	(4) Premium Balances Charged Off Factor	(5) Discount Factor	(6) Paid Losses Factor	(7) AY1 Paid Losses Factor	(8) AY2 Paid Losses Factor	(9) Discounted AY1 Unpaid Losses Factor	(10) Discounted AY2 Unpaid Losses Factor	(11) Federal Income Tax Factor
0.00	-	-	-	-	-	-	-	-	-	-	-
1.00	1.0000	0.4596	0.2938	-	0.8896	0.0556	0.0556	-	0.2803	-	0.0005
2.00	1.0000	-	0.2971	-	0.8748	0.2410	0.1529	0.0881	0.1905	0.2515	0.0042
3.00	1.0000	-	0.2971	-	0.8689	0.3767	0.2060	0.1706	0.1431	0.1751	0.0017
4.00	1.0000	-	0.2971	-	0.8642	0.4671	0.2473	0.2198	0.1067	0.1312	(0.0004)
5.00	1.0000	-	0.2971	-	0.8671	0.5324	0.2756	0.2568	0.0825	0.0985	(0.0022)
6.00	1.0000	-	0.2971	-	0.8611	0.5702	0.2898	0.2804	0.0697	0.0784	(0.0032)
7.00	1.0000	-	0.2971	-	0.8670	0.5969	0.3028	0.2941	0.0589	0.0660	(0.0040)
8.00	1.0000	-	0.2971	-	0.8819	0.6169	0.3113	0.3056	0.0524	0.0565	(0.0048)
9.00	1.0000	-	0.2971	-	0.8959	0.6332	0.3193	0.3140	0.0461	0.0501	(0.0056)
10.00	1.0000	-	0.2971	-	0.9051	0.6451	0.3242	0.3209	0.0421	0.0447	(0.0061)
11.00	1.0000	-	0.2971	-	0.9178	0.6562	0.3301	0.3261	0.0373	0.0404	(0.0065)
12.00	1.0000	-	0.2971	-	0.9307	0.6636	0.3327	0.3309	0.0354	0.0365	(0.0069)
13.00	1.0000	-	0.2971	-	0.9439	0.6718	0.3375	0.3343	0.0314	0.0339	(0.0072)
14.00	1.0000	-	0.2971	-	0.9573	0.6792	0.3407	0.3385	0.0288	0.0304	(0.0075)
15.00	1.0000	-	0.2971	-	0.9710	0.6836	0.3424	0.3412	0.0275	0.0282	(0.0077)
16.00	1.0000	-	0.2971	-	0.9847	0.6874	0.3443	0.3430	0.0260	0.0269	(0.0078)
17.00	1.0000	-	0.2971	-	0.9857	0.6896	0.3450	0.3446	0.0253	0.0258	(0.0079)
18.00	1.0000	-	0.2971	-	0.9857	0.6933	0.3475	0.3458	0.0230	0.0245	(0.0080)
19.00	1.0000	-	0.2971	-	0.9857	0.6985	0.3501	0.3483	0.0203	0.0221	(0.0080)
20.00	1.0000	-	0.2971	-	0.9857	0.7007	0.3505	0.3502	0.0200	0.0202	(0.0080)
21.00	1.0000	-	0.2971	-	0.9857	0.7037	0.3525	0.3511	0.0180	0.0193	(0.0080)
22.00	1.0000	-	0.2971	-	0.9857	0.7059	0.3532	0.3527	0.0173	0.0178	(0.0080)
23.00	1.0000	-	0.2971	-	0.9857	0.7074	0.3540	0.3534	0.0165	0.0171	(0.0080)
24.00	1.0000	-	0.2971	-	0.9857	0.7096	0.3552	0.3544	0.0153	0.0161	(0.0080)
25.00	1.0000	-	0.2971	-	0.9857	0.7118	0.3563	0.3556	0.0143	0.0150	(0.0080)
26.00	1.0000	-	0.2971	-	0.9857	0.7155	0.3585	0.3570	0.0120	0.0135	(0.0080)
27.00	1.0000	-	0.2971	-	0.9857	0.7170	0.3585	0.3585	0.0121	0.0121	(0.0080)
28.00	1.0000	-	0.2971	-	0.9857	0.7192	0.3602	0.3591	0.0104	0.0115	(0.0080)
29.00	1.0000	-	0.2971	-	0.9857	0.7207	0.3605	0.3603	0.0101	0.0103	(0.0080)
30.00	1.0000	-	0.2971	-	0.9857	0.7229	0.3620	0.3610	0.0086	0.0096	(0.0080)
31.00	1.0000	-	0.2971	-	0.9857	0.7237	0.3618	0.3619	0.0088	0.0087	(0.0080)
32.00	1.0000	-	0.2971	-	0.9857	0.7286	0.3656	0.3630	0.0051	0.0076	(0.0081)
33.00	1.0000	-	0.2971	-	0.9857	0.7332	0.3671	0.3661	0.0036	0.0046	(0.0081)
34.00	1.0000	-	0.2971	-	0.9857	0.7375	0.3696	0.3679	0.0012	0.0028	(0.0081)
35.00	1.0000	-	0.2971	-	0.9857	0.7415	0.3707	0.3707	-	-	(0.0081)

Column Notes:

(1) is Written Premium by time period, expressed as a factor, = Table 2 col (3)

(2) is Written Premium minus Earned Premium by time period, expressed as a factor, = Table 2 col (3) - Table 2 col (2)

(3) is Expenses and Taxes by time period, expressed as a factor, = Table 1 row (1) x Table 2 col (4)

(4) is Premium Balances Charged Off by time period, expressed as a factor, = Table 1 col (1a) x Table 2 col (1)

(5) is from Internal Revenue Bulletin, 2023-52, Rev. Proc. 2023-41, dated December 26, 2023

(6) is Paid Losses by time period, expressed as a factor, = Table 1 row (7, Static-Spot) x Table 2 col (5)

(7) and (8) split the payments between the accident year coincident with the policy year ("AY1"), and the following accident year ("AY2"). Assuming that the payout pattern is linear between integer times, and that the average accident date for AY2 is two-thirds of a year later than the average accident date for AY1, columns (7) and (8) are determined by solving these two equations simultaneously:

Col (7) + Col (8) = Col (6)

Col (8) = (2/3) * Col (7, previous row) + (1/3) * Col (7)

with Col (7, Time 1) = Col (6, Time 1) and Col (7, Time 35) = Col (8, Time 35)

(9) is the discounted difference between AY1 Losses that will ultimately be paid, and the amount already paid,
= [col (7, Time 35) - (7)] x (5)

(10) is the discounted difference between AY2 Losses that will ultimately be paid, and the amount already paid,
= [col (8, Time 35) - (8)] x col (5, previous row)

(11) Per IRS rules, federal income tax equals the tax rate (21%) times the adjusted underwriting income
= 21% * { (1) - 0.8 * (2) - [(3) + (4) + (6) + (9) + (10)] }



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APPENDIX D - Determination of Assigned Risk Rates

Section G - Derivation of the Indicated Profit and Contingency Provision

APPENDIX B: FEDERAL INCOME TAX INCURRED FROM INSURANCE OPERATIONS (CONTINUED)

TABLE B.3: FEDERAL INCOME TAX CALCULATION (DYNAMIC ESTIMATE)

Time	(1) Written Premium Factor	(2) Unearned Premium Factor	(3) Expense and Taxes Factor	(4) Premium Balances Charged Off Factor	(5) Discount Factor	(6) Paid Losses Factor	(7) AY1 Paid Losses Factor	(8) AY2 Paid Losses Factor	(9) Discounted AY1 Unpaid Losses Factor	(10) Discounted AY2 Unpaid Losses Factor	(11) Federal Income Tax Factor
0.00	-	-	-	-	-	-	-	-	-	-	-
1.00	1.0000	0.4596	0.2938	-	0.8896	0.0544	0.0544	-	0.2741	-	0.0021
2.00	1.0000	-	0.2971	-	0.8748	0.2357	0.1495	0.0861	0.1863	0.2459	0.0074
3.00	1.0000	-	0.2971	-	0.8689	0.3683	0.2015	0.1669	0.1400	0.1712	0.0049
4.00	1.0000	-	0.2971	-	0.8642	0.4568	0.2419	0.2149	0.1043	0.1283	0.0028
5.00	1.0000	-	0.2971	-	0.8671	0.5206	0.2695	0.2511	0.0807	0.0963	0.0011
6.00	1.0000	-	0.2971	-	0.8611	0.5576	0.2834	0.2742	0.0681	0.0766	0.0001
7.00	1.0000	-	0.2971	-	0.8670	0.5837	0.2961	0.2876	0.0576	0.0645	(0.0006)
8.00	1.0000	-	0.2971	-	0.8819	0.6033	0.3044	0.2988	0.0513	0.0552	(0.0014)
9.00	1.0000	-	0.2971	-	0.8959	0.6192	0.3122	0.3070	0.0451	0.0490	(0.0022)
10.00	1.0000	-	0.2971	-	0.9051	0.6308	0.3170	0.3138	0.0412	0.0437	(0.0027)
11.00	1.0000	-	0.2971	-	0.9178	0.6417	0.3228	0.3189	0.0365	0.0395	(0.0031)
12.00	1.0000	-	0.2971	-	0.9307	0.6489	0.3253	0.3236	0.0346	0.0357	(0.0034)
13.00	1.0000	-	0.2971	-	0.9439	0.6569	0.3300	0.3269	0.0307	0.0332	(0.0038)
14.00	1.0000	-	0.2971	-	0.9573	0.6642	0.3331	0.3311	0.0282	0.0297	(0.0040)
15.00	1.0000	-	0.2971	-	0.9710	0.6685	0.3348	0.3337	0.0269	0.0276	(0.0042)
16.00	1.0000	-	0.2971	-	0.9847	0.6722	0.3367	0.3355	0.0254	0.0263	(0.0044)
17.00	1.0000	-	0.2971	-	0.9857	0.6743	0.3374	0.3369	0.0248	0.0252	(0.0045)
18.00	1.0000	-	0.2971	-	0.9857	0.6780	0.3398	0.3382	0.0225	0.0240	(0.0045)
19.00	1.0000	-	0.2971	-	0.9857	0.6830	0.3424	0.3406	0.0199	0.0216	(0.0045)
20.00	1.0000	-	0.2971	-	0.9857	0.6852	0.3427	0.3425	0.0195	0.0198	(0.0045)
21.00	1.0000	-	0.2971	-	0.9857	0.6881	0.3447	0.3434	0.0176	0.0189	(0.0045)
22.00	1.0000	-	0.2971	-	0.9857	0.6903	0.3453	0.3449	0.0169	0.0174	(0.0046)
23.00	1.0000	-	0.2971	-	0.9857	0.6917	0.3461	0.3456	0.0162	0.0167	(0.0046)
24.00	1.0000	-	0.2971	-	0.9857	0.6939	0.3474	0.3465	0.0150	0.0158	(0.0046)
25.00	1.0000	-	0.2971	-	0.9857	0.6961	0.3484	0.3477	0.0140	0.0146	(0.0046)
26.00	1.0000	-	0.2971	-	0.9857	0.6997	0.3506	0.3491	0.0118	0.0132	(0.0046)
27.00	1.0000	-	0.2971	-	0.9857	0.7012	0.3506	0.3506	0.0118	0.0118	(0.0046)
28.00	1.0000	-	0.2971	-	0.9857	0.7033	0.3522	0.3511	0.0102	0.0113	(0.0046)
29.00	1.0000	-	0.2971	-	0.9857	0.7048	0.3525	0.3523	0.0099	0.0101	(0.0046)
30.00	1.0000	-	0.2971	-	0.9857	0.7070	0.3540	0.3530	0.0084	0.0094	(0.0046)
31.00	1.0000	-	0.2971	-	0.9857	0.7077	0.3538	0.3539	0.0086	0.0085	(0.0046)
32.00	1.0000	-	0.2971	-	0.9857	0.7125	0.3575	0.3550	0.0050	0.0074	(0.0046)
33.00	1.0000	-	0.2971	-	0.9857	0.7170	0.3590	0.3580	0.0035	0.0045	(0.0046)
34.00	1.0000	-	0.2971	-	0.9857	0.7212	0.3614	0.3598	0.0011	0.0027	(0.0046)
35.00	1.0000	-	0.2971	-	0.9857	0.7251	0.3625	0.3625	-	-	(0.0047)

Column Notes:

- (1) is Written Premium by time period, expressed as a factor, = Table 2 col (3)
- (2) is Written Premium minus Earned Premium by time period, expressed as a factor, = Table 2 col (3) - Table 2 col (2)
- (3) is Expenses and Taxes by time period, expressed as a factor, = Table 1 row (1) x Table 2 col (4)
- (4) is Premium Balances Charged Off by time period, expressed as a factor, = Table 1 col (1a) x Table 2 col (1)
- (5) is from Internal Revenue Bulletin, 2023-52, Rev. Proc. 2023-41, dated December 26, 2023
- (6) is Paid Losses by time period, expressed as a factor, = Table 1 row (8, Dynamic) x Table 2 col (5)
- (7) and (8) split the payments between the accident year coincident with the policy year ("AY1"), and the following accident year ("AY2"). Assuming that the payout pattern is linear between integer times, and that the average accident date for AY2 is two-thirds of a year later than the average accident date for AY1, columns (7) and (8) are determined by solving these two equations simultaneously:
 - Col (7) + Col (8) = Col (6)
 - Col (8) = (2/3) * Col (7, previous row) + (1/3) * Col (7)
 with Col (7, Time 1) = Col (6, Time 1) and Col (7, Time 35) = Col (8, Time 35)
- (9) is the discounted difference between AY1 Losses that will ultimately be paid, and the amount already paid,
= [col (7, Time 35) - (7)] x (5)
- (10) is the discounted difference between AY2 Losses that will ultimately be paid, and the amount already paid,
= [col (8, Time 35) - (8)] x col (5, previous row)
- (11) Per IRS rules, federal income tax equals the tax rate (21%) times the adjusted underwriting income
= 21% * { (1) - 0.8 * (2) - [(3) + (4) + (6) + (9) + (10)] }



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APPENDIX D - Determination of Assigned Risk Rates

Section G - Derivation of the Indicated Profit and Contingency Provision

APPENDIX C: RESERVE-TO-SURPLUS RATIO

in 000's

Year End	(1) Unpaid Losses	(2) Unpaid Loss Adjustment Expense	(3) Unearned Premium	(4) Policyholder Surplus	(5) Ratio excl. Unearned Premium $\{(1)+(2)\}/(4)$	(6) Ratio incl. Unearned Premium $\{(1)+(2)+(3)\}/(4)$
2022	244,078,630	51,321,882	96,322,738	200,124,833	1.48	1.96
2021	228,459,570	48,775,145	98,954,979	199,495,575	1.39	1.89
2020	213,654,262	47,148,359	91,285,583	184,607,060	1.41	1.91
2019	201,634,477	45,253,873	88,025,958	177,424,154	1.39	1.89
2018	198,071,343	43,050,172	84,424,740	169,657,802	1.42	1.92
2018 - 2022	1,085,898,282	235,549,431	459,013,998	931,309,424	1.42	1.91

Selected Ratio including Unearned Premium: 1.91

Source: Columns (1) - (4) for the latest year are taken from Liabilities, Surplus and Other Funds in Best's 2023 Aggregates & Averages, for Commercial Casualty Composite.



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Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

Part 4 Additional Information

- Definitions
- NCCI Affiliate List
- Key Contacts



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Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

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):

- The 12-month period beginning January 1 and ending December 31.
- 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.



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Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

Definitions

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.

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

A M C O INSURANCE COMPANY	BERKLEY NATIONAL INSURANCE COMPANY
ACADIA INSURANCE COMPANY	BERKLEY REGIONAL INS CO
ACCIDENT FUND GENERAL INS CO	BERKSHIRE HATHAWAY DIRECT INSURANCE COMPANY
ACCIDENT FUND INS CO OF AMERICA	BERKSHIRE HATHAWAY HOMESTATE INS CO
ACCIDENT FUND NATIONAL INS CO	BITCO GENERAL INSURANCE CORPORATION
ACCREDITED SURETY & CASUALTY COMPANY INC	BROTHERHOOD MUTUAL INS CO
ACE AMERICAN INSURANCE COMPANY	CALIFORNIA INSURANCE COMPANY
ACE FIRE UNDERWRITERS INSURANCE COMPANY	CAROLINA CASUALTY INS CO
ACE PROPERTY & CASUALTY INSURANCE COMPANY	CEDAR INSURANCE COMPANY
ACIG INS CO	CENTRAL MUTUAL INS CO
ADMIRAL INDEMNITY COMPANY	CHARTER OAK FIRE INS CO
AIG ASSURANCE COMPANY	CHEROKEE INS CO
AIG PROPERTY CASUALTY COMPANY	CHIRON INSURANCE COMPANY
AIU INSURANCE CO	CHUBB INDEMNITY INS CO
ALL AMERICA INS CO	CHUBB NATIONAL INS CO
ALLIED EASTERN IND CO	CHURCH MUTUAL INS CO, S.I.
ALLIED INSURANCE COMPANY OF AMERICA	CINCINNATI CASUALTY COMPANY
ALLIED PROPERTY AND CASUALTY INS CO	CINCINNATI INDEMNITY COMPANY
ALLMERICA FINANCIAL ALLIANCE INS CO	CINCINNATI INS CO
ALLMERICA FINANCIAL BENEFIT INS CO	CITIZENS INS CO OF AMERICA
AMERICAN ALTERNATIVE INSURANCE CORPORATION	CLEAR SPRING AMERICAN INSURANCE COMPANY
AMERICAN AUTOMOBILE INSURANCE CO	CLEAR SPRING CASUALTY INSURANCE COMPANY
AMERICAN CASUALTY COMPANY OF READING P A	CLEAR SPRING NATIONAL INSURANCE COMPANY
AMERICAN COMPENSATION INS CO	CLEAR SPRING PROPERTY AND CASUALTY COMPANY
AMERICAN ECONOMY INS CO	CLERMONT INS CO
AMERICAN FAMILY HOME INS CO	COLONIAL AMERICAN CASUALTY & SURETY CO
AMERICAN FIRE AND CASUALTY CO	COLONIAL SURETY COMPANY
AMERICAN GUARANTEE AND LIABILITY INS CO	COMMERCE AND INDUSTRY INS CO
AMERICAN HOME ASSUR CO-NATIONAL UNION FIRE OF PIT	CONTINENTAL CASUALTY CO
AMERICAN LIBERTY INSURANCE CO	CONTINENTAL INDEMNITY CO
AMERICAN MODERN HOME INS CO	CONTINENTAL INS CO
AMERICAN STATES INS CO A SAFECO COMPANY	CONTINENTAL WESTERN INSURANCE COMPANY
AMERICAN SUMMIT INS CO	COREPOINTE INSURANCE COMPANY
AMERICAN ZURICH INS CO	CRESTBROOK INS CO
AMERISURE INS CO	CRUM AND FORSTER INDEMNITY CO
AMERISURE MUTUAL INS CO	DAKOTA TRUCK UNDERWRITERS
AMFED ADVANTAGE INSURANCE COMPANY	DEPOSITORS INS CO
AMFED CASUALTY INS CO	EASTERN ADVANTAGE ASSURANCE COMPANY
AMFED NATIONAL INSURANCE COMPANY	EASTERN ALLIANCE INSURANCE COMPANY
AMGUARD INS CO	EASTGUARD INS CO
AMTRUST INSURANCE CO	EMC PROPERTY & CASUALTY COMPANY
ANSUR AMERICA	EMCASCO INS CO
ARBELLA INDEMNITY INS CO	EMPLOYERS ASSURANCE COMPANY
ARBELLA PROTECTION INS CO	EMPLOYERS COMPENSATION INS CO
ARCH INDEMNITY INSURANCE COMPANY	EMPLOYERS INS CO OF WAUSAU
ARCH INSURANCE COMPANY	EMPLOYERS INSURANCE COMPANY OF NEVADA
ARCH PROPERTY CASUALTY INS CO	EMPLOYERS MUTUAL CASUALTY CO
ARGONAUT GREAT CENTRAL INS CO	EMPLOYERS PREFERRED INS CO
ARGONAUT INS CO	ENDURANCE AMERICAN INS CO
ARTISAN AND TRUCKERS CASUALTY COMPANY	ENDURANCE ASSURANCE CORPORATION
ASCOT INSURANCE COMPANY	EVEREST DENALI INSURANCE COMPANY
ASSOCIATED EMPLOYERS INS CO	EVEREST NATIONAL INS CO
ASSOCIATED INDUSTRIES OF MASS MUTUAL INS CO	EVEREST PREMIER INSURANCE COMPANY
ATLANTIC CHARTER INS CO	EVEREST REINSURANCE CO DIRECT
ATLANTIC SPECIALTY INS CO	EXCELSIOR INSURANCE COMPANY
BANKERS STANDARD INS CO	EXECUTIVE RISK INDEMNITY INC
BEACON MUTUAL INS CO	EXECUTIVE RISK SPECIALTY INS CO
BENCHMARK INSURANCE COMPANY	FARM FAMILY CASUALTY INS CO
BERKLEY CASUALTY COMPANY	FARMERS INSURANCE EXCHANGE
BERKLEY INSURANCE COMPANY	FARMINGTON CASUALTY COMPANY



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Voluntary Loss Costs and Assigned Risk Rate Filing – January 1, 2025

NCCI Affiliate List

FEDERAL INSURANCE COMPANY	INS CO OF THE WEST
FEDERATED MUTUAL INS CO	INTREPID INSURANCE COMPANY
FEDERATED RESERVE INSURANCE CO	KEY RISK INS CO
FEDERATED SERVICE INS CO	LIBERTY INS CORP
FIDELITY & DEPOSIT COMPANY OF MARYLAND	LIBERTY INSURANCE UNDERWRITERS INC
FIDELITY & GUARANTY INS UNDERWRITERS	LIBERTY MUTUAL FIRE INS CO
FIDELITY & GUARANTY INSURANCE CO	LIBERTY MUTUAL INS CO
FIRE INS EXCHANGE	LION INSURANCE COMPANY
FIREMANS FUND INSURANCE CO	LM INS CORP
FIREMENS INS CO OF WASHINGTON DC	MA BAY INS CO
FIRST DAKOTA INDEMNITY CO	MAG MUTUAL INS CO
FIRST LIBERTY INS CORP	MAIN STREET AMERICA ASSURANCE CO
FIRST NATIONAL INS CO OF AMERICA	MANUFACTURERS ALLIANCE INS CO
FIRSTCOMP INSURANCE CO	MARKEL INSURANCE CO
FLORISTS MUTUAL INSURANCE CO	ME EMPLOYERS MUTUAL INS CO
FOREMOST INS CO GRAND RAPIDS MICHIGAN	MEMIC CASUALTY COMPANY
FOREMOST PROPERTY & CAS INS	MEMIC INDEMNITY CO
FOREMOST SIGNATURE INS CO	MERIDIAN SECURITY INSURANCE COMPANY
FRANK WINSTON CRUM INSURANCE CO	MID CENTURY INS CO
FRANKENMUTH INS COMPANY	MIDDLESEX INS CO
FREEDOM SPECIALTY INSURANCE COMPANY	MIDVALE INDEMNITY COMPANY
GENERAL CASUALTY COMPANY OF WISCONSIN	MIDWEST EMPLOYERS CASUALTY CO
GENERAL INS CO OF AMERICA	MIDWESTERN INDEMNITY CO
GENESIS INS CO	MILBANK INSURANCE COMPANY
GLATFELTER INSURANCE COMPANY	MILFORD CASUALTY INSURANCE CO
GRANITE STATE INSURANCE COMPANY	MITSUI SUMITOMO INS CO OF AMERICA
GRAPHIC ARTS MUTUAL INS CO	MITSUI SUMITOMO INS USA INC
GRAY INSURANCE COMPANY	MOTORISTS COMMERCIAL MUTUAL INSURANCE COMPANY
GREAT AMERICAN ALLIANCE INS CO	NATIONAL AMERICAN INS CO
GREAT AMERICAN ASSURANCE COMPANY	NATIONAL CASUALTY CO
GREAT AMERICAN INS CO OF NY	NATIONAL FIRE INS CO OF HARTFORD
GREAT AMERICAN INSURANCE COMPANY	NATIONAL INTERSTATE INS CO
GREAT AMERICAN SPIRIT INS CO	NATIONAL LIABILITY & FIRE INSURANCE CO
GREAT DIVIDE INSURANCE COMPANY	NATIONAL SPECIALTY INS CO
GREAT MIDWEST INS CO	NATIONAL SUMMIT INS CO
GREAT NORTHERN INS CO	NATIONAL SURETY CORP
GREAT WEST CASUALTY COMPANY	NATIONAL UNION FIRE INS CO OF PITTSBURGH PA
GREATER NY MUTUAL INS CO	NATIONWIDE AGRIBUSINESS INS CO
GREENWICH INS CO	NATIONWIDE ASSURANCE CO
GUIDEONE INSURANCE COMPANY	NATIONWIDE GENERAL INSURANCE CO
HANOVER AMERICAN INS CO	NATIONWIDE INS CO OF AMERICA
HANOVER INS CO	NATIONWIDE MUTUAL INS CO
HARLEYSVILLE INSURANCE COMPANY	NATIONWIDE PROPERTY AND CASUALTY INS CO
HARLEYSVILLE PREFERRED INSURANCE CO	NETHERLANDS INSURANCE COMPANY
HARLEYSVILLE WORCESTER INSURANCE CO	NEW HAMPSHIRE INSURANCE COMPANY
HARTFORD ACCIDENT AND INDEMNITY CO	NEW JERSEY CASUALTY INS CO
HARTFORD CASUALTY INS CO	NEW JERSEY INDEMNITY INS CO
HARTFORD FIRE INSURANCE CO	NEW JERSEY MANUFACTURERS INS CO
HARTFORD INS CO OF IL	NEW JERSEY RE-INSURANCE CO
HARTFORD INS CO OF MIDWEST	NEW YORK MARINE AND GENERAL INSURANCE CO
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
INCLINE CASUALTY COMPANY	NOVA CASUALTY COMPANY
INDEMNITY INS CO OF N AMERICA	NUTMEG INS CO
INS CO OF GREATER NY	OAK RIVER INSURANCE COMPANY
INS CO OF NORTH AMERICA	OBI AMERICA INSURANCE COMPANY
INS CO OF THE STATE PA	OBI NATIONAL INSURANCE COMPANY



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Voluntary Loss Costs and Assigned Risk Rate Filing – January 1, 2025

NCCI Affiliate List

OH CASUALTY INS CO	SERVICE LLOYDS INSURANCE CO, A STOCK COMPANY
OHIO SECURITY INS CO	SFM MUTUAL INS CO
OLD DOMINION INS CO	SIRIUSPOINT AMERICA INSURANCE COMPANY
OLD REPUBLIC GENERAL INSURANCE CORPORATION	SOMPO AMERICA FIRE & MARINE INSURANCE COMPANY
OLD REPUBLIC INS CO	SOMPO AMERICA INSURANCE COMPANY
OMAHA NATIONAL INS CO	SOUTHERN INS CO
PA MANUFACTURERS ASSN INS CO	ST PAUL FIRE AND MARINE INS CO
PA MANUFACTURERS INDEMNITY CO	ST PAUL GUARDIAN INS CO
PACIFIC EMPLOYERS INS CO	ST PAUL PROTECTIVE INS CO
PACIFIC INDEMNITY CO	STANDARD FIRE INSURANCE COMPANY
PACIFIC INS CO LTD	STAR INS CO
PARK NATIONAL INS COMPANY	STARINET INSURANCE COMPANY
PATRIOT GENERAL INS CO	STARR INDEMNITY AND LIABILITY CO
PATRONS MUTUAL INS CO OF CT	STARR SPECIALTY INSURANCE COMPANY
PEERLESS INDEMNITY INS CO	STARSTONE NATIONAL INSURANCE COMPANY
PEERLESS INSURANCE COMPANY	STATE AUTO PROPERTY AND CASUALTY INS CO
PENN MILLERS INS CO	STATE AUTOMOBILE MUTUAL INS CO
PENNSYLVANIA INSURANCE COMPANY	STATE FARM FIRE AND CASUALTY CO
PETROLEUM CASUALTY CO	STATE NATIONAL INSURANCE COMPANY
PHARMACISTS MUTUAL INS CO	STONINGTON INS CO
PHOENIX INS CO	STRATHMORE INS CO
PIE INSURANCE COMPANY	SUNZ INSURANCE COMPANY
PINNACLE NATIONAL INSURANCE COMPANY	SWISS RE CORPORATE SOLUTIONS AMERICA INS CORP
PLAZA INSURANCE CO	SWISS RE CORPORATE SOLUTIONS ELITE INS CORP
PRAETORIAN INSURANCE COMPANY	SWISS RE CORPORATE SOLUTIONS PREMIER INS CORP
PREFERRED EMPLOYERS INS CO	T H E INSURANCE COMPANY
PREFERRED PROFESSIONAL INSURANCE COMPANY	TECHNOLOGY INSURANCE CO
PRESCIENT NATIONAL INSURANCE COMPANY	THE TRAVELERS CASUALTY COMPANY
PRIVILEGE UNDERWRITERS RECIPROCAL EXCHANGE	TNUS INSURANCE CO
PROPERTY AND CASUALTY INS CO OF HARTFORD	TOKIO MARINE AMERICA INSURANCE CO
PROTECTIVE INS CO	TRANS PACIFIC INS CO
QBE INSURANCE CORPORATION	TRANSGUARD INS CO OF AMERICA INC
REDWOOD FIRE & CASUALTY INS CO	TRANSPORTATION INS CO
REGENT INSURANCE COMPANY	TRAVCO PERSONAL INSURANCE COMPANY
REPUBLIC FIRE AND CASUALTY INS CO	TRAVELERS CASUALTY & SURETY CO OF AMERICA
REPUBLIC FRANKLIN INS CO	TRAVELERS CASUALTY AND SURETY CO
REPUBLIC INDEMNITY CO OF CA	TRAVELERS CASUALTY INS CO OF AMERICA
REPUBLIC INDEMNITY COMPANY OF AMERICA	TRAVELERS COMMERCIAL INS CO
REPUBLIC UNDERWRITERS INSURANCE CO	TRAVELERS INDEMNITY CO
RIVERPORT INSURANCE COMPANY	TRAVELERS INDEMNITY CO OF AMERICA
RLI INSURANCE COMPANY	TRAVELERS INDEMNITY CO OF CT
ROCHDALE INSURANCE COMPANY	TRAVELERS INSURANCE CO
ROCKWOOD CASUALTY INS CO	TRAVELERS PROPERTY CASUALTY CO OF AMERICA
SAFECO INS CO OF AMERICA	TRI STATE INSURANCE COMPANY OF MINNESOTA
SAFETY FIRST INS CO	TRIUMPH CASUALTY COMPANY
SAFETY NATIONAL CASUALTY CORP	TRUCK INSURANCE EXCHANGE
SAGAMORE INSURANCE CO	TRUMBULL INS CO
SAMSUNG FIRE AND MARINE INS CO LTD USB	TWIN CITY FIRE INS CO
SCOTTSDALE INDEMNITY CO	UNION INS CO OF PROVIDENCE
SECURITY NATIONAL INS CO	UNION INSURANCE COMPANY
SELECTIVE INS CO OF SC	UNITED STATES FIDELITY AND GUARANTY CO
SELECTIVE INS CO OF THE SOUTHEAST	UNITED WI INS CO
SELECTIVE INSURANCE COMPANY OF AMERICA	US FIRE INS CO
SELECTIVE WAY INS CO	UTICA MUTUAL INS CO
SENTINEL INS CO	UTICA NATIONAL ASSURANCE CO
SENTRY CASUALTY CO	UTICA NATIONAL INS CO OF TX
SENTRY INS CO	UTICA NATIONAL INSURANCE COMPANY OF OH
SENTRY SELECT INSURANCE COMPANY	VALLEY FORGE INS CO
SEQUOIA INSURANCE CO	VANLINER INS CO
SERVICE AMERICAN INDEMNITY COMPANY	VANTAPRO SPECIALTY INS CO



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Voluntary Loss Costs and Assigned Risk Rate Filing – January 1, 2025

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VICTORIA FIRE & CASUALTY COMPANY
VIGILANT INS CO
WAUSAU BUSINESS INSURANCE COMPANY
WAUSAU UNDERWRITERS INSURANCE COMPANY
WCF NATIONAL INSURANCE COMPANY
WCF SELECT INSURANCE COMPANY
WELLFLEET INSURANCE COMPANY
WELLFLEET NEW YORK INSURANCE COMPANY
WESCO INSURANCE COMPANY
WEST AMERICAN INS CO
WEST BEND INSURANCE COMPANY
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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Voluntary Loss Cost and Assigned Risk Rate Filing – January 1, 2025

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