Iowa

Advisory Rates,
Assigned Risk Rates,
and Rating Values Filing

Proposed Effective January 1, 2023

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Regulatory Division

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August 16, 2022

Honorable Doug Ommen
Insurance Commissioner
Iowa Insurance Division
1963 Bell Avenue
Des Moines, IA 50315

Re: Iowa Advisory Rates, Assigned Risk Rates, and Rating Values Filing
Proposed Effective January 1, 2023

Dear Commissioner Ommen:

In accordance with the applicable statutes and regulations of the state of Iowa, we are filing for your consideration and approval of prospective rates and rating values for the Iowa voluntary and assigned risk markets to become effective January 1, 2023 for new and renewal policies.

This filing proposes an overall average change of –8.1% to the voluntary rate level and an overall average change of –8.1% to assigned risk rate level. The advisory prospective rates of the voluntary market are used as a basis for the rates in the assigned risk market.

Reported COVID-19-related claims have been excluded from the data on which this filing is based to better reflect the conditions likely to prevail during the proposed effective period. After an in-depth review and analysis, NCCI has determined that the continued use of widely accepted general ratemaking methodologies (such as the use of the chain ladder development method, exponential trend fit model, etc.) remain appropriate for use in this year's filing.

This filing is made exclusively on behalf of the companies that have given valid consideration for the express purpose of fulfilling regulatory rate 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 nonaffiliate, and is not intended to indicate whether the company is currently writing business or is even licensed to write business in this state.

As always, if you should have any questions or need additional information, please do not hesitate to contact Dan Benzshawel at (561) 893-3093 or me at (561) 893-3784.

Sincerely,

Daniel P. Nelson

Dan Nelson, MCM, WCP
State Relations Executive

Iowa

Workers Compensation Rate Filing – January 1, 2023

Actuarial Certification

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

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

Dan Benzshawel, FCAS, MAAA
Director and Actuary
Actuarial and Economic Services

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Workers Compensation Rate Filing – January 1, 2023

Disclosures

Purpose of the Report

The purpose of this report is to provide the proposed voluntary and assigned risk rates for workers compensation policies in Iowa, proposed to be effective January 1, 2023.

The intended users of this report are:

- The Iowa Insurance Division
- Affiliated carriers, for their reference in determining workers compensation rates

Scope

The prospective advisory rates for the voluntary market 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.).

Each insurance company offering workers compensation insurance in Iowa may:

a) adopt the advisory rates which include provisions for expenses based on NCCI's compilation of industry expense data, or
b) deviate from the advisory rates.

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 voluntary and assigned risk rates. After in-depth review and analysis, as well as a thorough assessment of COVID-19 impacts, NCCI has determined that the continued use of its ratemaking methodologies remains appropriate, including:

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

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Disclosures

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

Data Sources

Key Dates

Financial Data Valuation Date	December 31, 2021
Financial Call Data Cutoff Date	May 27, 2022
Unit Statistical Plan Data Cutoff Date	June 8, 2022
Filing Preparation Date	July 30, 2022

The overall average advisory rate 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 Data Cutoff Date were not considered for inclusion in the analysis.

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

In some areas, NCCI’s analysis also relies on other data sources, which are reviewed for reasonableness and are referenced in the filing where applicable. Events that have occurred after the Filing Preparation Date that may have a material impact on workers compensation costs in this jurisdiction have not been considered in the analysis.

Data Exclusions

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

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Disclosures

In this year's filing, data for all carriers writing at least one-tenth of one percent of the Iowa workers compensation written premium volume have been included in the experience period on which this filing is based.

NCCI categorizes catastrophic events as those that incur aggregate workers compensation losses in excess of $50 million per occurrence. NCCI's standard ratemaking methodology excludes catastrophe-related losses from the calculation of rates since these events are not considered to be predictive of future experience. Consistent with this catastrophe methodology, NCCI is proposing to treat COVID-19 claims with accident dates between December 1, 2019 through December 31, 2021 as a catastrophe in this filing. These reported claims have been excluded from Financial Call Data and Unit Statistical Plan Data for use in ratemaking to better reflect the conditions expected to prevail in the filing's proposed effective period.

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

Risks and Uncertainty

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

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

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

The course of the COVID-19 pandemic and related considerations, such as future economic conditions and the labor market, contribute additional uncertainty when estimating future costs.

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Workers Compensation Rate Filing – January 1, 2023

Executive Summary

Based on its review of the most recently available data, NCCI has proposed the following overall average workers compensation voluntary rate and assigned risk rate changes in Iowa to become effective January 1, 2023.

Key Components	Percentage Change
Experience, Trend and Benefit Change	– 8.2%
Production and General Expense Change	+ 0.1%
Taxes & Fees Change	+ 0.1%
Profit & Contingency Change	0.0%
Loss-based Expense Change	– 0.1%
Proposed Change in Overall Voluntary Rate Level	**– 8.1%***
Assigned Risk Differential Change	0.0%
Proposed Change in Overall Assigned Risk Rate Level	– 8.1%

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

Items of Note:

- This filing is based on premium and loss experience for Policy Years 2019 and 2020 evaluated as of December 31, 2021. Reported COVID-19-related claims have been excluded from the data on which this filing is based.
- No adjustments were made in this filing as a result of the COVID-19 pandemic. See Ratemaking Considerations Due to the COVID-19 Pandemic in the Additional Proposed Changes for additional information.
- Iowa's claim frequency increased modestly in the most recent policy year; however, the long-term pattern of decline is expected to continue. The average indemnity and medical cost per lost-time claim figures, adjusted for wage growth, decreased in Policy Year 2020. Together, claim frequency and severity trends suggest improving workers compensation experience.
- The indemnity loss ratio trend was lowered to –4.0% and the medical loss ratio trend was lowered to –2.5%.

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Overview of Methodology

Aggregate Ratemaking

NCCI's approach to determining the proposed overall average advisory rate 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 an Iowa-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 rate effective period
- Ultimate, trended, limited losses are adjusted to an unlimited basis via a non-catastrophe excess ratio (with excess ratios at limits beyond $50 million set equal to zero)
- Proposed benefit level and expense changes are applied to the projected cost ratios

The indicated average advisory rate 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 rate level is indicated.

Class Ratemaking

Once the proposed overall average advisory rate level change has been determined, NCCI separately determines rates per $100 of payroll for each workers compensation job classification (class); the advisory rates and year-over-year changes vary by class. Three sets of pure premiums are combined as part of each class code's advisory rate 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")

Assigned Risk Rates

The proposed assigned risk rates are then determined for each job classification as the product of the classification's advisory voluntary rate and an assigned risk differential.

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

IOWA

Workers Compensation Rate Filing – January 1, 2023

Summary of Selections

The following is a summary of selections underlying the voluntary rates and assigned risk rates proposed to be effective January 1, 2023, along with the selections underlying the currently approved filing effective January 1, 2022.

Voluntary Market Advisory Rates	**Currently Approved January 1, 2022**	**Proposed Effective January 1, 2023**
Experience Period	Policy Years 2018 and 2019	Policy Years 2019 and 2020
Premium Development	3-yr avg	3-yr avg
Loss Experience Base	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	1.010	1.010
Tail Factor – Medical	1.020	1.020
Trend Factor – Indemnity Loss Ratio	0.965	0.960
Trend Factor – Medical Loss Ratio	0.985	0.975
Base Threshold for Limiting Losses	$7,421,321	$7,396,293
Excess Ratio	3.0%	3.1%
Loss-based Expense Provision	17.9%	17.8%
Production and General Expenses	24.2%	24.3%
Premium Taxes and Assessments	2.4%	2.5%
Profit and Contingencies Provision	2.0%	2.0%
Classification Swing Limits (applied by Industry Group)	+/-25%	+/-25%

Assigned Risk Rates	**Currently Approved January 1, 2022**	**Proposed Effective January 1, 2023**
Assigned Risk Differential	1.250	1.250

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Additional Proposed Changes

COVID-19 Pandemic-Related Considerations

Overview

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

After a comprehensive review, NCCI has determined that the continued use of widely accepted general ratemaking methodologies (such as the use of the chain ladder development method, exponential trend fit model, etc.) remain appropriate for use in this year's filing. This year's analysis included an assessment of possible pandemic related impacts, based on that assessment, no adjustments were made in this filing as a result of the COVID-19 pandemic.

COVID-19 Claim Data

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

Below is a summary of COVID-19-related indemnity and medical paid+case losses and lost-time claim counts for each of the years in the filing's experience period, as reported in NCCI's Financial Call 31 as of year-end 2021.

Year	COVID-19 Lost-time Claim Counts	COVID-19 Paid+Case Losses
PY 2019	100	2,007,873
PY 2020	258	2,027,987
AY 2020	339	3,965,822
AY 2021	43	752,431

Excludes large deductible and expense-only claims.

Additional Proposed Changes

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

Determination of the Experience Period

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

Policy Year	Loss Ratio	Calendar-Accident Year	Loss Ratio
2016	0.831	2017	0.883
2017	0.928	2018	0.893
2018	0.933	2019	0.997
2019	0.923	2020	0.850
2020	0.912	2021	0.920

Based on NCCI's Financial Call data reported through 12/31/2021, on-leveled, developed to an ultimate report, and trended to the prospective period. Projected average losses do not include expenses.

Calendar-Accident Year 2019–2021 loss ratios include a premium audit adjustment due to changes in audit activity primarily attributable to the COVID-19 pandemic-related recession.

All years show favorable experience. It is possible that the most recent policy and calendar-accident years are impacted by pandemic-related effects, some of which may be temporary:

- Reductions in the number of medical evaluations, treatments, and/or procedures.
- Reported decline in less severe injuries, including medical-only claims. In Iowa, the share of medical-only claim dollars decreased by approximately 15% in 2020. As medical-only claims tend to be less severe in nature, the 15% decline in medical-only claim counts represents a decline of approximately 2% in incurred losses. It is unclear the level to which these claims would return in the effective period of the filing.
- A shift in the workforce. The unemployment rate during calendar year 2020 in Iowa was 5.3%, up from 2.8% in 2019; unemployment rate forecasts for the 2023 effective period of this filing is approximately 2.9% (Source: Moody's Analytics)
- Social distancing and other temporary safety measures to separate workers

It is uncertain to what extent the declines in medical-only claims, shifts in the workforce, and other COVID-19 pandemic-related impacts will persist in the effective period or are temporary (hesitancy to go to a hospital during the pandemic for less severe injuries). The COVID-19 pandemic-related effects were limited and largely isolated to calendar year 2020 in Iowa. Iowa was one of seven states that did not issue a stay-at-home order during the pandemic. Employment in manufacturing and agriculture benefited from a surge in consumer demand for Iowa produced corn, soy, wheat, and agricultural equipment, and by early 2021, Iowa's unemployment rate was one of the lowest in the nation (Source:

Moody's Analytics). Iowa's unemployment rate recovered to pre-COVID-19 pandemic levels in June of 2022. Iowa's workers compensation experience will likely continue to show improvement as there have been permanent shifts to remote employment and reduced business travel affecting some sectors.

The calendar-accident year 2020 loss ratio shows particularly favorable experience, driven in part, by a lower volume of large loss activity. At first report, NCCI's Large Loss Financial Call 31, shows that the accident year 2020 paid+case losses were more than 15% lower than those observed in accident years 2019 and 2021. It's uncertain whether this result is related to possible pandemic-related effects. The loss ratios for policy years 2019 and 2020 are consistent with prior years and have a similar amount of Call 31 claim activity, at a first report.

Call 31 Claims with Paid+Case Losses over 500K

Policy Year	Claim Counts	Limited Paid+Case	Accident Year	Claim Counts	Limited Paid+Case
2016	26	21.7M	2017	34	43.2M
2017	44	60.1M	2018	30	30.7M
2018	34	42.1M	2019	34	48.3M
2019	42	66.0M	2020	32	40.3M
2020	39	59.9M	2021	36	51.9M

Based on NCCI's Financial Call data reported through 12/31/2021, Call 31 claims valued at first report

In this filing, data for the two most recently available full policy years, 2019 and 2020, was selected as the most appropriate period on which to base this year's filing. This approach provides a balance between stability and responsiveness and best reflects the conditions likely to prevail in the proposed effective period. As shown above, the projected loss ratio that results from an average of policy years 2019 and 2020 is similar to that indicated by policy years 2017 and 2018. Additionally, while policy year loss ratios have historically been relied upon in Iowa for their more exact match between premium and losses, a similar projected loss ratio is also indicated by calendar-accident year 2021.

Premium Development

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

The COVID-19 pandemic resulted in an economic contraction that reduced employment levels and payrolls in 2020, followed by rapid growth in 2021. However, based on projections of payroll changes by month during 2020 and 2021, premium development is expected to be similar to historical periods as the observed employment level changes in 2020 and 2021 are anticipated to have a minimal

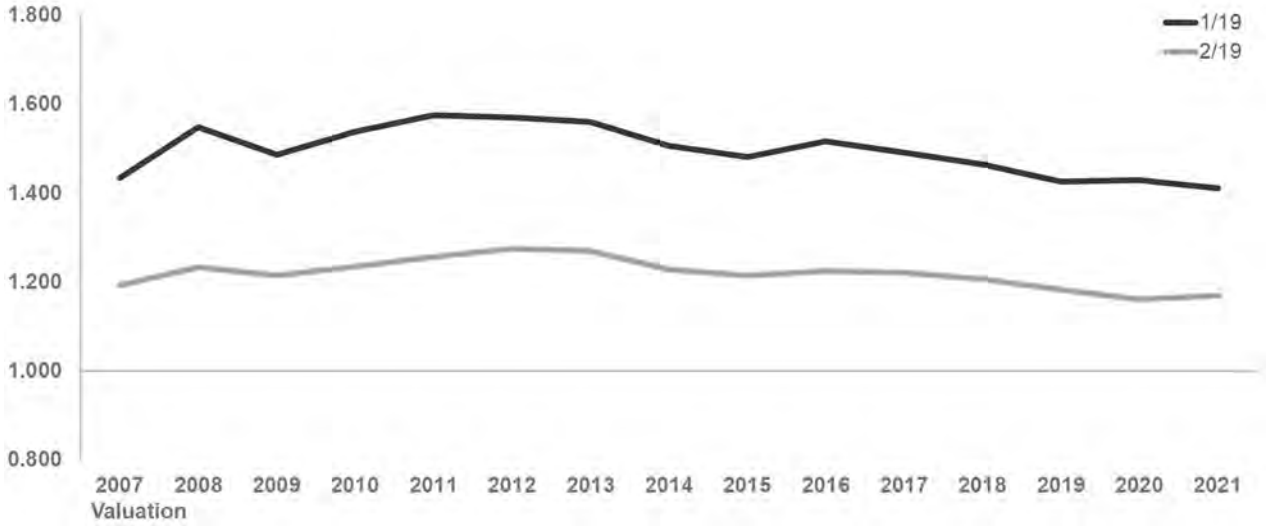
impact on workers compensation ultimate premium estimates. Therefore, a three-year average of historical premium development factors was selected.

Loss Development

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

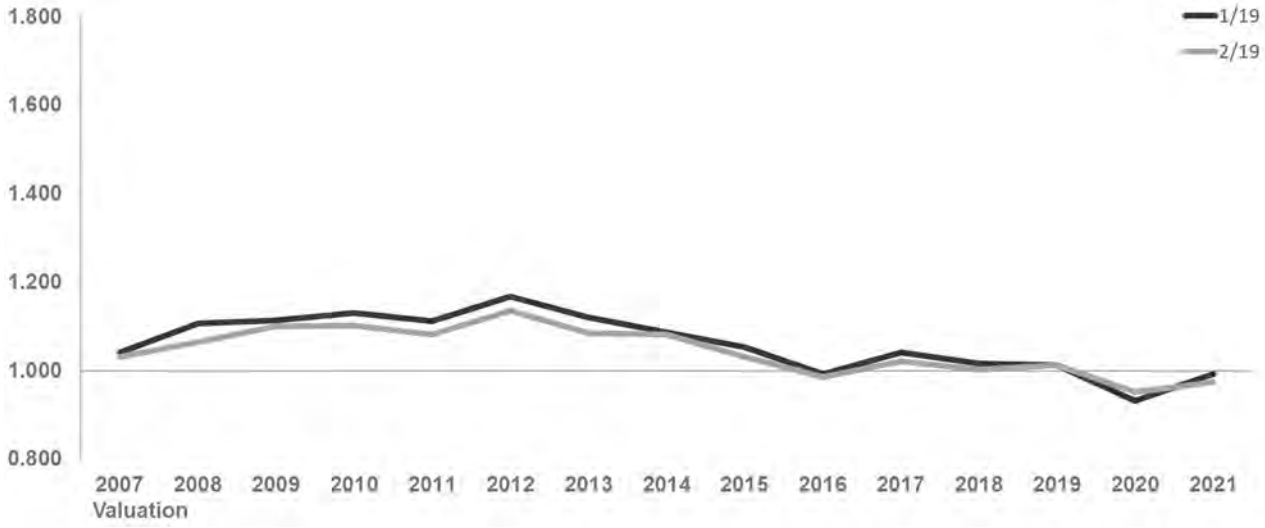
While there may be some pandemic-related effects on loss development in Iowa, loss development patterns are generally consistent with historical periods. To illustrate this point, please see the graphs below showing the cumulative medical loss development link ratios calculated from limited losses from the 1st report through the 19th report and the 2nd report through the 19th report for the most recent 15 valuations.

Cumulative Medical Paid Development



Additional Proposed Changes

Cumulative Medical Paid+Case Development



As can be seen in the graphs, the latest valuation has development factors that show no clear deviation from historical values. In valuation 2021, medical paid 1st to 19th development continued its pattern of decline while medical paid+case 1st to 19th development was consistent with the most recent six valuations. While medical was chosen for this example, similar results are seen for indemnity development where the factors are sometimes above or below the preceding development but are reasonable.

Trend

Indemnity and medical loss ratio, severity, and claim frequency trends were analyzed by NCCI. The trend review focused on the most recent fifteen policy years and the most recent five calendar-accident years of data. Policy year data is given greater consideration by NCCI in forecasting future workers compensation experience because policy year data reflects a relatively better match between exposure and losses. Loss ratio trends are relied upon as they are less impacted by shifts in the industry mix since the impacts to the frequency and severity components tend to offset.

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

- During the pandemic, workers may have reported fewer medical-only claims, or postponed medical evaluations and/or surgeries. NCCI's Medical Data Call shows lower utilization of evaluation and management as well as surgery services in service year 2021.

Additional Proposed Changes

- Employment levels have rebounded from the lows observed in 2020. The Great Reshuffle has increased the share of short-tenured workers (i.e., employees with one year or less at their current employer) in some industries, which NCCI studies have shown to be associated with higher injury frequency and claim costs. The increased prevalence of short-tenured workers may continue as new industry segments expand, but it is likely to recede toward historical norms in most economic sectors.
- The Iowa economy has seen a shift across industries and an increase in demand for new workers in manufacturing, trade, transportation, and utilities, and education and health services (Source: Moody's Analytics).
- After declines in employment levels, Iowa is observing accelerated wage growth in lower-wage jobs, which NCCI research has shown to have a higher propensity for injury.
- In the historical trend period, medical price inflation, as measured by the Chain-Weighted Personal Healthcare index, grew at a rate of approximately 1.5% per year from 2011 to 2020. However, the forecasted changes over the next ten years are higher—approximately 2.5% per year.

In general, long-term patterns of improving loss ratios have been observed over the most recent 15 years. The selected annual loss ratio trends in this year's filing are more heavily based on these observed longer-term patterns. At the onset of the pandemic, some suggested there might be a slowdown in providing medical services to those in need—which may contribute to relatively lower medical loss ratios. However, NCCI's research concluded that there were no meaningful delays in the time to initial medical treatment for injured workers. Underlying cost drivers for the observed favorable medical loss ratios may include the medical inflation changes relative to wage inflation.

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

The selected experience period reflects improved loss experience. NCCI analyzes a variety of trend estimates and ultimately selected trend factors that most appropriately project the latest observed experience to the level expected to exist when the proposed rates will be in effect.

See Appendix A-III for additional trend information.

Experience Rating

The Expected Loss Rates (ELRs) in this filing reflect a frequency trend which contemplates an observed increase in frequency in calendar accident year 2021 that may be driven, to some extent, by the impact of the COVID-19 pandemic and the larger than typical decrease seen from calendar accident year 2020 from 2019. See Part 2 of the filing for more explanation of the ELR calculation.

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Additional Proposed Changes

Calendar Year Wage Adjustments

NCCI's standard methodology is to adjust frequency and severity values included in its rate filings to a common wage level before analyzing trends that may be present in those values. This practice allows NCCI to analyze trends over and above changes that may be due solely to wage inflation. In this year's filing, the frequency and severity values have been adjusted to the Calendar Year 2021 average weekly wage (AWW) level using data from the Bureau of Labor Statistics' Quarterly Census of Employment and Wages (QCEW).

In addition to the traditional growth in wages/salaries that may be expected to occur each year, the observed 2019-to-2020 and 2020-to-2021 AWW changes were also impacted by COVID-19 pandemic-related shifts in employment across industry sectors. While a change in industry-sector mix occurs to a small degree each year, its impact on the 2020 and 2021 AWW changes was unusually large, due to pandemic-related job losses, followed by wage growth in relatively low-wage industries. Therefore, in this year's ratemaking analysis, the 2020 and 2021 AWW values were adjusted to exclude the estimated impact of the pandemic-related, industry-sector mix change.

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

Part 2 Proposed Values

- Proposed Voluntary Market Advisory Rates 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

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Proposed Voluntary Market Advisory Rates for Inclusion in the Basic Manual

The following pages include proposed:

- Voluntary market advisory rates and minimum premiums by class code, along with associated footnotes
- Advisory 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

Please note the following in connection with this filing:

- As a result of Item B-1397, effective January 1, 2008, a single combined rate is still calculated for Class Codes 7710 and 7711 via a payroll-weighted average of the separately indicated rates for these two class codes.

CLASS CODE	RATE	MIN PREM	CLASS CODE	RATE	MIN PREM	CLASS CODE	RATE	MIN PREM	CLASS CODE	RATE	MIN PREM	CLASS CODE	RATE	MIN PREM
0005	3.77	575	2039	3.15	507	2759	6.18	840	3303	2.65	452	4109	0.43	207
0008	2.75	463	2041	3.95	595	2790	1.93	372	3307	2.93	482	4110	0.80	248
0016	4.78	500	2065	2.10	391	2797	4.55	661	3315	3.18	510	4111	2.00	380
0034	4.39	643	2070	5.55	771	2799	5.57	773	3334	2.42	426	4113	–	–
0035	2.34	417	2081	3.48	543	2802	4.70	677	3336	2.65	452	4114	2.55	441
0036	3.32	500	2089	4.90	699	2835	3.71	568	3365	4.64	670	4130	3.13	504
0037	3.65	500	2095	3.76	574	2836	3.26	519	3372	3.71	568	4131	5.20	732
0042	5.42	650	2105	4.50	655	2841	4.33	636	3373	4.68	675	4133	2.57	443
0050	7.54	989	2110	2.62	448	2881	3.03	493	3383	1.57	333	4149	0.85	254
0059D	0.37	–	2111	3.08	499	2883	3.30	523	3385	1.03	273	4206	3.21	513
0065D	0.09	–	2112	4.20	622	2915	3.13	504	3400	2.25	408	4207	3.00	490
0066D	0.09	–	2114	2.75	463	2916	3.38	532	3507	3.13	504	4239	2.77	465
0067D	0.09	–	2121	1.52	327	2923	1.88	367	3515	2.30	413	4240	3.08	499
0079	3.04	494	2130	2.20	402	2960	4.90	699	3548	1.50	325	4243	2.08	389
0083	4.81	500	2131	1.83	361	3004	1.70	347	3559	4.23	625	4244	2.73	460
0106	8.98	1000	2143	2.55	441	3018	2.43	427	3574	1.25	298	4250	1.92	371
0113	4.31	634	2157	3.98	598	3022	3.76	574	3581	1.47	322	4251	3.51	546
0170	3.77	575	2172	1.73	350	3027	2.17	399	3612	2.22	404	4263	3.78	576
0251	3.62	558	2174	3.30	523	3028	2.83	471	3620	3.23	515	4273	2.67	454
0401	10.38	A	2211	7.40	974	3030	5.60	776	3629	2.30	413	4279	2.37	421
0771N	0.44	–	2220	2.82	470	3040	5.05	716	3632	2.93	482	4282	–	–
0908P	167.00	327	2286	–	–	3041	4.50	655	3634	1.58	334	4283	1.77	355
0913P	465.00	625	2288	4.23	625	3042	4.68	675	3635	2.05	386	4299	1.90	369
0917	3.48	543	2302	2.00	380	3064	3.91	590	3638	2.17	399	4304	4.86	695
1005	5.65	782	2305	2.58	444	3076	3.40	534	3642	2.05	386	4307	1.77	355
1016	15.03	1000	2361	2.05	386	3081D	6.46	871	3643	2.02	382	4351	1.13	284
1164D	2.89	478	2362	2.43	427	3082D	3.91	590	3647	3.13	504	4352	1.62	338
1165D	3.48	543	2380	1.97	377	3085D	6.08	829	3648	1.47	322	4360	–	–
1320	1.69	346	2388	1.67	344	3110	5.20	732	3681	0.80	248	4361	0.93	262
1322	7.70	1000	2402	2.90	479	3111	3.46	541	3685	1.42	316	4410	3.08	499
1430	4.43	647	2413	2.37	421	3113	2.32	415	3719	0.98	268	4420	5.66	783
1438	5.40	754	2416	2.67	454	3114	3.26	519	3724	4.60	666	4431	1.47	322
1452	2.52	437	2417	1.50	325	3118	1.55	331	3726	4.31	634	4432	1.20	292
1463	10.69	1000	2501	2.58	444	3119	0.95	265	3803	2.67	454	4439	–	–
1472	3.31	524	2503	1.12	283	3122	1.98	378	3807	3.06	497	4452	2.75	463
1624D	3.36	530	2534	–	–	3126	2.15	397	3808	3.73	570	4459	3.28	521
1642	2.88	477	2570	3.60	556	3131	1.85	364	3821	5.59	775	4470	2.40	424
1654	4.18	620	2585	3.90	589	3132	2.73	460	3822	4.25	628	4484	3.21	513
1655	–	–	2586	3.55	551	3145	2.15	397	3824	4.21	623	4493	2.58	444
1699	3.03	493	2587	2.32	415	3146	2.15	397	3826	0.87	256	4511	0.61	227
1701	2.73	460	2589	2.63	449	3169	2.82	470	3827	1.98	378	4557	2.45	430
1710D	3.65	562	2600	4.51	656	3175	–	–	3830	1.35	309	4558	1.87	366
1741	–	–	2623	6.51	876	3179	2.32	415	3851	3.51	546	4568	2.25	408
1747	2.92	481	2651	2.08	389	3180	2.40	424	3865	2.87	476	4581	1.10	281
1748	5.78	796	2660	2.53	438	3188	2.37	421	3881	4.30	633	4583	3.45	540
1803D	7.37	971	2670	–	–	3220	1.88	367	4000	4.18	620	4611	1.27	300
1853	–	–	2683	–	–	3223	–	–	4021	4.93	702	4635	3.35	529
1860	–	–	2688	2.82	470	3224	3.85	584	4024D	5.60	776	4653	2.03	383
1924	2.70	457	2701	14.48	1000	3227	3.95	595	4034	6.46	871	4665	7.81	1000
1925	4.81	689	2702	21.42	1000	3240	–	–	4036	2.80	468	4670	–	–
2002	3.21	513	2709	8.10	1000	3241	2.93	482	4038	2.48	433	4683	3.28	521
2003	3.98	598	2710	8.60	1000	3255	2.78	466	4053	–	–	4686	2.22	404
2014	4.65	672	2714	4.31	634	3257	2.65	452	4061	–	–	4692	0.65	232
2016	2.78	466	2731	4.15	617	3270	2.35	419	4062	2.67	454	4693	1.23	295
2021	3.71	568	2735	6.56	882	3300	5.20	732	4101	2.78	466	4703	1.47	322

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CLASS CODE	RATE	MIN PREM	CLASS CODE	RATE	MIN PREM	CLASS CODE	RATE	MIN PREM	CLASS CODE	RATE	MIN PREM	CLASS CODE	RATE	MIN PREM
4717	1.70	347	5703	12.13	1000	7153M	4.89	698	8010	1.91	370	8723	0.14	175
4720	2.15	397	5705	13.44	1000	7219	6.85	914	8013	0.37	201	8725	2.67	454
4740	1.35	309	5951	0.68	235	7222	6.90	919	8015	0.73	240	8726F	1.94	373
4741	3.43	537	6003	5.24	736	7225	7.66	1000	8017	1.53	328	8734M	0.53	218
4751	4.06	607	6005	3.79	577	7228	–	–	8018	2.95	485	8737M	0.47	212
4771N	2.50	483	6017	–	–	7229	–	–	8021	2.17	399	8738M	0.65	232
4777	3.13	504	6018	2.68	455	7230	7.66	1000	8031	2.17	399	8742	0.39	203
4825	0.87	256	6045	5.28	741	7231	6.25	848	8032	1.88	367	8745	3.51	546
4828	2.13	394	6204	7.44	978	7232	10.18	1000	8033	1.31	304	8748	0.58	224
4829	1.08	279	6206	2.50	435	7309F	8.13	1000	8037	1.71	348	8755	0.52	217
4902	2.37	421	6213	1.84	362	7313F	3.18	510	8039	1.67	344	8799	0.69	236
4923	1.12	283	6214	1.62	338	7317F	6.15	837	8044	2.38	422	8800	1.70	347
5020	5.24	736	6216	5.20	732	7327F	16.88	1000	8045	0.64	230	8803	0.06	167
5022	7.36	970	6217	4.54	659	7333M	6.66	893	8046	2.52	437	8805M	0.26	189
5037	12.93	1000	6229	5.00	710	7335M	7.40	974	8047	0.89	258	8810	0.19	181
5040	6.85	914	6233	3.05	496	7337M	9.20	1000	8058	2.74	461	8814M	0.23	185
5057	4.54	659	6235	5.20	732	7350F	7.11	942	8072	0.57	223	8815M	0.32	195
5059	15.88	1000	6236	5.82	800	7360	3.92	591	8102	1.50	325	8820	0.16	178
5069	–	–	6237	1.44	318	7370	4.36	640	8103	2.87	476	8824	1.93	372
5102	5.65	782	6251D	6.66	893	7380	5.02	712	8106	4.95	705	8825	–	–
5146	3.96	596	6252D	2.73	460	7382	4.70	677	8107	3.09	500	8826	1.97	377
5160	3.19	511	6306	4.88	697	7390	3.80	578	8111	2.43	427	8829	–	–
5183	2.74	461	6319	3.14	505	7394M	4.58	664	8116	2.31	414	8831	1.24	296
5188	3.50	545	6325	3.87	586	7395M	5.09	720	8203	8.08	1000	8832	0.32	195
5190	2.26	409	6400	4.92	701	7398M	6.33	856	8204	4.81	689	8833	0.65	232
5191	0.95	265	6503	2.38	422	7402	0.25	188	8209	3.82	580	8835	1.93	372
5192	2.90	479	6504	2.67	454	7403	3.62	558	8215	3.50	545	8842	2.38	422
5213	7.01	931	6702M*	3.86	585	7405N	1.09	345	8227	3.50	545	8855	0.14	175
5215	5.07	718	6703M*	5.34	747	7420	5.30	743	8232	4.22	624	8856	0.71	238
5221	4.72	679	6704M*	4.29	632	7421	0.85	254	8233	2.31	414	8864	1.47	322
5222	10.62	1000	6801F	5.48	763	7422	1.80	358	8235	4.55	661	8868	0.47	212
5223	4.31	634	6811	5.92	811	7425	2.32	415	8263	6.57	883	8869	1.04	274
5348	4.52	657	6824F	6.49	874	7431N	1.12	349	8264	5.76	794	8871	0.06	167
5402	5.49	764	6826F	4.92	701	7445N	0.59	–	8265	5.84	802	8901	0.19	181
5403	7.89	1000	6834	2.68	455	7453N	0.60	–	8279	7.14	945	9012	1.26	299
5437	4.94	703	6836	3.54	549	7502	1.61	337	8288	7.27	960	9014	2.83	471
5443	3.40	534	6843F	9.29	1000	7515	1.01	271	8291	4.20	622	9015	2.67	454
5445	5.05	716	6845F	4.48	653	7520	2.78	466	8292	3.71	568	9016	2.43	427
5462	5.33	746	6854	5.62	778	7538	2.97	487	8293	7.33	966	9019	2.89	478
5472	6.54	879	6872F	7.95	1000	7539	1.83	361	8304	6.19	841	9033	1.94	373
5473	7.59	995	6874F	13.75	1000	7540	2.64	450	8350	5.13	724	9040	3.24	516
5474	6.00	820	6882	7.47	982	7580	2.35	419	8380	2.63	449	9044	1.24	296
5478	3.82	580	6884	5.78	796	7590	3.57	553	8381	1.67	344	9052	1.71	348
5479	5.84	802	7016M	5.10	721	7600	3.66	563	8385	2.49	434	9058	1.65	342
5480	6.06	827	7024M	5.67	784	7605	1.89	368	8392	2.26	409	9060	1.50	325
5491	1.83	361	7038M	5.28	741	7610	0.66	233	8393	1.73	350	9061	1.15	287
5506	6.40	864	7046M	11.15	1000	7705	4.58	664	8500	5.96	816	9062	1.30	303
5507	4.15	617	7047M	7.05	936	7710	44.98	1000	8601	0.35	199	9063	0.79	247
5508	–	–	7050M	7.30	963	7711	44.98	1000	8602	1.53	328	9077F	5.53	768
5535	6.26	849	7090M	5.87	806	7720	3.08	499	8603	0.09	170	9082	1.15	287
5537	4.01	601	7098M	12.39	1000	7855	3.18	510	8606	1.70	347	9083	1.22	294
5551	13.57	1000	7099M	15.40	1000	8001	2.43	427	8709F	4.20	622	9084	1.18	290
5606	1.30	303	7133	3.62	558	8002	1.91	370	8719	2.02	382	9088a	a	a
5610	4.41	645	7151M	4.40	644	8006	2.14	395	8720	1.13	284	9089	1.13	284
5645	8.42	1000	7152M	6.07	828	8008	1.07	278	8721	0.33	196	9093	1.31	304

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CLASS CODE	RATE	MIN PREM	CLASS CODE	RATE	MIN PREM	CLASS CODE	RATE	MIN PREM	CLASS CODE	RATE	MIN PREM	CLASS CODE	RATE	MIN PREM
9101	4.49	654												
9102	3.08	499												
9154	1.74	351												
9156	3.12	503												
9170	10.44	1000												
9178	5.65	782												
9179	14.33	1000												
9180	5.56	772												
9182	2.60	446												
9186	10.78	1000												
9220	5.07	718												
9402	4.40	644												
9403	8.94	1000												
9410	2.26	409												
9501	4.05	606												
9505	3.56	552												
9516	2.57	443												
9519	3.59	555												
9521	3.58	554												
9522	2.83	471												
9534	3.27	520												
9554	7.99	1000												
9586	0.47	212												
9600	2.70	457												
9620	1.16	288												

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

FOOTNOTES

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

A Minimum Premium $100 per ginning location for policy minimum premium computation.

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

Code No.	Disease Loading	Symbol	Code No.	Disease Loading	Symbol	Code No.	Disease Loading	Symbol
0059D	0.37	S	1165D	0.05	S	3082D	0.05	S
0065D	0.09	S	1624D	0.04	S	3085D	0.10	S
0066D	0.09	S	1710D	0.05	S	4024D	0.04	S
0067D	0.09	S	1803D	0.29	S	6251D	0.05	S
1164D	0.05	S	3081D	0.11	S	6252D	0.02	S

S=Silica

F Rate provides for coverage under the United States Longshore and Harbor Workers Compensation Act and its extensions. Rate includes a provision for USL&HW Assessment.

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. A provision for the USL&HW Assessment is included for those classifications under Program II USL Act.

N This code is part of a ratable / non-ratable group shown below. The statistical non-ratable code and corresponding 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 code 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 x 1.678 and elr x 1.607.

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.

MISCELLANEOUS VALUES

Basis of premium applicable in accordance with the ***Basic Manual*** notes for Code 7370 -- "Taxicab Co.":
Employee operated vehicle..... $81,200
Leased or rented vehicle..... $54,100

Catastrophe (other than Certified Acts of Terrorism) - (Voluntary) 0.01

Expense Constant applicable in accordance with the ***Basic Manual*** rule..... $160

Maximum Minimum Premium..... $1,000
Note: Maximum Minimum Premium varies for farming and agricultural class codes

Maximum Weekly Payroll applicable in accordance with the ***Basic Manual*** notes for Code 9178 -- "Athletic Sports or Park: Noncontact Sports," and Code 9179 -- "Athletic Sports or Park: Contact Sports" $4,200

Maximum Weekly Payroll for executive officers including members of limited liability companies and partners or sole proprietors in accordance with the ***Basic Manual*** rules, Rule for premium determination of executive officers, Rule for premium determination of members of LLCs, and Rule for premium determination for partners or sole proprietors $4,200

Minimum Premium Multiplier..... 110

Minimum Weekly Payroll for executive officers including members of limited liability companies and partners or sole proprietors in accordance with the ***Basic Manual*** rules, Rule for premium determination of executive officers, Rule for premium determination of members of LLCs, and Rule for premium determination for partners or sole proprietors $500

Premium Discount Percentages - (See the ***Basic Manual*** rule, Premium discount.) The following premium discounts are applicable to Standard Premiums:

		Type A	Type B
First	$10,000	-	-
Next	190,000	9.1%	5.1%
Next	1,550,000	11.3%	6.5%
Over	1,750,000	12.3%	7.5%

Terrorism (Voluntary) 0.01

United States Longshore and Harbor Workers' Compensation Coverage Percentage
applicable only in connection with the ***Basic Manual*** rule, Federal coverages..... 32%

(Multiply a Non-F classification rate by a factor of 1.32 to adjust for differences in benefits and loss-based expenses. This factor is the product of the adjustment for differences in benefits (1.25) and the adjustment for differences in loss-based expenses (1.052).)

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.

Iowa

Workers Compensation Rate Filing – January 1, 2023

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

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	CLASS CODE	RATE	MIN PREM
0005	4.71	650	2039	3.94	593	2759	7.73	1000	3303	3.31	524	4109	0.54	219
0008	3.44	538	2041	4.94	703	2790	2.41	425	3307	3.66	563	4110	1.00	270
0016	5.98	500	2065	2.63	449	2797	5.69	786	3315	3.98	598	4111	2.50	435
0034	5.49	650	2070	6.94	923	2799	6.96	926	3334	3.03	493	4113	–	–
0035	2.93	482	2081	4.35	639	2802	5.88	807	3336	3.31	524	4114	3.19	511
0036	4.15	500	2089	6.13	834	2835	4.64	670	3365	5.80	798	4130	3.91	590
0037	4.56	500	2095	4.70	677	2836	4.08	609	3372	4.64	670	4131	6.50	875
0042	6.78	650	2105	5.63	779	2841	5.41	755	3373	5.85	804	4133	3.21	513
0050	9.43	1000	2110	3.28	521	2881	3.79	577	3383	1.96	376	4149	1.06	277
0059D	0.46	–	2111	3.85	584	2883	4.13	614	3385	1.29	302	4206	4.01	601
0065D	0.11	–	2112	5.25	738	2915	3.91	590	3400	2.81	469	4207	3.75	573
0066D	0.11	–	2114	3.44	538	2916	4.23	625	3507	3.91	590	4239	3.46	541
0067D	0.11	–	2121	1.90	369	2923	2.35	419	3515	2.88	477	4240	3.85	584
0079	3.80	578	2130	2.75	463	2960	6.13	834	3548	1.88	367	4243	2.60	446
0083	6.01	500	2131	2.29	412	3004	2.13	394	3559	5.29	742	4244	3.41	535
0106	11.23	1000	2143	3.19	511	3018	3.04	494	3574	1.56	332	4250	2.40	424
0113	5.39	753	2157	4.98	708	3022	4.70	677	3581	1.84	362	4251	4.39	643
0170	4.71	678	2172	2.16	398	3027	2.71	458	3612	2.78	466	4263	4.73	680
0251	4.53	658	2174	4.13	614	3028	3.54	549	3620	4.04	604	4273	3.34	527
0401	12.98	A	2211	9.25	1000	3030	7.00	930	3629	2.88	477	4279	2.96	486
0771N	0.55	–	2220	3.53	548	3040	6.31	854	3632	3.66	563	4282	–	–
0908P	209.00	369	2286	–	–	3041	5.63	779	3634	1.98	378	4283	2.21	403
0913P	581.00	741	2288	5.29	742	3042	5.85	804	3635	2.56	442	4299	2.38	422
0917	4.35	639	2302	2.50	435	3064	4.89	698	3638	2.71	458	4304	6.08	829
1005	7.06	937	2305	3.23	515	3076	4.25	628	3642	2.56	442	4307	2.21	403
1016	18.79	1000	2361	2.56	442	3081D	8.08	1000	3643	2.53	438	4351	1.41	315
1164D	3.61	557	2362	3.04	494	3082D	4.89	698	3647	3.91	590	4352	2.03	383
1165D	4.35	639	2380	2.46	431	3085D	7.61	997	3648	1.84	362	4360	–	–
1320	2.11	392	2388	2.09	390	3110	6.50	875	3681	1.00	270	4361	1.16	288
1322	9.63	1000	2402	3.63	559	3111	4.33	636	3685	1.78	356	4410	3.85	584
1430	5.54	769	2413	2.96	486	3113	2.90	479	3719	1.23	295	4420	7.08	939
1438	6.75	903	2416	3.34	527	3114	4.08	609	3724	5.75	793	4431	1.84	362
1452	3.15	507	2417	1.88	367	3118	1.94	373	3726	5.39	753	4432	1.50	325
1463	13.36	1000	2501	3.23	515	3119	1.19	291	3803	3.34	527	4439	–	–
1472	4.14	615	2503	1.40	314	3122	2.48	433	3807	3.83	581	4452	3.44	538
1624D	4.20	622	2534	–	–	3126	2.69	456	3808	4.66	673	4459	4.10	611
1642	3.60	556	2570	4.50	655	3131	2.31	414	3821	6.99	929	4470	3.00	490
1654	5.23	735	2585	4.88	697	3132	3.41	535	3822	5.31	744	4484	4.01	601
1655	–	–	2586	4.44	648	3145	2.69	456	3824	5.26	739	4493	3.23	515
1699	3.79	577	2587	2.90	479	3146	2.69	456	3826	1.09	280	4511	0.76	244
1701	3.41	535	2589	3.29	522	3169	3.53	548	3827	2.48	433	4557	3.06	497
1710D	4.56	662	2600	5.64	780	3175	–	–	3830	1.69	346	4558	2.34	417
1741	–	–	2623	8.14	1000	3179	2.90	479	3851	4.39	643	4568	2.81	469
1747	3.65	562	2651	2.60	446	3180	3.00	490	3865	3.59	555	4581	1.38	312
1748	7.23	955	2660	3.16	508	3188	2.96	486	3881	5.38	752	4583	4.31	634
1803D	9.21	1000	2670	–	–	3220	2.35	419	4000	5.23	735	4611	1.59	335
1853	–	–	2683	–	–	3223	–	–	4021	6.16	838	4635	4.19	621
1860	–	–	2688	3.53	548	3224	4.81	689	4024D	7.00	930	4653	2.54	439
1924	3.38	532	2701	18.10	1000	3227	4.94	703	4034	8.08	1000	4665	9.76	1000
1925	6.01	821	2702	26.78	1000	3240	–	–	4036	3.50	545	4670	–	–
2002	4.01	601	2709	10.13	1000	3241	3.66	563	4038	3.10	501	4683	4.10	611
2003	4.98	708	2710	10.75	1000	3255	3.48	543	4053	–	–	4686	2.78	466
2014	5.81	799	2714	5.39	753	3257	3.31	524	4061	–	–	4692	0.81	249
2016	3.48	543	2731	5.19	731	3270	2.94	483	4062	3.34	527	4693	1.54	329
2021	4.64	670	2735	8.20	1000	3300	6.50	875	4101	3.48	543	4703	1.84	362

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

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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	CLASS CODE	RATE	MIN PREM
4717	2.13	394	5703	15.16	1000	7153M	6.11	832	8010	2.39	423	8723	0.18	180
4720	2.69	456	5705	16.80	1000	7219	8.56	1000	8013	0.46	211	8725	3.34	527
4740	1.69	346	5951	0.85	254	7222	8.63	1000	8015	0.91	260	8726F	2.43	427
4741	4.29	632	6003	6.55	881	7225	9.58	1000	8017	1.91	370	8734M	0.66	233
4751	5.08	719	6005	4.74	681	7228	–	–	8018	3.69	566	8737M	0.59	225
4771N	3.13	565	6017	–	–	7229	–	–	8021	2.71	458	8738M	0.81	249
4777	3.91	590	6018	3.35	529	7230	9.58	1000	8031	2.71	458	8742	0.49	214
4825	1.09	280	6045	6.60	886	7231	7.81	1000	8032	2.35	419	8745	4.39	643
4828	2.66	453	6204	9.30	1000	7232	12.73	1000	8033	1.64	340	8748	0.73	240
4829	1.35	309	6206	3.13	504	7309F	10.16	1000	8037	2.14	395	8755	0.65	232
4902	2.96	486	6213	2.30	413	7313F	3.98	598	8039	2.09	390	8799	0.86	255
4923	1.40	314	6214	2.03	383	7317F	7.69	1000	8044	2.98	488	8800	2.13	394
5020	6.55	881	6216	6.50	875	7327F	21.10	1000	8045	0.80	248	8803	0.08	169
5022	9.20	1000	6217	5.68	785	7333M	8.33	1000	8046	3.15	507	8805M	0.33	196
5037	16.16	1000	6229	6.25	848	7335M	9.25	1000	8047	1.11	282	8810	0.24	186
5040	8.56	1000	6233	3.81	579	7337M	11.50	1000	8058	3.43	537	8814M	0.29	192
5057	5.68	785	6235	6.50	875	7350F	8.89	1000	8072	0.71	238	8815M	0.40	204
5059	19.85	1000	6236	7.28	961	7360	4.90	699	8102	1.88	367	8820	0.20	182
5069	–	–	6237	1.80	358	7370	5.45	760	8103	3.59	555	8824	2.41	425
5102	7.06	937	6251D	8.32	1000	7380	6.28	851	8106	6.19	841	8825	–	–
5146	4.95	705	6252D	3.42	536	7382	5.88	807	8107	3.86	585	8826	2.46	431
5160	3.99	599	6306	6.10	831	7390	4.75	683	8111	3.04	494	8829	–	–
5183	3.43	537	6319	3.93	592	7394M	5.73	790	8116	2.89	478	8831	1.55	331
5188	4.38	642	6325	4.84	692	7395M	6.36	860	8203	10.10	1000	8832	0.40	204
5190	2.83	471	6400	6.15	837	7398M	7.91	1000	8204	6.01	821	8833	0.81	249
5191	1.19	291	6503	2.98	488	7402	0.31	194	8209	4.78	686	8835	2.41	425
5192	3.63	559	6504	3.34	527	7403	4.53	658	8215	4.38	642	8842	2.98	488
5213	8.76	1000	6702M*	4.83	691	7405N	1.36	391	8227	4.38	642	8855	0.18	180
5215	6.34	857	6703M*	6.68	895	7420	6.63	889	8232	5.28	741	8856	0.89	258
5221	5.90	809	6704M*	5.36	750	7421	1.06	277	8233	2.89	478	8864	1.84	362
5222	13.28	1000	6801F	6.85	914	7422	2.25	408	8235	5.69	786	8868	0.59	225
5223	5.39	753	6811	7.40	974	7425	2.90	479	8263	8.21	1000	8869	1.30	303
5348	5.65	782	6824F	8.11	1000	7431N	1.40	397	8264	7.20	952	8871	0.08	169
5402	6.86	915	6826F	6.15	837	7445N	0.74	–	8265	7.30	963	8901	0.24	186
5403	9.86	1000	6834	3.35	529	7453N	0.75	–	8279	8.93	1000	9012	1.58	334
5437	6.18	840	6836	4.43	647	7502	2.01	381	8288	9.09	1000	9014	3.54	549
5443	4.25	628	6843F	11.61	1000	7515	1.26	299	8291	5.25	738	9015	3.34	527
5445	6.31	854	6845F	5.60	776	7520	3.48	543	8292	4.64	670	9016	3.04	494
5462	6.66	893	6854	7.03	933	7538	3.71	568	8293	9.16	1000	9019	3.61	557
5472	8.18	1000	6872F	9.94	1000	7539	2.29	412	8304	7.74	1000	9033	2.43	427
5473	9.49	1000	6874F	17.19	1000	7540	3.30	523	8350	6.41	865	9040	4.05	606
5474	7.50	985	6882	9.34	1000	7580	2.94	483	8380	3.29	522	9044	1.55	331
5478	4.78	686	6884	7.23	955	7590	4.46	651	8381	2.09	390	9052	2.14	395
5479	7.30	963	7016M	6.38	862	7600	4.58	664	8385	3.11	502	9058	2.06	387
5480	7.58	994	7024M	7.09	940	7605	2.36	420	8392	2.83	471	9060	1.88	367
5491	2.29	412	7038M	6.60	886	7610	0.83	251	8393	2.16	398	9061	1.44	318
5506	8.00	1000	7046M	13.94	1000	7705	5.73	790	8500	7.45	980	9062	1.63	339
5507	5.19	731	7047M	8.81	1000	7710	56.23	1000	8601	0.44	208	9063	0.99	269
5508	–	–	7050M	9.13	1000	7711	56.23	1000	8602	1.91	370	9077F	6.91	920
5535	7.83	1000	7090M	7.34	967	7720	3.85	584	8603	0.11	172	9082	1.44	318
5537	5.01	711	7098M	15.49	1000	7855	3.98	598	8606	2.13	394	9083	1.53	328
5551	16.96	1000	7099M	19.25	1000	8001	3.04	494	8709F	5.25	738	9084	1.48	323
5606	1.63	339	7133	4.53	658	8002	2.39	423	8719	2.53	438	9088a	a	a
5610	5.51	766	7151M	5.50	765	8006	2.68	455	8720	1.41	315	9089	1.41	315
5645	10.53	1000	7152M	7.59	995	8008	1.34	307	8721	0.41	205	9093	1.64	340

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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	CLASS CODE	RATE	MIN PREM
9101	5.61	777												
9102	3.85	584												
9154	2.18	400												
9156	3.90	589												
9170	13.05	1000												
9178	7.06	937												
9179	17.91	1000												
9180	6.95	925												
9182	3.25	518												
9186	13.48	1000												
9220	6.34	857												
9402	5.50	765												
9403	11.18	1000												
9410	2.83	471												
9501	5.06	717												
9505	4.45	650												
9516	3.21	513												
9519	4.49	654												
9521	4.48	653												
9522	3.54	549												
9534	4.09	610												
9554	9.99	1000												
9586	0.59	225												
9600	3.38	532												
9620	1.45	320												

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APPLICABLE TO ASSIGNED RISK POLICIES ONLY

FOOTNOTES

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

A Minimum Premium $100 per ginning location for policy minimum premium computation.

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

Code No.	Disease Loading	Symbol	Code No.	Disease Loading	Symbol	Code No.	Disease Loading	Symbol
0059D	0.46	S	1165D	0.06	S	3082D	0.06	S
0065D	0.11	S	1624D	0.05	S	3085D	0.13	S
0066D	0.11	S	1710D	0.06	S	4024D	0.05	S
0067D	0.11	S	1803D	0.36	S	6251D	0.06	S
1164D	0.06	S	3081D	0.14	S	6252D	0.03	S

S=Silica

F Rate provides for coverage under the United States Longshore and Harbor Workers Compensation Act and its extensions. Rate includes a provision for USL&HW Assessment.

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. A provision for the USL&HW Assessment is included for those classifications under Program II USL Act. For the residual market, coverage under the Federal Employers' Liability Act (FELA) for employees of interstate railroads is not available for codes 6702, 6703, 6704, 7151, 7152, 7153, 8734, 8737, 8738, 8805, 8814, and 8815.

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 code 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 x 1.678 and elr x 1.607.

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.

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

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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	$81,200
Leased or rented vehicle	$54,100

Catastrophe (other than Certified Acts of Terrorism) - (Assigned Risk) 0.01

Expense Constant applicable in accordance with the ***Basic Manual*** rule $160

Maximum Minimum Premium $1,000
Note: Maximum Minimum Premium varies for farming and agricultural class codes

Maximum Weekly Payroll applicable in accordance with the ***Basic Manual*** notes for Code 9178 -- "Athletic Sports or Park: Noncontact Sports," and Code 9179 -- "Athletic Sports or Park: Contact Sports" $4,200

Maximum Weekly Payroll for executive officers including members of limited liability companies and partners or sole proprietors in accordance with the ***Basic Manual*** rules, Rule for premium determination of executive officers, Rule for premium determination of members of LLCs, and Rule for premium determination for partners or sole proprietors $4,200

Minimum Premium Multiplier 110

Minimum Weekly Payroll for executive officers including members of limited liability companies and partners or sole proprietors in accordance with the ***Basic Manual*** rules, Rule for premium determination of executive officers, Rule for premium determination of members of LLCs, and Rule for premium determination for partners or sole proprietors $500

Terrorism - (Assigned Risk) 0.01

United States Longshore and Harbor Workers' Compensation Coverage Percentage
applicable only in connection with the ***Basic Manual*** rule, Federal coverages 32%

(Multiply a Non-F classification rate by a factor of 1.32 to adjust for differences in benefits and loss-based expenses. This factor is the product of the adjustment for differences in benefits (1.25) and the adjustment for differences in loss-based expenses (1.052).)

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.

Iowa

Workers Compensation Rate Filing – January 1, 2023

Proposed Values for Inclusion in the Experience Rating Plan Manual

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

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

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

An adjustment is made to the ELR factors so that the resulting ELRs produce an expected experience rating off-balance that equals the targeted experience rating off-balance used in the calculation of the overall rate level change for the state.

The final ELR for each classification is calculated as follows:

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

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

D-ratio factors are calculated separately for indemnity and medical losses by hazard group and are based on the latest three years of Unit Statistical Data. A comparison of the resulting d-ratio factors across hazard groups is done to ensure that the factors monotonically decrease from hazard group A to hazard group G. If they do not, an adjustment is made by averaging the d-ratio factors over adjacent hazard groups. The final D-ratio for each classification is calculated as follows:

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

Effective January 1, 2023

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

CLASS CODE	ELR	D RATIO	CLASS CODE	ELR	D RATIO	CLASS CODE	ELR	D RATIO	CLASS CODE	ELR	D RATIO	CLASS CODE	ELR	D RATIO
0005	2.26	0.35	2039	1.89	0.35	2759	3.70	0.35	3303	1.59	0.35	4109	0.26	0.35
0008	1.65	0.35	2041	2.37	0.35	2790	1.23	0.36	3307	1.70	0.32	4110	0.48	0.35
0016	2.52	0.28	2065	1.22	0.32	2797	2.89	0.36	3315	1.91	0.35	4111	1.20	0.35
0034	2.54	0.32	2070	3.21	0.32	2799	3.22	0.32	3334	1.40	0.32	4113	1.20	0.35
0035	1.35	0.32	2081	2.21	0.36	2802	2.72	0.32	3336	1.53	0.32	4114	1.48	0.32
0036	1.99	0.35	2089	2.93	0.35	2835	2.36	0.36	3365	2.27	0.25	4130	1.88	0.35
0037	1.92	0.28	2095	2.18	0.32	2836	2.07	0.36	3372	2.15	0.32	4131	3.11	0.35
0042	3.14	0.32	2105	2.86	0.36	2841	2.60	0.35	3373	2.80	0.35	4133	1.63	0.36
0050	3.97	0.28	2110	1.57	0.35	2881	1.93	0.36	3383	0.94	0.35	4149	0.54	0.36
0059	0.09	0.25	2111	1.85	0.35	2883	1.98	0.35	3385	0.62	0.35	4206	1.93	0.35
0065	0.03	0.28	2112	2.51	0.35	2915	1.65	0.28	3400	1.35	0.35	4207	1.47	0.25
0066	0.03	0.32	2114	1.75	0.36	2916	1.78	0.28	3507	1.81	0.32	4239	1.36	0.25
0067	0.03	0.32	2121	0.96	0.36	2923	1.20	0.36	3515	1.33	0.32	4240	1.96	0.36
0079	1.76	0.32	2130	1.27	0.32	2960	2.84	0.32	3548	0.90	0.35	4243	1.21	0.32
0083	2.79	0.32	2131	1.10	0.35	3004	0.83	0.25	3559	2.45	0.32	4244	1.44	0.28
0106	4.41	0.25	2143	1.62	0.36	3018	1.19	0.25	3574	0.75	0.35	4250	1.11	0.32
0113	2.58	0.35	2157	2.38	0.35	3022	2.26	0.35	3581	0.88	0.35	4251	2.11	0.35
0170	2.26	0.35	2172	0.91	0.28	3027	1.14	0.28	3612	1.28	0.32	4263	2.19	0.32
0251	2.09	0.32	2174	1.98	0.35	3028	1.49	0.28	3620	1.70	0.28	4273	1.54	0.32
0401	5.09	0.25	2211	3.90	0.28	3030	2.95	0.28	3629	1.33	0.32	4279	1.25	0.28
0771	–	–	2220	1.63	0.32	3040	2.92	0.32	3632	1.70	0.32	4282	1.25	0.28
0908	96.77	0.32	2286	1.63	0.32	3041	2.60	0.32	3634	0.92	0.32	4283	1.06	0.35
0913	269.33	0.32	2288	2.54	0.35	3042	2.71	0.32	3635	1.19	0.32	4299	1.10	0.32
0917	2.21	0.36	2302	1.16	0.32	3064	2.27	0.32	3638	1.30	0.35	4304	2.82	0.32
1005	2.60	0.25	2305	1.36	0.28	3076	2.04	0.35	3642	1.23	0.35	4307	1.12	0.36
1016	6.92	0.24	2361	1.19	0.32	3081	3.68	0.32	3643	1.06	0.28	4351	0.68	0.35
1164	1.31	0.24	2362	1.46	0.35	3082	2.04	0.28	3647	1.81	0.32	4352	0.97	0.35
1165	1.58	0.24	2380	1.18	0.35	3085	3.46	0.32	3648	0.93	0.36	4360	0.35	0.28
1320	0.83	0.25	2388	1.06	0.36	3110	3.01	0.32	3681	0.48	0.35	4361	0.56	0.35
1322	3.54	0.24	2402	1.53	0.28	3111	2.08	0.35	3685	0.85	0.35	4410	1.85	0.35
1430	2.33	0.28	2413	1.37	0.32	3113	1.34	0.32	3719	0.45	0.24	4420	2.78	0.25
1438	2.84	0.28	2416	1.60	0.35	3114	1.89	0.32	3724	2.12	0.24	4431	0.93	0.36
1452	1.32	0.28	2417	0.90	0.35	3118	0.98	0.36	3726	1.99	0.24	4432	0.76	0.36
1463	4.92	0.24	2501	1.55	0.35	3119	0.63	0.41	3803	1.60	0.35	4439	1.08	0.32
1472	1.75	0.28	2503	0.67	0.35	3122	1.26	0.36	3807	1.84	0.35	4452	1.59	0.32
1624	1.63	0.25	2534	1.55	0.35	3126	1.24	0.32	3808	2.16	0.32	4459	1.73	0.28
1642	1.52	0.28	2570	2.16	0.35	3131	1.07	0.32	3821	2.95	0.28	4470	1.39	0.32
1654	2.20	0.28	2585	2.26	0.32	3132	1.64	0.35	3822	2.55	0.35	4484	1.93	0.35
1655	1.52	0.28	2586	2.13	0.35	3145	1.24	0.32	3824	2.53	0.35	4493	1.50	0.32
1699	1.60	0.28	2587	1.39	0.35	3146	1.24	0.32	3826	0.50	0.32	4511	0.35	0.32
1701	1.34	0.25	2589	1.52	0.32	3169	1.69	0.35	3827	1.19	0.35	4557	1.29	0.28
1710	1.90	0.28	2600	2.70	0.35	3175	1.69	0.35	3830	0.78	0.32	4558	1.08	0.32
1741	1.34	0.25	2623	3.43	0.28	3179	1.39	0.35	3851	2.11	0.35	4568	1.18	0.28
1747	1.54	0.28	2651	1.25	0.35	3180	1.44	0.35	3865	1.82	0.36	4581	0.54	0.25
1748	3.05	0.28	2660	1.61	0.36	3188	1.37	0.32	3881	2.49	0.32	4583	1.69	0.25
1803	3.73	0.28	2670	1.69	0.35	3220	1.09	0.32	4000	2.05	0.25	4611	0.76	0.35
1853	1.34	0.25	2683	1.55	0.35	3223	1.44	0.35	4021	2.86	0.32	4635	1.64	0.25
1860	1.25	0.28	2688	1.69	0.35	3224	2.44	0.36	4024	2.93	0.28	4653	1.22	0.35
1924	1.62	0.35	2701	7.10	0.25	3227	2.37	0.35	4034	3.40	0.28	4665	4.11	0.28
1925	2.79	0.32	2702	9.87	0.24	3240	1.59	0.35	4036	1.47	0.28	4670	1.90	0.32
2002	1.93	0.35	2709	3.97	0.25	3241	1.76	0.35	4038	1.58	0.36	4683	1.90	0.32
2003	2.31	0.32	2710	4.53	0.28	3255	1.77	0.36	4053	1.54	0.32	4686	1.17	0.28
2014	2.45	0.28	2714	2.59	0.35	3257	1.59	0.35	4061	1.54	0.32	4692	0.39	0.35
2016	1.67	0.35	2731	2.49	0.35	3270	1.41	0.35	4062	1.54	0.32	4693	0.74	0.35
2021	2.15	0.32	2735	3.93	0.35	3300	3.30	0.36	4101	1.61	0.32	4703	0.85	0.32

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

Effective January 1, 2023

TABLE OF EXPECTED LOSS RATES AND DISCOUNT RATIOS

APPLICABLE TO ALL POLICIES

CLASS CODE	ELR	D RATIO	CLASS CODE	ELR	D RATIO	CLASS CODE	ELR	D RATIO	CLASS CODE	ELR	D RATIO	CLASS CODE	ELR	D RATIO
4717	1.08	0.36	5703	6.39	0.28	7153	2.40	0.25	8010	1.14	0.35	8723	0.08	0.32
4720	1.24	0.32	5705	7.08	0.28	7219	3.36	0.25	8013	0.21	0.32	8725	1.41	0.28
4740	0.62	0.24	5951	0.41	0.35	7222	3.38	0.25	8015	0.42	0.32	8726F	0.74	0.26
4741	1.99	0.32	6003	2.57	0.25	7225	4.03	0.28	8017	0.97	0.36	8734	0.28	0.28
4751	2.14	0.28	6005	1.99	0.28	7228	3.36	0.25	8018	1.77	0.35	8737	0.25	0.28
4771	1.23	0.25	6017	3.23	0.24	7229	3.36	0.25	8021	1.30	0.35	8738	0.34	0.28
4777	1.54	0.25	6018	1.41	0.28	7230	4.43	0.32	8031	1.30	0.35	8742	0.21	0.28
4825	0.46	0.28	6045	2.78	0.28	7231	3.62	0.32	8032	1.13	0.35	8745	2.04	0.32
4828	1.05	0.25	6204	3.65	0.25	7232	4.99	0.25	8033	0.84	0.36	8748	0.29	0.25
4829	0.53	0.25	6206	1.15	0.24	7309F	2.86	0.22	8037	1.13	0.41	8755	0.27	0.28
4902	1.42	0.35	6213	0.85	0.24	7313F	1.12	0.22	8039	1.06	0.36	8799	0.42	0.35
4923	0.65	0.32	6214	0.79	0.25	7317F	2.17	0.22	8044	1.43	0.35	8800	1.02	0.35
5020	2.57	0.25	6216	2.39	0.24	7327F	5.94	0.22	8045	0.38	0.35	8803	0.03	0.28
5022	3.39	0.24	6217	2.09	0.24	7333	3.07	0.25	8046	1.51	0.35	8805	0.15	0.35
5037	5.95	0.24	6229	2.64	0.28	7335	3.41	0.25	8047	0.53	0.35	8810	0.11	0.35
5040	3.15	0.24	6233	1.40	0.24	7337	4.06	0.25	8058	1.64	0.35	8814	0.14	0.35
5057	2.09	0.24	6235	2.39	0.24	7350F	2.61	0.23	8072	0.36	0.36	8815	0.18	0.35
5059	7.31	0.24	6236	3.07	0.28	7360	2.06	0.28	8102	0.90	0.35	8820	0.08	0.28
5069	7.31	0.24	6237	0.71	0.25	7370	2.61	0.35	8103	1.66	0.32	8824	1.27	0.41
5102	2.77	0.25	6251	3.24	0.25	7380	2.64	0.28	8106	2.61	0.28	8825	1.25	0.36
5146	2.09	0.28	6252	1.25	0.24	7382	2.73	0.32	8107	1.51	0.25	8826	1.25	0.36
5160	1.47	0.24	6306	2.39	0.25	7390	2.28	0.35	8111	1.41	0.32	8829	1.27	0.41
5183	1.34	0.25	6319	1.45	0.24	7394	2.11	0.24	8116	1.34	0.32	8831	0.82	0.41
5188	1.71	0.25	6325	1.78	0.24	7395	2.34	0.24	8203	4.68	0.32	8832	0.19	0.35
5190	1.11	0.25	6400	2.59	0.28	7398	2.78	0.24	8204	2.79	0.32	8833	0.39	0.35
5191	0.50	0.28	6503	1.43	0.35	7402	0.15	0.35	8209	2.29	0.35	8835	1.15	0.35
5192	1.68	0.32	6504	1.60	0.35	7403	2.17	0.35	8215	1.84	0.28	8842	1.57	0.41
5213	3.23	0.24	6702	2.04	0.28	7405	0.65	0.35	8227	1.71	0.25	8855	0.09	0.35
5215	2.67	0.28	6703	2.68	0.28	7420	2.44	0.25	8232	2.22	0.28	8856	0.43	0.35
5221	2.31	0.25	6704	2.26	0.28	7421	0.45	0.28	8233	1.21	0.28	8864	0.93	0.36
5222	4.89	0.24	6801F	2.10	0.26	7422	0.88	0.25	8235	2.64	0.32	8868	0.30	0.36
5223	2.27	0.28	6811	3.12	0.28	7425	1.14	0.25	8263	3.81	0.32	8869	0.66	0.36
5348	2.38	0.28	6824F	2.49	0.26	7431	0.55	0.25	8264	3.04	0.28	8871	0.04	0.35
5402	3.29	0.35	6826F	1.89	0.26	7445	–	–	8265	2.86	0.25	8901	0.10	0.28
5403	3.87	0.25	6834	1.61	0.35	7453	–	–	8279	3.50	0.25	9012	0.66	0.28
5437	2.42	0.25	6836	2.05	0.32	7502	0.85	0.28	8288	4.21	0.32	9014	1.69	0.35
5443	1.97	0.32	6843F	3.27	0.22	7515	0.47	0.24	8291	2.43	0.32	9015	1.55	0.32
5445	2.33	0.24	6845F	1.58	0.22	7520	1.61	0.32	8292	2.22	0.35	9016	1.46	0.35
5462	2.80	0.28	6854	2.76	0.25	7538	1.37	0.24	8293	4.39	0.35	9019	1.52	0.28
5472	3.01	0.24	6872F	2.80	0.22	7539	0.90	0.25	8304	3.04	0.25	9033	1.12	0.32
5473	3.49	0.24	6874F	4.84	0.22	7540	1.21	0.24	8350	2.52	0.25	9040	2.06	0.36
5474	2.76	0.24	6882	3.66	0.25	7580	1.24	0.28	8380	1.52	0.32	9044	0.79	0.36
5478	1.87	0.25	6884	2.83	0.25	7590	1.88	0.28	8381	0.96	0.32	9052	1.09	0.36
5479	3.08	0.28	7016	2.35	0.24	7600	1.93	0.28	8385	1.44	0.32	9058	1.09	0.41
5480	2.97	0.25	7024	2.61	0.24	7605	0.93	0.25	8392	1.44	0.36	9060	0.95	0.36
5491	0.90	0.25	7038	2.43	0.24	7610	0.35	0.28	8393	0.91	0.28	9061	0.73	0.36
5506	3.14	0.25	7046	5.13	0.24	7705	2.65	0.32	8500	3.14	0.28	9062	0.83	0.36
5507	2.04	0.25	7047	3.11	0.24	7710	22.06	0.25	8601	0.17	0.25	9063	0.51	0.36
5508	2.04	0.25	7050	3.22	0.24	7711	22.06	0.25	8602	0.81	0.28	9077F	2.28	0.34
5535	2.88	0.24	7090	2.71	0.24	7720	1.62	0.28	8603	0.06	0.35	9082	0.76	0.41
5537	2.11	0.28	7098	5.71	0.24	7855	1.67	0.28	8606	0.83	0.25	9083	0.81	0.41
5551	6.25	0.24	7099	6.79	0.24	8001	1.46	0.35	8709F	1.48	0.22	9084	0.75	0.36
5606	0.60	0.24	7133	1.77	0.25	8002	1.14	0.35	8719	0.99	0.25	9088	a	a
5610	2.32	0.28	7151	2.16	0.25	8006	1.36	0.36	8720	0.55	0.25	9089	0.72	0.36
5645	3.88	0.24	7152	2.84	0.25	8008	0.68	0.36	8721	0.17	0.28	9093	0.84	0.36

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

Effective January 1, 2023

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

CLASS CODE	ELR	D RATIO	CLASS CODE	ELR	D RATIO	CLASS CODE	ELR	D RATIO	CLASS CODE	ELR	D RATIO	CLASS CODE	ELR	D RATIO
9101	2.86	0.36												
9102	1.78	0.32												
9154	1.04	0.35												
9156	1.99	0.36												
9170	5.12	0.25												
9178	3.73	0.41												
9179	9.46	0.41												
9180	3.22	0.32												
9182	1.56	0.35												
9186	5.29	0.25												
9220	2.94	0.32												
9402	2.16	0.25												
9403	4.38	0.25												
9410	1.35	0.35												
9501	2.13	0.28												
9505	2.06	0.32												
9516	1.49	0.32												
9519	1.89	0.28												
9521	1.89	0.28												
9522	1.80	0.36												
9534	1.51	0.24												
9554	3.92	0.25												
9586	0.30	0.36												
9600	1.62	0.35												
9620	0.61	0.28												

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

Proposed Rating Values

Description of the Weighting and Ballast Values

Table of Weighting Values

The weighting value determines the volume of actual and expected excess losses that will enter the experience modification formula. The weighting value increases as expected losses increase with larger insureds receiving a larger weighting value. The weighting value for various levels of expected losses is provided in the Table of Weighting Values. The table is updated in each experience filing based on the state reference point.

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

Table of Ballast Values

The ballast value is a stabilizing value designed to limit the effect of any actual loss experience on the experience rating modification. It is added to both the numerator and denominator in the experience modification calculation and increases as expected losses increase. The ballast value for various levels of expected loss ranges is provided in the Table of Ballast Values. The table is updated based on the state reference point. The G value used in the ballast formula is the state reference point divided by 250,000, rounded to the nearest 0.05.

Effective January 1, 2023

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

Expected Losses			Weighting Values	Expected Losses			Weighting Values
0	--	2,743	0.04	1,546,966	--	1,632,295	0.44
2,744	--	11,089	0.05	1,632,296	--	1,722,566	0.45
11,090	--	19,614	0.06	1,722,567	--	1,818,220	0.46
19,615	--	28,324	0.07	1,818,221	--	1,919,754	0.47
28,325	--	37,224	0.08	1,919,755	--	2,027,728	0.48
37,225	--	62,260	0.09	2,027,729	--	2,142,778	0.49
62,261	--	92,676	0.10	2,142,779	--	2,265,622	0.50
92,677	--	119,732	0.11	2,265,623	--	2,397,082	0.51
119,733	--	146,074	0.12	2,397,083	--	2,538,097	0.52
146,075	--	172,421	0.13	2,538,098	--	2,689,750	0.53
172,422	--	199,092	0.14	2,689,751	--	2,853,293	0.54
199,093	--	226,268	0.15	2,853,294	--	3,030,181	0.55
226,269	--	254,072	0.16	3,030,182	--	3,222,119	0.56
254,073	--	282,595	0.17	3,222,120	--	3,431,114	0.57
282,596	--	311,916	0.18	3,431,115	--	3,659,546	0.58
311,917	--	342,104	0.19	3,659,547	--	3,910,259	0.59
342,105	--	373,223	0.20	3,910,260	--	4,186,682	0.60
373,224	--	405,338	0.21	4,186,683	--	4,492,984	0.61
405,339	--	438,513	0.22	4,492,985	--	4,834,287	0.62
438,514	--	472,814	0.23	4,834,288	--	5,216,957	0.63
472,815	--	508,310	0.24	5,216,958	--	5,648,998	0.64
508,311	--	545,073	0.25	5,648,999	--	6,140,627	0.65
545,074	--	583,180	0.26	6,140,628	--	6,705,085	0.66
583,181	--	622,710	0.27	6,705,086	--	7,359,852	0.67
622,711	--	663,752	0.28	7,359,853	--	8,128,486	0.68
663,753	--	706,397	0.29	8,128,487	--	9,043,521	0.69
706,398	--	750,746	0.30	9,043,522	--	10,151,190	0.70
750,747	--	796,906	0.31	10,151,191	--	11,519,481	0.71
796,907	--	844,994	0.32	11,519,482	--	13,252,643	0.72
844,995	--	895,136	0.33	13,252,644	--	15,519,080	0.73
895,137	--	947,468	0.34	15,519,081	--	18,609,666	0.74
947,469	--	1,002,140	0.35	18,609,667	--	23,073,838	0.75
1,002,141	--	1,059,315	0.36	23,073,839	--	30,088,954	0.76
1,059,316	--	1,119,169	0.37	30,088,955	--	42,716,147	0.77
1,119,170	--	1,181,898	0.38	42,716,148	--	72,179,573	0.78
1,181,899	--	1,247,716	0.39	72,179,574	--	219,496,632	0.79
1,247,717	--	1,316,857	0.40	219,496,633		AND OVER	0.80
1,316,858	--	1,389,583	0.41				
1,389,584	--	1,466,179	0.42				
1,466,180	--	1,546,965	0.43				

(a) G	13.10
(b) State Per Claim Accident Limitation	$327,500
(c) State Multiple Claim Accident Limitation	$655,000
(d) USL&HW Per Claim Accident Limitation	$574,500
(e) USL&HW Multiple Claim Accident Limitation	$1,149,000
(f) Employers Liability Accident Limitation	$55,000
(g) Primary/Excess Loss Split Point	$18,500
(h) USL&HW Act -- Expected Loss Factor -- Non-F Classes	1.25

(Multiply a Non-F classification ELR by the USL&HW Act - Expected Loss Factor of 1.25.)

Effective January 1, 2023

TABLE OF BALLAST VALUES
APPLICABLE TO ALL POLICIES

Experience Rating Plan - ERA

Expected Losses			Ballast Values	Expected Losses			Ballast Values	Expected Losses			Ballast Values
0	--	70,462	32,750	2,261,073	--	2,326,535	262,000	4,552,909	--	4,618,398	491,250
70,463	--	121,272	39,300	2,326,536	--	2,392,000	268,550	4,618,399	--	4,683,889	497,800
121,273	--	179,654	45,850	2,392,001	--	2,457,467	275,100	4,683,890	--	4,749,381	504,350
179,655	--	241,242	52,400	2,457,468	--	2,522,936	281,650	4,749,382	--	4,814,872	510,900
241,243	--	304,329	58,950	2,522,937	--	2,588,406	288,200	4,814,873	--	4,880,364	517,450
304,330	--	368,208	65,500	2,588,407	--	2,653,877	294,750	4,880,365	--	4,945,856	524,000
368,209	--	432,548	72,050	2,653,878	--	2,719,350	301,300	4,945,857	--	5,011,348	530,550
432,549	--	497,181	78,600	2,719,351	--	2,784,824	307,850	5,011,349	--	5,076,840	537,100
497,182	--	562,007	85,150	2,784,825	--	2,850,300	314,400	5,076,841	--	5,142,332	543,650
562,008	--	626,970	91,700	2,850,301	--	2,915,776	320,950	5,142,333	--	5,207,825	550,200
626,971	--	692,032	98,250	2,915,777	--	2,981,254	327,500	5,207,826	--	5,273,318	556,750
692,033	--	757,168	104,800	2,981,255	--	3,046,732	334,050	5,273,319	--	5,338,811	563,300
757,169	--	822,361	111,350	3,046,733	--	3,112,212	340,600	5,338,812	--	5,404,304	569,850
822,362	--	887,598	117,900	3,112,213	--	3,177,692	347,150	5,404,305	--	5,469,798	576,400
887,599	--	952,871	124,450	3,177,693	--	3,243,173	353,700	5,469,799	--	5,535,291	582,950
952,872	--	1,018,173	131,000	3,243,174	--	3,308,655	360,250	5,535,292	--	5,600,785	589,500
1,018,174	--	1,083,498	137,550	3,308,656	--	3,374,137	366,800	5,600,786	--	5,666,279	596,050
1,083,499	--	1,148,843	144,100	3,374,138	--	3,439,620	373,350	5,666,280	--	5,731,773	602,600
1,148,844	--	1,214,204	150,650	3,439,621	--	3,505,104	379,900	5,731,774	--	5,797,267	609,150
1,214,205	--	1,279,580	157,200	3,505,105	--	3,570,588	386,450	5,797,268	--	5,862,761	615,700
1,279,581	--	1,344,967	163,750	3,570,589	--	3,636,073	393,000	5,862,762	--	5,928,255	622,250
1,344,968	--	1,410,365	170,300	3,636,074	--	3,701,559	399,550	5,928,256	--	5,993,750	628,800
1,410,366	--	1,475,772	176,850	3,701,560	--	3,767,045	406,100	5,993,751	--	6,059,244	635,350
1,475,773	--	1,541,187	183,400	3,767,046	--	3,832,531	412,650	6,059,245	--	6,124,739	641,900
1,541,188	--	1,606,608	189,950	3,832,532	--	3,898,018	419,200	6,124,740	--	6,190,234	648,450
1,606,609	--	1,672,036	196,500	3,898,019	--	3,963,505	425,750	6,190,235	--	6,255,250	655,000
1,672,037	--	1,737,469	203,050	3,963,506	--	4,028,993	432,300				
1,737,470	--	1,802,907	209,600	4,028,994	--	4,094,481	438,850				
1,802,908	--	1,868,349	216,150	4,094,482	--	4,159,970	445,400				
1,868,350	--	1,933,795	222,700	4,159,971	--	4,225,459	451,950				
1,933,796	--	1,999,245	229,250	4,225,460	--	4,290,948	458,500				
1,999,246	--	2,064,698	235,800	4,290,949	--	4,356,437	465,050				
2,064,699	--	2,130,153	242,350	4,356,438	--	4,421,927	471,600				
2,130,154	--	2,195,612	248,900	4,421,928	--	4,487,417	478,150				
2,195,613	--	2,261,072	255,450	4,487,418	--	4,552,908	484,700				

For Expected Losses greater than $6,255,250, the Ballast Value can be calculated using the following formula (rounded to the nearest 1):

Ballast = (0.10)(Expected Losses) + 2500(Expected Losses)(13.10) / (Expected Losses + (700)(13.10))

G = 13.10

REFER TO UPDATE PAGE FOR ALL SUBSEQUENT REVISIONS.

NATIONAL COUNCIL ON COMPENSATION INSURANCE, INC.

IOWA—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 ($)	Column B ($)
IA	7/1/23 and after	9,500	4,750
	7/1/22 - 6/30/23	9,000	4,500
	7/1/21 - 6/30/22	8,500	4,250

NOTE: This exhibit revises the Iowa 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.

Iowa

Workers Compensation Rate Filing – January 1, 2023

Proposed Values for Inclusion in the Retrospective Rating Plan Manual

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

- Average Cost per Case
- Excess Loss Factors
- Expected Loss Ratios
- Retrospective Development Factors
- Tables of Expense Ratios
- Tax Multipliers

1. Average Cost per Case by Hazard Group

A	B	C	D	E	F	G
8,095	10,487	16,164	19,633	27,913	43,717	50,527

Average Cost per Case including ALAE by Hazard Group

A	B	C	D	E	F	G
8,839	11,438	17,607	21,371	30,321	47,434	54,796

2. Tax Multipliers

a. State (non-F Classes) 1.026

b. Federal Classes, or non-F classes where rate is increased by the USL&HW Act Percentage 1.057

3. Countrywide Expected Loss Ratio

0.586

Countrywide Expected Loss and Allocated Expense Ratio

0.649

4. Table of Expense Ratios

Type A: 2022-01
Type B: 2022-01

5. Excess Loss Factors

(Applicable to New and Renewal Policies)

Per Accident Limitation	Hazard Groups A	B	C	D	E	F	G
$10,000	0.426	0.458	0.485	0.503	0.523	0.542	0.549
$15,000	0.394	0.428	0.458	0.477	0.501	0.523	0.533
$20,000	0.369	0.403	0.435	0.456	0.483	0.507	0.518
$25,000	0.348	0.383	0.416	0.438	0.467	0.492	0.505
$30,000	0.329	0.365	0.399	0.422	0.452	0.479	0.493
$35,000	0.313	0.348	0.383	0.407	0.439	0.466	0.482
$40,000	0.299	0.334	0.370	0.393	0.427	0.455	0.472
$50,000	0.275	0.309	0.346	0.370	0.405	0.435	0.453
$75,000	0.231	0.264	0.300	0.324	0.362	0.394	0.415
$100,000	0.201	0.232	0.267	0.290	0.330	0.362	0.385
$125,000	0.179	0.208	0.243	0.265	0.306	0.337	0.360
$150,000	0.161	0.189	0.223	0.244	0.285	0.317	0.340
$175,000	0.147	0.174	0.207	0.227	0.269	0.300	0.323
$200,000	0.135	0.161	0.193	0.213	0.254	0.285	0.308
$225,000	0.125	0.150	0.181	0.200	0.242	0.272	0.295
$250,000	0.117	0.140	0.171	0.190	0.231	0.260	0.283
$275,000	0.109	0.132	0.162	0.180	0.221	0.250	0.273
$300,000	0.103	0.125	0.154	0.172	0.212	0.241	0.263
$325,000	0.097	0.118	0.147	0.164	0.204	0.232	0.255
$350,000	0.092	0.113	0.141	0.157	0.197	0.225	0.247
$375,000	0.087	0.108	0.135	0.151	0.190	0.218	0.239
$400,000	0.083	0.103	0.130	0.145	0.184	0.211	0.232
$425,000	0.080	0.099	0.125	0.140	0.179	0.205	0.226
$450,000	0.076	0.095	0.121	0.135	0.174	0.200	0.220
$475,000	0.073	0.091	0.117	0.131	0.169	0.194	0.215
$500,000	0.070	0.088	0.113	0.127	0.164	0.189	0.210
$600,000	0.061	0.077	0.100	0.113	0.149	0.173	0.192
$700,000	0.054	0.069	0.091	0.102	0.137	0.159	0.177
$800,000	0.048	0.062	0.083	0.093	0.127	0.148	0.165
$900,000	0.044	0.057	0.077	0.086	0.119	0.139	0.155
$1,000,000	0.040	0.052	0.071	0.080	0.112	0.131	0.146
$2,000,000	0.022	0.030	0.044	0.049	0.073	0.087	0.097
$3,000,000	0.016	0.022	0.032	0.036	0.056	0.067	0.075
$4,000,000	0.012	0.017	0.026	0.029	0.046	0.055	0.062
$5,000,000	0.010	0.014	0.021	0.024	0.038	0.047	0.053
$6,000,000	0.008	0.012	0.018	0.020	0.033	0.040	0.046
$7,000,000	0.007	0.010	0.016	0.018	0.029	0.035	0.041
$8,000,000	0.006	0.009	0.014	0.015	0.026	0.032	0.036
$9,000,000	0.005	0.008	0.012	0.014	0.023	0.028	0.033
$10,000,000	0.004	0.007	0.011	0.012	0.020	0.025	0.029

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

Per Accident Limitation	Hazard Groups A	B	C	D	E	F	G
$10,000	0.470	0.503	0.533	0.551	0.572	0.592	0.599
$15,000	0.436	0.472	0.504	0.524	0.549	0.572	0.582
$20,000	0.409	0.446	0.480	0.502	0.530	0.555	0.567
$25,000	0.387	0.424	0.460	0.483	0.513	0.540	0.553
$30,000	0.368	0.405	0.442	0.466	0.497	0.526	0.541
$35,000	0.350	0.388	0.425	0.450	0.484	0.513	0.529
$40,000	0.335	0.373	0.411	0.436	0.471	0.501	0.518
$50,000	0.310	0.347	0.385	0.411	0.448	0.479	0.499
$75,000	0.263	0.298	0.336	0.362	0.402	0.436	0.458
$100,000	0.230	0.263	0.301	0.326	0.368	0.403	0.426
$125,000	0.205	0.237	0.274	0.298	0.342	0.376	0.400
$150,000	0.186	0.216	0.253	0.276	0.320	0.354	0.378
$175,000	0.171	0.199	0.235	0.258	0.301	0.335	0.360
$200,000	0.158	0.185	0.220	0.242	0.286	0.319	0.344
$225,000	0.147	0.173	0.208	0.228	0.272	0.305	0.329
$250,000	0.137	0.163	0.196	0.217	0.260	0.292	0.317
$275,000	0.129	0.154	0.187	0.206	0.249	0.281	0.305
$300,000	0.122	0.146	0.178	0.197	0.240	0.271	0.295
$325,000	0.115	0.139	0.170	0.188	0.231	0.262	0.286
$350,000	0.109	0.132	0.163	0.181	0.223	0.253	0.277
$375,000	0.104	0.126	0.157	0.174	0.216	0.246	0.269
$400,000	0.100	0.121	0.151	0.168	0.209	0.239	0.262
$425,000	0.095	0.116	0.145	0.162	0.203	0.232	0.255
$450,000	0.091	0.112	0.141	0.156	0.198	0.226	0.248
$475,000	0.088	0.108	0.136	0.151	0.192	0.220	0.242
$500,000	0.084	0.104	0.132	0.147	0.187	0.215	0.237
$600,000	0.073	0.091	0.117	0.131	0.170	0.196	0.217
$700,000	0.065	0.082	0.106	0.119	0.157	0.181	0.201
$800,000	0.058	0.074	0.097	0.109	0.146	0.169	0.188
$900,000	0.053	0.068	0.090	0.101	0.136	0.158	0.177
$1,000,000	0.049	0.063	0.084	0.094	0.128	0.150	0.167
$2,000,000	0.027	0.036	0.051	0.057	0.084	0.099	0.111
$3,000,000	0.019	0.026	0.038	0.042	0.064	0.076	0.086
$4,000,000	0.014	0.020	0.030	0.033	0.052	0.062	0.071
$5,000,000	0.011	0.016	0.025	0.028	0.044	0.053	0.060
$6,000,000	0.009	0.014	0.021	0.024	0.038	0.046	0.052
$7,000,000	0.008	0.012	0.018	0.020	0.033	0.040	0.046
$8,000,000	0.007	0.010	0.016	0.018	0.029	0.036	0.041
$9,000,000	0.006	0.009	0.014	0.016	0.026	0.032	0.037
$10,000,000	0.005	0.008	0.012	0.014	0.023	0.029	0.034

6. **Retrospective Development Factors**

With Loss Limit			Without Loss Limit			
1st Adj.	2nd Adj.	3rd Adj.	1st Adj.	2nd Adj.	3rd Adj.	4th & Subsequent Adjustment
0.04	0.02	0.01	0.13	0.08	0.05	0.00

Table of Expense Ratios - Excluding Taxes and Including Profit and Contingencies

Type A: 2022-01

WC Premium Range From		To	Expense Ratio
0	-	10,055	0.381
10,056	-	10,167	0.380
10,168	-	10,282	0.379
10,283	-	10,399	0.378
10,400	-	10,520	0.377
10,521	-	10,643	0.376
10,644	-	10,769	0.375
10,770	-	10,898	0.374
10,899	-	11,030	0.373
11,031	-	11,165	0.372
11,166	-	11,304	0.371
11,305	-	11,446	0.370
11,447	-	11,592	0.369
11,593	-	11,741	0.368
11,742	-	11,895	0.367
11,896	-	12,052	0.366
12,053	-	12,214	0.365
12,215	-	12,380	0.364
12,381	-	12,551	0.363
12,552	-	12,727	0.362
12,728	-	12,907	0.361
12,908	-	13,093	0.360
13,094	-	13,284	0.359
13,285	-	13,481	0.358
13,482	-	13,684	0.357
13,685	-	13,893	0.356
13,894	-	14,108	0.355
14,109	-	14,330	0.354
14,331	-	14,559	0.354
14,560	-	14,796	0.353
14,797	-	15,041	0.352
15,042	-	15,294	0.351
15,295	-	15,555	0.350
15,556	-	15,826	0.349
15,827	-	16,106	0.348
16,107	-	16,396	0.347
16,397	-	16,697	0.346
16,698	-	17,009	0.345
17,010	-	17,333	0.344
17,334	-	17,669	0.343
17,670	-	18,019	0.342
18,020	-	18,383	0.341
18,384	-	18,762	0.340
18,763	-	19,157	0.339
19,158	-	19,569	0.338
19,570	-	19,999	0.337
20,000	-	20,449	0.336
20,450	-	20,919	0.335
20,920	-	21,411	0.334
21,412	-	21,927	0.333

WC Premium Range From		To	Expense Ratio
21,928	-	22,469	0.332
22,470	-	23,037	0.331
23,038	-	23,636	0.330
23,637	-	24,266	0.329
24,267	-	24,931	0.328
24,932	-	25,633	0.327
25,634	-	26,376	0.326
26,377	-	27,164	0.326
27,165	-	27,999	0.325
28,000	-	28,888	0.324
28,889	-	29,836	0.323
29,837	-	30,847	0.322
30,848	-	31,929	0.321
31,930	-	33,090	0.320
33,091	-	34,339	0.319
34,340	-	35,686	0.318
35,687	-	37,142	0.317
37,143	-	38,723	0.316
38,724	-	40,444	0.315
40,445	-	42,325	0.314
42,326	-	44,390	0.313
44,391	-	46,666	0.312
46,667	-	49,189	0.311
49,190	-	51,999	0.310
52,000	-	55,151	0.309
55,152	-	58,709	0.308
58,710	-	62,758	0.307
62,759	-	67,407	0.306
67,408	-	72,799	0.305
72,800	-	79,130	0.304
79,131	-	86,666	0.303
86,667	-	95,789	0.302
95,790	-	107,058	0.301
107,059	-	121,333	0.300
121,334	-	139,999	0.299
140,000	-	165,454	0.298
165,455	-	200,377	0.297
200,378	-	208,235	0.297
208,236	-	216,734	0.296
216,735	-	225,957	0.295
225,958	-	235,999	0.294
236,000	-	246,976	0.293
246,977	-	259,024	0.292
259,025	-	272,307	0.291
272,308	-	287,027	0.290
287,028	-	303,428	0.289
303,429	-	321,818	0.288
321,819	-	342,580	0.287
342,581	-	366,206	0.286
366,207	-	393,333	0.285

WC Premium Range From		To	Expense Ratio
393,334	-	424,799	0.284
424,800	-	461,739	0.283
461,740	-	505,714	0.282
505,715	-	558,947	0.281
558,948	-	624,705	0.280
624,706	-	707,999	0.279
708,000	-	816,923	0.278
816,924	-	965,454	0.277
965,455	-	1,179,999	0.276
1,180,000	-	1,517,142	0.275
1,517,143	-	1,824,799	0.274
1,824,800	-	1,983,478	0.273
1,983,479	-	2,172,380	0.272
2,172,381	-	2,401,052	0.271
2,401,053	-	2,683,529	0.270
2,683,530	-	3,041,333	0.269
3,041,334	-	3,509,230	0.268
3,509,231	-	4,147,272	0.268
4,147,273	-	5,068,888	0.267
5,068,889	-	6,517,142	0.266
6,517,143	-	9,123,999	0.265
9,124,000	-	15,206,666	0.264
15,206,667	-	45,619,999	0.263
45,620,000	-	And Above	0.262

First	-	10,000	0.0%
Next	-	190,000	9.1%
Next	-	1,550,000	11.3%
Over	-	1,750,000	12.3%

Expected Loss Ratio:	0.586
Tax Multiplier:	1.035

Table of Expense Ratios - Excluding Taxes and Including Profit and Contingencies

Type B: 2022-01

WC Premium Range From		To	Expense Ratio
0	-	10,099	0.381
10,100	-	10,303	0.380
10,304	-	10,515	0.379
10,516	-	10,736	0.378
10,737	-	10,967	0.377
10,968	-	11,208	0.376
11,209	-	11,460	0.375
11,461	-	11,724	0.374
11,725	-	11,999	0.373
12,000	-	12,289	0.372
12,290	-	12,592	0.371
12,593	-	12,911	0.370
12,912	-	13,246	0.369
13,247	-	13,599	0.368
13,600	-	13,972	0.367
13,973	-	14,366	0.366
14,367	-	14,782	0.365
14,783	-	15,223	0.364
15,224	-	15,692	0.363
15,693	-	16,190	0.362
16,191	-	16,721	0.361
16,722	-	17,288	0.360
17,289	-	17,894	0.359
17,895	-	18,545	0.358
18,546	-	19,245	0.357

WC Premium Range From		To	Expense Ratio
19,246	-	19,999	0.356
20,000	-	20,816	0.355
20,817	-	21,702	0.354
21,703	-	22,666	0.354
22,667	-	23,720	0.353
23,721	-	24,878	0.352
24,879	-	26,153	0.351
26,154	-	27,567	0.350
27,568	-	29,142	0.349
29,143	-	30,909	0.348
30,910	-	32,903	0.347
32,904	-	35,172	0.346
35,173	-	37,777	0.345
37,778	-	40,799	0.344
40,800	-	44,347	0.343
44,348	-	48,571	0.342
48,572	-	53,684	0.341
53,685	-	59,999	0.340
60,000	-	67,999	0.339
68,000	-	78,461	0.338
78,462	-	92,727	0.337
92,728	-	113,333	0.336
113,334	-	145,714	0.335
145,715	-	200,606	0.334
200,607	-	213,548	0.333

WC Premium Range From		To	Expense Ratio
213,549	-	228,275	0.332
228,276	-	245,185	0.331
245,186	-	264,799	0.330
264,800	-	287,826	0.329
287,827	-	315,238	0.328
315,239	-	348,421	0.327
348,422	-	389,411	0.326
389,412	-	441,333	0.326
441,334	-	509,230	0.325
509,231	-	601,818	0.324
601,819	-	735,555	0.323
735,556	-	945,714	0.322
945,715	-	1,323,999	0.321
1,324,000	-	1,809,565	0.320
1,809,566	-	1,981,904	0.319
1,981,905	-	2,190,526	0.318
2,190,527	-	2,448,235	0.317
2,448,236	-	2,774,666	0.316
2,774,667	-	3,201,538	0.315
3,201,539	-	3,783,636	0.314
3,783,637	-	4,624,444	0.313
4,624,445	-	5,945,714	0.312
5,945,715	-	8,323,999	0.311
8,324,000	-	13,873,333	0.310
13,873,334	-	41,619,999	0.309
41,620,000	-	And Above	0.308

First	-	10,000	0.0%
Next	-	190,000	5.1%
Next	-	1,550,000	6.5%
Over	-	1,750,000	7.5%

Expected Loss Ratio:	0.586
Tax Multiplier:	1.035

Table of Expense Ratios - Excluding Allocated Loss Adjustment Expense and Taxes and Including Profit and Contingencies

Type A: 2022-01

WC Premium Range From		To	Expense Ratio
0	-	10,055	0.317
10,056	-	10,167	0.316
10,168	-	10,282	0.315
10,283	-	10,399	0.314
10,400	-	10,520	0.313
10,521	-	10,643	0.312
10,644	-	10,769	0.311
10,770	-	10,898	0.310
10,899	-	11,030	0.309
11,031	-	11,165	0.308
11,166	-	11,304	0.307
11,305	-	11,446	0.306
11,447	-	11,592	0.305
11,593	-	11,741	0.304
11,742	-	11,895	0.303
11,896	-	12,052	0.302
12,053	-	12,214	0.301
12,215	-	12,380	0.300
12,381	-	12,551	0.299
12,552	-	12,727	0.298
12,728	-	12,907	0.297
12,908	-	13,093	0.296
13,094	-	13,284	0.295
13,285	-	13,481	0.295
13,482	-	13,684	0.294
13,685	-	13,893	0.293
13,894	-	14,108	0.292
14,109	-	14,330	0.291
14,331	-	14,559	0.290
14,560	-	14,796	0.289
14,797	-	15,041	0.288
15,042	-	15,294	0.287
15,295	-	15,555	0.286
15,556	-	15,826	0.285
15,827	-	16,106	0.284
16,107	-	16,396	0.283
16,397	-	16,697	0.282
16,698	-	17,009	0.281
17,010	-	17,333	0.280
17,334	-	17,669	0.279
17,670	-	18,019	0.278
18,020	-	18,383	0.277
18,384	-	18,762	0.276
18,763	-	19,157	0.275
19,158	-	19,569	0.274
19,570	-	19,999	0.273
20,000	-	20,449	0.272
20,450	-	20,919	0.271
20,920	-	21,411	0.270
21,412	-	21,927	0.269

WC Premium Range From		To	Expense Ratio
21,928	-	22,469	0.268
22,470	-	23,037	0.267
23,038	-	23,636	0.267
23,637	-	24,266	0.266
24,267	-	24,931	0.265
24,932	-	25,633	0.264
25,634	-	26,376	0.263
26,377	-	27,164	0.262
27,165	-	27,999	0.261
28,000	-	28,888	0.260
28,889	-	29,836	0.259
29,837	-	30,847	0.258
30,848	-	31,929	0.257
31,930	-	33,090	0.256
33,091	-	34,339	0.255
34,340	-	35,686	0.254
35,687	-	37,142	0.253
37,143	-	38,723	0.252
38,724	-	40,444	0.251
40,445	-	42,325	0.250
42,326	-	44,390	0.249
44,391	-	46,666	0.248
46,667	-	49,189	0.247
49,190	-	51,999	0.246
52,000	-	55,151	0.245
55,152	-	58,709	0.244
58,710	-	62,758	0.243
62,759	-	67,407	0.242
67,408	-	72,799	0.241
72,800	-	79,130	0.240
79,131	-	86,666	0.239
86,667	-	95,789	0.238
95,790	-	107,058	0.238
107,059	-	121,333	0.237
121,334	-	139,999	0.236
140,000	-	165,454	0.235
165,455	-	200,377	0.234
200,378	-	208,235	0.233
208,236	-	216,734	0.232
216,735	-	225,957	0.231
225,958	-	235,999	0.230
236,000	-	246,976	0.229
246,977	-	259,024	0.228
259,025	-	272,307	0.227
272,308	-	287,027	0.226
287,028	-	303,428	0.225
303,429	-	321,818	0.224
321,819	-	342,580	0.223
342,581	-	366,206	0.222
366,207	-	393,333	0.221

WC Premium Range From		To	Expense Ratio
393,334	-	424,799	0.220
424,800	-	461,739	0.219
461,740	-	505,714	0.218
505,715	-	558,947	0.217
558,948	-	624,705	0.216
624,706	-	707,999	0.215
708,000	-	816,923	0.214
816,924	-	965,454	0.213
965,455	-	1,179,999	0.212
1,180,000	-	1,517,142	0.211
1,517,143	-	1,824,799	0.210
1,824,800	-	1,983,478	0.209
1,983,479	-	2,172,380	0.209
2,172,381	-	2,401,052	0.208
2,401,053	-	2,683,529	0.207
2,683,530	-	3,041,333	0.206
3,041,334	-	3,509,230	0.205
3,509,231	-	4,147,272	0.204
4,147,273	-	5,068,888	0.203
5,068,889	-	6,517,142	0.202
6,517,143	-	9,123,999	0.201
9,124,000	-	15,206,666	0.200
15,206,667	-	45,619,999	0.199
45,620,000	-	And Above	0.198

First	-	10,000	0.0%
Next	-	190,000	9.1%
Next	-	1,550,000	11.3%
Over	-	1,750,000	12.3%

Expected Loss and ALAE Ratio:	0.649
Tax Multiplier:	1.035

Table of Expense Ratios - Excluding Allocated Loss Adjustment Expense and Taxes and Including Profit and Contingencies

Type B: 2022-01

WC Premium Range From		To	Expense Ratio
0	-	10,099	0.317
10,100	-	10,303	0.316
10,304	-	10,515	0.315
10,516	-	10,736	0.314
10,737	-	10,967	0.313
10,968	-	11,208	0.312
11,209	-	11,460	0.311
11,461	-	11,724	0.310
11,725	-	11,999	0.309
12,000	-	12,289	0.308
12,290	-	12,592	0.307
12,593	-	12,911	0.306
12,912	-	13,246	0.305
13,247	-	13,599	0.304
13,600	-	13,972	0.303
13,973	-	14,366	0.302
14,367	-	14,782	0.301
14,783	-	15,223	0.300
15,224	-	15,692	0.299
15,693	-	16,190	0.298
16,191	-	16,721	0.297
16,722	-	17,288	0.296
17,289	-	17,894	0.295
17,895	-	18,545	0.295
18,546	-	19,245	0.294

WC Premium Range From		To	Expense Ratio
19,246	-	19,999	0.293
20,000	-	20,816	0.292
20,817	-	21,702	0.291
21,703	-	22,666	0.290
22,667	-	23,720	0.289
23,721	-	24,878	0.288
24,879	-	26,153	0.287
26,154	-	27,567	0.286
27,568	-	29,142	0.285
29,143	-	30,909	0.284
30,910	-	32,903	0.283
32,904	-	35,172	0.282
35,173	-	37,777	0.281
37,778	-	40,799	0.280
40,800	-	44,347	0.279
44,348	-	48,571	0.278
48,572	-	53,684	0.277
53,685	-	59,999	0.276
60,000	-	67,999	0.275
68,000	-	78,461	0.274
78,462	-	92,727	0.273
92,728	-	113,333	0.272
113,334	-	145,714	0.271
145,715	-	200,606	0.270
200,607	-	213,548	0.269

WC Premium Range From		To	Expense Ratio
213,549	-	228,275	0.268
228,276	-	245,185	0.267
245,186	-	264,799	0.267
264,800	-	287,826	0.266
287,827	-	315,238	0.265
315,239	-	348,421	0.264
348,422	-	389,411	0.263
389,412	-	441,333	0.262
441,334	-	509,230	0.261
509,231	-	601,818	0.260
601,819	-	735,555	0.259
735,556	-	945,714	0.258
945,715	-	1,323,999	0.257
1,324,000	-	1,809,565	0.256
1,809,566	-	1,981,904	0.255
1,981,905	-	2,190,526	0.254
2,190,527	-	2,448,235	0.253
2,448,236	-	2,774,666	0.252
2,774,667	-	3,201,538	0.251
3,201,539	-	3,783,636	0.250
3,783,637	-	4,624,444	0.249
4,624,445	-	5,945,714	0.248
5,945,715	-	8,323,999	0.247
8,324,000	-	13,873,333	0.246
13,873,334	-	41,619,999	0.245
41,620,000	-	And Above	0.244

First	10,000	0.0%
Next	190,000	5.1%
Next	1,550,000	6.5%
Over	1,750,000	7.5%

Expected Loss and ALAE Ratio:	0.649
Tax Multiplier:	1.035

Part 3 Supporting Exhibits

- Exhibit I: Determination of the Indicated Advisory Rate Level Change
- Exhibit II: Workers Compensation Expense Program
- Appendix A: Factors Underlying the Proposed Rate Level Change
- Appendix B: Calculations Underlying the Advisory Rate Change by Classification
- Appendix C: Memoranda for Laws and Assessments
- Appendix D: Determination of Assigned Risk Rates

Iowa

Workers Compensation Rate Filing – January 1, 2023

Exhibit I – Determination of Indicated Advisory Rate Level Change

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

During this year's analysis, which included an assessment of pandemic claim-related impacts, 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 consistent with prior filings made in Iowa.

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

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

The indicated change based on experience, trend, and benefits for this filing is calculated as the average of the indicated changes for each of the individual policy years in the experience period. Lastly, the impact of the change in loss-based expenses, change in production and general expenses, change in premium taxes and assessments, and change in the profit and contingency provision is applied to determine the indicated overall average advisory rate level change. The detailed calculations can be found on the following pages.

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EXHIBIT I

Determination of Indicated Rate Level Change

Section A - Policy Year 2020 Experience

Premium:

(1)	Standard Earned Premium Developed to Ultimate (Appendix A-II)	$619,385,316
(2)	Premium On-level Factor (Appendix A-I)	0.561
(3)	Pure Premium Available for Benefit Costs = (1) x (2)	$347,475,162

Indemnity Benefit Cost:

(4)	Limited Indemnity Losses Developed to Ultimate (Appendix A-II)	$132,965,263
(5)	Indemnity Loss On-level Factor (Appendix A-I)	1.000
(6)	Adjusted Limited Indemnity Losses = (4) x (5)	$132,965,263
(7)	Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (6) / (3)	0.383
(8)	Factor to Reflect Indemnity Trend (Appendix A-III)	0.885
(9)	Projected Limited Indemnity Cost Ratio = (7) x (8)	0.339
(10)	Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis (Appendix A-II)	1.032
(11)	Projected Indemnity Cost Ratio = (9) x (10)	0.350
(12)	Factor to Reflect Proposed Changes in Indemnity Benefits (Appendix C)	1.000
(13)	Projected Indemnity Cost Ratio including Benefit Changes = (11) x (12)	0.350

Medical Benefit Cost:

(14)	Limited Medical Losses Developed to Ultimate (Appendix A-II)	$204,316,148
(15)	Medical Loss On-level Factor (Appendix A-I)	1.000
(16)	Adjusted Limited Medical Losses = (14) x (15)	$204,316,148
(17)	Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (16) / (3)	0.588
(18)	Factor to Reflect Medical Trend (Appendix A-III)	0.927
(19)	Projected Limited Medical Cost Ratio = (17) x (18)	0.545
(20)	Factor to Adjust Medical Cost Ratio to an Unlimited Basis (Appendix A-II)	1.032
(21)	Projected Medical Cost Ratio = (19) x (20)	0.562
(22)	Factor to Reflect Proposed Changes in Medical Benefits (Appendix C)	1.000
(23)	Projected Medical Cost Ratio including Benefit Changes = (21) x (22)	0.562

Total Benefit Cost:

(24)	Indicated Change Based on Experience, Trend and Benefits = (13) + (23)	0.912

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EXHIBIT I

Determination of Indicated Rate Level Change

Section B - Policy Year 2019 Experience

Premium:

(1)	Standard Earned Premium Developed to Ultimate (Appendix A-II)	$628,850,732
(2)	Premium On-level Factor (Appendix A-I)	0.545
(3)	Pure Premium Available for Benefit Costs = (1) x (2)	$342,723,649

Indemnity Benefit Cost:

(4)	Limited Indemnity Losses Developed to Ultimate (Appendix A-II)	$140,730,718
(5)	Indemnity Loss On-level Factor (Appendix A-I)	1.000
(6)	Adjusted Limited Indemnity Losses = (4) x (5)	$140,730,718
(7)	Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (6) / (3)	0.411
(8)	Factor to Reflect Indemnity Trend (Appendix A-III)	0.849
(9)	Projected Limited Indemnity Cost Ratio = (7) x (8)	0.349
(10)	Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis (Appendix A-II)	1.032
(11)	Projected Indemnity Cost Ratio = (9) x (10)	0.360
(12)	Factor to Reflect Proposed Changes in Indemnity Benefits (Appendix C)	1.000
(13)	Projected Indemnity Cost Ratio including Benefit Changes = (11) x (12)	0.360

Medical Benefit Cost:

(14)	Limited Medical Losses Developed to Ultimate (Appendix A-II)	$206,975,755
(15)	Medical Loss On-level Factor (Appendix A-I)	1.000
(16)	Adjusted Limited Medical Losses = (14) x (15)	$206,975,755
(17)	Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (16) / (3)	0.604
(18)	Factor to Reflect Medical Trend (Appendix A-III)	0.904
(19)	Projected Limited Medical Cost Ratio = (17) x (18)	0.546
(20)	Factor to Adjust Medical Cost Ratio to an Unlimited Basis (Appendix A-II)	1.032
(21)	Projected Medical Cost Ratio = (19) x (20)	0.563
(22)	Factor to Reflect Proposed Changes in Medical Benefits (Appendix C)	1.000
(23)	Projected Medical Cost Ratio including Benefit Changes = (21) x (22)	0.563

Total Benefit Cost:

(24)	Indicated Change Based on Experience, Trend and Benefits = (13) + (23)	0.923

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EXHIBIT I

Determination of Indicated Rate Level Change

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

(1)	Policy Year 2020 Indicated Change Based on Experience, Trend, and Benefits	0.912
(2)	Policy Year 2019 Indicated Change Based on Experience, Trend, and Benefits	0.923
(3)	Indicated Change Based on Experience, Trend, and Benefits* = (1) x 50.0% + (2) x 50.0%	0.918

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

Section D - Application of the Change in Production and General Expenses

(1)	Indicated Rate Level Change	0.918
(2)	Effect of the Change in Production and General Expenses (Exhibit II)	1.001
(3)	Indicated Change Modified to Reflect the Change in Production and General Expenses = (1) x (2)	0.919

Section E - Application of the Change in Taxes

(1)	Indicated Rate Level Change	0.919
(2)	Effect of the Change in Taxes (Exhibit II)	1.001
(3)	Indicated Change Modified to Reflect the Change in Taxes = (1) x (2)	0.920

Section F - Application of the Change in the Profit and Contingency Provision

(1)	Indicated Rate Level Change	0.920
(2)	Effect of the Change in the Profit and Contingency Provision (Exhibit II)	1.000
(3)	Indicated Change Modified to Reflect the Change in the Profit and Contingency Provision = (1) x (2)	0.920

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EXHIBIT I

Determination of Indicated Rate Level Change

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

(1)	Indicated Rate Level Change	0.920
(2)	Effect of the Change in Loss-based Expenses (Exhibit II)	0.999
(3)	Indicated Change Modified to Reflect the Change in Loss-based Expenses = (1) x (2)	0.919

Section H - Distribution of Overall Rate Level Change to Industry Groups

Industry Group Differentials (Appendix A-IV):

Manufacturing	0.989
Contracting	1.001
Office & Clerical	0.999
Goods & Services	1.002
Miscellaneous	1.009

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

Industry Group	(1) Final Overall Rate Level Change	(2) Industry Group Differential	(3) = (1) x (2) Final Rate Level Change by Industry Group	
Manufacturing	0.919	0.989	0.909	(-9.1%)
Contracting	0.919	1.001	0.920	(-8.0%)
Office & Clerical	0.919	0.999	0.918	(-8.2%)
Goods & Services	0.919	1.002	0.921	(-7.9%)
Miscellaneous	0.919	1.009	0.927	(-7.3%)
Overall	0.919	1.000	0.919	(-8.1%)

Exhibit II – Workers Compensation Expense Program

The proposed rates include several expense-related provisions as described below.

Production and General Expenses: Production costs include commissions, costs of preparing the policy, verifying the correct application of rates and rating plans, billing and collecting premium and the costs of maintaining company branch offices. General expenses are commonly classified into four categories: general administration, audit, boards and bureaus, and inspection expenses.

The Production and General Expense provisions are reviewed on an annual basis using countrywide NAIC data. Countrywide data is reviewed because insurance carriers cannot easily attribute portions of their Production and General expenses to any specific state. The analysis of the Production and General expenses involves creating expense to premium ratios. Since the premium comes from a non-NCCI data source, adjustments are made to the premium to convert the premium to a Designated Statistical Reporting (DSR) level. In addition, the fixed expenses are removed from the numerator and denominator of the ratio to arrive at a purely variable expense ratio. These expense ratios are reviewed over time and a selection is made to balance stability and responsiveness. A selection for both Production and General expenses is made after a review of the expense to premium ratios and the underlying data.

Premium Taxes and Assessments: The proposed rates have a provision for taxes, licenses, and fees (other than Federal Income Tax) including a Premium Tax provision, a miscellaneous tax provision, and a provision for the Second Injury Fund. Where published by the state, the published value is selected. When no value is published by the state, historical values are reviewed, and a selection is made.

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. Therefore, rate filings should contemplate the inclusion of a fair and reasonable profit and contingency (P&C) provision.

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. The static and dynamic P&C individual estimates allow the reflection of current interest rates as well as forecasts of the future level of interest rates. The selection is based on a review of both of these estimates while also considering stability in this filing component.

Loss Adjustment Expense Provision: The proposed rates include a provision for loss adjustment expenses (LAE).

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

Expenses (AOE) and Defense and Cost Containment Expenses (DCCE).

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

The reported DCCE and losses from COVID-19-related claims have been excluded from the underlying data in this year's analysis to better reflect the conditions likely to prevail in the proposed effective period. NCCI used the following general methodology to determine the proposed DCCE provision based on Iowa-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.

Expense Constant: Insurer expenses as a proportion of premium vary by size of risk. As risk size increases, marginal expenses tend to diminish. An expense constant helps address fixed expense differences by size of risk. The expense constant together with the expense provision included in the manual rate provide the necessary funding for insurer expenses.

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EXHIBIT II

Section A - Comparison of Proposed and Current Expense Provisions

Overhead expense provisions are itemized below. These figures are expressed as percentages of standard premium (excluding expense constant) and are indicative of the expenses of the first $10,000 of policy premium. Taken together these allowances represent that portion of the standard premium dollar necessary to operate the benefit system. The complementary portion corresponds to the portion of the premium dollar available to finance benefits, loss adjustment expenses and loss-based assessments, if applicable. It is referred to as the "target cost ratio".

		Expense Provisions Underlying Current Rates	Expense Provisions Underlying Proposed Rates
(1)	Expense Constant	$160	$160
(2)	Production Expense	18.3%	18.2%
(3)	General Expense	5.9%	6.1%
(4)	Taxes, Licenses and Fees (other than Federal Income Tax)		
	Premium Tax	1.0%	1.0%
	Miscellaneous	0.3%	0.3%
	Second Injury Fund	1.1%	1.2%
	Total	**2.4%**	**2.5%**
(5)	Profit and Contingency Provision	2.0%	2.0%
(6)	Total Overhead Provisions (2)+(3)+(4)+(5)	28.6%	28.8%
(7)	Target Cost Ratio [100% - (6)]	71.4%	71.2%
(8)	Loss Adjustment Expense	17.9%	17.8%
(9)	Loss-based Assessment	0.0%	0.0%
(10)	Permissible Loss Ratio (7) / [1+(8)+(9)]	60.6%	60.4%

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EXHIBIT II

Section B - Calculation of Change in Expense Provisions

		A Current Expenses	B Col. A with Proposed Prod & Gen Exp	C Col. B with Proposed Taxes	D Col. C with Proposed Profit and Contingency
(1)	Production Expense	18.3%	18.2%	18.2%	18.2%
(2)	General Expense	5.9%	6.1%	6.1%	6.1%
(3)	Taxes	2.4%	2.4%	2.5%	2.5%
(4)	Profit and Contingency Provision	2.0%	2.0%	2.0%	2.0%
(5)	Total Provisions (1)+(2)+(3)+(4)	28.6%	28.7%	28.8%	28.8%
(6)	TCR (100%-(5))	71.4%	71.3%	71.2%	71.2%
(7)	Loss Based Expenses	17.9%	17.8%	17.8%	17.8%
(8)	Change in Production and General Expense (6A) / (6B)			1.001	+0.1%
(9)	Change in Taxes and Assessments (6B) / (6C)			1.001	+0.1%
(10)	Change in Profit and Contingency Provision (6C) / (6D)			1.000	0.0%
(11)	Change in Loss Based Expenses [1.0 + (7B)]/[1.0 + (7A)]			0.999	-0.1%

Section C - Countrywide Expense Program

NCCI annually reviews expense provisions underlying workers compensation rates. This review procedure is based on countrywide expense data. Since a significant portion of workers compensation insurance is interstate business, it is not practical to allocate expenses (especially general, other acquisition, and adjusting and other loss adjustment expenses) to particular states.

The NCCI expense program is designed to ensure equity among employers through a percentage provision in manual rates, a schedule of premium discounts for risks with standard premium in excess of $10,000, and the application of an expense constant.

The majority of expenses incurred in workers compensation vary directly by layer of premium and are accordingly termed variable expenses. An equitable apportionment of variable expense is achieved through the application of premium discounts. As the premium for a policy increases, some expenses incurred in handling the insurance coverage become proportionately less in terms of premium. A fair expense program must, therefore, provide that the larger premium policies be charged a lower percentage of premium for these expenses than the smaller policies.

Other expenses such as issuing, recording and auditing are common to all policies regardless of size. These common expenses are called fixed expenses and are addressed by incorporating an expense constant in the program.

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EXHIBIT II

Section D - Derivation of General Expense Provisions

The data below (amounts in thousands) illustrates that the combination of a 6.1% general expense provision in the manual rates, a $160 expense constant, and the premium discount schedule generates general expense premium dollars that are consistent with historical actual general expenses as reported in the Insurance Expense Exhibit. The figures below are based on NAIC Insurance Expense Exhibit (IEE) data for stock and mutual companies, supplemented with other data as appropriate.

		2019	2020	2021
(1)	Direct Earned Premium *(NAIC Insurance Expense Exhibit Data)*	48,715,830	44,697,279	44,738,409
(1a)	Effect of Premium Discounts	0.9287	0.9299	0.9308
(1b)	Effect of Schedule Rating	0.9542	0.9572	0.9592
(1c)	Effect of Carrier Deviations	1.0603	1.0758	1.0780
(1d)	Effect of Deductibles	0.7398	0.7417	0.7399
(1e)	Expense Constant Offset	0.9906	0.9896	0.9896
(2)	Gross Adjusted Premium *(STD Premium @ NCCI Level Excl. Expense Constant)* {(1) / [(1a) x (1b) x (1c) x (1d)]} x (1e)	69,424,136	62,279,055	62,170,289
(3)	Direct General Expenses Incurred *(NAIC Insurance Expense Exhibit Data)*	3,518,233	3,321,770	3,346,906
(3a)	Proportion of Expense Constant Attributable to General Expenses	0.4063	0.4063	0.4063
(4)	General Expenses Incurred *(Excluding Expense Constant Revenue)* (3) - (2) x [1-(1e)]/(1e) x (3a)	3,250,571	3,055,843	3,081,443
(5)	Ratio of General Expense to Premium *(Excluding Expense Constant Revenue)* (4)/(2)	4.68%	4.91%	4.96%
(6)	General Expense Gradations *(General Expenses in Average Premium Discount)*	1.25%	1.23%	1.23%
(7)	General Expense Provision (5)+(6)	5.93%	6.14%	6.19%
(8)	Selected General Expense Provision			**6.1%**

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EXHIBIT II

Section E - Derivation of Production Expense Provisions

The data below (amounts in thousands) illustrates that the combination of a 18.2% production expense provision in the manual rates, a $160 expense constant, and the premium discount schedule generates production expense premium dollars that are consistent with historical actual production expenses as reported for combined stock and mutual companies' voluntary business. The figures below are based on NAIC Insurance Expense Exhibit (IEE) data for stock and mutual companies, supplemented with other data as appropriate.

		2019	2020	2021
(1)	Direct Written Premium *(NAIC Insurance Expense Exhibit Data)*	48,542,771	44,395,749	45,045,328
(1a)	Effect of Premium Discounts	0.9287	0.9308	0.9308
(1b)	Effect of Schedule Rating	0.9550	0.9589	0.9594
(1c)	Effect of Carrier Deviations	1.0706	1.0797	1.0769
(1d)	Effect of Deductibles	0.7440	0.7399	0.7399
(1e)	Expense Constant Offset	0.9901	0.9892	0.9892
(2)	Pool Written Premium *(Summary of NCCI Managed Pools - Combined Stock and Mutual Company Data)*	973,698	900,966	857,108
(3)	Adjusted Direct Written Premium *(STD Premium Excl. Pool Written Premium)* [(1)-(2)] / (1a) x (1e)	50,714,051	46,223,721	46,960,665
(4)	Gross Direct Written Premium *(STD Premium @ NCCI Level Incl. Pool Written Premium)* {(1) / [(1a) x (1b) x (1c) x (1d)]} x (1e)	68,033,785	61,591,343	62,622,351
(5)	Direct Commission & Brokerage Incurred *(NAIC Insurance Expense Exhibit Data)*	4,366,984	3,982,263	4,279,676
(6)	Pool Producer Fees *(Summary of NCCI Managed Pools - Combined Stock and Mutual Company Data)*	33,836	29,463	28,272
(7)	Direct Other Acquisition Expenses Incurred *(NAIC Insurance Expense Exhibit Data)*	2,307,660	2,128,770	2,101,949
(7a)	Proportion of Expense Constant Attributable to Production Expenses	0.5313	0.5313	0.5313
(8)	Other Acquisition Expenses Incurred *(Excluding Expense Constant Revenue)* (7) - (4) x [1-(1e)]/(1e) x (7a)	1,946,233	1,771,498	1,738,696
(9)	Ratio of Other Acq. Expenses to Premium *(Excluding Expense Constant Revenue)* (8)/(4)	2.86%	2.88%	2.78%
(10)	Direct Commission & Brokerage Provision [(5)-(6)]/(3)	8.54%	8.55%	9.05%
(11)	Production Expense Gradations *(Production Expenses in Average Premium Discount)*	6.65%	6.60%	6.60%
(12)	Production Expense Provision (9)+(10)+(11)	18.05%	18.03%	18.43%
(13)	Selected Production Expense Provision			**18.2%**

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EXHIBIT II

Workers Compensation Loss Adjustment Expense Provision

Section F (a) - Determination of Loss Adjustment Expense Provision

In this filing, NCCI proposes a 17.8% loss adjustment expense allowance as a percentage of losses.
The DCCE provision is based on Iowa-specific data reported to NCCI on the Policy Year Call for Experience.
The AOE provision is based on countrywide data reported to NCCI on the Call for Loss Adjustment Expense.

Policy Year	Developed DCCE Ratio	Accident Year	Developed AOE Ratio
2016	8.2%	2017	9.2%
2017	8.2%	2018	9.2%
2018	8.9%	2019	9.6%
2019	8.4%	2020	10.0%
2020	8.2%	2021	9.3%
Countrywide selected:			9.4%
Iowa selected:	8.4%	+	9.4% = **17.8%**

Section F (b) - Defense and Cost Containment Expense (DCCE) Ratio

(1) Policy Year	(2) Reported Ratio of Paid DCCE to Paid Losses	(3) Age-to-Ultimate Development Factor	(4) = (2) x (3) Ultimate DCCE Ratio
2016	8.4%	0.978	8.2%
2017	8.3%	0.987	8.2%
2018	8.7%	1.019	8.9%
2019	7.5%	1.123	8.4%
2020	6.3%	1.302	8.2%
		Iowa selected:	8.4%

Section F (c) - Proposed Change in the Iowa Loss Adjustment Expense (LAE) Provision

	(5) Current	(6) Proposed
Iowa LAE Provision	17.9%	17.8%
Proposed Change in LAE Provision = [1.000 + (6)] / [1.000 + (5)] - 1		0.999 (-0.1%)

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 two different assumptions regarding the return on investment and cost of capital:

- The "Static" estimate of the P&C provision assumes that the return on investment and the WACC do not change over time. Static estimates of the return on investment and the WACC are derived using data through the first quarter of 2022.
- 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 2022, with forecasts from May of that year. The starting point for the Dynamic estimates is January 1, 2023.

The following table summarizes the inputs and results of the model under these two scenarios.

TABLE 1: IRR MODEL INPUTS AND RESULTS

Inputs:			
(1)	Expenses and Taxes as a Percentage of Net Premium at NCCI Level		21.30%
(2)	Reserve-to-Surplus Ratio		1.86
(3)	Cash Flow Patterns		See Table 2
		Static	Dynamic*
(4)	Return on Investments	2.50%	3.65% - 4.00%
(5)	Weighted Average Cost of Capital	9.32%	10.52% - 10.94%
Results			
		Static	Dynamic
(6)	**Indicated Profit and Contingency Provision**	**4.12%**	**2.02%**
(7)	Loss and Loss Adjustment Expense Provision [100% - (6) - (1)]	74.58%	76.68%

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 2021 Aggregates & Averages, for Commercial Casualty Composite, as the weighted average of Loss, LAE, and Unearned Premium Reserves to Policyholder Surplus, for years 2016 - 2020.
* See Table 3 for details by time period.

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 and LAE
0.00	-	-	-	-	-
0.25	12.45%	3.53%	28.20%	12.49%	0.90%
0.50	29.33%	13.73%	53.40%	28.81%	3.51%
0.75	52.63%	30.38%	79.80%	50.94%	7.76%
1.00	75.96%	52.85%	100.00%	72.81%	13.50%
1.25	89.38%	74.33%		84.84%	23.20%
1.50	97.13%	89.13%		91.79%	32.90%
1.75	100.00%	97.48%		100.00%	42.60%
2.00		100.00%			52.30%
2.25					57.03%
2.50					61.75%
2.75					66.48%
3.00					71.20%
3.25					73.63%
3.50					76.05%
3.75					78.48%
4.00					80.90%
4.25					82.23%
4.50					83.55%
4.75					84.88%
5.00					86.20%
6.00					88.80%
7.00					90.20%
8.00					91.10%
9.00					91.80%
10.00					92.40%
11.00					92.90%
12.00					93.40%
13.00					94.00%
14.00					94.20%
15.00					94.70%
16.00					94.90%
17.00					95.30%
18.00					95.60%
19.00					95.80%
20.00					96.00%
21.00					96.30%
22.00					96.50%
23.00					96.80%
24.00					97.10%
25.00					97.50%
26.00					97.70%
27.00					97.90%
28.00					98.00%
29.00					98.30%
30.00					98.40%
31.00					98.50%
32.00					98.93%
33.00					99.32%
34.00					99.68%
35.00					100.00%

TABLE 3: DYNAMIC ESTIMATE INPUTS

Time	(1) Return on Investments	(2) Weighted Average Cost of Capital
0.00	-	-
0.25	3.65%	10.52%
0.50	3.66%	10.54%
0.75	3.68%	10.54%
1.00	3.68%	10.56%
1.25	3.67%	10.57%
1.50	3.67%	10.61%
1.75	3.68%	10.67%
2.00	3.68%	10.73%
2.25	3.69%	10.81%
2.50	3.70%	10.86%
2.75	3.77%	10.92%
3.00	3.77%	10.97%
3.25	3.78%	11.03%
3.50	3.79%	11.11%
3.75	3.79%	11.11%
4.00	3.79%	11.10%
4.25	3.79%	11.11%
4.50	3.79%	11.11%
4.75	3.79%	11.10%
5.00	3.79%	11.10%
6.00	3.82%	11.09%
7.00	3.81%	11.05%
8.00	3.85%	11.01%
9.00	3.90%	10.98%
10.00	3.90%	10.98%
11.00	3.92%	10.97%
12.00	3.92%	10.96%
13.00	3.93%	10.96%
14.00	3.93%	10.96%
15.00	3.93%	10.95%
16.00	3.98%	10.95%
17.00	3.98%	10.95%
18.00	3.98%	10.96%
19.00	3.99%	10.97%
20.00	3.99%	10.98%
21.00	4.03%	10.97%
22.00	4.02%	10.96%
23.00	4.02%	10.95%
24.00	4.01%	10.95%
25.00	4.01%	10.95%
26.00	4.01%	10.94%
27.00	4.01%	10.94%
28.00	4.00%	10.94%
29.00	4.00%	10.94%
30.00	4.00%	10.94%
31.00	4.00%	10.94%
32.00	4.00%	10.94%
33.00	4.00%	10.94%
34.00	4.00%	10.94%
35.00	4.00%	10.94%

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.

Calculation Details

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

List of Tables

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.

Calculation Details - Static Estimate

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

Time	(1) Collected Premium Factor	(2) Expense and Taxes Factor	(3) Paid Losses and LAE Factor	(4) Federal Income Tax Factor	(5) Insurance Cash flow Factor
0.00	-	-	-	-	-
0.25	0.1245	0.0266	0.0067	0.0066	0.0845
0.50	0.2933	0.0614	0.0261	0.0133	0.1925
0.75	0.5263	0.1085	0.0579	0.0199	0.3400
1.00	0.7596	0.1551	0.1007	0.0265	0.4773
1.25	0.8938	0.1807	0.1730	0.0243	0.5157
1.50	0.9713	0.1955	0.2454	0.0221	0.5083
1.75	1.0000	0.2130	0.3177	0.0199	0.4494
2.00	1.0000	0.2130	0.3901	0.0177	0.3792
2.25	1.0000	0.2130	0.4253	0.0170	0.3447
2.50	1.0000	0.2130	0.4605	0.0162	0.3102
2.75	1.0000	0.2130	0.4958	0.0155	0.2757
3.00	1.0000	0.2130	0.5310	0.0148	0.2412
3.25	1.0000	0.2130	0.5491	0.0143	0.2236
3.50	1.0000	0.2130	0.5672	0.0139	0.2059
3.75	1.0000	0.2130	0.5853	0.0135	0.1882
4.00	1.0000	0.2130	0.6034	0.0131	0.1706
4.25	1.0000	0.2130	0.6133	0.0128	0.1609
4.50	1.0000	0.2130	0.6231	0.0126	0.1513
4.75	1.0000	0.2130	0.6330	0.0123	0.1417
5.00	1.0000	0.2130	0.6429	0.0121	0.1320
6.00	1.0000	0.2130	0.6623	0.0115	0.1132
7.00	1.0000	0.2130	0.6727	0.0112	0.1031
8.00	1.0000	0.2130	0.6794	0.0109	0.0967
9.00	1.0000	0.2130	0.6847	0.0106	0.0917
10.00	1.0000	0.2130	0.6891	0.0103	0.0876
11.00	1.0000	0.2130	0.6929	0.0100	0.0841
12.00	1.0000	0.2130	0.6966	0.0098	0.0806
13.00	1.0000	0.2130	0.7011	0.0096	0.0763
14.00	1.0000	0.2130	0.7026	0.0094	0.0750
15.00	1.0000	0.2130	0.7063	0.0093	0.0714
16.00	1.0000	0.2130	0.7078	0.0091	0.0701
17.00	1.0000	0.2130	0.7108	0.0090	0.0672
18.00	1.0000	0.2130	0.7130	0.0089	0.0651
19.00	1.0000	0.2130	0.7145	0.0088	0.0637
20.00	1.0000	0.2130	0.7160	0.0087	0.0623
21.00	1.0000	0.2130	0.7182	0.0087	0.0600
22.00	1.0000	0.2130	0.7197	0.0087	0.0586
23.00	1.0000	0.2130	0.7220	0.0087	0.0563
24.00	1.0000	0.2130	0.7242	0.0087	0.0541
25.00	1.0000	0.2130	0.7272	0.0087	0.0511
26.00	1.0000	0.2130	0.7287	0.0087	0.0496
27.00	1.0000	0.2130	0.7302	0.0087	0.0481
28.00	1.0000	0.2130	0.7309	0.0087	0.0474
29.00	1.0000	0.2130	0.7331	0.0087	0.0452
30.00	1.0000	0.2130	0.7339	0.0087	0.0444
31.00	1.0000	0.2130	0.7346	0.0087	0.0437
32.00	1.0000	0.2130	0.7378	0.0087	0.0405
33.00	1.0000	0.2130	0.7408	0.0087	0.0376
34.00	1.0000	0.2130	0.7434	0.0087	0.0349
35.00	1.0000	0.2130	0.7458	0.0086	0.0325

Column Notes:

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

(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 and LAE by time period, expressed as a factor, = Table 1 row (7, Static) 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)]

Calculation Details - Static Estimate (continued)

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

Time	(1) Unearned Premium, Unpaid Loss and Unpaid LAE Reserve Factor	(2) Factor for Surplus Allocated to Reserves	(3) Total Invested Funds Factor	(4) Income from Invested Funds Factor	(5) Capital Provider Equity Factor	(6) Capital Provider Cash Flow Factor	(7) Discounted Capital Provider Cash Flow Factor
0.00	-	-	-	-	-	-	-
0.25	0.2663	0.1432	0.2520	0.0008	(0.1667)	(0.1667)	(0.1648)
0.50	0.4730	0.2543	0.4865	0.0031	(0.2910)	(0.1243)	(0.1202)
0.75	0.6629	0.3564	0.7476	0.0069	(0.4007)	(0.1098)	(0.1038)
1.00	0.7650	0.4113	0.9359	0.0121	(0.4465)	(0.0457)	(0.0423)
1.25	0.6381	0.3430	0.8749	0.0177	(0.3414)	0.1050	0.0950
1.50	0.5281	0.2839	0.7833	0.0229	(0.2522)	0.0893	0.0790
1.75	0.4345	0.2336	0.6681	0.0274	(0.1914)	0.0608	0.0526
2.00	0.3558	0.1913	0.5470	0.0312	(0.1367)	0.0547	0.0463
2.25	0.3205	0.1723	0.4928	0.0344	(0.1137)	0.0229	0.0190
2.50	0.2853	0.1534	0.4387	0.0373	(0.0912)	0.0226	0.0183
2.75	0.2500	0.1344	0.3845	0.0398	(0.0689)	0.0222	0.0176
3.00	0.2148	0.1155	0.3303	0.0420	(0.0470)	0.0219	0.0170
3.25	0.1967	0.1058	0.3025	0.0440	(0.0349)	0.0121	0.0092
3.50	0.1786	0.0960	0.2747	0.0458	(0.0230)	0.0119	0.0088
3.75	0.1605	0.0863	0.2468	0.0474	(0.0112)	0.0118	0.0085
4.00	0.1425	0.0766	0.2190	0.0489	0.0004	0.0116	0.0082
4.25	0.1326	0.0713	0.2038	0.0502	0.0073	0.0069	0.0048
4.50	0.1227	0.0660	0.1886	0.0514	0.0140	0.0068	0.0046
4.75	0.1128	0.0606	0.1735	0.0525	0.0207	0.0067	0.0044
5.00	0.1029	0.0553	0.1583	0.0535	0.0273	0.0066	0.0043
6.00	0.0835	0.0449	0.1284	0.0571	0.0419	0.0146	0.0089
7.00	0.0731	0.0393	0.1124	0.0601	0.0509	0.0090	0.0050
8.00	0.0664	0.0357	0.1021	0.0628	0.0575	0.0066	0.0034
9.00	0.0612	0.0329	0.0940	0.0653	0.0630	0.0055	0.0026
10.00	0.0567	0.0305	0.0872	0.0676	0.0679	0.0050	0.0021
11.00	0.0530	0.0285	0.0814	0.0697	0.0723	0.0044	0.0017
12.00	0.0492	0.0265	0.0757	0.0716	0.0765	0.0042	0.0015
13.00	0.0447	0.0241	0.0688	0.0734	0.0810	0.0044	0.0015
14.00	0.0433	0.0233	0.0665	0.0751	0.0836	0.0026	0.0008
15.00	0.0395	0.0213	0.0608	0.0767	0.0874	0.0038	0.0010
16.00	0.0380	0.0205	0.0585	0.0782	0.0898	0.0024	0.0006
17.00	0.0351	0.0188	0.0539	0.0796	0.0929	0.0031	0.0007
18.00	0.0328	0.0176	0.0505	0.0809	0.0956	0.0026	0.0006
19.00	0.0313	0.0168	0.0482	0.0822	0.0977	0.0021	0.0004
20.00	0.0298	0.0160	0.0459	0.0833	0.0997	0.0020	0.0004
21.00	0.0276	0.0148	0.0424	0.0845	0.1021	0.0023	0.0004
22.00	0.0261	0.0140	0.0401	0.0855	0.1039	0.0018	0.0003
23.00	0.0239	0.0128	0.0367	0.0865	0.1061	0.0022	0.0003
24.00	0.0216	0.0116	0.0333	0.0873	0.1082	0.0021	0.0003
25.00	0.0186	0.0100	0.0287	0.0881	0.1106	0.0024	0.0003
26.00	0.0172	0.0092	0.0264	0.0888	0.1120	0.0015	0.0002
27.00	0.0157	0.0084	0.0241	0.0894	0.1135	0.0014	0.0001
28.00	0.0149	0.0080	0.0229	0.0900	0.1145	0.0010	0.0001
29.00	0.0127	0.0068	0.0195	0.0905	0.1162	0.0017	0.0001
30.00	0.0119	0.0064	0.0183	0.0910	0.1171	0.0009	0.0001
31.00	0.0112	0.0060	0.0172	0.0915	0.1179	0.0008	0.0001
32.00	0.0080	0.0043	0.0123	0.0918	0.1200	0.0021	0.0001
33.00	0.0051	0.0027	0.0078	0.0921	0.1219	0.0018	0.0001
34.00	0.0024	0.0013	0.0037	0.0922	0.1235	0.0016	0.0001
35.00	-	-	-	0.0923	0.1248	0.0014	0.0001

Column Notes:

(1) is Unearned Premium Reserve (equal to Written Premium minus Earned Premium, per the cashflow pattern) plus Unpaid Loss and LAE Reserve (equal to Incurred minus Paid Losses and LAE) by time period, expressed as a factor,
= [Table 2 col (3) - Table 2 col (2)] + Table 1 row (7, Static) 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) is Reserves plus Surplus minus Agent Balances by time period, expressed as a factor, = (1) + (2) - Agent Balances. Agent Balances exist when Written Premium exceeds Collected Premium, = [Table 2 col (3) - Table 2 col (1)].

(4) is derived by applying the Return on Investments [Table 1 row (4, Static)] 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.

(5) is Insurance Cash Flow plus Income from Invested Funds minus Total Invested Funds by time period, expressed as a factor,
= Table 4 col (5) + (4) - (3)

(6) is the difference between Capital Provider Equity (5) at the current and previous time periods, expressed as a factor

(7) is the Capital Provider Cash Flow (6) discounted by the Weighted Average Cost of Capital [Table 1 row (5, Static)], expressed as a factor

Calculation Details - Dynamic Estimate

TABLE 6: DERIVATION OF INSURANCE CASH FLOW (DYNAMIC ESTIMATE)

Time	(1) Collected Premium Factor	(2) Expense and Taxes Factor	(3) Paid Losses and LAE Factor	(4) Federal Income Tax Factor	(5) Insurance Cash flow Factor
0.00	-	-	-	-	-
0.25	0.1245	0.0266	0.0069	0.0061	0.0849
0.50	0.2933	0.0614	0.0269	0.0123	0.1928
0.75	0.5263	0.1085	0.0595	0.0184	0.3399
1.00	0.7596	0.1551	0.1035	0.0245	0.4765
1.25	0.8938	0.1807	0.1779	0.0218	0.5134
1.50	0.9713	0.1955	0.2523	0.0190	0.5044
1.75	1.0000	0.2130	0.3267	0.0163	0.4440
2.00	1.0000	0.2130	0.4010	0.0136	0.3724
2.25	1.0000	0.2130	0.4373	0.0128	0.3369
2.50	1.0000	0.2130	0.4735	0.0120	0.3014
2.75	1.0000	0.2130	0.5097	0.0113	0.2660
3.00	1.0000	0.2130	0.5460	0.0105	0.2305
3.25	1.0000	0.2130	0.5646	0.0101	0.2123
3.50	1.0000	0.2130	0.5832	0.0096	0.1942
3.75	1.0000	0.2130	0.6018	0.0092	0.1760
4.00	1.0000	0.2130	0.6204	0.0088	0.1579
4.25	1.0000	0.2130	0.6305	0.0085	0.1480
4.50	1.0000	0.2130	0.6407	0.0083	0.1381
4.75	1.0000	0.2130	0.6508	0.0080	0.1282
5.00	1.0000	0.2130	0.6610	0.0078	0.1182
6.00	1.0000	0.2130	0.6809	0.0072	0.0989
7.00	1.0000	0.2130	0.6917	0.0068	0.0885
8.00	1.0000	0.2130	0.6986	0.0065	0.0819
9.00	1.0000	0.2130	0.7039	0.0062	0.0768
10.00	1.0000	0.2130	0.7085	0.0059	0.0725
11.00	1.0000	0.2130	0.7124	0.0057	0.0690
12.00	1.0000	0.2130	0.7162	0.0054	0.0654
13.00	1.0000	0.2130	0.7208	0.0052	0.0610
14.00	1.0000	0.2130	0.7223	0.0051	0.0596
15.00	1.0000	0.2130	0.7262	0.0049	0.0559
16.00	1.0000	0.2130	0.7277	0.0047	0.0545
17.00	1.0000	0.2130	0.7308	0.0046	0.0516
18.00	1.0000	0.2130	0.7331	0.0045	0.0494
19.00	1.0000	0.2130	0.7346	0.0044	0.0480
20.00	1.0000	0.2130	0.7362	0.0043	0.0465
21.00	1.0000	0.2130	0.7385	0.0043	0.0442
22.00	1.0000	0.2130	0.7400	0.0043	0.0427
23.00	1.0000	0.2130	0.7423	0.0043	0.0404
24.00	1.0000	0.2130	0.7446	0.0043	0.0381
25.00	1.0000	0.2130	0.7477	0.0043	0.0351
26.00	1.0000	0.2130	0.7492	0.0043	0.0335
27.00	1.0000	0.2130	0.7507	0.0043	0.0320
28.00	1.0000	0.2130	0.7515	0.0043	0.0312
29.00	1.0000	0.2130	0.7538	0.0043	0.0289
30.00	1.0000	0.2130	0.7546	0.0043	0.0282
31.00	1.0000	0.2130	0.7553	0.0043	0.0274
32.00	1.0000	0.2130	0.7586	0.0043	0.0241
33.00	1.0000	0.2130	0.7616	0.0043	0.0211
34.00	1.0000	0.2130	0.7643	0.0042	0.0184
35.00	1.0000	0.2130	0.7668	0.0042	0.0159

Column Notes:

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

(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 and LAE 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)]

Calculation Details - Dynamic Estimate (continued)

TABLE 7: DERIVATION OF CASH FLOWS TO THE CAPITAL PROVIDERS (DYNAMIC ESTIMATE)

Time	(1) Unearned Premium, Unpaid Loss and Unpaid LAE Reserve Factor	(2) Factor for Surplus Allocated to Reserves	(3) Total Invested Funds Factor	(4) Income from Invested Funds Factor	(5) Capital Provider Equity Factor	(6) Capital Provider Cash Flow Factor	(7) Cumulative Discount Factor	(8) Discounted Capital Provider Cash Flow Factor
0.00	-	-	-	-	-	-	-	-
0.25	0.2669	0.1435	0.2529	0.0011	(0.1669)	(0.1669)	0.9876	(0.1648)
0.50	0.4751	0.2554	0.4898	0.0045	(0.2926)	(0.1257)	0.9631	(0.1211)
0.75	0.6677	0.3590	0.7549	0.0101	(0.4049)	(0.1123)	0.9393	(0.1055)
1.00	0.7732	0.4157	0.9486	0.0179	(0.4542)	(0.0493)	0.9160	(0.0452)
1.25	0.6488	0.3488	0.8914	0.0262	(0.3518)	0.1024	0.8933	0.0915
1.50	0.5399	0.2903	0.8015	0.0339	(0.2632)	0.0887	0.8711	0.0772
1.75	0.4460	0.2398	0.6859	0.0406	(0.2012)	0.0619	0.8493	0.0526
2.00	0.3658	0.1967	0.5624	0.0463	(0.1438)	0.0575	0.8279	0.0476
2.25	0.3295	0.1772	0.5067	0.0511	(0.1187)	0.0251	0.8069	0.0203
2.50	0.2933	0.1577	0.4510	0.0555	(0.0940)	0.0246	0.7864	0.0194
2.75	0.2571	0.1382	0.3953	0.0594	(0.0699)	0.0242	0.7663	0.0185
3.00	0.2208	0.1187	0.3396	0.0629	(0.0462)	0.0237	0.7466	0.0177
3.25	0.2022	0.1087	0.3110	0.0659	(0.0327)	0.0135	0.7273	0.0098
3.50	0.1837	0.0987	0.2824	0.0687	(0.0195)	0.0132	0.7084	0.0094
3.75	0.1651	0.0887	0.2538	0.0712	(0.0066)	0.0129	0.6900	0.0089
4.00	0.1465	0.0787	0.2252	0.0734	0.0061	0.0127	0.6721	0.0085
4.25	0.1363	0.0733	0.2096	0.0754	0.0138	0.0077	0.6546	0.0051
4.50	0.1261	0.0678	0.1940	0.0773	0.0214	0.0076	0.6376	0.0048
4.75	0.1160	0.0624	0.1783	0.0791	0.0289	0.0075	0.6211	0.0046
5.00	0.1058	0.0569	0.1627	0.0807	0.0362	0.0073	0.6049	0.0044
6.00	0.0859	0.0462	0.1321	0.0863	0.0531	0.0169	0.5664	0.0096
7.00	0.0751	0.0404	0.1156	0.0910	0.0640	0.0108	0.5101	0.0055
8.00	0.0682	0.0367	0.1049	0.0953	0.0722	0.0083	0.4595	0.0038
9.00	0.0629	0.0338	0.0967	0.0992	0.0793	0.0071	0.4140	0.0029
10.00	0.0583	0.0313	0.0896	0.1028	0.0857	0.0064	0.3731	0.0024
11.00	0.0544	0.0293	0.0837	0.1062	0.0915	0.0057	0.3362	0.0019
12.00	0.0506	0.0272	0.0778	0.1094	0.0969	0.0055	0.3030	0.0017
13.00	0.0460	0.0247	0.0707	0.1123	0.1025	0.0056	0.2730	0.0015
14.00	0.0445	0.0239	0.0684	0.1150	0.1063	0.0037	0.2461	0.0009
15.00	0.0406	0.0219	0.0625	0.1176	0.1111	0.0048	0.2218	0.0011
16.00	0.0391	0.0210	0.0601	0.1201	0.1145	0.0034	0.1999	0.0007
17.00	0.0360	0.0194	0.0554	0.1224	0.1185	0.0041	0.1802	0.0007
18.00	0.0337	0.0181	0.0519	0.1245	0.1220	0.0035	0.1624	0.0006
19.00	0.0322	0.0173	0.0495	0.1265	0.1250	0.0029	0.1463	0.0004
20.00	0.0307	0.0165	0.0472	0.1284	0.1278	0.0028	0.1318	0.0004
21.00	0.0284	0.0153	0.0436	0.1303	0.1309	0.0031	0.1188	0.0004
22.00	0.0268	0.0144	0.0413	0.1320	0.1334	0.0025	0.1071	0.0003
23.00	0.0245	0.0132	0.0377	0.1336	0.1362	0.0028	0.0965	0.0003
24.00	0.0222	0.0120	0.0342	0.1350	0.1389	0.0027	0.0870	0.0002
25.00	0.0192	0.0103	0.0295	0.1363	0.1419	0.0029	0.0784	0.0002
26.00	0.0176	0.0095	0.0271	0.1374	0.1438	0.0020	0.0707	0.0001
27.00	0.0161	0.0087	0.0248	0.1385	0.1457	0.0019	0.0637	0.0001
28.00	0.0153	0.0082	0.0236	0.1394	0.1471	0.0014	0.0574	0.0001
29.00	0.0130	0.0070	0.0200	0.1403	0.1492	0.0021	0.0518	0.0001
30.00	0.0123	0.0066	0.0189	0.1411	0.1504	0.0012	0.0467	0.0001
31.00	0.0115	0.0062	0.0177	0.1418	0.1515	0.0011	0.0421	0.0000
32.00	0.0082	0.0044	0.0126	0.1424	0.1539	0.0024	0.0379	0.0001
33.00	0.0052	0.0028	0.0080	0.1428	0.1560	0.0020	0.0342	0.0001
34.00	0.0025	0.0013	0.0038	0.1431	0.1577	0.0017	0.0308	0.0001
35.00	-	-	-	0.1431	0.1591	0.0014	0.0278	0.0000

Column Notes:

(1) is Unearned Premium Reserve (equal to Written Premium minus Earned Premium, per the cashflow pattern) plus Unpaid Loss and LAE Reserve (equal to Incurred minus Paid Losses and LAE) by time period, expressed as a factor,
= [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) is Reserves plus Surplus minus Agent Balances by time period, expressed as a factor, = (1) + (2) - Agent Balances. Agent Balances exist when Written Premium exceeds Collected Premium, = [Table 2 col (3) - Table 2 col (1)].

(4) 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.

(5) is Insurance Cash Flow plus Income from Invested Funds minus Total Invested Funds by time period, expressed as a factor,
= Table 6 col (5) + (4) - (3)

(6) is the difference between Capital Provider Equity (5) at the current and previous time periods, expressed as a factor

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

(8) is the Capital Provider Cash Flow (6) discounted by the Cumulative Discount Factor (7), expressed as a factor

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 estimate is shown in 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

		IRR Model Time (yrs)		
	Static	**1.00**	**2.00**	**5.00**
(1) 5 year US T-note Yield	1.83%	3.11%	3.28%	3.65%
(2) US Equity Market Risk Premium	8.66%			
(3) Beta for Property/Casualty (P/C) Insurers	1.00			
(4) Equity Cost of Capital for P/C Insurers	10.49%	11.77%	11.94%	12.31%
(5) Share of Equity Capital for P/C Insurers	85%			
(6) Debt Cost of Capital for P/C Insurers	2.65%	3.67%	3.88%	4.25%
(7) Weighted Average Cost of Capital (WACC)	9.32%	10.56%	10.73%	11.10%

Column Notes:

(1) 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)]

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)
Security Description	Investment Portfolio	Yield Curve, Maturity and Spread	Roll-over Period	Income Tax Rate	Post-tax Return			
						IRR Model Time (yrs)		
					Static	1.00	2.00	5.00
Bonds, of which	74.0%							
Government Direct Obligations	6.7%							
< 1yr	2.3%	6 mo US T-bill	0.50 yrs	21.00%	0.48%	2.12%	2.04%	2.10%
1 – 5 yrs	2.8%	2.5 yr US T-note	2.50 yrs	21.00%	1.24%	2.32%	2.32%	2.50%
5 – 10 yrs	1.0%	7.5 yr US T-note	7.50 yrs	21.00%	1.53%	2.50%	2.50%	2.50%
10 – 20 yrs	0.2%	15 yr US T-note	15.00 yrs	21.00%	1.69%	2.66%	2.66%	2.66%
> 20 yrs	0.4%	20 yr US T-note	20.00 yrs	21.00%	1.84%	2.80%	2.80%	2.80%
Collateralized Securities	8.0%							
< 1yr	1.1%	6 mo US T-bill + 50 basis points	0.50 yrs	21.00%	0.88%	2.52%	2.43%	2.49%
1 – 5 yrs	3.1%	2.5 yr US T-note + 50 basis points	2.50 yrs	21.00%	1.64%	2.72%	2.72%	2.90%
5 – 10 yrs	2.3%	7.5 yr US T-note + 50 basis points	7.50 yrs	21.00%	1.92%	2.90%	2.90%	2.90%
10 – 20 yrs	1.2%	15 yr US T-note + 50 basis points	15.00 yrs	21.00%	2.09%	3.06%	3.06%	3.06%
> 20 yrs	0.3%	20 yr US T-note + 50 basis points	20.00 yrs	21.00%	2.24%	3.20%	3.20%	3.20%
Tax-exempt Bonds	20.0%							
< 1yr	1.4%	6 mo US T-bill + Tax-exempt spread	0.50 yrs	5.25%	0.73%	2.70%	2.60%	2.67%
1 – 5 yrs	6.0%	2.5 yr US T-note + Tax-exempt spread	2.50 yrs	5.25%	1.68%	2.98%	2.98%	3.19%
5 – 10 yrs	5.5%	7.5 yr US T-note + Tax-exempt spread	7.50 yrs	5.25%	2.02%	3.19%	3.19%	3.19%
10 – 20 yrs	5.5%	15 yr US T-note + Tax-exempt spread	15.00 yrs	5.25%	2.32%	3.48%	3.48%	3.48%
> 20 yrs	1.6%	20 yr US T-note + Tax-exempt spread	20.00 yrs	5.25%	2.61%	3.75%	3.75%	3.75%
Industrial and Hybrid Securities (unaffiliated)	39.0%							
< 1yr	4.5%	6 mo US T-bill + Corp spread	0.50 yrs	21.00%	0.98%	2.62%	2.53%	2.60%
1 – 5 yrs	17.5%	2.5 yr US T-note + Corp spread	2.50 yrs	21.00%	1.97%	3.05%	3.05%	3.23%
5 – 10 yrs	13.4%	7.5 yr US T-note + Corp spread	7.50 yrs	21.00%	2.57%	3.54%	3.54%	3.54%
10 – 20 yrs	2.1%	15 yr US T-note + Corp spread	15.00 yrs	21.00%	2.85%	3.82%	3.82%	3.82%
> 20 yrs	1.5%	20 yr US T-note + Corp spread	20.00 yrs	21.00%	3.02%	3.98%	3.98%	3.98%
Industrial and Hybrid Securities (affiliated)	0.3%							
< 1yr	0.0%	6 mo US T-bill + Corp spread	0.50 yrs	5.25%	1.18%	3.14%	3.04%	3.11%
1 – 5 yrs	0.2%	2.5 yr US T-note + Corp spread	2.50 yrs	5.25%	2.36%	3.66%	3.66%	3.88%
5 – 10 yrs	0.0%	7.5 yr US T-note + Corp spread	7.50 yrs	5.25%	3.08%	4.25%	4.25%	4.25%
10 – 20 yrs	0.0%	15 yr US T-note + Corp spread	15.00 yrs	5.25%	3.42%	4.58%	4.58%	4.58%
> 20 yrs	0.0%	20 yr US T-note + Corp spread	20.00 yrs	5.25%	3.63%	4.77%	4.77%	4.77%
Stocks, of which	11.3%							
Preferred Stock	0.5%	5 year US T-note + 433 basis points	0.25 yrs	13.13%	5.35%	6.46%	6.61%	6.93%
Common Stock	10.8%	5 year US T-note + 866 basis points	0.25 yrs	18.46%	8.56%	9.60%	9.73%	10.03%
Mortgage Loans	2.5%							
Real Estate	0.6%							
Cash & Short-Term Investment	4.4%	3 month US T-bill	0.25 yrs	21.00%	0.25%	2.09%	1.96%	1.98%
All Other Assets*	7.3%							
				Post-Tax Return on Invested Funds, pre-Expense:	2.68%	3.86%	3.86%	3.97%
				Investment Expense**:	-0.18%	-0.18%	-0.18%	-0.18%
				Post-Tax Return on Invested Funds:	**2.50%**	**3.68%**	**3.68%**	**3.79%**

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 2018-2020, 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 2018-2020, 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 67.8% while the income portion is 32.2%. The percentages are obtained from Kroll, LLC SBBI Summary Statistics of Annual Returns: large cap stocks, arithmetic mean.

(6) Static estimates of US Treasury yields are constant maturity yields from the first quarter of 2022.

(7)-(9) 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 2020 is from the Annual Statement, Exhibit of Net Investment Income.
Average cash and invested assets for 2019 and 2020 are from Best's Aggregates and Averages (Property-Casualty), Assets for Commercial Casualty Composite.

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 (4) are the same under both the Static and Dynamic Estimates; the paid losses and LAE factors (col (5)) 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 ESTIMATE)

Time	(1) Written Premium Factor	(2) Unearned Premium Factor	(3) Expense and Taxes Factor	(4) Discount Factor	(5) Paid Losses and LAE Factor	(6) AY1 Paid Losses and LAE Factor	(7) AY2 Paid Losses and LAE Factor	(8) Discounted AY1 Unpaid Losses & LAE Factor	(9) Discounted AY2 Unpaid Losses & LAE Factor	(10) Federal Income Tax Factor
0.00	-	-	-	-	-	-	-	-	-	-
1.00	1.0000	0.4715	0.1551	0.8839	0.1007	0.1007	-	0.2406	-	0.0265
2.00	1.0000	-	0.2130	0.8693	0.3901	0.2422	0.1479	0.1136	0.1989	0.0177
3.00	1.0000	-	0.2130	0.8588	0.5310	0.2772	0.2539	0.0822	0.1035	0.0148
4.00	1.0000	-	0.2130	0.8443	0.6034	0.3139	0.2894	0.0498	0.0717	0.0131
5.00	1.0000	-	0.2130	0.8390	0.6429	0.3252	0.3177	0.0400	0.0466	0.0121
6.00	1.0000	-	0.2130	0.8340	0.6623	0.3341	0.3282	0.0324	0.0375	0.0115
7.00	1.0000	-	0.2130	0.8376	0.6727	0.3375	0.3352	0.0297	0.0314	0.0112
8.00	1.0000	-	0.2130	0.8458	0.6794	0.3408	0.3386	0.0271	0.0287	0.0109
9.00	1.0000	-	0.2130	0.8518	0.6847	0.3431	0.3416	0.0254	0.0265	0.0106
10.00	1.0000	-	0.2130	0.8701	0.6891	0.3453	0.3438	0.0240	0.0248	0.0103
11.00	1.0000	-	0.2130	0.8818	0.6929	0.3470	0.3459	0.0229	0.0235	0.0100
12.00	1.0000	-	0.2130	0.8938	0.6966	0.3490	0.3476	0.0214	0.0223	0.0098
13.00	1.0000	-	0.2130	0.9061	0.7011	0.3513	0.3497	0.0196	0.0207	0.0096
14.00	1.0000	-	0.2130	0.9185	0.7026	0.3513	0.3513	0.0199	0.0196	0.0094
15.00	1.0000	-	0.2130	0.9312	0.7063	0.3541	0.3522	0.0175	0.0190	0.0093
16.00	1.0000	-	0.2130	0.9440	0.7078	0.3538	0.3540	0.0180	0.0176	0.0091
17.00	1.0000	-	0.2130	0.9571	0.7108	0.3562	0.3546	0.0160	0.0173	0.0090
18.00	1.0000	-	0.2130	0.9704	0.7130	0.3567	0.3563	0.0158	0.0159	0.0089
19.00	1.0000	-	0.2130	0.9835	0.7145	0.3575	0.3570	0.0151	0.0155	0.0088
20.00	1.0000	-	0.2130	0.9860	0.7160	0.3582	0.3578	0.0145	0.0149	0.0087
21.00	1.0000	-	0.2130	0.9860	0.7182	0.3596	0.3587	0.0132	0.0140	0.0087
22.00	1.0000	-	0.2130	0.9860	0.7197	0.3600	0.3597	0.0127	0.0130	0.0087
23.00	1.0000	-	0.2130	0.9860	0.7220	0.3615	0.3605	0.0113	0.0122	0.0087
24.00	1.0000	-	0.2130	0.9860	0.7242	0.3624	0.3618	0.0104	0.0110	0.0087
25.00	1.0000	-	0.2130	0.9860	0.7272	0.3642	0.3630	0.0086	0.0098	0.0087
26.00	1.0000	-	0.2130	0.9860	0.7287	0.3644	0.3643	0.0084	0.0085	0.0087
27.00	1.0000	-	0.2130	0.9860	0.7302	0.3654	0.3647	0.0074	0.0081	0.0087
28.00	1.0000	-	0.2130	0.9860	0.7309	0.3655	0.3654	0.0073	0.0074	0.0087
29.00	1.0000	-	0.2130	0.9860	0.7331	0.3671	0.3660	0.0057	0.0068	0.0087
30.00	1.0000	-	0.2130	0.9860	0.7339	0.3669	0.3670	0.0060	0.0058	0.0087
31.00	1.0000	-	0.2130	0.9860	0.7346	0.3675	0.3671	0.0053	0.0057	0.0087
32.00	1.0000	-	0.2130	0.9860	0.7378	0.3696	0.3682	0.0033	0.0046	0.0087
33.00	1.0000	-	0.2130	0.9860	0.7408	0.3708	0.3700	0.0021	0.0029	0.0087
34.00	1.0000	-	0.2130	0.9860	0.7434	0.3722	0.3712	0.0007	0.0017	0.0087
35.00	1.0000	-	0.2130	0.9860	0.7458	0.3729	0.3729	-	-	0.0086

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 from Internal Revenue Bulletin 2021-52, Rev. Proc. 2021-54, dated December 27, 2021
(5) is Paid Losses and LAE by time period, expressed as a factor, = Table 1 row (7, Static) x Table 2 col (5)
(6) and (7) 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 (6) and (7) are determined by solving these two equations simultaneously:
  Col (6) + Col (7) = Col (5)
  Col (7) = (2/3) * Col (6, previous row) + (1/3) * Col (6)
  with Col (6, Time 1) = Col (5, Time 1) and Col (6, Time 35) = Col (7, Time 35)
(8) is the discounted difference between AY1 Losses and LAE that will ultimately be paid, and the amount already paid,
  = [col (6, Time 35) - (6)] x (4)
(9) is the discounted difference between AY2 Losses and LAE that will ultimately be paid, and the amount already paid,
  = [col (7, Time 35) - (7)] x col (4, previous row)
(10) Per IRS rules, federal income tax equals the tax rate (21%) times the adjusted underwriting income
  = 21% * { (1) - 0.8 * (2) - [(3) + (5) + (8) + (9)]}

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

TABLE B.2: FEDERAL INCOME TAX CALCULATION (DYNAMIC ESTIMATE)

Time	(1) Written Premium Factor	(2) Unearned Premium Factor	(3) Expense and Taxes Factor	(4) Discount Factor	(5) Paid Losses and LAE Factor	(6) AY1 Paid Losses and LAE Factor	(7) AY2 Paid Losses and LAE Factor	(8) Discounted AY1 Unpaid Losses & LAE Factor	(9) Discounted AY2 Unpaid Losses & LAE Factor	(10) Federal Income Tax Factor
0.00	-	-	-	-	-	-	-	-	-	-
1.00	1.0000	0.4715	0.1551	0.8839	0.1035	0.1035	-	0.2474	-	0.0245
2.00	1.0000	-	0.2130	0.8693	0.4010	0.2490	0.1520	0.1168	0.2045	0.0136
3.00	1.0000	-	0.2130	0.8588	0.5460	0.2850	0.2610	0.0845	0.1064	0.0105
4.00	1.0000	-	0.2130	0.8443	0.6204	0.3228	0.2976	0.0512	0.0737	0.0088
5.00	1.0000	-	0.2130	0.8390	0.6610	0.3344	0.3266	0.0412	0.0479	0.0078
6.00	1.0000	-	0.2130	0.8340	0.6809	0.3435	0.3374	0.0333	0.0386	0.0072
7.00	1.0000	-	0.2130	0.8376	0.6917	0.3470	0.3447	0.0305	0.0323	0.0068
8.00	1.0000	-	0.2130	0.8458	0.6986	0.3504	0.3481	0.0279	0.0295	0.0065
9.00	1.0000	-	0.2130	0.8518	0.7039	0.3527	0.3512	0.0261	0.0272	0.0062
10.00	1.0000	-	0.2130	0.8701	0.7085	0.3550	0.3535	0.0247	0.0255	0.0059
11.00	1.0000	-	0.2130	0.8818	0.7124	0.3568	0.3556	0.0235	0.0242	0.0057
12.00	1.0000	-	0.2130	0.8938	0.7162	0.3588	0.3574	0.0220	0.0229	0.0054
13.00	1.0000	-	0.2130	0.9061	0.7208	0.3612	0.3596	0.0201	0.0213	0.0052
14.00	1.0000	-	0.2130	0.9185	0.7223	0.3612	0.3612	0.0204	0.0201	0.0051
15.00	1.0000	-	0.2130	0.9312	0.7262	0.3641	0.3621	0.0180	0.0196	0.0049
16.00	1.0000	-	0.2130	0.9440	0.7277	0.3638	0.3640	0.0186	0.0181	0.0047
17.00	1.0000	-	0.2130	0.9571	0.7308	0.3662	0.3646	0.0165	0.0178	0.0046
18.00	1.0000	-	0.2130	0.9704	0.7331	0.3667	0.3664	0.0162	0.0163	0.0045
19.00	1.0000	-	0.2130	0.9835	0.7346	0.3676	0.3670	0.0155	0.0159	0.0044
20.00	1.0000	-	0.2130	0.9860	0.7362	0.3683	0.3678	0.0149	0.0153	0.0043
21.00	1.0000	-	0.2130	0.9860	0.7385	0.3697	0.3688	0.0135	0.0144	0.0043
22.00	1.0000	-	0.2130	0.9860	0.7400	0.3701	0.3698	0.0131	0.0134	0.0043
23.00	1.0000	-	0.2130	0.9860	0.7423	0.3716	0.3706	0.0116	0.0126	0.0043
24.00	1.0000	-	0.2130	0.9860	0.7446	0.3726	0.3720	0.0106	0.0113	0.0043
25.00	1.0000	-	0.2130	0.9860	0.7477	0.3744	0.3732	0.0089	0.0100	0.0043
26.00	1.0000	-	0.2130	0.9860	0.7492	0.3747	0.3745	0.0086	0.0088	0.0043
27.00	1.0000	-	0.2130	0.9860	0.7507	0.3757	0.3750	0.0076	0.0083	0.0043
28.00	1.0000	-	0.2130	0.9860	0.7515	0.3758	0.3757	0.0075	0.0076	0.0043
29.00	1.0000	-	0.2130	0.9860	0.7538	0.3775	0.3763	0.0059	0.0070	0.0043
30.00	1.0000	-	0.2130	0.9860	0.7546	0.3772	0.3774	0.0061	0.0060	0.0043
31.00	1.0000	-	0.2130	0.9860	0.7553	0.3779	0.3774	0.0054	0.0059	0.0043
32.00	1.0000	-	0.2130	0.9860	0.7586	0.3800	0.3786	0.0033	0.0047	0.0043
33.00	1.0000	-	0.2130	0.9860	0.7616	0.3812	0.3804	0.0022	0.0030	0.0043
34.00	1.0000	-	0.2130	0.9860	0.7643	0.3827	0.3817	0.0007	0.0017	0.0042
35.00	1.0000	-	0.2130	0.9860	0.7668	0.3834	0.3834	-	-	0.0042

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 from Internal Revenue Bulletin 2021-52, Rev. Proc. 2021-54, dated December 27, 2021

(5) is Paid Losses and LAE by time period, expressed as a factor, = Table 1 row (7, Dynamic) x Table 2 col (5)

(6) and (7) 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 (6) and (7) are determined by solving these two equations simultaneously:

Col (6) + Col (7) = Col (5)

Col (7) = (2/3) * Col (6, previous row) + (1/3) * Col (6)

with Col (6, Time 1) = Col (5, Time 1) and Col (6, Time 35) = Col (7, Time 35)

(8) is the discounted difference between AY1 Losses and LAE that will ultimately be paid, and the amount already paid, = [col (6, Time 35) - (6)] x (4)

(9) is the discounted difference between AY2 Losses and LAE that will ultimately be paid, and the amount already paid, = [col (7, Time 35) - (7)] x col (4, previous row)

(10) Per IRS rules, federal income tax equals the tax rate (21%) times the adjusted underwriting income = 21% * { (1) - 0.8 * (2) - [(3) + (5) + (8) + (9)]}

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)
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
2017	194,692,095	42,696,647	77,537,150	171,664,964	1.38	1.83
2016	186,424,236	41,741,053	72,716,997	169,831,305	1.34	1.77
2016 - 2020	994,476,413	219,890,104	413,990,428	873,185,285	1.39	1.86

Selected Ratio including Unearned Premium: 1.86

Source: Columns (1) - (4) for the latest year are taken from Liabilities, Surplus and Other Funds in Best's 2021 Aggregates & Averages, for Commercial Casualty Composite.

Section H - Table of Premium Discounts

Division of Standard Premium		Type A Discounts	Type B Discounts
First	$10,000	---	---
Next	$190,000	9.1%	5.1%
Next	$1,550,000	11.3%	6.5%
Over	$1,750,000	12.3%	7.5%

Application of the appropriate discount schedule to the standard premium produces a dollar discount that is subtracted from the standard premium.

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EXHIBIT II

Section I - Average Expense Provisions

Reproduced below are the gradated expense provisions by policy size.

Gradation of Standard Premium

Division of Premium		Expense Gradations Production*	General	Discounts
First	$10,000	18.2%	6.1%	---
Next	$190,000	10.7%	5.1%	9.1%
Next	$1,550,000	9.2%	4.5%	11.3%
Over	$1,750,000	9.2%	3.6%	12.3%
Proposed Average:		11.6%	4.9%	
Proposed Average Expense Gradation: *(Expense for 1st $10,000 - Avg Expense)*		6.6%	1.2%	

Average Premium Discount:
[Avg Exp Grad] / [1-Taxes-P&C] = [6.6%+1.2%] / [1-2.5% - 2.0%] = 8.2%

Composition of Standard Premium:

Benefit & Loss Adj. Cost	Production (18.2%)	General (6.1%)	Profit (2.0%)	Taxes (2.5%)	
71.2%	11.6%	4.9%	1.8%	2.3%	-- Premium After Discounts (91.8%) -- Standard Premium Excluding Expense Constant (100.0%)
	6.6%	1.2%	0.2%	0.2%	-- Discount (8.2%)
	0.6%	0.4%	0.0%	0.0%	-- Premium from $160 expense constant. (1.1% = 1/0.990 - 1)^

Notes

** The production expense gradations shown are based on Type A gradations.*
^ The 0.990 offset is for the $160 expense constant.

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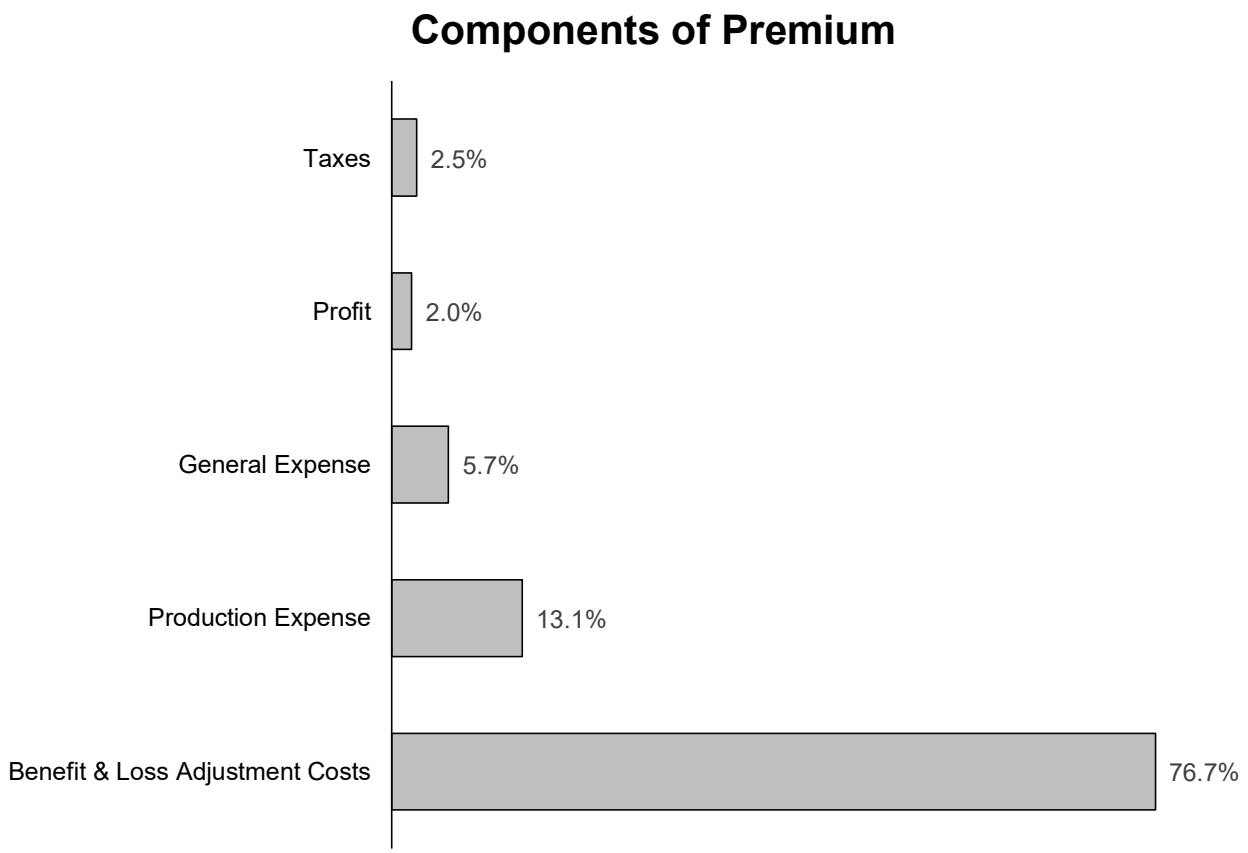
EXHIBIT II

Section J - Iowa Expense Provisions as a Percentage of Net Premium at NCCI Level

The exhibit below illustrates the allocation of the final premium dollar after the application of premium discounts and expense constants based on IOWA expense provisions.



Notes

Benefit & Loss Adjustment Costs	76.7%	=	(71.2%) / 92.8%
Production Expense	13.1%	=	(11.6% + 0.6%) / 92.8%
General Expense	5.7%	=	(4.9% + 0.4%) / 92.8%
Profit	2.0%	=	(1.8% + 0.0%) / 92.8%
Taxes	2.5%	=	(2.3% + 0.0%) / 92.8%
Total	**100.0%**		

Appendix A – Factors Underlying the Proposed Rate Level Change

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

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

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

- 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.
- Experience Rating Off-Balance Adjustment Factor: This factor reflects the relative difference between the average experience rating modification for the historical year being on-leveled and the average experience rating modification targeted in the filing.

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

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

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APPENDIX A-I

Determination of Policy Year On-level Factors

Section A - Factor Adjusting 2020 Policy Year Assigned Risk Premium to Present Assigned Risk Level

	Date	(1) Rate Level Change	(2) Cumulative Index	(3) Weight	(4) Product (2)x(3)	(5) Adj. Factor Present Index/ Sum Column (4)	(6) Adj. For Expense Constant Removal @	(7) Adj. For Expense Removal	(8) Premium Adjustment Factor (5)x(6)x(7)
NR	01/01/20	Base	1.000	1.000	1.000	0.912	0.977	0.606	0.540
NR	01/01/21	1.003	1.003						
NR	01/01/22	0.909	0.912						
					1.000				

Section B - Factor Adjusting 2020 Policy Year Voluntary Premium to Present Voluntary Level

	Date	(1) Rate Level Change	(2) Cumulative Index	(3) Weight	(4) Product (2)x(3)	(5) Adj. Factor Present Index/ Sum Column (4)	(6) Adj. For Expense Constant Removal @	(7) Adj. For Expense Removal	(8) Premium Adjustment Factor (5)x(6)x(7)
NR	01/01/20	Base	1.000	1.000	1.000	0.948	0.986	0.606	0.567
NR	01/01/21	1.003	1.003						
NR	01/01/22	0.945	0.948						
					1.000				

Section C - Factor Adjusting 2020 Policy Year Assigned Risk Premium and Voluntary Premium to Present Statewide Level

(1)	Assigned Risk Market Share PY 2020	0.041
(2)	Voluntary Market Share PY 2020	0.959
(3)	Assigned Risk Standard Premium Adjustment Factor (See Sec. A)	0.540
(4)	Voluntary Standard Premium Adjustment Factor (See Sec. B)	0.567
(5)	Premium Adjustment Factor = [(1)x(3)]/1.345+(2)x(4) #	0.560
(6)	Experience Rating Off-balance Adjustment Factor*	1.002
(7)	Final Premium Adjustment Factor = (5)x(6)	0.561

NR New and renewal business.
@ Eliminates premium derived from expense constants.
# Current premium index (assigned risk-to-voluntary) = 1.345
* = 1.002 = 0.946 / 0.944 = (Targeted Off-balance) / (Off-balance for Policy Year 2020)

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APPENDIX A-I

Determination of Policy Year On-level Factors

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

	(1)	(2)	(3)	(4)	(5)
Date	Benefit Level Change	Cumulative Index	Weight	Product (2)x(3)	Adj. Factor Present Index/ Sum Column (4)
01/01/19	Base	1.000	1.000	1.000	1.000
				1.000	

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

	(1)	(2)	(3)	(4)	(5)
Date	Benefit Level Change	Cumulative Index	Weight	Product (2)x(3)	Adj. Factor Present Index/ Sum Column (4)
01/01/19	Base	1.000	1.000	1.000	1.000
				1.000	

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APPENDIX A-I

Determination of Policy Year On-level Factors

Section F - Factor Adjusting 2019 Policy Year Assigned Risk Premium to Present Assigned Risk Level

	Date	(1) Rate Level Change	(2) Cumulative Index	(3) Weight	(4) Product (2)x(3)	(5) Adj. Factor Present Index/ Sum Column (4)	(6) Adj. For Expense Constant Removal @	(7) Adj. For Expense Removal	(8) Premium Adjustment Factor (5)x(6)x(7)
NR	01/01/19	Base	1.000	1.000	1.000	0.884	0.976	0.606	0.523
NR	01/01/20	0.970	0.970						
NR	01/01/21	1.003	0.973						
NR	01/01/22	0.909	0.884						
					1.000				

Section G - Factor Adjusting 2019 Policy Year Voluntary Premium to Present Voluntary Level

	Date	(1) Rate Level Change	(2) Cumulative Index	(3) Weight	(4) Product (2)x(3)	(5) Adj. Factor Present Index/ Sum Column (4)	(6) Adj. For Expense Constant Removal @	(7) Adj. For Expense Removal	(8) Premium Adjustment Factor (5)x(6)x(7)
NR	01/01/19	Base	1.000	1.000	1.000	0.919	0.986	0.606	0.549
NR	01/01/20	0.970	0.970						
NR	01/01/21	1.003	0.973						
NR	01/01/22	0.945	0.919						
					1.000				

Section H - Factor Adjusting 2019 Policy Year Assigned Risk Premium and Voluntary Premium to Present Statewide Level

(1)	Assigned Risk Market Share PY 2019	0.040
(2)	Voluntary Market Share PY 2019	0.960
(3)	Assigned Risk Standard Premium Adjustment Factor (See Sec. F)	0.523
(4)	Voluntary Standard Premium Adjustment Factor (See Sec. G)	0.549
(5)	Premium Adjustment Factor = [(1)x(3)]/1.345+(2)x(4) #	0.543
(6)	Experience Rating Off-balance Adjustment Factor*	1.003
(7)	Final Premium Adjustment Factor = (5)x(6)	0.545

NR New and renewal business.
@ Eliminates premium derived from expense constants.
# Current premium index (assigned risk-to-voluntary) = 1.345
* = 1.003 = 0.946 / 0.943 = (Targeted Off-balance) / (Off-balance for Policy Year 2019)

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APPENDIX A-I

Determination of Policy Year On-level Factors

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

	(1)	(2)	(3)	(4)	(5)
Date	Benefit Level Change	Cumulative Index	Weight	Product (2)x(3)	Adj. Factor Present Index/ Sum Column (4)
01/01/19	Base	1.000	1.000	1.000	1.000
				1.000	

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

	(1)	(2)	(3)	(4)	(5)
Date	Benefit Level Change	Cumulative Index	Weight	Product (2)x(3)	Adj. Factor Present Index/ Sum Column (4)
01/01/19	Base	1.000	1.000	1.000	1.000
				1.000	

Appendix A – Factors Underlying the Proposed Rate Level Change

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

Development factors are used to project premium and 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

In order to limit volatility on the rate indications due to the impact of extraordinary large losses, a limited large loss methodology is used in Iowa. 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 detrended by policy year to reflect the inflationary impact on claim costs due to wage inflation. The wage index used as a basis for these calculations is the Iowa average weekly wages from the Quarterly Census of Employment and Wages (QCEW). Detrended thresholds are used in the experience period, trend period, and loss development period. Indemnity and medical losses are limited at the detrended large loss threshold corresponding to their Policy Year.

After developing limited indemnity and medical losses to an ultimate report, a statewide, non-catastrophe excess ratio at the base threshold is used to adjust the limited losses to an unlimited basis. The excess ratios are non-catastrophe because excess ratios at limits beyond $50 million are set equal to zero. The excess ratio is derived from Iowa's Retrospective Rating Plan Parameters.

Development Factors

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

For indemnity and medical loss development, link ratios calculated from limited losses are used from 1st report through the 19th report. For indemnity and medical loss development past the 19th report, a 19th-to-ultimate "tail" factor is used to reflect all future expected loss emergence.

In analyzing losses for the purpose of Aggregate Ratemaking, NCCI reviews both "paid" and "paid plus case" loss data, which is (i) the benefit amounts already paid by insurers on reported claims and (ii) the benefit amounts already paid by insurers on reported claims plus the amounts set aside to cover future payments on those claims. To best reflect the conditions likely to prevail in the proposed effective period, this filing utilizes a combination of both paid and paid plus case data.

Appendix A – Factors Underlying the Proposed Rate Level Change

Loss development factors are needed since paid losses and case reserve estimates on a given claim change over time until the claim is finally closed. The loss development factors are based on how paid losses and case reserve estimates changed over time for claims from older years.

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

- A three-year average of historical premium development factors
- A three-year average of historical paid loss development factors through a 19th report
- A five-year average of historical paid plus case loss development factors through a 19th report

These development factors were selected to strike a balance between being responsive to observed changes and promoting stability in the selected development factors from one filing to the next. See COVID-19 Pandemic Ratemaking Considerations in the Additional Proposed Changes section for specific development considerations related to potential COVID-19 pandemic-related effects.

19th-to-Ultimate Tail Factor

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

The calculation of indemnity and medical paid plus case 19th-to-ultimate tail factors 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 ratios. Both the indemnity and medical conversion ratios were selected based on a review of historical conversion ratios.

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APPENDIX A-II

Determination of Premium and Losses Developed to an Ultimate Report

Section A - Premium and Loss Summary Valued as of 12/31/2021

Policy Year 2020

(1)	Standard Earned Premium	$616,303,797
(2)	Factor to Develop Premium to Ultimate	1.005
(3)	Standard Earned Premium Developed to Ultimate = (1)x(2)	$619,385,316
(4)	Limited Indemnity Paid Losses	$39,129,748
(5)	Limited Indemnity Paid Development Factor to Ultimate	3.325
(6)	Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	$130,106,412
(7)	Limited Indemnity Paid+Case Losses	$104,079,780
(8)	Limited Indemnity Paid+Case Development Factor to Ultimate	1.305
(9)	Limited Indemnity Paid+Case Losses Developed to Ultimate = (7)x(8)	$135,824,113
(10)	Policy Year 2020 Limited Indemnity Losses Developed to Ultimate = [(6)+(9)]/2	$132,965,263
(11)	Limited Medical Paid Losses	$138,945,070
(12)	Limited Medical Paid Development Factor to Ultimate	1.486
(13)	Limited Medical Paid Losses Developed to Ultimate = (11)x(12)	$206,472,374
(14)	Limited Medical Paid+Case Losses	$199,565,570
(15)	Limited Medical Paid+Case Development Factor to Ultimate	1.013
(16)	Limited Medical Paid+Case Losses Developed to Ultimate = (14)x(15)	$202,159,922
(17)	Policy Year 2020 Limited Medical Losses Developed to Ultimate = [(13)+(16)]/2	$204,316,148

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APPENDIX A-II

Determination of Premium and Losses Developed to an Ultimate Report

Section A - Premium and Loss Summary Valued as of 12/31/2021

Policy Year 2019

(1)	Standard Earned Premium	$628,850,732
(2)	Factor to Develop Premium to Ultimate	1.000
(3)	Standard Earned Premium Developed to Ultimate = (1)x(2)	$628,850,732
(4)	Limited Indemnity Paid Losses	$78,310,980
(5)	Limited Indemnity Paid Development Factor to Ultimate	1.762
(6)	Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	$137,983,947
(7)	Limited Indemnity Paid+Case Losses	$125,417,385
(8)	Limited Indemnity Paid+Case Development Factor to Ultimate	1.144
(9)	Limited Indemnity Paid+Case Losses Developed to Ultimate = (7)x(8)	$143,477,488
(10)	Policy Year 2019 Limited Indemnity Losses Developed to Ultimate = [(6)+(9)]/2	$140,730,718
(11)	Limited Medical Paid Losses	$165,295,893
(12)	Limited Medical Paid Development Factor to Ultimate	1.223
(13)	Limited Medical Paid Losses Developed to Ultimate = (11)x(12)	$202,156,877
(14)	Limited Medical Paid+Case Losses	$210,322,376
(15)	Limited Medical Paid+Case Development Factor to Ultimate	1.007
(16)	Limited Medical Paid+Case Losses Developed to Ultimate = (14)x(15)	$211,794,633
(17)	Policy Year 2019 Limited Medical Losses Developed to Ultimate = [(13)+(16)]/2	$206,975,755

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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
2017	1.007	2016	1.000	2015	1.000	2014	1.000
2018	1.006	2017	0.999	2016	1.000	2015	1.000
2019	1.001	2018	1.000	2017	1.000	2016	1.000
Average	1.005	Average	1.000	Average	1.000	Average	1.000

Summary of Premium Development Factors

1st/5th	2nd/5th	3rd/5th	4th/5th
1.005	1.000	1.000	1.000

IOWA

APPENDIX A-II

Determination of Premium and Losses Developed to an Ultimate Report

Section C - Limited Indemnity Paid Loss Development Factors

Policy Year	1st/2nd	Policy Year	2nd/3rd	Policy Year	3rd/4th	Policy Year	4th/5th
2017	1.867	2016	1.330	2015	1.127	2014	1.049
2018	1.958	2017	1.350	2016	1.127	2015	1.051
2019	1.837	2018	1.281	2017	1.151	2016	1.050
Average	1.887	Average	1.320	Average	1.135	Average	1.050

Policy Year	5th/6th	Policy Year	6th/7th	Policy Year	7th/8th	Policy Year	8th/9th
2013	1.027	2012	1.016	2011	1.010	2010	1.010
2014	1.027	2013	1.013	2012	1.010	2011	1.003
2015	1.024	2014	1.010	2013	1.011	2012	1.002
Average	1.026	Average	1.013	Average	1.010	Average	1.005

Policy Year	9th/10th	Policy Year	10th/11th	Policy Year	11th/12th	Policy Year	12th/13th
2009	1.008	2008	1.004	2007	1.005	2006	1.009
2010	1.007	2009	1.002	2008	1.008	2007	1.002
2011	1.003	2010	1.006	2009	1.006	2008	1.004
Average	1.006	Average	1.004	Average	1.006	Average	1.005

Policy Year	13th/14th	Policy Year	14th/15th	Policy Year	15th/16th	Policy Year	16th/17th
2005	1.005	2004	1.002	2003	1.001	2002	1.002
2006	1.005	2005	1.002	2004	1.005	2003	1.004
2007	1.002	2006	1.005	2005	1.002	2004	1.002
Average	1.004	Average	1.003	Average	1.003	Average	1.003

Policy Year	17th/18th	Policy Year	18th/19th
2001	1.005	2000	1.003
2002	1.002	2001	1.004
2003	1.001	2002	1.002
Average	1.003	Average	1.003

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APPENDIX A-II

Determination of Premium and Losses Developed to an Ultimate Report

Section D - Limited Medical Paid Loss Development Factors

Policy Year	1st/2nd	Policy Year	2nd/3rd	Policy Year	3rd/4th	Policy Year	4th/5th
2017	1.204	2016	1.050	2015	1.027	2014	1.022
2018	1.232	2017	1.053	2016	1.025	2015	1.014
2019	1.208	2018	1.061	2017	1.023	2016	1.014
Average	1.215	Average	1.055	Average	1.025	Average	1.017

Policy Year	5th/6th	Policy Year	6th/7th	Policy Year	7th/8th	Policy Year	8th/9th
2013	1.011	2012	1.008	2011	1.007	2010	1.009
2014	1.011	2013	1.007	2012	1.005	2011	1.004
2015	1.007	2014	1.007	2013	1.006	2012	1.004
Average	1.010	Average	1.007	Average	1.006	Average	1.006

Policy Year	9th/10th	Policy Year	10th/11th	Policy Year	11th/12th	Policy Year	12th/13th
2009	1.009	2008	1.004	2007	1.004	2006	1.003
2010	1.006	2009	1.005	2008	1.004	2007	1.002
2011	1.002	2010	1.008	2009	1.005	2008	1.007
Average	1.006	Average	1.006	Average	1.004	Average	1.004

Policy Year	13th/14th	Policy Year	14th/15th	Policy Year	15th/16th	Policy Year	16th/17th
2005	1.004	2004	1.002	2003	1.003	2002	1.004
2006	1.004	2005	1.004	2004	1.003	2003	1.002
2007	1.002	2006	1.003	2005	1.004	2004	1.001
Average	1.003	Average	1.003	Average	1.003	Average	1.002

Policy Year	17th/18th	Policy Year	18th/19th
2001	1.003	2000	1.002
2002	1.002	2001	1.001
2003	1.003	2002	1.003
Average	1.003	Average	1.002

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APPENDIX A-II

Determination of Premium and Losses Developed to an Ultimate Report

Section E - Limited Indemnity Paid + Case Loss Development Factors

Policy Year	1st/2nd	Policy Year	2nd/3rd	Policy Year	3rd/4th	Policy Year	4th/5th
2015	1.164	2014	1.102	2013	1.055	2012	1.022
2016	1.118	2015	1.062	2014	1.013	2013	1.017
2017	1.100	2016	1.069	2015	1.000	2014	1.013
2018	1.156	2017	1.050	2016	1.030	2015	1.013
2019	1.165	2018	1.073	2017	1.032	2016	1.017
Average	1.141	Average	1.071	Average	1.026	Average	1.016

Policy Year	5th/6th	Policy Year	6th/7th	Policy Year	7th/8th	Policy Year	8th/9th
2011	1.006	2010	1.001	2009	0.996	2008	1.000
2012	1.000	2011	0.993	2010	1.002	2009	1.010
2013	0.996	2012	1.019	2011	1.002	2010	1.001
2014	1.000	2013	1.002	2012	1.002	2011	1.000
2015	1.005	2014	1.003	2013	1.011	2012	0.997
Average	1.001	Average	1.004	Average	1.003	Average	1.002

Policy Year	9th/10th	Policy Year	10th/11th	Policy Year	11th/12th	Policy Year	12th/13th
2007	0.999	2006	1.006	2005	0.999	2004	0.999
2008	1.005	2007	1.001	2006	1.000	2005	1.001
2009	0.997	2008	0.998	2007	0.998	2006	0.997
2010	1.001	2009	1.003	2008	1.005	2007	1.000
2011	1.000	2010	1.004	2009	1.001	2008	1.002
Average	1.000	Average	1.002	Average	1.001	Average	1.000

Policy Year	13th/14th	Policy Year	14th/15th	Policy Year	15th/16th	Policy Year	16th/17th
2003	1.001	2002	1.001	2001	1.000	2000	1.000
2004	0.997	2003	1.002	2002	1.001	2001	0.998
2005	1.001	2004	1.003	2003	0.999	2002	1.001
2006	1.014	2005	1.001	2004	0.997	2003	1.001
2007	1.001	2006	0.999	2005	1.001	2004	1.000
Average	1.003	Average	1.001	Average	1.000	Average	1.000

Policy Year	17th/18th	Policy Year	18th/19th
1999	1.002	1998	1.000
2000	0.999	1999	1.000
2001	1.001	2000	1.001
2002	1.000	2001	1.001
2003	1.000	2002	1.001
Average	1.000	Average	1.001

Section F - Limited Medical Paid + Case Loss Development Factors

Policy Year	1st/2nd	Policy Year	2nd/3rd	Policy Year	3rd/4th	Policy Year	4th/5th
2015	1.020	2014	1.000	2013	0.999	2012	0.997
2016	1.013	2015	0.982	2014	1.010	2013	1.004
2017	1.000	2016	0.989	2015	0.994	2014	1.004
2018	0.980	2017	0.966	2016	0.984	2015	1.003
2019	1.018	2018	0.994	2017	0.981	2016	0.997
Average	1.006	Average	0.986	Average	0.994	Average	1.001

Policy Year	5th/6th	Policy Year	6th/7th	Policy Year	7th/8th	Policy Year	8th/9th
2011	0.998	2010	1.007	2009	1.011	2008	1.006
2012	0.996	2011	1.008	2010	1.009	2009	1.003
2013	1.002	2012	1.012	2011	1.005	2010	1.003
2014	1.005	2013	0.999	2012	1.004	2011	1.002
2015	1.000	2014	1.007	2013	1.001	2012	1.004
Average	1.000	Average	1.007	Average	1.006	Average	1.004

Policy Year	9th/10th	Policy Year	10th/11th	Policy Year	11th/12th	Policy Year	12th/13th
2007	0.997	2006	1.002	2005	1.003	2004	1.005
2008	1.001	2007	0.999	2006	0.999	2005	0.998
2009	0.998	2008	0.997	2007	1.003	2006	1.001
2010	0.998	2009	0.996	2008	0.994	2007	1.000
2011	0.997	2010	0.997	2009	0.991	2008	1.006
Average	0.998	Average	0.998	Average	0.998	Average	1.002

Policy Year	13th/14th	Policy Year	14th/15th	Policy Year	15th/16th	Policy Year	16th/17th
2003	1.004	2002	0.995	2001	1.000	2000	1.000
2004	1.003	2003	0.998	2002	0.997	2001	1.000
2005	1.001	2004	1.001	2003	1.001	2002	1.003
2006	1.002	2005	0.999	2004	1.004	2003	0.993
2007	1.000	2006	0.998	2005	0.997	2004	0.999
Average	1.002	Average	0.998	Average	1.000	Average	0.999

Policy Year	17th/18th	Policy Year	18th/19th
1999	0.998	1998	1.000
2000	1.001	1999	0.995
2001	1.002	2000	0.998
2002	1.002	2001	1.001
2003	1.001	2002	1.005
Average	1.001	Average	1.000

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 19th Report	Losses for Policy Year 20th Report	Losses for All Prior Policy Years Previous	Losses for All Prior Policy Years Current	Factor to Adjust Losses for Prior Policy Years	Indicated 19th-to-Ult Development for Policy Year
1992	93,450,493	93,536,604	1,312,544,349	1,313,061,621	0.926	1.007
1993	87,319,062	87,107,611	1,406,598,225	1,406,819,743	1.030	1.000
1994	82,099,375	82,128,016	1,483,588,317	1,484,308,890	1.112	1.008
1995	85,221,368	85,310,286	1,568,473,892	1,569,599,936	1.100	1.013
1996	95,346,516	95,386,308	1,654,509,644	1,655,835,393	0.995	1.014
1997	92,843,300	92,888,304	1,748,307,509	1,749,276,465	1.035	1.011
1998	102,372,363	102,538,741	1,842,164,769	1,842,881,714	0.934	1.009
1999	105,122,707	105,137,626	1,911,291,201	1,911,609,430	0.892	1.004
2000	110,603,320	110,534,374	2,016,747,056	2,017,835,597	0.836	1.011
2001	114,357,204	114,476,792	2,128,086,225	2,128,825,132	0.806	1.009
				Selected Indemnity 19th-to-Ultimate Loss Development Factor		1.010

Medical Paid+Case Data for Matching Companies

(8)	(9)	(10)	(11)	(12)	(13)	(14)
Policy Year	Losses for Policy Year 19th Report	Losses for Policy Year 20th Report	Losses for All Prior Policy Years Previous	Losses for All Prior Policy Years Current	Factor to Adjust Losses for Prior Policy Years	Indicated 19th-to-Ult Development for Policy Year
1992	93,622,396	94,627,214	890,780,497	894,165,426	0.661	1.065
1993	81,422,582	81,357,885	988,792,640	987,065,646	0.834	0.974
1994	87,981,179	88,426,279	1,060,976,600	1,063,783,871	0.810	1.044
1995	84,860,040	84,924,354	1,155,011,907	1,157,821,436	0.899	1.038
1996	107,031,423	107,131,340	1,242,481,684	1,249,363,852	0.752	1.086
1997	91,737,394	91,544,484	1,353,980,947	1,347,106,215	0.938	0.918
1998	92,403,946	92,596,429	1,438,650,699	1,441,337,176	0.962	1.032
1999	100,831,692	100,541,259	1,499,121,113	1,496,394,765	0.888	0.967
2000	109,409,124	109,018,981	1,596,936,024	1,595,300,991	0.830	0.978
2001	104,010,073	103,948,796	1,703,795,061	1,709,063,177	0.885	1.057
				Selected Medical 19th-to-Ultimate Loss Development Factor		1.020

(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.

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

Policy Year	Indemnity Paid-to-Paid + Case Ratio 19th Report	Medical Paid-to-Paid + Case Ratio 19th Report
1998	0.974	0.972
1999	0.983	0.982
2000	0.984	0.975
2001	0.989	0.985
2002	0.989	0.965
Selected	0.985	0.970

	Indemnity	Medical
(1) Paid+Case 19th-to-Ultimate Loss Development Factor (Section G)	1.010	1.020
(2) Factor to Adjust 19th-to-Ultimate Development Factor to a Limited Basis	0.666	0.666
(3) Limited Paid+Case 19th-to-Ultimate Loss Development Factor = [(1)-1]x(2)+	1.007	1.013
(4) Limited Paid-to-Paid+Case Ratio (Section H)	0.985	0.970
(5) Limited Paid 19th-to-Ultimate Loss Development Factor = (3) / (4)	1.022	1.044

Section I - Summary of Limited Paid Loss Development Factors

	(1)	(2)		(3)	(4)
	Indemnity Paid Loss Development			Medical Paid Loss Development	
Report	to Next Report	to Ultimate	Report	to Next Report	to Ultimate
1st	1.887	3.325	1st	1.215	1.486
2nd	1.320	1.762	2nd	1.055	1.223
3rd	1.135	1.335	3rd	1.025	1.159
4th	1.050	1.176	4th	1.017	1.131
5th	1.026	1.120	5th	1.010	1.112
6th	1.013	1.092	6th	1.007	1.101
7th	1.010	1.078	7th	1.006	1.093
8th	1.005	1.067	8th	1.006	1.086
9th	1.006	1.062	9th	1.006	1.080
10th	1.004	1.056	10th	1.006	1.074
11th	1.006	1.052	11th	1.004	1.068
12th	1.005	1.046	12th	1.004	1.064
13th	1.004	1.041	13th	1.003	1.060
14th	1.003	1.037	14th	1.003	1.057
15th	1.003	1.034	15th	1.003	1.054
16th	1.003	1.031	16th	1.002	1.051
17th	1.003	1.028	17th	1.003	1.049
18th	1.003	1.025	18th	1.002	1.046
19th		1.022	19th		1.044

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

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

	(1)	(2)		(3)	(4)
	Indemnity Paid+Case Loss Development			Medical Paid+Case Loss Development	
Report	to Next Report	to Ultimate	Report	to Next Report	to Ultimate
1st	1.141	1.305	1st	1.006	1.013
2nd	1.071	1.144	2nd	0.986	1.007
3rd	1.026	1.068	3rd	0.994	1.021
4th	1.016	1.041	4th	1.001	1.027
5th	1.001	1.025	5th	1.000	1.026
6th	1.004	1.024	6th	1.007	1.026
7th	1.003	1.020	7th	1.006	1.019
8th	1.002	1.017	8th	1.004	1.013
9th	1.000	1.015	9th	0.998	1.009
10th	1.002	1.015	10th	0.998	1.011
11th	1.001	1.013	11th	0.998	1.013
12th	1.000	1.012	12th	1.002	1.015
13th	1.003	1.012	13th	1.002	1.013
14th	1.001	1.009	14th	0.998	1.011
15th	1.000	1.008	15th	1.000	1.013
16th	1.000	1.008	16th	0.999	1.013
17th	1.000	1.008	17th	1.001	1.014
18th	1.001	1.008	18th	1.000	1.013
19th		1.007	19th		1.013

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

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APPENDIX A-II

Determination of Premium and Losses Developed to an Ultimate Report

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

(1)	Threshold at the Midpoint of the Rate Effective Period*	7,396,293
(2)	Statewide Excess Ratio for (1)	0.031
(3)	Market Share for Carriers Missing from Large Loss and Catastrophe Call	0.000
(4)	Factor to Adjust Limited Losses to an Unlimited Basis = 1.0 / {1.0 - [(2) x (1.0 - (3))]}	1.032

Section L - Policy Year Large Loss Limits

Experience Year	Policy Year Detrended Limit
2020	6,395,756
2019	6,080,068
2018	5,841,859
2017	5,669,028
2016	5,506,558
2015	5,386,312
2014	5,232,257
2013	5,048,397
2012	4,922,980
2011	4,797,576
2010	4,656,693
2009	4,517,798
2008	4,461,780
2007	4,384,564
2006	4,231,326
2005	4,073,125
2004	3,939,463
2003	3,784,964
2002	3,635,770
2001	3,527,282
2000	3,424,855
1999	3,313,066
1998	3,193,874

* November 29, 2023 is the midpoint of the effective period for which the revised rates are being proposed.

Appendix A – Factors Underlying the Proposed Rate Level Change

Appendix A-III Trend Factors

The proposed voluntary 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 Iowa 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 Iowa. 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.

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 rates to each average accident date of the policy years in the experience period. The average accident dates are based on an Iowa distribution of policy writings by month and assume a uniform probability of loss over the coverage period.

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 midpoint of the experience period data on which the filing is based and the midpoint of the proposed rate effective period. Trends

based on the most recent 15 policy years are often reviewed because this time-period typically spans at least one complete underwriting cycle and mitigates some short-term anomalous year-to-year changes.

The indicated exponential indemnity and medical loss ratio trend fits for which the trend selections in this filing are based are displayed on the following pages. The exhibits also show the underlying frequency and severity components. These figures have been adjusted to the common wage level and are based on an average of paid and paid plus case losses.

Of special note for this filing, the trend selections explicitly incorporate considerations for the following:

- Certain aspects of Iowa House File 518 (effective July 2017) that have emerged in experience but are not fully reflected in the loss on-level factors
- COVID-19 pandemic's impact on Policy Years 2019 and 2020

A significant decrease in the Policy Year 2016 indemnity loss ratio and a corresponding increase in Policy Year 2017 coincides with the enactment of House File 518. Note Policy Year 2016 experience is impacted by House File 518 provisions since the last policy underlying this policy year had an effective date of December 31, 2016, and did not expire until December 31, 2017. Among other things, this bill included some unquantified impacts such as a 90-day notice and statute of limitations defenses, use of *AMA Guides* for permanent impairment, determination of reduction in earning capacity for unscheduled permanent partial disability awards, and changes to an employer's liability for successive disabilities. As a result, the 2016 and 2017 year-over-year indemnity loss ratio changes were given less reliance in our analysis of loss ratio trends. To assess the impact on the long-term exponential fits, a hypothetical scenario was considered during this year's trend analysis. As shown below, scenario A represents the unadjusted indemnity loss ratios. In scenario B, the 2016 and 2017 year-over-year changes are judgmentally replaced by -7.4% and -2.3%—Iowa's actual lost-time claim frequency changes for those years.

Scenario A: Unadjusted indemnity loss ratios

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Loss ratio	0.629	0.662	0.658	0.658	0.656	0.579	0.565	0.599	0.546	0.515	0.421	0.443	0.427	0.411	0.383
% Change		5.2%	-0.6%	0.0%	-0.3%	-11.7%	-2.4%	6.0%	-8.8%	-5.7%	-18.3%	5.2%	-3.6%	-3.7%	-6.8%

Appendix A – Factors Underlying the Proposed Rate Level Change

Scenario B: Adjusted indemnity loss ratios after replacing the 2015-to-2016 and 2016-to-2017 loss ratio changes with the actual changes in lost-time claim frequency.

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016~	2017~	2018*	2019*	2020*
Loss ratio	0.629	0.662	0.658	0.658	0.656	0.579	0.565	0.599	0.546	0.515	0.477	0.466	0.449	0.432	0.403
% Change		5.2%	-0.6%	0.0%	-0.3%	-11.7%	-2.4%	6.0%	-8.8%	-5.7%	-7.4%	-2.3%	-3.6%	-3.7%	-6.8%

~ The 2016 and 2017 loss ratios were reduced by the actual decline in lost-time claim frequency
* Adjusted

The effect of the pandemic in Iowa, from both an economic and workers compensation perspective, was limited. The employment levels decreased in early 2020 but Iowa's employment recovered faster than the rest of the country. The Great Reshuffle has increased the share of short-tenured workers in some industries, which NCCI studies have shown to be associated with both higher injury frequency and claim costs. Wage growth is accelerating, as wages rise, premiums automatically increase along with workers compensation indemnity benefits. Wage inflation changes are expected to outpace medical inflation changes, this relationship is anticipated to put downward pressure on future medical loss ratios.

It is possible that some portion of the improved workers compensation experience may be partly related to COVID-19 pandemic-related effects which may or may not persist during the effective period of the proposed rates costs. (See the *COVID-19 Pandemic Ratemaking Considerations* section for more details). The favorable loss ratio experience in Policy Year 2020 is already accounted for directly in the experience period of the indication. Therefore, in analyzing trend factors for this filing, the exponential fits were reviewed both including and excluding Policy Year 2020 to gain an understanding of the impact of the most recent Policy Year on the trend fits. Displayed on the following pages, the alternative indemnity loss ratio exponential fits are based on scenario B excluding Policy Year 2020 while the alternative exponential fits for medical loss ratios exclude Policy Year 2020.

The long-term pattern of improving loss ratios is expected to continue. The selected annual loss ratio trends are based heavily on mid– to longer–term adjusted exponential trend fits, because they are less volatile and strike a balance between responsiveness and stability. An annual trend factor of –4.0% was selected for the indemnity loss ratio, and an annual trend factor of –2.5% was selected for the medical loss ratio.

Note that frequency and severity trends were reviewed but not selected. NCCI relied on loss ratio trends since they are less impacted by shifts in industry mix because the impacts to the frequency and severity components tend to offset. As shown on the following pages, lost-time claim frequency increased modestly in the most recent policy year, however, the long-term

pattern of decline is expected to continue. The data in the chart reflects premiums at today's rate and wage levels. After adjusting to a common wage level, both the average indemnity and medical cost per lost-time claim figures decreased in Policy Year 2020. Together, claim frequency and severity trends suggest improving workers compensation experience.

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APPENDIX A-III

Policy Year Trend Factors

Section A - Calculation of Annual Loss Ratio Trend Factors

	Indemnity	Medical
(1) Selected Annual Loss Ratio Trends:	**–4.0%**	**–2.5%**

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

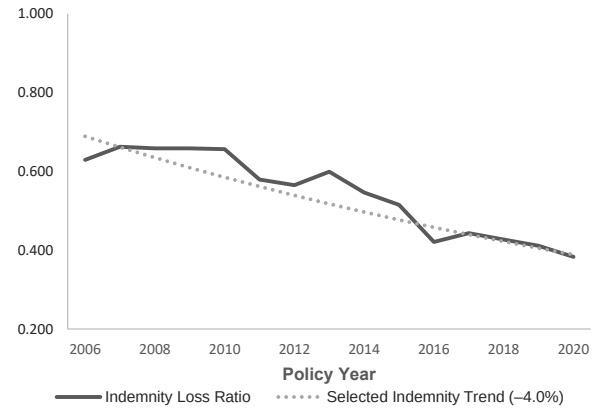
	PY 2020	PY 2019
Trend Length:	3.001	4.001

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

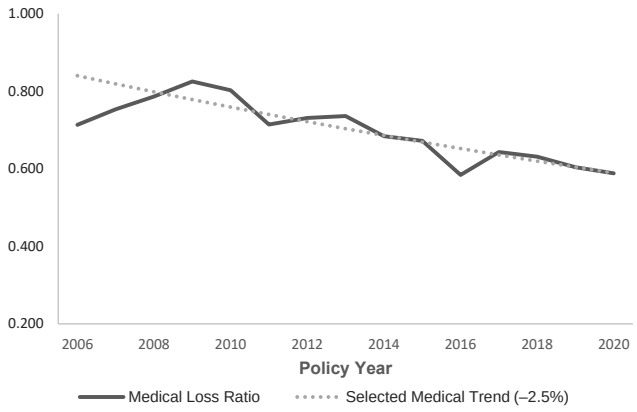
	PY 2020	PY 2019
Indemnity:	0.885	0.849
Medical:	0.927	0.904

Section B - Loss Ratio Trend Data

Indemnity Loss Ratio



Medical Loss Ratio



Policy Year	Indemnity Loss Ratio^	# of Years in Fit	Exponential Fits	Alternate Exponential Fits*
2006	0.629			
2007	0.662			
2008	0.658			
2009	0.658			
2010	0.656	15	-4.1%	
2011	0.579	14	-4.5%	-3.4%
2012	0.565	13	-4.8%	-3.8%
2013	0.599	12	-5.0%	-4.0%
2014	0.546	11	-5.1%	-4.2%
2015	0.515	10	-5.0%	-4.3%
2016	0.421	9	-5.4%	-4.1%
2017	0.443	8	-5.8%	-4.5%
2018	0.427	7	-5.2%	-5.1%
2019	0.411	6	-4.4%	-4.5%
2020	0.383	5	-2.6%	-4.0%

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

*Exponential Fits from Scenario B (as described in preceeding pages) excl. Policy Year 2020

Policy Year	Medical Loss Ratio^^	# of Years in Fit	Exponential Fits	Alternate Exponential Fits*
2006	0.713			
2007	0.753			
2008	0.786			
2009	0.825			
2010	0.802	15	-2.1%	
2011	0.714	14	-2.5%	-2.0%
2012	0.731	13	-2.8%	-2.5%
2013	0.736	12	-2.9%	-2.8%
2014	0.684	11	-2.8%	-3.0%
2015	0.672	10	-2.5%	-2.8%
2016	0.584	9	-2.7%	-2.5%
2017	0.643	8	-2.7%	-2.9%
2018	0.631	7	-2.1%	-2.8%
2019	0.604	6	-1.7%	-2.0%
2020	0.588	5	-0.5%	-1.4%

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

*Exponential Fits excl. Policy Year 2020

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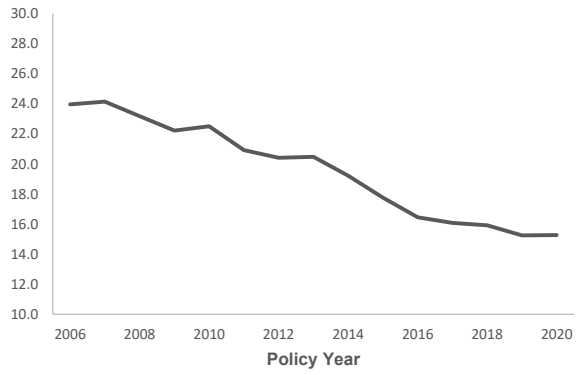
APPENDIX A-III

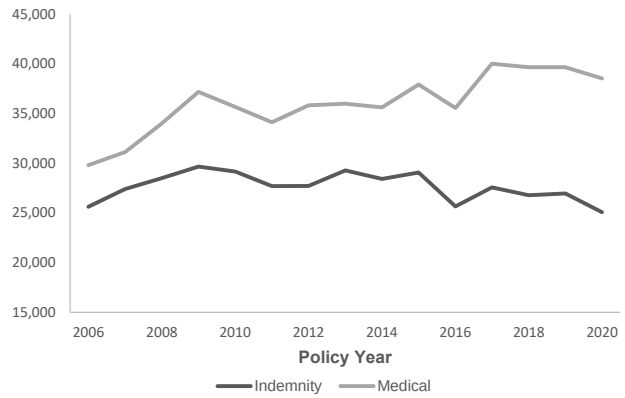
Policy Year Trend Factors

Section C - Frequency and Severity Trend Data

Frequency



Severity



Policy Year	Claim Frequency†
2006	23.954
2007	24.142
2008	23.172
2009	22.207
2010	22.498
2011	20.911
2012	20.402
2013	20.466
2014	19.206
2015	17.750
2016	16.443
2017	16.072
2018	15.915
2019	15.244
2020	15.268

# of Years in Fit	Exponential Fits
15	-3.7%
14	-3.8%
13	-3.8%
12	-3.9%
11	-4.1%
10	-4.0%
9	-4.1%
8	-4.1%
7	-3.6%
6	-2.8%
5	-2.0%

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

Policy Year	Severity Indemnity*	Severity Medical*
2006	25,623	29,801
2007	27,401	31,115
2008	28,487	33,989
2009	29,663	37,161
2010	29,158	35,644
2011	27,687	34,105
2012	27,701	35,817
2013	29,267	35,974
2014	28,407	35,598
2015	29,060	37,896
2016	25,652	35,536
2017	27,570	39,993
2018	26,779	39,640
2019	26,952	39,639
2020	25,064	38,514

# of Years in Fit	Exponential Fits Indemnity	Exponential Fits Medical
15	-0.4%	1.6%
14	-0.7%	1.4%
13	-1.0%	1.1%
12	-1.1%	1.0%
11	-1.1%	1.4%
10	-1.1%	1.6%
9	-1.4%	1.4%
8	-1.8%	1.5%
7	-1.7%	1.6%
6	-1.8%	1.1%
5	-0.7%	1.5%

*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 rate 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 rates. 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	141,060,421	647,994,125	593,680,873	1.182	1.186
Contracting	117,629,706	549,332,724	503,406,912	1.148	1.142
Office & Clerical	61,792,164	286,193,745	262,075,715	1.119	1.123
Goods & Services	199,408,845	932,752,441	854,072,141	1.086	1.088
Miscellaneous	99,657,643	465,764,326	427,124,608	1.125	1.124
Statewide	619,548,780	2,882,037,361	2,640,360,248		

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	140,584,669	645,808,647	591,678,577	1.091	0.999
Contracting	118,247,726	552,218,886	506,051,782	1.091	0.999
Office & Clerical	61,572,067	285,174,355	261,142,230	1.092	1.000
Goods & Services	199,042,284	931,037,823	852,502,155	1.092	1.000
Miscellaneous	99,746,307	466,178,707	427,504,612	1.090	0.998
Statewide	619,193,053	2,880,418,418	2,638,879,356	1.092	

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	584,592,554	0.989	0.989	11,266
Contracting	505,974,881	1.001	1.001	6,267
Office & Clerical	260,840,977	0.999	0.999	4,509
Goods & Services	854,041,496	1.002	1.002	19,298
Miscellaneous	431,853,178	1.012	1.012	6,262
Statewide	2,637,303,086	1.000		

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	0.97	0.989	0.989
Contracting	12,000	0.72	1.001	1.001
Office & Clerical	12,000	0.61	0.999	0.999
Goods & Services	12,000	1.00	1.002	1.002
Miscellaneous	12,000	0.72	1.009	1.009
Statewide			1.000	1.000

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

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 rates. Column (3) adjusts the current expected losses to the proposed level by applying the components of the proposed rate 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 Iowa 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 Iowa 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 rate 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).

Workers Compensation Rate Filing – January 1, 2023

Appendix B – Calculations Underlying the Advisory Rate Change by Classification

NCCI separately determines advisory rates for each workers compensation classification. The proposed change from the current rate will vary depending on the classification. The following are the general steps utilized to determine the industrial classification rates:

1. Calculate industry group differentials, which are used to more equitably distribute the proposed overall average advisory rate 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 Iowa 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, an expense allowance and any additional loads

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APPENDIX B-I

Distribution of Rate Level Change to Occupational Classification

After determining the required changes in the overall rate 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
3/15-2/16	1.041	1.018	1.039	1.005
3/16-2/17	1.062	1.038	1.044	1.005
3/17-2/18	1.117	1.072	1.050	1.006
3/18-2/19	1.277	1.178	1.043	1.009
3/19-2/20	1.749	1.348	1.084	1.019

*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
3/15-2/16	0.727	0.821
3/16-2/17	0.758	0.842
3/17-2/18	0.789	0.863
3/18-2/19	0.822	0.886
3/19-2/20	0.856	0.908

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
3/15-2/16	1.009	1.025	0.900	1.025	1.000
3/16-2/17	1.009	1.025	0.921	1.025	1.000
3/17-2/18	1.007	1.013	1.002	1.013	1.000
3/18-2/19	1.002	1.002	1.002	1.002	1.000
3/19-2/20	1.000	1.000	1.000	1.000	1.000

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)
3/15-2/16	0.764	0.747	0.776	0.681	0.666	0.776	0.759	0.853	0.825
3/16-2/17	0.812	0.794	0.825	0.741	0.725	0.825	0.806	0.879	0.846
3/17-2/18	0.887	0.852	0.893	0.883	0.847	0.893	0.857	0.906	0.868
3/18-2/19	1.052	0.970	1.052	1.052	0.970	1.052	0.970	0.924	0.894
3/19-2/20	1.497	1.154	1.497	1.497	1.154	1.497	1.154	0.984	0.925

* 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	0.110	0.139	0.180	0.203	0.266	0.308	0.342
(2) Excess Factors 1/(1-(1))	1.124	1.161	1.220	1.255	1.362	1.445	1.520

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.

IOWA

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*	0.989	1.001	0.999	1.002	1.012
(2) Final Differentials**	0.989	1.001	0.999	1.002	1.009
(3) Adjustment (2)/(1)	1.000	1.000	1.000	1.000	0.997

*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 rates, 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)
3/15-2/16	0.850	1.129	1.131	0.998	0.848
3/16-2/17	0.908	1.129	1.127	1.002	0.910
3/17-2/18	0.856	1.129	1.125	1.004	0.859
3/18-2/19	0.829	1.129	1.133	0.996	0.826
3/19-2/20	0.900	1.129	1.133	0.996	0.896

3. Adjustment for Experience Change

A factor of 0.944 is applied to adjust for the experience change in the proposed rate level.

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

A factor of 1.178 is applied to include the proposed loss-based expense provisions.

5. Secondary Conversion Factors: Indicated Pure Premiums

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

Policy Period	Manufacturing	Contracting	Office and Clerical	Goods and Services	Miscellaneous
3/15-2/16	0.943	0.943	0.943	0.943	0.940
3/16-2/17	1.012	1.012	1.012	1.012	1.009
3/17-2/18	0.955	0.955	0.955	0.955	0.952
3/18-2/19	0.919	0.919	0.919	0.919	0.916
3/19-2/20	0.996	0.996	0.996	0.996	0.993

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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 rates, adjusted to the proposed level. The data sources for the above-captioned pure premiums are the partial pure premiums underlying the current rates.

1. Adjustment for Experience Change

A factor of 0.944 is applied to adjust for the experience change in the proposed rate level.

2. Factors to Adjust to the Proposed Trend Level

The pure premiums underlying the current rates contain the current trend. The change in trend factors, 0.982 and 0.965, 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 rates to the proposed benefit level.

	Indemnity	Medical
Benefit Adjustment	1.000	1.000

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

The pure premiums underlying the current rates 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	1.179	1.179	1.178	1.178
(2) Loss-based Assessment	1.000	1.000	1.000	1.000
(3) = (1) + (2) – 1.000	1.179	1.179	1.178	1.178
(4) Overall Change (3b)/(3a)			0.999	0.999

5. Adjustment to Obtain Expected Losses

The pure premiums underlying the current rates 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	1.182	1.186	0.997
Contracting	1.148	1.142	1.005
Office & Clerical	1.119	1.123	0.996
Goods & Services	1.086	1.088	0.998
Miscellaneous	1.125	1.124	1.001

6. Factors to Adjust for Proposed Industry Group Differentials

The pure premiums underlying the current rates 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	0.989	0.999	0.988
Contracting	1.001	0.999	1.000
Office & Clerical	0.999	1.000	0.999
Goods & Services	1.002	1.000	1.002
Miscellaneous	1.009	0.998	1.007

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

7. Combined Conversion Factors

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

Industry Group	Indemnity	Medical
Manufacturing	0.912	0.896
Contracting	0.931	0.915
Office & Clerical	0.921	0.905
Goods & Services	0.926	0.910
Miscellaneous	0.933	0.917

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 Iowa conditions in four steps. First, statewide indicated pure premiums are determined for Iowa. Second, using Iowa payrolls as weights, corresponding statewide-average pure premiums are computed for each remaining state. Third, the ratios of Iowa 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 Iowa 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 rates.

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: $36,310,089 for indemnity and $27,302,419 for medical.

The partial credibilities formula is:

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

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

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

National Credibility equals the smaller of:

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

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

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

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

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APPENDIX B-II

Adjustments to Obtain Rates

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

1. Test Correction Factor

The payrolls are now extended by the rates presently in effect and by the indicated rates 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 rates including tentative test correction factors until the required change in manual premium level is obtained. The test correction factor is applied to the derived by formula pure premiums.

The factors referred to above are set out as follows:

	Test Correction Factor
Manufacturing	0.9928
Contracting	1.0003
Office & Clerical	0.9958
Goods & Services	0.9984
Miscellaneous	1.0011

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	1.186
Contracting	1.142
Office & Clerical	1.123
Goods & Services	1.088
Miscellaneous	1.124

3. Expense Allowance

The expense allowance is introduced into the rate by dividing the product of the proposed pure premium and the appropriate factors above by the proposed target cost ratio of 0.712 (see Exhibit II-A for derivation of this factor). This operation produces the proposed rate prior to the addition of a disease loading, if any.

4. Disease Loadings

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

5. Swing Limits

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

Manufacturing	from 16% above to 34% below
Contracting	from 17% above to 33% below
Office & Clerical	from 17% above to 33% below
Goods & Services	from 17% above to 33% below
Miscellaneous	from 18% above to 32% below

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

Max. Deviation = Effect of the final change in rate level by industry group plus or minus 25% rounded to the nearest 1%.

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

An illustrative example showing the calculation of a proposed manual class rate 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 rates for other classifications are calculated in the same manner.

List of Classifications Limited by the Upper Swing	List of Classifications Limited by the Lower Swing
3851 7394 7395 7398	7710

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APPENDIX B-III

Derivation of Proposed Rate - 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
03/01/15 - 02/29/16	0	500,000	0	1,264,978	1,901,775	374,962	431,702	967,240	5,302,457
03/01/16 - 02/28/17	0	0	0	1,036,681	1,810,160	288,277	712,689	1,355,551	5,043,446
03/01/17 - 02/28/18	0	0	0	824,911	2,094,396	279,032	885,012	1,213,046	7,126,504
03/01/18 - 02/28/19	0	0	0	1,004,298	2,349,908	800,936	948,619	2,839,878	7,596,646
03/01/19 - 02/29/20	0	466,338	0	794,409	1,250,471	549,286	1,022,043	2,706,539	6,012,765

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
03/01/15 - 02/29/16	0.764	0.747	0.776	0.681	0.666	0.776	0.759	0.853	0.825
03/01/16 - 02/28/17	0.812	0.794	0.825	0.741	0.725	0.825	0.806	0.879	0.846
03/01/17 - 02/28/18	0.887	0.852	0.893	0.883	0.847	0.893	0.857	0.906	0.868
03/01/18 - 02/28/19	1.052	0.970	1.052	1.052	0.970	1.052	0.970	0.924	0.894
03/01/19 - 02/29/20	1.497	1.154	1.497	1.497	1.154	1.497	1.154	0.984	0.925

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	1.220

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 Rate - 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
03/01/15 - 02/29/16	0	422,693	0	974,909	1,433,400	329,294	370,818	1,107,354	5,507,567
03/01/16 - 02/28/17	0	0	0	869,356	1,485,214	269,153	650,083	1,541,416	5,369,030
03/01/17 - 02/28/18	0	0	0	824,331	2,007,595	281,994	858,349	1,426,104	7,766,023
03/01/18 - 02/28/19	0	0	0	1,195,672	2,579,626	953,560	1,041,352	3,366,808	8,563,136
03/01/19 - 02/29/20	0	609,033	0	1,345,860	1,633,104	930,582	1,334,779	3,424,466	7,060,212

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

Policy Period	INDUSTRY GROUP: Office and Clerical
03/01/15 - 02/29/16	0.943
03/01/16 - 02/28/17	1.012
03/01/17 - 02/28/18	0.955
03/01/18 - 02/28/19	0.919
03/01/19 - 02/29/20	0.996

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
03/01/15 - 02/29/16	9,774,963,961	1,229,863	2,099,977	1,044,235	5,193,636	3,329,840	6,237,871	9,567,711
03/01/16 - 02/28/17	10,091,231,864	1,152,171	2,160,921	1,559,913	5,433,458	3,313,092	6,993,371	10,306,463
03/01/17 - 02/28/18	10,209,441,192	1,056,540	2,736,977	1,361,929	7,416,552	3,793,517	8,778,481	12,571,998
03/01/18 - 02/28/19	10,716,490,594	1,975,144	3,327,679	3,094,097	7,869,522	5,302,823	10,963,619	16,266,442
03/01/19 - 02/29/20	12,235,002,782	2,267,336	3,562,608	3,410,768	7,031,971	5,829,944	10,442,739	16,272,683
Total	53,027,130,393	7,681,054	13,888,162	10,470,942	32,945,139	21,569,216	43,416,081	64,985,297
		INDICATED PURE PREMIUM				**0.041**	**0.082**	**0.12**

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 rate 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 Rate	0.042	0.088	0.13
Conversion Factors (App. B-I, Section B)	0.921	0.905	xxx
PURE PREMIUMS PRESENT ON RATE LEVEL (Underlying Pure Premiums) x (Conversion Factor)	0.039	0.080	0.12

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APPENDIX B-III

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

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

		Indemnity	Medical	Total
1.	Indicated Pure Premium	0.041	0.082	0.12
2.	Pure Premium Indicated by National Relativity	0.033	0.061	0.09
3.	Pure Premium Present on Rate Level	0.039	0.080	0.12
4.	State Credibilities	75%	100%	xxx
5.	National Credibilities	12%	0%	xxx
6.	Residual Credibilities = 100% - (4) - (5)	13%	0%	xxx
7.	Derived by Formula Pure Premiums = (1) x (4) + (2) x (5) + (3) x (6)	0.040	0.082	0.12
8.	Test Correction Factor	0.9958	0.9958	xxx
9.	Underlying Pure Premiums = (7) x (8) *	0.038	0.082	0.12
10.	Ratio of Manual to Standard Premium			1.123
11.	Target Cost Ratio			0.712
12.	Rate = (9) x (10) / (11)			0.19
13.	Rate Within Swing Limits			0.19
	Current Rate x Swing Limits a) Lower bound = 0.20 x 0.670 = 0.14 b) Upper bound = 0.20 x 1.170 = 0.23			
14.	Pure Premiums Underlying Proposed Rate* = ((14TOT) / (9TOT)) x (9) ; (14TOT) = (13) x (11) / (10)	0.038	0.082	0.12
15.	Disease, Catastrophe and/or Miscellaneous Loadings			0.00
16.	Final Loaded Rate			0.19

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

WCSP data is used to determine the F-Classification (F-Class) rates. The latest year of WCSP payroll is extended by both the current and proposed rates. Based on $2,028,012 of payroll, the overall rate level change in Iowa is -23.5%.

I. Overview of Methodology

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

- F-class code countrywide relativities are then calculated by comparing the F-class countrywide pure premiums by class to the overall countrywide F-class pure premium. The relativity values were updated in this filing and are reflected in the table in Section II.

- A single state primary base pure premium is calculated by applying a countrywide to state relativity factor to bring the F-class overall countrywide pure premium to the Iowa proposed level.

- A final base rate is calculated by bringing the primary base pure premium to the proposed Iowa trend and benefit levels, and applying any applicable expenses and/or offsets.

- Final F-Class rates are calculated by applying the countrywide relativity by class code to the final base rate 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.

II. The F-class code countrywide relativities:

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

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

III. Swing Limits

The proposed rates are limited to the swing limits based on 25% above and 25% below the current rates.

Classifications Limited by the Upper Swing
NONE

Classifications Limited by the Lower Swing

6826	6843	6845	6872
6874	7309	7313	7317
7327	7350	8709	8726

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APPENDIX B-IV

Derivation of State Base Rate

	Indemnity	Medical	Total
1. Overall Countrywide Pure Premium			2.99
2. State Act Pure Premium Relativity Factor			1.418
3. Countrywide State Act Weight			24%
4. **Primary Base Pure Premium** =[(1) x (2) x (3)] + [(1) x (1 - (3))]			**3.29**
5. Countrywide Weights	50%	50%	100%
6. Trend Factors	0.963	0.977	xx
7. Weighted Benefits	1.000	1.000	xx
8. Weighted Loss-Based Expenses	1.264	1.178	xx
9. **Secondary Base Pure Premium** = (4tot) x (5) x (6) x (7) x (8)	2.002	1.893	**3.90**
10. Additional Offsets			1.000
11. Expense Allowance			0.712
12. **Final Base Rate** = (9) x (10) / (11)			**5.48**

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APPENDIX B-IV

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

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

1. Iowa's Final Base Rate	5.48
2. Countrywide Class Code 6872 Relativity (Section II)	1.268
3. Rate = (1) x (2)	6.95
4. Rate Within Swing Limits	7.95
Current Rate x Swing Limits a) Lower bound = 10.60 x 0.75 = 7.95 a) Upper bound = 10.60 x 1.25 = 13.25	
5. Disease, Catastrophe and/or Miscellaneous Loadings	0.00
6. Final Loaded Rate	7.95

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APPENDIX B-IV

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

The F-class and Program II, Option II maritime class voluntary rates
and assigned risk rates include the following provision for the federal assessment:

1.)	Assessment Rate on Indemnity Losses *	11.3%
2.)	Assessment Rate on Total Losses #	6.1%

* 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

Iowa

Appendix B-V

Calculation of Coal Mine Traumatic

Coal mine experience is reflected in the following class codes:

- Surface Coal Mine – Class Code 1005
- Underground Coal Mine – Class Code 1016

The traumatic rate for Surface Coal Mine Class Code 1005 is calculated based on WCSP data as explained in Appendices B-I through B-III. Class Code 1005 is in the Miscellaneous industry group.

The traumatic rate for Underground Coal Mine Class Code 1016 is calculated using WCSP data. Pure premiums are calculated and adjusted for trend, benefits, and any applicable offsets or expense provisions. Swing limits for Class Code 1016 are applied around the currently approved rate.

Iowa

Workers Compensation Rate Filing – January 1, 2023

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 Iowa benefit levels are detailed in this section of the filing:

- Iowa Supreme Court Decision in *Tripp V. Scott Emergency Communication Center*

APPENDIX C-I

ANALYSIS OF IOWA SUPREME COURT DECISION IN *TRIPP V. SCOTT EMERGENCY COMMUNICATION CENTER*, AS FILED ON JUNE 3, 2022

The Iowa Supreme Court ("court") decision in *Tripp v. Scott Emergency Communication Center* (*Tripp*) clarified the standard to be used to determine whether an emergency dispatcher's mental injury is compensable under workers compensation (WC). NCCI expects that the impact of this decision will result in upward pressure on WC costs in the state. The expected cost impact on affected individual classifications in Iowa, such as those for first responders, could be significant,[1] while the overall impact on WC system costs is uncertain but anticipated to be minimal to small.[2]

SUMMARY OF CHANGES

In this case involving an emergency dispatcher diagnosed with post-traumatic stress disorder (PTSD) after fielding a traumatic 911 call, the court analyzed Iowa statute 85.3(1), which establishes a worker's eligibility to receive WC benefits, and two previous decisions by the court regarding the standard for compensability of mental injuries. Reviewing the standard to determine WC eligibility for mental injuries formulated in its 2002 decision in *Brown v. Quick Trip Corp.*, the court found that the standard is met when an employee establishes that the mental injury is "based on a manifest happening of a sudden traumatic nature from an unexpected cause or unusual strain."

The court also found that another standard, noted in its 1995 decision in *Dunlavey v. Economy Fire & Casualty Co.*, which requires employees show that the mental injury resulted from "workplace stress of greater magnitude than the day-to-day mental stresses experienced by other workers employed in the same or similar jobs, regardless of employer," was not needed for a mental injury that occurred rapidly and traced to a specific sudden event, in contrast to a mental injury alleged to have gradually developed over time.

The court reasoned that under the *Brown* standard, focusing on the employee's particular job duties to determine whether an injury-causing incident was an "unexpected strain" places workers routinely tasked with addressing traumatic incidents, such as emergency dispatchers, in a disfavored position as compared with other workers. Thus, the court concluded, in cases in which the mental injury is based on a sudden traumatic event from an unexpected cause or unusual strain, legal causation is established without regard to the regular duties of the particular employee or other employees in similar positions. With this decision, the court reversed a lower court's ruling denying benefits to the emergency dispatcher.

ACTUARIAL ANALYSIS

Regarding PTSD—which was the mental condition at hand in the *Tripp* case—one study of overall incidence rates in the United States estimates a 6.1%[3] lifetime PTSD rate for the general

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[1] Significant in this context is defined as an increase of greater than 5.0% to the expected cost for certain occupational classifications.
[2] Minimal to small is defined in this context to be an impact on overall system costs of less than +1.0%.
[3] Goldstein, et al. (2016). "The Epidemiology of DSM-5 Posttraumatic Stress Disorder in the United States: Results from the National Epidemiologic Survey on Alcohol and Related Conditions-III." The total sample size was 36,309 civilian residents including veterans. "By excluding individuals currently on active military duty and those institutionalized in prisons or psychiatric facilities, it may have underrepresented those most likely to have high levels of trauma exposure or PTSD, leading to some underestimation of prevalences." www.ncbi.nlm.nih.gov/pmc/articles/PMC4980174/

population. Meanwhile, there have been numerous studies on first responders. One worldwide meta-analysis[4] estimates a 10% average PTSD rate for first responders overall, where the average rates vary by occupation.[5] Note that the PTSD rates found in literature are often the lifetime prevalence, but for purposes of estimating the cost impact of the *Tripp* decision, the pertinent rate is the increase in the annual PTSD incidence rate that results from the decision.

In Iowa, the *Tripp* ruling is expected to place upward pressure on WC costs. Prior to the ruling, workers in relatively more stressful work environments, such as 911 operators, may not have met the required criteria to be eligible for WC benefits for mental injuries resulting from sudden traumatic events, as they may have been required to show that the mental injury resulted from workplace stress of greater magnitude than other similarly situated workers. As a result of this decision, that for sudden traumatic events legal causation is established without regard to other employees in similar positions, these workers may now more easily be found to have a compensable WC claim for PTSD.

This change is expected to only directly impact workers who are in professions that are routinely tasked with addressing traumatic incidents and who file a claim for a mental injury from a sudden traumatic event.

The court ruling only addresses mental injury claims related to sudden traumatic events, not claims for mental injuries alleged to have gradually developed over time. For claims involving mental injuries related to sudden traumatic events, it is anticipated that this court decision could apply to these types of claims that arise in the future and those that are currently open or pending.

Due to the unpredictable nature of the types of events that would qualify for WC benefits resulting from this decision, and the subjectivity involved in a mental injury diagnosis, the impact on overall system costs is uncertain. While certain qualifying events could potentially involve a significant number of claims, eligibility would be limited to a subpopulation of workers. Hence, the estimated impact on overall WC system costs would be expected to be minimal to small, though the effect on those specific occupational classifications directly impacted by this change could be significant.

[4] Merriam-Webster defines meta-analysis as, “a quantitative statistical analysis of several separate but similar experiments or studies in order to test the pooled data for statistical significance.”
[5] Berger, et al. (2012).“Rescuers at Risk: a systematic review and meta regression analysis of the worldwide current prevalence and correlates of PTSD in rescue workers.” www.ncbi.nlm.nih.gov/pmc/articles/PMC3974968/

Iowa

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Appendix D – Determination of Assigned Risk Rates

Overall Proposed Change to Assigned Risk Rate Level

NCCI applies an assigned risk multiplier to convert the advisory voluntary rates to assigned risk rates. In Iowa, the only component of the assigned risk multiplier is the assigned risk rate differential. This filing proposes no change to the current assigned risk multiplier.

Assigned Risk Rate Differential

The assigned risk rate differential reflects the fact that the collective experience for employers in the assigned risk market is typically worse than that of employers in the voluntary market. Loss ratios are calculated for both the (i) assigned risk market and (ii) statewide market by individual year as follows:

$$\frac{(total\ onleveled\ losses)}{(total\ onleveled, developed\ standard\ premium\ at\ the\ voluntary\ level\ )}$$

For each individual policy year, the assigned risk loss ratio is divided by the statewide loss ratio to produce loss ratio relativities. These loss ratio relativities are reviewed for fifteen individual years so that changes in the actual differentials can be observed over a long period of time. When selecting the assigned risk rate differential, the impact of additional premium that is already expected to be generated due to other assigned risk programs (removal of premium discounts, Assigned Risk Adjustment Program) is also reflected in the calculation. In addition, estimated uncollectible premium and the expected difference between the voluntary and assigned risk expenses were considered for during the selection of the assign risk rate differential.

Based on this year's analysis, NCCI is proposing no change to the currently approved assigned risk rate differential. NCCI believes there are several reasons that it is appropriate to maintain 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 fifteen years range from 0.787 to 1.959. A longer-term average provides stability when dealing with such 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.
- There is value in having stability in the rates; this stability can be achieved by allowing the assigned risk rate level to move in concert with the voluntary rates, while maintaining

a differential that will be adequate over the long term rather than modifying it each year based on specific arithmetic calculation.

- 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.

The assigned risk rate differential was lowered from 1.300 to 1.250 in the January 1, 2022 filing. NCCI believes that maintaining the differential is appropriate to encourage the process of residual market depopulation.

APPENDIX D

Determination of Assigned Risk Rates

Section A - Derivation of Assigned Risk Differential
Experience Valued as of 12/31/2021

Policy Year	(1) Standard Pure Premium Assigned Risk	(2) Standard Pure Premium Statewide	(3) Unlimited Undeveloped Paid+Case Losses Assigned Risk	(4) Unlimited Undeveloped Paid+Case Losses Statewide
2006	11,469,780	242,396,350	20,736,121	322,001,577
2007	9,443,069	254,524,723	21,206,212	348,689,508
2008	8,724,170	255,385,346	21,024,113	356,398,168
2009	7,730,245	250,831,519	17,423,755	377,749,764
2010	6,769,121	264,822,744	20,783,726	370,059,959
2011	7,635,068	281,001,458	14,579,747	340,086,592
2012	9,870,124	283,072,330	21,996,485	349,598,838
2013	12,979,155	291,267,437	19,693,487	371,633,703
2014	12,863,845	297,030,078	21,154,498	356,809,367
2015	12,662,590	306,151,873	19,695,228	357,487,263
2016	10,658,354	315,460,922	10,235,151	310,797,764
2017	9,343,223	327,121,113	12,135,196	352,167,467
2018	9,220,241	332,574,242	8,591,425	351,084,225
2019	9,699,201	341,257,400	10,449,088	346,600,220
2020	10,078,083	346,905,156	11,420,625	307,836,701

Policy Year	(5) = (3) / (1) Pure Premium Ratio Assigned Risk	(6) = (4) / (2) Pure Premium Ratio Statewide	(7) = (5) / (6) Assigned Risk to Statewide Relativity	(8) = (7) / Impact of AR Programs^ Indicated Assigned Risk Differential
2006	1.808	1.328	1.361	1.213
2007	2.246	1.370	1.639	1.461
2008	2.410	1.396	1.726	1.538
2009	2.254	1.506	1.497	1.334
2010	3.070	1.397	2.198	1.959
2011	1.910	1.210	1.579	1.407
2012	2.229	1.235	1.805	1.609
2013	1.517	1.276	1.189	1.060
2014	1.644	1.201	1.369	1.220
2015	1.555	1.168	1.331	1.186
2016	0.960	0.985	0.975	0.869
2017	1.299	1.077	1.206	1.075
2018	0.932	1.056	0.883	0.787
2019	1.077	1.016	1.060	0.945
2020	1.133	0.887	1.277	1.138

Current Assigned Risk Differential	1.250	
Proposed Assigned Risk Differential	**1.250**	
Proposed Change in Assigned Risk Differential	1.000	0.0%

^Assigned Risk Programs in Addition to the Differential

(a) Removal of Premium Discounts	1.043
(b) ARAP	1.076
Total impact of programs = (a) x (b)	1.122

Part 4 Additional Information

- Definitions
- NCCI Affiliate List
- Key Contacts

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Definitions

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

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

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

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

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

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

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

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

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

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

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

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

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

Definitions

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

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

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

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

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NCCI Affiliate List

A M C O INSURANCE COMPANY
ACADIA INSURANCE COMPANY
ACCIDENT FUND GENERAL INS CO
ACCIDENT FUND INS CO OF AMERICA
ACCIDENT FUND NATIONAL INS CO
ACCREDITED SURETY & CASUALTY COMPANY INC
ACE AMERICAN INSURANCE COMPANY
ACE FIRE UNDERWRITERS INSURANCE COMPANY
ACE PROPERTY & CASUALTY INSURANCE COMPANY
ACIG INS CO
ACUITY A MUTUAL INS COMPANY
ADDISON INSURANCE COMPANY
AIG ASSURANCE COMPANY
AIG PROPERTY CASUALTY COMPANY
AIU INSURANCE CO (NATIONAL UNION FIRE OF PITTS PA)
AK NATIONAL INS CO
ALLIED EASTERN IND CO
ALLIED INSURANCE COMPANY OF AMERICA
ALLIED PROPERTY AND CASUALTY INS CO
ALLMERICA FINANCIAL ALLIANCE INS CO
ALLMERICA FINANCIAL BENEFIT INS CO
AMERICAN ALTERNATIVE INSURANCE CORPORATION
AMERICAN AUTOMOBILE INSURANCE CO
AMERICAN BUSINESS AND MERCANTILE INS MUTUAL INC
AMERICAN CASUALTY COMPANY OF READING P A
AMERICAN COMPENSATION INS CO
AMERICAN ECONOMY INS CO
AMERICAN FAMILY HOME INS CO
AMERICAN FAMILY INS CO
AMERICAN FAMILY MUTUAL INSURANCE COMPANY, S.I.
AMERICAN FIRE AND CASUALTY CO
AMERICAN GUARANTEE AND LIABILITY INS CO
AMERICAN HOME ASSUR CO-NATIONAL UNION FIRE OF PIT
AMERICAN INS CO
AMERICAN INTERSTATE INS CO
AMERICAN INTERSTATE INS CO OF TX
AMERICAN LIBERTY INSURANCE CO
AMERICAN MODERN HOME INS CO
AMERICAN NATIONAL PROPERTY AND CASUALTY CO
AMERICAN SELECT INS CO
AMERICAN STATES INS CO A SAFECO COMPANY
AMERICAN ZURICH INS CO
AMERISURE INS CO
AMERISURE MUTUAL INS CO
AMERISURE PARTNERS INS CO
AMGUARD INS CO
AMTRUST INSURANCE CO
ARCH INDEMNITY INSURANCE COMPANY
ARCH INSURANCE COMPANY
ARCH PROPERTY CASUALTY INS CO
ARGONAUT GREAT CENTRAL INS CO
ARGONAUT INS CO
ARGONAUT MIDWEST INS CO
ASCOT INSURANCE COMPANY
ASSOCIATED INDEMNITY CORP
ASSOCIATION CASUALTY INS CO
ATLANTIC SPECIALTY INS CO (INTACT)
ATLANTIC STATES INS CO
AUSTIN MUTUAL INSURANCE COMPANY
AUTO OWNERS INS CO
BADGER MUTUAL INS CO
BANKERS STANDARD INS CO
BEARING MIDWEST CASUALTY COMPANY
BENCHMARK INSURANCE COMPANY
BERKLEY CASUALTY COMPANY
BERKLEY INSURANCE COMPANY
BERKLEY NATIONAL INSURANCE COMPANY
BERKLEY REGIONAL INS CO
BERKSHIRE HATHAWAY DIRECT INSURANCE COMPANY
BERKSHIRE HATHAWAY HOMESTATE INS CO
BITCO GENERAL INSURANCE CORPORATION
BITCO NATIONAL INSURANCE COMPANY
BLACKBOARD INSURANCE COMPANY
BRICKSTREET MUTUAL INS CO
BROTHERHOOD MUTUAL INS CO
CALIFORNIA INSURANCE COMPANY
CAROLINA CASUALTY INS CO
CELINA MUTUAL INS CO
CHARTER OAK FIRE INS CO
CHEROKEE INS CO
CHIRON INSURANCE COMPANY
CHUBB INDEMNITY INS CO
CHUBB NATIONAL INS CO
CHURCH MUTUAL INS CO, S.I.
CIMARRON INSURANCE COMPANY INC
CINCINNATI CASUALTY COMPANY
CINCINNATI INDEMNITY COMPANY
CINCINNATI INS CO
CITIZENS INS CO OF AMERICA
CLARENDON NATIONAL INSURANCE CO (SUSSEX INS CO)
CLEAR SPRING PROPERTY AND CASUALTY COMPANY
CLERMONT INS CO
COLONIAL AMERICAN CASUALTY & SURETY CO
COLUMBIA MUTUAL INSURANCE CO
COLUMBIA NATIONAL INS CO
COMMERCE AND INDUSTRY INS CO
CONSOLIDATED INS CO
CONTINENTAL CASUALTY CO
CONTINENTAL INDEMNITY CO
CONTINENTAL INS CO
CONTINENTAL WESTERN INSURANCE COMPANY
COREPOINTE INSURANCE COMPANY
CRESTBROOK INS CO
CRUM AND FORSTER INDEMNITY CO
DAKOTA TRUCK UNDERWRITERS
DEPOSITORS INS CO
DIAMOND INS CO
DISCOVER PROPERTY & CASUALTY INS CO
DONEGAL MUTUAL INS CO
EASTERN ADVANTAGE ASSURANCE COMPANY
EASTERN ALLIANCE INSURANCE COMPANY
EASTGUARD INS CO
ELECTRIC INS CO
EMC PROPERTY & CASUALTY COMPANY
EMCASCO INS CO
EMPLOYERS ASSURANCE COMPANY
EMPLOYERS COMPENSATION INS CO
EMPLOYERS INS CO OF WAUSAU
EMPLOYERS INSURANCE COMPANY OF NEVADA
EMPLOYERS MUTUAL CASUALTY CO

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NCCI Affiliate List

EMPLOYERS PREFERRED INS CO
ENDURANCE AMERICAN INS CO
ENDURANCE ASSURANCE CORPORATION
EVEREST DENALI INSURANCE COMPANY
EVEREST NATIONAL INS CO
EVEREST PREMIER INSURANCE COMPANY
EVEREST REINSURANCE CO DIRECT
EXECUTIVE RISK INDEMNITY INC
EXPLORER INS CO
FALLS LAKE NATIONAL INSURANCE CO
FARM BUREAU PROPERTY & CASUALTY INS CO
FARMERS AUTOMOBILE INS ASSN
FARMERS INSURANCE EXCHANGE
FARMINGTON CASUALTY COMPANY
FEDERAL INSURANCE COMPANY
FEDERATED MUTUAL INS CO
FEDERATED RESERVE INSURANCE CO
FEDERATED RURAL ELECTRIC INS EXCHANGE
FEDERATED SERVICE INS CO
FIDELITY & DEPOSIT COMPANY OF MARYLAND
FIDELITY & GUARANTY INS UNDERWRITERS
FIDELITY & GUARANTY INSURANCE CO
FIRE INS EXCHANGE
FIREMANS FUND INSURANCE CO
FIREMENS INS CO OF WASHINGTON DC
FIRST DAKOTA INDEMNITY CO
FIRST LIBERTY INS CORP
FIRST NATIONAL INS CO OF AMERICA
FIRSTCOMP INSURANCE CO
FLORISTS MUTUAL INSURANCE CO
FOREMOST INS CO GRAND RAPIDS MICHIGAN
FOREMOST PROPERTY & CAS INS
FOREMOST SIGNATURE INS CO
FRANK WINSTON CRUM INSURANCE CO
FREEDOM SPECIALTY INSURANCE COMPANY
GENERAL CASUALTY COMPANY OF WISCONSIN
GENERAL CASUALTY INSURANCE COMPANY
GENERAL INS CO OF AMERICA
GENESIS INS CO
GRANITE STATE INSURANCE COMPANY
GRAPHIC ARTS MUTUAL INS CO
GRAY INSURANCE COMPANY
GREAT AMERICAN ALLIANCE INS CO
GREAT AMERICAN ASSURANCE COMPANY
GREAT AMERICAN INS CO OF NY
GREAT AMERICAN INSURANCE COMPANY
GREAT AMERICAN SPIRIT INS CO
GREAT DIVIDE INSURANCE COMPANY
GREAT MIDWEST INS CO
GREAT NORTHERN INS CO
GREAT WEST CASUALTY COMPANY
GREATER NY MUTUAL INS CO
GREENWICH INS CO
GRINNELL MUTUAL REINSURANCE CO
GRINNELL SELECT INS CO
GUIDEONE ELITE INS CO
GUIDEONE INSURANCE COMPANY
GUIDEONE SPECIALTY INSURANCE COMPANY
HANOVER AMERICAN INS CO
HANOVER INS CO
HARLEYSVILLE INSURANCE COMPANY
HARLEYSVILLE LAKE STATES INSURANCE COMPANY
HARLEYSVILLE PREFERRED INSURANCE CO
HARLEYSVILLE WORCESTER INSURANCE CO
HARTFORD ACCIDENT AND INDEMNITY CO
HARTFORD CASUALTY INS CO
HARTFORD FIRE INSURANCE CO
HARTFORD INS CO OF IL
HARTFORD INS CO OF MIDWEST
HARTFORD INS CO OF THE SOUTHEAST
HARTFORD UNDERWRITERS INS CO
HASTINGS MUTUAL INS CO
HAWKEYE-SECURITY INS CO
HDI GLOBAL INSURANCE COMPANY
HORIZON MIDWEST CASUALTY COMPANY
IA AMERICAN INS CO
IA LONG TERM CARE RISK MGMT ASSN
IA MUTUAL INS CO
IL EMCASCO INS CO
ILLINOIS CASUALTY COMPANY
ILLINOIS INSURANCE COMPANY
ILLINOIS NATIONAL INSURANCE COMPANY
IMPERIUM INSURANCE COMPANY
IMT INS CO
INCLINE CASUALTY COMPANY
INDEMNITY INS CO OF N AMERICA (INA INS) (CT GEN)
INDIANA INSURANCE COMPANY
INS CO OF NORTH AMERICA
INS CO OF THE STATE PA
INS CO OF THE WEST
INTEGRITY INSURANCE COMPANY
INTEGRITY PROPERTY & CASUALTY INS CO
INTEGRITY SELECT INSURANCE COMPANY
INTREPID INSURANCE COMPANY
KEY RISK INS CO
LACKAWANNA AMERICAN INS CO
LACKAWANNA CASUALTY CO
LACKAWANNA NATIONAL INS CO
LAFAYETTE INS CO
LIBERTY INS CORP
LIBERTY INSURANCE UNDERWRITERS INC
LIBERTY MUTUAL FIRE INS CO
LIBERTY MUTUAL INS CO
LM INS CORP
MA BAY INS CO
MAG MUTUAL INS CO
MANUFACTURERS ALLIANCE INS CO
MARKEL AMERICAN INSURANCE CO
MARKEL INSURANCE CO
MEMIC INDEMNITY CO
MERIDIAN SECURITY INSURANCE COMPANY
MID CENTURY INS CO
MIDDLESEX INS CO
MIDVALE INDEMNITY COMPANY
MIDWEST BUILDERS CASUALTY MUTUAL COMPANY
MIDWEST EMPLOYERS CASUALTY CO
MIDWEST FAMILY ADVANTAGE INSURANCE CO
MIDWEST FAMILY MUTUAL INS CO
MIDWEST INS CO
MIDWESTERN INDEMNITY CO

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MILBANK INSURANCE COMPANY
MILFORD CASUALTY INSURANCE CO
MITSUI SUMITOMO INS CO OF AMERICA
MITSUI SUMITOMO INS USA INC
MOTORISTS COMMERCIAL MUTUAL INSURANCE COMPANY
NATIONAL AMERICAN INS CO
NATIONAL CASUALTY CO
NATIONAL FIRE INS CO OF HARTFORD
NATIONAL INTERSTATE INS CO
NATIONAL LIABILITY & FIRE INSURANCE CO
NATIONAL SPECIALTY INS CO
NATIONAL SURETY CORP
NATIONAL UNION FIRE INS CO OF PITTSBURGH PA
NATIONWIDE AGRIBUSINESS INS CO
NATIONWIDE ASSURANCE CO
NATIONWIDE GENERAL INSURANCE CO
NATIONWIDE INS CO OF AMERICA
NATIONWIDE MUTUAL FIRE INS CO
NATIONWIDE MUTUAL INS CO
NATIONWIDE PROPERTY AND CASUALTY INS CO
NETHERLANDS INSURANCE COMPANY
NEW HAMPSHIRE INSURANCE COMPANY
NEW YORK MARINE AND GENERAL INSURANCE CO
NEXT INSURANCE US COMPANY
NHRMA MUTUAL INSURANCE COMPANY
NORGUARD INS CO
NORTH POINTE INS CO
NORTH RIVER INS CO
NORTHSTONE INSURANCE COMPANY
NOVA CASUALTY COMPANY
OAK RIVER INSURANCE COMPANY
OBI AMERICA INSURANCE COMPANY
OBI NATIONAL INSURANCE COMPANY
OH CASUALTY INS CO
OH FARMERS INS CO
OHIO SECURITY INS CO
OLD GUARD INSURANCE COMPANY
OLD REPUBLIC GENERAL INSURANCE CORPORATION
OLD REPUBLIC INS CO
OWNERS INSURANCE COMPANY
PA MANUFACTURERS ASSN INS CO
PA MANUFACTURERS INDEMNITY CO
PA NATIONAL MUTUAL CAS INS CO
PACIFIC EMPLOYERS INS CO
PACIFIC INDEMNITY CO
PACIFIC INS CO LTD
PARTNERS MUTUAL INS CO
PATRONS MUTUAL INS CO OF CT
PEERLESS INDEMNITY INS CO
PEERLESS INSURANCE COMPANY
PEKIN INS CO
PEKIN SELECT INS CO
PENN MILLERS INS CO
PENNSYLVANIA INSURANCE COMPANY
PETROLEUM CASUALTY CO
PHARMACISTS MUTUAL INS CO
PHOENIX INS CO
PINNACLE NATIONAL INSURANCE COMPANY
PINNACLEPOINT INSURANCE COMPANY
PIONEER SPECIALTY INSURANCE COMPANY
PLAZA INSURANCE CO
PRAETORIAN INSURANCE COMPANY
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PREFERRED PROFESSIONAL INSURANCE COMPANY
PRESCIENT NATIONAL INSURANCE COMPANY
PREVISOR INSURANCE COMPANY
PROPERTY AND CASUALTY INS CO OF HARTFORD
PROSELECT INSURANCE COMPANY
PROTECTIVE INS CO
QBE INSURANCE CORPORATION
REDWOOD FIRE & CASUALTY INS CO
REGENT INSURANCE COMPANY
REPUBLIC INDEMNITY COMPANY OF AMERICA
RIVERPORT INSURANCE COMPANY
RLI INSURANCE COMPANY
ROCKWOOD CASUALTY INS CO
RURAL TRUST INSURANCE COMPANY
SAFECO INS CO OF AMERICA
SAFETY FIRST INS CO
SAFETY NATIONAL CASUALTY CORP
SAGAMORE INSURANCE CO
SAMSUNG FIRE AND MARINE INS CO LTD USB
SCOTTSDALE INDEMNITY CO
SECURA INSURANCE COMPANY
SECURA SUPREME INS CO
SECURITY NATIONAL INS CO (AMTRUST GROUP)
SELECTIVE INS CO OF SC
SELECTIVE INS CO OF THE SOUTHEAST
SELECTIVE INSURANCE COMPANY OF AMERICA
SELECTIVE WAY INS CO
SENTINEL INS CO
SENTRY CASUALTY CO
SENTRY INS CO
SENTRY SELECT INSURANCE COMPANY
SEQUOIA INSURANCE CO
SERVICE AMERICAN INDEMNITY COMPANY
SERVICE LLOYDS INSURANCE CO, A STOCK COMPANY
SFM MUTUAL INS CO
SFM SAFE INSURANCE COMPANY
SFM SELECT INSURANCE COMPANY
SILVER OAK CASUALTY INC
SIRIUSPOINT AMERICA INSURANCE COMPANY
SOCIETY INSURANCE A MUTUAL COMPANY
SOMPO AMERICA FIRE & MARINE INSURANCE COMPANY
SOMPO AMERICA INSURANCE COMPANY
SOUTHERN INS CO
ST PAUL FIRE AND MARINE INS CO
ST PAUL GUARDIAN INS CO
ST PAUL MERCURY INS CO
ST PAUL PROTECTIVE INS CO
STANDARD FIRE INSURANCE COMPANY
STAR INS CO
STARNET INSURANCE COMPANY
STARR INDEMNITY AND LIABILITY CO
STARR SPECIALTY INSURANCE COMPANY
STARSTONE NATIONAL INSURANCE COMPANY
STATE AUTO PROPERTY AND CASUALTY INS CO
STATE AUTOMOBILE MUTUAL INS CO
STATE FARM FIRE AND CASUALTY CO
STATE NATIONAL INSURANCE COMPANY

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STONETRUST COMMERCIAL INS CO
STONINGTON INS CO
SUMMITPOINT INSURANCE COMPANY
SUNZ INSURANCE COMPANY
SUTTON NATIONAL INSURANCE COMPANY
SWISS RE CORPORATE SOLUTIONS AMERICA INS CORP
SWISS RE CORPORATE SOLUTIONS ELITE INS CORP
SWISS RE CORPORATE SOLUTIONS PREMIER INS CORP
T H E INSURANCE COMPANY
TECHNOLOGY INSURANCE CO
THE TRAVELERS CASUALTY COMPANY
TNUS INSURANCE CO
TOKIO MARINE AMERICA INSURANCE CO
TRANS PACIFIC INS CO
TRANSGUARD INS CO OF AMERICA INC
TRANSPORTATION INS CO
TRAVELERS CASUALTY AND SURETY CO
TRAVELERS CASUALTY INS CO OF AMERICA
TRAVELERS INDEMNITY CO
TRAVELERS INDEMNITY CO OF AMERICA
TRAVELERS INDEMNITY CO OF CT
TRAVELERS INSURANCE CO
TRAVELERS PROPERTY CASUALTY CO OF AMERICA
TRI STATE INSURANCE COMPANY OF MINNESOTA
TRIANGLE INSURANCE COMPANY INC
TRIUMPHE CASUALTY COMPANY
TRUCK INSURANCE EXCHANGE
TRUMBULL INS CO
TWIN CITY FIRE INS CO
UNION INS CO OF PROVIDENCE
UNION INSURANCE COMPANY
UNITED FIRE AND CASUALTY CO
UNITED STATES FIDELITY AND GUARANTY CO
UNITED WI INS CO
UNIVERSAL UNDERWRITERS INS CO
US FIRE INS CO
UTICA MUTUAL INS CO
VALLEY FORGE INS CO
VANLINER INS CO
VANTAPRO SPECIALTY INS CO
VICTORIA FIRE & CASUALTY COMPANY
VIGILANT INS CO
WADENA INSURANCE COMPANY
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 (AMTRUST GROUP)
WEST AMERICAN INS CO
WEST BEND MUTUAL INS CO
WESTCHESTER FIRE INSURANCE COMPANY
WESTERN AGRICULTURAL INS CO
WESTERN NATIONAL ASSURANCE CO
WESTERN NATIONAL MUTUAL INS CO
WESTFIELD CHAMPION INSURANCE COMPANY
WESTFIELD INS CO
WESTFIELD NATIONAL INS CO
WESTFIELD PREMIER INSURANCE COMPANY
WESTFIELD SUPERIOR INSURANCE COMPANY
WESTFIELD TOUCHSTONE INSURANCE COMPANY
WESTPORT INSURANCE CORPORATION
WILLIAMSBURG NATIONAL INS CO
WORK FIRST CASUALTY CO
XL INS CO OF NY INC
XL INSURANCE AMERICA INC
XL SPECIALTY INS CO
ZENITH INS CO
ZNAT INS CO
ZURICH AMERICAN INS CO
ZURICH AMERICAN INS CO OF IL

Iowa

Workers Compensation Rate Filing – January 1, 2023

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