

### **Rhode Island**

Advisory Loss Costs and Rating Values Filing

Proposed Effective August 1, 2018



Justin Moulton, CPCU State Relations Executive Regulatory Division

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November 17, 2017

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

Attention: Paula Pallozzi, SPIR, Associate Director

Re: Rhode Island Advisory Loss Costs and Rating Values Filing Proposed to Be Effective August 1, 2018

Dear Superintendent Dwyer:

In accordance with the applicable statutes and regulations of the state of Rhode Island, we are filing for your consideration and approval advisory loss costs changes for Rhode Island.

The advisory loss costs, which are proposed to be effective August 1, 2018, reflect a decrease of 4.6% from the current advisory loss costs which became effective August 1, 2017.

Please note the following in connection with this filing:

- 1. As a result of Item B-1435, effective August 1, 2018:
  - a. Class Code 1655 is discontinued and the loss cost for Class Code 1642 is payroll weighted to reflect the combined experience of Class Codes 1642 and 1655.
  - b. Class Codes 1741 and 1853 are discontinued and the loss cost for Class Code 1701 is payroll weighted to reflect the combined experience of Class Codes 1701, 1741 and 1853.
  - c. Class Codes 1860 and 4282 are discontinued and the loss cost for Class Code 4279 is payroll weighted to reflect the combined experience of Class Codes 1860, 4279 and 4282.
  - d. Class Codes 2386, 2534, and 2501 are combined to reflect the first year of a two-year transition program. In the second year of the transition, Class Codes 2386 and 2534 will be discontinued.
  - e. Class Code 3175 is discontinued and the loss cost for Class Code 3169 is payroll weighted to reflect the combined experience of Class Codes 3169 and 3175.
  - f. Class Code 3223 is discontinued and the loss cost for Class Code 3180 is payroll weighted to reflect the combined experience of Class Codes 3180 and 3223.
  - g. Class Codes 4053 and 4061 are discontinued and the loss cost for Class Code 4062 is payroll weighted to reflect the combined experience of Class Codes 4053, 4061 and 4062.
  - h. Class Code 4113 is discontinued and the loss cost for Class Code 4111 is payroll weighted to reflect the combined experience of Class Codes 4111 and 4113.
  - i. Class Code 4439 is discontinued and the loss cost for Class Code 4558 is payroll weighted to reflect the combined experience of Class Codes 4439 and 4558.



- j. Class Code 5069 is discontinued and the loss cost for Class Code 5059 is payroll weighted to reflect the combined experience of Class Codes 5059 and 5069.
- k. Class Code 7225 is established.
- I. Class Codes 7228 and 7229 are discontinued and the loss cost for Class Code 7219 is established and payroll weighted to reflect the combined experience of Class Codes 7228 and 7229.
- 2. As a result of Item R-1413, the retrospective rating plan parameters were updated.

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

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

As always, if you should have any questions or need additional information, please do not hesitate to contact me at (860) 969-7903 or Nadege Bernard-Ahrendts at (561) 893-3082.

Respectfully submitted,

Write

Justin Moulton, CPCU

State Relations Executive



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### Advisory Loss Costs and Rating Values Filing – August 1, 2018 Actuarial Certification

I, Nadege Bernard-Ahrendts, 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.

Nadege Bernard-Ahrendts, FCAS, MAAA

Madige Surand. Ahrendts

Director & Actuary

Actuarial and Economic Services



#### Advisory Loss Costs and Rating Values Filing – August 1, 2018

#### **Disclosures**

#### **Purpose of the Report**

The purpose of this report is to provide the proposed advisory loss costs for workers compensation policies in Rhode Island, proposed to be effective August 1, 2018. The intended users of this report are:

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

#### Scope

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

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

#### **Data Sources and Dates**

The overall average loss cost level change is based on a review of Financial Call Data, which is an aggregation of workers compensation data annually reported to NCCI. In this filing, Financial Call Data submissions received after September 1, 2017 were not considered for inclusion in the analysis.

Loss cost level changes at the classification code level are based on Unit Statistical Data, which is the audited exposure, premium and loss information reported to NCCI on a policy level. In this filing, Unit Statistical Data submissions received after September 29, 2017 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.

This filing was prepared as of October 20, 2017. Therefore, events that occurred after this date that may have a material impact on workers compensation costs in this jurisdiction have not been considered in the analysis.



#### Advisory Loss Costs and Rating Values Filing – August 1, 2018

#### **Disclosures**

NCCI maintains several data reporting initiatives and programs to assist carriers to report data and to ensure that the data that is reported to NCCI is complete, accurate, and reported in a timely fashion. Occasionally, a carrier's data submission is not available for use in an NCCI filing either because the data was not reported prior to the filing, had quality issues, or NCCI determined that the data that was reported should not be included in the filing based on NCCI's actuarial judgment. Data for all carriers writing at least one-tenth of one percent of the Rhode Island workers compensation written premium volume have been included in the experience period on which this filing is based.

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

#### **Risks and Uncertainty**

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

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

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



### Advisory Loss Costs and Rating Values Filing – August 1, 2018

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#### Advisory Loss Costs and Rating Values Filing - August 1, 2018

#### Part 1 Filing Overview

- Executive Summary
- Overview of Methodology
- Summary of Selections
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#### Advisory Loss Costs and Rating Values Filing – August 1, 2018

#### **Executive Summary**

Based on its review of the most recently available data, NCCI has proposed an overall average workers compensation voluntary market loss cost level change of -4.6% to become effective August 1, 2018.

Key Components	Percentage Change
Impact of change in Experience and Development	- 4.1%
Impact of change in Trend	<b>– 1.5%</b>
Impact of change in Benefits	+ 0.3%
Impact of change in Loss-based Expenses	<u>+ 0.6%</u>
Proposed Change in Overall Voluntary Loss Cost Level	<b>- 4.6%</b>

#### Key observations:

- The filing is based on premium and loss experience for policy years 2013, 2014, and 2015 evaluated as of December 31, 2016, which is moderately favorable
- Rhode Island's lost-time claim frequency has declined since 2010
- While Rhode Island's indemnity cost per case has remained fairly stable over time, the medical average cost per case has declined somewhat in recent years.

#### Proposed Changes in Voluntary Loss Cost Level by Industry Group:

	Average	Maximum	Maximum
Industry Group	<u>Change</u>	<u>Increase</u>	<b>Decrease</b>
Manufacturing	- 4.5%	+ 11.0%	- 19.0%
Contracting	- 5.6%	+ 9.0%	- 21.0%
Office and Clerical	- 6.6%	+ 8.0%	- 22.0%
Goods and Services	- 5.1%	+ 10.0%	- 20.0%
Miscellaneous	- 1.0%	+ 14.0%	- 16.0%

#### Additional Notable Change(s) Proposed in the Filing:

Updated terrorism loss cost



#### Advisory Loss Costs and Rating Values Filing – August 1, 2018

#### **Overview of Methodology**

#### **Aggregate Ratemaking**

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

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

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

#### Class Ratemaking

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

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

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



#### Advisory Loss Costs and Rating Values Filing – August 1, 2018

#### **Summary of Selections**

The following is a summary of selections underlying the voluntary loss proposed to be effective August 1, 2018, along with the selections underlying the currently-approved loss costs.

Voluntary Loss Costs	Currently Approved August 1, 2017	Proposed Effective August 1, 2018
Experience Period	Policy Years 2012–2014	Policy Years 2013–2015
Premium Development	3-year average	3-year average
Basis of Loss Experience	Paid Losses	Paid Losses
Loss Development Factors	5-year Xhilo average	5-year Xhilo average
Tail Factors	Selected	Selected
Indemnity Annual Loss Ratio Trend Factor	0.990	0.990
Medical Annual Loss Ratio Trend Factor	0.995	0.985
Loss Adjustment Expense Provision	18.4%	19.1%
Base Threshold for Limiting Losses	\$3,775,378	\$3,546,318
Large Loss Excess Ratio	2.3%	2.4%
Classification Swing Limits (applied by Industry Group)	+/-15%	+/-15%



#### Advisory Loss Costs and Rating Values Filing – August 1, 2018

#### Selections Underlying the Proposed Changes

#### **Experience and Development**

NCCI analyzed the emerging experience of Rhode Island workers compensation policies in recent years. The primary focus of our analysis was on premiums and losses from policy years 2013, 2014, and 2015 evaluated as of December 31, 2016. The most recently available full policy year is 2015 since the last policy had an effective date of December 31, 2015 and did not expire until December 31, 2016. During this year's analysis, after reviewing various possible experience periods, the use of the three most recently available full policy years of data was selected as most appropriate in terms of providing balance between stability and responsiveness.

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

- A three-year average of historical premium development factors
- A five-year excluding highest and lowest average of historical paid loss development factors through a 19th report
- Loss development tail factors from a 19th report to ultimate were selected

#### **Trend**

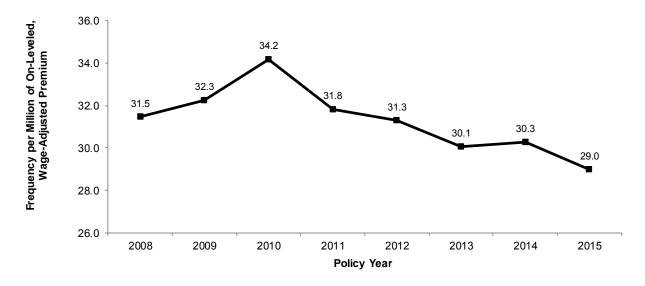
This filing relies primarily on the experience from policy years 2013, 2014, and 2015. However, the proposed loss costs are intended for use with policies with effective dates starting on August 1, 2018. It is necessary to use trend factors that forecast how much the future Rhode Island workers compensation experience will differ from the past. These trend factors measure anticipated changes in the amount of indemnity and medical benefits as compared with anticipated changes in the amount of workers' wages. For example, if benefit costs are expected to grow faster than wages, then a trend factor greater than zero is indicated. Conversely, if wages are expected to grow faster than benefit costs, then a trend factor less than zero is indicated. While historical changes in claim frequency and average cost per case were also reviewed, NCCI applies loss ratio trend factors in the determination of the proposed overall average loss cost level change.

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



## Advisory Loss Costs and Rating Values Filing – August 1, 2018 Selections Underlying the Proposed Changes

#### **Rhode Island Claim Frequency**

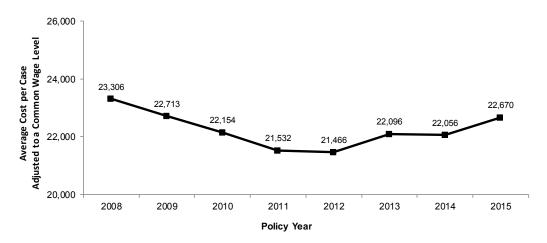


Rhode Island's lost-time claim frequency has declined since 2010, as shown immediately above. The data in this chart reflects premiums at today's loss cost and wage levels.

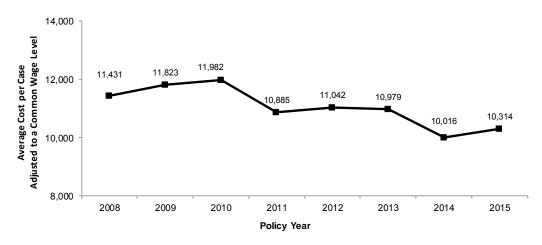


### Advisory Loss Costs and Rating Values Filing – August 1, 2018 Selections Underlying the Proposed Changes

#### Rhode Island Indemnity Cost Per Case Adjusted to a Common Wage Level



#### Rhode Island Medical Cost Per Case Adjusted to a Common Wage Level



As these two charts illustrate, Rhode Island's average indemnity cost per case has remained fairly consistent over time, while Rhode Island's medical cost per case has moderately declined.

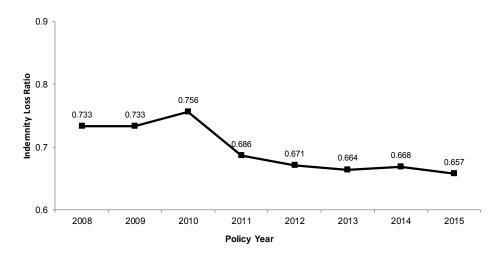


#### Advisory Loss Costs and Rating Values Filing - August 1, 2018

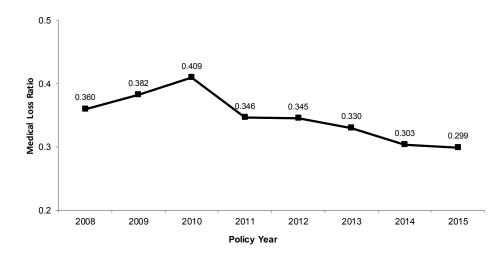
#### **Selections Underlying the Proposed Changes**

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

#### Rhode Island Indemnity Loss Ratio History



#### **Rhode Island Medical Loss Ratio History**



Based on our analysis this year, we are proposing no change in the annual indemnity loss ratio trend of -1.0% and a decrease in annual medical loss ratio trend from -0.5% to -1.5%.



### Advisory Loss Costs and Rating Values Filing – August 1, 2018 Selections Underlying the Proposed Changes

#### **Benefit Changes**

Workers injured in Rhode Island receive wage replacement (indemnity) benefits at a rate of three-fourths of their pre-injury spendable weekly wage. These benefits are subject to a weekly minimum and maximum. Each Fall, the minimum and maximum weekly benefits are updated based on Rhode Island's most recent state average weekly wage. The latest increase in Rhode Island's state average weekly wage is estimated to have no impact on indemnity costs or overall system costs. Please see Appendix C-II for additional detail.

NCCI has included the impact of the most recent Medical Fee Schedule updates effective September 1, 2017. These changes are estimated to increase overall workers compensation system costs by +0.3%. Please see Appendix C-I for additional detail.

#### **Loss-Based Expenses**

The proposed loss costs include a provision for loss adjustment expenses (LAE). These are expenses associated with the handling of workers compensation claims. LAE is included in the loss costs by using a ratio of private carrier loss adjustment expense dollars to loss dollars (called the LAE provision). In this filing, NCCI is proposing to increase the current LAE provision from 18.4% to 19.1% of losses. Please see Exhibit II for additional detail.



#### Advisory Loss Costs and Rating Values Filing – August 1, 2018

#### **Additional Proposed Changes**

#### **Updated Terrorism Voluntary Loss Cost**

As a result of NCCI's most recent analysis, the proposed terrorism loss cost per \$100 of payroll in Rhode Island decreased from \$0.01 to \$0.005.

#### Background

The Terrorism Risk Insurance Act of 2002 ("TRIA" or the "Act") was implemented since Congress recognized that terrorism is a catastrophe exposure that is real and significant for insurers of workers compensation and other lines of insurance. Each state's current terrorism Miscellaneous Value was initially based on the result of one of six modeled states.

TRIA 2002 was renewed and amended as TRIE in 2005 and as TRIPRA in 2007. NCCI submitted several Item filings over the years that proposed changes to the Miscellaneous Values, rules, and policy forms to implement these changes.

The U.S. Congress passed the Terrorism Risk Insurance Plan Reauthorization Act (TRIPRA 2015), which changed various coverage parameters for certified terrorism losses and generally increased carriers' financial responsibility (and thus decreased the U.S government's financial support). TRIPRA of 2015 is set to expire on 12/31/2020.

However, NCCI anticipated that in addition to changes in the law itself, the risk and cost of terrorism losses may have changed over time.

#### **NCCI** Analysis

NCCI worked with expert catastrophe loss modeling firms to assess the impact of terrorism risk on workers compensation insurance losses. NCCI selected results which included an estimated average terrorism workers compensation loss dollar amount per worker for each NCCI state under TRIPRA 2015 parameters and provisions.

NCCI converted those estimates from the modeling firms to a loss cost per \$100 of payroll using average weekly wage information and currently approved loss-based expense provisions, by state. NCCI relied on average weekly wage information from the Bureau of Labor Statistics Quarterly Census of Employment and Wages, consistent with that which NCCI uses in other areas of its filings.

The indicated terrorism Miscellaneous Value loss cost is rounded to the nearest \$0.005, and set to a minimum of \$0.005 (i.e. half-penny).



#### Advisory Loss Costs and Rating Values Filing – August 1, 2018

#### Part 2 Proposed Values

- Proposed Voluntary Loss Costs and Rating Values
- Proposed Values for Inclusion in the Experience Rating Plan Manual
- Proposed Values for Inclusion in the Retrospective Rating Plan Manual



## Advisory Loss Costs and Rating Values Filing – August 1, 2018 Proposed Voluntary Loss Costs and Rating Values

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

- Advisory loss costs, expected loss rates, and d-ratios by class code, along with associated footnotes
- Advisory miscellaneous values, such as:
  - Advisory loss elimination ratios
  - Maximum weekly payroll applicable for select class codes
  - o Premium determination for Executive Officers and Athletic Sports or Park
  - o Terrorism advisory loss cost
  - United States Longshore and Harbor Workers' Compensation Coverage Percentage

01.400	1.000			8		D					
CLASS CODE	LOSS COST	ELR	D RATIO	CLASS CODE	LOSS COST	ELR	D RATIO	CLASS CODE	LOSS COST	ELR	RATIO
0005	3.41	2.58	0.36	2016	3.27	2.50	0.37	2709	12.89	8.85	0.31
0003	2.80	2.03	0.34	2010	2.90	2.11	0.34	2710	8.46	5.57	0.31
0016	6.86	4.74	0.30	2039	2.69	2.06	0.37	2714	5.87	4.51	0.27
0010	5.38	4.03	0.36	2041	3.02	2.32	0.37	2731	3.83	2.65	0.30
0035	2.87	2.23	0.37	2065	2.76	2.07	0.36	2735	8.06	6.27	0.37
0000	2.01	2.20	0.57	2000	2.70	2.07	0.50	2700	0.00	0.27	0.07
0036	4.83	3.63	0.36	2070	6.54	4.90	0.36	2759	9.13	7.02	0.37
0037	4.53	3.28	0.34	2081	3.28	2.48	0.36	2790	1.50	1.16	0.37
0042	5.06	3.67	0.34	2089	3.88	2.92	0.36	2797	4.06	3.06	0.36
0050	4.39	3.30	0.36	2095	6.79	5.10	0.36	2799	3.65	2.65	0.34
0059D	0.24	0.07	0.31	2105	3.83	2.96	0.37	2802	4.59	3.33	0.34
0065D	0.05	0.02	0.30	2110	2.52	1.95	0.37	2835	3.04	2.44	0.47
0066D	0.05	0.02	0.30	2111	4.57	3.53	0.37	2836	2.73	2.20	0.47
0067D	0.05	0.02	0.30	2112	3.83	2.96	0.37	2841	5.72	4.43	0.37
0079	3.62	2.51	0.30	2114	2.90	2.24	0.37	2881	2.65	2.13	0.47
0083	4.96	3.74	0.36	2121	1.75	1.33	0.36	2883	3.48	2.62	0.36
0106	17.22	11.36	0.27	2130	2.46	1.84	0.36	2913	_	2.62	0.36
0113	4.51	3.39	0.36	2131	3.06	2.29	0.36	2915	3.47	2.51	0.34
0170	3.80	2.86	0.36	2143	2.27	1.75	0.37	2916	4.55	2.99	0.27
0251	4.61	3.48	0.36	2157	6.04	4.52	0.36	2923	2.58	1.98	0.37
0400	_	2.25	0.34	2172	2.18	1.56	0.34	2942	_	1.51	0.47
0401	12.13	7.96	0.27	2174	3.24	2.49	0.37	2960	6.77	5.13	0.36
0771N	0.58	_	_	2211	7.14	4.92	0.31	3004	2.19	1.51	0.31
0908P	135.00	101.88	0.36	2220	1.80	1.35	0.36	3018	3.24	2.23	0.31
0913P	465.00	347.80	0.36	2260	-	4.92	0.31	3022	3.39	2.60	0.37
0917	8.01	6.19	0.37	2286	1.88	1.45	0.37	3027	3.18	2.20	0.30
0918X	1.57	1.18	0.36	2288	3.96	3.06	0.37	3028	3.60	2.71	0.36
1005	6.25	3.77	0.25	2300	_	1.70	0.36	3030	6.96	4.79	0.31
1164D	5.90	3.55	0.25	2302	2.53	1.91	0.36	3040	8.68	6.00	0.30
1165D	3.24	2.10	0.27	2305	2.72	1.97	0.34	3041	4.97	3.75	0.36
1320	2.02	1.32	0.27	2361	2.24	1.70	0.36	3042	4.70	3.40	0.34
4222	7.04	4 74	0.27	2202	2.07	4.50	0.20	2004	F 07	2.02	0.20
1322	7.24	4.71		2362	2.07	1.56	0.36	3064 3069	5.07 –	3.82	0.36
1430 1438	5.92 5.50	4.09 3.64	0.30	2380 2386X	2.41 2.26	1.81 1.70	0.36 0.36	3076	4.42	3.31 3.31	0.36 0.36
1450	3.05	2.10	0.27 0.31	2388	2.50	1.70	0.36	3076 3081D	6.91	4.74	0.30
1463	11.88	7.78	0.31	2402	3.60	2.50	0.30	3081D	4.66	3.19	0.30
1403	11.00	7.70	0.27	2402	3.00	2.50	0.30	3002D	4.00	3.19	0.50
1472	3.45	2.27	0.27	2413	3.24	2.44	0.36	3085D	4.68	3.18	0.30
1624D	2.93	1.91	0.27	2416	1.89	1.41	0.36	3110	4.27	3.10	0.36
1642	3.27	2.24	0.27	2417	2.93	2.18	0.36	3111	2.54	1.91	0.36
1654	7.33	5.02	0.31	2501	2.26	1.70	0.36	3113	1.88	1.41	0.36
1655	7.55	2.24	0.31	2503	1.70	1.31	0.37	3114	2.45	1.84	0.36
,			0.0.		0		0.0.	l - · · ·	2		0.00
1699	4.02	2.77	0.31	2534X	2.26	1.70	0.36	3118	2.36	1.81	0.37
1701	3.22	2.21	0.31	2570	3.75	2.88	0.37	3119	0.77	0.62	0.47
1710D	3.69	2.51	0.31	2585	5.11	3.92	0.37	3122	2.26	1.74	0.37
1741	-	2.21	0.31	2586	2.65	1.99	0.36	3126	1.95	1.47	0.36
1747	2.82	1.93	0.31	2587	3.21	2.45	0.37	3131	1.95	1.47	0.36
1748	5.41	3.74	0.30	2589	2.16	1.62	0.36	3132	3.10	2.34	0.36
1803D	7.64	4.84	0.27	2600	4.83	3.71	0.37	3145	2.01	1.51	0.36
1852	_	1.70	0.25	2623	8.08	5.86	0.34	3146	2.49	1.89	0.36
1853	_	2.21	0.31	2651	1.58	1.22	0.37	3169	2.57	1.93	0.36
1860	_	2.37	0.36	2660	2.23	1.72	0.37	3175	_	1.93	0.36
1924	2.84	2.17	0.37	2670	2.14	1.72	0.47	3179	2.30	1.77	0.37
1925	4.51	3.27	0.34	2683	1.75	1.36	0.37	3180	4.12	3.17	0.37
2002	5.68	4.41	0.37	2688	3.02	2.32	0.37	3188	2.42	1.86	0.37
2003	5.17	3.88	0.36	2701	13.39	9.19	0.31	3220	2.11	1.59	0.36
2014	5.40	3.71	0.31	2702	30.83	18.84	0.25	3223	-	3.17	0.37

 $<sup>^{\</sup>star}\,$  Refer to the Footnotes Page for additional information on this class code.

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

CLASS	LOSS		D	CLASS	Effective Aug	juot 1, 201	D	CLASS	LOSS		D
CODE	COST	ELR	RATIO	CODE	COST	ELR	RATIO	CODE	COST	ELR	RATIO
3224	3.32	2.54	0.37	4000	4.23	2.77	0.27	4583	4.64	3.04	0.27
3227	2.93	2.26	0.37	4021	5.45	3.77	0.30	4611	0.99	0.76	0.37
3240	2.89	2.24	0.37	4024D	3.43	2.35	0.31	4635	2.59	1.57	0.25
3241	3.44	2.59	0.36	4034	6.69	4.59	0.31	4653	1.96	1.50	0.37
3255	2.61	2.10	0.47	4036	2.60	1.79	0.31	4665	7.29	5.02	0.31
0057	0.47	0.00	0.00	4000	0.00	0.45	0.47	4070	7.07		0.00
3257	3.47	2.62	0.36	4038	3.06	2.45	0.47	4670	7.97	5.52	0.30
3270	2.45	1.85	0.36	4053	_	1.80	0.36	4683	4.23	3.16	0.36
3300	4.52	3.43	0.36	4061	_	1.80	0.36	4686	3.05	2.11	0.31
3303	3.31	2.56	0.37	4062	2.38	1.80	0.36	4692	1.03	0.78	0.37
3307	5.15	3.87	0.36	4101	2.74	1.99	0.34	4693	1.10	0.82	0.36
3315	4.35	3.33	0.37	4109	0.85	0.65	0.37	4703	2.56	1.91	0.36
3334	3.26	2.43	0.36	4110	0.84	0.63	0.36	4717	2.08	1.67	0.47
3336	6.33	4.36	0.31	4111	1.63	1.25	0.37	4720	5.86	4.42	0.36
3365	6.11	4.16	0.31	4113	_	1.25	0.37	4740	1.76	1.21	0.31
3372	3.50	2.53	0.34	4114	2.56	1.91	0.36	4741	3.93	2.95	0.36
3373	4.95	3.71	0.36	4130	3.93	2.96	0.36	4751	1.97	1.37	0.30
3383X	1.65	1.27	0.37	4131	4.95	3.83	0.37	4771N	3.30	2.03	0.25
3385	0.93	0.71	0.37	4133	2.00	1.55	0.37	4777	4.48	2.73	0.25
3400	3.28	2.38	0.34	4149	1.03	0.82	0.47	4825	0.74	0.51	0.31
3507	4.91	3.67	0.36	4206	3.45	2.58	0.36	4828	1.53	1.11	0.34
3515	2.44	1.85	0.36	4207	2.08	1.43	0.31	4829	1.47	0.96	0.27
3516	_	1.85	0.36	4239	2.65	1.82	0.31	4902	3.68	2.83	0.37
3548	2.49	1.88	0.36	4240	2.85	2.20	0.37	4923	1.64	1.23	0.36
3559	2.40	1.81	0.36	4243	2.20	1.65	0.36	5020	5.21	3.58	0.31
3561	_	0.81	0.37	4244	4.22	3.18	0.36	5022	5.06	3.30	0.27
3574	1.05	0.81	0.37	4250	2.01	1.51	0.36	5037	14.18	8.60	0.25
3581	1.17	0.90	0.37	4251	2.83	2.12	0.36	5040	15.80	9.57	0.25
3612	3.31	2.39	0.34	4263	2.68	2.01	0.36	5057	6.24	3.78	0.25
3620	2.91	2.00	0.31	4273	2.92	2.20	0.36	5059	15.79	9.64	0.25
3629	1.65	1.27	0.37	4279	3.14	2.37	0.36	5069	-	9.64	0.25
3632	2.24	1.62	0.34	4282	_	2.37	0.36	5102	4.79	3.14	0.27
3634	2.10	1.61	0.37	4283	2.09	1.58	0.36	5146	7.29	5.01	0.31
3635	2.33	1.75	0.36	4299	2.14	1.65	0.37	5160	2.02	1.32	0.27
3638	1.38	1.06	0.37	4301		2.37	0.36	5183	3.16	2.17	0.21
3642	1.44	1.08	0.36	4304	4.12	2.99	0.34	5188	2.28	1.56	0.31
3643	2.09	1.57	0.36	4307	1.81	1.45	0.47	5190	2.84	1.96	0.31
3647	2.43	1.76	0.34	4351	1.01	0.77	0.36	5191	1.15	0.86	0.36
3648	1.54	1.19	0.37	4352	1.51	1.17	0.37	5192	3.39	2.55	0.36
3681	1.32	1.02	0.37	4360	1.20	0.91	0.37	5213	6.71	4.38	0.27
3685	1.33	1.02	0.37	4361	1.18	0.91	0.37	5215	6.56	4.76	0.34
3719	1.27	0.77	0.25	4410	3.93	2.95	0.36	5221	6.33	4.35	0.31
3724	3.86	2.51	0.27	4420	4.92	3.20	0.27	5222	7.30	4.76	0.27
3726	3.24	1.97	0.25	4431	1.69	1.36	0.47	5223	5.20	3.59	0.31
3803	2.36	1.77	0.36	4432	1.88	1.51	0.47	5348	5.03	3.46	0.31
3807	2.64	2.04	0.37	4439	-	1.17	0.36	5402	3.91	3.01	0.37
3808	3.64	2.62	0.34	4452	2.51	1.89	0.36	5403	6.74	4.40	0.27
3821	5.82	4.22	0.34	4459	3.44	2.59	0.36	5437	6.46	4.43	0.31
3822	3.95	2.88	0.34	4470	3.52	2.64	0.36	5443	3.28	2.47	0.36
3824	4.33	3.14	0.34	4484	3.45	2.60	0.36	5445	5.73	3.75	0.27
3826	0.94	0.70	0.36	4493	3.61	2.72	0.36	5462	7.00	4.82	0.31
2027	0.45	4 70	0.24	4514	0.05	0.00	0.04	E 470	40.04	0.40	0.05
3827	2.45	1.78	0.34	4511	0.95	0.69	0.34	5472	13.34	8.13	0.25
3830	1.22	0.88	0.34	4557	3.33	2.55	0.37	5473	8.59	5.24	0.25
3851	3.56	2.73	0.37	4558	1.56	1.17	0.36	5474	6.97	4.55	0.27
3865	1.97	1.59	0.47	4568	2.91	2.00	0.31	5478	3.87	2.65	0.31
3881	4.67	3.51	0.36	4581	1.00	0.66	0.27	5479	6.51	4.71	0.34

 $<sup>^{\</sup>star}\,$  Refer to the Footnotes Page for additional information on this class code.

CLASS	LOSS		D	CLASS	LOSS	gust 1, 201	D	CLASS	LOSS		D
CODE	COST	ELR	RATIO	CODE	COST	ELR	RATIO	CODE	COST	ELR	RATIO
5480	6.90	4.50	0.27	7024M	2.94	1.77	0.25	7601	_	2.89	0.31
5491	1.65	1.08	0.27	7038M	4.52	2.82	0.24	7605	1.95	1.34	0.30
5506	8.30	5.08	0.25	7046M	6.75	4.09	0.25	7610	0.60	0.43	0.34
5507	3.09	2.02	0.27	7047M	4.27	2.45	0.25	7611	_	2.89	0.31
5508D	10.50	7.14	0.31	7050M	7.30	4.34	0.24	7612	-	2.89	0.31
5535	6.06	4.17	0.31	7090M	5.02	3.13	0.24	7613	_	2.89	0.31
5537	4.38	3.03	0.30	7098M	7.50	4.55	0.25	7705	4.79	3.46	0.34
5551	15.16	9.31	0.25	7099M	10.91	6.31	0.25	7710	4.58	3.00	0.27
5606	0.95	0.62	0.27	7133	3.10	2.03	0.27	7711	4.58	3.00	0.27
5610	4.33	3.23	0.36	7151M	3.77	2.47	0.27	7720	2.67	1.85	0.30
5645	6.68	4.38	0.27	7152M	6.09	3.80	0.27	7855	3.20	2.20	0.31
5651	-	4.38	0.27	7153M	4.19	2.75	0.27	8001	2.06	1.59	0.37
5703	16.67	11.46	0.31	7219	7.04	4.61	0.27	8002	2.37	1.79	0.36
5705	13.14	9.08	0.30	7222	6.65	4.54	0.31	8006	2.40	1.80	0.36
5951	0.28	0.22	0.37	7225	6.67	4.58	0.31	8008	1.20	0.93	0.37
6003	11.62	8.00	0.31	7228	-	4.61	0.27	8010	1.75	1.34	0.37
6005	4.47	3.08	0.31	7229	=	4.61	0.27	8013	0.83	0.62	0.36
6045	4.75	3.22	0.31	7230	7.13	5.15	0.34	8015	1.02	0.77	0.36
6204	7.60	4.99	0.27	7231	11.94	8.64	0.34	8017	1.80	1.39	0.37
6206	2.72	1.65	0.25	7232	9.99	6.49	0.27	8018	2.35	1.81	0.37
6213	1.85	1.21	0.27	7309F	12.04	5.56	0.23	8021	2.32	1.74	0.36
6214	2.04	1.24	0.25	7313F	4.05	1.88	0.23	8031	3.17	2.38	0.36
6216	5.41	3.28	0.25	7317F	7.99	3.67	0.24	8032	2.23	1.71	0.37
6217	3.31	2.16	0.27	7327F	16.27	7.67	0.23	8033	2.03	1.53	0.36
6229	3.48	2.27	0.27	7333M	3.67	2.20	0.26	8037	2.44	1.87	0.37
6233	2.20	1.43	0.27	7335M	4.08	2.44	0.26	8039	1.98	1.53	0.37
6235	5.64	3.42	0.25	7337M	5.93	3.38	0.26	8044X	4.42	3.21	0.34
6236	7.38	5.05	0.31	7350F	12.30	5.96	0.25	8045	0.68	0.52	0.37
6237	1.57	1.08	0.31	7360	4.03	2.78	0.31	8046	4.77	3.62	0.36
6251D	9.56	6.15	0.28	7370	6.67	5.00	0.36	8047	0.90	0.69	0.37
6252D	6.47	3.91	0.25	7380	5.60	4.04	0.34	8058	3.26	2.47	0.36
6260	_	6.15	0.28	7382	4.20	3.17	0.36	8072	1.02	0.79	0.37
6306	3.38	2.21	0.27	7390	9.22	6.93	0.36	8102	2.54	1.96	0.37
6319	4.01	2.59	0.28	7394M	4.42	2.66	0.25	8103	3.08	2.25	0.34
6325	3.07	2.00	0.27	7395M	4.91	2.96	0.25	8105	-	1.81	0.37
6400	7.84	5.67	0.34	7398M	7.14	4.11	0.25	8106	3.65	2.51	0.31
6503	2.32	1.78	0.37	7402	0.17	0.13	0.36	8107	3.20	2.20	0.31
6504	3.33	2.57	0.37	7403	5.48	3.78	0.30	8111	3.16	2.37	0.36
6702M*	3.89	2.67	0.31	7405N	1.25	0.85	0.31	8116	2.70	2.03	0.36
6703M*	6.28	4.12	0.31	7420	12.92	7.74	0.26	8203	9.86	7.44	0.36
6704M*	4.32	2.97	0.31	7421	2.01	1.31	0.27	8204	4.15	2.87	0.30
6801F	3.93	1.98	0.28	7422	1.73	1.05	0.25	8209	3.80	2.86	0.36
6811	5.37	3.68	0.31	7425	3.09	1.85	0.26	8215	4.78	3.30	0.30
6824F	9.61	4.70	0.25	7431N	1.24	0.74	0.26	8227	4.57	2.79	0.25
6826F	3.69	1.87	0.28	7445N	0.67	-	-	8232	4.68	3.23	0.31
6834	4.75	3.45	0.34	7453N	0.67	_	_	8233	4.03	2.74	0.31
6836	3.69	2.55	0.30	7502	2.12	1.46	0.31	8235	4.87	3.68	0.36
6843F	6.90	3.21	0.23	7515	1.05	0.64	0.25	8263	5.51	4.04	0.34
6845F	5.56	2.58	0.23	7520	4.93	3.69	0.36	8264	9.07	6.31	0.30
6854	5.64	3.43	0.25	7538	4.58	2.80	0.25	8265	6.73	4.41	0.27
6872F	9.61	4.45	0.23	7539	1.26	0.82	0.27	8279	8.32	5.61	0.27
6874F	11.20	5.17	0.23	7540	3.57	2.19	0.25	8288	7.86	5.47	0.30
6882	6.48	3.99	0.25	7580	2.57	1.77	0.30	8291	3.98	2.88	0.34
6884	3.01	1.83	0.25	7590	3.65	2.64	0.34	8292	6.72	5.06	0.36
7016M	2.65	1.60	0.25	7600	4.19	2.89	0.31	8293	10.04	6.93	0.30

 $<sup>^{\</sup>star}\,$  Refer to the Footnotes Page for additional information on this class code.

	Effective August 1, 2018										
CLASS CODE	LOSS COST	ELR	D RATIO	CLASS CODE	LOSS COST	ELR	D RATIO	CLASS CODE	LOSS COST	ELR	D RATIO
8304	5.76	3.97	0.31	9016	4.54	3.42	0.36				
8350X	5.98	3.91	0.27	9019	2.33	1.62	0.30				
8381X	2.12	1.54	0.34	9033X	3.95	2.96	0.36				
8385	3.29	2.27	0.30	9040	4.58	3.54	0.37				
8387X	3.71	2.68	0.34	9047X	3.00	2.26	0.36				
8391X	2.79	2.02	0.34	9052	2.67	2.07	0.37				
8392	2.41	1.82	0.36	9058	2.15	1.73	0.47				
8393X	2.43	1.82	0.36	9060	1.72	1.33	0.37				
8500	6.09	4.19	0.31	9061	1.32	1.06	0.47				
8601	0.32	0.23	0.34	9063	1.00	0.78	0.37				
8602	0.63	0.46	0.34	9077F	2.33	1.22	0.35				
8603	0.10	0.07	0.36	9082	1.58	1.27	0.47				
	3.16										
8606		2.06	0.27	9083	1.41	1.14	0.47				
8709F	4.53	2.10	0.23	9084	1.59	1.21	0.36				
8719	3.15	1.92	0.25	9088a	а	а	а				
8720	1.06	0.73	0.31	9089	1.28	1.01	0.37				
8721	0.30	0.21	0.31	9093	1.64	1.27	0.37				
8723	0.14	0.10	0.36	9101	3.63	2.79	0.37				
8725	2.13	1.47	0.30	9102	3.69	2.78	0.36				
8726F	1.90	0.96	0.28	9154	1.63	1.24	0.36				
070414	0.00	0.05	0.20	0450	2.44	4.70	0.24				
8734M	0.36	0.25	0.30	9156	2.41	1.76	0.34				
8737M	0.33	0.22	0.30	9170	9.43	5.81	0.25				
8738M	0.53	0.36	0.30	9178	4.18	3.40	0.47				
8742	0.27	0.19	0.30	9179	5.07	3.92	0.37				
8745	4.18	3.04	0.34	9180	4.54	3.18	0.30				
8748	0.78	0.57	0.34	9182	2.36	1.79	0.36				
8754X	1.00	0.76	0.36	9186	14.50	9.65	0.27				
8755	0.26	0.18	0.31	9220	4.22	3.07	0.34				
8799	0.52	0.39	0.36	9402	5.43	3.72					
8800	1.40	1.12	0.36	9402	9.03	5.72	0.31 0.27				
8800	1.40	1.12	0.47	9403	9.03	5.92	0.21				
8803	0.07	0.05	0.30	9410	3.37	2.51	0.36				
8805M	0.19	0.14	0.36	9501	2.95	2.13	0.34				
8810	0.14	0.11	0.36	9505	3.97	2.88	0.34				
8814M	0.17	0.13	0.36	9516	5.19	3.55	0.31				
8815M	0.17	0.13	0.36	9519	4.36	3.00	0.31				
8820	0.13	0.09	0.34	9521	4.80	3.32	0.30				
8824	3.60	2.76	0.37	9522	2.01	1.51	0.36				
8825	2.09	1.68	0.47	9534	2.74	1.78	0.27				
8826	2.74	2.07	0.36	9554	6.93	4.55	0.27				
8831	1.19	0.91	0.36	9586	0.64	0.51	0.47				
8832	0.28	0.21	0.36	9600	2.91	2.23	0.37				
8833	1.56	1.17	0.36	9620	1.17	0.85	0.34				
8835	2.84	2.13	0.36	3020	1.17	0.00	0.54				
8841X	1.79	1.30	0.34								
8842	2.60	1.96	0.36								
8855	0.16	0.12	0.36								
8856	0.24	0.18	0.36								
8864	1.65	1.25	0.36								
8868	0.27	0.21	0.37								
8869	0.99	0.76	0.37								
8871	0.10	0.07	0.37								
8901	0.16	0.12	0.34								
9012	1.44	1.05	0.34								
9014	3.45	2.59	0.36								
9015	3.69	2.77	0.36								

<sup>\*</sup> Refer to the Footnotes Page for additional information on this class code.

#### **FOOTNOTES**

- a Advisory loss cost for each individual risk must be obtained from NCCI Customer Service or the Rating Organization having jurisdiction.
- D Advisory loss cost for classification already includes the specific disease loading shown in the table below. See **Basic Manual** Rule 3-A-7.

	Disease			Disease		Disease		
Code No.	Loading	Symbol	Code No.	Loading	Symbol	Code No.	Loading	Symbol
0059D	0.24	S	1624D	0.01	S	4024D	0.02	S
0065D	0.05	S	1710D	0.02	S	5508D	0.03	S
0066D	0.05	S	1803D	0.26	S	6251D	0.04	S
0067D	0.05	S	3081D	0.06	S	6252D	0.03	S
1164D	0.04	S	3082D	0.06	S			
1165D	0.02	S	3085D	0.07	S			

S=Silica

- F Advisory loss cost provides for coverage under the United States Longshore and Harbor Workers Compensation Act and its extensions. Loss cost contains a provision for the USL&HW Assessment.
- M Risks are subject to Admiralty Law or Federal Employers Liability Act (FELA). However, the published loss cost is for risks that voluntarily purchase standard workers compensation and employers liability coverage. A provision for the USL&HW Assessment is included for those classifications under Program II USL Act.
- N This code is part of a ratable / non-ratable group shown below. The statistical non-ratable code and corresponding advisory loss cost are applied in addition to the basic classification when determining premium.

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

- P Classification is computed on a per capita basis.
- X Refer to special classification phraseology in these pages which is applicable in this state.

#### \* Class Codes with Specific Footnotes

- 6702 Loss cost and rating values only appropriate for laying or relaying of tracks or maintenance of way no work on elevated railroads. Otherwise, assign appropriate construction or erection code loss cost and elr each x 1.215.
- 6703 Loss cost and rating values only appropriate for laying or relaying of tracks or maintenance of way no work on elevated railroads. Otherwise, assign appropriate construction or erection class loss cost x 1.963 and elr x 1.872.
- Loss cost and rating values only appropriate for laying or relaying of tracks or maintenance of way no work on elevated railroads. Otherwise, assign appropriate construction or erection class loss cost and elr each x 1.35.

#### **ADVISORY MISCELLANEOUS VALUES**

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

	Advisory Loss Elimination Ratios											
Deductible		HAZARD GROUP										
Amount	Α	В	С	D	E	F	G					
\$250	2.3%	1.6%	1.5%	1.2%	0.9%	0.8%	0.7%					
\$500	4.0%	3.0%	2.7%	2.2%	1.7%	1.4%	1.3%					
\$1,000	6.7%	5.1%	4.6%	3.8%	3.0%	2.5%	2.3%					
\$2,500	12.0%	9.5%	8.6%	7.3%	6.0%	5.0%	4.5%					
\$5,000	18.1%	14.8%	13.6%	11.6%	9.8%	8.3%	7.4%					

Note: These percentages do not include a safety factor and do not reflect the premium reductions to be applied to policy premium.

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

Employee operated vehicle	\$76,200 \$50,800
Catastrophe (other than Certified Acts of Terrorism) - (Advisory Loss Cost)	0.01
<b>Maximum Weekly Payroll</b> applicable in accordance with <b>Basic Manual</b> Rule 2-E-1 "Executive Officers" and <b>Basic Manual</b> footnote instructions for Code 9178 "Athletic Sports or Park: Non-Contact Sports," and Code 9179 "Athletic Sports or Park: Contact Sports"	\$3,900
Minimum Weekly Payroll applicable in accordance with Basic Manual Rule 2-E-1 "Executive Officers"	\$1,000
Terrorism - (Advisory Loss Cost)	0.005
United States Longshore and Harbor Workers' Compensation Coverage Percentage applicable only in connection with <i>Basic Manual</i> Rule 3-A-4	61%

(Multiply a Non-F classification loss cost by a factor of 1.61 to adjust for differences in benefits and loss-based expenses. This factor is the product of the adjustment for differences in benefits (1.52) and the adjustment for differences in loss-based expenses (1.060).)

#### **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.



## Advisory Loss Costs and Rating Values Filing – August 1, 2018 Proposed Values for Inclusion in the Experience Rating Plan Manual

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

- Table of Weighting Values
- Table of Ballast Values
- Experience rating premium eligibility amounts

Effective August 1, 2018

### TABLE OF WEIGHTING VALUES APPLICABLE TO ALL POLICIES

Experience Rating Program - ERA

Losses 0		Weighting Values	Expecto Losse		Weighting
0			LUGGE	Values	
0					
	2,104	0.04	1,186,795	1,252,257	0.44
2,105	8,507	0.05	1,252,258	1,321,510	0.45
8,508	15,048	0.06	1,321,511	1,394,894	0.46
15,049	21,729	0.07	1,394,895	1,472,788	0.47
21,730	28,557	0.08	1,472,789	1,555,624	0.48
28,558	47,764	0.09	1,555,625	1,643,887	0.49
47,765	71,099	0.10	1,643,888	1,738,130	0.50
71,100	91,855	0.11	1,738,131	1,838,983	0.51
91,856	112,065	0.12	1,838,984	1,947,166	0.52
112,066	132,277	0.13	1,947,167	2,063,511	0.53
132,278	152,738	0.14	2,063,512	2,188,976	0.54
152,739	173,587	0.15	2,188,977	2,324,681	0.55
173,588	194,917	0.16	2,324,682	2,471,931	0.56
194,918	216,800	0.17	2,471,932	2,632,267	0.57
216,801	239,295	0.18	2,632,268	2,807,514	0.58
239,296	262,454	0.19	2,807,515	2,999,855	0.59
262,455	286,327	0.20	2,999,856	3,211,920	0.60
286,328	310,965	0.21	3,211,921	3,446,907	0.61
310,966	336,416	0.22	3,446,908	3,708,747	0.62
336,417	362,731	0.23	3,708,748	4,002,322	0.63
362,732	389,963	0.24	4,002,323	4,333,773	0.64
389,964	418,167	0.25	4,333,774	4,710,939	0.65
418,168	447,401	0.26	4,710,940	5,143,977	0.66
447,402	477,728	0.27	5,143,978	5,646,298	0.67
477,729	509,214	0.28	5,646,299	6,235,976	0.68
509,215	541,931	0.29	6,235,977	6,937,968	0.69
541,932	575,954	0.30	6,937,969	7,787,745	0.70
575,955	611,367	0.30	7,787,746	8,837,464	0.70
· ·				10,167,104	
- /	648,259	0.32	8,837,465	11,905,859	0.72
648,260	686,726	0.33	10,167,105	11,905,659	0.73
686,727	726,874	0.34	11,905,860	14,276,881	0.74
726,875	768,818	0.35	14,276,882	17,701,685	0.75
768,819	812,680	0.36	17,701,686	23,083,510	0.76
812,681	858,599	0.37	23,083,511	32,770,784	0.77
858,600	906,723	0.38	32,770,785	55,374,405	0.78
906,724	957,217	0.39	55,374,406	168,392,454	0.79
957,218	1,010,261	0.40		AND OVER	0.80
1,010,262	1,066,054	0.41	, , == .		
1,066,055	1,124,817	0.42			
1,124,818	1,186,794	0.43			
(a) G	ccident Limitation Accident Limitim Accident Limitim Accident Limit Accident Limites Split Point.	on			\$55,000 \$16,500

11/17

### TABLE OF BALLAST VALUES APPLICABLE TO ALL POLICIES

Experience Rating Plan - ERA

Losses   Values   Losses   Values   Losses   Values   Losses   Values	Expecte	ed	Ballast	Experience Nating Fit	Ballast	Expected	Ballast
0 - 54,057	•			-		-	
\$\begin{array}{cccccccccccccccccccccccccccccccccccc			raidoo	20000	raidoo	100000	Valuee
54,058       —       93,037       30,150       1,784,862       —       1,835,085       —       1,865,309       211,050       3,593,366       —       3,643,609       386,925         137,827       —       185,075       40,200       1,885,309       —       1,615,050       —       3,693,852       391,950         185,076       —       233,474       45,225       1,935,535       —       1,985,761       221,100       3,693,853       —       3,744,096       396,975         233,475       —       223,476       —       22,035,991       —       2,035,990       226,125       3,744,097       —       3,794,339       402,000         282,481       —       331,840       55,275       2,035,991       —       2,086,219       231,150       3,744,097       —       3,894,828       —       3,994,822       —       3,141       —       3,894,828       —       3,994,822       —       1,105       3,693,853       —       3,744,097       —       3,894,828       —       3,894,828       —       3,994,828       —       3,994,828       —       3,994,828       —       3,994,828       —       3,995,316       422,100       3,995,317       —       4,045,602	0	54.057	25.125	1.734.640 1.784.861	201.000	3.492.881 3.543.122	376.875
93,038 - 137,826 35,175 1,835,085 - 1,885,309 211,050 3,593,366 - 3,643,609 386,925 137,827 - 185,075 40,200 1,885,310 - 1,935,534 216,075 3,643,610 - 3,693,852 391,950 185,076 - 233,474 45,225 1,935,535 - 1,985,761 - 221,100 3,693,853 - 3,744,096 396,975 233,475 - 282,480 50,250 1,985,762 - 2,035,990 226,125 3,744,097 - 3,794,339 402,000 282,481 - 331,840 55,275 2,035,991 - 2,086,219 231,150 3,794,340 - 3,894,853 407,025 331,841 - 331,425 60,300 2,086,220 - 2,136,449 236,175 3,445,864 - 431,158 65,325 2,136,450 - 2,186,680 241,200 3,894,828 - 3,945,072 417,075 431,159 - 480,996 70,350 2,186,681 - 2,236,912 246,225 3,945,073 - 3,3995,316 422,100 480,997 - 530,910 75,375 2,236,913 - 2,287,145 251,250 3,995,317 - 4,045,561 427,125 580,882 - 630,895 85,425 2,337,379 - 2,387,613 261,300 4,095,806 - 4,146,050 437,175 630,996 - 860,944 90,450 2,387,614 - 2,437,847 266,325 41,40,562 - 4,095,805 422,500 860,945 - 731,019 95,475 2,473,848 - 2,488,083 271,350 4,995,296 - 4,146,050 437,175 831,234 - 881,364 110,550 2,588,556 - 2,638,793 286,425 43,947,031 - 4,296,785 452,250 331,509 - 391,508 115,575 2,538,370 - 2,588,556 281,400 4,296,786 - 4,347,030 457,275 831,234 - 881,364 110,550 2,588,556 - 2,638,793 286,425 4,347,031 - 4,496,767 472,350 881,863 - 1,331,826 125,625 2,739,269 - 2,789,507 301,500 4,497,767 472,350 931,509 - 391,508 135,675 2,838,794 - 2,689,030 291,450 4,997,277 - 4,447,521 - 4,497,767 472,350 1,832,746 - 1,332,944 155,775 3,040,705 - 3,090,945 31,609 - 1,132,176 135,675 2,839,746 - 2,839,985 311,550 4,998,259 - 4,648,501 477,375 4,248,541 - 1,332,944 155,775 3,040,705 - 3,090,945 31,609 346,725 1,333,146 160,800 170,850 170		,			,		
187,827 - 185,075 40,200 1,885,310 - 1,935,534 216,075 3,643,610 - 3,693,852 391,950 185,076 - 233,474 45,225 1,935,535 - 1,985,761 221,100 3,693,853 - 3,744,096 396,975 233,475 - 282,480 50,250 1,985,762 - 2,035,990 226,125 3,744,097 - 3,794,339 402,000 282,481 - 331,840 55,275 2,035,991 - 2,086,219 231,150 3,794,340 - 3,844,583 407,025 331,841 - 381,425 60,300 2,086,220 - 2,136,449 236,175 3,844,584 - 3,894,827 412,050 381,426 - 431,158 65,325 2,136,450 - 2,186,681 241,200 3,894,828 - 3,945,072 417,075 431,159 - 480,996 70,350 2,186,681 - 2,236,912 246,225 3,945,073 - 3,945,072 417,075 530,911 - 580,881 80,400 2,287,146 - 2,337,378 256,275 4,045,562 - 4,095,805 432,150 580,882 - 630,895 85,425 2,337,379 - 2,387,613 261,300 4,095,806 - 4,146,051 47,125 680,945 - 731,019 95,475 2,437,848 - 2,438,083 271,350 4,196,296 - 4,246,540 447,225 731,020 - 781,117 100,500 2,488,084 - 2,538,319 276,375 4,146,051 - 4,196,295 442,200 680,945 - 731,019 95,475 2,437,848 - 2,488,083 271,350 4,196,296 - 4,246,540 447,225 731,020 - 781,117 100,500 2,488,084 - 2,538,319 276,375 4,246,541 - 4,296,785 452,250 781,118 - 831,233 105,525 2,538,320 - 2,588,555 281,400 4,296,786 - 4,347,030 457,275 831,234 - 881,364 110,550 2,688,556 2,638,794 - 2,638,794 - 2,638,794 - 2,638,794 - 2,638,794 - 2,638,794 - 2,638,794 - 2,638,794 - 2,638,794 - 2,638,794 - 2,638,794 - 2,638,794 - 2,638,794 - 2,638,794 - 2,638,794 - 3,648,505 - 4,648,505 - 4,648,505 - 4,698,505 - 4,146,501 - 4,497,767 472,350 1,232,476 - 1,031,827 - 1,081,999 130,650 2,789,508 - 2,789,507 301,500 4,497,768 - 4,548,014 - 4,598,258 482,400 1,081,999 - 1,132,176 135,675 2,638,794 - 2,638,794 - 2,638,903 291,450 4,497,767 472,350 1,232,476 - 1,332,944 155,775 3,040,705 - 3,040,704 326,625 4,548,014 - 4,598,258 482,400 1,081,999 - 1,132,176 135,675 2,638,794 - 2,899,986 - 2,940,225 - 2,940,225 - 2,940,225 - 2,940,225 - 2,940,225 - 2,940,225 - 2,940,225 - 2,940,225 - 2,940,225 - 2,940,225 - 2,940,225 - 2,940,225 - 2,940,225 - 2,940,225 - 2,940,225 - 2,940,225 - 2,940,225 - 2,940,22							
185,076       -       233,474       45,225       1,935,535       -       1,985,761       221,100       3,693,853       -       3,744,096       396,975         233,475       -       282,480       50,250       1,985,762       -       2,035,990       226,125       3,744,097       -       3,794,339       402,000         331,841       -       381,425       60,300       2,086,220       -       2,136,490       236,175       3,844,584       3,894,828       407,025         381,426       -       431,158       65,325       2,136,450       -       2,186,680       241,200       3,894,828       -       3,945,072       417,075         431,159       -       480,996       70,350       2,186,681       -       2,236,912       246,225       3,945,073       -       3,995,316       422,100         480,997       -       530,910       75,375       2,236,913       -       2,287,145       251,250       3,995,317       -       4,045,561       427,125         530,911       -       560,882       -       630,895       85,425       2,337,379       2,387,613       261,320       4,045,562       4,095,805       437,175       630,895       85,425       2,337,379 <td>,</td> <td></td> <td>,</td> <td></td> <td></td> <td></td> <td></td>	,		,				
233,475 282,480							
282,481 - 331,840 55,275 60,300 2,086,220 - 2,136,449 236,175 3,844,584 - 3,894,827 412,050 381,426 - 431,158 65,325 2,136,450 - 2,186,680 241,200 3,894,828 - 3,945,072 417,075 431,159 - 480,996 70,350 2,186,681 - 2,236,912 246,225 3,945,073 - 3,995,316 422,100 480,997 - 530,910 75,375 2,236,913 - 2,287,145 251,250 3,995,317 - 4,045,561 427,125 530,911 - 580,881 80,400 2,287,146 - 2,337,378 256,275 4,045,562 - 4,095,805 432,150 580,882 - 630,895 85,425 2,337,379 - 2,387,613 261,300 4,095,806 - 4,146,050 437,175 630,896 - 680,944 90,450 2,387,614 - 2,437,847 266,325 4,146,051 - 4,196,295 442,200 680,945 - 731,019 95,475 2,437,848 - 2,488,083 271,350 4,196,296 - 4,246,540 447,225 731,020 - 781,117 100,500 2,488,084 - 2,538,319 276,375 781,118 - 831,233 105,525 2,538,320 - 2,588,555 281,400 4,296,786 - 4,347,030 457,275 831,234 - 881,384 110,550 2,588,556 - 2,638,793 286,425 4,347,011 - 4,397,276 462,300 881,365 - 931,508 115,575 2,638,794 - 2,689,030 291,450 4,947,727 - 4,447,521 467,325 931,509 - 981,662 120,600 2,688,903 - 2,739,268 296,475 4,447,522 - 4,497,767 472,350 1,081,999 - 1,132,176 135,675 2,889,966 - 2,638,794 2,689,085 31,550 4,548,014 4,998,258 402,400 1,182,362 - 1,232,550 145,725 2,990,464 321,600 1,332,944 155,775 1,232,551 - 1,282,745 150,750 1,332,944 155,775 1,232,551 - 1,282,745 150,750 1,331,477 - 1,182,361 140,700 2,889,986 - 2,940,224 316,575 1,282,746 - 1,332,944 155,775 1,533,773 - 1,583,985 10,000 3,291,911 - 3,342,150 3,191,427 341,100 3,191,428 - 3,241,669 346,725 1,533,773 - 1,583,985 10,000 3,291,911 - 3,342,150 361,750 1,583,986 - 1,634,201 185,925 3,342,150 - 3,3392,394 361,800 1 361,800	100,070	200,	.0,220	1,000,000	221,100	5,,655	000,010
331,841 — 381,425	233,475	282,480	50,250	1,985,762 2,035,990	226,125	3,744,097 3,794,339	402,000
381,426 - 431,158 65,325 2,136,450 - 2,186,680 241,200 3,894,828 - 3,945,072 417,075 431,159 - 480,996 70,350 2,186,681 - 2,236,912 246,225 3,945,073 - 3,995,316 422,100 480,997 - 530,910 75,375 2,236,913 - 2,287,145 251,250 3,995,317 - 4,045,561 427,125 530,911 - 580,881 80,400 2,287,146 - 2,337,378 256,275 4,045,562 - 4,095,805 432,150 630,896 - 680,944 90,450 2,387,613 261,300 4,095,806 - 4,146,050 437,175 630,896 - 680,944 90,450 2,387,614 - 2,437,847 266,325 4,146,051 - 4,196,295 442,200 680,945 - 731,019 95,475 2,437,848 - 2,488,083 271,350 4,196,296 - 4,246,540 447,225 731,020 - 781,117 100,500 2,488,084 - 2,538,319 276,375 4,246,541 - 4,296,785 452,250 781,118 - 831,233 105,525 2,538,320 - 2,588,555 281,400 4,96,786 - 4,347,030 457,275 831,234 - 881,364 110,550 2,588,556 - 2,638,793 286,425 4,347,031 - 4,397,276 462,300 881,365 - 931,508 115,575 2,638,794 - 2,689,030 291,450 4,397,277 - 4,447,521 467,325 931,509 - 981,662 120,600 2,789,508 - 2,739,268 296,475 4,447,522 - 4,497,767 472,350 981,663 - 1,031,826 125,625 2,739,269 - 2,789,507 301,500 4,497,768 - 4,548,013 477,375 1,031,827 - 1,081,998 130,650 2,789,508 - 2,839,745 306,525 1,132,177 - 1,182,361 140,700 2,889,986 - 2,839,745 306,525 1,132,177 - 1,182,361 140,700 2,889,986 - 2,899,046 321,650 3,090,946 3,141,187 - 3,191,427 341,700 1,333,353 - 1,483,560 170,850 170,850 3,991,911 - 3,341,166 336,675 1,533,772 175,875 1,533,772 175,875 1,533,772 175,875 1,533,772 1,583,986 - 1,634,201 185,925 3,342,153 - 3,392,394 361,800	282,481	331,840	55,275	2,035,991 2,086,219	231,150	3,794,340 3,844,583	407,025
431,159       -       480,996       70,350       2,186,681       -       2,236,912       246,225       3,945,073       -       3,995,316       422,100         480,997       -       530,910       75,375       2,236,913       -       2,287,145       251,250       3,995,317       -       4,045,561       427,125         530,991       -       580,882       -       630,895       85,425       2,337,379       -       2,387,613       261,300       4,095,806       -       4,146,050       437,175         630,896       -       680,944       90,450       2,387,614       -       2,437,847       266,325       4,146,051       -       4,196,295       42,200         680,945       -       731,019       95,475       2,437,848       -       2,438,083       271,350       4,196,296       -       4,246,540       447,225         731,020       -       781,117       100,500       2,488,084       -       2,538,399       276,375       4,246,541       -       4,296,786       + 452,250         781,18       -       831,233       105,525       2,538,320       -       2,588,555       281,400       4,296,786       -       4,347,031       -       4,747,275<	331,841	381,425	60,300	2,086,220 2,136,449	236,175	3,844,584 3,894,827	412,050
480,997 - 530,910	381,426	431,158	65,325	2,136,450 2,186,680	241,200	3,894,828 3,945,072	417,075
530,911        580,881       80,400       2,287,146        2,337,378       256,275       4,045,562        4,095,805       432,150         580,882        630,895       85,425       2,337,379        2,387,613       261,300       4,095,806        4,146,050       437,175         630,896        680,944       90,450       2,387,614        2,487,847       266,325       4,146,051        4,196,296        4,246,540       447,225         731,020        781,117       100,500       2,488,084        2,588,555       281,400       4,296,786        4,246,541        4,296,786        4,247,225         831,234        881,364       110,550       2,588,556        2,638,793       286,425       4,347,031        4,347,621       467,325         931,509        981,662       120,600       2,689,031        2,739,268       296,475       4,447,522        4,497,767       472,350         981,663        1,031,826       125,625       2,739,269        2,789,507       301,500       4,49	431,159	480,996	70,350	2,186,681 2,236,912	246,225	3,945,073 3,995,316	422,100
530,911        580,881       80,400       2,287,146        2,337,378       256,275       4,045,562        4,095,805       432,150         580,882        630,895       85,425       2,337,379        2,387,613       261,300       4,095,806        4,146,050       437,175         630,896        680,944       90,450       2,387,614        2,487,847       266,325       4,146,051        4,196,296        4,246,540       447,225         731,020        781,117       100,500       2,488,084        2,588,555       281,400       4,296,786        4,246,541        4,296,786        4,247,225         831,234        881,364       110,550       2,588,556        2,638,793       286,425       4,347,031        4,347,621       467,325         931,509        981,662       120,600       2,689,031        2,739,268       296,475       4,447,522        4,497,767       472,350         981,663        1,031,826       125,625       2,739,269        2,789,507       301,500       4,49			,		,		
580,882        630,895       85,425       2,337,379        2,387,613       261,300       4,095,806        4,146,050       437,175         630,896        680,944       90,450       2,387,614        2,437,847       266,325       4,146,051        4,196,295       442,200         680,945        731,019       95,475       2,437,848        2,488,083       271,350       4,196,296        4,246,540       447,225         731,020        781,117       100,500       2,488,084        2,538,319       276,375       4,246,541        4,296,786        4,347,030       457,275         781,118        831,234        881,364       110,550       2,588,556        2,638,793       286,425       4,347,031        4,397,276       462,300         881,365        931,508       115,575       2,638,794        2,689,030       291,450       4,397,277        4,447,522        4,447,522        4,447,522        4,447,522        4,447,522        4,447,522        4,447,522	480,997	530,910	75,375	2,236,913 2,287,145	251,250	3,995,317 4,045,561	427,125
630,896 680,944 90,450 680,945 731,019 95,475 2,437,848 2,437,847 266,325 4,146,051 4,196,295 442,200 4,196,296 4,246,540 447,225 4,476,11	530,911	580,881	80,400	2,287,146 2,337,378	256,275	4,045,562 4,095,805	432,150
680,945          731,019         95,475         2,437,848          2,488,083         271,350         4,196,296          4,246,540         447,225           731,020          781,117         100,500         2,488,084          2,538,319         276,375         4,246,541          4,296,785         452,250           781,118          831,233         105,525         2,538,320          2,588,555         281,400         4,296,786          4,347,030         457,275           831,234          881,364         110,550         2,588,556          2,638,793         286,425         4,347,031          4,397,277          4,447,521         467,325           931,509          981,662         120,600         2,689,031          2,789,508         296,475         4,447,522          4,497,767         472,350           981,663          1,031,826         125,625         2,739,269          2,789,507         301,500         4,497,768          4,548,013         477,375           1,031,827          1,081,999         -1,32,176         13	580,882	630,895	85,425	2,337,379 2,387,613	261,300	4,095,806 4,146,050	437,175
731,020 781,117	630,896	680,944	90,450	2,387,614 2,437,847	266,325	4,146,051 4,196,295	442,200
781,118        831,233       105,525       2,538,320        2,588,555       281,400       4,296,786        4,347,030       457,275         831,234        881,365        931,508       115,575       2,588,566        2,638,793       286,425       4,347,031        4,397,277        4,447,521       462,300         881,365        931,509        981,662       120,600       2,689,031        2,739,268       296,475       4,447,522        4,497,767       472,350         981,663        1,031,826       125,625       2,739,269        2,789,507       301,500       4,497,768        4,548,013       477,375         1,031,827        1,081,999        1,132,176       135,675       2,839,746        2,889,985       311,550       4,548,014        4,598,258       482,400         1,182,362        1,182,361       140,700       2,889,986        2,990,464       321,600       4,698,751        4,648,505        4,648,505        4,648,505        4,648,505        4,69	680,945	731,019	95,475	2,437,848 2,488,083	271,350	4,196,296 4,246,540	447,225
781,118        831,233       105,525       2,538,320        2,588,555       281,400       4,296,786        4,347,030       457,275         831,234        881,365        931,508       115,575       2,588,566        2,638,793       286,425       4,347,031        4,397,277        4,447,521       462,300         881,365        931,509        981,662       120,600       2,689,031        2,739,268       296,475       4,447,522        4,497,767       472,350         981,663        1,031,826       125,625       2,739,269        2,789,507       301,500       4,497,768        4,548,013       477,375         1,031,827        1,081,999        1,132,176       135,675       2,839,746        2,889,985       311,550       4,548,014        4,598,258       482,400         1,182,362        1,182,361       140,700       2,889,986        2,990,464       321,600       4,698,751        4,648,505        4,648,505        4,648,505        4,648,505        4,69			·				
831,234 881,364	731,020	781,117	100,500	2,488,084 2,538,319	276,375	4,246,541 4,296,785	452,250
831,234 881,364	781,118	831,233	105,525	2,538,320 2,588,555	281,400	4,296,786 4,347,030	457,275
931,509 981,662	831,234	881,364	110,550	2,588,556 2,638,793		4,347,031 4,397,276	462,300
931,509 981,662	881,365	931,508	115,575	2,638,794 2,689,030	291,450	4,397,277 4,447,521	467,325
981,663 1,031,826	931,509		120,600		296,475		472,350
1,031,827        1,081,998       130,650       2,789,508        2,839,745       306,525       4,548,014        4,598,258       482,400         1,081,999        1,132,176       135,675       2,839,746        2,889,985       311,550       4,598,259        4,648,504       487,425         1,132,177        1,182,361       140,700       2,889,986        2,940,224       316,575       4,648,505        4,698,750       492,450         1,182,362        1,232,550       145,725       2,990,465        2,990,464       321,600       4,698,751        4,748,996       497,475         1,232,551        1,282,745       150,750       2,990,465        3,040,704       326,625       4,748,997        4,798,875       502,500         1,282,746        1,332,944       155,775       3,040,705        3,090,945       331,650         1,332,945        1,433,352       165,825       3,141,187        3,191,427       341,700         1,433,353        1,483,560       170,850       3,241,670        3,291,910							
1,081,999        1,132,176       135,675       2,839,746        2,889,985       311,550       4,598,259        4,648,504       487,425         1,132,177        1,182,361       140,700       2,889,986        2,940,224       316,575       4,648,505        4,698,750       492,450         1,182,362        1,232,550       145,725       2,990,465        2,990,464       321,600       4,698,751        4,748,996       497,475         1,232,551        1,282,745       150,750       2,990,465        3,040,704       326,625       4,748,997        4,798,875       502,500         1,282,746        1,332,944       155,775       3,040,705        3,090,945       331,650         1,332,945        1,383,146       160,800       3,090,946        3,191,427       341,700         1,433,353        1,483,560       170,850       3,141,187        3,241,669       346,725         1,533,773        1,583,985       180,900       3,291,911        3,342,152       356,775         1,583,986	981,663	1,031,826	125,625	2,739,269 2,789,507	301,500	4,497,768 4,548,013	477,375
1,081,999        1,132,176       135,675       2,839,746        2,889,985       311,550       4,598,259        4,648,504       487,425         1,132,177        1,182,361       140,700       2,889,986        2,940,224       316,575       4,648,505        4,698,750       492,450         1,182,362        1,232,550       145,725       2,990,465        2,990,464       321,600       4,698,751        4,748,996       497,475         1,232,551        1,282,745       150,750       2,990,465        3,040,704       326,625       4,748,997        4,798,875       502,500         1,282,746        1,332,944       155,775       3,040,705        3,090,945       331,650         1,332,945        1,383,146       160,800       3,090,946        3,191,427       341,700         1,433,353        1,483,560       170,850       3,141,187        3,241,669       346,725         1,533,773        1,583,985       180,900       3,291,911        3,342,152       356,775         1,583,986	1,031,827	1,081,998	130,650	2,789,508 2,839,745	306,525	4,548,014 4,598,258	482,400
1,182,362        1,232,550       145,725       2,940,225        2,990,464       321,600       4,698,751        4,748,996       497,475         1,232,551        1,282,745       150,750       2,990,465        3,040,704       326,625       4,748,997        4,798,875       502,500         1,282,746        1,332,944       155,775       3,040,705        3,090,945       331,650         1,332,945        1,383,146       160,800       3,090,946        3,141,186       336,675         1,383,147        1,483,560       170,850       3,141,187        3,191,427       341,700         1,483,561        1,533,772       175,875       3,241,670        3,291,910       351,750         1,533,773        1,583,985       180,900       3,291,911        3,342,152       356,775         1,583,986        1,634,201       185,925       3,342,153        3,392,394       361,800		1,132,176	135,675	2,839,746 2,889,985	311,550	4,598,259 4,648,504	487,425
1,232,551      1,282,745     150,750     2,990,465      3,040,704     326,625     4,748,997      4,798,875     502,500       1,282,746      1,383,146     160,800     3,090,946      3,141,186     336,675       1,383,147      1,433,352     165,825     3,141,187      3,191,427     341,700       1,433,353      1,483,560     170,850     3,241,670      3,291,910     351,750       1,533,773      1,583,985     180,900     3,291,911      3,342,152     356,775       1,583,986      1,634,201     185,925     3,342,153      3,392,394     361,800	1,132,177	1,182,361	140,700	2,889,986 2,940,224	316,575	4,648,505 4,698,750	492,450
1,282,746        1,332,944       155,775       3,040,705        3,090,945       331,650         1,332,945        1,383,146       160,800       3,090,946        3,141,186       336,675         1,383,147        1,483,552       165,825       3,141,187        3,191,427       341,700         1,483,561        1,533,772       175,875       3,241,670        3,291,910       351,750         1,533,773        1,583,985       180,900       3,291,911        3,342,152       356,775         1,583,986        1,634,201       185,925       3,342,153        3,392,394       361,800	1,182,362	1,232,550	145,725	2,940,225 2,990,464	321,600	4,698,751 4,748,996	497,475
1,282,746        1,332,944       155,775       3,040,705        3,090,945       331,650         1,332,945        1,383,146       160,800       3,090,946        3,141,186       336,675         1,383,147        1,433,352       165,825       3,141,187        3,191,427       341,700         1,433,353        1,483,560       170,850       3,191,428        3,241,669       346,725         1,483,561        1,533,772       175,875       3,241,670        3,291,910       351,750         1,533,773        1,583,985       180,900       3,291,911        3,342,152       356,775         1,583,986        1,634,201       185,925       3,342,153        3,392,394       361,800							
1,332,945        1,383,146       160,800       3,090,946        3,141,186       336,675         1,383,147        1,433,352       165,825       3,141,187        3,191,427       341,700         1,433,353        1,483,560       170,850       3,191,428        3,241,669       346,725         1,483,561        1,533,772       175,875       3,241,670        3,291,910       351,750         1,533,773        1,583,985       180,900       3,291,911        3,342,152       356,775         1,583,986        1,634,201       185,925       3,342,153        3,392,394       361,800	1,232,551	1,282,745	150,750	2,990,465 3,040,704	326,625	4,748,997 4,798,875	502,500
1,383,147        1,433,352       165,825       3,141,187        3,191,427       341,700         1,433,353        1,483,560       170,850       3,191,428        3,241,669       346,725         1,483,561        1,533,772       175,875       3,241,670        3,291,910       351,750         1,533,773        1,583,985       180,900       3,291,911        3,342,152       356,775         1,583,986        1,634,201       185,925       3,342,153        3,392,394       361,800	1,282,746	1,332,944	155,775	3,040,705 3,090,945	331,650		
1,383,147      1,433,352     165,825     3,141,187      3,191,427     341,700       1,433,353      1,483,560     170,850     3,191,428      3,241,669     346,725       1,483,561      1,533,772     175,875     3,241,670      3,291,910     351,750       1,533,773      1,583,985     180,900     3,291,911      3,342,152     356,775       1,583,986      1,634,201     185,925     3,342,153      3,392,394     361,800	1,332,945	1,383,146	160,800	3,090,946 3,141,186	336,675		
1,483,561 1,533,772 175,875 3,241,670 3,291,910 351,750 1,533,773 1,583,985 180,900 3,291,911 3,342,152 356,775 1,583,986 1,634,201 185,925 3,342,153 3,392,394 361,800							
1,483,561 1,533,772 175,875 3,241,670 3,291,910 351,750 1,533,773 1,583,985 180,900 3,291,911 3,342,152 356,775 1,583,986 1,634,201 185,925 3,342,153 3,392,394 361,800	1,433,353	1,483,560	170,850	3,191,428 3,241,669	346,725		
1,533,773 1,583,985 180,900 3,291,911 3,342,152 356,775 1,583,986 1,634,201 185,925 3,342,153 3,392,394 361,800			•				
1,533,773 1,583,985 180,900 3,291,911 3,342,152 356,775 1,583,986 1,634,201 185,925 3,342,153 3,392,394 361,800	1,483,561	1,533,772	175,875	3,241,670 3,291,910	351,750		
1,583,986 1,634,201 185,925 3,342,153 3,392,394 361,800							
					361,800		
1,00 1,00 1,110 100,000 0,000,000 0,772,001 000,020	1,634,202	1,684,419	190,950	3,392,395 3,442,637	366,825		
1,684,420 1,734,639 195,975 3,442,638 3,492,880 371,850	, ,	, ,	,		,		
	, , -	, - ,	,	, , , = = = , = = , = = ,	- ,,,		

For Expected Losses greater than \$4,798,875, the Ballast Value can be calculated using the following formula (rounded to the nearest 1):

 $Ballast = (0.10)(Expected\ Losses)\ + 2500(Expected\ Losses)(10.05)\ /\ (Expected\ Losses\ + (700)(10.05))$ 

G = 10.05

#### NATIONAL COUNCIL ON COMPENSATION INSURANCE, INC.

#### RHODE ISLAND—UPDATE TO EXPERIENCE RATING PREMIUM ELIGIBILITY

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

#### 2. State Subject Premium Eligibility Amounts

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

- a. A risk qualifies for experience rating if its data within the most recent 24 months of the experience period develops a subject premium of at least the amount shown in Column A.
- b. A risk may not qualify according to Rule 2-A-2-a. If it has more than the amount of experience referenced in Rule 2-A-2-a, then to qualify for experience rating the risk must develop an average annual subject premium of at least the amount shown in Column B. Refer to Rule 2-A-3 to determine average annual subject premium.
- c. A risk's rating effective date determines the applicable Column A and Column B subject premium eligibility amounts required to qualify for experience rating. Refer to Rule 2-B for rating effective date determination.

#### State Table of Subject Premium Eligibility Amounts

<u>State</u>	Rating Effective Date	Column A (\$)	Column B (\$)
<u>RI</u>	2/1/19 and after	10,500	<u>5,250</u>
	2/1/18 - 1/31/19	10,500	<u>5,250</u>
	1/31/18 and before	10,000	<u>5,000</u>

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



## Advisory Loss Costs and Rating Values Filing – August 1, 2018 Proposed Values for Inclusion in the Retrospective Rating Plan Manual

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

- Hazard group differentials
- Table of expected loss ranges
- Excess loss pure premium factors
- Excess loss and allocated expense pure premium factors
- Retrospective pure premium development factors

#### **Hazard Group Differentials**

1.31 1.11 0.92 0.79 2.08 1.67 1.55

### 2013 Table of Expected Loss Ranges Effective January 1, 2013

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

Per Accident			н	lazard Group	s		
<u>Limitation</u>	Α	В	С	D	E	F	G
\$10,000	0.615	0.651	0.665	0.687	0.709	0.728	0.739
\$15,000	0.559	0.600	0.616	0.643	0.668	0.691	0.707
\$20,000	0.514	0.559	0.576	0.605	0.634	0.660	0.679
\$25,000	0.477	0.524	0.542	0.573	0.604	0.632	0.654
\$30,000	0.447	0.494	0.513	0.545	0.578	0.608	0.632
\$35,000	0.420	0.468	0.487	0.520	0.554	0.586	0.612
\$40,000	0.398	0.446	0.465	0.499	0.533	0.566	0.593
\$50,000	0.360	0.408	0.427	0.461	0.497	0.531	0.561
\$75,000	0.294	0.340	0.359	0.393	0.430	0.465	0.500
\$100,000	0.251	0.294	0.314	0.346	0.383	0.418	0.455
\$125,000	0.220	0.261	0.280	0.311	0.348	0.382	0.420
\$150,000	0.196	0.235	0.254	0.284	0.320	0.353	0.392
\$175,000	0.178	0.215	0.233	0.262	0.297	0.329	0.369
\$200,000	0.162	0.198	0.216	0.244	0.278	0.309	0.349
\$225,000	0.150	0.184	0.201	0.228	0.262	0.292	0.332
\$250,000	0.139	0.172	0.189	0.215	0.248	0.277	0.317
\$275,000	0.130	0.162	0.178	0.203	0.235	0.264	0.304
\$300,000	0.122	0.152	0.169	0.193	0.224	0.252	0.292
\$325,000	0.114	0.144	0.160	0.184	0.215	0.242	0.281
\$350,000	0.108	0.137	0.153	0.175	0.206	0.232	0.272
\$375,000	0.102	0.130	0.146	0.168	0.198	0.224	0.263
\$400,000	0.097	0.125	0.140	0.161	0.190	0.216	0.255
\$425,000	0.093	0.119	0.134	0.155	0.184	0.209	0.247
\$450,000	0.088	0.114	0.129	0.149	0.178	0.202	0.240
\$475,000	0.085	0.110	0.124	0.144	0.172	0.196	0.234
\$500,000	0.081	0.106	0.120	0.139	0.167	0.190	0.228
\$600,000	0.069	0.092	0.105	0.123	0.148	0.170	0.207
\$700,000	0.060	0.081	0.093	0.110	0.134	0.154	0.190
\$800,000	0.053	0.073	0.084	0.099	0.123	0.141	0.176
\$900,000	0.048	0.066	0.076	0.091	0.113	0.131	0.164
\$1,000,000	0.043	0.060	0.070	0.084	0.105	0.122	0.154
\$2,000,000	0.021	0.031	0.037	0.046	0.060	0.071	0.096
\$3,000,000	0.012	0.019	0.024	0.030	0.041	0.050	0.070
\$4,000,000	0.009	0.014	0.017	0.022	0.030	0.037	0.054
\$5,000,000	0.006	0.010	0.013	0.017	0.023	0.029	0.043
\$6,000,000	0.005	0.008	0.010	0.013	0.019	0.024	0.035
\$7,000,000	0.004	0.006	0.008	0.011	0.015	0.020	0.030
\$8,000,000	0.003	0.005	0.007	0.009	0.013	0.017	0.025
\$9,000,000	0.002	0.004	0.006	0.007	0.011	0.014	0.022
\$10,000,000	0.002	0.004	0.005	0.006	0.009	0.012	0.019

#### Excess Loss and Allocated Expense Pure Premium Factors

(Applicable to New and Renewal Policies)

Per Accident			Н	lazard Group	s		
Limitation	Α	В	С	D .	E	F	G
\$10,000	0.702	0.741	0.756	0.780	0.802	0.822	0.834
\$15,000	0.643	0.687	0.704	0.732	0.760	0.784	0.800
\$20,000	0.595	0.643	0.661	0.693	0.723	0.751	0.770
\$25,000	0.555	0.605	0.625	0.658	0.691	0.722	0.744
\$30,000	0.522	0.573	0.593	0.628	0.663	0.695	0.720
\$35,000	0.493	0.545	0.566	0.602	0.638	0.672	0.698
\$40,000	0.468	0.521	0.541	0.578	0.615	0.650	0.679
\$50,000	0.426	0.479	0.500	0.537	0.576	0.613	0.644
\$75,000	0.353	0.404	0.426	0.463	0.503	0.541	0.577
\$100,000	0.305	0.353	0.375	0.411	0.451	0.489	0.528
\$125,000	0.270	0.316	0.337	0.372	0.412	0.449	0.489
\$150,000	0.243	0.287	0.308	0.341	0.381	0.417	0.458
\$175,000	0.222	0.264	0.284	0.316	0.355	0.391	0.432
\$200,000	0.204	0.245	0.265	0.296	0.334	0.368	0.411
\$225,000	0.190	0.229	0.248	0.278	0.315	0.349	0.392
\$250,000	0.177	0.215	0.234	0.263	0.299	0.332	0.375
\$275,000	0.166	0.203	0.221	0.250	0.285	0.318	0.360
\$300,000	0.156	0.192	0.210	0.238	0.273	0.304	0.347
\$325,000	0.148	0.182	0.200	0.227	0.262	0.293	0.335
\$350,000	0.140	0.174	0.191	0.218	0.252	0.282	0.324
\$375,000	0.133	0.166	0.183	0.209	0.242	0.272	0.314
\$400,000	0.127	0.159	0.176	0.201	0.234	0.263	0.305
\$425,000	0.121	0.153	0.169	0.194	0.226	0.254	0.296
\$450,000	0.116	0.147	0.163	0.187	0.219	0.247	0.288
\$475,000	0.112	0.141	0.157	0.181	0.212	0.240	0.281
\$500,000	0.107	0.136	0.152	0.175	0.206	0.233	0.274
\$600,000	0.092	0.119	0.134	0.155	0.185	0.210	0.250
\$700,000	0.081	0.106	0.120	0.140	0.168	0.191	0.230
\$800,000	0.072	0.095	0.109	0.127	0.154	0.176	0.214
\$900,000	0.065	0.087	0.099	0.117	0.142	0.163	0.200
\$1,000,000	0.059	0.079	0.091	0.108	0.132	0.152	0.189
\$2,000,000	0.029	0.042	0.049	0.060	0.077	0.091	0.120
\$3,000,000	0.018	0.027	0.032	0.040	0.053	0.064	0.087
\$4,000,000	0.013	0.019	0.023	0.029	0.040	0.049	0.067
\$5,000,000	0.009	0.014	0.018	0.023	0.031	0.038	0.054
\$6,000,000	0.007	0.011	0.014	0.018	0.025	0.031	0.045
\$7,000,000	0.006	0.009	0.011	0.015	0.021	0.026	0.038
\$8,000,000	0.005	0.007	0.009	0.012	0.017	0.022	0.032
\$9,000,000	0.004	0.006	0.008	0.010	0.014	0.019	0.028
\$10,000,000	0.003	0.005	0.007	0.009	0.012	0.016	0.024

#### 4. <u>Retrospective Pure Premium Development Factors</u>

W	<u>ith Loss Limi</u>	<u>t</u>	<u>With</u>	out Loss Lir	nit	
1st	2nd	3rd	1st	2nd	3rd	4th & Subsequent
<u>Adj.</u>	<u>Adj.</u>	<u>Adj.</u>	<u>Adj.</u>	<u>Adj.</u>	<u>Adj.</u>	<u>Adjustment</u>
0.06	0.04	0.02	0.19	0.13	0.06	0.00



#### Advisory Loss Costs and Rating Values Filing - August 1, 2018

#### Part 3 Supporting Exhibits

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

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#### RHODE ISLAND

#### Advisory Loss Costs and Rating Values Filing - August 1, 2018

#### Exhibit I – Determination of Indicated Loss Cost Level Change

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

- 1. Standard earned premium at Designated Statistical Reporting (DSR) level is developed to ultimate and on-leveled to the current approved loss cost level
- Reported indemnity and medical losses are limited by a large loss threshold, developed to ultimate using limited development factors, and on-leveled to a common benefit level to yield adjusted limited losses
- 3. Limited indemnity and medical cost ratios excluding trend and benefits are calculated as adjusted losses (step 2) divided by premium available for benefit costs (step 1)
- 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. An excess provision is applied to adjust the limited cost ratios to an unlimited basis
- 6. A factor is applied to reflect the impact of proposed indemnity and medical benefit changes
- 7. The projected unlimited indemnity and medical cost ratios including benefit changes are added to yield the indicated change based on experience, trend, and benefits

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



#### **EXHIBIT I**

#### **Determination of Indicated Loss Cost Level Change**

#### Section A - Policy Year 2015 Experience

#### Premium:

(1)	Standard Earned Premium Developed to Ultimate (Appendix A-II)	\$164,368,109
(2)	Premium On-level Factor (Appendix A-I)	0.750
(3)	Pure Premium Available for Benefit Costs = (1) x (2)	\$123,276,082

#### **Indemnity Benefit Cost:**

(4)	Limited Indemnity Losses Developed to Ultimate (Appendix A-II)	\$80,355,878
(5)	Indemnity Loss On-level Factor (Appendix A-I)	1.008
(6)	Adjusted Limited Indemnity Losses = (4) x (5)	\$80,998,725
(7)	Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (6) / (3)	0.657
(8)	Factor to Reflect Indemnity Trend (Appendix A-III)	0.964
(9)	Projected Limited Indemnity Cost Ratio = (7) x (8)	0.633
(10)	Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis (Appendix A-II)	1.025
(11)	Projected Indemnity Cost Ratio = (9) x (10)	0.649
(12)	Factor to Reflect Proposed Changes in Indemnity Benefits (Appendix C)	1.000
(13)	Projected Indemnity Cost Ratio including Benefit Changes = (11) x (12)	0.649

#### **Medical Benefit Cost:**

(14)	Limited Medical Losses Developed to Ultimate (Appendix A-II)	\$36,667,967
(15)	Medical Loss On-level Factor (Appendix A-I)	1.005
(16)	Adjusted Limited Medical Losses = (14) x (15)	\$36,851,307
(17)	Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (16) / (3)	0.299
(18)	Factor to Reflect Medical Trend (Appendix A-III)	0.947
(19)	Projected Limited Medical Cost Ratio = (17) x (18)	0.283
(20)	Factor to Adjust Medical Cost Ratio to an Unlimited Basis (Appendix A-II)	1.025
(21)	Projected Medical Cost Ratio = (19) x (20)	0.290
(22)	Factor to Reflect Proposed Changes in Medical Benefits (Appendix C)	1.010
(23)	Projected Medical Cost Ratio including Benefit Changes = (21) x (22)	0.293

#### **Total Benefit Cost:**

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



## **EXHIBIT I**

## **Determination of Indicated Loss Cost Level Change**

## Section B - Policy Year 2014 Experience

## Premium:

(1)	Standard Earned Premium Developed to Ultimate (Appendix A-II)	\$153,629,326
(2)	Premium On-level Factor (Appendix A-I)	0.752
(3)	Pure Premium Available for Benefit Costs = (1) x (2)	\$115,529,253

## **Indemnity Benefit Cost:**

(4)	Limited Indemnity Losses Developed to Ultimate (Appendix A-II)	\$76,367,708
(5)	Indemnity Loss On-level Factor (Appendix A-I)	1.010
(6)	Adjusted Limited Indemnity Losses = (4) x (5)	\$77,131,385
(7)	Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (6) / (3)	0.668
(8)	Factor to Reflect Indemnity Trend (Appendix A-III)	0.955
(9)	Projected Limited Indemnity Cost Ratio = (7) x (8)	0.638
(10)	Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis (Appendix A-II)	1.025
(11)	Projected Indemnity Cost Ratio = (9) x (10)	0.654
(12)	Factor to Reflect Proposed Changes in Indemnity Benefits (Appendix C)	1.000
(13)	Projected Indemnity Cost Ratio including Benefit Changes = (11) x (12)	0.654

## **Medical Benefit Cost:**

(14)	Limited Medical Losses Developed to Ultimate (Appendix A-II)	\$34,778,484
(15)	Medical Loss On-level Factor (Appendix A-I)	1.007
(16)	Adjusted Limited Medical Losses = (14) x (15)	\$35,021,933
(17)	Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (16) / (3)	0.303
(18)	Factor to Reflect Medical Trend (Appendix A-III)	0.932
(19)	Projected Limited Medical Cost Ratio = (17) x (18)	0.282
(20)	Factor to Adjust Medical Cost Ratio to an Unlimited Basis (Appendix A-II)	1.025
(21)	Projected Medical Cost Ratio = (19) x (20)	0.289
(22)	Factor to Reflect Proposed Changes in Medical Benefits (Appendix C)	1.010
(23)	Projected Medical Cost Ratio including Benefit Changes = (21) x (22)	0.292

## **Total Benefit Cost:**

(2	4)	Indicated Change	Based on Ext	erience. T	rend and B	Benefits = (	(13) +	(23	0.9	46



## **EXHIBIT I**

## **Determination of Indicated Loss Cost Level Change**

## Section C - Policy Year 2013 Experience

## Premium:

(1)	Standard Earned Premium Developed to Ultimate (Appendix A-II)	\$144,228,681
(2)	Premium On-level Factor (Appendix A-I)	0.781
(3)	Pure Premium Available for Benefit Costs = (1) x (2)	\$112,642,600

## **Indemnity Benefit Cost:**

(4)	Limited Indemnity Losses Developed to Ultimate (Appendix A-II)	\$74,009,649
(5)	Indemnity Loss On-level Factor (Appendix A-I)	1.011
(6)	Adjusted Limited Indemnity Losses = (4) x (5)	\$74,823,755
(7)	Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (6) / (3)	0.664
(8)	Factor to Reflect Indemnity Trend (Appendix A-III)	0.945
(9)	Projected Limited Indemnity Cost Ratio = (7) x (8)	0.627
(10)	Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis (Appendix A-II)	1.025
(11)	Projected Indemnity Cost Ratio = (9) x (10)	0.643
(12)	Factor to Reflect Proposed Changes in Indemnity Benefits (Appendix C)	1.000
(13)	Projected Indemnity Cost Ratio including Benefit Changes = (11) x (12)	0.643

## **Medical Benefit Cost:**

(14)	Limited Medical Losses Developed to Ultimate (Appendix A-II)	\$36,738,425
(15)	Medical Loss On-level Factor (Appendix A-I)	1.012
(16)	Adjusted Limited Medical Losses = (14) x (15)	\$37,179,286
(17)	Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (16) / (3)	0.330
(18)	Factor to Reflect Medical Trend (Appendix A-III)	0.918
(19)	Projected Limited Medical Cost Ratio = (17) x (18)	0.303
(20)	Factor to Adjust Medical Cost Ratio to an Unlimited Basis (Appendix A-II)	1.025
(21)	Projected Medical Cost Ratio = (19) x (20)	0.311
(22)	Factor to Reflect Proposed Changes in Medical Benefits (Appendix C)	1.010
(23)	Projected Medical Cost Ratio including Benefit Changes = (21) x (22)	0.314

## **Total Benefit Cost:**

(2	4)	Indicated Change	Based on Exp	erience. Ti	rend and B	enefits =	(13) -	F (23	0.99	57



## **EXHIBIT I**

## **Determination of Indicated Loss Cost Level Change**

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

Section E - Application of the Change in Loss-based Expenses	
(4) Indicated Change Based on Experience, Trend, and Benefits = [(1)+(2)+(3)] / 3	0.948
(3) Policy Year 2013 Indicated Change Based on Experience, Trend, and Benefits	0.957
(2) Policy Year 2014 Indicated Change Based on Experience, Trend, and Benefits	0.946
(1) Policy Year 2015 Indicated Change Based on Experience, Trend, and Benefits	0.942

(1) Indicated Loss Cost Level Change	0.948
(2) Effect of the Change in Loss-based Expenses (Exhibit II)	1.006
(3) Indicated Change Modified to Reflect the Change in Loss-based Expenses = (1) x (2)	0.954

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

Industry Group Differentials (Appendix A-IV):

Manufacturing	1.001
Contracting	0.989
Office & Clerical	0.979
Goods & Services	0.995
Miscellaneous	1.038

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

	(1)	(2)	$(3) = (1) \times (2)$	
	Final Overall	Industry	Final Loss Cost	
	Loss Cost	Group	Level Change	
Industry Group	Level Change	Differential	by Industry Group	
Manufacturing	0.954	1.001	0.955	(-4.5%)
Contracting	0.954	0.989	0.944	(-5.6%)
Office & Clerical	0.954	0.979	0.934	(-6.6%)
Goods & Services	0.954	0.995	0.949	(-5.1%)
Miscellaneous	0.954	1.038	0.990	(-1.0%)
Overall	0.954	1.000	0.954	(-4.6%)



# Advisory Loss Costs and Rating Values Filing – August 1, 2018 Exhibit II – Workers Compensation Loss Adjustment Expenses

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

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

NCCI uses the following general methodology to determine the proposed LAE provision based on data for private carriers.

- Using data obtained from the NCCI Call for Loss Adjustment Expense, accident year developed LAE ratios are calculated on a countrywide basis, including separate DCCE and AOE ratio components.
- A state-to-countrywide DCCE relativity is selected based on NAIC Annual Statement data.
- 3. The state-specific DCCE ratio is calculated by multiplying the countrywide-selected DCCE ratio by the state-to-countrywide DCCE relativity.
- 4. 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 proposed LAE provision is based on private carrier data.



#### **EXHIBIT II**

## **Workers Compensation Loss-based Expense Provision**

## Section A - Determination of Loss Adjustment Expense Provision

NCCI has computed the loss adjustment expense allowance on an accident year basis using data obtained from the NCCI Call for Loss Adjustment Expense. For this filing, NCCI proposes a 19.1% loss adjustment expense allowance as a percentage of incurred losses.

Accident <u>Year</u>	Accident Year Developed <u>LAE Ratio</u>	Accident Year Developed DCCE Ratio	Accident Year Developed AOE Ratio
2012	20.0%	13.1%	6.9%
2013	20.6%	13.2%	7.4%
2014	21.0%	13.6%	7.4%
2015	20.5%	13.2%	7.3%
2016	20.5%	13.2%	7.3%
Countrywide selected:	20.6%	13.3%	7.3%
Rhode Island selected: (11.8% = 13.3% x 0.887)	19.1%	11.8%	7.3%

## Section B - Determination of Rhode Island DCCE Relativity

<ul><li>(1a) Rhode Island paid losses (in '000s)</li><li>(1b) Rhode Island paid DCCE (in '000s)</li><li>(1c) Ratio (1b)/(1a)</li></ul>	231,396 25,376 11.0%
(2a) Countrywide paid losses (in '000s) (2b) Countrywide paid DCCE (in '000s) (2c) Ratio (2b)/(2a)	117,561,931 14,562,850 12.4%
(3) Rhode Island DCCE relativity (1c)/(2c)	0.887

## Section C - Proposed Change in Rhode Island Loss Adjustment Expense Provision

(1) Current Rhode Island LAE Provision	18.4%
(2) Proposed Rhode Island LAE Provision	19.1%
(3) Proposed Change in LAE Provision	1.006
= [1.0 + (2)] / [1.0 + (1)] - 1	0.6%

## **Notes**

NAIC Annual Statement data is used in the above calculations. The countrywide figures exclude state funds.



## Advisory Loss Costs and Rating Values Filing – August 1, 2018

## Appendix A – Factors Underlying the Proposed Loss Cost Level Change

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

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

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

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

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

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



## **APPENDIX A-I**

## **Determination of Policy Year On-level Factors**

#### Section A - Factor Adjusting 2015 Policy Year Premium to Present Level

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8) Premium
_	Date	Loss Cost Level Change	Cumulative Index	Weight	Product (2)x(3)	Adj. Factor Present Index/ Sum Column (4)	Adj. For Expense Removal	Off-balance Adjustment Factor*	Adjustment Factor (5)x(6)x(7)
NR NR NR	08/01/14 08/01/16 08/01/17	Base 0.925 0.955	1.000 0.925 0.883	1.000	1.000	0.883	0.845	1.005	0.750
					1.000				

## Section B - Factor Adjusting 2015 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)
09/01/14	Base	1.000	0.274	0.274	1.008
09/01/15	1.002	1.000	0.633	0.634	1.006
07/15/16	1.000	1.002	0.066	0.066	
10/01/16	1.005	1.007	0.027	0.027	
10/01/17	1.002	1.009			
				1.001	

#### Section C - Factor Adjusting 2015 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)
	_			, , , ,	
09/01/14	Base	1.000	0.274	0.274	1.005
09/01/15	1.000	1.000	0.633	0.633	
07/15/16	1.005	1.005	0.066	0.066	
10/01/16	1.000	1.005	0.027	0.027	
10/01/17	1.000	1.005			
				1.000	

## NR New and renewal business.

 $<sup>@ \</sup>quad \hbox{Eliminates premium derived from expense constants}.$ 

<sup>\* 1.005 = 0.964 / 0.959 = (</sup>Targeted Off-balance) / (Off-balance for Policy Year 2015)



## **APPENDIX A-I**

## **Determination of Policy Year On-level Factors**

## Section D - Factor Adjusting 2014 Policy Year Premium to Present Level

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8) Premium
_	Date	Loss Cost Level Change	Cumulative Index	Weight	Product (2)x(3)	Adj. Factor Present Index/ Sum Column (4)	Adj. For Expense Removal	Off-balance Adjustment Factor*	Adjustment Factor (5)x(6)x(7)
NR NR NR	08/01/13 08/01/14 08/01/16	Base 1.025 0.925	1.000 1.025 0.948	0.634 0.366	0.634 0.375	0.897	0.845	0.992	0.752
NR	08/01/17	0.955	0.905		1.009				

## Section E - Factor Adjusting 2014 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)
09/01/13	Base	1.000	0.088	0.088	1.010
05/01/14	1.000	1.000	0.186	0.186	1.010
09/01/14	1.002	1.002	0.676	0.677	
09/01/15	1.002	1.004	0.050	0.050	
07/15/16	1.000	1.004			
10/01/16	1.005	1.009			
10/01/17	1.002	1.011			
				1.001	

## Section F - Factor Adjusting 2014 Policy Year Medical Losses to Present Benefit Level

(1)	(2)	(3)	(4)	(5)
Benefit Level Change	Cumulative Index	Weight	Product (2)x(3)	Adj. Factor Present Index/ Sum Column (4)
_	4.000	0.000	2.222	4.007
Base	1.000	0.088	0.088	1.007
1.008	1.008	0.186	0.187	
1.000	1.008	0.676	0.681	
1.000	1.008	0.050	0.050	
1.005	1.013			
1.000	1.013			
1.000	1.013			
			1.006	
	Benefit Level Change Base 1.008 1.000 1.000 1.005 1.000	Benefit Level Cumulative Change Index  Base 1.000 1.008 1.008 1.000 1.008 1.000 1.008 1.005 1.013 1.000 1.013	Benefit Level         Cumulative           Change         Index         Weight           Base         1.000         0.088           1.008         1.008         0.186           1.000         1.008         0.676           1.000         1.008         0.050           1.005         1.013           1.000         1.013	Benefit Level         Cumulative         Product           Change         Index         Weight         (2)x(3)           Base         1.000         0.088         0.088           1.008         1.008         0.186         0.187           1.000         1.008         0.676         0.681           1.000         1.008         0.050         0.050           1.005         1.013         1.000         1.013           1.000         1.013         1.013         1.013

NR New and renewal business.

<sup>@</sup> Eliminates premium derived from expense constants.

<sup>\*</sup> 0.992 = 0.964 / 0.972 = (Targeted Off-balance) / (Off-balance for Policy Year 2014)



## **APPENDIX A-I**

## **Determination of Policy Year On-level Factors**

## Section G - Factor Adjusting 2013 Policy Year Premium to Present Level

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8) Premium
		Loss Cost Level	Cumulative		Product	Adj. Factor Present Index/	Adj. For Expense	Off-balance Adjustment	Adjustment Factor
_	Date	Change	Index	Weight	(2)x(3)	Sum Column (4)	Removal	Factor*	(5)x(6)x(7)
NR	01/01/13	Base	1.000	0.634	0.634	0.946	0.845	0.977	0.781
NR	08/01/13	1.074	1.074	0.366	0.393				
NR	08/01/14	1.025	1.101						
NR	08/01/16	0.925	1.018						
NR	08/01/17	0.955	0.972						
					1.027				

## Section H - Factor Adjusting 2013 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)
	_				
09/01/12	Base	1.000	0.274	0.274	1.011
09/01/13	1.001	1.001	0.529	0.530	
05/01/14	1.000	1.001	0.147	0.147	
09/01/14	1.002	1.003	0.050	0.050	
09/01/15	1.002	1.005			
07/15/16	1.000	1.005			
10/01/16	1.005	1.010			
10/01/17	1.002	1.012			
				1.001	

## Section I - Factor Adjusting 2013 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)
09/01/12 09/01/13 05/01/14 09/01/14 09/01/15 07/15/16 10/01/16	Base 1.000 1.008 1.000 1.000 1.005 1.000	1.000 1.000 1.008 1.008 1.008 1.013	0.274 0.529 0.147 0.050	0.274 0.529 0.148 0.050	1.012
10/01/17	1.000	1.013		1.001	

NR New and renewal business.

<sup>@</sup> Eliminates premium derived from expense constants.

<sup>\*</sup> 0.977 = 0.964 / 0.987 = (Targeted Off-balance) / (Off-balance for Policy Year 2013)



## **APPENDIX A-I**

## **Determination of Policy Year On-level Factors**

## Section J - Premium Adjustment to Average Expected Mod

Rating Year	(1) Average Intrastate Mod	(2) Average Interstate Mod	(3) Average Mod Combined Rated Risk	(4) Weighted Average Off-Balance	(5) Average Mod Expected	(6)= (5)/(4) Policy Year Adjustment Factor
1999	1.041	0.978	1.019	1.018	0.964	0.947
2000	1.006	0.969	0.994	0.994	0.964	0.970
2000	1.010	0.998	1.006	1.006	0.964	0.958
2002	1.010	1.019	1.013	1.012	0.964	0.953
2002	1.018	1.005	1.013	1.012	0.964	0.953
2004	0.991	1.008	0.997	0.997	0.964	0.967
2005	0.976	1.017	0.991	0.992	0.964	0.972
2006	0.974	0.991	0.980	0.981	0.964	0.983
2007	0.985	0.991	0.987	0.988	0.964	0.976
2008	0.985	0.998	0.989	0.990	0.964	0.974
2009	0.995	0.989	0.993	0.994	0.964	0.970
2010	0.992	0.987	0.990	0.991	0.964	0.973
2011	0.998	0.990	0.995	0.995	0.964	0.969
2012	0.996	0.987	0.992	0.993	0.964	0.971
2013	0.988	0.983	0.986	0.987	0.964	0.977
2014	0.960	0.982	0.969	0.972	0.964	0.992
2015	0.951	0.959	0.954	0.959	0.964	1.005
2016	0.948	0.965	0.955	0.960	0.964	1.004



## Advisory Loss Costs and Rating Values Filing – August 1, 2018

## Appendix A – Factors Underlying the Proposed Loss Cost Level Change

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

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

## **Limited Large Loss Methodology**

In order to limit volatility on the loss cost indications due to the impact of extraordinary large losses, a limited large loss methodology is used in Rhode Island. A base threshold for the large loss limitation is determined by the volume of premium in the state as well as the number of years used in the experience period. The base threshold proposed in this filing is \$3,546,318, based on the volume of premium in policy years 2012, 2013, and 2014 underlying the currently approved filing that utilizes data valued as of 12/31/2015. The base threshold is detrended by policy year to reflect the inflationary impact on claim costs due to wage inflation. The wage index used as a basis for these calculations is the Rhode Island average weekly wages from the Quarterly Census of Employment and Wages (QCEW). Detrended thresholds are used in the experience period, trend period, and loss development period. Indemnity and medical losses are limited at the detrended large loss threshold corresponding to their policy year, as shown in Appendix A-II Section I.

Limited indemnity and medical losses used to calculate the ultimate losses are shown in Appendix A-II Section A. After developing limited indemnity and medical losses to an ultimate report, a statewide excess ratio at the base threshold is used to adjust the limited losses to an unlimited basis. The proposed excess ratio in this filing is 2.4%, as shown in Appendix A-II Section H.

#### **Development Factors**

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

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

For indemnity and medical loss development past the 19<sup>th</sup> report, a "tail" factor is used to reflect all future expected emergence. The calculation of indemnity and medical paid + case 19<sup>th</sup>-to-ultimate tail factors utilize all available experience for the years prior to the tail attachment point. Tail factors are calculated for the most recent ten available policy years, each relying on losses in older policy years as well as a factor to adjust for the differences in the volume of losses



## Advisory Loss Costs and Rating Values Filing – August 1, 2018

## Appendix A – Factors Underlying the Proposed Loss Cost Level Change

between the policy years. Tail factors are calculated separately for indemnity and medical losses by comparing the changes in the volume of policy year losses that occur on policy years reported after a nineteenth report to the volume of policy year losses at the nineteenth report, along with the application of a growth adjustment factor. Due to the 1992 reform, the development from indemnity tail factors for Policy Years 1992 and prior is reduced by half.

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

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#### **APPENDIX A-II**

## **Determination of Premium and Losses Developed to an Ultimate Report**

## Section A - Premium and Loss Summary Valued as of 12/31/2016

## Policy Year 2015

(1)	Standard Earned Premium	\$163,713,256
(2)	Factor to Develop Premium to Ultimate	1.004
(3)	Standard Earned Premium Developed to Ultimate = $(1)x(2)$	\$164,368,109
(4)	Limited Indemnity Paid Losses	\$27,575,799
(5)	Limited Indemnity Paid Development Factor to Ultimate	2.914
(6)	Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	\$80,355,878
(7)	Limited Medical Paid Losses	\$22,142,492
(8)	Limited Medical Paid Development Factor to Ultimate	1.656
(9)	Limited Medical Paid Losses Developed to Ultimate = (7)x(8)	\$36,667,967

## Policy Year 2014

(1) (2) (3)	Standard Earned Premium Factor to Develop Premium to Ultimate Standard Earned Premium Developed to Ultimate = (1)x(2)	\$153,629,326 1.000 \$153,629,326
(4) (5) (6)	Limited Indemnity Paid Losses Limited Indemnity Paid Development Factor to Ultimate Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	\$44,975,093 1.698 \$76,367,708
(7) (8) (9)	Limited Medical Paid Losses Limited Medical Paid Development Factor to Ultimate Limited Medical Paid Losses Developed to Ultimate = (7)x(8)	\$26,752,680 1.300 \$34,778,484

## Policy Year 2013

(1) (2) (3)	Standard Earned Premium Factor to Develop Premium to Ultimate Standard Earned Premium Developed to Ultimate = (1)x(2)	\$144,228,681 1.000 \$144,228,681
(4) (5) (6)	Limited Indemnity Paid Losses Limited Indemnity Paid Development Factor to Ultimate Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	\$55,437,939 1.335 \$74,009,649
(7) (8) (9)	Limited Medical Paid Losses Limited Medical Paid Development Factor to Ultimate Limited Medical Paid Losses Developed to Ultimate = (7)x(8)	\$30,820,826 1.192 \$36,738,425



## **APPENDIX A-II**

## **Determination of Premium and Losses Developed to an Ultimate Report**

## **Section B - Premium Development Factors**

Policy <u>Year</u>	<u>1st/2nd</u>	Policy <u>Year</u>	<u>2nd/3rd</u>	Policy <u>Year</u>	3rd/4th	Policy <u>Year</u>	4th/5th
2012	1.003	2011	0.999	2010	1.000	2009	1.000
2013	1.007	2012	1.000	2011	1.000	2010	1.000
2014	1.003	2013	1.000	2012	1.000	2011	1.000
Average	1.004	Average	1.000	Average	1.000	Average	1.000

## Summary of Premium Development Factors

1st/5th	2nd/5th	3rd/5th	4th/5th
1.004	1.000	1.000	1.000



## **APPENDIX A-II**

## **Determination of Premium and Losses Developed to an Ultimate Report**

Section C - Limited Indemnity Paid Loss Development Factors

Policy		Policy		Policy		Policy	
<u>Year</u>	1st/2nd	<u>Year</u>	2nd/3rd	<u>Year</u>	3rd/4th	<u>Year</u>	4th/5th
· <u></u>		<u> </u>					<u> </u>
2010	1.754	2009	1.304	2008	1.128	2007	1.087
2011	1.674	2010	1.277	2009	1.158	2008	1.078
2012	1.662	2011	1.260	2010	1.106	2009	1.049
2013	1.734	2012	1.280	2011	1.118	2010	1.053
2014	1.740	2013	1.250	2012	1.098	2011	1.048
Average* * Excludes the	1.716 years with the lowe	Average* est and highest fac	1.272 tors.	Average*	1.117	Average*	1.060
Policy		Policy		Policy		Policy	
<u>Year</u>	5th/6th	<u>Year</u>	6th/7th	<u>Year</u>	7th/8th	<u>Year</u>	8th/9th
<u>1001</u>	011/011	<u>1001</u>	Otti/Ttt1	<u>1001</u>	7 41/041	<u>1001</u>	001/001
2006	1.042	2005	1.019	2004	1.009	2003	1.008
2007	1.039	2006	1.034	2005	1.023	2004	1.008
2008	1.030	2007	1.039	2006	1.022	2005	1.008
2009	1.024	2008	1.014	2007	1.020	2006	1.022
2010	1.030	2009	1.009	2008	1.008	2007	1.022
2010	1.030	2009	1.009	2008	1.000	2007	1.007
Average*	1.033	Average*	1.022	Average*	1.017	Average*	1.008
* Excludes the	years with the lowe	est and highest fac	tors.				
Policy		Policy		Policy		Policy	
<u>Year</u>	9th/10th	<u>Year</u>	10th/11th	<u>Year</u>	11th/12th	<u>Year</u>	12th/13th
<u>1 Cai</u>	<u>300/1001</u>	<u>1 6 a i</u>	1001/1101	<u>rear</u>	1141/1241	<u>rear</u>	1201/1301
2002	1.003	2001	1.004	2000	1.005	1999	1.008
2003	1.004	2002	1.001	2001	1.002	2000	1.008
2004	1.011	2003	1.003	2002	1.004	2001	1.003
2005	1.002	2004	1.002	2003	1.004	2002	1.001
2006	1.002	2005	1.002	2004	1.004	2002	1.001
2006	1.003	2005	1.004	2004	1.002	2003	1.000
Average* * Excludes the	1.003 years with the lower	Average* est and highest fac	1.003 tors.	Average*	1.003	Average*	1.004
Policy		Policy		Policy		Policy	
<u>Year</u>	13th/14th	<u>Year</u>	14th/15th	<u>Year</u>	15th/16th	<u>Year</u>	16th/17th
1998	1.005	1997	1.003	1996	1.006	1995	1.000
1999	1.007	1998	1.002	1997	1.006	1996	1.006
2000	1.000	1999	1.010	1998	1.000	1997	1.001
2001	1.003	2000	1.000	1999	1.003	1998	1.000
2002	1.001	2001	1.004	2000	1.000	1999	1.005
A.,*	4 000	A*	4 000	A*	4.000	A*	4.000
Average*  * Excludes the	1.003 years with the lower	Average*	1.003	Average*	1.003	Average*	1.002
	years with the lowe	_	1013.				
Policy		Policy					
<u>Year</u>	<u>17th/18th</u>	<u>Year</u>	18th/19th				
1994	1.006	1993	1.004				
1995	1.001	1994	1.013				
1996	1.003	1995	1.001				
1997	1.000	1996	1.006				
1998	1.000	1997	1.001				
Average*	1.001	Average*	1.004				

<sup>\*</sup> Excludes the years with the lowest and highest factors.



#### **APPENDIX A-II**

## **Determination of Premium and Losses Developed to an Ultimate Report**

Section D - Limited Medical Paid Loss Development Factors

Policy		Policy		Policy		Policy	
<u>Year</u>	1st/2nd	<u>Year</u>	<u>2nd/3rd</u>	<u>Year</u>	3rd/4th	<u>Year</u>	4th/5th
0040	4.040	0000	4.404	0000	4 000	2027	4.044
2010	1.318	2009	1.101	2008	1.039	2007	1.014
2011	1.259	2010	1.103	2009	1.066	2008	1.020
2012	1.277	2011	1.073	2010	1.064	2009	1.031
2013	1.237	2012	1.080	2011	1.041	2010	1.028
2014	1.287	2013	1.092	2012	1.041	2011	1.016
Average*	1.274	Average*	1.091	Average*	1.049	Average*	1.021
* Excludes the	years with the low	est and highest fact	tors.				
Policy		Policy		Policy		Policy	
<u>Year</u>	5th/6th	<u>Year</u>	6th/7th	<u>Year</u>	7th/8th	<u>Year</u>	8th/9th
2006	1 012	2005	1.010	2004	1.002	2002	1 001
2006 2007	1.013 1.023	2005	1.010 1.018	2004	1.002 1.011	2003 2004	1.001 1.007
2007	1.019	2007	1.048	2006	1.027	2004	1.007
				2007			
2009	1.014	2008	1.009		1.002	2006	1.008
2010	1.021	2009	1.006	2008	1.006	2007	1.003
Average*	1.018	Average*	1.012	Average*	1.006	Average*	1.006
* Excludes the	years with the low	est and highest fact	tors.				
Policy		Policy		Policy		Policy	
<u>Year</u>	9th/10th	<u>Year</u>	10th/11th	Year	11th/12th	<u>Year</u>	12th/13th
<u> </u>	<u> </u>	<u> </u>	<u></u>	<u></u>	<u> </u>	<u></u>	<u>,</u>
2002	1.006	2001	1.003	2000	1.018	1999	1.005
2003	1.003	2002	1.002	2001	1.003	2000	1.008
2004	1.006	2003	1.005	2002	1.004	2001	1.004
2005	1.005	2004	1.003	2003	1.007	2002	1.002
2006	1.005	2005	1.005	2004	1.003	2003	1.001
Average*	1.005	Avorage*	1.004	Avorage*	1.005	Avorage*	1.004
•		Average* est and highest fact		Average*	1.005	Average*	1.004
	youro mar aro low	_	.010.	Dallar		Dallas	
Policy	4 04   /4 44	Policy	4 444 /4 544	Policy	4 Fth /4 Cth	Policy	4 046 /4 746
<u>Year</u>	13th/14th	<u>Year</u>	14th/15th	<u>Year</u>	<u>15th/16th</u>	<u>Year</u>	16th/17th
1998	1.001	1997	1.002	1996	1.001	1995	1.004
1999	1.005	1998	1.008	1997	1.002	1996	1.003
2000	1.000	1999	1.007	1998	1.000	1997	1.001
2001	1.003	2000	1.001	1999	1.003	1998	1.000
2002	1.002	2001	1.005	2000	1.000	1999	1.002
Average*	1.002	Average*	1.005	Average*	1.001	Average*	1.002
•		est and highest fact		Average	1.001	Average	1.002
	,	_					
Policy	470 (400	Policy	401 /401				
<u>Year</u>	17th/18th	<u>Year</u>	<u>18th/19th</u>				
1994	1.005	1993	1.003				
1995	1.006	1994	1.008				
1996	1.001	1995	1.003				
1997	1.001	1996	1.002				
1998	1.000	1997	1.001				
Average*	1.002	Average*	1.003				

<sup>\*</sup> Excludes the years with the lowest and highest factors.



#### **APPENDIX A-II**

#### **Determination of Premium and Losses Developed to an Ultimate Report**

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

#### Indemnity Paid+Case Data for Matching Companies

(1)	(2)	(3)	(4)	(5)	(6) Factor to	(7) Indicated	(8) Adjusted
Policy	Losses for	Policy Year	Losses for All P	rior Policy Years	Adjust Losses	19th-to-Ult Development	19th-to-Ult Development
Year	19th Report	20th Report	Previous	Current	for Prior Policy Years	for Policy Year	for Policy Year
1987	146,804,574	147,122,331	874,425,984	876,324,865	0.532	1.026	1.013
1988	154,789,371	154,601,219	1,030,466,056	1,029,990,339	0.559	0.993	0.997
1989	176,705,579	177,303,328	1,184,591,558	1,185,617,205	0.528	1.014	1.007
1990	112,503,976	112,790,727	1,298,012,630	1,298,407,655	0.899	1.006	1.003
1991	85,575,382	85,672,605	1,409,971,364	1,411,320,668	1.239	1.014	1.007
1992	48,966,747	49,116,401	1,496,937,388	1,498,561,923	2.215	1.018	1.009
1993	32,082,136	32,043,098	1,547,678,324	1,546,962,946	3.353	0.992	0.992
1994	35,573,601	35,269,771	1,578,637,388	1,579,823,995	2.916	1.003	1.003
1995	33,411,148	33,410,705	1,614,912,558	1,616,452,579	2.984	1.015	1.015
1996	32,626,595	32,676,866	1,649,852,131	1,651,135,498	2.862	1.015	1.015

Selected Indemnity 19th-to-Ultimate Loss Development Factor

1.005

1.015

#### Medical Paid+Case Data for Matching Companies

(9)	(10)	(11)	(12)	(13)	(14) Factor to	(15) Indicated	
Policy	Losses for	Policy Year	Losses for All P	rior Policy Years	Adjust Losses	19th-to-Ult Development	
Year	19th Report	20th Report	Previous	Current	for Prior Policy Years	for Policy Year	
1987	36,236,507	36,343,911	247,396,170	248,426,087	0.554	1.054	
1988	40,060,454	40,473,027	287,528,109	288,304,226	0.550	1.046	
1989	46,187,274	45,985,799	328,777,253	331,652,954	0.516	1.116	
1990	33,727,324	33,705,992	358,959,623	359,252,356	0.754	1.011	
1991	30,866,077	31,077,089	392,573,156	395,172,097	0.884	1.102	
1992	20,595,271	20,585,164	426,208,322	426,744,400	1.391	1.018	
1993	17,249,496	17,306,436	447,329,564	445,526,340	1.691	0.941	
1994	16,124,192	15,872,178	462,688,164	462,101,525	1.809	0.964	
1995	16,651,572	16,805,511	477,901,647	477,548,025	1.741	0.997	
1996	15,376,023	15,327,703	494,319,363	493,985,876	1.834	0.985	

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

Column (8) reduces the development portion of Column (7) by a factor of 0.5 for Policy Years 1992 and prior to reflect the 1992 reform.

Selected Medical 19th-to-Ultimate Loss Development Factor

(15) = 1 + [(11)-(10) + ((13)-(12)) / (14)] / (10)

Columns (4) and (12) are valued as of the date at which the given policy year is at a 19th report.

Columns (5) and (13) are valued as of the date at which the given policy year is at a 20th report.



## APPENDIX A-II

#### **Determination of Premium and Losses Developed to an Ultimate Report**

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

Policy <u>Year</u>	Indemnity Paid-to- Paid + Case Ratio 19th Report	Medical Paid-to- Paid + Case Ratio 19th Report
1993	0.991	0.978
1994	0.985	0.981
1995	0.996	0.951
1996	0.986	0.990
1997	0.988	0.959
Average	0.989	0.972

	<u>Indemnity</u>	<u>Medical</u>
(1) Paid+Case 19th-to-Ultimate Loss Development Factor (Section E)	1.005	1.015
(2) Factor to Adjust 19th-to-Ultimate Development Factor to a Limited Basis	0.393	0.393
(3) Limited Paid+Case 19th-to-Ultimate Loss Development Factor = [(1)-1]x(2)+1	1.002	1.006
(4) Limited Paid-to-Paid+Case Ratio (Section F)	0.989	0.972
(5) Limited Paid 19th-to-Ultimate Loss Development Factor = (3) / (4)	1.013	1.035

## Section G - Summary of Limited Paid Loss Development Factors

	(1)	(2)			(3)	(4)	
	Indemnity Paid Los	ss Development			Medical Paid Loss	Development	
Report	to Next Report	to Ultimate		Report	to Next Report	to Ultimate	
1st	1.716	2.914		1st	1.274	1.656	
2nd	1.272	1.698		2nd	1.091	1.300	
3rd	1.117	1.335		3rd	1.049	1.192	
4th	1.060	1.195		4th	1.021	1.136	
5th	1.033	1.127		5th	1.018	1.113	
6th	1.022	1.091		6th	1.012	1.093	
7th	1.017	1.068		7th	1.006	1.080	
8th	1.008	1.050		8th	1.006	1.074	
9th	1.003	1.042		9th	1.005	1.068	
10th	1.003	1.039		10th	1.004	1.063	
11th	1.003	1.036		11th	1.005	1.059	
12th	1.004	1.033		12th	1.004	1.054	
13th	1.003	1.029		13th	1.002	1.050	
14th	1.003	1.026		14th	1.005	1.048	
15th	1.003	1.023		15th	1.001	1.043	
16th	1.002	1.020		16th	1.002	1.042	
17th	1.001	1.018		17th	1.002	1.040	
18th	1.004	1.017		18th	1.003	1.038	
19th		1.013	Section F	19th		1.035	Section F

<sup>(2) =</sup> Cumulative upward product of column (1).

<sup>(4) =</sup> Cumulative upward product of column (3).



## **APPENDIX A-II**

## **Determination of Premium and Losses Developed to an Ultimate Report**

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

(1) Threshold at the Midpoint of the Loss Cost Effective Period*	3,546,318
(2) Statewide Excess Ratio for (1)	0.024
(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))]}	1.025

## Section I - Policy Year Large Loss Limits

	Policy Year
Experience	Detrended
Year	Limit
2015	3,153,331
2014	3,068,059
2013	2,971,241
2012	2,880,840
2011	2,809,347
2010	2,743,784
2009	2,673,457
2008	2,630,837
2007	2,579,856
2006	2,506,304
2005	2,416,178
2004	2,330,554
2003	2,259,055
2002	2,168,543
2001	2,085,847
2000	2,021,170
1999	1,947,133
1998	1,877,754
1997	1,797,704
1996	1,706,632
1995	1,638,549
1994	1,585,361
1993	1,541,462

<sup>\*</sup> July 29, 2019 is the midpoint of the effective period for which the revised loss costs are being proposed.



## Advisory Loss Costs and Rating Values Filing – August 1, 2018

## Appendix A – Factors Underlying the Proposed Loss Cost Level Change

## **Appendix A-III Trend Factors**

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

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

The lost-time claim frequency, average costs per case, and loss ratios for Policy Years 2001 through 2015 are shown in Appendix A-III, along with the impact of the trend selection for each policy year in the experience period. The trend lengths displayed in Section B(3) are calculated by comparing the average accident date for the effective period of the proposed loss costs to each of the policy years in the experience period. The average accident dates are based on a Rhode Island distribution of policy writings by month and assume a uniform probability of loss over the coverage period.



## **APPENDIX A-III**

## **Policy Year Trend Factors**

## Section A - Summary of Policy Year Data

(1)	(2)	(3)	(4)	(5)	(6)
	Lost-Time	Indem	inity	Medi	cal
Policy	Claim	Avg Cost	Loss	Avg Cost	Loss
<u>Year</u>	Frequency*	Per Case*^	Ratio <sup>^</sup>	Per Case*^	Ratio <sup>^</sup>
2001	40.922	18,097	0.740	8,434	0.345
2002	40.540	16,211	0.658	8,255	0.335
2003	39.687	17,307	0.688	8,922	0.354
2004	37.692	17,273	0.651	9,107	0.343
2005	36.837	17,692	0.652	9,699	0.357
2006	35.006	19,472	0.682	9,982	0.350
2007	33.882	21,345	0.723	10,661	0.361
2008	31.455	23,306	0.733	11,431	0.360
2009	32.255	22,713	0.733	11,823	0.382
2010	34.172	22,154	0.756	11,982	0.409
2011	31.831	21,532	0.686	10,885	0.346
2012	31.285	21,466	0.671	11,042	0.345
2013	30.059	22,096	0.664	10,979	0.330
2014	30.264	22,056	0.668	10,016	0.303
2015	28.984	22,670	0.657	10,314	0.299

<sup>\*</sup> Figures have been adjusted to the common wage level.

## **Section B - Summary of Annual Trend Factors**

S Cummary of Armaar Frence Factors	<u>Indemnity</u>	<u>Medical</u>
(1) Current Approved Annual Loss Ratio Trend Factor	0.990	0.995
(2) Selected Annual Loss Ratio Trend Factor	0.990	0.985
(3) Length of Trend Period from Midpoint of Policy Year to Midpo	oint of Effective Period:	

		<u>Years</u>
Policy Year	2013	5.633
Policy Year	2014	4.633
Policy Year	2015	3.633

(4) Trend Factor Applied to Experience Year = (2) ^ (3)	<u>Indemnity</u>	<u>Medical</u>	
Policy Year 2013	0.945	0.918	
Policy Year 2014	0.955	0.932	
Policy Year 2015	0.964	0.947	

<sup>^</sup> Based on paid losses.



## **APPENDIX A-IV**

## **Derivation of Industry Group Differentials**

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

## I. Expected Losses

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

	(1)	(2)	(3)	(4)	(5)
	Latest Year	Five Year	Five Year		
	Current Expected	Current Expected	Proposed Expected	Current	Proposed
	Losses Prior to	Losses Prior to	Losses Prior to	Ratio of	Ratio of
	Adjustment for	Adjustment for	Adjustment for	Manual to	Manual to
	Change in	Change in	Change in	Standard	Standard
Industry Group	Off-Balance	Off-Balance	Off-Balance	Premium	Premium
Manufacturing	28,197,657	131,779,114	125,546,379	1.064	1.079
Contracting	28,857,328	136,891,677	130,489,284	1.076	1.077
Office & Clerical	23,738,146	107,785,871	102,634,226	1.071	1.074
Goods & Services	79,426,429	368,920,174	351,294,083	0.991	0.994
Miscellaneous	31,035,153	146,281,536	139,385,954	1.037	1.048
Statewide	191,254,713	891,658,372	849,349,925		

	(6)	(7)	(8)	(9)	(10)
	Latest Year	Five Year	Five Year		
	Current Expected	Current Expected	Proposed Expected		Adjustment to
	Losses Adjusted	Losses Adjusted	Losses Adjusted		Proposed for
	for Change in	for Change in	for Change in	Current/	Current
	Off-Balance	Off-Balance	Off-Balance	Proposed	Relativity
Industry Group	(1)x(4)/(5)	(2)x(4)/(5)	(3)x(4)/(5)	(7)/(8)	(9)IG/(9)SW
Manufacturing	27,805,660	129,947,152	123,801,063	1.050	1.000
Contracting	28,830,534	136,764,572	130,368,124	1.049	0.999
Office & Clerical	23,671,838	107,484,793	102,347,538	1.050	1.000
Goods & Services	79,186,711	367,806,733	350,233,839	1.050	1.000
Miscellaneous	30,709,403	144,746,138	137,922,933	1.049	0.999
Statewide	190,204,146	886,749,388	844,673,497	1.050	



## **APPENDIX A-IV**

## **II. Industry Group Differentials**

To calculate the converted indicated balanced losses (11) the reported losses are limited to \$500,000 for a single claim occurrence and \$1,500,000 for each multiple claim occurrence. After the application of limited development, trend and benefit factors, the limited losses are brought to an unlimited level through the application of the expected excess provision. The 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	123,762,450	1.000	1.001	3,520
Contracting	126,727,540	0.973	0.974	2,324
Office & Clerical	97,754,890	0.955	0.956	2,639
Goods & Services	347,971,625	0.994	0.995	12,334
Miscellaneous	147,447,979	1.070	1.071	3,444
Statewide	843,664,484	0.999		

	(15)	(16)	(17)	(18)
Industry Group	Full Credibility Standard for Lost-Time Claim Counts	Credibility Minimum of 1.000 and ((14)/(15))^0.5	Credibility Weighted Indicated/Expected Ratio [(16)IGx(12)IG] + [1-(16)IG]x(12)SW*	Final Industry Group Differential (17)IG/(17)SW
Manufacturing	12,000	0.54	1.000	1.001
Contracting	12,000	0.44	0.988	0.989
Office & Clerical	12,000	0.47	0.978	0.979
Goods & Services	12,000	1.00	0.994	0.995
Miscellaneous	12,000	0.54	1.037	1.038
Statewide			0.999	1.000

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



## Advisory Loss Costs and Rating Values Filing – August 1, 2018

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

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

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



#### **APPENDIX B-I**

## Distribution of Loss Cost Level Change to Occupational Classification

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

#### Section A – Calculation of Indicated Pure Premiums

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

#### Section A-1 – Calculation of Primary Conversion Factors

## 1. Limited Loss Development Factors

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

	Inde	mnity	Medical		
Policy Period	Likely-to-Develop	Not-Likely-to- Develop	Likely-to-Develop	Not-Likely-to-Develop	
1/10-12/10	1.049	1.009	1.064	1.009	
1/11-12/11	1.076	1.028	1.071	1.012	
1/12-12/12	1.129	1.063	1.074	1.014	
1/13-12/13	1.299	1.155	1.123	1.019	
1/14-12/14	2.033	1.497	1.258	1.023	

## 2. Factors to Adjust to the Proposed Trend Level

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

Policy Period	Indemnity	Medical
1/10-12/10	0.917	0.878
1/11-12/11	0.926	0.891
1/12-12/12	0.935	0.905
1/13-12/13	0.945	0.918
1/14-12/14	0.954	0.932

## 3. Factors to Adjust to the October 1, 2017 Benefit Level

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

		Permanent Total	Permanent Partial	Temporary Total	
Policy Period	Fatal	(P.T.)	(P.P.)	(T.T.)	Medical
1/10-12/10	1.024	1.021	1.047	1.024	1.023
1/11-12/11	1.022	1.018	1.031	1.022	1.023
1/12-12/12	1.019	1.015	1.011	1.019	1.023
1/13-12/13	1.017	1.013	1.010	1.017	1.022
1/14-12/14	1.014	1.011	1.009	1.014	1.017



#### **APPENDIX B-I**

## 4. Primary Conversion Factors: Indicated Pure Premiums

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

Policy Period	Fatal (L)	Fatal (NL)	P.T.*	P.P. (L)	P.P. (NL)	T.T. (L)	T.T. (NL)	Medical (L)	Medical (NL)
1/10-12/10	0.985	0.947	0.982	1.007	0.969	0.985	0.947	0.956	0.906
1/11-12/11	1.018	0.973	1.014	1.027	0.981	1.018	0.973	0.976	0.922
1/12-12/12	1.076	1.013	1.071	1.067	1.005	1.076	1.013	0.994	0.939
1/13-12/13	1.248	1.110	1.244	1.240	1.102	1.248	1.110	1.054	0.956
1/14-12/14	1.967	1.448	1.961	1.957	1.441	1.967	1.448	1.192	0.970

<sup>\*</sup> 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. These factors are shown below.

Hazard Group	А	В	С	D	E	F	G
(1) Excess Ratios	0.090	0.119	0.135	0.158	0.191	0.219	0.264
(2) Excess Factors 1/(1-(1))	1.099	1.135	1.156	1.188	1.236	1.280	1.359

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.



#### **APPENDIX B-I**

## Section A-3 – Calculation of Secondary Conversion Factors

## 1. Factors to Adjust for Proposed Industry Group Differentials

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

	Manufacturing	Contracting	Office and Clerical	Goods and Services	Miscellaneous
(1) Indicated Differentials*	1.001	0.974	0.956	0.995	1.071
(2) Final Differentials**	1.001	0.989	0.979	0.995	1.038
(3) Adjustment (2)/(1)	1.000	1.015	1.024	1.000	0.969

<sup>\*</sup>See Appendix A-IV, column (13).

## 2. Factors to Balance Indicated to Expected Losses

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

	(1)				
	Adjustment of	(2)	(3)	(4)	(5)
	Indicated Losses	Current Ratio of	Proposed Ratio of		Balancing
	to Pure Premium	Manual to	Manual to	Off-balance	Indicated to
	at Proposed	Standard	Standard	Adjustment	Expected Losses
Policy Period	Level	Premium	Premium	(2)/(3)	(1)x(4)
1/10-12/10	0.904	1.032	1.029	1.003	0.907
1/11-12/11	0.935	1.032	1.025	1.007	0.942
1/12-12/12	0.957	1.032	1.038	0.994	0.951
1/13-12/13	0.982	1.032	1.045	0.988	0.970
1/14-12/14	0.975	1.032	1.057	0.976	0.952

## 3. Adjustment for Experience Change

A factor of 0.960 is applied to adjust for the experience change in the proposed loss cost level.

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

A factor of 1.191 is applied to include the proposed loss-based expense provisions.

## 5. Secondary Conversion Factors: Indicated Pure Premiums

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

Policy Period	Manufacturing	Contracting	Office and Clerical	Goods and Services	Miscellaneous
1/10-12/10	1.037	1.053	1.062	1.037	1.005
1/11-12/11	1.077	1.093	1.103	1.077	1.044
1/12-12/12	1.087	1.104	1.113	1.087	1.054
1/13-12/13	1.109	1.126	1.136	1.109	1.075
1/14-12/14	1.088	1.105	1.115	1.088	1.055

<sup>\*\*</sup>See Appendix A-IV, column (18).



#### **APPENDIX B-I**

#### Section B – Calculation of Present on Rate Level Pure Premiums

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

#### 1. Adjustment for Experience Change

A factor of 0.960 is applied to adjust for the experience change in the proposed loss cost level.

## 2. Factors to Adjust to the Proposed Trend Level

The pure premiums underlying the current loss costs contain the current trend. The change in trend factors, 1.000 and 0.954, for indemnity and medical, respectively, are applied to adjust to the proposed trend level.

## 3. Factors to Adjust to the October 1, 2017 Benefit Level

The pure premiums underlying the current loss costs are at the current October 1, 2017 level. The following factors are applied to adjust to the proposed benefit level.

Effective Date	Indemnity	Medical
September 1, 2017	1.000	1.010
October 1, 2017	1.000	1.000
Combined Benefit Adjustment	1.000	1.010

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

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

	(a) C	urrent	(b) Proposed		
	Indemnity	Medical	Indemnity	Medical	
(1) Loss Adjustment Expense	1.184	1.184	1.191	1.191	
(2) Loss-based Assessment	1.000	1.000	1.000	1.000	
(3) = (1) + (2) - 1.000	1.184	1.184	1.191	1.191	
(4) Overall Change (3b)/(3a)			1.006	1.006	

#### 5. Adjustment to Obtain Expected Losses

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

	(1)	(2)	(3)
	Current Ratio of	Proposed Ratio of	Off-balance
	Manual to Standard	Manual to Standard	Adjustment
Industry Group	Premium	Premium	(1)/(2)
Manufacturing	1.064	1.079	0.986
Contracting	1.076	1.077	0.999
Office & Clerical	1.071	1.074	0.997
Goods & Services	0.991	0.994	0.997
Miscellaneous	1.037	1.048	0.990



## **APPENDIX B-I**

## 6. Factors to Adjust for Proposed Industry Group Differentials

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

	(1)	(2)	(3)
	Final	Adjustment to Proposed for	Adjusted Differential
Industry Group	Differential*	Current Relativities**	(1)x(2)
Manufacturing	1.001	1.000	1.001
Contracting	0.989	0.999	0.988
Office & Clerical	0.979	1.000	0.979
Goods & Services	0.995	1.000	0.995
Miscellaneous	1.038	0.999	1.037

## 7. Combined Conversion Factors

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

Industry Group	Indemnity	Medical
Manufacturing	0.953	0.919
Contracting	0.953	0.919
Office & Clerical	0.943	0.909
Goods & Services	0.958	0.924
Miscellaneous	0.992	0.956

<sup>\*</sup>See Appendix A-IV, column (18).
\*\*See Appendix A-IV, column (10).



#### APPENDIX B-I

#### Section C – Calculation of National Pure Premiums

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

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

#### Section D – Calculation of Derived by Formula Pure Premiums

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

As for the preceding pure premiums, separate computations are performed for each partial pure premium: indemnity and medical. Each partial formula pure premium is derived by the weighting of the indicated, present on rate level and national partial pure premiums. The weight assigned to the policy year indicated pure premium varies in one-percent intervals from zero percent to one hundred percent, depending upon the volume of expected losses (i.e. the product of the underlying pure premiums and the payroll in hundreds). To achieve full state credibility, a classification must have expected losses of at least: \$18,724,619 for indemnity and \$5,192,840 for medical.

The partial credibilities formula is:

 $z = [\text{(expected losses)} / (\text{full credibility standard})]^{0.4}$ 

For the national pure premiums, credibility is determined from the number of lost-time claims. Full credibility standards are: 1,150 lost-time claims for indemnity and 1,000 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:

[ (national cases)/(full credibility standard) ] $^{0.4}$  and [ (1 – state credibility)/2 ]

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

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

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



#### **APPENDIX B-II**

## **Adjustments to Obtain Loss Costs**

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

#### 1. Test Correction Factor

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

The factors referred to above are set out as follows:

	Test Correction
	Factor
Manufacturing	0.9970
Contracting	1.0259
Office & Clerical	0.9934
Goods & Services	1.0119
Miscellaneous	1.0035

#### 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	1.079
Contracting	1.077
Office & Clerical	1.074
Goods & Services	0.994
Miscellaneous	1.048

## 3. Disease Loadings

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



#### **APPENDIX B-II**

#### 4. Swing Limits

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

Manufacturing from 11% above to 19% below Contracting from 9% above to 21% below Office & Clerical from 8% above to 22% below Goods & Services from 10% above to 20% below Miscellaneous from 14% above to 16% below

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

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

The product of the swing limits and the present loss cost sets bounds for the proposed loss cost. If the calculated loss cost falls outside of the bounds, the closest bound is chosen as the proposed loss cost. When a code is limited, the underlying pure premiums are adjusted to reflect the limited loss cost. The classifications which have been so limited are shown below. Note that classifications that are subject to special handling may fall outside of the swing limits.

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

List of Classifications Limited by the Upper Swing

List of Classifications Limited by the Lower Swing

1748	2039	2413	2503	2600	2702	2799	2960	0771	2002	2111	2302	2417	2841	2883	3113
3270	3336	4207	4240	4244	4511	4653	5348	3119	3126	3180	3303	3822	4024	4109	4410
5472	5506	5610	5705	6204	6252	6882	7600	4432	4611	4635	4771	4829	5040	5057	5213
7610	8235	8264	8265	8279	8602	8725	8856	6003	6236	6251	7133	7151	7152	7153	7394
9170	9516	9620						7395	7398	8603	8748	8755	8803	8871	



#### APPENDIX B-II

## **Determination of Rating Values on Miscellaneous Values Page**

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

Wage (SAWW).	Current	Proposed	Change
1) State Average Weekly Wage (SAWW)	\$961.07 <sup>1</sup>	\$976.73 <sup>2</sup>	1.6%
2) Basis of premium applicable in accordance with the <b>Basic Manual</b> footnote instructions for Code 7370 "Taxicab Co.":			
Employee operated vehicle <sup>3</sup>	\$75,000	\$76,200	1.6%
Leased or rented vehicle <sup>4</sup>	\$50,000	\$50,800	1.6%
3) Maximum Weekly Payroll applicable in accordance with <i>Basic Manual</i> Rule 2-E-1 "Executive Officers" <sup>5</sup> and <i>Basic Manual</i> footnote instructions for Code 9178 "Athletic Sports or Park: Non-Contact Sports," and Code 9179 "Athletic Sports or Park: Contact Sports" <sup>6</sup>	\$3,800	\$3,900	2.6%
4) Minimum Weekly Payroll applicable in accordance with <b>Basic Manual</b> Rule 2-E-1 "Executive Officers" <sup>7</sup>	\$950	\$1,000	5.3%

B. Loss Elimination Ratios (LERs) continue to be determined using the standard methodology described in the literature (e.g. Gillam,W.R.; and Snader, R.H., "Fundamentals of Individual Risk Rating," 1992, and Rollins, J.; and Washburn,M.J., "A Quantification of Snader's Deductible Safety Factor," 1994). The updated values reflect the experience, trend and development consistent with the Excess Loss Pure Premium Factors (ELPPFs) filed in Item R-1413. A newly enhanced methodology for determining ELPPFs was introduced with "Item R-1408 - 2014 Update to the Retrospective Rating Plan Parameters - Excess Loss Pure Premium Factors and Excess Loss and Allocated Expense Pure Premium Factors."

State Average Weekly Wage. Effective September 1, 2016.

State Average Weekly Wage. Effective October 1, 2017.

<sup>&</sup>lt;sup>3</sup> Underlying formula is: SAWW x 52 x 1.5 (Rounded to the nearest \$100), Item B-1422.

<sup>&</sup>lt;sup>4</sup> Underlying formula is: SAWW x 52 (Rounded to the nearest \$100), Item B-1422.

<sup>&</sup>lt;sup>5</sup> Underlying formula is: SAWW x 4 (Rounded to the nearest \$100), Item B-1420.

<sup>&</sup>lt;sup>6</sup> Underlying formula is: SAWW x 4 (Rounded to the nearest \$100), Item B-1422.

Underlying formula is: SAWW (Rounded to the nearest \$50), Item B-1420.



#### **APPENDIX B-III**

#### **Derivation of Proposed Loss Cost - Code 8810**

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

#### LIMITED LOSSES (Workers Compensation Statistical Plan)

				Permanent	Permanent	Temporary	Temporary		
	Fatal	Fatal	Permanent	Partial	Partial	Total	Total	Medical	Medical
Policy Period	Likely	Not-Likely	Total	Likely	Not-Likely	Likely	Not-Likely	Likely	Not-Likely
01/01/10 - 12/31/10	5,000	0	0	1,321,730	1,534,111	172,282	721,216	609,337	1,819,855
01/01/11 - 12/31/11	0	0	0	412,074	1,555,455	551,115	716,132	383,692	1,529,007
01/01/12 - 12/31/12	0	0	0	721,733	836,826	123,580	814,696	400,672	1,018,467
01/01/13 - 12/31/13	0	0	0	516,213	726,060	214,375	960,444	347,496	1,333,281
01/01/14 - 12/31/14	0	0	0	101,451	270,023	484,542	758,029	359,427	1,145,676

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

				Permanent	Permanent	Temporary	Temporary		
	Fatal	Fatal	Permanent	Partial	Partial	Total	Total	Medical	Medical
Policy Period	Likely	Not-Likely	Total	Likely	Not-Likely	Likely	Not-Likely	Likely	Not-Likely
01/01/10 - 12/31/10	0.985	0.947	0.982	1.007	0.969	0.985	0.947	0.956	0.906
01/01/11 - 12/31/11	1.018	0.973	1.014	1.027	0.981	1.018	0.973	0.976	0.922
01/01/12 - 12/31/12	1.076	1.013	1.071	1.067	1.005	1.076	1.013	0.994	0.939
01/01/13 - 12/31/13	1.248	1.110	1.244	1.240	1.102	1.248	1.110	1.054	0.956
01/01/14 - 12/31/14	1.967	1.448	1.961	1.957	1.441	1.967	1.448	1.192	0.970

#### 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	1.156

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%



#### **APPENDIX B-III**

## **Derivation of Proposed Loss Cost - Code 8810**

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

				Permanent	Permanent	Temporary	Temporary		
	Fatal	Fatal	Permanent	Partial	Partial	Total	Total	Medical	Medical
Policy Period	Likely	Not-Likely	Total	Likely	Not-Likely	Likely	Not-Likely	Likely	Not-Likely
01/01/10 - 12/31/10	5,386	0	0	1,455,618	1,625,758	185,589	746,948	767,432	2,041,554
01/01/11 - 12/31/11	0	0	0	462,829	1,668,789	613,571	762,045	494,372	1,768,520
01/01/12 - 12/31/12	0	0	0	842,201	919,764	145,424	902,568	516,801	1,209,620
01/01/13 - 12/31/13	0	0	0	700,045	875,042	292,593	1,165,923	480,085	1,590,049
01/01/14 - 12/31/14	0	0	0	217,132	425,539	1,042,343	1,200,410	567,197	1,377,560

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

Г	
	INDUSTRY GROUP:
Policy Period	Office and Clerical
01/01/10 - 12/31/10	1.062
01/01/11 - 12/31/11	1.103
01/01/12 - 12/31/12	1.113
01/01/13 - 12/31/13	1.136
01/01/14 - 12/31/14	1.115

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

		Indemnity	Indemnity	Medical	Medical	Total	Total	
Policy Period	Payroll	Likely	Not-Likely	Likely	Not-Likely	Indemnity	Medical	Total
01/01/10 - 12/31/10	4,800,262,940	1,748,682	2,519,814	815,013	2,168,130	4,268,496	2,983,143	7,251,639
01/01/11 - 12/31/11	4,965,622,442	1,187,269	2,681,210	545,292	1,950,678	3,868,479	2,495,970	6,364,449
01/01/12 - 12/31/12	4,893,688,199	1,099,227	2,028,256	575,200	1,346,307	3,127,483	1,921,507	5,048,990
01/01/13 - 12/31/13	4,516,158,880	1,127,637	2,318,536	545,377	1,806,296	3,446,173	2,351,673	5,797,846
01/01/14 - 12/31/14	4,750,608,376	1,404,315	1,812,933	632,425	1,535,979	3,217,248	2,168,404	5,385,652
Total	23,926,340,837	6,567,130	11,360,749	3,113,307	8,807,390	17,927,879	11,920,697	29,848,576
			NDICATED PU	JRE PREMIUN	0.075	0.050	0.13	

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

	Indemnity	Medical	Total
Pure Premiums Underlying Current Loss Cost	0.086	0.054	0.14
Conversion Factors (App. B-I, Section B)	0.943	0.909	xxx
PURE PREMIUMS PRESENT ON RATE LEVEL			
(Underlying Pure Premiums) x (Conversion Factor)	0.081	0.049	0.13



#### APPENDIX B-III

## **Derivation of Proposed Loss Cost - Code 8810**

Industry Group - Office and Clerical, Hazard Group - C

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

		<u>Indemnity</u>	<u>Medical</u>	<u>Total</u>
1.	Indicated Pure Premium	0.075	0.050	0.13
2.	Pure Premium Indicated by National Relativity	0.078	0.051	0.13
3.	Pure Premium Present on Rate Level	0.081	0.049	0.13
4.	State Credibilities	100%	100%	xxx
5.	National Credibilities	0%	0%	xxx
6.	Residual Credibilities = 100% - (4) - (5)	0%	0%	xxx
7.	Derived by Formula Pure Premiums = $(1) \times (4) + (2) \times (5) + (3) \times (6)$	0.075	0.050	0.13
8.	Test Correction Factor	0.9934	0.9934	xxx
9.	Underlying Pure Premiums = (7) x (8) *	0.080	0.050	0.13
10.	Ratio of Manual to Standard Premium			1.074
11.	Loss Cost = (9) x (10)			0.14
12.	Loss Cost Within Swing Limits			0.14
	Current Loss Cost x Swing Limits a) Lower bound = 0.15 x 0.780 = 0.12 b) Upper bound = 0.15 x 1.080 = 0.16			
13.	Pure Premiums Underlying Proposed Loss Cost* = ((13TOT) / (9TOT)) x (9) , (13TOT) = (12) / (10)	0.080	0.050	0.13
14.	Disease, Catastrophe and/or Miscellaneous Loadings			0.00
15.	Final Loaded Loss Cost			0.14

<sup>\*</sup> Indemnity pure premium is adjusted for the rounded total pure premium: Indemnity Pure Premium = Total Pure Premium - Medical Pure Premium



#### **APPENDIX B-IV**

#### I. Determination and Distribution of Premium Level Change to "F" Classifications

The Workers Compensation Statistical Plan (WCSP) data is used to determine the overall "F" classifications (F-class) premium level change as well as the individual change by the various classifications. There are three sets of pure premiums for each classification: indicated, present on rate level, and national pure premiums. All sets of pure premiums are adjusted to the common proposed level that is explained further in this exhibit. These three sets of pure premiums are credibility weighted and the results, the derived by formula pure premiums, are adjusted for additional proposed components (Section II) to determine the indicated loss costs. The payrolls are extended by the loss costs presently in effect and by the indicated loss costs. The loss costs are limited to the swing limits based on 15% above and 15% below the current loss costs. This results in the indicated loss cost level change of -3.7%.

#### Section A – Calculation of F-Class Indicated Pure Premiums

The payroll and loss data reported are from the WCSP data by class code for the latest available five policy periods.

#### **Section A-1 – Calculation of Primary Conversion Factors**

#### 1. Factors to Adjust to the Proposed Benefit Levels

The state losses are adjusted to the October 1, 2017 state law level. The federal losses are adjusted to the October 1, 2016 federal law level.

#### STATE ACT

Policy Period	Fatal	Permanent Total (P.T.)	Permanent Partial (P.P.)	Temporary Total (T.T.)	Medical
1/10 - 12/10	1.024	1.021	1.047	1.024	1.023
1/11 - 12/11	1.022	1.018	1.031	1.022	1.023
1/12 - 12/12	1.019	1.015	1.011	1.019	1.023
1/13 - 12/13	1.017	1.013	1.010	1.017	1.022
1/14 - 12/14	1.014	1.011	1.009	1.014	1.017

#### FEDERAL ACT

Policy Period	Fatal	Permanent Total (P.T.)	Permanent Partial (P.P.)	Temporary Total (T.T.)	Medical
1/10 - 12/10	1.028	1.023	1.009	1.023	1.000
1/11 - 12/11	1.023	1.019	1.008	1.019	1.000
1/12 - 12/12	1.017	1.015	1.006	1.015	1.000
1/13 - 12/13	1.013	1.011	1.004	1.011	1.000
1/14 - 12/14	1.010	1.008	1.003	1.008	1.000

#### 2. Factors to Adjust to the Proposed Trend Level

The following factors are applied to trend the losses in each policy year to the proposed rating year. The selected annual trends utilized were 0.990 and 0.985 for indemnity and medical, respectively.

Policy Period	Indemnity	Medical
1/10 - 12/10	0.917	0.878
1/11 - 12/11	0.926	0.891
1/12 - 12/12	0.935	0.905
1/13 - 12/13	0.945	0.918
1/14 - 12/14	0.954	0.932



#### **APPENDIX B-IV**

#### **Section A-1 Calculation of Primary Conversion Factors (continued)**

#### 3. Limited Loss Development Factors

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

	Inde	mnity	Medical		
Policy Period	Likely- to-Develop	Not-Likely- to-Develop	Likely- to-Develop	Not-Likely- to-Develop	
1/10 - 12/10	1.107	1.021	1.205	1.017	
1/11 - 12/11	1.152	1.038	1.213	1.021	
1/12 - 12/12	1.260	1.097	1.277	1.044	
1/13 - 12/13	1.455	1.214	1.365	1.049	
1/14 - 12/14	2.500	1.747	1.680	1.113	

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

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.

#### STATE ACT

	Fatal	Fatal		P.P.	P.P.	T.T.	T.T.	Medical	Medical
Policy Period	(L)	(NL)	P.T.*	(L)	(NL)	(L)	(NL)	(L)	(NL)
1/10 - 12/10	1.039	0.959	1.036	1.063	0.980	1.039	0.959	1.082	0.913
1/11 - 12/11	1.090	0.982	1.086	1.100	0.991	1.090	0.982	1.106	0.931
1/12 - 12/12	1.200	1.045	1.196	1.191	1.037	1.200	1.045	1.182	0.967
1/13 - 12/13	1.398	1.167	1.393	1.389	1.159	1.398	1.167	1.281	0.984
1/14 - 12/14	2.418	1.690	2.411	2.406	1.682	2.418	1.690	1.592	1.055

#### FEDERAL ACT

	Fatal	Fatal		P.P.	P.P.	T.T.	T.T.	Medical	Medical
Policy Period	(L)	(NL)	P.T.*	(L)	(NL)	(L)	(NL)	(L)	(NL)
1/10 - 12/10	1.044	0.962	1.038	1.024	0.945	1.038	0.958	1.058	0.893
1/11 - 12/11	1.091	0.983	1.087	1.075	0.969	1.087	0.979	1.081	0.910
1/12 - 12/12	1.198	1.043	1.196	1.185	1.032	1.196	1.041	1.156	0.945
1/13 - 12/13	1.393	1.162	1.390	1.380	1.152	1.390	1.160	1.253	0.963
1/14 - 12/14	2.409	1.683	2.404	2.392	1.672	2.404	1.680	1.566	1.037

<sup>\*</sup> Permanent Total losses are always assigned to the Likely-to-Develop grouping.



#### **APPENDIX B-IV**

#### Section A-2 - Expected Excess Provision and Redistribution

To reduce distortions in individual class loss cost indications, individual claim amounts are subject to a maximum limit of \$500,000. Multiple claim accidents are limited to three times the individual claim loss limitation. 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. These factors are shown below.

Hazard Group	Α	В	С	D	E	F	G
(1) Excess Ratios	0.090	0.119	0.135	0.158	0.191	0.219	0.264
(2) Excess Factors 1/(1-(1))	1.099	1.135	1.156	1.188	1.236	1.280	1.359

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

#### Section A-3 – Calculation of Secondary Conversion Factors

The following factors are applied to include the proposed loss-based expenses. The state losses are adjusted to reflect the proposed loss-based expenses. The federal losses are adjusted to reflect the proposed USL&HW Special Fund Assessment and loss adjustment expense. The combined\*\* factors are based on a combined indemnity and medical loss-weighted average of the above loss-based expenses by policy period.

Policy Period	State Act	Federal Act
1/10 - 12/10	1.191	1.191
1/11 - 12/11	1.191	1.191
1/12 - 12/12	1.191	1.253
1/13 - 12/13	1.191	1.191
1/14 - 12/14	1.191	1.251

<sup>\*\*</sup> See Section B.3 for the indemnity and medical breakdown of the proposed loss-based expenses.



#### **APPENDIX B-IV**

#### Section B - Present on Rate Level

#### 1. Benefits

The current underlying pure premiums are at the current October 1, 2017 state and October 1, 2015 federal law levels. These pure premiums are adjusted to reflect the weighted effect of state and federal laws which bring losses to the proposed October 1, 2017 state and October 1, 2016 federal law levels. The distribution of state and federal losses in regard to total losses was used to determine the weighted effects.

State Weight (St%)	0.256
Federal Weight (Fed%)	0.744

	Indemnity	Medical	Total
(a) State Laws	1.000	1.010	1.003
(b) Federal Laws	1.002	1.000	1.001
(c) Weighted Laws = [(a)xSt%] + [(b)xFed%]	1.001	1.003	1.002

#### 2. Trend

Since the trend in the current underlying pure premiums is adequate for the current rating year, additional trend is applied to bring the underlyings to the proposed rating year.

Indemnity	Medical
0.990	0.985



#### **APPENDIX B-IV**

#### Section B - Present on Rate Level (continued)

#### 3. Loss-Based Expenses

The current underlying pure premiums are adjusted to reflect the change in the weighted effect of the loss-based expense provisions.

#### Proposed:

#### STATE ACT

	Indemnity	Medical	Total
(a) Loss Adjustment Expense	1.191	1.191	1.191
(b) Loss-Based Assessment	1.000	1.000	1.000
(c) Total = (a) + (b) - 1	1.191	1.191	1.191

#### FEDERAL ACT

	Indemnity	Medical	Total
(d) Loss Adjustment Expense	1.191	1.191	1.191
(e) Loss-Based Assessment	1.119	1.000	1.071
(f) Total = (d) + (e) - 1	1.310	1.191	1.262

	Indemnity	Medical	Total
(g) Weighted Proposed Expenses = [(c) x St%] + [(f) x Fed%]	1.280	1.191	1.244

#### Current:

#### STATE ACT

	Indemnity	Medical	Total
(h) Loss Adjustment Expense	1.184	1.184	1.184
(i) Loss-Based Assessment	1.000	1.000	1.000
(j) Total = (h) + (i) - 1	1.184	1.184	1.184

#### FEDERAL ACT

	Indemnity	Medical	Total
(k) Loss Adjustment Expense	1.184	1.184	1.184
(I) Loss-Based Assessment	1.116	1.000	1.064
(m) Total = $(k) + (l) - 1$	1.300	1.184	1.248

	Indemnity	Medical	Total
(n) Weighted Current Expenses = [(j) x St%] + [(m) x Fed%]	1.270	1.184	1.232

#### Change:

	Indemnity	Medical	Total
Weighted Expense Change in Loss-Based Expenses = [(g) / (n)]	1.008	1.006	1.010

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

The factors have been applied multiplicatively resulting in the following factors.

Indemnity	Medical
0.999	0.994



#### **APPENDIX B-IV**

#### Section C - National Pure Premiums

The latest three years of state and federal losses for states in which NCCI compiles workers compensation data are separately adjusted to the same level as the indicated and present on rate level pure premiums.

#### Class Code 9077

For Code 9077, the indicated, national and present on rate level pure premiums were calculated as described previously in Sections A, B and C but using the non-appropriated benefit changes and the federal loss-based expenses.

#### Section D – Derived by Formula Pure Premiums

The derived by formula pure premiums are calculated by a process similar to that of the industrial codes, which is described in Appendix B-I, Section D. To achieve full state credibility, a classification must have expected losses of at least: \$61,085,250 for indemnity and \$26,076,400 for medical.

#### II. Calculation of Proposed Loss Costs

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

A. Test Correction Factor 1.0000

B. Ratio of Manual Premium to Earned Premium 1.073

(selected based on Rhode Island off-balance analysis)

#### C. Swing Limits

The classifications which were adjusted by swing limits are as follows:

List of Classifications Limited by the Upper Swing:

None

List of Classifications Limited by the Lower Swing:
6843



#### **APPENDIX B-IV**

#### **Derivation of Proposed Loss Cost - Code 6824**

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:

#### STATE ACT - LIMITED LOSSES (Workers Compensation Statistical Plan)

				Permanent	Permanent	Temporary	Temporary		
	Fatal	Fatal	Permanent	Partial	Partial	Total	Total	Medical	Medical
Policy Period	Likely	Not-Likely	Total	Likely	Not-Likely	Likely	Not-Likely	Likely	Not-Likely
01/01/10 - 12/31/10	0	0	0	0	265,913	95,188	63,686	15,186	117,883
01/01/11 - 12/31/11	0	0	0	0	0	0	31,539	0	29,589
01/01/12 - 12/31/12	0	0	0	0	0	0	19,217	0	16,568
01/01/13 - 12/31/13	0	0	0	0	0	0	0	0	0
01/01/14 - 12/31/14	0	0	0	0	0	0	776	0	1,751

#### FEDERAL ACT - LIMITED LOSSES (Workers Compensation Statistical Plan)

Policy Period	Fatal Likely	Fatal Not-Likely	Permanent Total	Permanent Partial Likely	Permanent Partial Not-Likely	Temporary Total Likely	Temporary Total Not-Likely	Medical Likely	Medical Not-Likely
01/01/10 - 12/31/10	0	0	0	0	0	0	0	0	215
01/01/11 - 12/31/11	0	0	0	0	0	0	0	0	476
01/01/12 - 12/31/12	0	0	0	0	0	0	0	0	0
01/01/13 - 12/31/13	0	0	0	0	0	0	0	0	0
01/01/14 - 12/31/14	0	0	0	0	0	0	0	0	0

#### STATE ACT - PRIMARY PARTIAL CONVERSION FACTORS (Appendix B-IV, Section A-1)

				Permanent	Permanent	Temporary	Temporary		
	Fatal	Fatal	Permanent	Partial	Partial	Total	Total	Medical	Medical
Policy Period	Likely	Not-Likely	Total	Likely	Not-Likely	Likely	Not-Likely	Likely	Not-Likely
01/01/10 - 12/31/10	1.039	0.959	1.036	1.063	0.980	1.039	0.959	1.082	0.913
01/01/11 - 12/31/11	1.090	0.982	1.086	1.100	0.991	1.090	0.982	1.106	0.931
01/01/12 - 12/31/12	1.200	1.045	1.196	1.191	1.037	1.200	1.045	1.182	0.967
01/01/13 - 12/31/13	1.398	1.167	1.393	1.389	1.159	1.398	1.167	1.281	0.984
01/01/14 - 12/31/14	2.418	1.690	2.411	2.406	1.682	2.418	1.690	1.592	1.055

#### FEDERAL ACT - PRIMARY PARTIAL CONVERSION FACTORS (Appendix B-IV, Section A-1)

				Permanent	Permanent	Temporary	Temporary		
	Fatal	Fatal	Permanent	Partial	Partial	Total	Total	Medical	Medical
Policy Period	Likely	Not-Likely	Total	Likely	Not-Likely	Likely	Not-Likely	Likely	Not-Likely
01/01/10 - 12/31/10	1.044	0.962	1.038	1.024	0.945	1.038	0.958	1.058	0.893
01/01/11 - 12/31/11	1.091	0.983	1.087	1.075	0.969	1.087	0.979	1.081	0.910
01/01/12 - 12/31/12	1.198	1.043	1.196	1.185	1.032	1.196	1.041	1.156	0.945
01/01/13 - 12/31/13	1.393	1.162	1.390	1.380	1.152	1.390	1.160	1.253	0.963
01/01/14 - 12/31/14	2.409	1.683	2.404	2.392	1.672	2.404	1.680	1.566	1.037



#### **APPENDIX B-IV**

#### **Derivation of Proposed Loss Cost - Code 6824**

#### EXPECTED EXCESS PROVISION AND REDISTRIBUTION (Appendix B-IV, 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: F
Excess Factor	1.280

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%

#### STATE ACT - EXPECTED UNLIM LOSSES (Lim Losses x Primary Conv Factors, then adjusted for the Excess Provision and Redistribution)

Policy Period	Fatal Likely	Fatal Not-Likely	Permanent Total	Permanent Partial Likely	Permanent Partial Not-Likely	Temporary Total Likely	Temporary Total Not-Likely	Medical Likely	Medical Not-Likely
01/01/10 - 12/31/10	0	0	0	0	304,439	115,540	71,351	32,131	173,887
01/01/11 - 12/31/11	0	0	0	0	0	0	36,182	0	38,745
01/01/12 - 12/31/12	0	0	0	0	0	0	23,461	0	22,765
01/01/13 - 12/31/13	0	0	0	0	0	0	0	0	0
01/01/14 - 12/31/14	0	0	0	0	0	0	1,532	0	2,512

#### FEDERAL ACT - EXPECTED UNLIM LOSSES (Lim Losses x Primary Conv Factors, then adjusted for the Excess Provision and Redistribution)

				Permanent	Permanent	Temporary	Temporary		
	Fatal	Fatal	Permanent	Partial	Partial	Total	Total	Medical	Medical
Policy Period	Likely	Not-Likely	Total	Likely	Not-Likely	Likely	Not-Likely	Likely	Not-Likely
01/01/10 - 12/31/10	0	0	0	0	0	0	0	0	246
01/01/11 - 12/31/11	0	0	0	0	0	0	0	0	554
01/01/12 - 12/31/12	0	0	0	0	0	0	0	0	0
01/01/13 - 12/31/13	0	0	0	0	0	0	0	0	0
01/01/14 - 12/31/14	0	0	0	0	0	0	0	0	0

#### STATE ACT - SECONDARY CONVERSION FACTORS (Appendix B-IV, Section A-3)

	INDUSTRY GROUP:
Policy Period	F-Class
01/01/10 - 12/31/10	1.191
01/01/11 - 12/31/11	1.191
01/01/12 - 12/31/12	1.191
01/01/13 - 12/31/13	1.191
01/01/14 - 12/31/14	1.191

#### FEDERAL ACT - SECONDARY CONVERSION FACTORS (Appendix B-IV, Section A-3)

	INDUSTRY GROUP:
Policy Period	F-Class
01/01/10 - 12/31/10	1.191
01/01/11 - 12/31/11	1.191
01/01/12 - 12/31/12	1.253
01/01/13 - 12/31/13	1.191
01/01/14 - 12/31/14	1.251



#### **APPENDIX B-IV**

#### **Derivation of Proposed Loss Cost - Code 6824**

#### **TOTAL - PAYROLL, FINAL CONVERTED LOSSES**

		Indemnity	Indemnity	Medical	Medical	Total	Total	
Policy Period	Payroll	Likely	Not-Likely	Likely	Not-Likely	Indemnity	Medical	Total
01/01/10 - 12/31/10	3,858,542	137,608	447,566	38,268	207,392	585,174	245,660	830,834
01/01/11 - 12/31/11	2,017,703	0	43,093	0	46,805	43,093	46,805	89,898
01/01/12 - 12/31/12	844,943	0	27,942	0	27,113	27,942	27,113	55,055
01/01/13 - 12/31/13	959,586	0	0	0	0	0	0	0
01/01/14 - 12/31/14	1,538,544	0	1,825	0	2,992	1,825	2,992	4,817
Total	9,219,318	137,608	520,426	38,268	284,302	658,034	322,570	980,604
INDICATED PURE PREMIUM					7.138	3.499	10.64	

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

	Indemnity	Medical	Total
Pure Premiums Underlying Current Loss Cost	4.423	4.487	8.91
Conversion Factors (Section B)	0.999	0.994	XXX
PURE PREMIUMS PRESENT ON RATE LEVEL			
(Underlying Pure Premiums) x (Conversion Factor)	4.419	4.460	8.88



#### **APPENDIX B-IV**

#### **Derivation of Proposed Loss Cost - Code 6824**

Industry Group - F-Class, Hazard Group - F

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

		Indemnity	<u>Medical</u>	<u>Total</u>
1.	Indicated Pure Premium	7.138	3.499	10.64
2.	Pure Premium Indicated by National Relativity	4.066	4.535	8.60
3.	Pure Premium Present on Rate Level	4.419	4.460	8.88
4.	State Credibilities	13%	19%	xxx
5.	National Credibilities	33%	35%	xxx
6.	Residual Credibilities = 100% - (4) - (5)	54%	46%	xxx
7.	Derived by Formula Pure Premiums = $(1) \times (4) + (2) \times (5) + (3) \times (6)$	4.656	4.304	8.96
8.	Test Correction Factor	1.0000	1.0000	xxx
9.	Underlying Pure Premiums = (7) x (8) *	4.656	4.304	8.96
10.	Ratio of Manual to Standard Premium			1.073
11.	Loss Cost = (9) x (10)			9.61
12.	Loss Cost Within Swing Limits			9.61
	Current Loss Cost x Swing Limits a) Lower bound = 9.55 x 0.850 = 8.12 b) Upper bound = 9.55 x 1.150 = 10.98			
13.	Pure Premiums Underlying Proposed Loss Cost* = ((13TOT) / (9TOT)) x (9) , (13TOT) = (12) / (10)	4.656	4.304	8.96
14.	Disease, Catastrophe and/or Miscellaneous Loadings			0.00
15.	Final Loaded Loss Cost			9.61

<sup>\*</sup> Indemnity pure premium is adjusted for the rounded total pure premium: Indemnity Pure Premium = Total Pure Premium - Medical Pure Premium



#### Advisory Loss Costs and Rating Values Filing – August 1, 2018

#### **Appendix C – Memoranda for Laws and Assessments**

Appendix C provides details on changes affecting workers compensation benefit costs that are not yet reflected in the on-level factors shown in Appendix A-I. Such changes may result from annual updates in the state average weekly wage, medical reimbursement levels, or other recurring 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 following changes affecting Rhode Island benefit levels are detailed in this section of the filing:

- Change in the Rhode Island Medical Fee Schedule Effective September 1, 2017
- Change in the Rhode Island Maximum & Minimum Weekly Benefits, Effective October 1, 2017
- Longshore and Harbor Workers' Compensation Act
  - Change in the Minimum and Maximum Weekly Benefits, Effective October 1, 2016
  - Annual Assessment

## NECI

#### **RHODE ISLAND**

## Advisory Loss Costs and Rating Values Filing – August 1, 2018

#### **APPENDIX C-I**

## ANALYSIS OF RHODE ISLAND MEDICAL FEE SCHEDULE CHANGES EFFECTIVE SEPTEMBER 1, 2017

NCCI estimates that the changes to Rhode Island's Medical Fee Schedule, effective September 1, 2017, for Physician, Ambulance, Healthcare Common Procedure Coding System (HCPCS), and Ambulatory Surgical Center (ASC) services, along with the implementation of a fee schedule for Dental services, will result in an impact of +0.3% on overall workers compensation system costs in Rhode Island.

#### **Summary of Changes**

The Medical Fee Schedule (MFS) in Rhode Island is published by the Rhode Island Department of Labor and Training (DLT). The prior MFS for physician, ambulance, ASC, and HCPCS services in Rhode Island became effective July 15, 2016.

The changes to the Rhode Island Workers Compensation MFS, effective September 1, 2017, include changes to the physician, ambulance, ASC, and HCPCS fee schedules, and implements a fee schedule for dental services.

#### **Actuarial Analysis**

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

- 1. Calculate the percentage change in maximum reimbursements
  - Compare the prior and revised maximum reimbursements by procedure code and determine the percentage change by procedure code.
  - Calculate the weighted-average percentage change in maximum reimbursements for the fee schedule using observed payments by procedure code as weights.
- 2. Estimate the price level change as a result of the revised fee schedule
  - NCCI research by Frank Schmid and Nathan Lord (2013), "The Impact of Physician Fee Schedule Changes in Workers Compensation: Evidence from 31 States", suggests that a portion of a change in maximum reimbursements is realized on payments impacted by the change.
    - o In response to a fee schedule <u>decrease</u>, NCCI's research indicates that payments decline by approximately 50% of the fee schedule change.
    - o In response to a fee schedule <u>increase</u>, NCCI's research indicates that payments increase by approximately 80% of the fee schedule change and the magnitude of the response depends on the relative difference between actual payments and fee schedule maximums (i.e. the price departure). The formula used to determine the percent realized for fee schedule increases is  $80\% \times (1.10 + 1.20 \times (price departure))$ .

# NECI

#### **RHODE ISLAND**

## Advisory Loss Costs and Rating Values Filing – August 1, 2018

#### **APPENDIX C-I**

## ANALYSIS OF RHODE ISLAND MEDICAL FEE SCHEDULE CHANGES EFFECTIVE SEPTEMBER 1, 2017

Determine the share of costs that are subject to the fee schedule

• The share is based on a combination of fields, such as procedure code, provider type, and place of service, as reported on the NCCI Medical Data Call, to categorize payments that are subject to the fee schedule.

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

- Detailed medical data underlying the calculations in this analysis are based on NCCI's Medical Data Call for Rhode Island for Service Year 2015.
- The share of benefit costs attributed to medical benefits is based on NCCI's Financial Call data for Rhode Island from the latest three policy years projected to the effective date of the benefit changes.

#### Physician Fee Schedule

In Rhode Island, payments for physician services represent 55.6% of total medical payments. To calculate the percentage change in maximum reimbursements for physician services, NCCI calculates the percentage change in maximum reimbursements for each procedure code. The overall change in maximums for physician services is a weighted average of the percentage change in Maximum Allowable Reimbursement (MAR) (revised MAR / prior MAR) by procedure code weighted by the observed payments by procedure code as reported on NCCI's Medical Data Call for Rhode Island for Service Year 2015. The overall, weighted-average percentage change in MARs is +2.2%. The change by category is shown in the table below.

Physician Practice Category	Share of Physician Costs	Percentage Change in MAR
Anesthesia	3.7%	0.0%
Surgery	24.5%	+1.9%
Radiology	9.9%	+2.7%
Pathology & Laboratory	0.2%	+2.5%
Medicine	2.1%	+1.1%
Evaluation & Management	27.3%	+2.6%
State Specific Codes	24.7%	+2.8%
Physician Payments with no specific MAR	7.6%	-
Total Physician Costs	100.0%	+2.2%

## (NCCI)

#### **RHODE ISLAND**

## Advisory Loss Costs and Rating Values Filing – August 1, 2018

#### **APPENDIX C-I**

## ANALYSIS OF RHODE ISLAND MEDICAL FEE SCHEDULE CHANGES EFFECTIVE SEPTEMBER 1, 2017

Since the overall average maximum reimbursement for physician services increased, the percentage expected to be realized from the fee schedule increase is estimated according to the formula  $80\% \times (1.10 + 1.20 \times (\text{price departure}))$ . The observed price departure for physician payments in Rhode Island is -6%<sup>1</sup>. The price realization factor is estimated to be 82% (=  $80\% \times (1.10 + 1.20 \times (-0.06))$ ). The impact on physician payments after applying the price realization factor is +1.8% (= +2.2%  $\times (0.82)$ ).

The above impact of +1.8% is then multiplied by the Rhode Island percentage of medical costs attributed to physician payments (55.6%) to arrive at the impact on medical costs of +1.0%. The resulting impact on medical costs is multiplied by the percentage of Rhode Island benefit costs attributed to medical costs (32.1%) to arrive at the impact on Rhode Island overall workers compensation costs of +0.3%.

#### **HCPCS Fee Schedule**

In Rhode Island, payments for HCPCS services subject to the fee schedule represent 2.2% of total medical payments. To calculate the percentage change in maximums for HCPCS services, NCCI calculates the percentage change in MARs for each code. The overall change in maximums for HCPCS is a weighted average of the percentage change in MAR (revised MAR / prior MAR) by code weighted by the observed payments by code as reported on NCCI's Medical Data Call for Rhode Island for Service Year 2015. The overall, weighted-average percentage change in MARs is -1.0%.

Since the overall average maximum reimbursement for HCPCS services decreased, the percentage expected to be realized from the fee schedule decrease is estimated to be 50%. The impact on payments for HCPCS services after applying the price realization factor of 50% is -0.5% (= -1.0% x 0.50).

The above impact of -0.5% is then multiplied by the Rhode Island percentage of medical costs attributed to HCPCS payments subject to the fee schedule (2.2%) to arrive at a negligible<sup>2</sup> decrease on medical costs and overall workers compensation costs in Rhode Island.

#### <u>Ambulance Fee Schedule</u>

In Rhode Island, payments for ambulance services subject to the fee schedule represent 0.8% of total medical payments. To calculate the percentage change in maximums for ambulance services, NCCI calculates the percentage change in MARs for each procedure code. The overall change in maximums for ambulance services is a weighted average of the percentage change in MAR (revised MAR / prior MAR) by procedure code weighted by the observed payments by procedure code as reported on NCCI's Medical Data Call for Rhode Island for Service Year 2015. The overall, weighted-average percentage change in MARs is +0.6%.

<sup>&</sup>lt;sup>1</sup> A departure of -6% implies that the ratio of actual payments to the fee schedule maximums is 0.94.

<sup>&</sup>lt;sup>2</sup> Negligible is defined in this document to be an impact of system costs of less than 0.1%.

# NECI

#### **RHODE ISLAND**

## Advisory Loss Costs and Rating Values Filing – August 1, 2018

#### **APPENDIX C-I**

## ANALYSIS OF RHODE ISLAND MEDICAL FEE SCHEDULE CHANGES EFFECTIVE SEPTEMBER 1, 2017

Since the overall average maximum reimbursement for ambulance services increased, the percentage expected to be realized from the fee schedule increase is estimated according to the formula  $80\% \times (1.10 + 1.20 \times (\text{price departure}))$ . Since a reliable price departure could not be determined, NCCI assumed a price realization factor of 80%. The impact on payments for ambulance services after applying the price realization factor of 80% is +0.5% (=  $+0.6\% \times 0.80$ ).

The above impact of +0.5% is then multiplied by the Rhode Island percentage of medical costs attributed to ambulance payments subject to the fee schedule (0.8%) to arrive at a negligible increase on medical costs and overall workers compensation costs in Rhode Island.

#### **ASC Fee Schedule**

In Rhode Island, payments for ASC services represent 3.0% of medical costs and medical costs represent 32.1% of total benefit costs. Therefore, ASC services represent 1.0% (=3.0% x 32.1%) of total benefit costs. Due to sparseness of ASC data reported by Current Procedural Terminology (CPT) code, no reliable estimate of the impact due to the changes to the ASC fee schedule can be calculated. Any impacts due to the fee schedule changes will flow through experience and be reflected in future advisory loss cost filings in Rhode Island.

#### <u>Dental Fee Schedule</u>

In Rhode Island, payments for dental services represent 0.5% of total medical payments. To calculate the percentage change in reimbursements for dental services, NCCI calculates the percentage change in prior reimbursement (i.e., based on payments) to revised reimbursement (i.e., based on implemented fee schedule maximums) for each procedure code. The overall change in reimbursements for dental services is a weighted average of the percentage change in reimbursements by procedure code weighted by the observed payments by procedure code as reported on NCCI's Medical Data Call for Rhode Island for Service Year 2015. The overall, weighted-average percentage change in reimbursements is estimated to be -2.9%.

Since the overall average reimbursement for dental services decreased, the percentage expected to be realized from the fee schedule implementation is estimated to be 50%. The impact on payments for dental services after applying the price realization factor of 50% is -1.5% (=  $-2.9\% \times 0.50$ ).

The above impact of -1.5% is then multiplied by the Rhode Island percentage of medical costs attributed to dental payments (0.5%) to arrive at a negligible decrease on medical costs and overall workers compensation costs in Rhode Island.

# NECI

#### **RHODE ISLAND**

## Advisory Loss Costs and Rating Values Filing – August 1, 2018

#### **APPENDIX C-I**

## ANALYSIS OF RHODE ISLAND MEDICAL FEE SCHEDULE CHANGES EFFECTIVE SEPTEMBER 1, 2017

#### **Summary of Changes**

The impacts from the changes to the Rhode Island Medical Fee Schedule, effective September 1, 2017, are summarized in the following table:

	(A)	(B)	(C)	(D)
	Impact on Type of Service	Share of Medical Costs	Impact On Medical Costs	Impact on Overall Costs
			(A) x (B)	(C) × (2)
Physician	+1.8%	55.6%	+1.0%	+0.3%
HCPCS	-0.5%	2.2%	Negligible	Negligible
псесз	-0.5%	2.270	Decrease	Decrease
Ambulance	+0.5%	0.8%	Negligible	Negligible
Ambulance	+0.5%	0.870	Increase	Increase
Dental	-1.5%	0.5%	Negligible	Negligible
Delitai	-1.5%	0.5%	Decrease	Decrease
(1) Total Impact on Rhod				
(2) Medical Costs as a Per	32.1%			
Rhode Island	32.170			
(3) Total Impact on Over = (1) x (2)	+0.3%			



#### **APPENDIX C-II**

#### Change in the Minimum and Maximum Weekly Benefits, Effective October 1, 2017

In Rhode Island, maximum and, for certain benefit types, minimum workers compensation indemnity benefit provisions are dependent upon the state average weekly wage (SAWW). The impacts summarized in the table below result from anticipated changes in workers compensation costs due to the change in the SAWW from \$961.07 ("current") to \$976.73 ("revised"), and apply to injuries occurring on or after October 1, 2017.

The approach used in calculating the effects of a change in the SAWW is as follows:

- 1. Obtain the latest available SAWW from the RI Department of Labor.
- 2. Calculate the minimum and maximum benefits by benefit payment type that are dependent upon and expressed as a percentage of the current and revised SAWW.
- 3. Using a countrywide distribution of workers and their wages<sup>1</sup>, indexed to the Rhode Island average weekly wage<sup>2</sup>, determine expected current and revised average weekly benefits by benefit payment type (and dependency type, as appropriate)<sup>3</sup>.
- 4. Use the above-calculated average weekly benefits to determine the indemnity benefit costs for each injury type (Fatal, Permanent Total, Permanent Partial, and Temporary Total)<sup>4</sup> prior to and subsequent to the change in the SAWW. Calculate the ratio of the revised indemnity benefit costs to current indemnity benefit costs for each injury type to determine the impact by injury type from the change in the SAWW.
- 5. Determine the indemnity cost distribution by injury type<sup>5</sup>.
- 6. Using the indemnity cost distribution (Step 5) and the effects by injury type (Step 4), calculate the effect of the change in SAWW on total indemnity benefit costs.
- 7. Multiply the impact on total indemnity benefit costs (Step 6) by the percentage of losses attributed to indemnity benefits<sup>6</sup> to determine the impact of the change in the SAWW on overall benefit costs.

Type of Injury	Percentage of Losses	Effect (%)
Fatal	1.3%	0.0
Permanent Total	0.8%	0.0
Permanent Partial	40.0%	0.0
Temporary Total	25.6%	0.0
Total Indemnity	67.7%	0.0
Medical	32.3%	0.0
Total	100.0%	0.0

<sup>&</sup>lt;sup>1</sup> Based on NCCI Detailed Claim Information data.

<sup>&</sup>lt;sup>2</sup> Forecasted using the Bureau of Labor Statistics Quarterly Census of Employment and Wages, for all private sector employment, and adjusted to reflect injured workers.

<sup>&</sup>lt;sup>3</sup> For states where the rate of compensation is based on spendable wages, state and federal tax withholding tables are used in conjunction with pertinent assumptions (e.g., number of dependents).

<sup>&</sup>lt;sup>4</sup> Various distributions based on internal and external data are employed in determining the impact by type of injury. For example, for Fatal injuries, a countrywide distribution of average ages and dependents by type (e.g., spouse, spouse with one child, parent, etc.) is used in calculating mortality-adjusted annuity values under both the current and revised weekly maximum benefits, with the likelihood of remarriage incorporated as applicable.

<sup>&</sup>lt;sup>5</sup> NCCI Unit Statistical Plan data for the 36-month policy period ending 12/31/2013 on the 10/01/2017 law level and developed to an ultimate basis by type of injury.

<sup>&</sup>lt;sup>6</sup> NCCI Financial Call data for Rhode Island for Policy Years 2013, 2014, and 2015 projected to 10/01/2017.



#### APPENDIX C- III

#### **Longshore and Harbor Workers' Compensation Act**

#### Change in the Minimum and Maximum Weekly Benefits, Effective October 1, 2016

In the Longshore And Harbor Workers' Compensation Act, maximum and, for certain benefit types, minimum workers compensation indemnity benefit provisions are dependent upon the national average weekly wage (NAWW). The impacts summarized in the table below result from anticipated changes in workers compensation costs due to the change in the NAWW from \$703.00 ("current") to \$718.24 ("revised"), and apply to injuries occurring on or after October 1, 2016.

The approach used in calculating the effects of a change in the NAWW is as follows:

- 1. Obtain the latest available NAWW from the United States Department of Labor, Division of Longshore and Harbor Workers' Compensation (DLHWC).
- 2. Calculate the minimum and maximum benefits by benefit payment type that are dependent upon and expressed as a percentage of the current and revised NAWW.
- 3. Using a countrywide distribution of workers and their wages<sup>1</sup>, indexed to the Longshore And Harbor Workers' Compensation Act average weekly wage<sup>2</sup>, determine expected current and revised average weekly benefits by benefit payment type (and dependency type, as appropriate)<sup>3</sup>.
- 4. Use the above-calculated average weekly benefits to determine the indemnity benefit costs for each injury type (Fatal, Permanent Total, Permanent Partial, and Temporary Total)<sup>4</sup> prior to and subsequent to the change in the NAWW. Calculate the ratio of the revised indemnity benefit costs to current indemnity benefit costs for each injury type to determine the impact by injury type from the change in the NAWW.
- 5. Determine the indemnity cost distribution by injury type<sup>5</sup>.
- 6. Using the indemnity cost distribution (Step 5) and the effects by injury type (Step 4), calculate the effect of the change in NAWW on total indemnity benefit costs.
- 7. Multiply the impact on total indemnity benefit costs (Step 6) by the percentage of losses attributed to indemnity benefits to determine the impact of the change in the NAWW on overall benefit costs.

Type of Injury	Percentage of Losses	Effect (%)
Fatal	3.8%	+ 0.4
Permanent Total	2.2%	+ 0.3
Permanent Partial	45.7%	+ 0.1
Temporary Total	8.1%	+ 0.3
Total Indemnity	59.8%	+ 0.2
Medical	40.2%	0.0
Total	100.0%	+ 0.1

<sup>&</sup>lt;sup>1</sup> Based on NCCI Detailed Claim Information data.

<sup>&</sup>lt;sup>2</sup> Bureau of Labor Statistics Quarterly Census of Employment and Wages, for all private sector employment, and adjusted to reflect injured workers.

<sup>&</sup>lt;sup>3</sup> For states where the rate of compensation is based on spendable wages, state and federal tax withholding tables are used in conjunction with pertinent assumptions (e.g., number of dependents).

<sup>4</sup> Various distributions based on internal and external data are employed in determining the impact by type of injury. For example, for Fatal injuries, a countrywide distribution of average ages and dependents by type (e.g., spouse, spouse with one child, parent, etc.) is used in calculating mortality-adjusted annuity values under both the current and revised weekly maximum benefits, with the likelihood of remarriage incorporated as applicable.

<sup>&</sup>lt;sup>5</sup> NCCI Unit Statistical Plan data for the 36-month policy period ending 12/31/2013 on the 10/01/2015 law level and developed to an ultimate basis by type of injury.



#### **APPENDIX C-IV**

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

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

	Dunal dayun af Laggar Huday tha Laynahaya and Haybay Maykaya Aat	
3.)	Assessment Rate on Indemnity Losses (1) / (2)	11.9%
2.)	Compensation Payments Reported (on indemnity only) in 2016 *	959,394,551
1.)	Estimated Total Expense Needed for 2017 *	114,000,000

#### Breakdown of Losses Under the Longshore and Harbor Workers Act

4.)	Indemnity Losses (Combination of 1st through 3rd reports) #	44,796,736
5.)	Medical Losses (Combination of 1st through 3rd reports) #	30,153,455
6.)	Total Losses (4) + (5)	74,950,191
7.)	Assessment Rate on Total Losses { (3) x (4) } / (6)	7.1%

\* Source: U.S. Department of Labor

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



### Advisory Loss Costs and Rating Values Filing – August 1, 2018

#### Part 4 Additional Information

- Definitions
- NCCI Affiliate List
- Key Contacts



#### Advisory Loss Costs and Rating Values Filing – August 1, 2018

#### **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.



#### Advisory Loss Costs and Rating Values Filing - August 1, 2018

#### **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.



#### Advisory Loss Costs and Rating Values Filing - August 1, 2018

#### **NCCI Affiliate List**

ACADIA INSURANCE COMPANY
ACCIDENT FUND GENERAL INS CO
ACCIDENT FUND INS CO OF AMERICA
ACCIDENT FUND NATIONAL INS CO

ACE AMERICAN INSURANCE COMPANY

ACE FIRE UNDERWRITERS INSURANCE COMPANY ACE PROPERTY & CASUALTY INSURANCE COMPANY

ACIG INS CO

ADVANTAGE WC INSURANCE CO AIG ASSURANCE COMPANY AIG PROPERTY CASUALTY COMPANY

AIU INSURANCE CO (NATIONAL UNION FIRE OF PITTS PA)

ALLIED INSURANCE COMPANY OF AMERICA ALLMERICA FINANCIAL ALLIANCE INS CO ALLMERICA FINANCIAL BENEFIT INS CO

AMERICAN ALTERNATIVE INSURANCE CORPORATION

AMERICAN AUTOMOBILE INSURANCE CO

AMERICAN CASUALTY COMPANY OF READING PA

AMERICAN COMPENSATION INS CO AMERICAN FAMILY HOME INS CO AMERICAN FIRE AND CASUALTY CO

AMERICAN GUARANTEE AND LIABILITY INS CO

AMERICAN HOME ASSUR CO-NATIONAL UNION FIRE OF PIT

AMERICAN INS CO
AMERICAN INTERSTATE INS CO
AMERICAN MINING INS CO
AMERICAN MODERN HOME INS CO
AMERICAN ZURICH INS CO
AMERISURE INS CO

AMERISURE MUTUAL INS CO AMERISURE PARTNERS INS CO

AMGUARD INS CO

ARBELLA INDEMNITY INS CO ARBELLA PROTECTION INS CO ARCH INSURANCE COMPANY ARGONAUT GREAT CENTRAL INS CO

ARGONAUT GREAT CENTRAL INS C ARGONAUT MIDWEST INS CO ARROW MUTUAL LIABILITY INS CO ASSOCIATED INDEMNITY CORP

ATLANTIC SPECIALTY INS CO (ONEBEACON)

BANKERS STANDARD INS CO BEACON MUTUAL INS CO

BENCHMARK INSURANCE 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

BROTHERHOOD MUTUAL INS CO CALIFORNIA INSURANCE COMPANY CAROLINA CASUALTY INS CO CHARTER OAK FIRE INS CO CHEROKEE INS CO CHUBB INDEMNITY INS CO

CHUBB NATIONAL INS CO
CHURCH MUTUAL INS CO
CINCINNATI CASUALTY COMPANY
CINCINNATI INDEMNITY COMPANY

CINCINNATI INS CO

CITIZENS INS CO OF AMERICA

COLONIAL AMERICAN CASUALTY & SURETY CO

COMMERCE AND INDUSTRY INS CO CONTINENTAL CASUALTY CO CONTINENTAL INDEMNITY CO CONTINENTAL INS CO CRESTBROOK INS CO

CRUM AND FORSTER INDEMNITY CO DISCOVER PROPERTY & CASUALTY INS CO DORCHESTER MUTUAL INSURANCE COMPANY

EASTGUARD INS CO ELECTRIC INS CO EMCASCO INS CO

EMPLOYERS ASSURANCE COMPANY EMPLOYERS INS CO OF WAUSAU EMPLOYERS MUTUAL CASUALTY CO EMPLOYERS PREFERRED INS CO ENDURANCE AMERICAN INS CO

ENDURANCE ASSURANCE CORPORATION EVEREST DENALI INSURANCE COMPANY EVEREST NATIONAL INS CO EVEREST PREMIER INSURANCE COMPANY

EVEREST REINSURANCE CO DIRECT EXCELSIOR INSURANCE COMPANY EXECUTIVE RISK INDEMNITY INC FALLS LAKE NATIONAL INSURANCE CO FARMINGTON CASUALTY COMPANY FEDERAL INSURANCE COMPANY FEDERATED MUTUAL INS CO

FEDERATED RESERVE INSURANCE CO
FIDELITY & DEPOSIT COMPANY OF MARYLAND
FIDELITY & GUARANTY INS UNDERWRITERS
FIDELITY & GUARANTY INSURANCE CO
FIREMANS FUND INSURANCE CO
FIREMENS INS CO OF WASHINGTON DC

FIRST LIBERTY INS CORP FIRSTCOMP INSURANCE CO FITCHBURG MUTUAL INS CO FLORISTS MUTUAL INSURANCE CO

FOREMOST INS CO GRAND RAPIDS MICHIGAN

FOREMOST PROPERTY & CAS INS FOREMOST SIGNATURE INS CO FRANK WINSTON CRUM INSURANCE CO

GENERAL CASUALTY COMPANY OF WISCONSIN

GENERAL INS CO OF AMERICA

**GENESIS INS CO** 

GRANITE STATE INSURANCE COMPANY

GRAPHIC ARTS MUTUAL INS CO

GRAY INS CO

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



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#### **NCCI Affiliate List**

**GREENWICH INS CO** GUIDEONE MUTUAL INS CO HANOVER AMERICAN INS CO

HANOVER INS CO

HARLEYSVILLE 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 HDI GLOBAL INSURANCE COMPANY ILLINOIS NATIONAL INSURANCE COMPANY IMPERIUM INSURANCE COMPANY

INDEMNITY INS CO OF N AMERICA (INA INS) (CT GEN)

INS CO OF GREATER NY INS CO OF NORTH AMERICA INS CO OF THE STATE PA INS CO OF THE WEST

INTREPID INSURANCE COMPANY

LIBERTY INS CORP

LIBERTY INSURANCE UNDERWRITERS INC

LIBERTY MUTUAL FIRE INS CO LIBERTY MUTUAL INS CO

LM INS CORP MA BAY INS CO

MAIN STREET AMERICA ASSURANCE CO MANUFACTURERS ALLIANCE INS CO

MARKEL INSURANCE CO MEMIC INDEMNITY CO. MERCHANTS MUTUAL INS CO

MERCHANTS PREFERRED INSURANCE COMPANY MERIDIAN SECURITY INSURANCE COMPANY

MIDDLESEX INS CO

MIDVALE INDEMNITY COMPANY MIDWEST EMPLOYERS CASUALTY CO MILBANK INSURANCE COMPANY 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 SURETY CORP

NATIONAL UNION FIRE INS CO OF PITTSBURGH PA

NATIONWIDE AGRIBUSINESS INS CO NATIONWIDE GENERAL INSURANCE CO NATIONWIDE MUTUAL FIRE INS CO NATIONWIDE MUTUAL INS CO NETHERLANDS INSURANCE COMPANY NEW HAMPSHIRE INSURANCE COMPANY

NEW YORK MARINE AND GENERAL INSURANCE CO

NGM INSURANCE COMPANY

NORFOLK AND DEDHAM MUTUAL FIRE INS CO

NORGUARD INS CO

NORTH AMERICAN ELITE INSURANCE CO NORTH AMERICAN SPECIALTY INS CO

NORTH POINTE INS CO NORTH RIVER INS CO NOVA CASUALTY COMPANY OAK RIVER INSURANCE COMPANY **OBI AMERICA INSURANCE COMPANY OBI NATIONAL INSURANCE COMPANY** 

OH CASUALTY INS CO OHIO SECURITY INS CO

OLD REPUBLIC GENERAL INSURANCE CORPORATION

OLD REPUBLIC INS CO

PA MANUFACTURERS ASSN INS CO PA MANUFACTURERS INDEMNITY CO PA NATIONAL MUTUAL CAS INS CO PACIFIC EMPLOYERS INS CO PACIFIC INDEMNITY CO PATRONS MUTUAL INS CO OF CT PEERLESS INDEMNITY INS CO PEERLESS INSURANCE COMPANY

PENN MILLERS INS CO

PENNSYLVANIA INSURANCE COMPANY

PETROLEUM CASUALTY CO PHARMACISTS MUTUAL INS CO PHENIX MUTUAL FIRE INS CO

PHOENIX INS CO PLAZA INSURANCE CO

PRAETORIAN INSURANCE COMPANY

PREFERRED PROFESSIONAL INSURANCE COMPANY PRIVILEGE UNDERWRITERS RECIPROCAL EXCHANGE PROPERTY AND CASUALTY INS CO OF HARTFORD

PROTECTIVE INS CO

PUBLIC SERVICE INSURANCE COMPANY QBE INSURANCE CORPORATION REDWOOD FIRE & CASUALTY INS CO REGENT INSURANCE COMPANY REPUBLIC FRANKLIN INS CO REPUBLIC INDEMNITY CO OF CA

REPUBLIC INDEMNITY COMPANY OF AMERICA

RIVERPORT INSURANCE COMPANY RLI INSURANCE COMPANY SAFECO INS CO OF AMERICA

SAFETY NATIONAL CASUALTY CORP

SAGAMORE INSURANCE CO

SAFETY FIRST INS CO

SAMSUNG FIRE AND MARINE INS CO LTD USB SAVERS PROPERTY & CASUALTY INS CO

SEABRIGHT INSURANCE 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 SENECA INSURANCE CO SENTINEL INS CO SENTRY CASUALTY CO

SENTRY INSURANCE A MUTUAL CO SENTRY SELECT INSURANCE COMPANY

SOMPO AMERICA FIRE & MARINE INSURANCE COMPANY

SOMPO AMERICA INSURANCE COMPANY



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#### **NCCI Affiliate List**

ST PAUL FIRE AND MARINE INS CO

ST PAUL GUARDIAN INS CO

ST PAUL MERCURY INS CO

ST PAUL PROTECTIVE INS CO

STANDARD FIRE INSURANCE COMPANY

STAR INS CO

STARNET INSURANCE COMPANY

STARR INDEMNITY AND LIABILITY CO

STARR SPECIALTY INSURANCE COMPANY

STARSTONE NATIONAL INSURANCE COMPANY

STATE AUTO PROPERTY AND CASUALTY INS CO

STATE AUTOMOBILE MUTUAL INS CO

STATE NATIONAL INSURANCE COMPANY

STONINGTON INS CO

STRATHMORE INS CO

SUNZ INSURANCE COMPANY

THE INSURANCE COMPANY

TECHNOLOGY INSURANCE CO

THE TRAVELERS CASUALTY COMPANY

TNUS INSURANCE CO

TOKIO MARINE AMERICA INSURANCE CO

TRANS PACIFIC INS CO

TRANSGUARD INS CO OF AMERICA INC

TRANSPORTATION INS CO

TRAVELERS CASUALTY AND SURETY CO

TRAVELERS CASUALTY INS CO OF AMERICA

TRAVELERS INDEMNITY CO

TRAVELERS INDEMNITY CO OF AMERICA

TRAVELERS INDEMNITY CO OF CT

TRAVELERS INSURANCE CO

TRAVELERS PROPERTY CASUALTY CO OF AMERICA

TRI STATE INSURANCE COMPANY OF MINNESOTA

TRIUMPHE CASUALTY COMPANY

TRUCK INSURANCE EXCHANGE

TRUMBULL INS CO

TWIN CITY FIRE INS CO

UNION INS CO OF PROVIDENCE

UNITED STATES FIDELITY AND GUARANTY CO

UNITED WI INS CO

US FIRE INS CO

UTICA MUTUAL INS CO

VALLEY FORGE INS CO

VANLINER INS CO

VANTAPRO SPECIALTY INS CO

VIGILANT INS CO

WASHINGTON INTERNATIONAL INSURANCE COMPANY

WAUSAU UNDERWRITERS INSURANCE COMPANY

WESCO INSURANCE COMPANY (AMTRUST GROUP)

WEST AMERICAN INS CO

WESTCHESTER FIRE INSURANCE COMPANY

WESTPORT INSURANCE CORPORATION

WORK FIRST CASUALTY CO

XL INS CO OF NY INC

XL INSURANCE AMERICA INC

XL SPECIALTY INS CO

ZENITH INS CO

ZURICH AMERICAN INS CO

ZURICH AMERICAN INS CO OF IL



## Advisory Loss Costs and Rating Values Filing – August 1, 2018 Key Contacts

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